

# Post-Construction Compliance Groundwater Monitoring Report

Dakota Creek Industries  
Anacortes, Washington  
Facility Site ID: 2670  
Cleanup Site ID: 5174

*for*  
**Washington State Department of Ecology  
on Behalf of Port of Anacortes**

November 1, 2024

2101 4<sup>th</sup> Avenue, Suite 950  
Seattle, Washington 98101  
206.278.2674

**GEOENGINEERS** 

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File No. 5147-006-18  
November 1, 2024

**Prepared for:**

Washington State Department of Ecology  
PO Box 47600  
Olympia, Washington 98504-7600

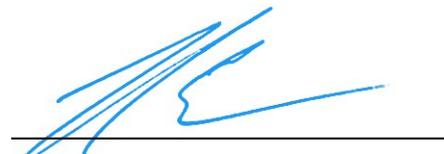
Attention: David Horne

**On Behalf of:**

Port of Anacortes  
317 Commercial Avenue  
Anacortes, Washington 98221

**Prepared by:**

GeoEngineers, Inc.  
2101 4<sup>th</sup> Avenue, Suite 950  
Seattle, Washington 98101  
206.278.2674



Robert S. Trahan, LG  
Senior Environmental Scientist



John M. Herzog, PhD, LG  
Senior Principal

RST:JMH:ch

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## 1.0 Introduction

This report presents the results of quarterly post-construction compliance groundwater monitoring completed by the Port of Anacortes (Port) at the Dakota Creek Industries Cleanup Site (Site). Pursuant to Consent Decree No. 22-2-00800-29 (Ecology 2022a), groundwater monitoring activities were completed by the Port to document groundwater conditions following completion of Ecology-selected cleanup action between June and August 2023 (2023 Cleanup Action). Details of the 2023 Cleanup Action are presented in the Cleanup Action Plan (CAP; Ecology 2022b) and Engineering Design Report (EDR; GeoEngineers 2022a).

The Site is situated along the shoreline of Guemes Channel at 115 Q Avenue (north of 3<sup>rd</sup> Street between Commercial Avenue and R Avenue) in Anacortes, Washington (Figure 1) and is part of the Washington State Department of Ecology (Ecology) Puget Sound Initiative and regional cleanup efforts on Fidalgo Island. The Site is listed in Ecology's Integrated Site Information System (ISIS) under Facility Site Identification No. 2670 and Cleanup Site Identification No. 5174. The property in which the Site is located is owned by the Port and is currently leased to Dakota Creek Industries (DCI) who uses the property for shipbuilding, maintenance and repair (DCI Lease Area). Detailed information regarding Site location and description, current and historical land use and Site conditions following completion of the 2023 Cleanup Action are presented in the CAP and Construction Completion Report (GeoEngineers 2023). The quarterly post-construction compliance groundwater monitoring activities and chemical analytical results are summarized in the following sections.

## 2.0 Post-Construction Groundwater Compliance Monitoring

Post-construction groundwater compliance monitoring was completed at the Site on a quarterly basis for one year to document groundwater conditions down gradient of the 2023 Cleanup Action area and other areas of the Site in which concentrations of arsenic, nickel and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) in soil exceeding the cleanup level remain in-place as part of the CAP. In accordance with the CAP, the paved surfaces (asphalt and concrete pavement), gravel working surfaces including gravel working surfaces over concrete pavement and the open cell bulkhead at the Site are engineering controls to prevent direct contact with the contaminated soil that remains in place. Surface pavement and a stormwater conveyance and treatment system limit stormwater infiltration to prevent the mobilization and discharge of soil contaminants to surface water. Site controls established for the DCI Lease Area and monitoring requirements to maintain their integrity are described in the Engineering and Institutional Controls Monitoring and Maintenance Plan (GeoEngineers 2024). Soil conditions following completion of the 2023 Cleanup Action are summarized in Figure 2.

Post-construction groundwater compliance monitoring was completed during the following four events:

- Round 1 – Completed on November 28, 2023
- Round 2 – Completed on February 14, 2024

- Round 3<sup>1</sup> – Completed between May 21 and May 24, 2024
- Round 4 – Completed on August 19, 2024

Post-construction groundwater compliance monitoring activities were completed in general accordance with the Ecology-approved Compliance Monitoring and Quality Assurance Project Plan (CMP/QAPP; GeoEngineers 2022b). The sampling locations, procedures, and chemical analysis for the post-construction groundwater monitoring activities are summarized in the following sections.

## 2.1 POST-CONSTRUCTION GROUNDWATER COMPLIANCE MONITORING WELLS

In accordance with the EDR, following the completion of the 2023 Cleanup Action Ecology approved the following monitoring wells for the post-construction groundwater compliance monitoring: MW-2B, MW-3A, MW-6 and MW-8 (Ecology 2023). The post-construction groundwater compliance monitoring wells are shown relative to the completed 2023 Cleanup Action area in Figure 2. Completion details for the post-construction groundwater compliance monitoring wells are presented in Appendix A and summarized in Table 1.

## 2.2 GROUNDWATER SAMPLING AND ANALYSIS

During each compliance monitoring event, groundwater samples were collected at or around the predicted day-time low tide based on the tide elevation for the United States National Oceanic and Atmospheric Administration (NOAA) Guemes Channel tide station (Station ID 9448794). Prior to sampling, groundwater levels were measured from the top of each surveyed well casing rim to the nearest 0.01 foot using a decontaminated electric water level indicator (e-tape). Measured water levels for each monitoring event are summarized in Table 2.

Groundwater samples were collected using low-flow/low-turbidity sampling techniques during each monitoring event to minimize the suspension of sediment in the groundwater samples collected. Using a peristaltic pump, groundwater was pumped at rate not exceeding 0.5 liter per minute through dedicated polyethylene tubing with the end positioned in the well at the approximate midpoint of the screened interval.

A YSI Pro series water quality meter with flow-through-cell was used to monitor the following parameters during purging:

- Acidity (pH);
- Electrical conductivity (EC);
- Turbidity;
- Dissolved oxygen (DO);
- Temperature;

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<sup>1</sup> Groundwater samples from monitoring wells MW-2B, MW-3A and MW-8 were collected on May 21, 2024, in accordance with the Compliance Monitoring and Quality Assurance Project Plan (CMP/QAPP; GeoEngineers 2022b). Monitoring well MW-6 (Figure 2) was inaccessible on May 21, 2024, due to the ponding of stormwater at the well from a heavy rainfall event. The revised schedule for the groundwater sample collection from MW-6 was coordinated with Ecology and the sample was obtained on May 24, 2024, when the ponded water had dissipated.

- Total dissolved solids (TDS);
- Oxygen reduction potential (ORP); and
- Salinity.

Groundwater samples were collected when these parameters were observed to vary by less than 10 percent on three consecutive measurements. The stabilized field measurements at each well for each of the monitoring events are summarized in Table 2. Groundwater samples collected from the monitoring wells were submitted to OnSite Environmental, Inc. in Redmond, Washington (Ecology-accredited laboratory), for chemical analysis of total and dissolved arsenic and nickel, utilizing United States Environmental Protection Agency (EPA) Method 200.8 and cPAHs using EPA Method 8270/SIM.

### 2.2.1 Quality Control/Quality Assurance

Laboratory data for each quarterly monitoring event are presented in Appendix B. An EPA-defined Stage 2B validation (EPA Document 540-R-08-005; EPA 2009) was completed on the laboratory data (Appendix C). Based on the results of the Stage 2B validation, the data were determined to be acceptable for their intended use as qualified.

### 2.2.2 Investigation Derived Waste

Purge and decontamination water generated by the groundwater monitoring activities was collected and placed in a labeled and secured 55-gallon drum on Site pending transport to a permitted disposal facility. Incidental waste generated during sampling activities included items such as gloves, plastic sheeting, sample tubing, paper towels and similar expended and discarded field supplies. These materials were considered *de minimis* and were transferred from the Site for landfill disposal via dumpster or trash receptacle at a GeoEngineers office.

### 2.2.3 Deviations from the Groundwater Monitoring Program

Deviations to the groundwater monitoring program, as described above included the following:

- Due to the ponding of stormwater at the well from a heavy rainfall event, monitoring well MW-6 (Figure 2) was inaccessible during the May 21, 2024, sampling event. In coordination with Ecology, the groundwater sample from MW-6 was subsequently obtained on May 24, 2024, after the ponded water had dissipated.

## 2.3 POST-CONSTRUCTION GROUNDWATER CONDITION

### 2.3.1 Groundwater Flow and Direction

Measured groundwater elevations ranged between 4.38 and 8.05 feet mean lower low water (MLLW) during the post-construction quarterly groundwater monitoring events. Based on the average measured quarterly post-construction groundwater elevations, the predominant groundwater flow direction is toward the Guemes Channel.

Groundwater elevations measured during each quarterly sampling event are summarized in Table 2.

### 2.3.2 Analytical Results

Groundwater monitoring results for each quarterly monitoring event are presented in Table 3. Trend plots for arsenic, nickel and cPAHs are shown in Figures 3 through 5. Historical groundwater monitoring results are presented in Appendix D.

The following summarize the groundwater compliance monitoring results by monitoring well location:

- **MW-2B** – Total and dissolved nickel exceeded the groundwater cleanup level of 8.2 micrograms per liter ( $\mu\text{g/L}$ ) during the November 2023 monitoring event. In subsequent monitoring events, total nickel exceeded the groundwater cleanup level during the May 2024 monitoring event; however, dissolved nickel was either not detected or was detected at a concentration less than the groundwater cleanup level. The trend analysis for nickel at this location (Figure 4) shows that following paving activities completed by DCI<sup>2</sup>, the nickel concentration in groundwater at MW-2B has remained relatively stable with detected concentrations slightly greater or less than the groundwater cleanup level. During the May and August 2024 monitoring events, total cPAHs calculated using the toxic equivalency quotient (TEQ) methodology relative to benzo(a)pyrene exceeded the groundwater cleanup level of 0.01  $\mu\text{g/L}$ . Prior to the May 2024 monitoring event, cPAH compounds were not detected in groundwater at this location since June 2008 (Figure 5). The May 2024 groundwater monitoring event coincided with a heavy rainfall event resulting in the ponding of stormwater in several areas of the DCI Lease Area which may have contributed to the observed total cPAH exceedance at this location. The August 2024 monitoring event identified a significant reduction in the total cPAH concentration at MW-2B. However, cPAH was detected at a concentration slightly greater than the groundwater cleanup level.
- **MW-3A** – Total and dissolved arsenic and nickel either were not detected or were detected at concentrations less than the groundwater cleanup level. Total cPAHs were not detected during each of the quarterly post-construction monitoring events.
- **MW-6** – Total and dissolved arsenic and nickel, and total cPAHs were not detected during each of the quarterly post-construction monitoring events.
- **MW-8** – Total and dissolved arsenic were detected at concentrations exceeding the groundwater cleanup level in each of the four quarterly monitoring events. The trend analysis for arsenic at this location (Figure 3) shows that the range of detected total and dissolved arsenic concentrations in groundwater during each of the quarterly monitoring events are generally consistent with the range of detected concentrations observed at this location prior to the 2023 Cleanup Action. As part of the remedial Investigation/Feasibility Study (RI/FS; GeoEngineers 2022c), soil sampling and analysis was completed in the vicinity of MW-8 to identify potential sources of arsenic to the groundwater. The soil sampling and analysis completed in the vicinity of MW-8 did not identify potential source materials for arsenic adjacent to or upgradient of the well location. Additionally, arsenic concentrations in monitoring well MW-1 located upgradient of MW-8 were not detected greater than the groundwater cleanup level since paving by DCI was completed in 2016 (see Table D-1 in Appendix D). Although total and dissolved

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<sup>2</sup> Between 2015 and 2016, DCI replaced a significant portion of their gravel working surface with asphalt pavement which prevents stormwater infiltration through the soil column. A comparison of the initial (2008 to 2013) groundwater monitoring results to the recent semi-annual groundwater monitoring results (2016 to 2017) show that the paved surfaces are limiting stormwater infiltration to soil and therefore, limiting leaching and subsequent migration of contaminants through the soil column to groundwater.

arsenic exceeded the groundwater cleanup level in monitoring well MW-8, the concentration of arsenic is stable.

### 3.0 Limitations

This report has been prepared for the exclusive use of the Port of Anacortes, their authorized agents and regulatory agencies in their evaluation of the Dakota Creek Industries Site located in Anacortes, Washington. No other party may rely on the product of our services unless we agree in advance and in writing to such reliance.

Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

### 4.0 Reference

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Washington State Department of Ecology (Ecology), 2023. Email correspondence from Ecology to GeoEngineers confirming the use of shoreline monitoring wells MW-2B, MW-3A, MW-6 and MW-8 for post-construction groundwater compliance monitoring. October 2, 2023.

United States Environmental Protection Agency (USEPA), 2009. Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use. Publication No. EPA-540-R-08-005. January 2009.

## Tables

**Table 1**  
**Monitoring Well Completion Details**  
 Dakota Creek Industries  
 Anacortes, Washington

Monitoring Well <sup>1</sup>	Date Installed	Installed By	Ecology Well Identification	Ground Elevation (ft MLLW)	Top of Casing Elevation (ft MLLW)	Bottom of Casing Elevation (ft MLLW)	Total Well Depth (ft bgs)	Screen Interval (ft bgs)	Well Casing and Screen Specifications	Monitoring Well Coordinates (Latitude/Longitude)
MW-2B	08/11/16	GeoEngineers	BJY-162	15.08	14.73	-4.92	20	10 to 20	2-Inch Diameter Schedule 40 PVC Well Casing and Screen with 0.010-Inch Slot Width	N 48° 31' 15.0087" W 122° 36' 37.3672"
MW-3A	05/10/12	GeoEngineers	BHL-199	15.22	14.83	-4.78	20	5 to 20	2-Inch Diameter Schedule 40 PVC Well Casing and Screen with 0.010-Inch Slot Width	N 48° 31' 15.0124" W 122° 36' 35.3293"
MW-6	05/10/12	GeoEngineers	BHL-200	13.50	12.46	-6.50	20	5 to 20	2-Inch Diameter Schedule 40 PVC Well Casing and Screen with 0.010-Inch Slot Width	N 48° 31' 14.9508" W 122° 36' 33.8851"
MW-8	11/04/15	GeoEngineers	BIX-153	14.39	13.80	-5.61	20	5 to 20	2-Inch Diameter Schedule 40 PVC Well Casing and Screen with 0.010-Inch Slot Width	N 48° 31' 12.9220" W 122° 36' 33.8745"

**Notes:**

<sup>1</sup> Monitoring well locations are shown in Figure 2.

Monitoring wells were installed using hollow-stem auger (HSA) drilling methods.

MLLW = mean lower low water

ft = feet

bgs = below ground surface

PVC = polyvinyl chloride

**Table 2**  
**Post-Construction Groundwater Elevation and Field Parameters**  
 Dakota Creek Industries  
 Anacortes, Washington

Groundwater Monitoring Well <sup>1</sup>	Groundwater Monitoring Event	Date Sampled	Casing Elevation (ft MLLW)	Depth to Groundwater (ft)	Groundwater Elevation (ft MLLW)	pH	Specific Conductance (µS/cm)	Temperature (°C)	Dissolved Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Salinity (ppt)	Turbidity (NTU)
MW-2B	Round 1	11/28/23	14.73	7.21	7.52	6.95	21,694	14.0	0.14	9.0	17.51	16.52	6.05
	Round 2	02/14/24		7.74	6.99	7.14	19,444	9.7	5.20	108.2	17.86	16.84	2.3
	Round 3	05/21/24		9.22	5.51	7.16	9,990	13.1	3.38	89.9	8.30	7.42	27.2
	Round 4	08/19/24		9.55	5.18	7.00	23,710	19.0	0.49	6.3	15.40	14.42	0.02
MW-3A	Round 1	11/28/23	14.83	6.78	8.05	7.58	33,497	9.9	6.18	22.8	30.61	30.43	8.94
	Round 2	02/14/24		9.98	4.85	7.52	28,928	8.5	9.08	121.6	27.48	26.91	5.62
	Round 3	05/21/24		10.45	4.38	7.59	27,400	10.6	6.15	112.2	24.53	23.89	24.7
	Round 4	08/19/24		10.37	4.46	7.48	44,190	16.2	3.98	183.6	28.72	28.58	0.27
MW-6	Round 1	11/28/23	12.46	4.69	7.77	7.59	33,258	9.3	6.60	4.5	30.91	30.72	9.45
	Round 2	02/14/24		7.58	4.88	7.47	29,738	8.4	8.04	133.2	28.27	27.76	5.02
	Round 3	05/24/24		7.80	4.66	7.59	32,440	11.3	7.60	116.0	28.58	28.28	2.77
	Round 4	08/19/24		8.01	4.45	7.58	44,930	14.5	5.54	187.3	29.20	29.07	22.7
MW-8	Round 1	11/28/23	13.80	7.08	6.72	7.17	2,028	14.6	0.22	-112.2	1.64	1.37	8.04
	Round 2	02/14/24		6.72	7.08	6.87	2,580	13.0	0.13	-17.3	2.11	1.75	6.93
	Round 3	05/21/24		7.73	6.07	7.26	1,510	13.2	0.18	-127.1	1.27	1.00	36.8
	Round 4	08/19/24		7.42	6.38	6.88	1,964	15.7	0.14	-67.0	1.28	1.01	6.29

**Notes:**

- <sup>1</sup> Monitoring well locations shown in Figure 2.
- °C = degree Celsius
- ft = feet
- g/L = grams per liter
- mg/L = milligrams per liter
- MLLW = Mean Lower Low Water
- mV = millivolt
- NTU = Nephelometric Turbidity Unit
- ORP = oxidation/reduction potential
- ppt = parts per thousand
- TDS = total dissolved solids
- µS/cm = micro Siemens per centimeter

**Table 3**  
**Post-Construction Groundwater Chemical Analytical Data**  
 Dakota Creek Industries  
 Anacortes, Washington

Groundwater Monitoring Well <sup>1</sup>	Groundwater Monitoring Event	Date Sampled	Units	Total Metals <sup>2</sup>		Metals <sup>2</sup>		Carcinogenic Polycyclic Aromatic Hydrocarbons <sup>3</sup> (cPAHs)									
				Arsenic	Nickel	Arsenic	Nickel	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(j,k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-c,d)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene	Total cPAH TEQ <sup>4</sup> (ND=0.5RL)	
MW-2B	Round 1	11/28/23	µg/L	7.8 U	<b>9.6</b>	8.0 U	<b>9.1</b>	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.007 U
	Round 2	02/14/24	µg/L	6.9 U	6.9 U	6.3 U	6.3 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.007 U
	Round 3	05/21/24	µg/L	5.6 U	<b>13</b>	5.0 U	<b>5.2</b>	<b>0.013</b>	<b>0.026</b>	<b>0.024</b>	0.0095 U	<b>0.015</b>	<b>0.016</b>	0.0095 U	<b>0.024</b>	<b>0.022</b>	
	Round 4	08/19/24	µg/L	<b>6.9</b>	5.6 U	<b>5.9</b>	5.0 U	0.0094 U	<b>0.016</b>	<b>0.017</b>	0.0094 U	<b>0.01</b>	0.0094 U	0.0094 U	0.0094 U	<b>0.014</b>	
MW-3A	Round 1	11/28/23	µg/L	7.8 U	7.8 U	8.0 U	8.0 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.007 U
	Round 2	02/14/24	µg/L	6.9 U	6.9 U	6.3 U	6.3 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.007 U
	Round 3	05/21/24	µg/L	5.6 U	<b>6.9</b>	5.0 U	5.0 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.007 U
	Round 4	08/19/24	µg/L	5.6 U	5.6 U	5.0 U	5.0 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.007 U
MW-6	Round 1	11/28/23	µg/L	7.8 U	7.8 U	8.0 U	8.0 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.007 U
	Round 2	02/14/24	µg/L	6.9 U	6.9 U	6.3 U	6.3 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.007 U
	Round 3	05/24/24	µg/L	5.6 U	5.6 U	5.0 U	5.0 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.007 U
	Round 4	08/19/24	µg/L	5.6 U	5.6 U	5.0 U	5.0 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.007 U
DUP (MW-6)	Round 1	11/28/23	µg/L	7.8 U	7.8 U	8.0 U	8.0 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.007 U
	Round 2	02/14/24	µg/L	6.9 U	6.9 U	6.3 U	6.3 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.007 U
	Round 3	05/24/24	µg/L	5.6 U	5.6 U	5.0 U	5.0 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.007 U
	Round 4	08/19/24	µg/L	5.6 U	5.6 U	5.0 U	5.0 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.007 U
MW-8	Round 1	11/28/23	µg/L	<b>18</b>	7.8 U	<b>14</b>	8.0 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.007 U
	Round 2	02/14/24	µg/L	<b>16</b>	6.9 U	<b>16</b>	6.3 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.007 U
	Round 3	05/21/24	µg/L	<b>19</b>	5.6 U	<b>18</b>	5.6 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.007 U
	Round 4	08/19/24	µg/L	<b>17</b>	5.6 U	<b>19</b>	5.0 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.007 U
Site-Specific Groundwater Cleanup Level (µg/L)				<b>8</b>	<b>8.2</b>	<b>8</b>	<b>8.2</b>	see cPAH TEQ								<b>0.01</b>	

**Notes:**

<sup>1</sup> Monitoring well locations shown in Figure 2.

<sup>2</sup> Total and dissolved metals analyzed by United States Environmental Protection Agency (EPA) Method 200.8.

<sup>3</sup> Carcinogenic polycyclic aromatic hydrocarbons (cPAHs) analyzed by EPA method 8270/SIM.

<sup>4</sup> Total cPAHs calculated using toxic equivalency quotient (TEQ) methodology relative to benzo(a)pyrene. cPAHs that were not detected were assigned a value of one half of the reporting limit for these  
µg/L = microgram per liter

ND = Non-Detect

RL = Reporting Limit

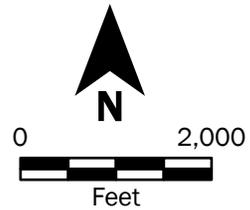
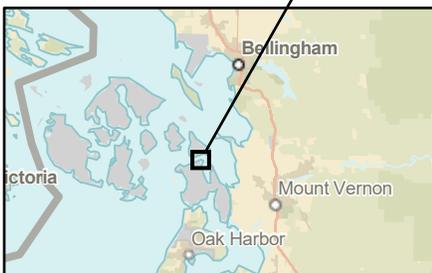
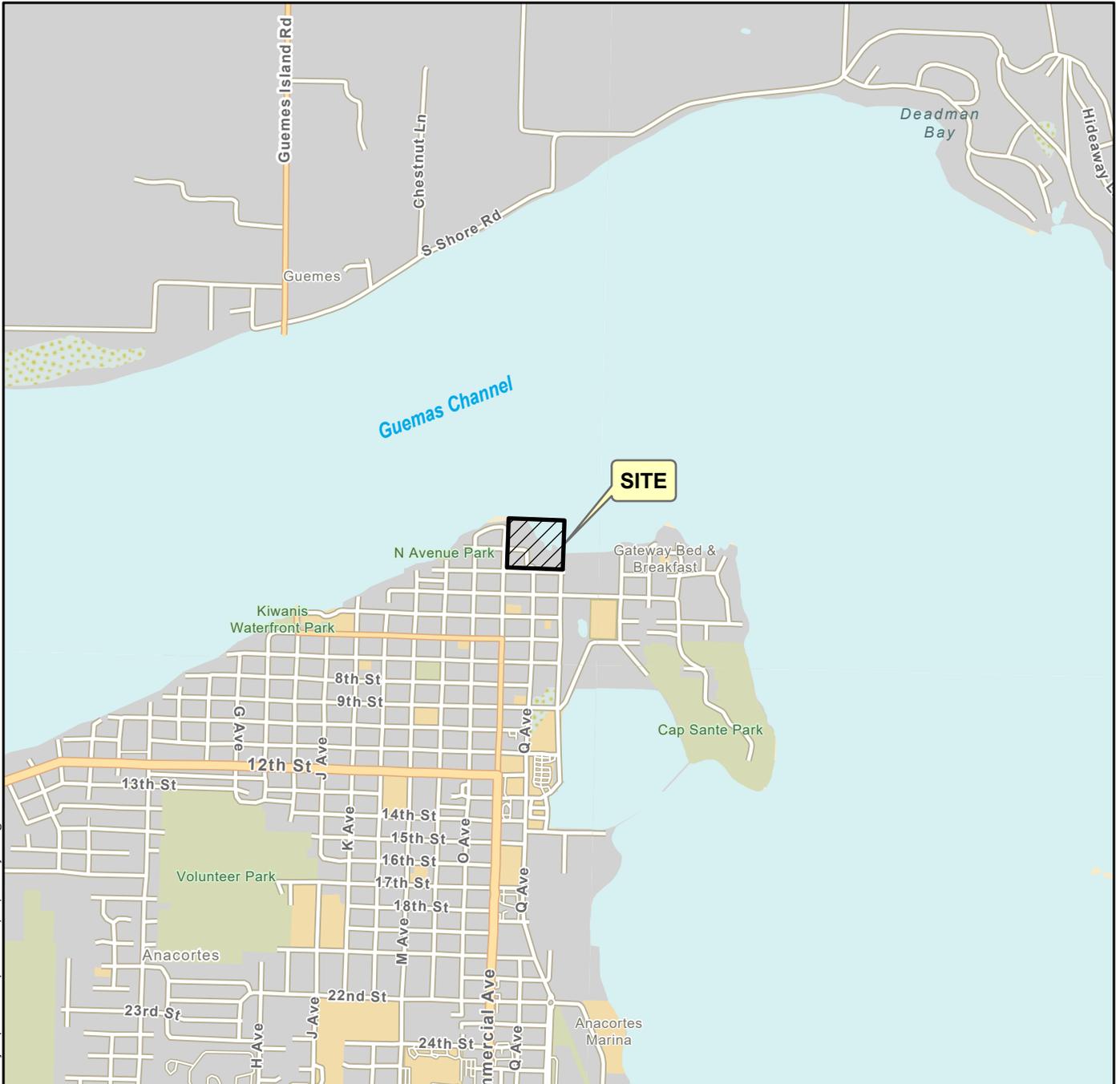
U = Laboratory qualifier indicating analyte not detected at level above listed reporting limit

**Bold** indicates analyte was detected.

Shading indicates analyte was detected at a concentration greater than the Site-Specific Groundwater Cleanup Level.

Chemical analyses performed by OnSite Environmental, Inc. of Redmond, Washington.

## Figures



<b>Vicinity Map</b>	
Dakota Creek Industries Anacortes, Washington	
<b>GEOENGINEERS</b> 	<b>Figure 1</b>

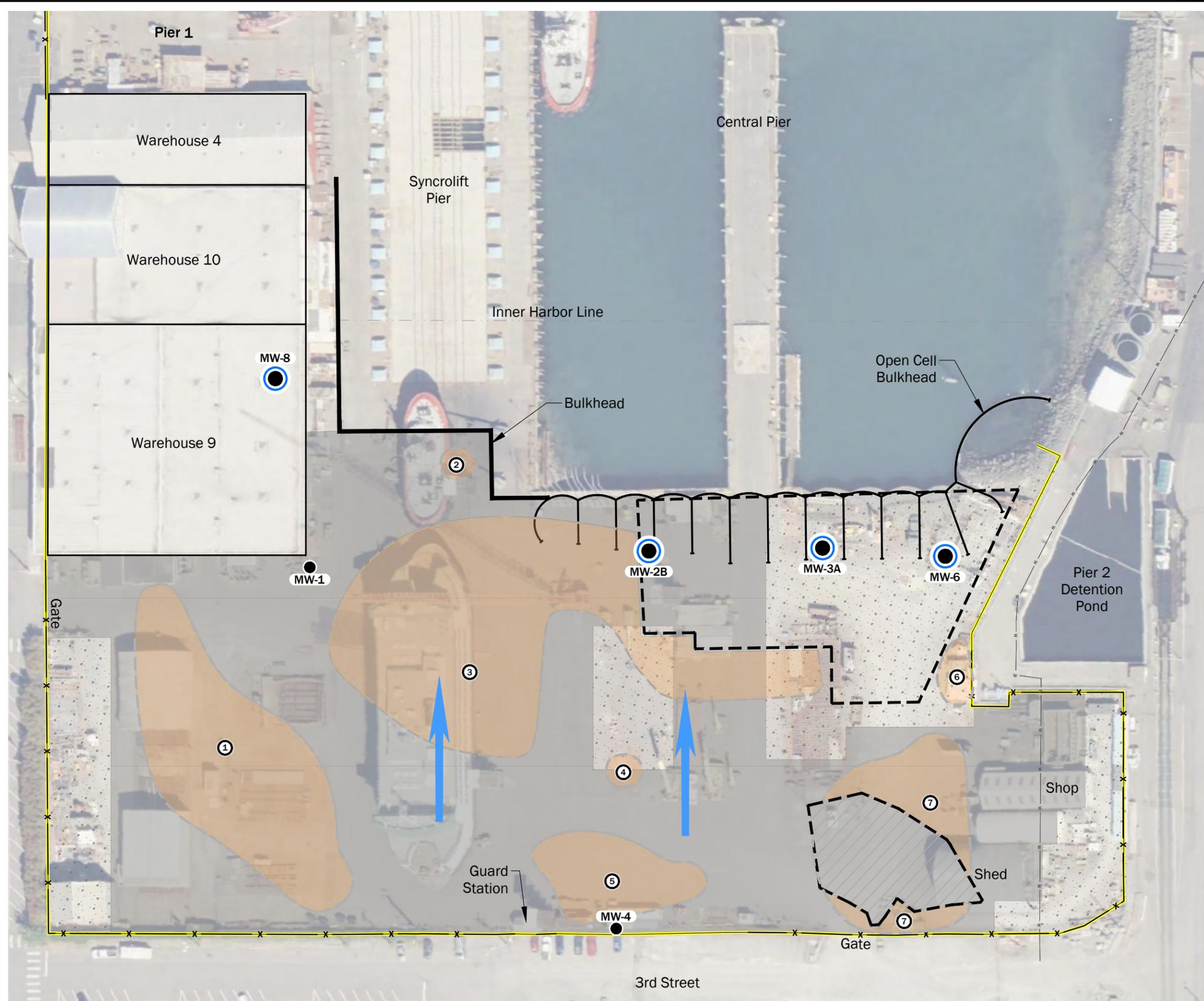
P:\S\15147006\GIS\15147006-Project.aprx\15147006-18\_F01\_VicinityMap Date Exported: 09/13/24 by maugust

Source(s):  
• ESRI

Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet

**Disclaimer:** This figure was created for a specific purpose and project. Any use of this figure for any other project or purpose shall be at the user's sole risk and without liability to GeoEngineers. The locations of features shown may be approximate. GeoEngineers makes no warranty or representation as to the accuracy, completeness, or suitability of the figure, or data contained therein. The file containing this figure is a copy of a master document, the original of which is retained by GeoEngineers and is the official document of record.

P:\5147006\CAD\18\DCI GW Monitoring Report 2023\514700618\_F02\_Site Plan.dwg TAB:2 Date Exported: 09/13/24 - 9:43 by Jfellow



**Legend**

- Dakota Creek Industries (DCI) Lease Area
- Fence
- Interim Action and Backfill Area
- Asphalt/Concrete Pavement
- Gravel Working Surface
- MW-1 ● Monitoring Well (Active)
- MW-8 ○ Post-Construction Compliance Monitoring Well
- ➔ Inferred Groundwater Flow Direction
- Area of Soil Contamination Based on Previous Site Investigation
- Import Soil Backfill Area

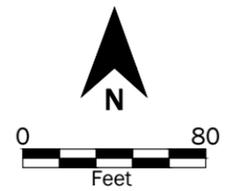
Soil Contamination Area	Contaminant of Concern (COC)	Depth of Contamination (feet bgs)
1	Arsenic and Nickel	0 - 10
2	Arsenic	0 - 2
3	Arsenic and Nickel	0 - 10
4	Total cPAHs TEQ	5 - 13
5	Arsenic and Nickel	0 - 8
6	Nickel	0 - 8
7	Arsenic and Nickel	0 - 8

cPAH - Carcinogenic Polycyclic Aromatic Hydrocarbon  
 TEQ - Toxic Equivalent Quotient  
 bgs - Below Ground Surface

Source(s):  
 • Aerial from Microsoft Bing, 2023

Projection: WA State Plane, North Zone, NAD83, US Foot

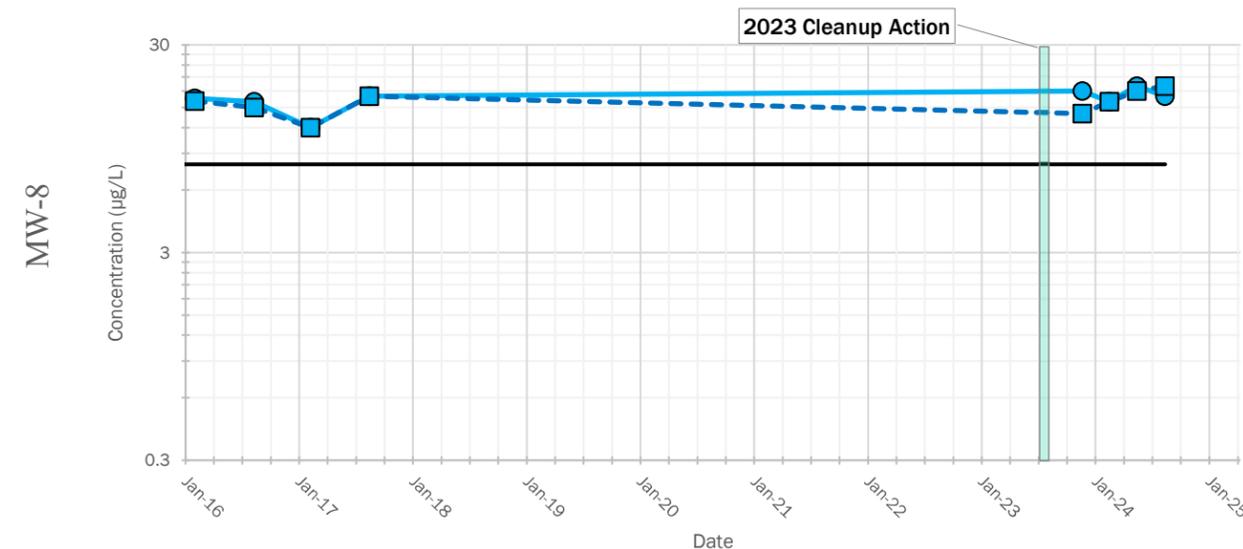
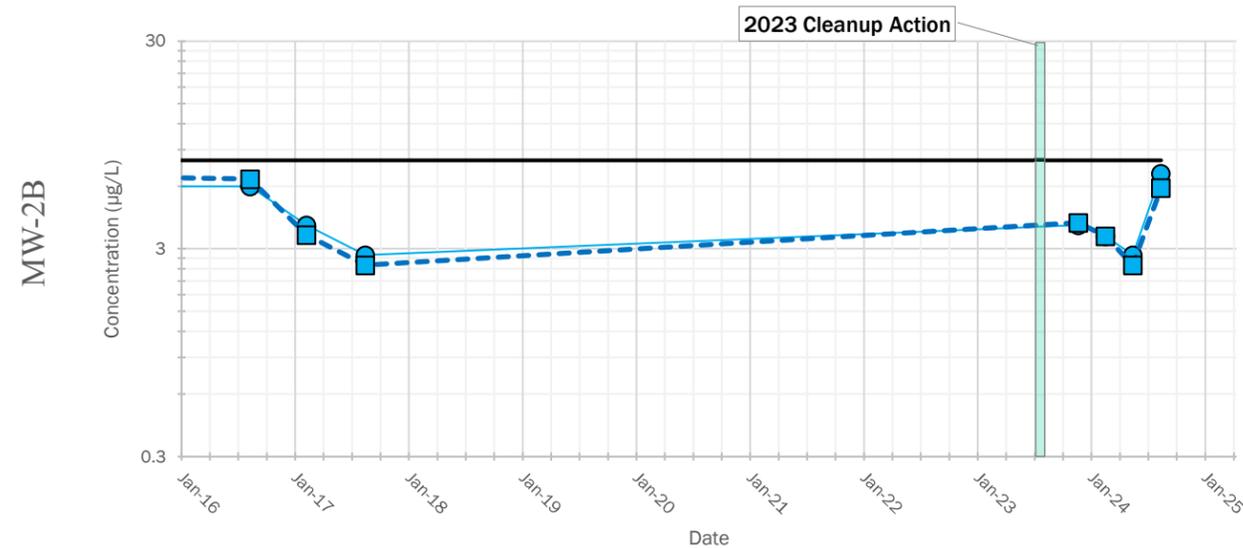
**Disclaimer:** This figure was created for a specific purpose and project. Any use of this figure for any other project or purpose shall be at the user's sole risk and without liability to GeoEngineers. The locations of features shown may be approximate. GeoEngineers makes no warranty or representation as to the accuracy, completeness, or suitability of the figure, or data contained therein. The file containing this figure is a copy of a master document, the original of which is retained by GeoEngineers and is the official document of record.



**Site Plan**

Dakota Creek Industries  
Anacortes, Washington

**Figure 2**

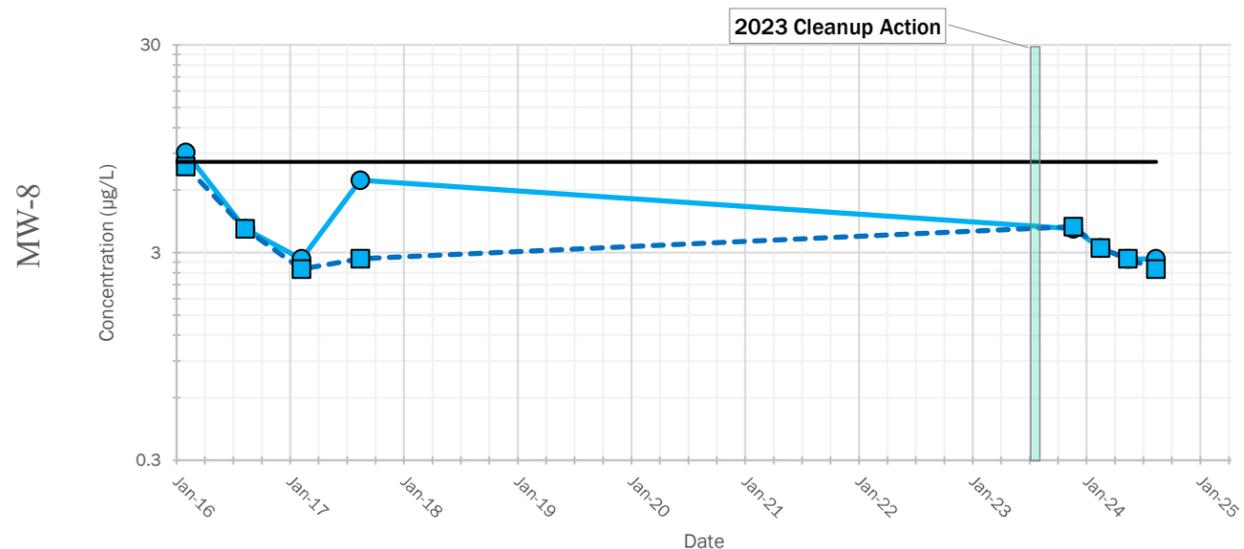
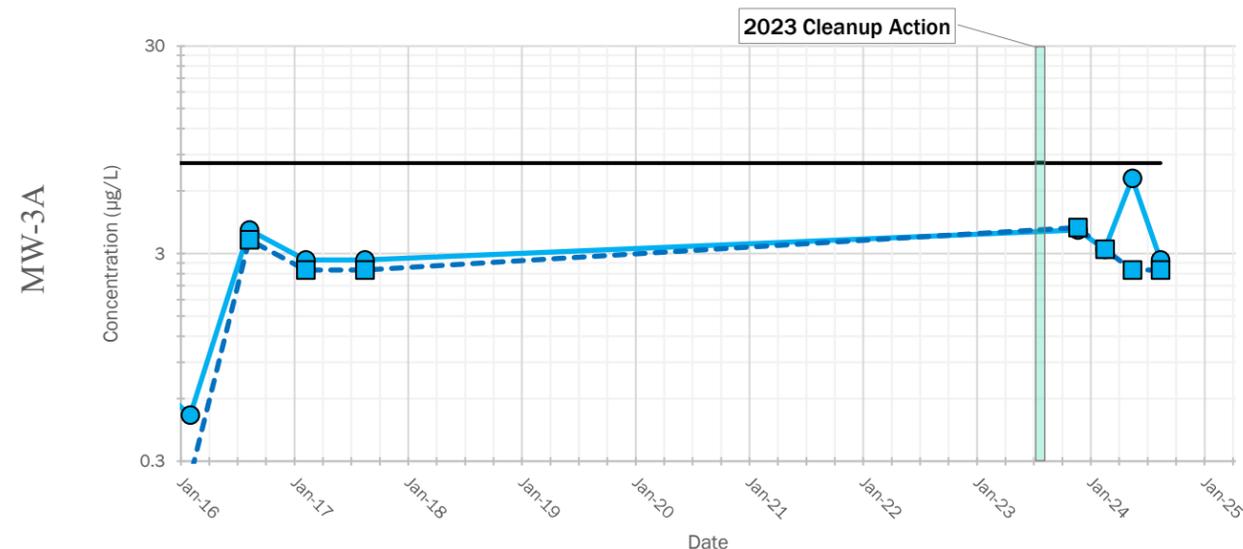
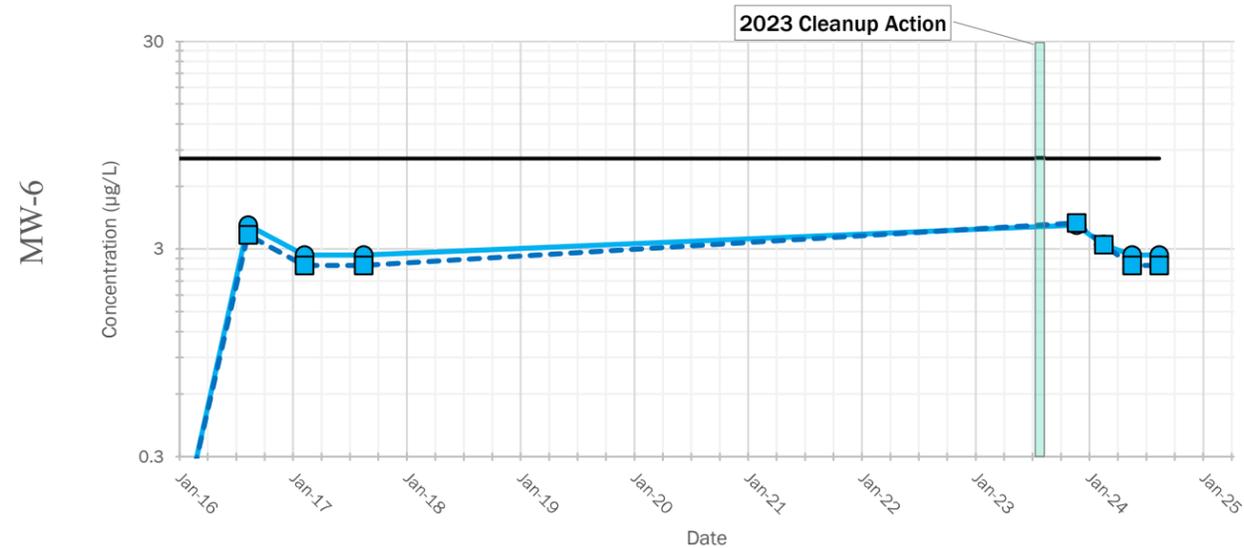
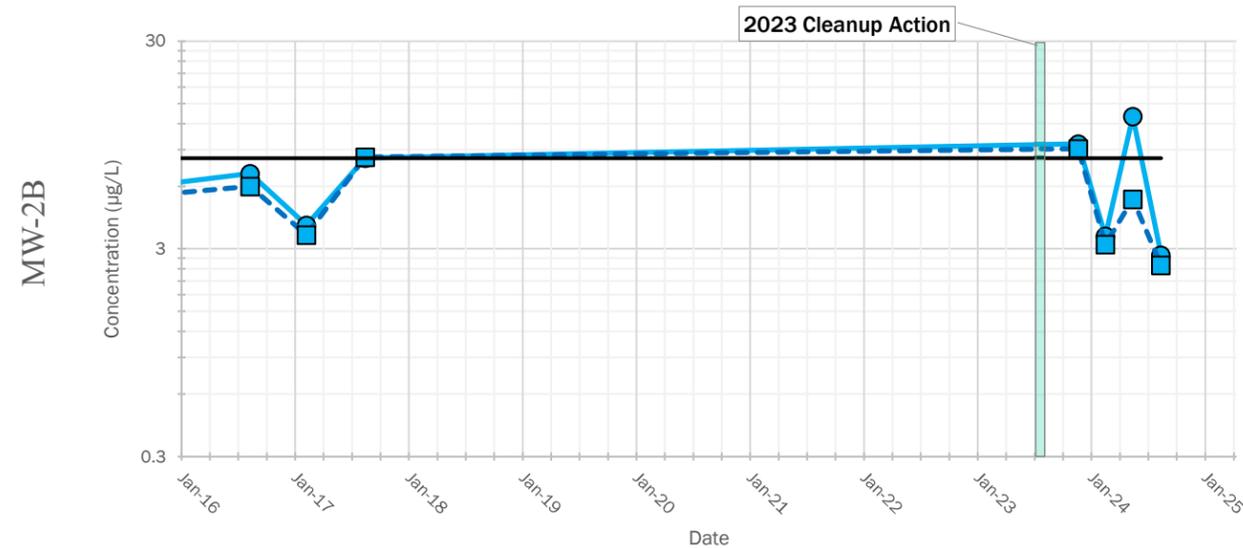


Notes:

1. Non-detect result reported as 1/2 the reporting limit.
2. µg/L = microgram per liter.
3. The highest sample result for parent/duplicate is shown.
4. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Table D-1. Historical Groundwater Chemical Analytical Data (Appendix D).

<b>Summary of Arsenic In Groundwater</b>	
Dakota Creek Industries Anacortes, Washington	
	<b>Figure 3</b>

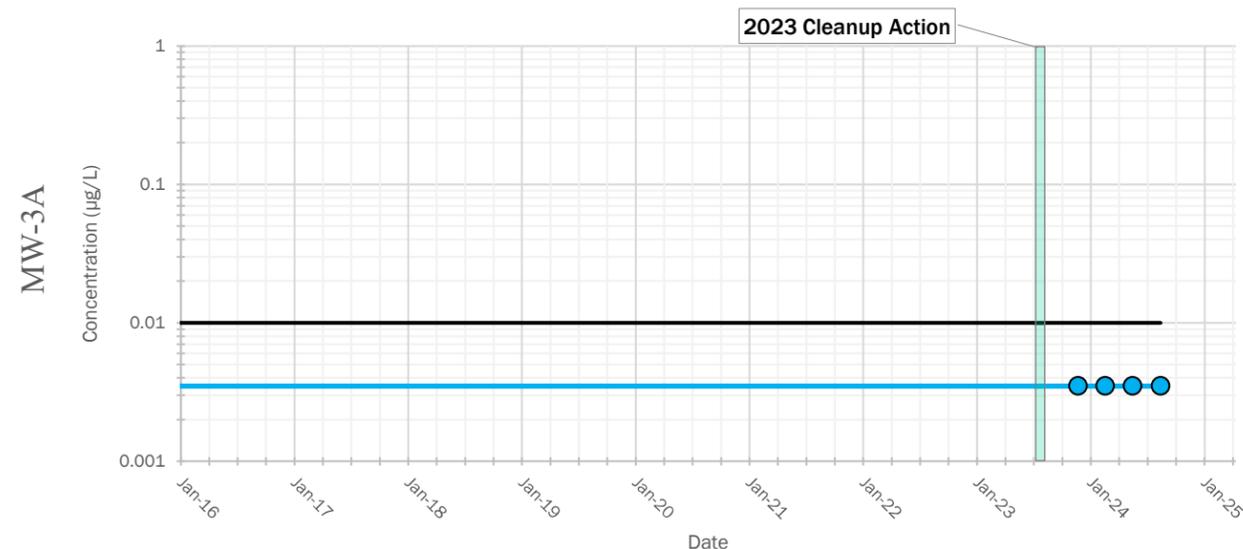
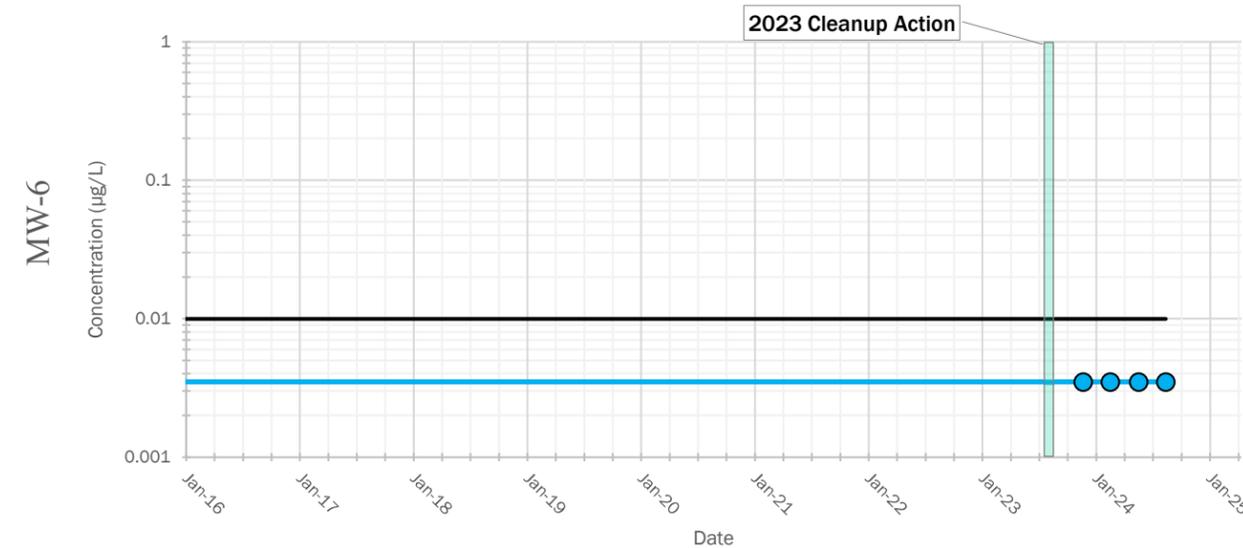
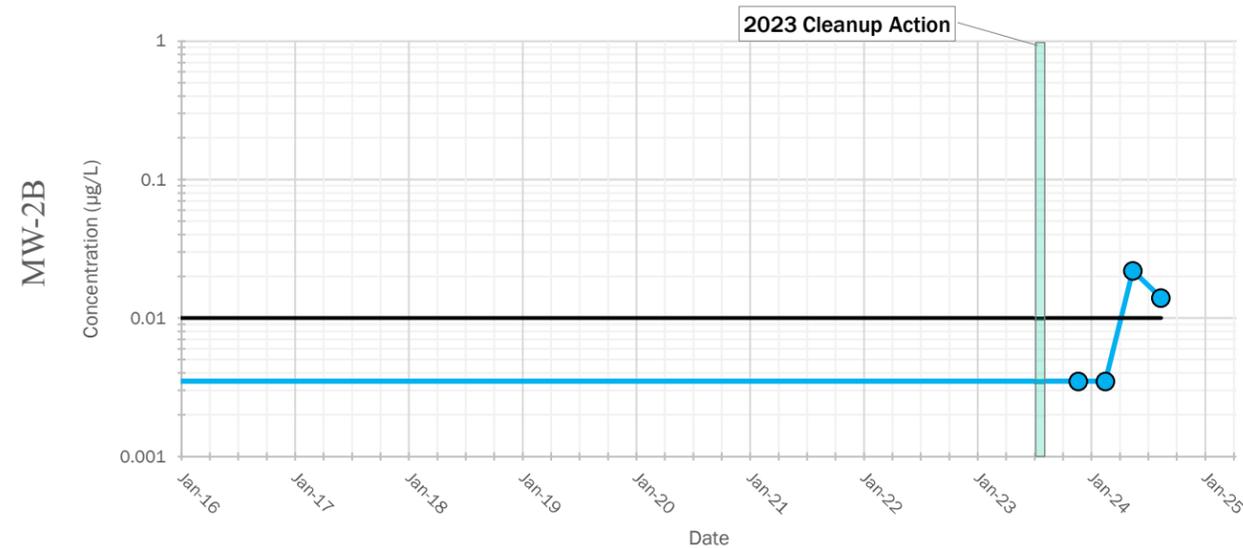


Notes:

1. Non-detect result reported as ½ the reporting limit.
2. µg/L = microgram per liter.
3. The highest sample result for parent/duplicate is shown.
4. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Table D-1. Historical Groundwater Chemical Analytical Data (Appendix D).

<b>Summary of Nickel In Groundwater</b>	
Dakota Creek Industries Anacortes, Washington	
	<b>Figure 4</b>



Notes:

1. Non-detect result reported as 1/2 the reporting limit.
2. µg/L = microgram per liter.
3. cPAH = carcinogenic polycyclic aromatic hydrocarbon.
4. TEQ = toxic equivalency quotient.
5. The highest sample result for parent/duplicate is shown.

This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Table D-1. Historical Groundwater Chemical Analytical Data (Appendix D).

<b>Summary of Total cPAH TEQ In Groundwater</b>	
Dakota Creek Industries Anacortes, Washington	
	<b>Figure 5</b>

## Appendices

Appendix A  
Well Completion Logs

## SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS <small>(LITTLE OR NO FINES)</small>		<b>GW</b>	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
		GRAVELS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		<b>GP</b>	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
		GRAVELS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		<b>GM</b>	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
	SAND AND SANDY SOILS	CLEAN SANDS <small>(LITTLE OR NO FINES)</small>		<b>SW</b>	WELL-GRADED SANDS, GRAVELLY SANDS
		SANDS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		<b>SP</b>	POORLY-GRADED SANDS, GRAVELLY SAND
		SANDS WITH FINES <small>(APPRECIABLE AMOUNT OF FINES)</small>		<b>SM</b>	SILTY SANDS, SAND - SILT MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		<b>ML</b>	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
		LIQUID LIMIT LESS THAN 50		<b>CL</b>	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
		LIQUID LIMIT LESS THAN 50		<b>OL</b>	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		<b>MH</b>	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
		LIQUID LIMIT GREATER THAN 50		<b>CH</b>	INORGANIC CLAYS OF HIGH PLASTICITY
		LIQUID LIMIT GREATER THAN 50		<b>OH</b>	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS			<b>PT</b>	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

### Sampler Symbol Descriptions

	2.4-inch I.D. split barrel
	Standard Penetration Test (SPT)
	Shelby tube
	Piston
	Direct-Push
	Bulk or grab
	Continuous Coring

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

A "P" indicates sampler pushed using the weight of the drill rig.

A "WOH" indicates sampler pushed using the weight of the hammer.

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

## ADDITIONAL MATERIAL SYMBOLS

SYMBOLS		TYPICAL DESCRIPTIONS
GRAPH	LETTER	
	<b>AC</b>	Asphalt Concrete
	<b>CC</b>	Cement Concrete
	<b>CR</b>	Crushed Rock/Quarry Spalls
	<b>TS</b>	Topsoil/Forest Duff/Sod

### Groundwater Contact



Measured groundwater level in exploration, well, or piezometer



Measured free product in well or piezometer

### Graphic Log Contact



Distinct contact between soil strata



Approximate contact between soil strata

### Material Description Contact



Contact between geologic units



Contact between soil of the same geologic unit

### Laboratory / Field Tests

%F	Percent fines
%G	Percent gravel
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DS	Direct shear
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
OC	Organic content
PM	Permeability or hydraulic conductivity
PI	Plasticity index
PP	Pocket penetrometer
PPM	Parts per million
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
VS	Vane shear

### Sheen Classification

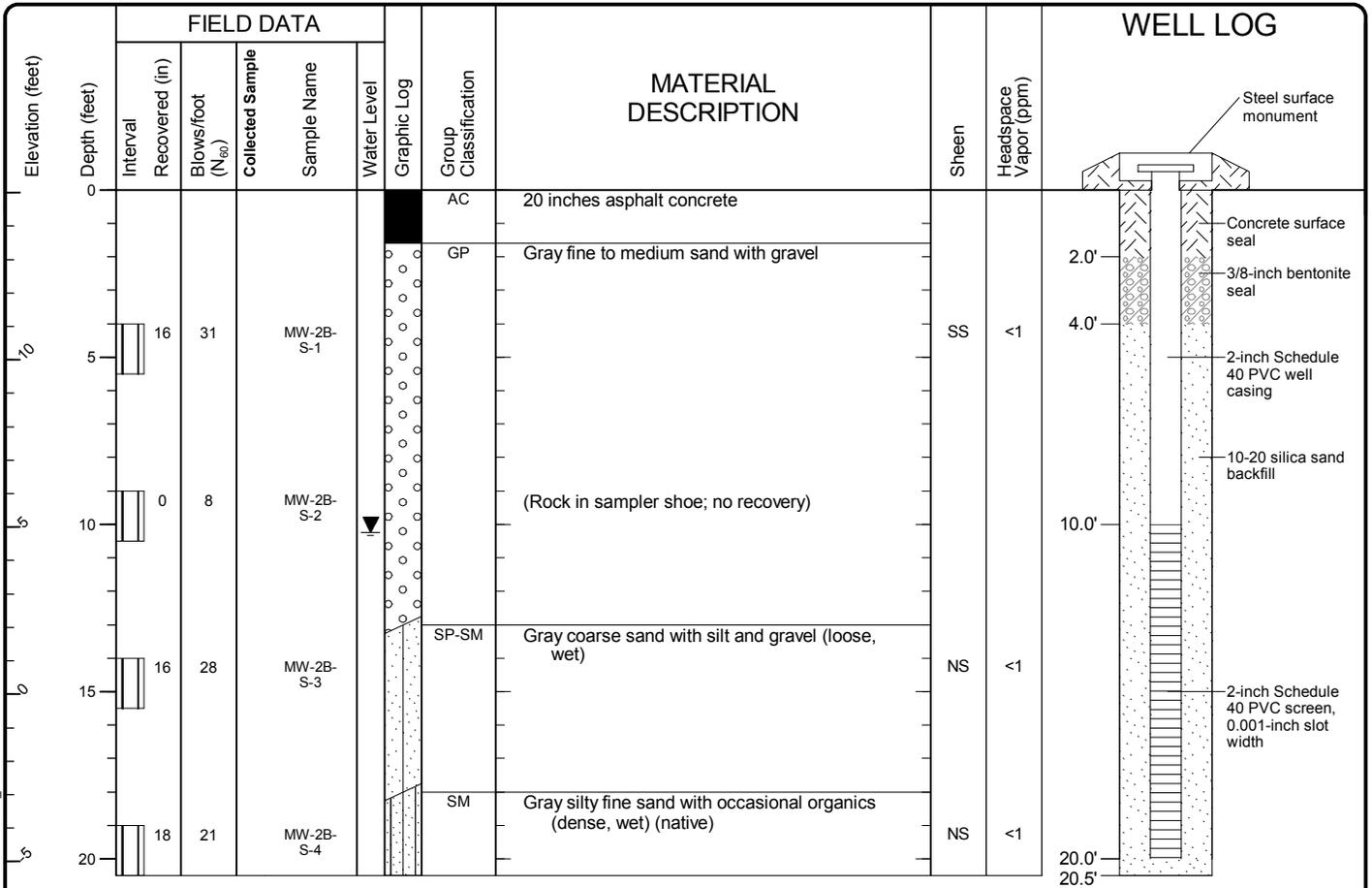
NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen
NT	Not Tested

## KEY TO EXPLORATION LOGS



FIGURE A-1

Start Drilled	8/11/2016	End	8/11/2016	Total Depth (ft)	20.5	Logged By	NRS	Checked By	RST	Driller	Cascade Drilling, LP	Drilling Method	Hollow-Stem Auger
Hammer Data	300 (lbs) / 30 (in) Drop			Drilling Equipment	Mobile B-90			DOE Well I.D.: BJY 162 A 2 (in) well was installed on 8/11/2016 to a depth of 20.5 (ft).					
Surface Elevation (ft)	15.08 MLLW			Top of Casing Elevation (ft)	14.7			<u>Groundwater</u>					
Vertical Datum							<u>Date Measured</u>		<u>Depth to Water (ft)</u>	<u>Elevation (ft)</u>			
Latitude	48.520904			Horizontal Datum	Geographic NAD83			8/11/2016	10.3	4.5			
Longitude	-122.61031												
Notes:													



Note: See Figure A-1 for explanation of symbols.

### Log of Monitoring Well MW-2B

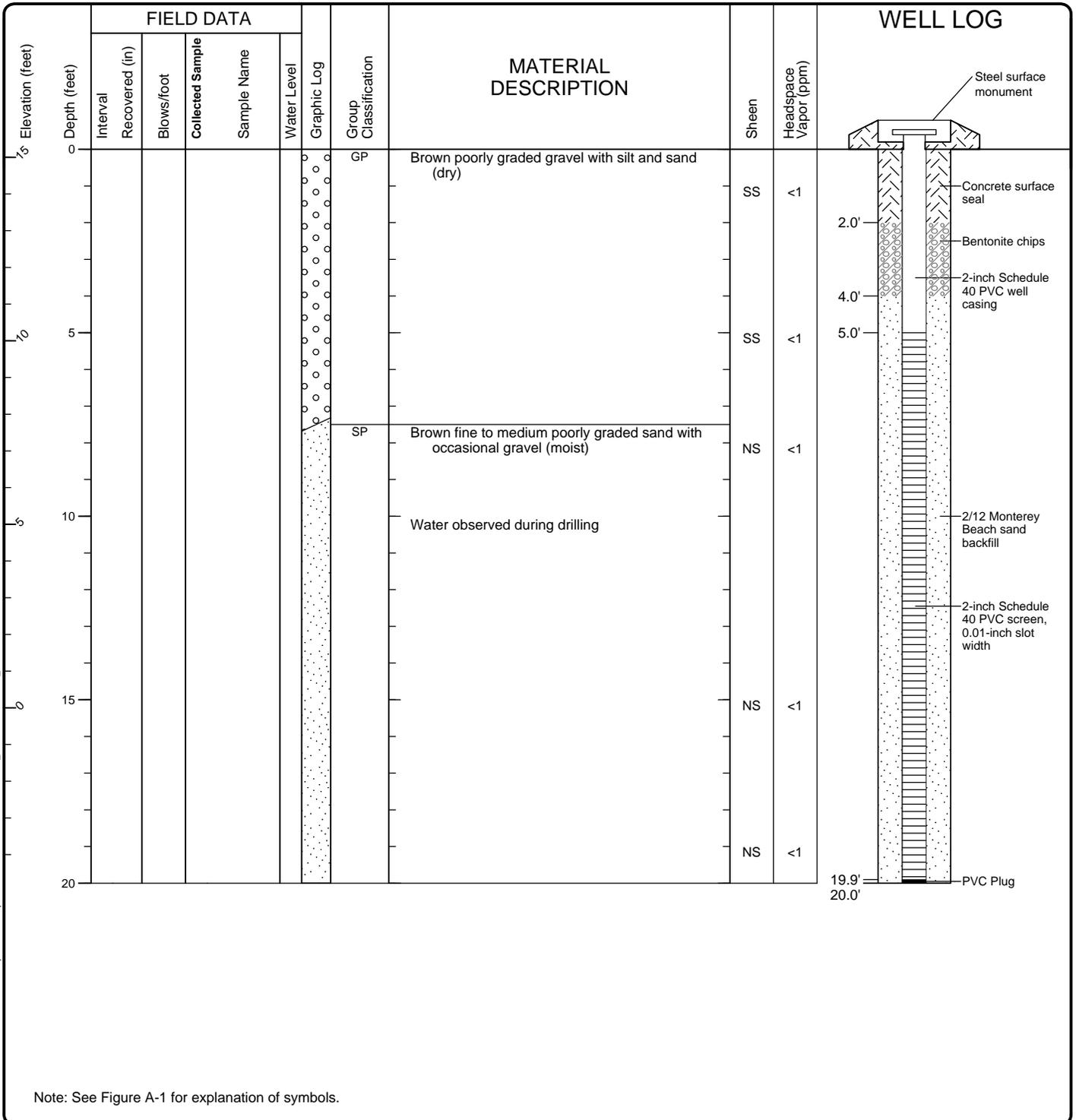


Project: Dakota Creek Industries  
 Project Location: Anacortes, Washington  
 Project Number: 5147-006-11

Figure A-2  
 Sheet 1 of 1

Seattle, Date: 12/8/17 Path: W:\PROJECTS\5147006\GINT\5147006-11.GPJ DBT Template\LOT Template.GE\ENGINEERS.GDT\GEIB\_ENVIRONMENTAL\_WELL

Drilled	<u>Start</u> 5/10/2012	<u>End</u> 5/10/2012	Total Depth (ft)	20	Logged By Checked By	ARJ ARJ	Driller	Cascade Drilling, LP	Drilling Method	Hollow-stem Auger
Auger Data	4¼-inch I.D.; 8¼-inch O.D.			Drilling Equipment	CME 75		DOE Well I.D.: BHL-199 A 2 (in) well was installed on 5/10/2012 to a depth of 20 (ft).			
Surface (ft) Elevation	15.22			Top of Casing Elevation (ft)	14.83		<u>Groundwater</u> <u>Measurement Date</u> <u>Depth to</u> <u>Water (ft)</u> <u>Elevation (ft)</u>			
Latitude Longitude	48° 31' 15.0124" N 122° 36' 35.3293" W			Vertical Datum	Mean Lower Low Water (MLLW)					
Notes:      Material description and field screening data (sheen and headspace vapor) noted below are of soil cuttings.										



Note: See Figure A-1 for explanation of symbols.

### Log of Monitoring Well MW-3A



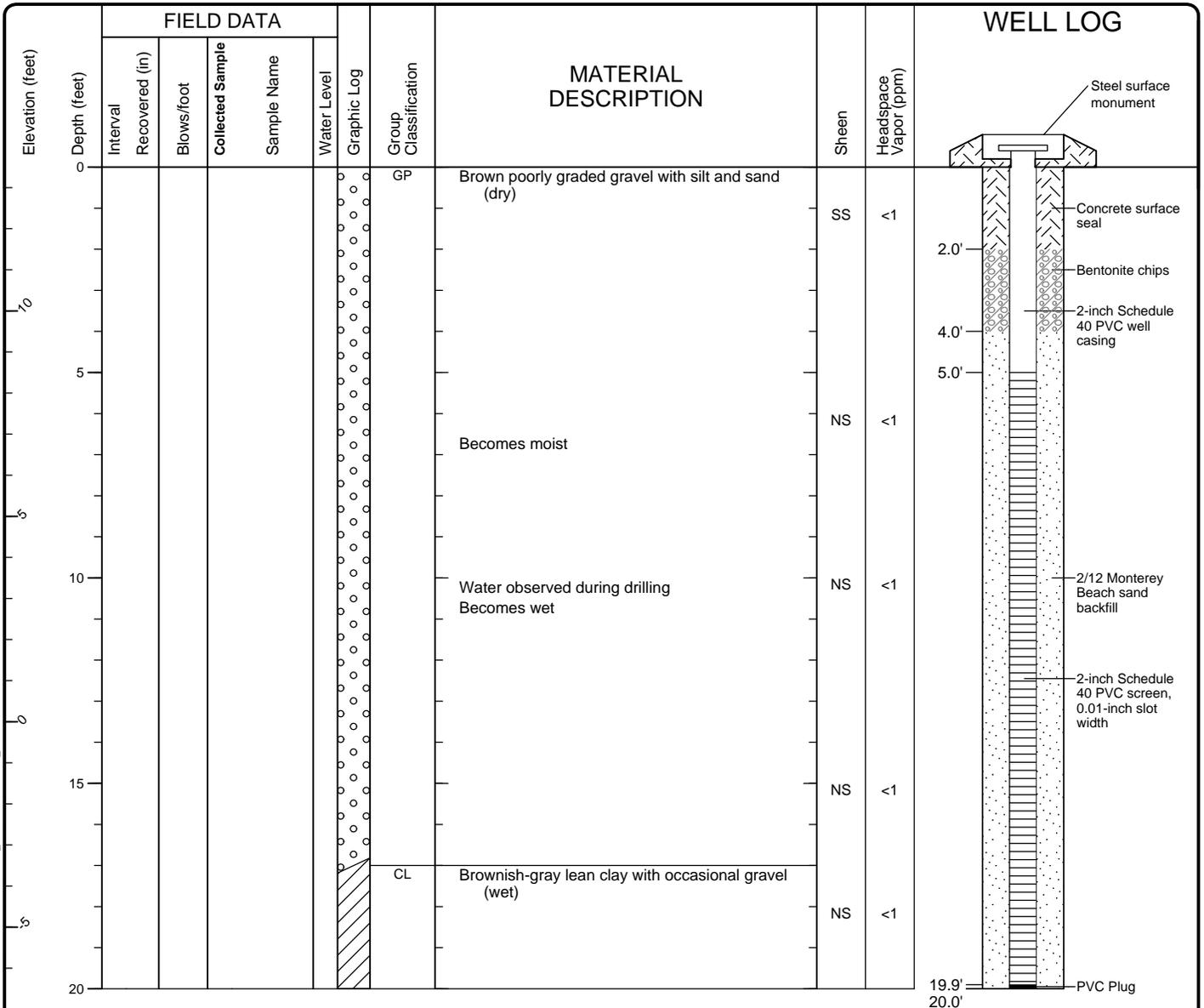
Project: Dakota Creek Industries  
 Project Location: Anacortes, Washington  
 Project Number: 5147-006-08

Figure A-3  
 Sheet 1 of 1

Seattle: Date: 5/11/13 Path: P:\5147\006\GINT\5147\00608.GPJ DBT\template\lb\template\GEOENGINEERS.GDT\GEIR\_ENV\IRONMNTAL\_WELL

Drilled	<u>Start</u> 5/10/2012	<u>End</u> 5/10/2012	Total Depth (ft)	20	Logged By Checked By	ARJ ARJ	Driller	Cascade Drilling, LP	Drilling Method	Hollow-stem Auger
Auger Data	4¼-inch I.D.; 8¼-inch O.D.		Drilling Equipment	CME 75	DOE Well I.D.: BHL-200 A 2 (in) well was installed on 5/10/2012 to a depth of 20 (ft).					
Surface (ft) Elevation	13.5		Top of Casing Elevation (ft)	12.46	Groundwater Measurement Date			Depth to Water (ft)	Elevation (ft)	
Latitude Longitude	48° 31' 14.9508" N 122° 36' 33.8851" W		Vertical Datum	Mean Lower Low Water (MLLW)						

Notes: Material description and field screening data (sheen and headspace vapor) noted below are of soil cuttings.



Note: See Figure A-1 for explanation of symbols.

### Log of Monitoring Well MW-6

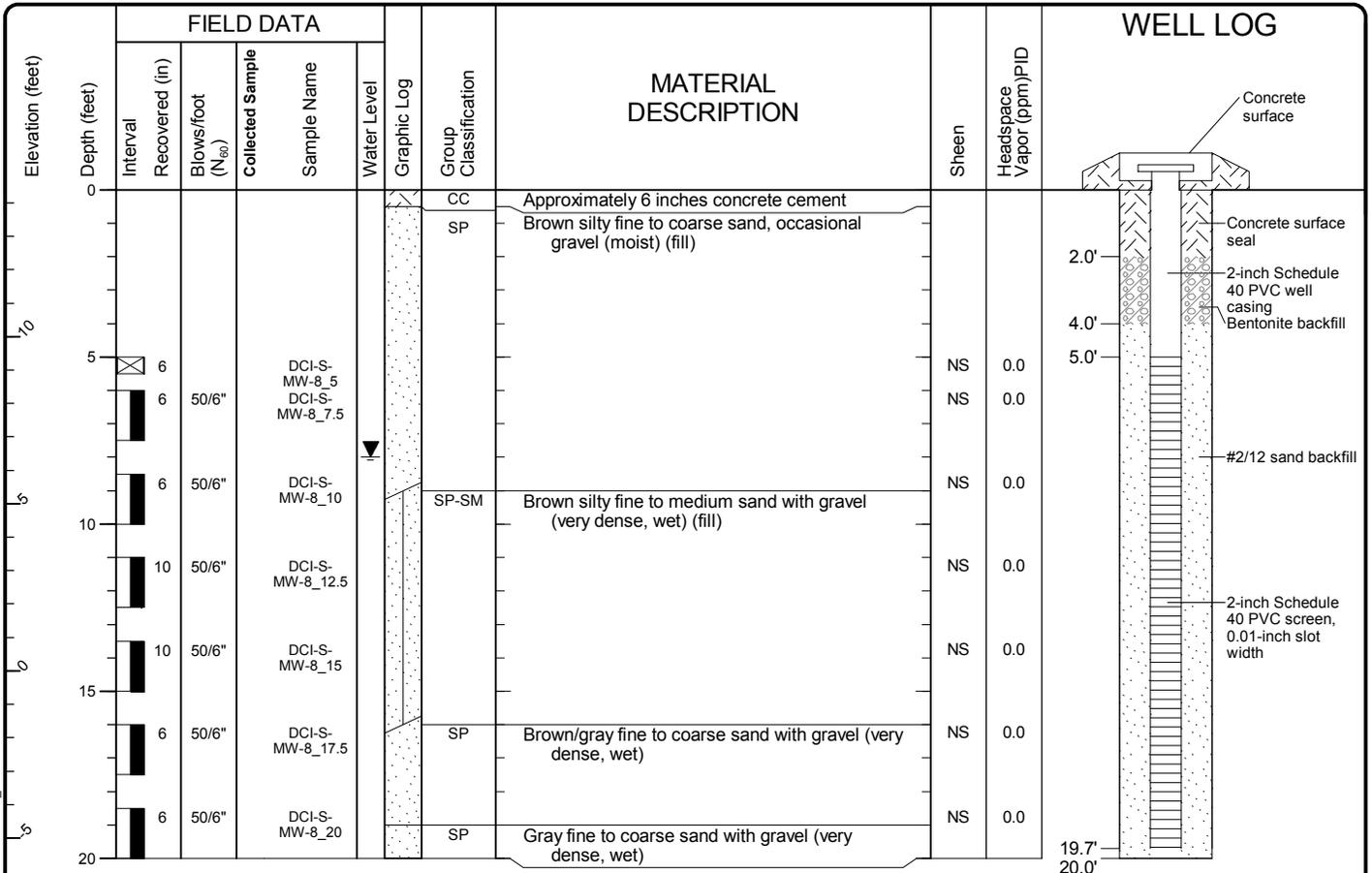


Project: Dakota Creek Industries  
 Project Location: Anacortes, Washington  
 Project Number: 5147-006-08

Figure A-4  
 Sheet 1 of 1

Seattle: Date: 5/11/13 Path: P:\5147006\GINT\514700608.GPJ DBT\template\B\template\GEOENGINEERS\GDT\GEIR\_ENV\IRONMNTAL\_WELL

Start Drilled	11/4/2015	End	11/4/2015	Total Depth (ft)	20	Logged By	CVD	Checked By	RST	Driller	Cascade Drilling, LP	Drilling Method	Hollow-Stem Auger
Hammer Data	300 (lbs) / 30 (in) Drop			Drilling Equipment	CME-850 Track Rig			DOE Well I.D.: BIX 153 A 2 (in) well was installed on 11/4/2015 to a depth of 20 (ft).					
Surface Elevation (ft)	14.39			Top of Casing Elevation (ft)	13.8			<u>Groundwater</u>					
Vertical Datum	MLLW			Date Measured						Depth to Water (ft)	Elevation (ft)		
Latitude	48.52025611			Horizontal Datum	Geographic NAD83			11/4/2015	8.0	5.8			
Longitude	-122.60916667			Notes: Air knife from 0 to 6 feet below ground surface									



Note: See Figure A-1 for explanation of symbols.

### Log of Monitoring Well MW-8



Project: Dakota Creek Industries  
 Project Location: Anacortes, Washington  
 Project Number: 5147-006-11

Seattle, Date: 12/8/17 Path: W:\PROJECTS\5147006\GINT\5 147006-11.GPJ DBT Template\LOT Template.GE OENGINEERS.GDT\GEIB\_ENVIRONMENTAL\_WELL

## Appendix B

### Chemical Analytical Data Reports



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

December 12, 2023

Robert Trahan  
GeoEngineers, Inc.  
2101 4th Avenue, Suite 950  
Seattle, WA 98121

Re: Analytical Data for Project 05147-006-18  
Laboratory Reference No. 2311-272

Dear Robert:

Enclosed are the analytical results and associated quality control data for samples submitted on November 29, 2023.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal line extending to the right.

David Baumeister  
Project Manager

Enclosures



---

OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: December 12, 2023  
Samples Submitted: November 29, 2023  
Laboratory Reference: 2311-272  
Project: 05147-006-18

### Case Narrative

Samples were collected on November 28, 2023 and received by the laboratory on November 29, 2023. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below. However the soil results for the QA/QC samples are reported on a wet-weight basis.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: December 12, 2023  
Samples Submitted: November 29, 2023  
Laboratory Reference: 2311-272  
Project: 05147-006-18

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-2B_20231128	11-272-01	Water	11-28-23	11-29-23	
MW-3A_20231128	11-272-02	Water	11-28-23	11-29-23	
MW-6_20231128	11-272-03	Water	11-28-23	11-29-23	
MW-8_20231128	11-272-04	Water	11-28-23	11-29-23	
DUP-1_20231128	11-272-05	Water	11-28-23	11-29-23	



Date of Report: December 12, 2023  
 Samples Submitted: November 29, 2023  
 Laboratory Reference: 2311-272  
 Project: 05147-006-18

**PAHs EPA 8270E/SIM**

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-2B_20231128</b>					
Laboratory ID:	11-272-01					
Naphthalene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
2-Methylnaphthalene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
1-Methylnaphthalene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
Acenaphthylene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
Acenaphthene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
Fluorene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
Phenanthrene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
Anthracene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
Fluoranthene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
Pyrene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[a]anthracene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
Chrysene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[b]fluoranthene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo(j,k)fluoranthene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[a]pyrene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
Indeno(1,2,3-c,d)pyrene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
Dibenz[a,h]anthracene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[g,h,i]perylene	ND	0.0094	EPA 8270E/SIM	11-30-23	11-30-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	69	26-106				
<i>Pyrene-d10</i>	76	45-104				
<i>Terphenyl-d14</i>	93	43-114				



Date of Report: December 12, 2023  
 Samples Submitted: November 29, 2023  
 Laboratory Reference: 2311-272  
 Project: 05147-006-18

**PAHs EPA 8270E/SIM**

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-3A_20231128</b>					
<b>Laboratory ID:</b>	11-272-02					
Naphthalene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
2-Methylnaphthalene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
1-Methylnaphthalene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Acenaphthylene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Acenaphthene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Fluorene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Phenanthrene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Anthracene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Fluoranthene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Pyrene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[a]anthracene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Chrysene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[b]fluoranthene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo(j,k)fluoranthene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[a]pyrene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Indeno(1,2,3-c,d)pyrene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Dibenz[a,h]anthracene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[g,h,i]perylene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	68	26-106				
<i>Pyrene-d10</i>	76	45-104				
<i>Terphenyl-d14</i>	95	43-114				



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**PAHs EPA 8270E/SIM**

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-6_20231128</b>					
<b>Laboratory ID:</b>	<b>11-272-03</b>					
Naphthalene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
2-Methylnaphthalene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
1-Methylnaphthalene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Acenaphthylene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Acenaphthene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Fluorene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Phenanthrene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Anthracene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Fluoranthene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Pyrene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[a]anthracene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Chrysene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[b]fluoranthene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo(j,k)fluoranthene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[a]pyrene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Indeno(1,2,3-c,d)pyrene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Dibenz[a,h]anthracene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[g,h,i]perylene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>73</i>	<i>26-106</i>				
<i>Pyrene-d10</i>	<i>77</i>	<i>45-104</i>				
<i>Terphenyl-d14</i>	<i>102</i>	<i>43-114</i>				



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**PAHs EPA 8270E/SIM**

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-8_20231128</b>					
<b>Laboratory ID:</b>	<b>11-272-04</b>					
Naphthalene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
2-Methylnaphthalene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
1-Methylnaphthalene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
Acenaphthylene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
Acenaphthene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
Fluorene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
Phenanthrene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
Anthracene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
Fluoranthene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
Pyrene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[a]anthracene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
Chrysene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[b]fluoranthene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo(j,k)fluoranthene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[a]pyrene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
Indeno(1,2,3-c,d)pyrene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
Dibenz[a,h]anthracene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[g,h,i]perylene	ND	0.0095	EPA 8270E/SIM	11-30-23	11-30-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>46</i>	<i>26-106</i>				
<i>Pyrene-d10</i>	<i>47</i>	<i>45-104</i>				
<i>Terphenyl-d14</i>	<i>64</i>	<i>43-114</i>				



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**PAHs EPA 8270E/SIM**

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>DUP-1_20231128</b>					
<b>Laboratory ID:</b>	<b>11-272-05</b>					
Naphthalene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
2-Methylnaphthalene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
1-Methylnaphthalene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Acenaphthylene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Acenaphthene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Fluorene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Phenanthrene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Anthracene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Fluoranthene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Pyrene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[a]anthracene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Chrysene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[b]fluoranthene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo(j,k)fluoranthene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[a]pyrene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Indeno(1,2,3-c,d)pyrene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Dibenz[a,h]anthracene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[g,h,i]perylene	ND	0.0093	EPA 8270E/SIM	11-30-23	11-30-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>45</i>	<i>26-106</i>				
<i>Pyrene-d10</i>	<i>49</i>	<i>45-104</i>				
<i>Terphenyl-d14</i>	<i>60</i>	<i>43-114</i>				



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 Project: 05147-006-18

**TOTAL METALS**  
**EPA 200.8**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-2B_20231128</b>					
Laboratory ID:	11-272-01					
Arsenic	<b>ND</b>	7.8	EPA 200.8	12-9-23	12-11-23	
Nickel	<b>9.6</b>	7.8	EPA 200.8	12-9-23	12-11-23	

<b>Client ID:</b>	<b>MW-3A_20231128</b>					
Laboratory ID:	11-272-02					
Arsenic	<b>ND</b>	7.8	EPA 200.8	12-9-23	12-11-23	
Nickel	<b>ND</b>	7.8	EPA 200.8	12-9-23	12-11-23	

<b>Client ID:</b>	<b>MW-6_20231128</b>					
Laboratory ID:	11-272-03					
Arsenic	<b>ND</b>	7.8	EPA 200.8	12-9-23	12-11-23	
Nickel	<b>ND</b>	7.8	EPA 200.8	12-9-23	12-11-23	

<b>Client ID:</b>	<b>MW-8_20231128</b>					
Laboratory ID:	11-272-04					
Arsenic	<b>18</b>	7.8	EPA 200.8	12-9-23	12-11-23	
Nickel	<b>ND</b>	7.8	EPA 200.8	12-9-23	12-11-23	

<b>Client ID:</b>	<b>DUP-1_20231128</b>					
Laboratory ID:	11-272-05					
Arsenic	<b>ND</b>	7.8	EPA 200.8	12-9-23	12-11-23	
Nickel	<b>ND</b>	7.8	EPA 200.8	12-9-23	12-11-23	



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**DISSOLVED METALS**  
**EPA 200.8**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-2B_20231128</b>					
Laboratory ID:	11-272-01					
Arsenic	<b>ND</b>	8.0	EPA 200.8		12-11-23	
Nickel	<b>9.1</b>	8.0	EPA 200.8		12-11-23	

<b>Client ID:</b>	<b>MW-3A_20231128</b>					
Laboratory ID:	11-272-02					
Arsenic	<b>ND</b>	8.0	EPA 200.8		12-11-23	
Nickel	<b>ND</b>	8.0	EPA 200.8		12-11-23	

<b>Client ID:</b>	<b>MW-6_20231128</b>					
Laboratory ID:	11-272-03					
Arsenic	<b>ND</b>	8.0	EPA 200.8		12-11-23	
Nickel	<b>ND</b>	8.0	EPA 200.8		12-11-23	

<b>Client ID:</b>	<b>MW-8_20231128</b>					
Laboratory ID:	11-272-04					
Arsenic	<b>14</b>	8.0	EPA 200.8		12-11-23	
Nickel	<b>ND</b>	8.0	EPA 200.8		12-11-23	

<b>Client ID:</b>	<b>DUP-1_20231128</b>					
Laboratory ID:	11-272-05					
Arsenic	<b>ND</b>	8.0	EPA 200.8		12-11-23	
Nickel	<b>ND</b>	8.0	EPA 200.8		12-11-23	



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 Project: 05147-006-18

**PAHs EPA 8270E/SIM  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>METHOD BLANK</b>						
Laboratory ID:	MB1130W1					
Naphthalene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
2-Methylnaphthalene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
1-Methylnaphthalene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
Acenaphthylene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
Acenaphthene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
Fluorene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
Phenanthrene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
Anthracene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
Fluoranthene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
Pyrene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
Chrysene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	11-30-23	11-30-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>74</i>	<i>26-106</i>				
<i>Pyrene-d10</i>	<i>78</i>	<i>45-104</i>				
<i>Terphenyl-d14</i>	<i>105</i>	<i>43-114</i>				



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**PAHs EPA 8270E/SIM  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	Limit			
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB1130W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	0.324	0.334	0.500	0.500	65	67	35 - 84	3	34	
Acenaphthylene	0.386	0.393	0.500	0.500	77	79	44 - 97	2	29	
Acenaphthene	0.376	0.364	0.500	0.500	75	73	40 - 93	3	29	
Fluorene	0.419	0.423	0.500	0.500	84	85	46 - 97	1	24	
Phenanthrene	0.392	0.371	0.500	0.500	78	74	49 - 102	6	21	
Anthracene	0.453	0.419	0.500	0.500	91	84	50 - 99	8	21	
Fluoranthene	0.407	0.396	0.500	0.500	81	79	53 - 107	3	21	
Pyrene	0.417	0.403	0.500	0.500	83	81	52 - 111	3	23	
Benzo[a]anthracene	0.437	0.426	0.500	0.500	87	85	51 - 119	3	20	
Chrysene	0.422	0.432	0.500	0.500	84	86	52 - 113	2	21	
Benzo[b]fluoranthene	0.406	0.405	0.500	0.500	81	81	50 - 116	0	24	
Benzo(j,k)fluoranthene	0.437	0.434	0.500	0.500	87	87	54 - 113	1	22	
Benzo[a]pyrene	0.413	0.416	0.500	0.500	83	83	52 - 110	1	21	
Indeno(1,2,3-c,d)pyrene	0.381	0.371	0.500	0.500	76	74	55 - 114	3	21	
Dibenz[a,h]anthracene	0.405	0.406	0.500	0.500	81	81	55 - 111	0	19	
Benzo[g,h,i]perylene	0.390	0.388	0.500	0.500	78	78	52 - 111	1	20	
<i>Surrogate:</i>										
2-Fluorobiphenyl					63	62	26-106			
Pyrene-d10					68	66	45-104			
Terphenyl-d14					79	78	43-114			



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**TOTAL METALS  
 EPA 200.8  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1209WM1					
Arsenic	ND	3.3	EPA 200.8	12-9-23	12-11-23	
Nickel	ND	7.8	EPA 200.8	12-9-23	12-11-23	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	12-053-07							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Nickel	ND	ND	NA	NA	NA	NA	20	

**MATRIX SPIKES**

Laboratory ID:	12-053-07									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	107	116	111	111	ND	97	104	75-125	7	20
Nickel	111	116	111	111	ND	100	104	75-125	4	20



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**TOTAL METALS  
 EPA 200.8  
 CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppb)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Arsenic	ICV121123X	50.0	46.9	6.2	+/- 10%
Nickel	ICV121123X	50.0	50.7	-1.4	+/- 10%
Arsenic	CCV1121123X	40.0	41.0	-2.5	+/- 10%
Nickel	CCV1121123X	40.0	41.1	-2.8	+/- 10%
Arsenic	CCV1121123X	20.0	19.9	0.50	+/- 10%
Nickel	CCV1121123X	20.0	20.1	-0.50	+/- 10%
Arsenic	CCV2121123X	40.0	38.7	3.2	+/- 10%
Nickel	CCV2121123X	40.0	38.5	3.8	+/- 10%
Arsenic	CCV2121123X	20.0	20.9	-4.5	+/- 10%
Nickel	CCV2121123X	20.0	20.2	-1.0	+/- 10%



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**TOTAL METALS  
 EPA 200.8  
 CONTINUING CALIBRATION SUMMARY**

Analyte	Lab ID	True Value (ppb)	Calc. Value	Percent Difference	Control Limits
Arsenic	ICV121123X	50.0	48.5	3.0	+/- 10%
Nickel	ICV121123X	50.0	50.8	-1.6	+/- 10%
Arsenic	CCV1121123X	40.0	40.9	-2.3	+/- 10%
Nickel	CCV1121123X	40.0	40.3	-0.75	+/- 10%
Arsenic	CCV1121123X	20.0	21.0	-5.0	+/- 10%
Nickel	CCV1121123X	20.0	20.7	-3.5	+/- 10%
Arsenic	CCV2121123X	40.0	40.1	-0.25	+/- 10%
Nickel	CCV2121123X	40.0	40.8	-2.0	+/- 10%
Arsenic	CCV2121123X	20.0	20.8	-4.0	+/- 10%
Nickel	CCV2121123X	20.0	20.7	-3.5	+/- 10%
Arsenic	CCV3121123X	40.0	39.6	1.0	+/- 10%
Nickel	CCV3121123X	40.0	40.1	-0.25	+/- 10%
Arsenic	CCV3121123X	20.0	20.4	-2.0	+/- 10%
Nickel	CCV3121123X	20.0	20.7	-3.5	+/- 10%
Arsenic	CCV4121123X	40.0	40.2	-0.50	+/- 10%
Nickel	CCV4121123X	40.0	40.0	0	+/- 10%
Arsenic	CCV4121123X	20.0	20.4	-2.0	+/- 10%
Nickel	CCV4121123X	20.0	20.5	-2.5	+/- 10%
Arsenic	CCV5121123X	40.0	40.7	-1.8	+/- 10%
Nickel	CCV5121123X	40.0	39.8	0.50	+/- 10%
Arsenic	CCV5121123X	20.0	20.7	-3.5	+/- 10%
Nickel	CCV5121123X	20.0	20.6	-3.0	+/- 10%



Date of Report: December 12, 2023  
 Samples Submitted: November 29, 2023  
 Laboratory Reference: 2311-272  
 Project: 05147-006-18

**DISSOLVED METALS  
 EPA 200.8  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB1211D1					
Arsenic	ND	3.0	EPA 200.8		12-11-23	
Nickel	ND	8.0	EPA 200.8		12-11-23	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	11-213-03							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	NA	20
Nickel	ND	ND	NA	NA	NA	NA	NA	20

**MATRIX SPIKES**

Laboratory ID:	MS	MSD	MS	MSD	MS	MSD	MSD	RPD	RPD Limit
	11-213-03								
Arsenic	82.2	84.2	80.0	80.0	ND	103	105	75-125	2 20
Nickel	80.4	81.0	80.0	80.0	ND	101	101	75-125	1 20



Date of Report: December 12, 2023  
 Samples Submitted: November 29, 2023  
 Laboratory Reference: 2311-272  
 Project: 05147-006-18

**DISSOLVED METALS  
 EPA 200.8  
 CONTINUING CALIBRATION SUMMARY**

Analyte	Lab ID	True Value (ppb)	Calc. Value	Percent Difference	Control Limits
Arsenic	ICV121123X	50.0	48.5	3.0	+/- 10%
Nickel	ICV121123X	50.0	50.8	-1.6	+/- 10%
Arsenic	CCV1121123X	40.0	40.9	-2.3	+/- 10%
Nickel	CCV1121123X	40.0	40.3	-0.75	+/- 10%
Arsenic	CCV1121123X	20.0	21.0	-5.0	+/- 10%
Nickel	CCV1121123X	20.0	20.7	-3.5	+/- 10%
Arsenic	CCV2121123X	40.0	40.1	-0.25	+/- 10%
Nickel	CCV2121123X	40.0	40.8	-2.0	+/- 10%
Arsenic	CCV2121123X	20.0	20.8	-4.0	+/- 10%
Nickel	CCV2121123X	20.0	20.7	-3.5	+/- 10%
Arsenic	CCV3121123X	40.0	39.6	1.0	+/- 10%
Nickel	CCV3121123X	40.0	40.1	-0.25	+/- 10%
Arsenic	CCV3121123X	20.0	20.4	-2.0	+/- 10%
Nickel	CCV3121123X	20.0	20.7	-3.5	+/- 10%
Arsenic	CCV4121123X	40.0	40.2	-0.50	+/- 10%
Nickel	CCV4121123X	40.0	40.0	0	+/- 10%
Arsenic	CCV4121123X	20.0	20.4	-2.0	+/- 10%
Nickel	CCV4121123X	20.0	20.5	-2.5	+/- 10%
Arsenic	CCV5121123X	40.0	40.7	-1.8	+/- 10%
Nickel	CCV5121123X	40.0	39.8	0.50	+/- 10%
Arsenic	CCV5121123X	20.0	20.7	-3.5	+/- 10%
Nickel	CCV5121123X	20.0	20.6	-3.0	+/- 10%





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - X2 - Sample extract treated with a silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





# Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: 0547-006-18

Initiated by: NB

OnSite Project Number: 11-272

Date Initiated: 11/29/23

## 1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	<input checked="" type="radio"/> No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	<input checked="" type="radio"/> Yes	No	N/A	1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	<input checked="" type="radio"/> Yes	No	N/A	Temperature:	<u>3.8</u>
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	<input checked="" type="radio"/> N/A			
1.7 How were the samples delivered?	<input checked="" type="radio"/> Client	<input type="radio"/> Courier	<input type="radio"/> UPS/FedEx	<input type="radio"/> OSE Pickup	<input type="radio"/> Other

## 2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	<input checked="" type="radio"/> No		1 2 3 4

## 3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	<input checked="" type="radio"/> No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	<input checked="" type="radio"/> No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	<input checked="" type="radio"/> Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	<input checked="" type="radio"/> Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4
3.5 Are volatile samples free from headspace and bubbles greater than 6mm?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	<input checked="" type="radio"/> Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	<input checked="" type="radio"/> No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		<input checked="" type="radio"/> N/A	1 2 3 4

Explain any discrepancies:

1 - Discuss issue in Case Narrative

3 - Client contacted to discuss problem

2 - Process Sample As-is

4 - Sample cannot be analyzed or client does not wish to proceed

---

## COMPLETE DATA PACKAGE

- PAHs EPA 8270E/SIM
  - Total Metals EPA 200.8
  - Dissolved Metals by EPA 200.8
-

## PAHs EPA 8270E/SIM

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration Data
- Administrative Forms

Data Path : X:\semivols\Quaggy\DATA\Q231130\  
 Data File : Q1130011.D  
 Acq On : 30 Nov 2023 3:54 pm  
 Operator : JP  
 Sample : 11-272-01  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 30 16:09:30 2023  
 Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:50:46 2023  
 Response via : Initial Calibration

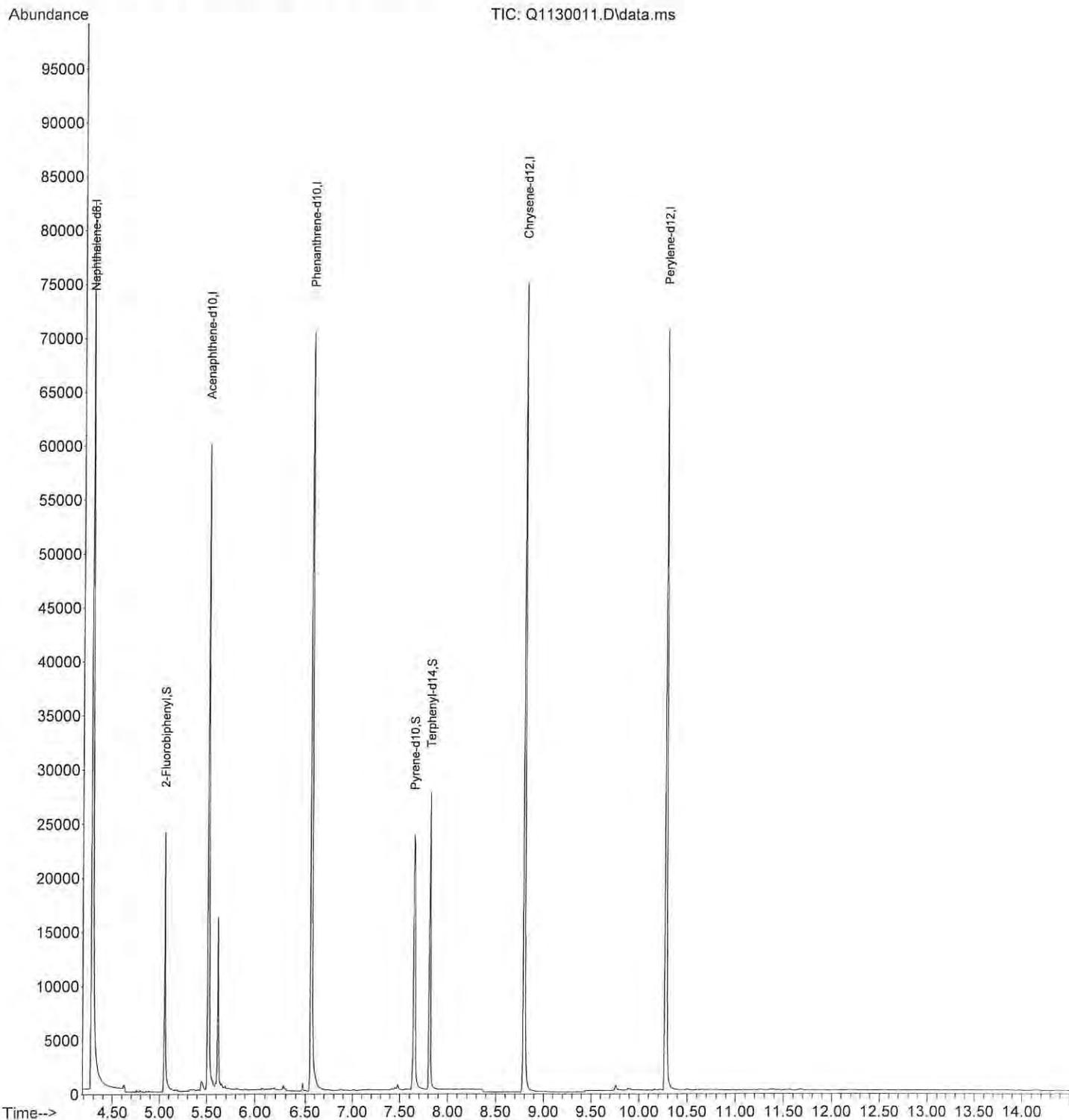
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Naphthalene-d8	4.280	136	95431	2000.00	ppb	-0.09
5) Acenaphthene-d10	5.513	164	49275	2000.00	ppb	-0.09
9) Phenanthrene-d10	6.566	188	85145	2000.00	ppb	-0.06
17) Chrysene-d12	8.796	240	73166	2000.00	ppb	-0.08
21) Perylene-d12	10.277	264	74606	2000.00	ppb	-0.10
System Monitoring Compounds						
6) 2-Fluorobiphenyl	5.054	172	21360	686.38	ppb	-0.08
Spiked Amount	1000.000	Range 25 - 89	Recovery =	68.64%		
10) Pyrene-d10	7.642	212	28712	762.09	ppb	-0.06
Spiked Amount	1000.000	Range 40 - 110	Recovery =	76.21%		
18) Terphenyl-d14	7.815	244	24313	930.46	ppb	-0.05
Spiked Amount	1000.000	Range 39 - 92	Recovery =	93.05%#		
Target Compounds						
19) Benzo[a]anthracene	8.790	228	397	Below Cal		Qvalue 83
-----						

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

*W*  
*11/30*

Data Path : X:\semivols\Quaggy\DATA\Q231130\  
Data File : Q1130011.D  
Acq On : 30 Nov 2023 3:54 pm  
Operator : JP  
Sample : 11-272-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 30 16:09:30 2023  
Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Thu Nov 16 09:50:46 2023  
Response via : Initial Calibration



Data Path : X:\semivols\Quaggy\DATA\Q231130\  
 Data File : Q1130008.D  
 Acq On : 30 Nov 2023 2:47 pm  
 Operator : JP  
 Sample : 11-272-02  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 30 15:01:47 2023  
 Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:50:46 2023  
 Response via : Initial Calibration

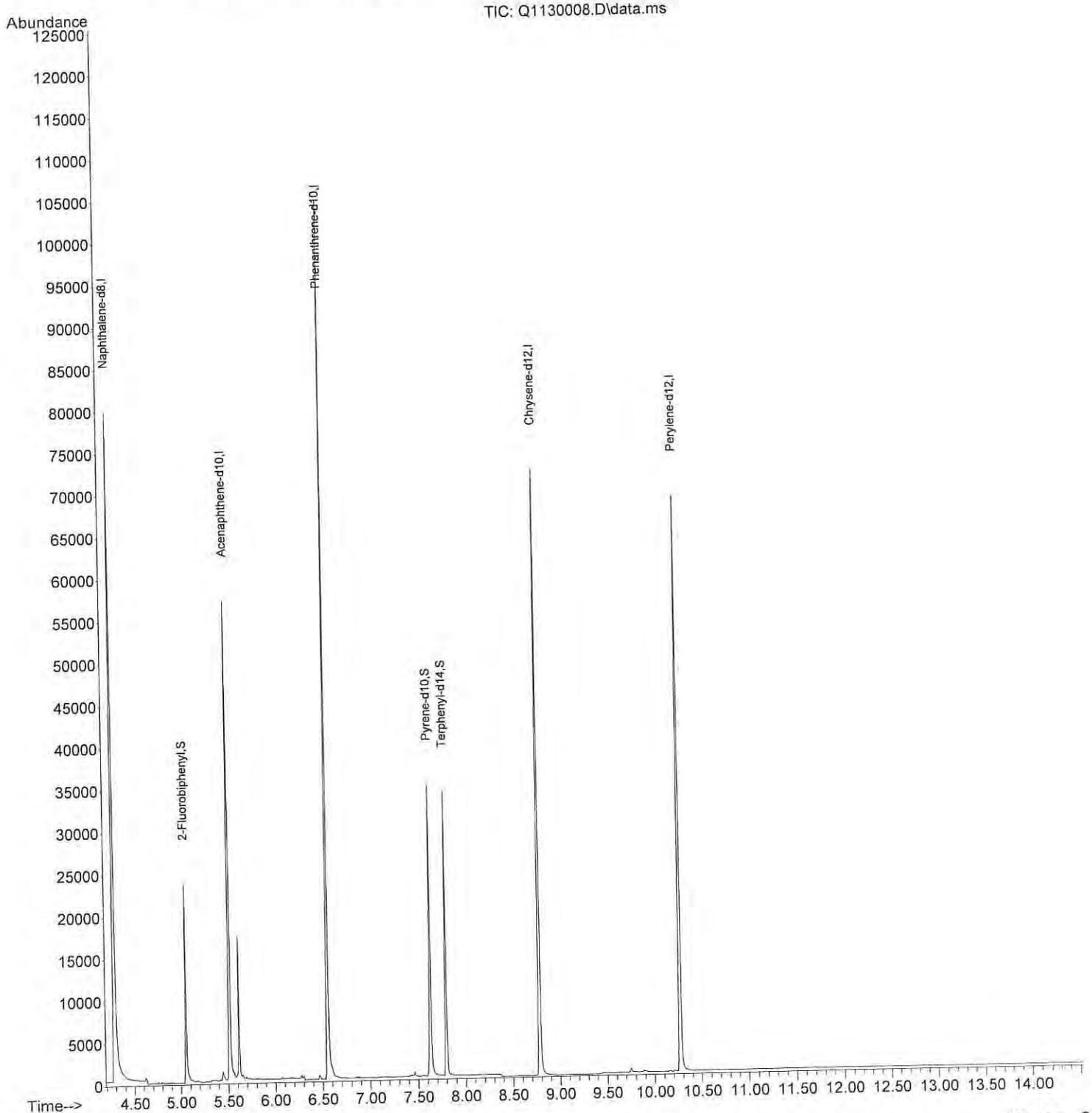
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.280	136	95413	2000.00	ppb	-0.09
5) Acenaphthene-d10	5.513	164	48741	2000.00	ppb	-0.09
9) Phenanthrene-d10	6.557	188	87082	2000.00	ppb	-0.07
17) Chrysene-d12	8.785	240	72162	2000.00	ppb	-0.09
21) Perylene-d12	10.271	264	73228	2000.00	ppb	-0.11
System Monitoring Compounds						
6) 2-Fluorobiphenyl	5.054	172	21054	683.93	ppb	-0.08
Spiked Amount 1000.000	Range 25 - 89		Recovery =	68.39%		
10) Pyrene-d10	7.633	212	29374	762.32	ppb	-0.07
Spiked Amount 1000.000	Range 40 - 110		Recovery =	76.23%		
18) Terphenyl-d14	7.796	244	24552	952.88	ppb	-0.07
Spiked Amount 1000.000	Range 39 - 92		Recovery =	95.29%#		
Target Compounds						
19) Benzo[a]anthracene	8.779	228	391	Below Cal		Qvalue 85

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

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Data Path : X:\semivols\Quaggy\DATA\Q231130\  
Data File : Q1130008.D  
Acq On : 30 Nov 2023 2:47 pm  
Operator : JP  
Sample : 11-272-02  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 30 15:01:47 2023  
Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Thu Nov 16 09:50:46 2023  
Response via : Initial Calibration



Data Path : X:\semivols\Quaggy\DATA\Q231130\  
 Data File : Q1130012.D  
 Acq On : 30 Nov 2023 4:17 pm  
 Operator : JP  
 Sample : 11-272-03  
 Misc :  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 30 16:32:13 2023  
 Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:50:46 2023  
 Response via : Initial Calibration

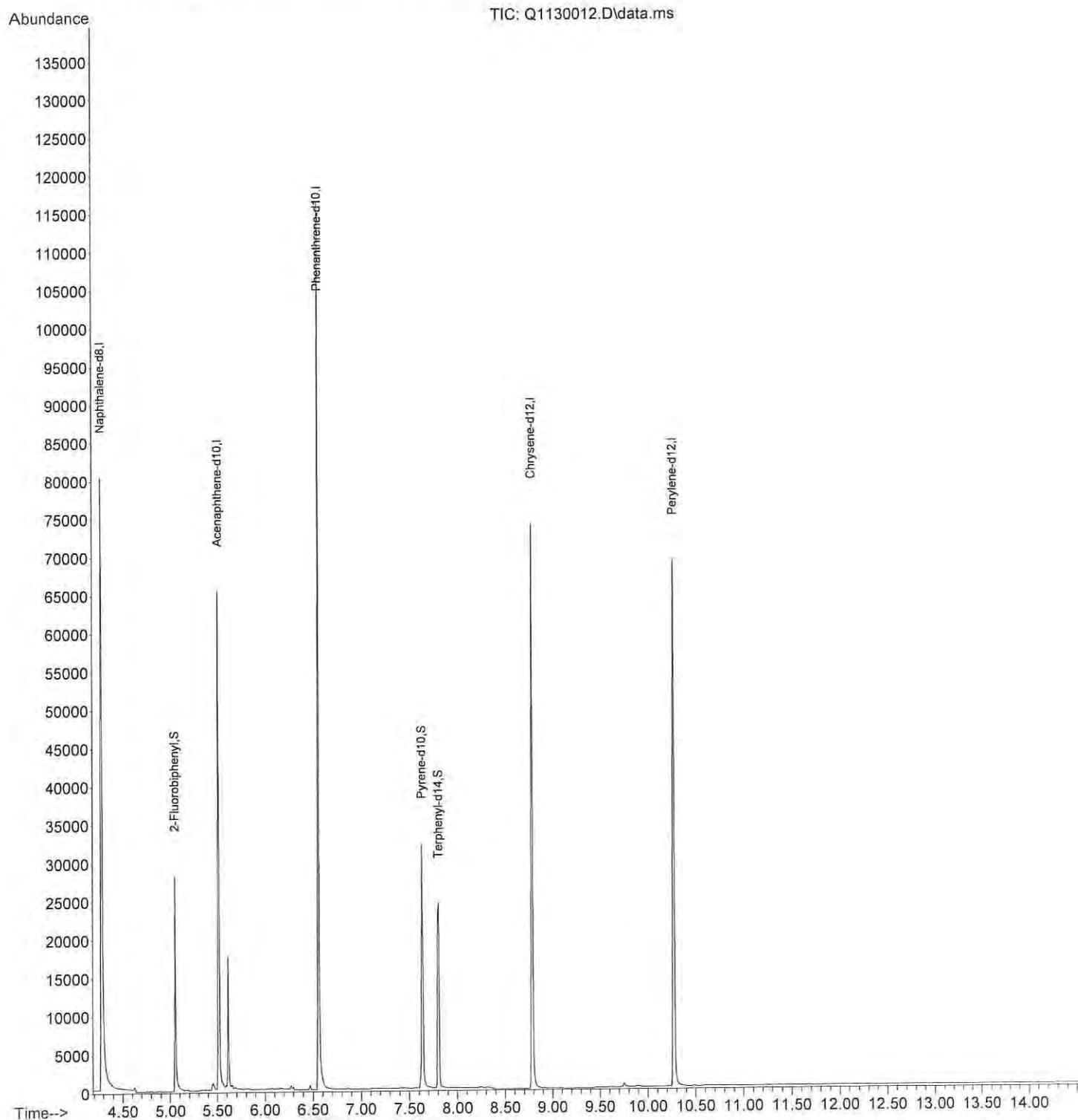
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Naphthalene-d8	4.280	136	95252	2000.00	ppb	-0.09
5) Acenaphthene-d10	5.513	164	50028	2000.00	ppb	-0.09
9) Phenanthrene-d10	6.557	188	90698	2000.00	ppb	-0.07
17) Chrysene-d12	8.785	240	73529	2000.00	ppb	-0.09
21) Perylene-d12	10.271	264	76478	2000.00	ppb	-0.11
System Monitoring Compounds						
6) 2-Fluorobiphenyl	5.054	172	23027	729.21	ppb	-0.08
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	72.92%	
10) Pyrene-d10	7.633	212	31032	773.24	ppb	-0.07
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	77.32%	
18) Terphenyl-d14	7.806	244	26887	1024.73	ppb	-0.06
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	102.47%#	
Target Compounds						
19) Benzo[a]anthracene	8.785	228	301	Below Cal		Qvalue 69
-----						

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

*JP*  
*12/1/23*

Data Path : X:\semivols\Quaggy\DATA\Q231130\  
Data File : Q1130012.D  
Acq On : 30 Nov 2023 4:17 pm  
Operator : JP  
Sample : 11-272-03  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 30 16:32:13 2023  
Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Thu Nov 16 09:50:46 2023  
Response via : Initial Calibration



Data Path : X:\semivolts\Quaggy\DATA\Q231130\  
 Data File : Q1130009.D  
 Acq On : 30 Nov 2023 3:09 pm  
 Operator : JP  
 Sample : 11-272-04  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 01 12:44:13 2023  
 Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:50:46 2023  
 Response via : Initial Calibration

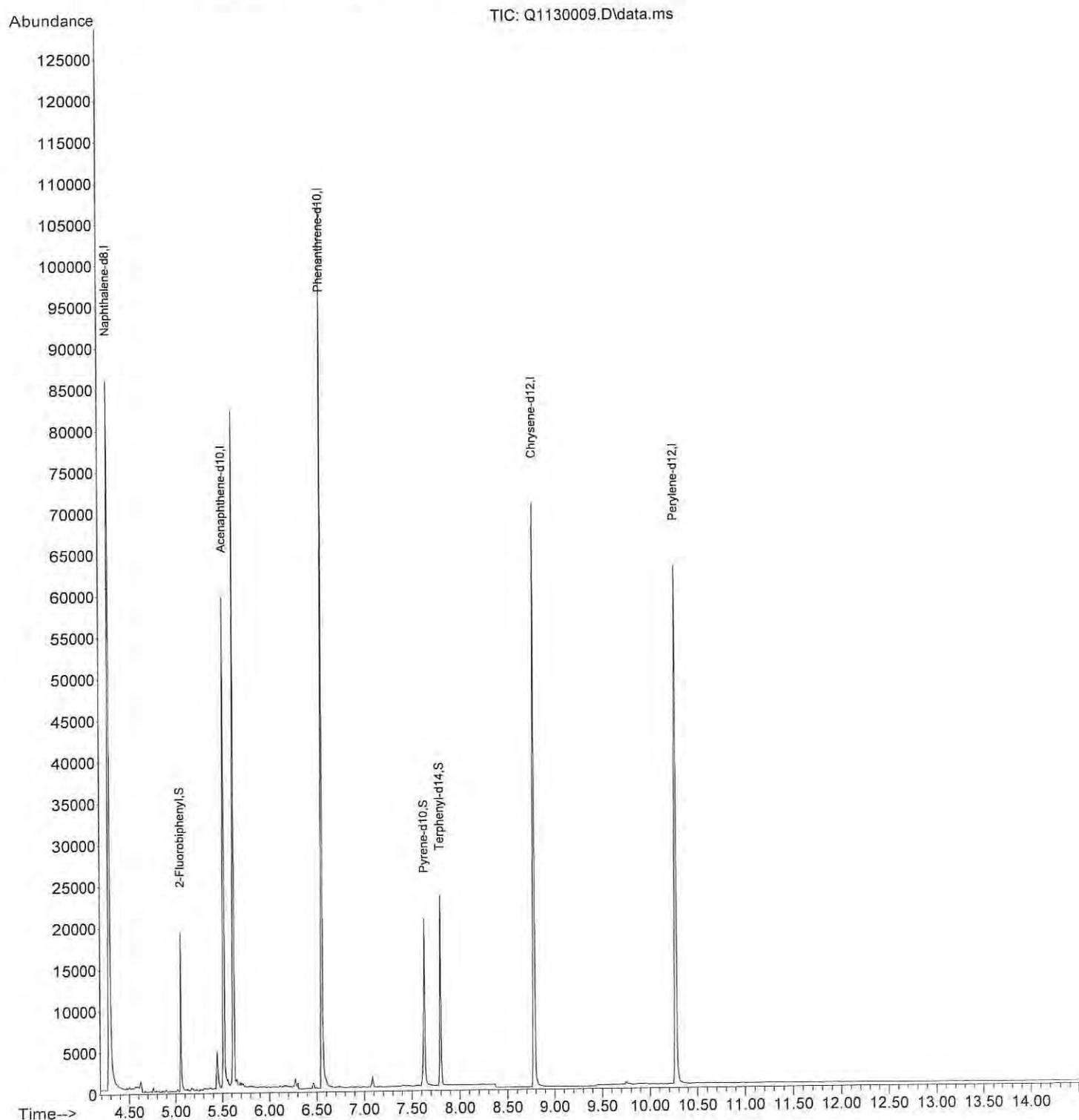
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Naphthalene-d8	4.280	136	96437	2000.00	ppb	-0.09
5) Acenaphthene-d10	5.513	164	46975	2000.00	ppb	-0.09
9) Phenanthrene-d10	6.557	188	83959	2000.00	ppb	-0.07
17) Chrysene-d12	8.785	240	69304	2000.00	ppb	-0.09
21) Perylene-d12	10.271	264	69815	2000.00	ppb	-0.11
System Monitoring Compounds						
6) 2-Fluorobiphenyl	5.054	172	13691	459.32	ppb	-0.08
Spiked Amount	1000.000	Range 25 - 89	Recovery =	45.93%		
10) Pyrene-d10	7.633	212	17321	466.24	ppb	-0.07
Spiked Amount	1000.000	Range 40 - 110	Recovery =	46.62%		
18) Terphenyl-d14	7.796	244	15989	643.41	ppb	-0.07
Spiked Amount	1000.000	Range 39 - 92	Recovery =	64.34%		
Target Compounds						
19) Benzo[a]anthracene	8.779	228	284	Below Cal	#	47
-----						

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

*JP*  
 12/1/23

Data Path : X:\semivols\Quaggy\DATA\Q231130\  
Data File : Q1130009.D  
Acq On : 30 Nov 2023 3:09 pm  
Operator : JP  
Sample : 11-272-04  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 01 12:44:13 2023  
Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Thu Nov 16 09:50:46 2023  
Response via : Initial Calibration



Data Path : X:\semivols\Quaggy\DATA\Q231130\  
 Data File : Q1130010.D  
 Acq On : 30 Nov 2023 3:32 pm  
 Operator : JP  
 Sample : 11-272-05  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 30 15:46:57 2023  
 Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:50:46 2023  
 Response via : Initial Calibration

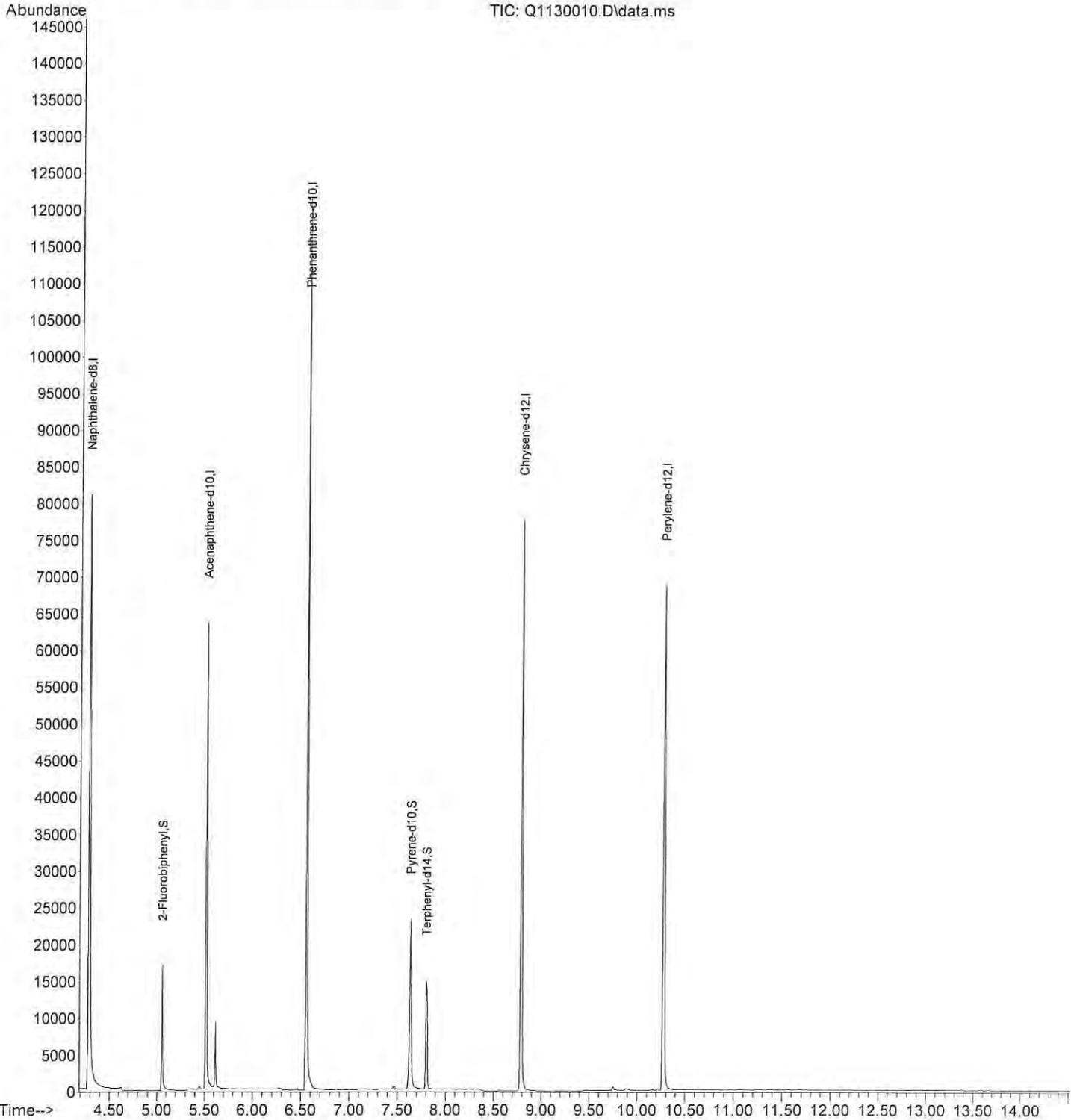
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Naphthalene-d8	4.280	136	96855	2000.00	ppb	-0.09
5) Acenaphthene-d10	5.513	164	50226	2000.00	ppb	-0.08
9) Phenanthrene-d10	6.557	188	92661	2000.00	ppb	-0.07
17) Chrysene-d12	8.785	240	73841	2000.00	ppb	-0.09
21) Perylene-d12	10.277	264	76674	2000.00	ppb	-0.10
System Monitoring Compounds						
6) 2-Fluorobiphenyl	5.054	172	14215	445.84	ppb	-0.08
Spiked Amount	1000.000	Range 25 - 89	Recovery =	44.58%		
10) Pyrene-d10	7.633	212	20105	490.36	ppb	-0.07
Spiked Amount	1000.000	Range 40 - 110	Recovery =	49.04%		
18) Terphenyl-d14	7.796	244	15835	597.46	ppb	-0.07
Spiked Amount	1000.000	Range 39 - 92	Recovery =	59.75%		
Target Compounds						
19) Benzo[a]anthracene	8.785	228	404	Below Cal		Qvalue 82
-----						

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

*JP*  
*12/1/23*

Data Path : X:\semivols\Quaggy\DATA\Q231130\  
Data File : Q1130010.D  
Acq On : 30 Nov 2023 3:32 pm  
Operator : JP  
Sample : 11-272-05  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 30 15:46:57 2023  
Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Thu Nov 16 09:50:46 2023  
Response via : Initial Calibration



Data Path : X:\semivols\Quaggy\DATA\Q231130\  
 Data File : Q1130007.D  
 Acq On : 30 Nov 2023 2:24 pm  
 Operator : JP  
 Sample : MB1130W1  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 30 14:39:14 2023  
 Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:50:46 2023  
 Response via : Initial Calibration

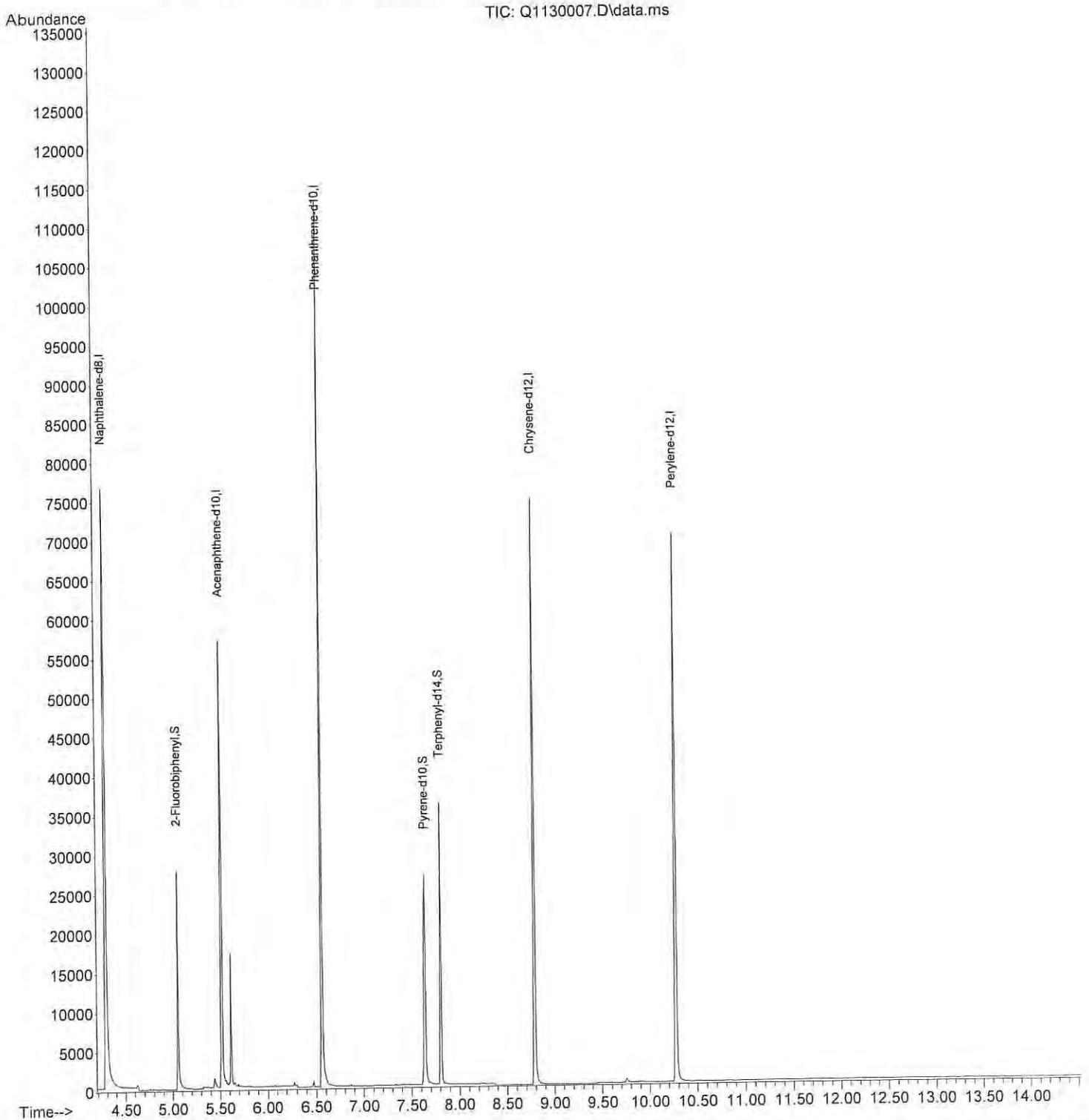
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Naphthalene-d8	4.280	136	95102	2000.00	ppb	-0.09
5) Acenaphthene-d10	5.514	164	48844	2000.00	ppb	-0.08
9) Phenanthrene-d10	6.557	188	88550	2000.00	ppb	-0.07
17) Chrysene-d12	8.791	240	72735	2000.00	ppb	-0.08
21) Perylene-d12	10.277	264	75322	2000.00	ppb	-0.10
System Monitoring Compounds						
6) 2-Fluorobiphenyl	5.054	172	22829	740.57	ppb	-0.08
Spiked Amount	1000.000	Range 25 - 89	Recovery =	74.06%		
10) Pyrene-d10	7.643	212	30618	781.43	ppb	-0.06
Spiked Amount	1000.000	Range 40 - 110	Recovery =	78.14%		
18) Terphenyl-d14	7.806	244	27308	1052.37	ppb	-0.06
Spiked Amount	1000.000	Range 39 - 92	Recovery =	105.24%#		
Target Compounds						
19) Benzo[a]anthracene	8.785	228	293	Below Cal		Qvalue 73
-----						

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

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 ✓  
 12/1/23

Data Path : X:\semivols\Quaggy\DATA\Q231130\  
Data File : Q1130007.D  
Acq On : 30 Nov 2023 2:24 pm  
Operator : JP  
Sample : MB1130W1  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 30 14:39:14 2023  
Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Thu Nov 16 09:50:46 2023  
Response via : Initial Calibration



Data Path : X:\semivols\Quaggy\DATA\Q231201\  
 Data File : Q1201003.D  
 Acq On : 1 Dec 2023 11:08 am  
 Operator : JP  
 Sample : SB1130W1 REX  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 11:24:14 2023  
 Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:50:46 2023  
 Response via : Initial Calibration

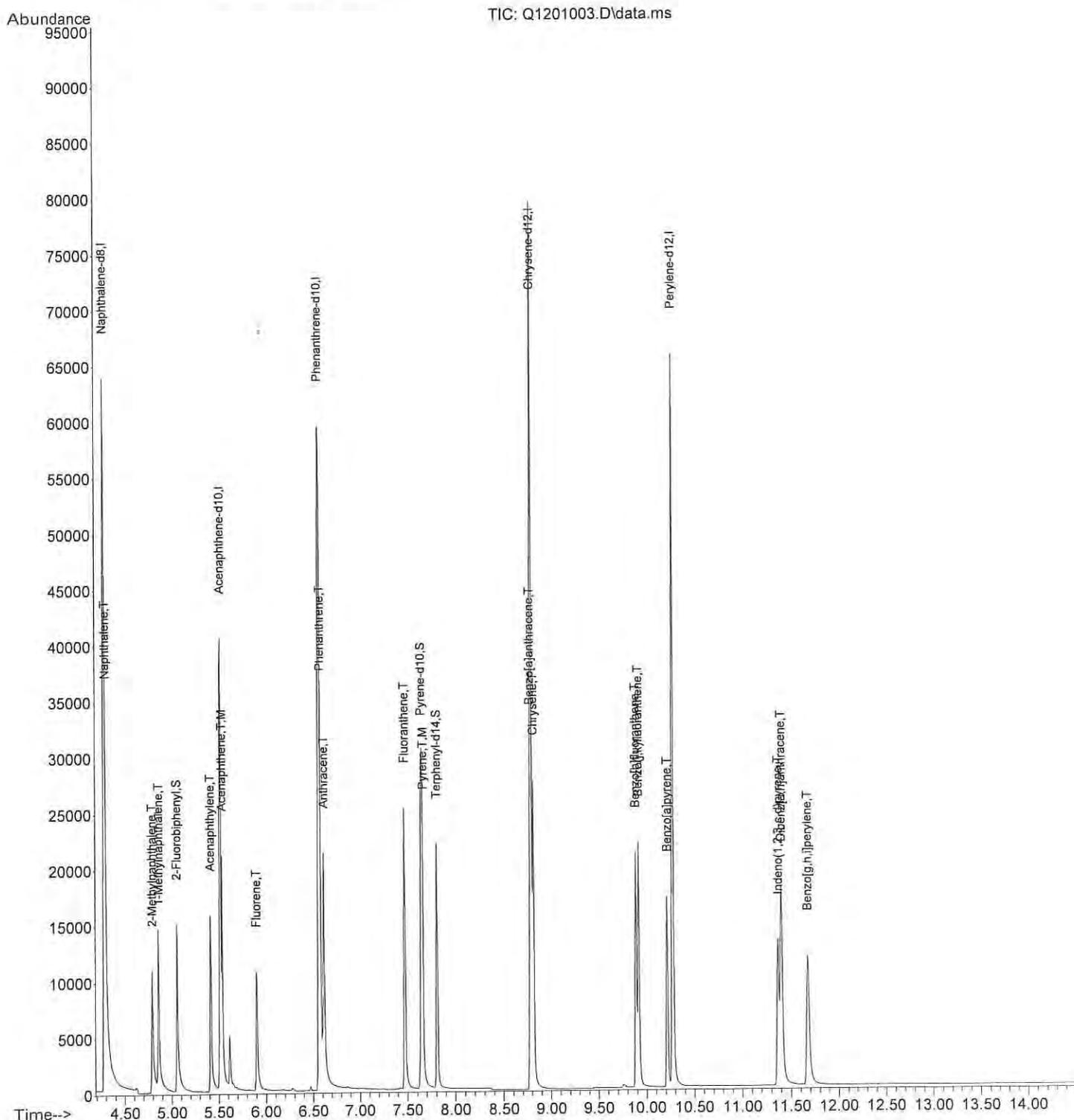
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	4.280	136	90266	2000.00	ppb	-0.09	
5) Acenaphthene-d10	5.519	164	47377	2000.00	ppb	-0.08	
9) Phenanthrene-d10	6.555	188	83433	2000.00	ppb	-0.07	
17) Chrysene-d12	8.789	240	72175	2000.00	ppb	-0.08	
21) Perylene-d12	10.275	264	75514	2000.00	ppb	-0.11	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	5.054	172	18975	633.66	ppb	-0.08	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	63.37%			
10) Pyrene-d10	7.641	212	25232	683.47	ppb	-0.06	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	68.35%			
18) Terphenyl-d14	7.804	244	20317	786.91	ppb	-0.06	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	78.69%			
Target Compounds							
							Qvalue
2) Naphthalene	4.295	128	14559	323.85	ppb		99
3) 2-Methylnaphthalene	4.793	142	7173	300.87	ppb		100
4) 1-Methylnaphthalene	4.862	142	10348	373.13	ppb		98
7) Acenaphthylene	5.411	152	16692	385.93	ppb		100
8) Acenaphthene	5.535	153	10141	375.57	ppb		100
11) Fluorene	5.897	166	11793	418.67	ppb		100
12) Pentachlorophenol	0.000		0	N.D.			
13) Phenanthrene	6.574	178	16611	392.46	ppb		97
14) Anthracene	6.612	178	19014	453.38	ppb		98
15) Fluoranthene	7.468	202	20666	407.22	ppb		95
16) Pyrene	7.660	202	21192	417.29	ppb		98
19) Benzo[a]anthracene	8.777	228	18830	436.69	ppb		97
20) Chrysene	8.812	228	19811	422.33	ppb		99
22) Benzo[b]fluoranthene	9.886	252	21135	405.56	ppb		93
23) Benzo[j,k]fluoranthene	9.915	252	21093	436.69	ppb		86
24) Benzo[a]pyrene	10.217	252	17921	413.34	ppb		89
25) Indeno[1,2,3-c,d]pyrene	11.370	276	17125m	380.86	ppb		
26) Dibenz[a,h]anthracene	11.401	278	18945	404.56	ppb		88
27) Benzo[g,h,i]perylene	11.671	276	18671	390.22	ppb		83

12/1/23

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

Data Path : X:\semivols\Quaggy\DATA\Q231201\  
 Data File : Q1201003.D  
 Acq On : 1 Dec 2023 11:08 am  
 Operator : JP  
 Sample : SB1130W1 REX  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 01 11:24:14 2023  
 Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:50:46 2023  
 Response via : Initial Calibration



Data Path : X:\semivols\Quaggy\DATA\Q231201\  
 Data File : Q1201004.D  
 Acq On : 1 Dec 2023 11:31 am  
 Operator : JP  
 Sample : SB1130W1 DUP REX  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:50:02 2023  
 Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:50:46 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
<b>Internal Standards</b>							
1) Naphthalene-d8	4.280	136	95049	2000.00	ppb	-0.09	
5) Acenaphthene-d10	5.513	164	50148	2000.00	ppb	-0.09	
9) Phenanthrene-d10	6.557	188	89694	2000.00	ppb	-0.07	
17) Chrysene-d12	8.785	240	74923	2000.00	ppb	-0.09	
21) Perylene-d12	10.271	264	78519	2000.00	ppb	-0.11	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	5.054	172	19589	617.86	ppb	-0.08	
Spiked Amount 1000.000	Range 25	- 89	Recovery =	61.79%			
10) Pyrene-d10	7.633	212	26201	660.17	ppb	-0.07	
Spiked Amount 1000.000	Range 40	- 110	Recovery =	66.02%			
18) Terphenyl-d14	7.796	244	20935	781.04	ppb	-0.07	
Spiked Amount 1000.000	Range 39	- 92	Recovery =	78.10%			
<b>Target Compounds</b>							
2) Naphthalene	4.295	128	15820	334.19	ppb	98	
3) 2-Methylnaphthalene	4.793	142	7786	310.15	ppb	99	
4) 1-Methylnaphthalene	4.857	142	11025	377.54	ppb	97	
7) Acenaphthylene	5.413	152	17974	392.61	ppb	100	
8) Acenaphthene	5.537	153	10405	364.06	ppb	100	
11) Fluorene	5.899	166	12813	423.13	ppb	100	
12) Pentachlorophenol	0.000		0	N.D.			
13) Phenanthrene	6.566	178	16887	371.13	ppb	100	
14) Anthracene	6.614	178	18904	419.29	ppb	99	
15) Fluoranthene	7.460	202	21597	395.86	ppb	96	
16) Pyrene	7.642	202	21991	402.79	ppb	97	
19) Benzo[a]anthracene	8.773	228	19067	425.73	ppb	100	
20) Chrysene	8.808	228	21051	432.30	ppb	100	
22) Benzo[b]fluoranthene	9.882	252	21959	405.25	ppb	92	
23) Benzo(j,k)fluoranthene	9.911	252	21803	434.11	ppb	86	
24) Benzo[a]pyrene	10.213	252	18753	415.98	ppb	89	
25) Indeno(1,2,3-c,d)pyrene	11.365	276	17350m	371.10	ppb		
26) Dibenz[a,h]anthracene	11.403	278	19778	406.18	ppb	88	
27) Benzo[g,h,i]perylene	11.673	276	19310	388.13	ppb	83	

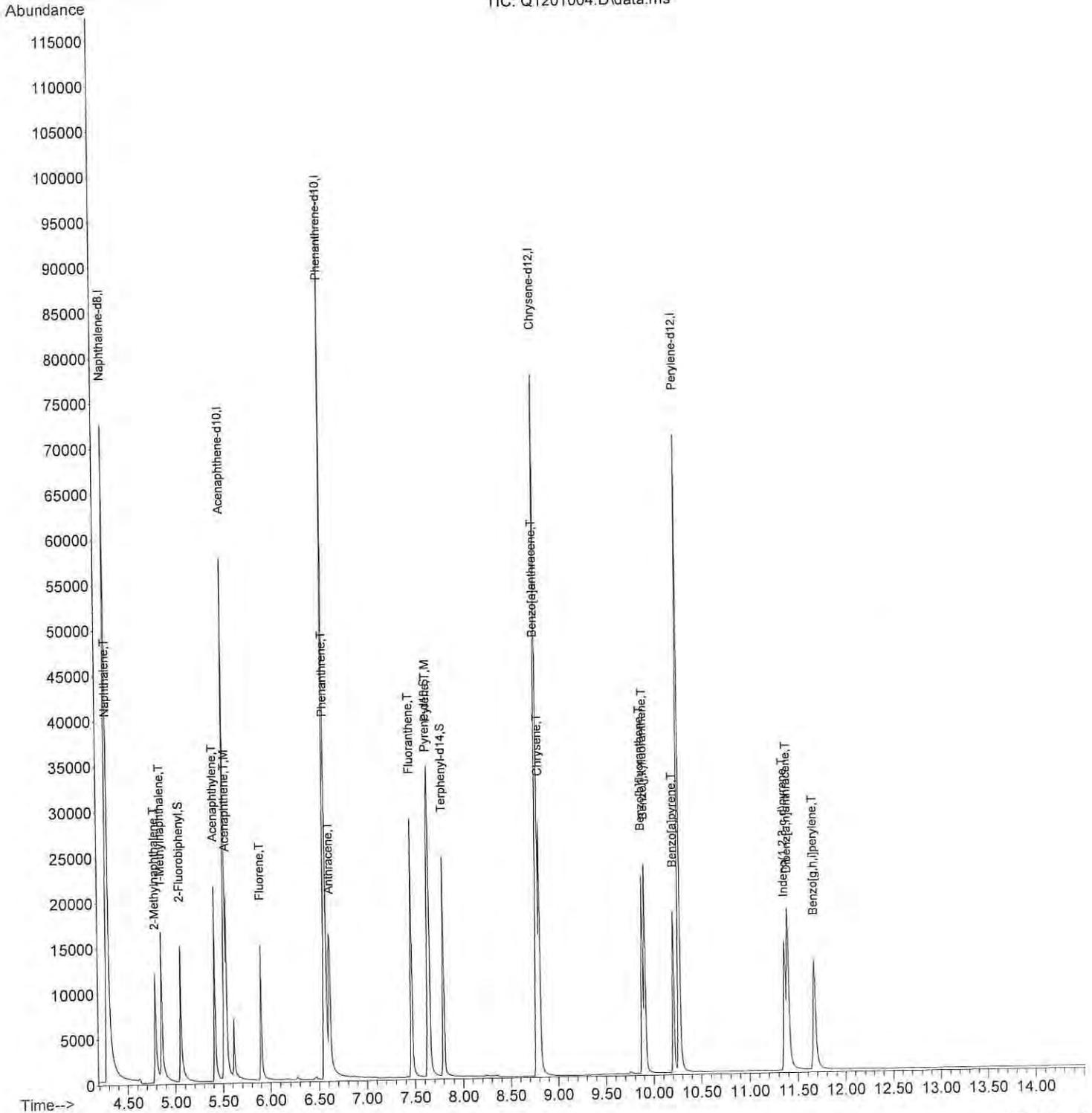
*UP*  
*12/1/23*

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

Data Path : X:\semivols\Quaggy\DATA\Q231201\  
 Data File : Q1201004.D  
 Acq On : 1 Dec 2023 11:31 am  
 Operator : JP  
 Sample : SB1130W1 DUP REX  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 01 11:50:02 2023  
 Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:50:46 2023  
 Response via : Initial Calibration

TIC: Q1201004.D\data.ms



Response Factor Report quaggy

Method Path : C:\msdchem\1\methods\  
 Method File : Q231115P.M  
 Title : PAH'S BY SIMS  
 Last Update : Mon Dec 04 11:24:45 2023  
 Response Via : Initial Calibration

Calibration Files  
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 5000=Q1115013.D

Compound	10	20	50	100	200	500	1000	5000	Avg	%RSD
1) I Naphthalene-d8										
2) T Naphthalene	1.112	1.082	0.997	0.992	0.962	0.969	0.945	0.911	0.996	6.84
3) T 2-Methylnaphth...	0.504	0.550	0.513	0.519	0.516	0.540	0.539	0.544	0.528	3.21
4) T 1-Methylnaphth...	0.654	0.635	0.631	0.636	0.603	0.611	0.601	0.544	0.614	5.52
5) I Acenaphthene-d10										
6) S 2-Fluorobiphenyl	1.755	2.165	1.294	1.278	1.267	1.294	1.258	1.252	1.446	23.27
7) T Acenaphthylene	1.980	1.876	1.805	1.823	1.768	1.826	1.790	1.738	1.826	4.10
8) T,M Acenaphthene	1.258	1.160	1.131	1.135	1.114	1.132	1.099	1.090	1.140	4.61
9) I Phenanthrene-d10										
10) S Pyrene-d10	1.073	0.886	0.904	0.882	0.840	0.870	0.866	0.758	0.885	9.96
11) T Fluorene	0.705	0.700	0.687	0.689	0.640	0.661	0.667	0.653	0.675	3.48
12) T Pentachlorophenol	1.142	1.072	1.043	1.040	0.943	0.979	0.976	0.921	1.015	-1.00
13) T Phenanthrene	1.137	0.985	1.026	1.030	0.987	1.007	0.987	0.883	1.005	6.97
14) T Anthracene	1.396	1.232	1.242	1.243	1.161	1.184	1.203	1.070	1.217	7.58
15) T Fluoranthene	1.448	1.245	1.229	1.230	1.163	1.193	1.206	1.025	1.217	9.57
16) T,M Pyrene										
17) I Chrysene-d12										
18) S Terphenyl-d14	1.021	0.765	0.747	0.750	0.755	0.747	0.699	0.783		13.66
19) T Benzo[a]anthra...	2.235	1.649	1.382	1.315	1.239	1.242	1.223	1.157	1.430	25.07
20) T Chrysene	1.598	1.310	1.287	1.266	1.257	1.273	1.237	1.170	1.300	9.80
21) I Perylene-d12										
22) T Benzo[b]fluora...	1.699	1.367	1.364	1.389	1.244	1.269	1.352	1.357	1.380	10.04
23) T Benzo[j,k]fluo...	1.538	1.308	1.217	1.189	1.306	1.337	1.198	1.142	1.279	9.77
24) T Benzo[a]pyrene	1.390	1.136	1.107	1.116	1.105	1.130	1.116	1.087	1.148	8.61
25) T Indeno(1,2,3-c...	1.347	1.172	1.147	1.181	1.169	1.150	1.199	1.161	1.191	5.47
26) T Dibenz[a,h]ant...	1.502	1.222	1.202	1.206	1.201	1.231	1.207	1.151	1.240	8.74
27) T Benzo[g,h,i]pe...	1.569	1.266	1.229	1.229	1.219	1.253	1.226	1.146	1.267	10.02

(#) = Out of Range

## Compound List Report quaggy

Method Path : C:\msdchem\1\methods\  
 Method File : Q231115P.M  
 Title : PAH'S BY SIMS  
 Last Update : Mon Dec 04 11:24:45 2023  
 Response Via : Initial Calibration

Total Cpnds : 27

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Naphthalene-d8	136	4.203	1.000	A	0	A	R
2	T	Naphthalene	128	4.218	1.004	A	1	A	R
3	T	2-Methylnaphthalene	142	4.714	1.122	A	1	A	R
4	T	1-Methylnaphthalene	142	4.778	1.137	A	1	A	R
5	I	Acenaphthene-d10	164	5.435	1.000	A	0	A	R
6	S	2-Fluorobiphenyl	172	4.976	0.916	L	0	A	R
7	T	Acenaphthylene	152	5.334	0.982	A	0	A	R
8	T	Acenaphthene	153	5.458	1.004	A	0	A	R
9	I	Phenanthrene-d10	188	6.460	1.000	A	0	A	R
10	S	Pyrene-d10	212	7.517	1.164	A	0	A	R
11	T	Fluorene	166	5.820	0.901	A	0	A	R
12	T	Pentachlorophenol	266	5.268	0.815	L	1	A	B
13	T	Phenanthrene	178	6.480	1.003	A	1	A	R
14	T	Anthracene	178	6.508	1.007	A	1	A	R
15	T	Fluoranthene	202	7.344	1.137	A	1	A	R
16	T	Pyrene	202	7.527	1.165	A	1	A	R
17	I	Chrysene-d12	240	8.652	1.000	A	0	A	R
18	S	Terphenyl-d14	244	7.681	0.888	L	0	A	R
19	T	Benzo[a]anthracene	228	8.641	0.999	L	1	A	R
20	T	Chrysene	228	8.675	1.003	A	1	A	R
21	I	Perylene-d12	264	10.127	1.000	A	0	A	R
22	T	Benzo[b]fluoranthene	252	9.738	0.962	A	1	A	R
23	T	Benzo[j,k]fluoranthene	252	9.767	0.964	A	1	A	R
24	T	Benzo[a]pyrene	252	10.063	0.994	A	1	A	R
25	T	Indeno(1,2,3-c,d)pyrene	276	11.178	1.104	A	1	A	R
26	T	Dibenz[a,h]anthracene	278	11.216	1.108	A	1	A	R
27	T	Benzo[g,h,i]perylene	276	11.471	1.133	A	1	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin

#Qual = number of qualifiers

A/H = Area or Height

ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

Q231115P.M Thu Aug 22 14:18:29 2024

Data Path : X:\semivols\Quaggy\DATA\Q231115\  
 Data File : Q1115017.D  
 Acq On : 15 Nov 2023 3:04 pm  
 Operator : JP  
 Sample : 10 PPB ICAL  
 Misc : SV6-131-18  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 16 10:56:47 2023  
 Quant Method : C:\msdchem\1\methods\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:56:06 2023  
 Response via : Initial Calibration

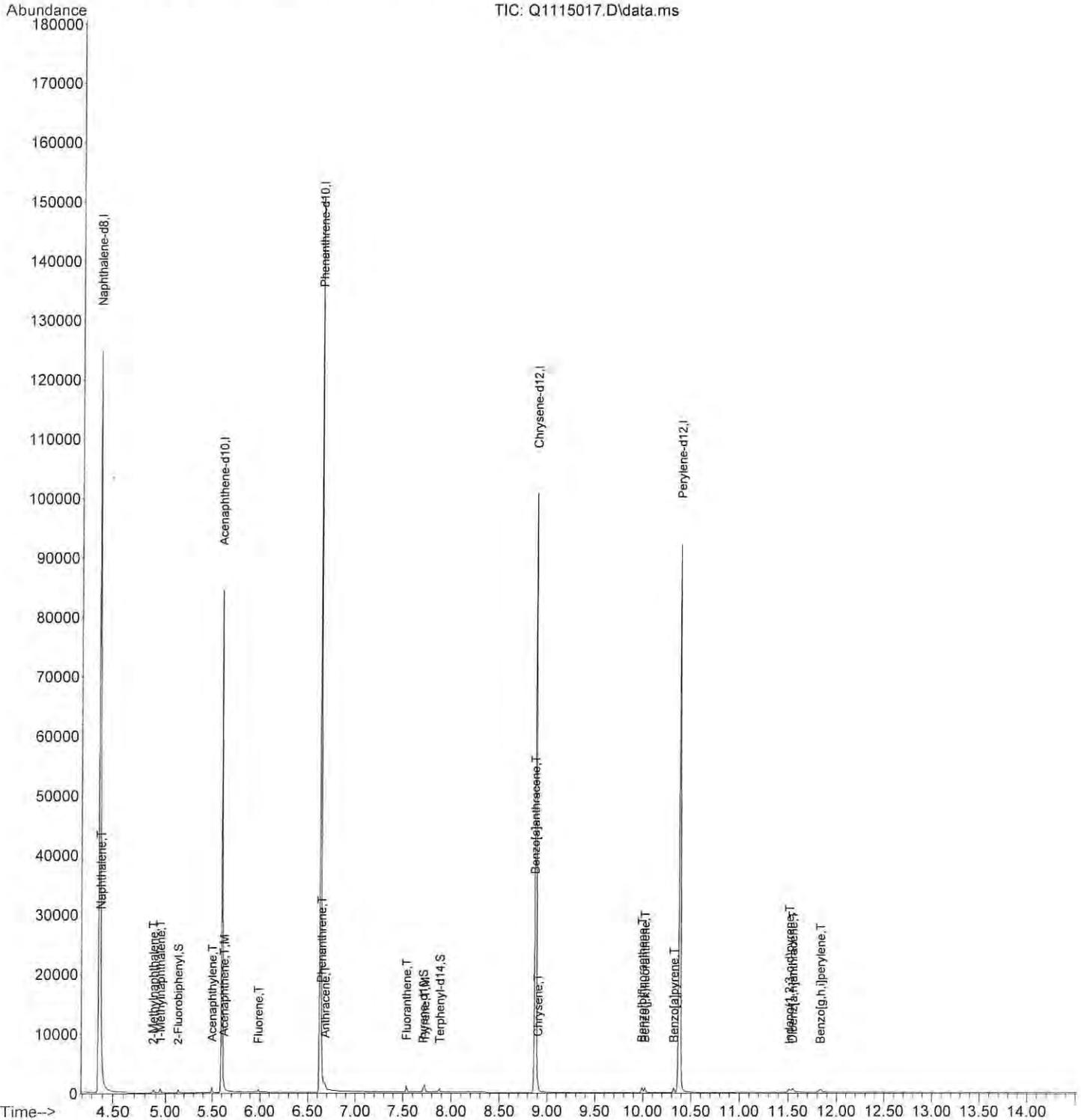
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
<b>Internal Standards</b>						
1) Naphthalene-d8	4.364	136	124516	2000.00	ppb	0.00
5) Acenaphthene-d10	5.596	164	63119	2000.00	ppb	0.00
9) Phenanthrene-d10	6.632	188	115751	2000.00	ppb	0.00
17) Chrysene-d12	8.881	240	93870	2000.00	ppb	0.00
21) Perylene-d12	10.385	264	101587	2000.00	ppb	0.00
<b>System Monitoring Compounds</b>						
6) 2-Fluorobiphenyl	5.135	172	464m	5.88	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	0.59%#		
10) Pyrene-d10	7.708	212	621	12.12	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	1.21%#		
18) Terphenyl-d14	7.881	244	587	9.20	ppb	0.02
Spiked Amount 1000.000	Range 39 - 92		Recovery =	0.92%#		
<b>Target Compounds</b>						
						Qvalue
2) Naphthalene	4.380	128	692	11.16	ppb	92
3) 2-Methylnaphthalene	4.874	142	314	9.55	ppb	100
4) 1-Methylnaphthalene	4.943	142	375	9.80	ppb	94
7) Acenaphthylene	5.496	152	625	10.85	ppb	100
8) Acenaphthene	5.619	153	397	11.04	ppb	100
11) Fluorene	5.981	166	408	10.44	ppb	100
12) Pentachlorophenol	0.000		0	N.D.		
13) Phenanthrene	6.641	178	661	11.26	ppb	97
14) Anthracene	6.680	178	658	11.31	ppb	98
15) Fluoranthene	7.535	202	808	11.48	ppb	87
16) Pyrene	7.727	202	838	11.89	ppb	99
19) Benzo[a]anthracene	8.870	228	1049	9.63	ppb	90
20) Chrysene	8.904	228	750	12.29	ppb	99
22) Benzo[b]fluoranthene	9.990	252	863	12.31	ppb	88
23) Benzo[j,k]fluoranthene	10.019	252	781	12.02	ppb	83
24) Benzo[a]pyrene	10.321	252	706	12.10	ppb	84
25) Indeno(1,2,3-c,d)pyrene	11.509	276	673m	11.13	ppb	
26) Dibenz[a,h]anthracene	11.548	278	763	12.11	ppb	83
27) Benzo[g,h,i]perylene	11.833	276	797	12.38	ppb	79

JP  
8/22/24

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

Data Path : X:\semivols\Quaggy\DATA\Q231115\  
 Data File : Q1115017.D  
 Acq On : 15 Nov 2023 3:04 pm  
 Operator : JP  
 Sample : 10 PPB ICAL  
 Misc : SV6-131-18  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 16 10:56:47 2023  
 Quant Method : C:\msdchem\1\methods\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:56:06 2023  
 Response via : Initial Calibration



Data Path : X:\semivols\Quaggy\DATA\Q231115\  
 Data File : Q1115007.D  
 Acq On : 15 Nov 2023 10:53 am  
 Operator : JP  
 Sample : 20 PPB ICAL  
 Misc : SV6-131-17  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 16 10:58:32 2023  
 Quant Method : C:\msdchem\1\methods\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:56:06 2023  
 Response via : Initial Calibration

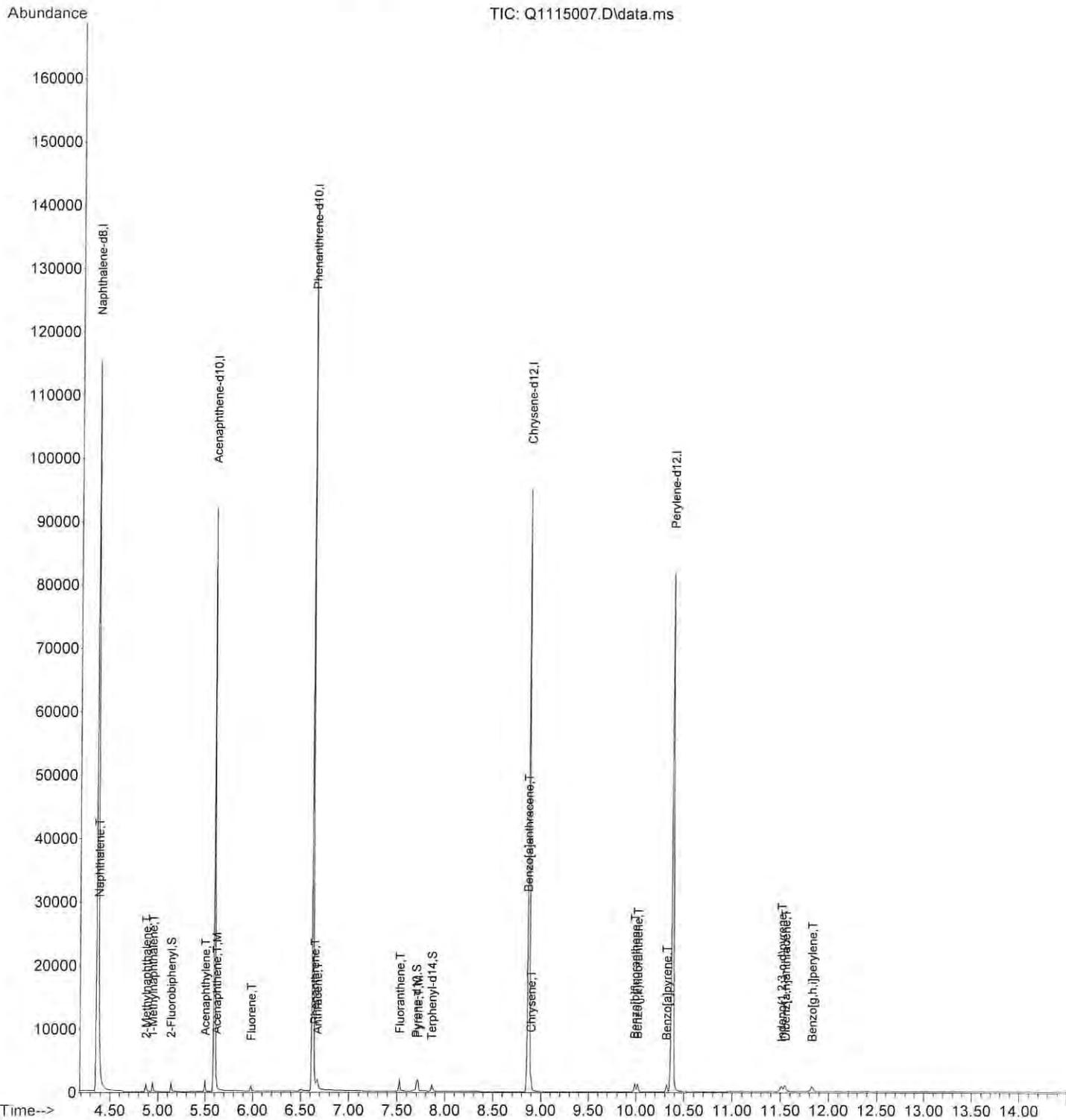
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.364	136	121015	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.598	164	63688	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.624	188	111121	2000.00	ppb	0.00	
17) Chrysene-d12	8.872	240	91146	2000.00	ppb	0.00	
21) Perylene-d12	10.381	264	96923	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	5.135	172	1230m	25.00	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery =			2.50%#	
10) Pyrene-d10	7.700	212	985	20.03	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery =			2.00%#	
18) Terphenyl-d14	7.863	244	931	20.39	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery =			2.04%#	
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	4.380	128	1309	21.72	ppb		99
3) 2-Methylnaphthalene	4.874	142	666	20.84	ppb		99
4) 1-Methylnaphthalene	4.944	142	771	20.74	ppb		100
7) Acenaphthylene	5.498	152	1195	20.55	ppb		100
8) Acenaphthene	5.621	153	739	20.36	ppb		100
11) Fluorene	5.983	166	778	20.74	ppb		100
12) Pentachlorophenol	0.000		0	N.D.			
13) Phenanthrene	6.643	178	1191	21.13	ppb		96
14) Anthracene	6.672	178	1095	19.60	ppb		98
15) Fluoranthene	7.527	202	1369	20.25	ppb		86
16) Pyrene	7.719	202	1383	20.45	ppb		98
19) Benzo[a]anthracene	8.860	228	1503	18.72	ppb		94
20) Chrysene	8.895	228	1194	20.16	ppb		100
22) Benzo[b]fluoranthene	9.986	252	1325	19.81	ppb		86
23) Benzo[j,k]fluoranthene	10.015	252	1268	20.45	ppb		86
24) Benzo[a]pyrene	10.317	252	1101	19.78	ppb		85
25) Indeno[1,2,3-c,d]pyrene	11.511	276	1153m	19.98	ppb		
26) Dibenz[a,h]anthracene	11.550	278	1184	19.70	ppb		81
27) Benzo[g,h,i]perylene	11.827	276	1227	19.98	ppb		78

*VP*  
*8/20/24*

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

Data Path : X:\semivols\Quaggy\DATA\Q231115\  
 Data File : Q1115007.D  
 Acq On : 15 Nov 2023 10:53 am  
 Operator : JP  
 Sample : 20 PPB ICAL  
 Misc : SV6-131-17  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 16 10:58:32 2023  
 Quant Method : C:\msdchem\1\methods\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:56:06 2023  
 Response via : Initial Calibration



Data Path : X:\semivols\Quaggy\DATA\Q231115\  
 Data File : Q1115008.D  
 Acq On : 15 Nov 2023 11:16 am  
 Operator : JP  
 Sample : 50 PPB ICAL  
 Misc : SV6-131-16  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 16 10:59:34 2023  
 Quant Method : C:\msdchem\1\methods\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:56:06 2023  
 Response via : Initial Calibration

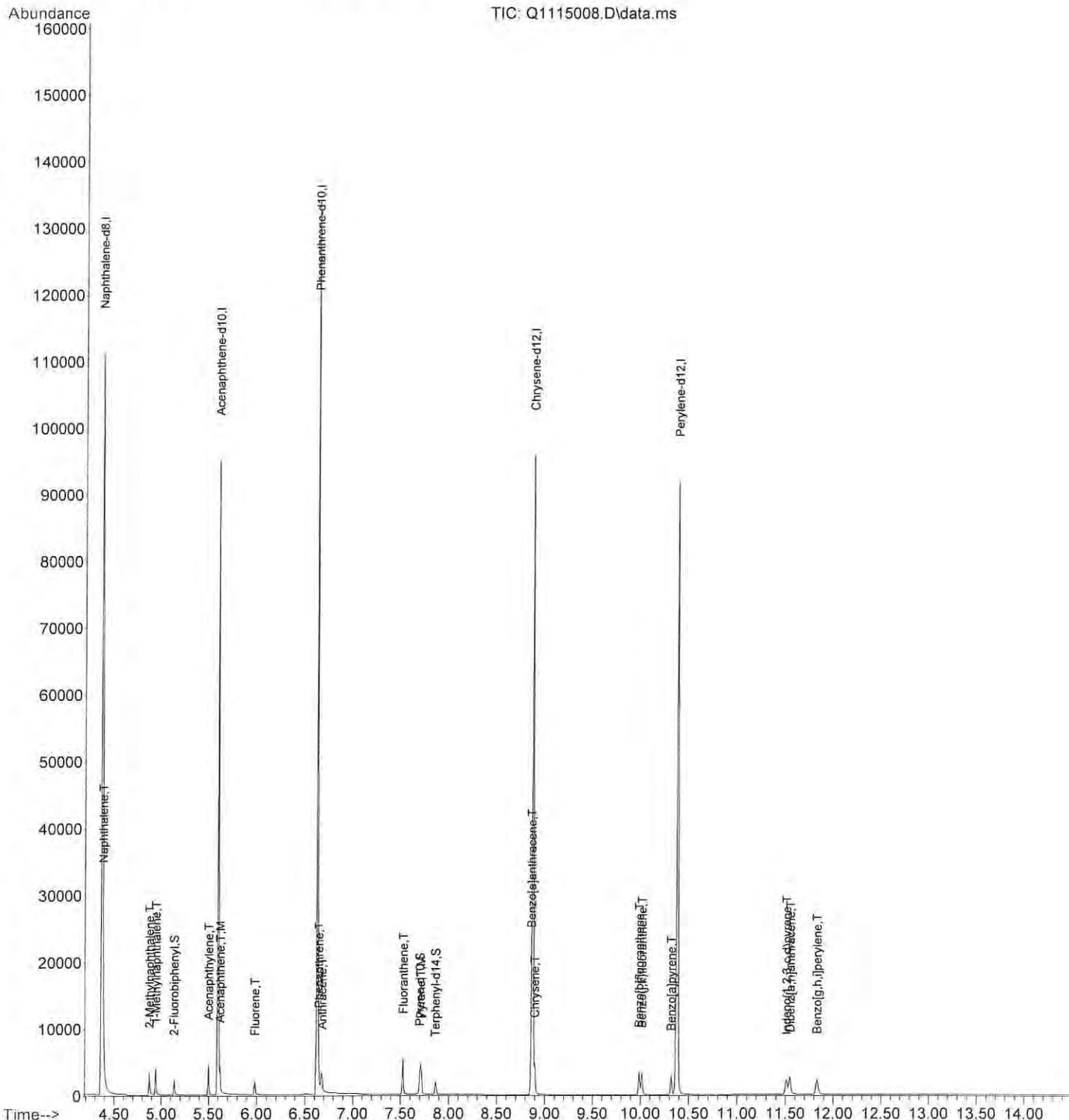
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.364	136	122068	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.598	164	63782	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.624	188	107598	2000.00	ppb	0.00	
17) Chrysene-d12	8.872	240	91025	2000.00	ppb	0.00	
21) Perylene-d12	10.381	264	97816	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	5.135	172	2082m	46.31	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	4.63%#			
10) Pyrene-d10	7.700	212	2433	51.10	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	5.11%#			
18) Terphenyl-d14	7.863	244	1740	45.54	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	4.55%#			
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	4.380	128	3043	50.05	ppb		99
3) 2-Methylnaphthalene	4.874	142	1564	48.51	ppb		98
4) 1-Methylnaphthalene	4.944	142	1877	50.05	ppb		97
7) Acenaphthylene	5.498	152	2878	49.43	ppb		100
8) Acenaphthene	5.621	153	1803	49.60	ppb		100
11) Fluorene	5.983	166	1848	50.87	ppb		100
12) Pentachlorophenol	0.000		0	N.D.			
13) Phenanthrene	6.643	178	2806	51.41	ppb		95
14) Anthracene	6.682	178	2761	51.05	ppb		99
15) Fluoranthene	7.527	202	3342	51.06	ppb		91
16) Pyrene	7.710	202	3307	50.49	ppb		100
19) Benzo[a]anthracene	8.860	228	3146	49.62	ppb		97
20) Chrysene	8.895	228	2929	49.51	ppb		100
22) Benzo[b]fluoranthene	9.986	252	3336	49.42	ppb		89
23) Benzo(j,k)fluoranthene	10.015	252	2975	47.55	ppb		83
24) Benzo[a]pyrene	10.317	252	2706	48.18	ppb		85
25) Indeno(1,2,3-c,d)pyrene	11.511	276	2798m	48.04	ppb		
26) Dibenz[a,h]anthracene	11.550	278	2939	48.45	ppb		82
27) Benzo[g,h,i]perylene	11.827	276	3006	48.50	ppb		77

VP  
 8/22/24

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

Data Path : X:\semivols\Quaggy\DATA\Q231115\  
Data File : Q1115008.D  
Acq On : 15 Nov 2023 11:16 am  
Operator : JP  
Sample : 50 PPB ICAL  
Misc : SV6-131-16  
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 16 10:59:34 2023  
Quant Method : C:\msdchem\1\methods\Q231115P.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Thu Nov 16 09:56:06 2023  
Response via : Initial Calibration



Data Path : X:\semivols\Quaggy\DATA\Q231115\  
 Data File : Q1115009.D  
 Acq On : 15 Nov 2023 11:38 am  
 Operator : JP  
 Sample : 100 PPB ICAL  
 Misc : SV6-131-15  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 16 11:00:41 2023  
 Quant Method : C:\msdchem\1\methods\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:56:06 2023  
 Response via : Initial Calibration

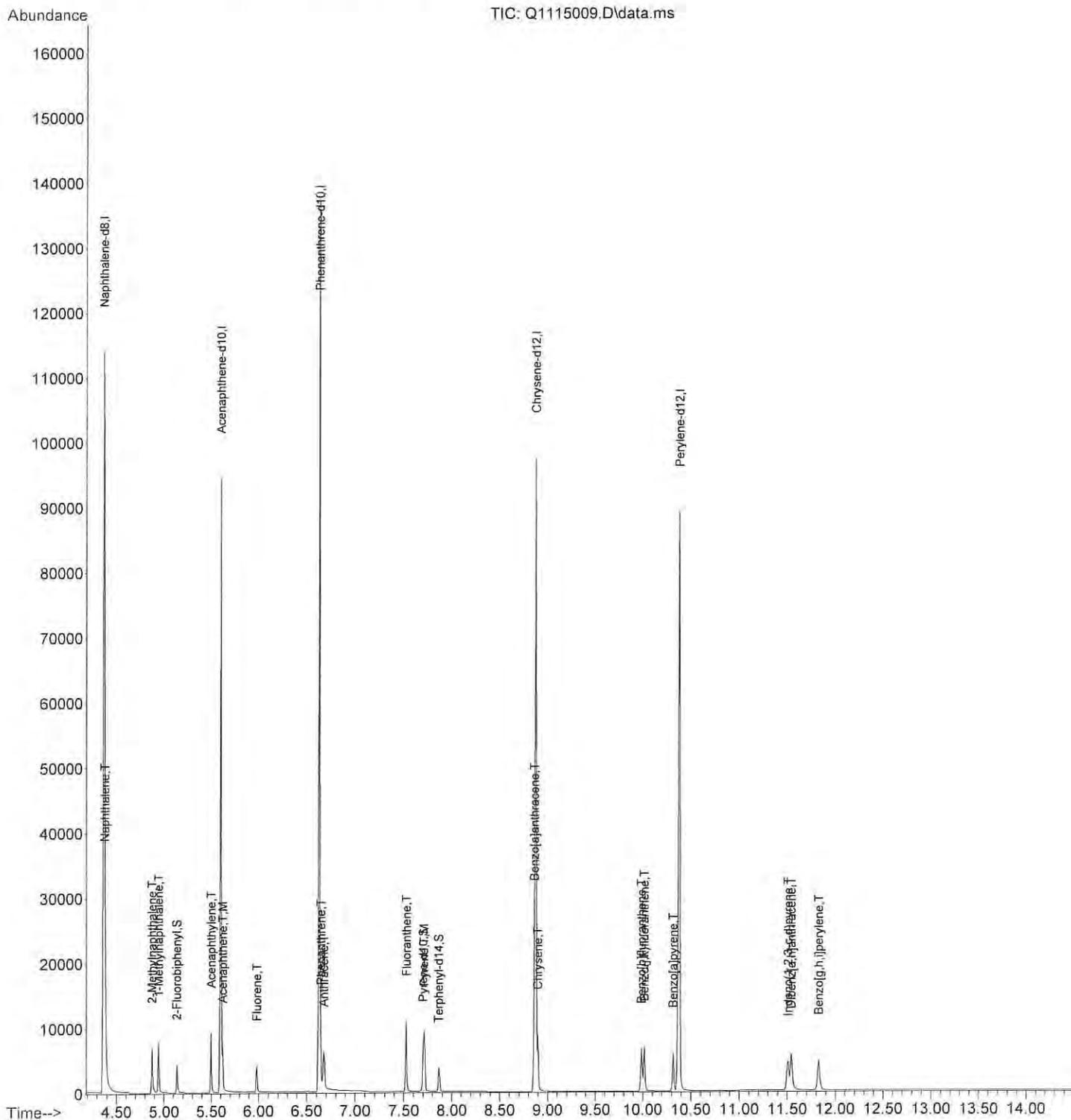
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.364	136	123003	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.598	164	63802	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.624	188	108746	2000.00	ppb	0.00	
17) Chrysene-d12	8.872	240	92818	2000.00	ppb	0.00	
21) Perylene-d12	10.381	264	99300	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	5.135	172	4115m	97.24	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	9.72%	#		
10) Pyrene-d10	7.700	212	4793	99.61	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	9.96%	#		
18) Terphenyl-d14	7.863	244	3467	97.07	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	9.71%	#		
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	4.380	128	7209	117.68	ppb		95
3) 2-Methylnaphthalene	4.874	142	3195	98.35	ppb		98
4) 1-Methylnaphthalene	4.944	142	3761	99.52	ppb		96
7) Acenaphthylene	5.498	152	5815	99.83	ppb		100
8) Acenaphthene	5.621	153	3621	99.58	ppb		100
11) Fluorene	5.983	166	3748	102.09	ppb		100
12) Pentachlorophenol	0.000		0	N.D.			
13) Phenanthrene	6.643	178	5655	102.51	ppb		95
14) Anthracene	6.672	178	5598	102.41	ppb		99
15) Fluoranthene	7.527	202	6757	102.15	ppb		90
16) Pyrene	7.710	202	6686	101.01	ppb		98
19) Benzo[a]anthracene	8.860	228	6103	102.96	ppb		99
20) Chrysene	8.895	228	5877	97.42	ppb		100
22) Benzo[b]fluoranthene	9.986	252	6898	100.66	ppb		90
23) Benzo[j,k]fluoranthene	10.015	252	5905	92.97	ppb		83
24) Benzo[a]pyrene	10.317	252	5541	97.19	ppb		85
25) Indeno(1,2,3-c,d)pyrene	11.511	276	6006m	101.58	ppb		
26) Dibenz[a,h]anthracene	11.542	278	5987	97.22	ppb		83
27) Benzo[g,h,i]perylene	11.827	276	6104	97.01	ppb		77

JP  
8/22/24

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

Data Path : X:\semivols\Quaggy\DATA\Q231115\  
Data File : Q1115009.D  
Acq On : 15 Nov 2023 11:38 am  
Operator : JP  
Sample : 100 PPB ICAL  
Misc : SV6-131-15  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 16 11:00:41 2023  
Quant Method : C:\msdchem\1\methods\Q231115P.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Thu Nov 16 09:56:06 2023  
Response via : Initial Calibration



Data Path : X:\semivols\Quaggy\DATA\Q231115\  
 Data File : Q1115010.D  
 Acq On : 15 Nov 2023 12:01 pm  
 Operator : JP  
 Sample : 200 PPB ICAL  
 Misc : SV6-131-14  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 16 11:01:07 2023  
 Quant Method : C:\msdchem\1\methods\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:56:06 2023  
 Response via : Initial Calibration

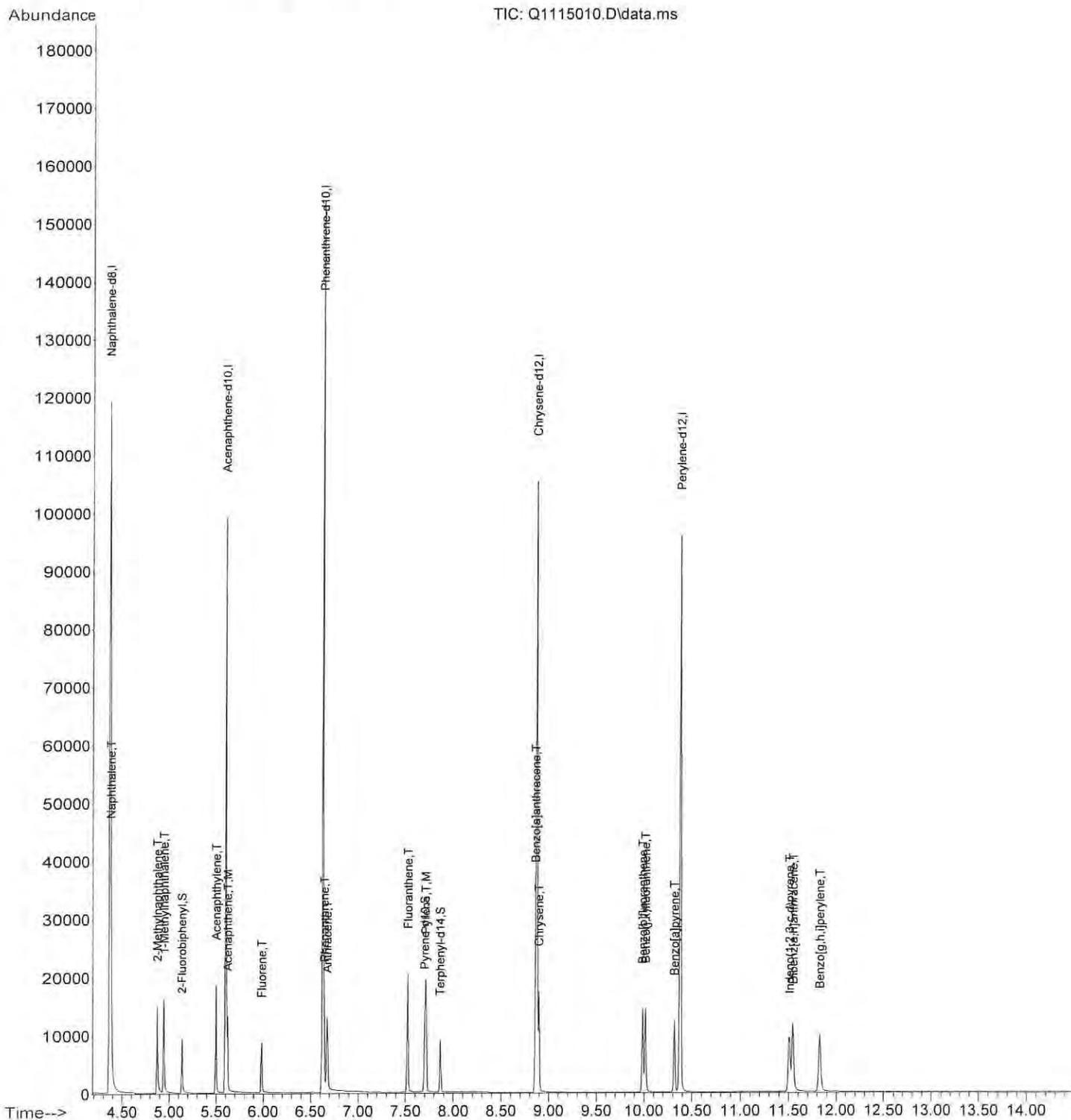
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.364	136	123533	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.598	164	64490	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.624	188	112712	2000.00	ppb	0.00	
17) Chrysene-d12	8.872	240	93185	2000.00	ppb	0.00	
21) Perylene-d12	10.381	264	99881	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	5.135	172	8051m	193.71	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	19.37%#		
10) Pyrene-d10	7.700	212	9467	189.82	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	18.98%#		
18) Terphenyl-d14	7.863	244	6985	203.33	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	20.33%#		
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	4.380	128	12098m	196.64	ppb		
3) 2-Methylnaphthalene	4.874	142	6380	195.54	ppb		98
4) 1-Methylnaphthalene	4.944	142	7293	192.16	ppb		96
7) Acenaphthylene	5.498	152	11399	193.62	ppb		100
8) Acenaphthene	5.621	153	7183	195.43	ppb		100
11) Fluorene	5.983	166	7216	189.63	ppb		100
12) Pentachlorophenol	0.000		0	N.D.			
13) Phenanthrene	6.643	178	10629	185.89	ppb		96
14) Anthracene	6.672	178	11123	196.33	ppb		99
15) Fluoranthene	7.527	202	13086	190.87	ppb		90
16) Pyrene	7.710	202	13108	191.06	ppb		97
19) Benzo[a]anthracene	8.860	228	11544	202.38	ppb		100
20) Chrysene	8.895	228	11715	193.43	ppb		100
22) Benzo[b]fluoranthene	9.986	252	12426	180.27	ppb		86
23) Benzo[j,k]fluoranthene	10.015	252	13046	204.20	ppb		86
24) Benzo[a]pyrene	10.317	252	11034	192.41	ppb		85
25) Indeno[1,2,3-c,d]pyrene	11.511	276	11680	196.39	ppb		83
26) Dibenzo[a,h]anthracene	11.550	278	11998	193.70	ppb		82
27) Benzo[g,h,i]perylene	11.827	276	12180	192.46	ppb		77

UD  
8/12/14

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

Data Path : X:\semivols\Quaggy\DATA\Q231115\  
 Data File : Q1115010.D  
 Acq On : 15 Nov 2023 12:01 pm  
 Operator : JP  
 Sample : 200 PPB ICAL  
 Misc : SV6-131-14  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 16 11:01:07 2023  
 Quant Method : C:\msdchem\1\methods\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:56:06 2023  
 Response via : Initial Calibration



Data Path : X:\semivols\Quaggy\DATA\Q231115\  
 Data File : Q1115011.D  
 Acq On : 15 Nov 2023 12:23 pm  
 Operator : JP  
 Sample : 500 PPB ICAL  
 Misc : SV6-131-13  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 16 11:01:49 2023  
 Quant Method : C:\msdchem\1\methods\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:56:06 2023  
 Response via : Initial Calibration

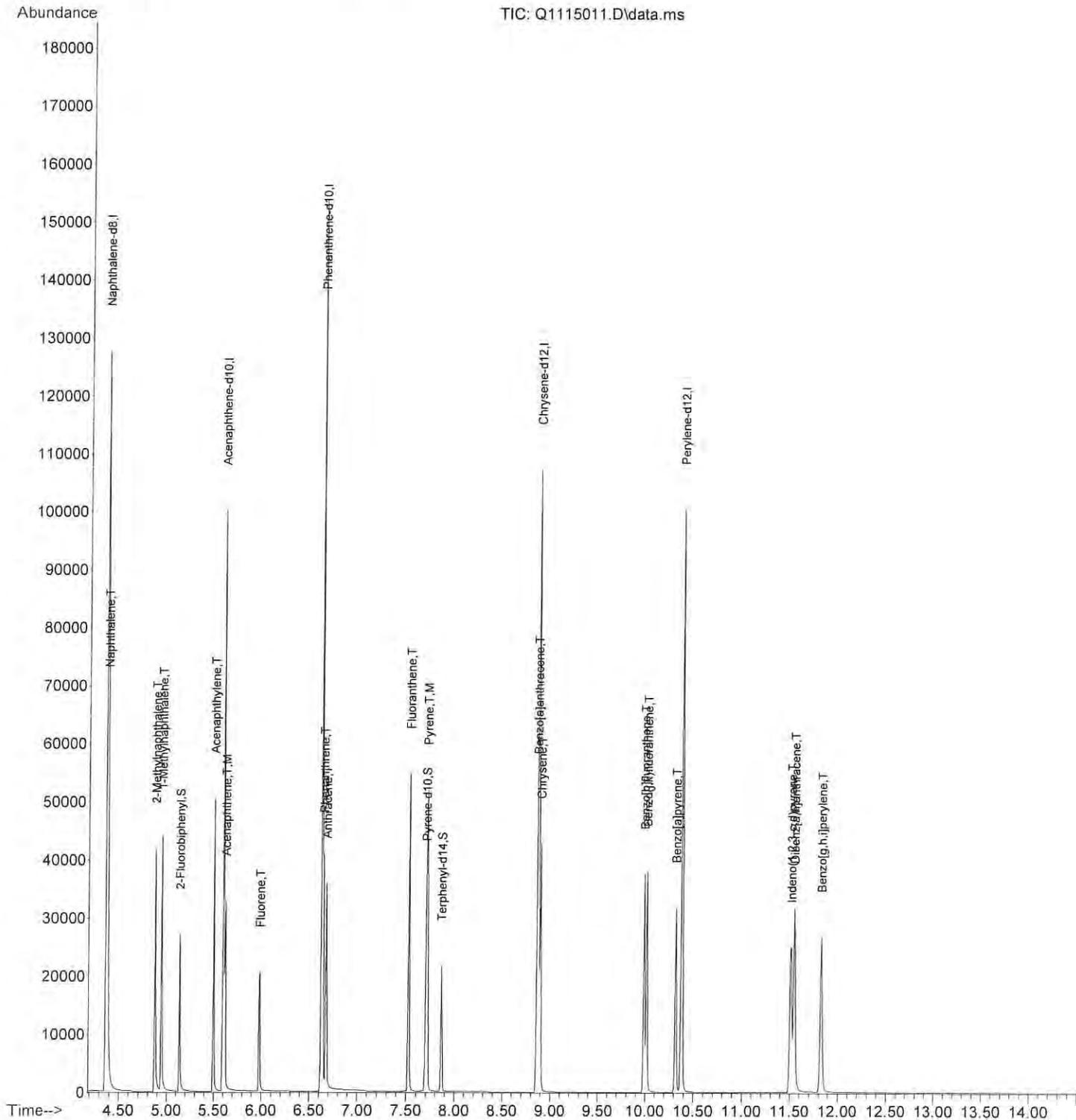
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.365	136	125135	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.598	164	64910	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.624	188	113110	2000.00	ppb	0.00	
17) Chrysene-d12	8.872	240	93475	2000.00	ppb	0.00	
21) Perylene-d12	10.381	264	100510	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	5.135	172	21733	529.41	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	52.94%			
10) Pyrene-d10	7.700	212	24603	491.58	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	49.16%			
18) Terphenyl-d14	7.864	244	17643	524.84	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	52.48%			
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	4.380	128	31438	504.44	ppb		98
3) 2-Methylnaphthalene	4.874	142	16901	511.37	ppb		98
4) 1-Methylnaphthalene	4.944	142	18834	489.89	ppb		96
7) Acenaphthylene	5.498	152	29635	500.10	ppb		100
8) Acenaphthene	5.622	153	18365	496.43	ppb		100
11) Fluorene	5.984	166	18689	489.41	ppb		100
12) Pentachlorophenol	0.000		0	N.D.			
13) Phenanthrene	6.643	178	27689	482.55	ppb		96
14) Anthracene	6.672	178	28473	500.79	ppb		98
15) Fluoranthene	7.527	202	33490	486.77	ppb		91
16) Pyrene	7.710	202	33748	490.17	ppb		97
19) Benzo[a]anthracene	8.860	228	29031	521.65	ppb		99
20) Chrysene	8.895	228	29759	489.84	ppb		99
22) Benzo[b]fluoranthene	9.987	252	31895	459.83	ppb		86
23) Benzo[j,k]fluoranthene	10.016	252	33599	522.61	ppb		86
24) Benzo[a]pyrene	10.318	252	28404	492.20	ppb		85
25) Indeno(1,2,3-c,d)pyrene	11.511	276	29025m	484.98	ppb		
26) Dibenz[a,h]anthracene	11.542	278	30936	496.33	ppb		82
27) Benzo[g,h,i]perylene	11.827	276	31473	494.20	ppb		78

UP  
8/22/24

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

Data Path : X:\semivols\Quaggy\DATA\Q231115\  
 Data File : Q1115011.D  
 Acq On : 15 Nov 2023 12:23 pm  
 Operator : JP  
 Sample : 500 PPB ICAL  
 Misc : SV6-131-13  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 16 11:01:49 2023  
 Quant Method : C:\msdchem\1\methods\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:56:06 2023  
 Response via : Initial Calibration



Data Path : X:\semivols\Quaggy\DATA\Q231115\  
 Data File : Q1115012.D  
 Acq On : 15 Nov 2023 12:46 pm  
 Operator : JP  
 Sample : 1000 PPB ICAL  
 Misc : SV6-131-12  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 16 11:01:57 2023  
 Quant Method : C:\msdchem\1\methods\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:56:06 2023  
 Response via : Initial Calibration

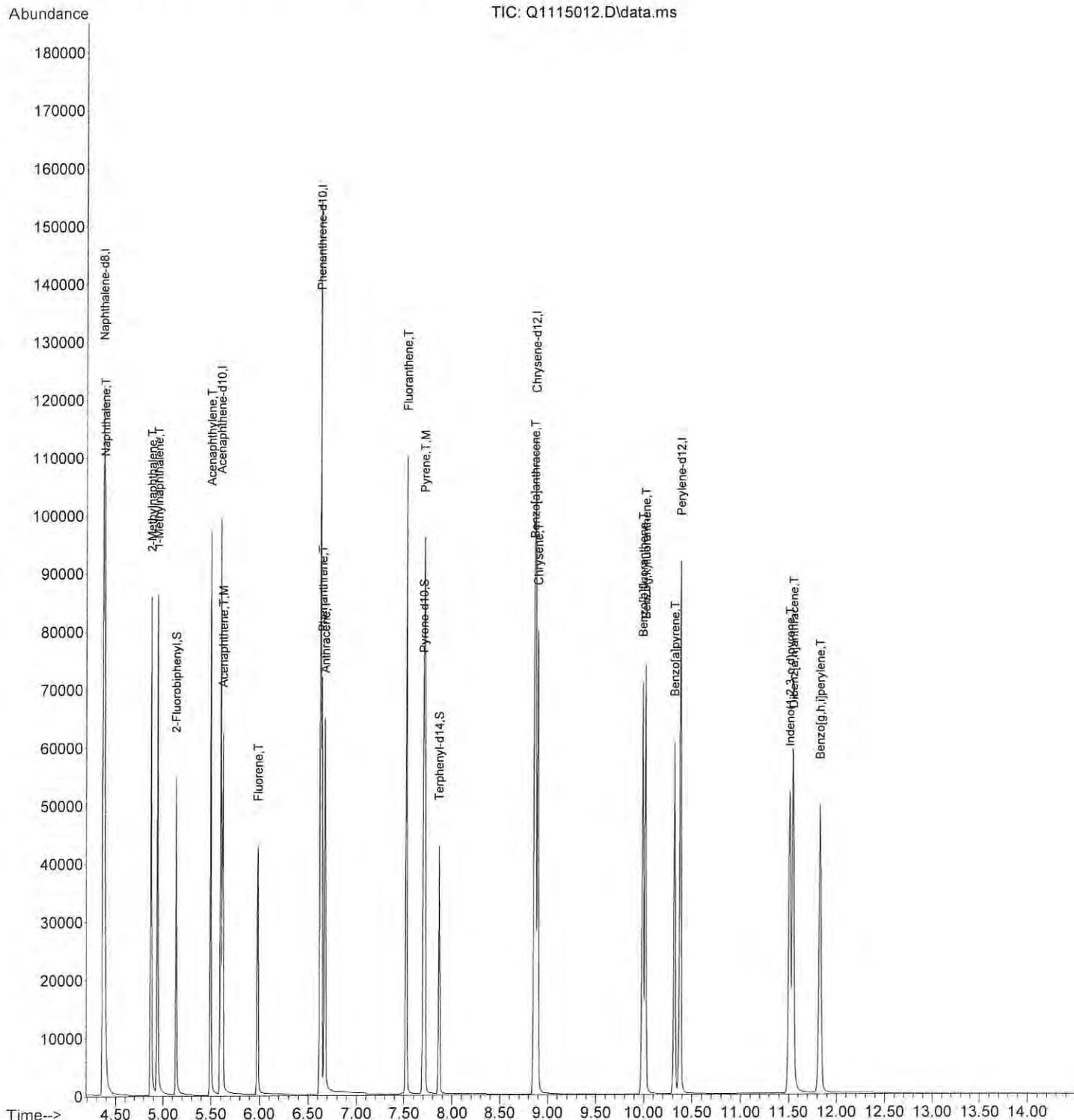
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.364	136	126308	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.598	164	65540	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.624	188	111053	2000.00	ppb	0.00	
17) Chrysene-d12	8.872	240	94526	2000.00	ppb	0.00	
21) Perylene-d12	10.381	264	101691	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	5.135	172	42584	1032.89	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery = 103.29%#				
10) Pyrene-d10	7.700	212	48086	978.57	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery = 97.86%				
18) Terphenyl-d14	7.863	244	35290	1046.41	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery = 104.64%#				
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	4.380	128	60372	959.70	ppb		99
3) 2-Methylnaphthalene	4.874	142	34013	1019.58	ppb		98
4) 1-Methylnaphthalene	4.944	142	37102	956.09	ppb		97
7) Acenaphthylene	5.498	152	58660	980.40	ppb		100
8) Acenaphthene	5.621	153	36016	964.20	ppb		100
11) Fluorene	5.983	166	37010	987.14	ppb		100
12) Pentachlorophenol	0.000		0	N.D.			
13) Phenanthrene	6.643	178	54212	962.28	ppb		96
14) Anthracene	6.672	178	54826	982.16	ppb		97
15) Fluoranthene	7.527	202	66810	989.06	ppb		91
16) Pyrene	7.710	202	66980	990.87	ppb		97
19) Benzo[a]anthracene	8.860	228	57796	1036.16	ppb		100
20) Chrysene	8.895	228	58468	951.69	ppb		100
22) Benzo[b]fluoranthene	9.986	252	68737	979.47	ppb		89
23) Benzo[j,k]fluoranthene	10.015	252	60898	936.23	ppb		82
24) Benzo[a]pyrene	10.317	252	56755	972.07	ppb		86
25) Indeno[1,2,3-c,d]pyrene	11.511	276	60987	1007.21	ppb		83
26) Dibenz[a,h]anthracene	11.550	278	61387	973.43	ppb		82
27) Benzo[g,h,i]perylene	11.827	276	62323	967.25	ppb		78

*JP*  
 8/22/24

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

Data Path : X:\semivols\Quaggy\DATA\Q231115\  
 Data File : Q1115012.D  
 Acq On : 15 Nov 2023 12:46 pm  
 Operator : JP  
 Sample : 1000 PPB ICAL  
 Misc : SV6-131-12  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 16 11:01:57 2023  
 Quant Method : C:\msdchem\1\methods\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:56:06 2023  
 Response via : Initial Calibration



Data Path : X:\semivols\Quaggy\DATA\Q231115\  
 Data File : Q1115013.D  
 Acq On : 15 Nov 2023 1:09 pm  
 Operator : JP  
 Sample : 5000 PPB ICAL  
 Misc : SV6-131-11  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 16 10:57:54 2023  
 Quant Method : C:\msdchem\1\methods\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:56:06 2023  
 Response via : Initial Calibration

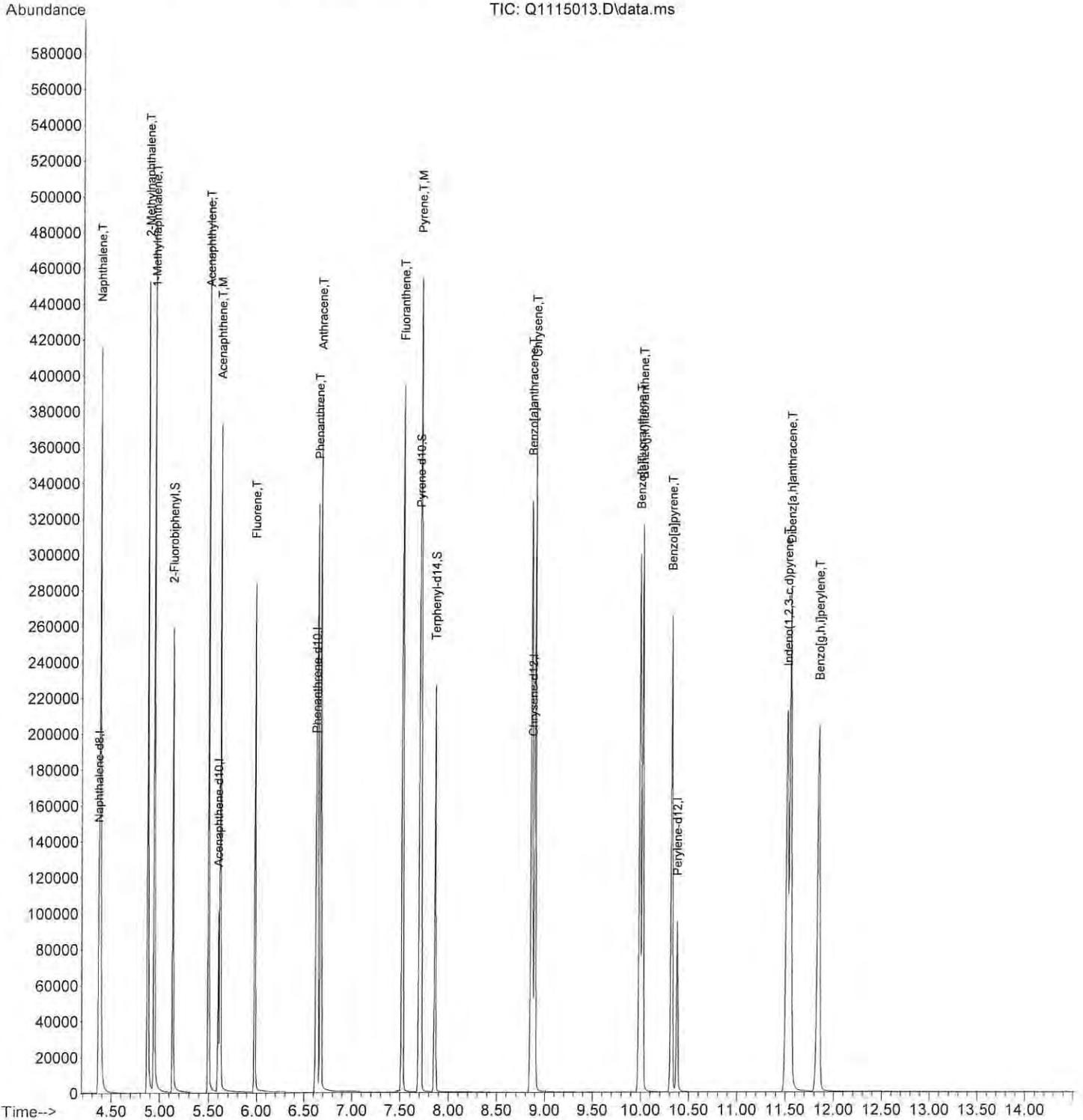
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.364	136	125869	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.598	164	65034	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.624	188	117295	2000.00	ppb	0.00	
17) Chrysene-d12	8.872	240	91979	2000.00	ppb	0.00	
21) Perylene-d12	10.381	264	96549	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	5.135	172	203594	4999.08	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery = 499.91%#				
10) Pyrene-d10	7.700	212	222374	4284.58	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery = 428.46%#				
18) Terphenyl-d14	7.863	244	160839	4932.43	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery = 493.24%#				
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	4.380	128	286600	4571.83	ppb		99
3) 2-Methylnaphthalene	4.874	142	171141	5148.03	ppb		98
4) 1-Methylnaphthalene	4.944	142	179543	4642.81	ppb		96
7) Acenaphthylene	5.498	152	282649	4760.73	ppb		100
8) Acenaphthene	5.621	153	177246	4782.07	ppb		100
11) Fluorene	5.983	166	191377	4832.80	ppb		100
12) Pentachlorophenol	0.000		0	N.D.			
13) Phenanthrene	6.643	178	270124	4539.61	ppb		95
14) Anthracene	6.672	178	258953	4392.06	ppb		97
15) Fluoranthene	7.527	202	313881	4399.43	ppb		92
16) Pyrene	7.710	202	300512	4209.06	ppb		96
19) Benzo [a] anthracene	8.860	228	266141	4938.87	ppb		99
20) Chrysene	8.901	228	269003	4499.85	ppb		99
22) Benzo [b] fluoranthene	9.992	252	327511	4915.40	ppb		89
23) Benzo (j, k) fluoranthene	10.021	252	275534	4461.59	ppb		83
24) Benzo [a] pyrene	10.323	252	262269	4731.24	ppb		86
25) Indeno (1, 2, 3-c, d) pyrene	11.526	276	280201m	4874.00	ppb		
26) Dibenz [a, h] anthracene	11.557	278	277834	4640.33	ppb		83
27) Benzo [g, h, i] perylene	11.850	276	276722	4523.44	ppb		78

JP  
8/12/24

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

Data Path : X:\semivols\Quaggy\DATA\Q231115\  
 Data File : Q1115013.D  
 Acq On : 15 Nov 2023 1:09 pm  
 Operator : JP  
 Sample : 5000 PPB ICAL  
 Misc : SV6-131-11  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 16 10:57:54 2023  
 Quant Method : C:\msdchem\1\methods\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:56:06 2023  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\semivols\Quaggy\DATA\Q231115\  
 Data File : Q1115018.D  
 Acq On : 15 Nov 2023 3:27 pm  
 Operator : JP  
 Sample : ICV  
 Misc : SV6-132-14  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 16 11:04:08 2023  
 Quant Method : C:\msdchem\1\methods\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:56:06 2023  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound		Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Naphthalene-d8	2000.000	2000.000	0.0	105	0.16
2 T	Naphthalene	500.000	501.206	-0.2	108	0.16
3 T	2-Methylnaphthalene	500.000	547.043	-9.4	112	0.16
4 T	1-Methylnaphthalene	500.000	495.711	0.9	104	0.17
5 I	Acenaphthene-d10	2000.000	2000.000	0.0	106	0.16
6 S	2-Fluorobiphenyl	500.000	521.880	-4.4	108	0.16
7 T	Acenaphthylene	500.000	493.664	1.3	105	0.16
8 T,M	Acenaphthene	500.000	509.772	-2.0	109	0.16
9 I	Phenanthrene-d10	2000.000	2000.000	0.0	97	0.16
10 S	Pyrene-d10	500.000	509.255	-1.9	100	0.18
11 T	Fluorene	500.000	536.158	-7.2	106	0.16
12 T	Pentachlorophenol	500.000	0.000	100.0#	0	-5.27#
13 T	Phenanthrene	500.000	566.017	-13.2	113	0.16
14 T	Anthracene	500.000	576.104	-15.2	111	0.17
15 T	Fluoranthene	500.000	510.687	-2.1	101	0.18
16 T,M	Pyrene	500.000	549.366	-9.9	108	0.19
17 I	Chrysene-d12	2000.000	2000.000	0.0	105	0.23
18 S	Terphenyl-d14	500.000	527.159	-5.4	105	0.19
19 T	Benzo[a]anthracene	500.000	562.061	-12.4	113	0.23
20 T	Chrysene	500.000	435.616	12.9	93	0.23
21 I	Perylene-d12	2000.000	2000.000	0.0	105	0.25
22 T	Benzo[b]fluoranthene	500.000	479.907	4.0	109	0.25
23 T	Benzo[j,k]fluoranthene	500.000	468.677	6.3	94	0.25
24 T	Benzo[a]pyrene	500.000	502.475	-0.5	107	0.25
25 T	Indeno(1,2,3-c,d)pyrene	500.000	501.208	-0.2	109	0.33
26 T	Dibenz[a,h]anthracene	500.000	498.364	0.3	105	0.33
27 T	Benzo[g,h,i]perylene	500.000	500.610	-0.1	106	0.36

(#) = Out of Range

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

Data Path : X:\semivols\Quaggy\DATA\Q231115\  
 Data File : Q1115018.D  
 Acq On : 15 Nov 2023 3:27 pm  
 Operator : JP  
 Sample : ICV  
 Misc : SV6-132-14  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 16 11:04:08 2023  
 Quant Method : C:\msdchem\1\methods\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:56:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Naphthalene-d8	4.365	136	131130	2000.00	ppb	0.00
5) Acenaphthene-d10	5.598	164	68832	2000.00	ppb	0.00
9) Phenanthrene-d10	6.624	188	109281	2000.00	ppb	0.00
17) Chrysene-d12	8.878	240	98039	2000.00	ppb	0.00
21) Perylene-d12	10.381	264	105402	2000.00	ppb	0.00
<b>System Monitoring Compounds</b>						
6) 2-Fluorobiphenyl	5.135	172	22722	521.88	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	52.19%		
10) Pyrene-d10	7.700	212	24625	509.26	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	50.93%		
18) Terphenyl-d14	7.873	244	18585	527.16	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	52.72%		
<b>Target Compounds</b>						
						Qvalue
2) Naphthalene	4.380	128	32733	501.21	ppb	95
3) 2-Methylnaphthalene	4.874	142	18946	547.04	ppb	98
4) 1-Methylnaphthalene	4.944	142	19971	495.71	ppb	97
7) Acenaphthylene	5.498	152	31021	493.66	ppb	100
8) Acenaphthene	5.621	153	19998	509.77	ppb	100
11) Fluorene	5.976	166	19781	536.16	ppb	100
12) Pentachlorophenol	0.000		0	N.D.		
13) Phenanthrene	6.643	178	31379	566.02	ppb	96
14) Anthracene	6.682	178	31646	576.10	ppb	95
15) Fluoranthene	7.527	202	33946	510.69	ppb	88
16) Pyrene	7.719	202	36543	549.37	ppb	96
19) Benzo[a]anthracene	8.866	228	32765	562.06	ppb	98
20) Chrysene	8.901	228	27757	435.62	ppb	98
22) Benzo[b]fluoranthene	9.986	252	34908	479.91	ppb	90
23) Benzo[j,k]fluoranthene	10.015	252	31598	468.68	ppb	82
24) Benzo[a]pyrene	10.317	252	30408	502.48	ppb	85
25) Indeno(1,2,3-c,d)pyrene	11.511	276	31456m	501.21	ppb	
26) Dibenz[a,h]anthracene	11.542	278	32575	498.36	ppb	83
27) Benzo[g,h,i]perylene	11.827	276	33433	500.61	ppb	78

JD  
8/22/24

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



Evaluate Continuing Calibration Report

Data Path : X:\semivols\Quaggy\DATA\Q231130\  
 Data File : Q1130001.D  
 Acq On : 30 Nov 2023 9:49 am  
 Operator : JP  
 Sample : PAH CCV1130-1  
 Misc : SV6-133-11  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 30 10:30:44 2023  
 Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:50:46 2023  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound		Amount	Calc.	%Dev	Area	% Dev(min)
1	I Naphthalene-d8	2000.000	2000.000	0.0	130	-0.08
2	T Naphthalene	500.000	442.206	11.6	118	-0.08
3	T 2-Methylnaphthalene	500.000	472.118	5.6	120	-0.08
4	T 1-Methylnaphthalene	500.000	438.046	12.4	114	-0.08
5	I Acenaphthene-d10	2000.000	2000.000	0.0	117	-0.08
6	S 2-Fluorobiphenyl	500.000	513.785	-2.8	118	-0.08
7	T Acenaphthylene	500.000	488.325	2.3	114	-0.08
8	T,M Acenaphthene	500.000	488.566	2.3	115	-0.09
9	I Phenanthrene-d10	2000.000	2000.000	0.0	108	-0.08
10	S Pyrene-d10	500.000	465.759	6.8	103	-0.09
11	T Fluorene	500.000	555.427	-11.1	123	-0.09
12	T Pentachlorophenol	500.000	0.000	100.0#	0	-5.27#
13	T Phenanthrene	500.000	520.499	-4.1	117	-0.08
14	T Anthracene	500.000	519.642	-3.9	112	-0.07
15	T Fluoranthene	500.000	460.258	7.9	102	-0.08
16	T,M Pyrene	500.000	475.624	4.9	105	-0.08
17	I Chrysene-d12	2000.000	2000.000	0.0	107	-0.10
18	S Terphenyl-d14	500.000	525.308	-5.1	107	-0.08
19	T Benzo[a]anthracene	500.000	498.027	0.4	102	-0.10
20	T Chrysene	500.000	484.967	3.0	106	-0.10
21	I Perylene-d12	2000.000	2000.000	0.0	104	-0.11
22	T Benzo[b]fluoranthene	500.000	459.293	8.1	104	-0.11
23	T Benzo(j,k)fluoranthene	500.000	523.346	-4.7	104	-0.11
24	T Benzo[a]pyrene	500.000	491.185	1.8	104	-0.11
25	T Indeno(1,2,3-c,d)pyrene	500.000	468.410	6.3	101	-0.15
26	T Dibenz[a,h]anthracene	500.000	463.148	7.4	97	-0.14
27	T Benzo[g,h,i]perylene	500.000	445.176	11.0	94	-0.16

*Handwritten notes:*  
 12/1/23

(#) = Out of Range

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

Data Path : X:\semivols\Quaggy\DATA\Q231130\  
 Data File : Q1130001.D  
 Acq On : 30 Nov 2023 9:49 am  
 Operator : JP  
 Sample : PAH CCV1130-1  
 Misc : SV6-133-11  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 30 10:30:44 2023  
 Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:50:46 2023  
 Response via : Initial Calibration

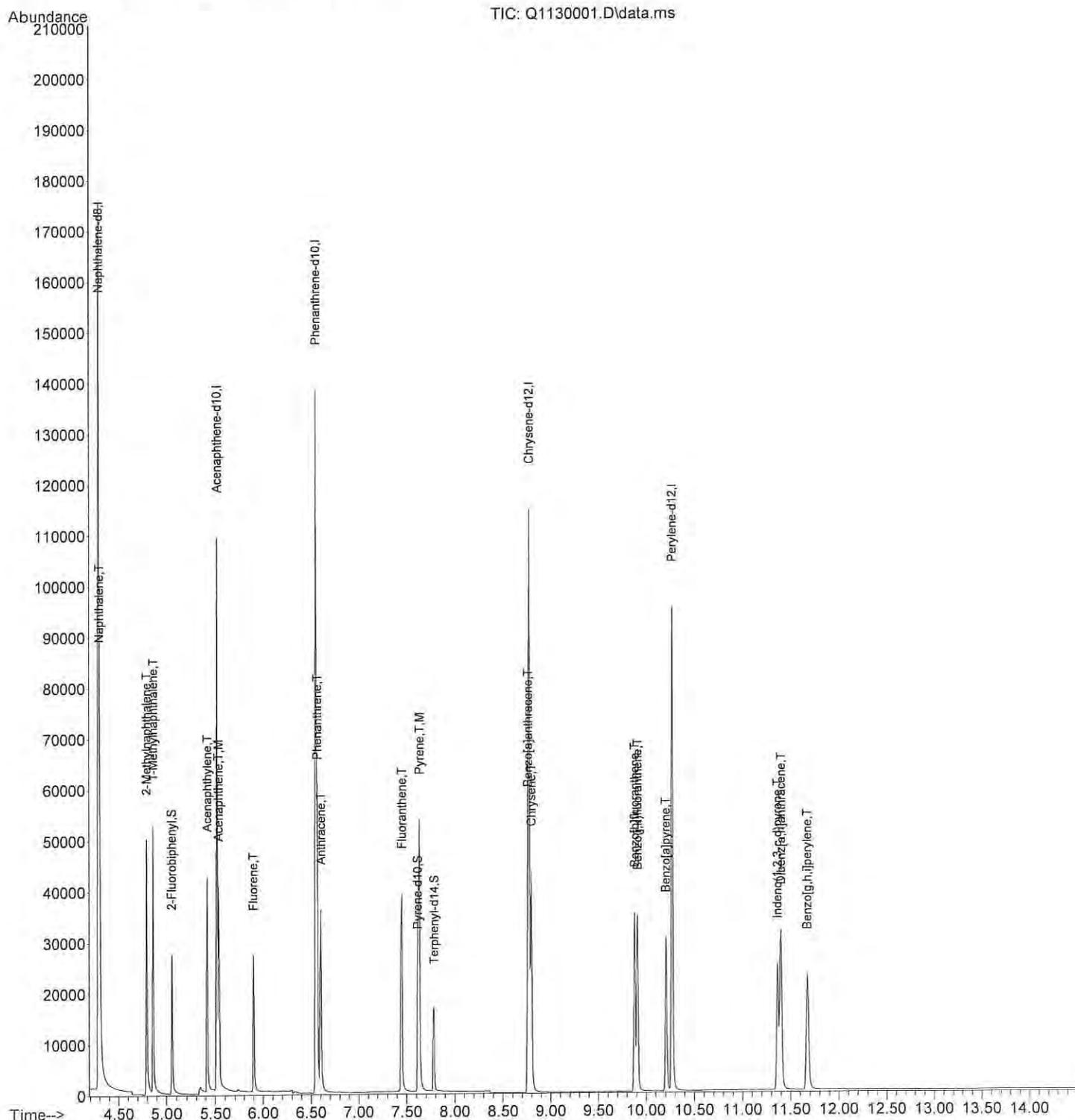
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.287	136	162406	2000.00	ppb	-0.08	
5) Acenaphthene-d10	5.519	164	75982	2000.00	ppb	-0.08	
9) Phenanthrene-d10	6.545	188	122587	2000.00	ppb	-0.08	
17) Chrysene-d12	8.771	240	100020	2000.00	ppb	-0.10	
21) Perylene-d12	10.269	264	104378	2000.00	ppb	-0.11	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	5.054	172	24734	513.79	ppb	-0.08	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	51.38%			
10) Pyrene-d10	7.612	212	25264	465.76	ppb	-0.09	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	46.58%			
18) Terphenyl-d14	7.785	244	18895	525.31	ppb	-0.08	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	52.53%			
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	4.295	128	35768	442.21	ppb		91
3) 2-Methylnaphthalene	4.793	142	20251	472.12	ppb		99
4) 1-Methylnaphthalene	4.862	142	21857	438.05	ppb		95
7) Acenaphthylene	5.419	152	33873	488.33	ppb		100
8) Acenaphthene	5.535	153	21157	488.57	ppb		100
11) Fluorene	5.897	166	22987	555.43	ppb		100
12) Pentachlorophenol	0.000		0	N.D.			
13) Phenanthrene	6.564	178	32369	520.50	ppb		95
14) Anthracene	6.603	178	32020	519.64	ppb		98
15) Fluoranthene	7.448	202	34319	460.26	ppb		90
16) Pyrene	7.631	202	35490	475.62	ppb		96
19) Benzo[a]anthracene	8.760	228	29682	498.03	ppb		100
20) Chrysene	8.794	228	31526	484.97	ppb		99
22) Benzo[b]fluoranthene	9.880	252	33084	459.29	ppb		87
23) Benzo[j,k]fluoranthene	9.909	252	34941	523.35	ppb		87
24) Benzo[a]pyrene	10.205	252	29436	491.19	ppb		86
25) Indeno[1,2,3-c,d]pyrene	11.363	276	29112m	468.41	ppb		
26) Dibenz[a,h]anthracene	11.401	278	29979	463.15	ppb		86
27) Benzo[g,h,i]perylene	11.671	276	29442	445.18	ppb		81

*JJ*  
*12/11/23*

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

Data Path : X:\semivols\Quaggy\DATA\Q231130\  
 Data File : Q1130001.D  
 Acq On : 30 Nov 2023 9:49 am  
 Operator : JP  
 Sample : PAH CCV1130-1  
 Misc : SV6-133-11  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 30 10:30:44 2023  
 Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:50:46 2023  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\semivols\Quaggy\DATA\Q231201\  
 Data File : Q1201001.D  
 Acq On : 1 Dec 2023 10:14 am  
 Operator : JP  
 Sample : PAH CCV1201-1  
 Misc : SV6-133-12  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 01 10:37:47 2023  
 Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:50:46 2023  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Naphthalene-d8	2000.000	2000.000	0.0	109	-0.08
2 T	Naphthalene	500.000	479.074	4.2	107	-0.08
3 T	2-Methylnaphthalene	500.000	507.976	-1.6	108	-0.08
4 T	1-Methylnaphthalene	500.000	463.255	7.3	102	-0.08
5 I	Acenaphthene-d10	2000.000	2000.000	0.0	101	-0.08
6 S	2-Fluorobiphenyl	500.000	566.676	-13.3	112	-0.08
7 T	Acenaphthylene	500.000	496.971	0.6	100	-0.08
8 T,M	Acenaphthene	500.000	488.387	2.3	99	-0.08
9 I	Phenanthrene-d10	2000.000	2000.000	0.0	89	0.00
10 S	Pyrene-d10	500.000	459.292	8.1	83	0.06
11 T	Fluorene	500.000	543.928	-8.8	99	-0.06
12 T	Pentachlorophenol	500.000	0.000	100.0#	0	-5.27#
13 T	Phenanthrene	500.000	485.035	3.0	89	-0.02
14 T	Anthracene	500.000	492.206	1.6	87	0.00
15 T	Fluoranthene	500.000	464.984	7.0	85	0.06
16 T,M	Pyrene	500.000	451.565	9.7	82	0.07
17 I	Chrysene-d12	2000.000	2000.000	0.0	83	0.02
18 S	Terphenyl-d14	500.000	551.230	-10.2	87	0.07
19 T	Benzo[a]anthracene	500.000	514.622	-2.9	81	0.02
20 T	Chrysene	500.000	478.593	4.3	81	0.02
21 I	Perylene-d12	2000.000	2000.000	0.0	77	-0.05
22 T	Benzo[b]fluoranthene	500.000	458.349	8.3	77	-0.04
23 T	Benzo[j,k]fluoranthene	500.000	540.634	-8.1	80	-0.04
24 T	Benzo[a]pyrene	500.000	495.806	0.8	78	-0.05
25 T	Indeno(1,2,3-c,d)pyrene	500.000	485.607	2.9	78	-0.10
26 T	Dibenz[a,h]anthracene	500.000	460.736	7.9	72	-0.10
27 T	Benzo[g,h,i]perylene	500.000	453.407	9.3	71	-0.11

UP  
12/1/23

(#) = Out of Range

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

Data Path : X:\semivols\Quaggy\DATA\Q231201\  
 Data File : Q1201001.D  
 Acq On : 1 Dec 2023 10:14 am  
 Operator : JP  
 Sample : PAH CCV1201-1  
 Misc : SV6-133-12  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 01 10:37:47 2023  
 Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:50:46 2023  
 Response via : Initial Calibration

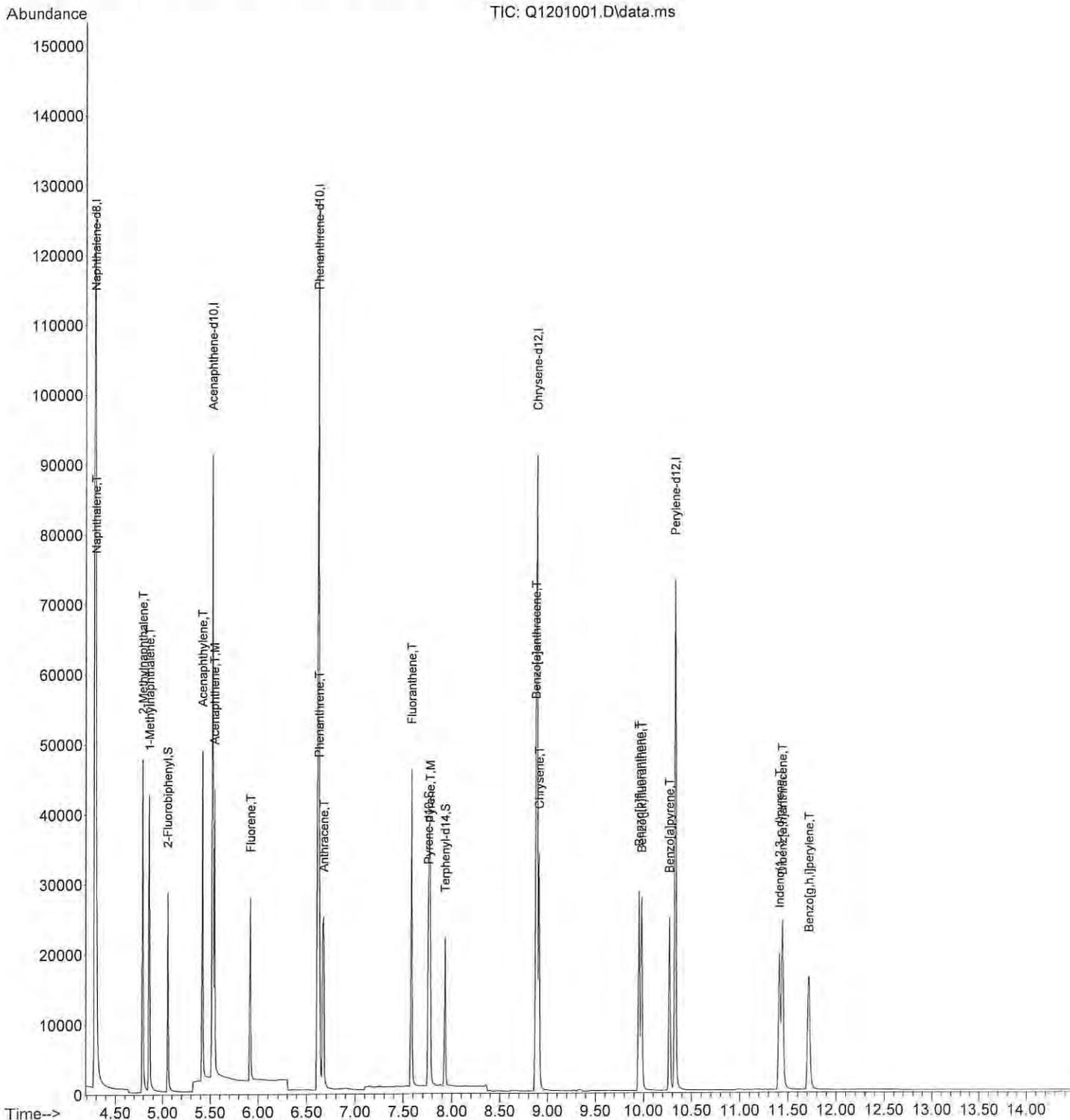
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.287	136	136467	2000.00	ppb	-0.08	
5) Acenaphthene-d10	5.521	164	65372	2000.00	ppb	-0.08	
9) Phenanthrene-d10	6.614	188	100537	2000.00	ppb	0.00	
17) Chrysene-d12	8.889	240	77128	2000.00	ppb	0.02	
21) Perylene-d12	10.329	264	77863	2000.00	ppb	-0.05	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	5.054	172	23443	566.68	ppb	-0.08	
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	56.67%		
10) Pyrene-d10	7.758	212	20432	459.29	ppb	0.06	
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	45.93%		
18) Terphenyl-d14	7.931	244	15278	551.23	ppb	0.07	
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	55.12%		
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	4.295	128	32561	479.07	ppb		97
3) 2-Methylnaphthalene	4.793	142	18309	507.98	ppb		98
4) 1-Methylnaphthalene	4.862	142	19423	463.25	ppb		96
7) Acenaphthylene	5.421	152	29659m	496.97	ppb		
8) Acenaphthene	5.544	153	18196m	488.39	ppb		
11) Fluorene	5.922	166	18462	543.93	ppb		100
12) Pentachlorophenol	0.000		0	N.D.			
13) Phenanthrene	6.624	178	24738	485.04	ppb		98
14) Anthracene	6.672	178	24874	492.21	ppb		99
15) Fluoranthene	7.585	202	28435	464.98	ppb		96
16) Pyrene	7.777	202	27634	451.57	ppb		97
19) Benzo[a]anthracene	8.878	228	23637	514.62	ppb		99
20) Chrysene	8.912	228	23991	478.59	ppb		100
22) Benzo[b]fluoranthene	9.951	252	24629	458.35	ppb		89
23) Benzo[j,k]fluoranthene	9.980	252	26926	540.63	ppb		89
24) Benzo[a]pyrene	10.271	252	22165	495.81	ppb		86
25) Indeno[1,2,3-c,d]pyrene	11.411	276	22514m	485.61	ppb		
26) Dibenz[a,h]anthracene	11.442	278	22247	460.74	ppb		88
27) Benzo[g,h,i]perylene	11.719	276	22369	453.41	ppb		83

*JP*  
*12/1/23*

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

Data Path : X:\semivols\Quaggy\DATA\Q231201\  
 Data File : Q1201001.D  
 Acq On : 1 Dec 2023 10:14 am  
 Operator : JP  
 Sample : PAH CCV1201-1  
 Misc : SV6-133-12  
 ALS Vial : 1 Sample Multiplier: 1

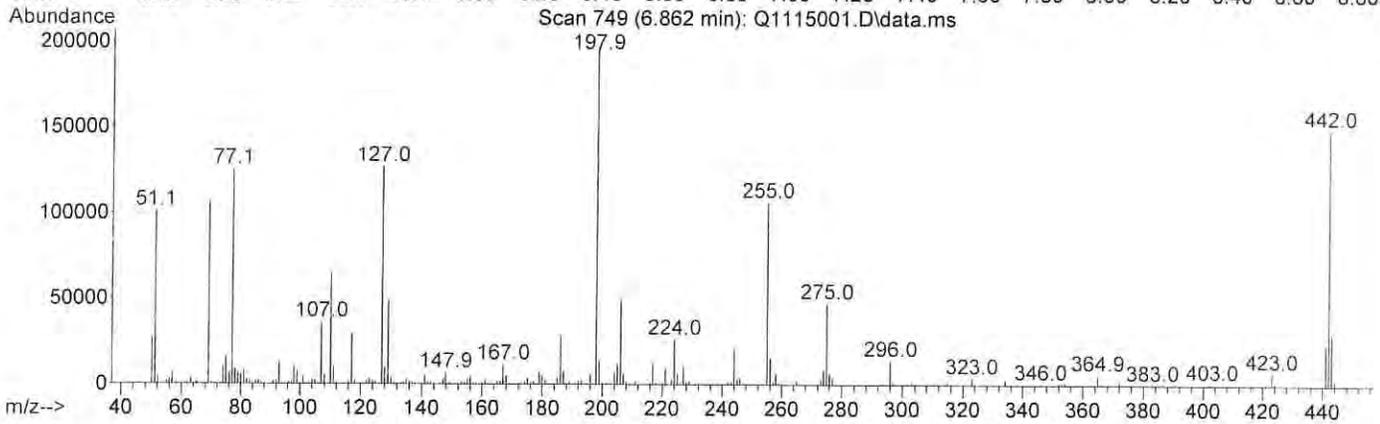
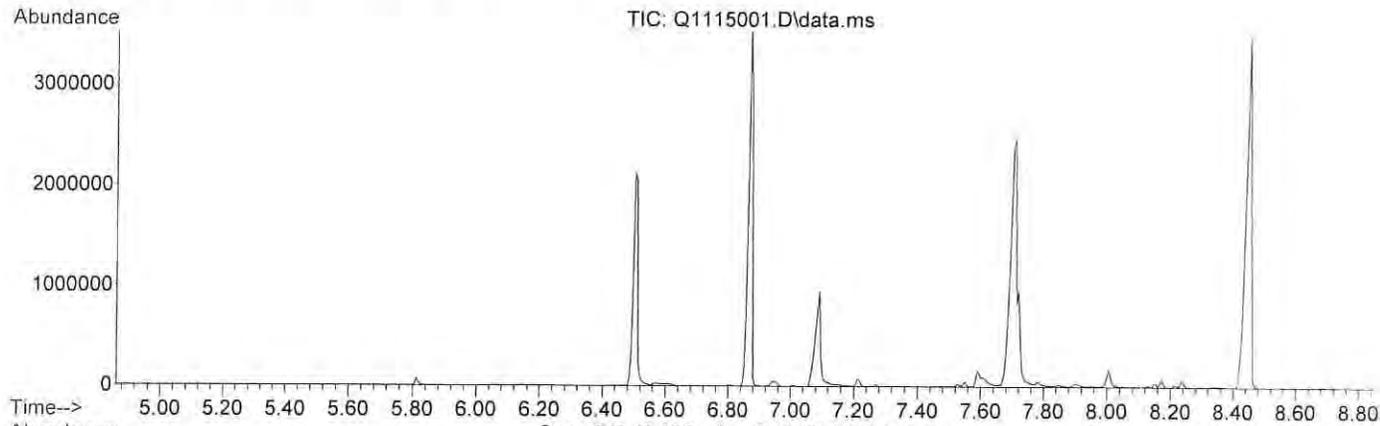
Quant Time: Dec 01 10:37:47 2023  
 Quant Method : C:\MSDCHEM\1\METHODS\Q231115P.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Thu Nov 16 09:50:46 2023  
 Response via : Initial Calibration



Data Path : X:\semivols\Quaggy\DATA\Q231115\  
 Data File : Q1115001.D  
 Acq On : 15 Nov 2023 8:26 am  
 Operator : JP  
 Sample : DFTPP  
 Misc : SV6-127-10  
 ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\Q240820.M  
 Title : PAH'S BY SIMS  
 Last Update : Tue Aug 20 15:10:23 2024



Spectrum Information: Scan 749

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	51.3	101120	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	54.3	106872	PASS
70	69	0.00	2	1.1	1229	PASS
127	198	10	80	64.5	126968	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	196928	PASS
199	198	5	9	7.1	13968	PASS
275	198	10	60	24.2	47568	PASS
365	198	0.10	100	3.2	6237	PASS
441	443	0.01	100	78.7	23720	PASS
442	198	40	110	75.9	149376	PASS
443	442	15	24	20.2	30136	PASS

GC/MS QA-QC Check Report

Tune File : X:\semivols\Quaggy\DATA\Q231115\Q1115018.D  
 Tune Time : 15 Nov 2023 3:27 pm

Daily Calibration File : X:\semivols\Quaggy\DATA\Q231115\Q1115018.D

(PRY)	(NPT)	(ACE)	(PHN)
	131130	68832	109281
	(CRY)	(PRY)	
	98039	105402	

File	Sample	Surrogate Recovery %			Internal Standard Responses		
Q1115007.D	20 PPB ICA	3*	2*	2*	121015 91146	63688 96923	111121
Q1115008.D	50 PPB ICA	5*	5*	5*	122068 91025	63782 97816	107598
Q1115009.D	100 PPB IC	10*	10*	10*	123003 92818	63802 99300	108746
Q1115010.D	200 PPB IC	19*	19*	20*	123533 93185	64490 99881	112712
Q1115011.D	500 PPB IC	53	49	52	125135 93475	64910 100510	113110
Q1115012.D	1000 PPB I	103*	98	105*	126308 94526	65540 101691	111053
Q1115013.D	5000 PPB I	500*	428*	493*	125869 91979	65034 96549	117295
Q1115017.D	10 PPB ICA	1*	1*	1*	124516 93870	63119 101587	115751

(fails) - fails 12hr time check \* - fails criteria

Created: Thu Aug 22 14:06:34 2024 quaggy

GC/MS QA-QC Check Report

Tune File : X:\semivols\Quaggy\DATA\Q231130\Q1130001.D  
 Tune Time : 30 Nov 2023 9:49 am

Daily Calibration File : X:\semivols\Quaggy\DATA\Q231130\Q1130001.D

(PRY)	(NPT)	(ACE)	(PHN)
	162406	75982	122587
	(CRY)	(PRY)	
	100020	104378	

File	Sample	Surrogate Recovery %			Internal Standard Responses		
Q1130007.D	MB1130W1	74	78	105*	95102	48844	88550
				72735	75322		
Q1130008.D	11-272-02	68	76	95*	95413	48741	87082
				72162	73228		
Q1130009.D	11-272-04	46	47	64	96437	46975	83959
				69304	69815		
Q1130010.D	11-272-05	45	49	60	96855	50226	92661
				73841	76674		
Q1130011.D	11-272-01	69	76	93*	95431	49275	85145
				73166	74606		
Q1130012.D	11-272-03	73	77	102*	95252	50028	90698
				73529	76478		

(fails) - fails 12hr time check \* - fails criteria

Created: Thu Aug 22 14:08:50 2024 quaggy

GC/MS QA-QC Check Report

Tune File : X:\semivols\Quaggy\DATA\Q231201\Q1201001.D  
 Tune Time : 1 Dec 2023 10:14 am

Daily Calibration File : X:\semivols\Quaggy\DATA\Q231201\Q1201001.D

(PRY)	(NPT)	(ACE)	(PHN)
	136467	65372	100537
	(CRY)	(PRY)	
	77128	77863	

File	Sample	Surrogate Recovery %			Internal Standard Responses		
=====							
Q1201003.D	SB1130W1 R	63	68	79	90266	47377	83433
			72175	75514			
-----							
Q1201004.D	SB1130W1 D	62	66	78	95049	50148	89694
			74923	78519			
-----							

(fails) - fails 12hr time check \* - fails criteria

Created: Thu Aug 22 14:09:14 2024 quaggy

Sequence Name: C:\msdchem\1\sequence\Q231115.s

Comment:

Operator: JP

Data Path: C:\MSDCHEM\1\DATA\Q231115\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run

- Full Method
- Reprocessing Only

Sequence Barcode Options

- On Mismatch, Inject Anyway
- On Mismatch, Don't Inject
- Barcode Disabled

---

Line		Sample Name/Misc Info
1)	Sample	1 Q1115001 SIMSCAN DFTPP
2)	Sample	2 Q1114002 Q231106P M
3)	Sample	3 Q1114003 Q231106P M
4)	Sample	4 Q1114004 Q231106P M
5)	Sample	5 Q1114005 Q231106P M
6)	Sample	6 Q1115006 Q231106P 10 PPB ICAL
7)	Sample	7 Q1115007 Q231106P 20 PPB ICAL
8)	Sample	8 Q1115008 Q231106P 50 PPB ICAL
9)	Sample	9 Q1115009 Q231106P 100 PPB ICAL
10)	Sample	10 Q1115010 Q231106P 200 PPB ICAL
11)	Sample	11 Q1115011 Q231106P 500 PPB ICAL
12)	Sample	12 Q1115012 Q231106P 1000 PPB ICAL
13)	Sample	13 Q1115013 Q231106P 5000 PPB ICAL
14)	Sample	14 Q1115014 Q231106P M
15)	Sample	15 Q1115015 Q231106P ICV
16)	Sample	16 Q1115016 Q231106P M
17)	Sample	17 Q1115017 Q231106P 10 PPB ICAL
18)	Sample	18 Q1115018 Q231106P ICV
19)	Sample	19 Q1115019 Q231106P M
20)	Sample	20 Q1115020 Q231106P M

Sequence Name: C:\msdchem\1\sequence\Q231130.s

Comment:

Operator: JP

Data Path: C:\MSDCHEM\1\DATA\Q231130\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run

Full Method  
 Reprocessing Only

Sequence Barcode Options

On Mismatch, Inject Anyway  
 On Mismatch, Don't Inject  
 Barcode Disabled

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Line		Sample Name/Misc Info
1)	Sample	1 Q1130001 Q231115P PAH CCV1130-1
2)	Sample	2 Q1130002 Q231115P M
3)	Sample	3 Q1130003 Q231115P M
4)	Sample	4 Q1130004 Q231115P SB1130W1
5)	Sample	5 Q1130005 Q231115P SB1130W1 DUP
6)	Sample	6 Q1130006 Q231115P 20 LLOQ
7)	Sample	7 Q1130007 Q231115P MB1130W1
8)	Sample	8 Q1130008 Q231115P 11-272-02
9)	Sample	9 Q1130009 Q231115P 11-272-04
10)	Sample	10 Q1130010 Q231115P 11-272-05
11)	Sample	11 Q1130011 Q231115P 11-272-01
12)	Sample	12 Q1130012 Q231115P 11-272-03

Sequence Name: C:\msdchem\1\sequence\Q231201.s

Comment:

Operator: JP

Data Path: C:\MSDCHEM\1\DATA\Q231201\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run

Full Method  
 Reprocessing Only

Sequence Barcode Options

On Mismatch, Inject Anyway  
 On Mismatch, Don't Inject  
 Barcode Disabled

---

Line		Sample Name/Misc Info
1)	Sample	1 Q1201001 Q231115P PAH CCV1201-1
2)	Sample	2 Q1201002 Q231115P M
3)	Sample	3 Q1201003 Q231115P SB1130W1 REX
4)	Sample	4 Q1201004 Q231115P SB1130W1 DUP REX
5)	Sample	5 Q1201005 Q231115P NK SPE DOC-1
6)	Sample	6 Q1201006 Q231115P NK SPE DOC-2
7)	Sample	7 Q1201007 Q231115P NK SPE DOC-3
8)	Sample	8 Q1201008 Q231115P NK SPE DOC-4
9)	Sample	9 Q1201009 Q231115P NK SPE DOC-5
10)	Sample	10 Q1201010 Q231115P NK SPE DOC-6



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31995  
 8270 Calibration Mix #5, Revised  
 Lot# A0190887  
 Expire: 09/2028 Store: 10°C or colder  
 2000 µg/mL each in Methylene Chloride  
 1 mL

RESTEK

Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Int	Date
PAH ICV	SV610801	SV610722	2000 ppm 1000	50 µL 100 µL	10 mL 1	10 ppm	Mech <sub>2</sub>	JP	5/15/23
PAH Stock Std	SV610802	1 23							5/16/23
PAH Stock	03	SV610802	2000 ppm	1 mL	20 mL	100 ppm	Mech <sub>2</sub>	JP	
PAH spike	SV610804	SV610803	100 ppm	25 mL	5 mL	5 ppm	Acetone	JP	
BNA CCV	05	SV610810, 9714, 8204	200 ppm	20 mL each	200 µL	20 ppm	Mech <sub>2</sub>		
PAH CCV	06	SV610605	10 ppm	10 µL		500 ppb			
PAH CCV	SV610807	1							5/17/23
BNA CCV	SV610808	SV610810, 9714, 8204							
PAH CCV	SV610809	SV610605	10 ppm	10 µL	200 µL	500 ppb	Mech <sub>2</sub>	un	5-18-23
BNA CCV	SV610810	SV610810, 9714, 8204	200 ppm	20 µL / 20 µL	200 µL	20 ppm	Mech <sub>2</sub>	un	5-18-23
PAH CCV	SV610811	SV610605	10 ppm	10 µL	200 µL	500 ppb	Mech <sub>2</sub>	JP	5/22/23
PAH CCV	SV610812	1							5/23/23
OPP 200	13	SV610718	10 ppm	4 mL each	20 µL	200 ppb	Mech <sub>2</sub>	JP	5/23/23
500	14			10		500			
1000	15			20		1000			
2000	16			40		2000			
3000	17			60		3000			
4000	18			80		4000			
ICV	19	SV610713		20		1000			
BNA CCV	SV610820	SV610810, 9714, 8204	200 ppm	20 mL each	200 µL	20 ppm	Mech <sub>2</sub>	JP	5/24/23
PAH CCV	21	SV610605	10 ppm	10 µL		500 ppb			
PAH CCV	SV610822	1							5/25/23
PAH CCV	SV610823	1							5/26/23
BNA CCV	SV610824	SV610810, 9714, 8204	200 ppm	20 mL each	200 µL	20 ppm	Mech <sub>2</sub>	JP	5/26/23
BNA CCV	SV610825	1							5/30/23
PAH CCV	SV610826	SV610605	10 ppm	10 µL		500 ppb			
PAH CCV	SV610827	1							5/31/23
PAH ICV	28	SV610801							6/1/23
PAH CCV	29	SV610805							6/2/23

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Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Init	Date
8270 MegaMix	SV611501						Meth	JP	7/20/23
<p>31850 8270 MegaMix® Lot# A0189077 Expire: 02/2024 Store: 0°C or colder 1 mL 500-1000 µg/mL each in Methylene Chloride</p> <p>RESTEK</p>									
8270 Spike #1	SV611502	SV611501	1000 ppm	1 mL	5 mL	200 ppm			
	2 SV611503	SV611421							
BHT CCV	SV611504	SV6112415 10911	200 ppm	20/20/20 µL	200 µL	20 ppm			
PAH CCV	SV611505	SV6110605	10	10		500 ppb			
BNA CCV	SV611506	SV6112415 10911	200	20/20/20		20 ppm			7/21/23
PAH CCV	07	SV6110605	10	10		500 ppb			
PAH CCV	08		10	10		500 ppb			7/24/23
BNA CCV	09	SV6112415 10911	200	20/20/20		20 ppm			
BNA CCV	SV611510								7/25/23
PAH CCV	11	SV6110605	10	10		500 ppb			
PAH CCV	12								7/26/23
BNA CCV	13	SV6112415 10911	200 ppm	20/20/20 µL		20 ppm	Meth	JP	
PAH Spike	SV611514	SV6110802	100 ppm	2.5 mL	50 mL	5 ppm	Acetone		
BNA CCV	SV611515	SV6112415 10911	200 ppm	20/20/20 µL	200 µL	20 ppm	Meth	JP	7/27/23
PAH CCV	SV611516	SV6110605	10 ppm	10 µL	200 µL	500 ppb	Meth		
BNA 60	17	SV6112415 10911	200 ppm	60 µL each	200 µL	60 ppm			
50	18			50		50			
35	19			35		35			
20	20			20	400 µL	20			
10	21			10	200 µL	10			
5	22	SV611520	20 ppm	50		5			
2	23			20		2			
1	24			10		1			
0.5	25			5		0.5			
ICV	26	SV6112415 10911	200 ppm	20 each		20			
<p>JP 8/2/23</p>									

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	Lab ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Int	Date
Analyte	Sub 120 01	200 ppm	200 µl	200 µl	200 ppm	Mech	JP	8/17/23
<del>PAH</del> CCW	Sub 120 02	10 ppm	10 µl	10 µl	500 ppb		JP	8/18/23
PAH CCW	Sub 120 03	10 ppm	10 µl	10 µl	10 ppm		JP	8/24/23
BNA	Sub 120 04	200 ppm	200 µl	200 µl	20 ppm		JP	8/24/23
PAH CCW	Sub 120 05	10 ppm	10 µl	10 µl	500 ppb	Mech	JP	8/24/23
BNA 60	06	200 ppm	60 µl	60 µl	60 ppm			
50	07		50 µl	50 µl	50 ppm			
35	08		35 µl	35 µl	35 ppm			
20	09		20 µl	200 µl	20 ppm			
10	10		10 µl	200 µl	10 ppm			
5	11	Sub 120 09	200 ppm	50 µl	5 ppm			
2	12		20 µl	20 µl	2 ppm			
1	13		10 µl	10 µl	1 ppm			
0.5	14		0.5 µl	0.5 µl	0.5 ppm			
ILV	15							
PAH CCW	Sub 120 16	10 ppm	10 µl	10 µl	500 ppb			8/23/23
PAH ILV	Sub 120 17							
PAH CCW	18							8/24/23
BNA CCW	19	200	20 µl each	20 µl	20 ppm			
PAH CCW	20	10	10 µl	10 µl	500 ppb			8/25/23
PAH CCW	Sub 120 21						JP	8/28/23
BNA CCW	22	20	20 µl each	20 µl	20 ppm			8/30/23
PAH CCW	23	10	10 µl	10 µl	0.5			
BNA CCW	24	20	20 µl each	20 µl	20			8/31/23
PAH CCW	25	10	10 µl	10 µl	0.5			
PAH CCW	26				0.5			9/1/23
PAH CCW	27				0.5			9/5/23
BNA CCW	28	20	20 µl each	20 µl	20			9/6/23
PAH CCW	29	10	10 µl	10 µl	0.5			9/6/23
BSTD Stock	Sub 120 30							9/6/23
	31	400 ppm	0.5 mL	0.5 mL	40 ppm			9/6/23

**AccuStandard** 125 Market St, New Haven, CT 06513  
 www.AccuStandard.com

Z-014J 1 mL  
 Internal Standard Mix  
 4.0 mg/mL in CH<sub>2</sub>Cl<sub>2</sub>  
 Lot: 222091449  
 Exp: Sep 30, 2032

6 comp(s)  
 Storage: Ambient (>5 °C)/Sonicate

FOR LABORATORY USE ONLY

H315 H335  
 H332 H302  
 H351 H350  
 P338 P360  
 P331 P233  
 P262 P202  
 Refer to SDS



Signal Word **Warning**

SIGNATURE

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Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Instr	Date
8270 ADL	SV612701	SV612509	1000 ppm	100 µL	10 mL	10 ppm	Acetone	JP	10/13/23
Spike A		10		1000		100			
8270 MPL	02	11		100		10			
Spike B		12	2000	250		50			
8270 Extrn	03	SV612601		250		50			
MDL #1		02		500		100			
		03	500	100		50			
		04	1000	500		50			
		05	2000	250		50			
8270 MDL Extrn #2	04	06	1000	1000		100			
		07	2000	5		1			
BNA CCV	SV612705	SV6112415 10911	200 ppm	20/20/20 µL	200 µL	20 ppm	MeCl2	JP	10/16/23
PAH CCV	06	SV610605	10	10 µL		500 ppb		JP	10/16/23
DFTPP Stock	SV612707								
NOTEBOOK INSERT LABEL									
<p>EPA 8270 GC/MS Tuning Solution II 47548-U            Lot: XA19099V EXP: MAR/2019 STORAGE: REFRIGERATE 1 x 1ml  <b>SUPELCO</b>            Solutions Division            595 North Harrison Road • Bellefonte, PA            16823-0048 USA • Phone 814-359-3441</p>									
PAH CCV	SV612708	SV610801	10 ppm	10 µL	200 µL	500 ppb	MeCl2	JP	10/16/23
DFTPP	10	SV612707	1000 ppm	50 µL	1 mL	50 ppm			
PAH CCV	SV612711	SV610605	10 ppm	10 µL	200 µL	500 ppb		JP	10/17/23
BNA CCV	12	SV6112415 10911	200	20/20/20		20 ppm		JP	10/18/23
PAH CCV	13	SV610605	10	10		500 ppb			
8270 Megamix	14								
Custom Stock	15								

EPA 8270 GC/MS Tuning Solution II 47548-U  
 Lot: XA19099V EXP: MAR/2019 STORAGE: REFRIGERATE 1 x 1ml  
**SUPELCO**  
 Solutions Division  
 595 North Harrison Road • Bellefonte, PA  
 16823-0048 USA • Phone 814-359-3441

**RESTEK**  
 31850  
 Lot# AD1969E3  
 Expire: 09/2024  
 8270 MegaMix®  
 500-1000 µg/mL each in Methylene Chloride  
 Sonication required Mix is photosensitive  
 Full label information for the chemical is provided on the outside package

**AccuStandard**® 125 Market St, New Haven, CT 06513  
 www.AccuStandard.com  
**S-15651** 1 mL  
 Custom SVOC and VOC Standard -  
 1000 µg/mL in Methylene chloride  
 Lot: 222051034-01  
 Exp: Mar 14, 2024  
 PRODUCT OF THE USA FOR LABORATORY USE ONLY

H315 H335  
 H332 H302  
 H350 H350  
 P338 P360  
 P331 P233  
 P282 P202  
 Refer to SDS  
 Signal Word: Danger

SIGNATURE	DATE
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WITNESS	DATE

Work continued from Page	Stock	Stock	Stock	Final	Final	Solvent	Instr	Date	
Analyte	Lab ID	ID	Conc	Vol	Conc				
BNA CCW	SV613001	SV61284213	200ppm	100/100/100µL	200µL	20ppm	MeCl <sub>2</sub>	JP	11/11/23
8270 Cal	SV613002							JP	11/11/23
MR #5									
BIN Surrogate Mix	03								
PAH Working Stock	04	SV613002	2000 ppm	50µL	10µL	10ppm	MeCl <sub>2</sub>		
PAH Mix	05	03	1000	100µL	1	1	1		
BIN Surrogate Mix	06								
PAH Mix	07	SV613005	2000 ppm	50 µL	10µL	10ppm	MeCl <sub>2</sub>		
PAH Mix	08	06	1000	100	1	1	1		
BNA 8270 ISTD	09	SV613003	4000ppm	1µL	8µL	50ppm	MeCl <sub>2</sub>		11/12/23

31995  
8270 Calibration Mix #5, Revised  
Lot# A0191064  
Expire: 09/2028 Store: 10°C or colder  
2000 µg/mL each in Methylene Chloride  
**RESTEK**

**RESTEK** 31887  
Lot# A0197486  
Expire: 03/2029 Store: 10°C or colder  
Revised BIN Surrogate Mix  
1000 µg/mL each in Methylene chloride  
Sonication required Mix is photosensitive  
Full label information for the chemical is provided on the outside package

**SIGMA-ALDRICH**  
Store at: 2-8°C Exp. Mar/24  
CRM47543 Polynuclear Aromatic Hydrocarbons Mix  
certified reference material, 2000 µg/mL each component in benzene: dichloromethane (50:50), ampule of 1 mL  
EPA 8310 PAH Mix, EPA Polynuclear aromatic hydrocarbon mix  
Product of USA  
FBI Danger Highly flammable liquid and vapor May be fatal if swallowed and enters respiratory tract Causes skin irritation Causes serious eye irritation May cause drowsiness or dizziness May cause genetic defects May cause cancer Causes damage to organs (liver) through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects. Keep away from heat. Incompatible with strong oxidizing agents. Keep away from heat. Incompatible with strong oxidizing agents. If SWALLOWED: Immediately call a POISON CENTER or doctor. If ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do NOT induce vomiting.

**RESTEK** 31887  
Lot# A0194490  
Expire: 01/2025 Store: 10°C or colder  
Revised BIN Surrogate Mix  
1000 µg/mL each in Methylene chloride  
Sonication required Mix is photosensitive  
Full label information for the chemical is provided on the outside package

**AccuStandard** 125 Market St, New Haven, CT 06513  
www.AccuStandard.com  
Z-014J  
Internal Standard Mix  
4.0 mg/mL in CH<sub>2</sub>Cl<sub>2</sub>  
Lot: 222091449  
Exp: Sep 30, 2032  
6 comp(s)  
Storage: Ambient (>5 °C)/Sonicate

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Work continued from Page		Stock	Stock	Stock	Final	Final	Solvent	Part	Date
Analyte	Lab ID	ID	Conc	Vol	Vol	Conc			
BNA 60	SV6131 01	SV612811213	200ppm	60 mL each	200mL	60 ppm	MeCl <sub>2</sub>	JP	11/2/23
50	02			50		50			
35	03			35		35			
20	04			40	400µL	20			
10	05			10	200µL	10			
5	06	SV613104	20ppm	50		5			
2	07			20		2			
1	08			10		1			
0.5	09			5		0.5			
100	10	SV61124110 11316	200ppm	20mL each		20			
PAH 5000	11	SV613004	10ppm	500mL	1mL	5000 ppb	MeCl <sub>2</sub>	JP	11/2/23
1000	12			100		1000			
500	13			50		500			
200	14			20		200			
100	15			10		100			
50	16	SV613112	1000 ppb	50		50			
20	17			20		20			
10	18			10		10			
PAH 100	19	SV613007	10ppm	10mL	200µL	500ppb	MeCl <sub>2</sub>	JP	11/2/23
BNA 100	20	SV612811213	200ppm	20/20/20mL		20ppm	MeCl <sub>2</sub>	JP	11/3/23
PAH 100	21	SV613004	10ppm	10mL	200µL	500ppb	MeCl <sub>2</sub>	JP	11/3/23
PAH 100	22							JP	11/6/23
BNA 100	23	SV612811213	200ppm	20/20/20mL		20ppm			
PAH 100	24	SV613007	10ppm	10mL		500ppb	MeCl <sub>2</sub>	JP	11/6/23
PAH 100	25	SV613004							11/7/23
BNA 100	26	SV612811213	200ppm	20mL each		20ppm	MeCl <sub>2</sub>	JP	11/7/23
270 Mx	27							JP	11/8/23
30									
35									

**RESTEK**  
31850  
Lot# AD166000  
Expire 12/2024  
270 MegaMix®  
500-1000 µg/mL each in Methylene Chloride  
Sonication required Mx is photosensitive  
Full label information for the chemical is provided on the outside package

110 Benner Circle Bellefonte, PA 16823  
814-353-1300  
www.restek.com

Warning Danger  
Store 0°C or colder  
Receipt Date: \_\_\_\_\_  
Opened Date: \_\_\_\_\_  
Made in USA  
1 mL  
For Laboratory Use Only

**AccuStandard®** 125 Market St, New Haven, CT 06513  
www.AccuStandard.com

S-15651  
Custom SVOC and VOC Standard  
1000 µg/mL in Methylene chloride  
Lot: 222051034-01  
Exp: Mar 14, 2024  
PRODUCT OF THE USA

1 mL  
5 comp(s)  
Storage: Freeze (<-10 °C)  
FOR LABORATORY USE ONLY

H315 H335  
H332 H302  
H350 H350  
P231 P231  
P231 P233  
P262 P282  
Refer to SDS

Signal Word: Danger

www.scientificbindery88yrs.com

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	Work continued from Page	Stock	Stock	Stock	Final	Final	Solvent	Init	Date
	Lab ID	ID	Conc	Vol	Vol	Conc			
	SV613201	SV613121	1000ppm	1mL	5mL	200ppm	Mech	JP	11/18/23
5	SV613202	SV613128	200ppm	20/20/20ul	200ul	20ppm			
	SV613203	SV613143	10ppm	10ul		500ppb			11/19/23
	SV613204	SV613004							
	SV613205								
	SV613206	SV61311213	200ppm	20ul mech	20ul	20ppm		JP	11/16/23
10	SV613207						Acetone	JP	11/16/23
	SV613208	SV610803	100ppm	50ul	100ul	500ppb	Mech	JP	11/13/23
	SV613209	SV613004	10ppm	10ul	20ul	500ppb		JP	11/14/23
	SV613210	SV613004						JP	
	SV613211	SV61311213	200ppm	20ul mech		20ppm			11/15/23
15	SV613212								
	SV613213	SV613004	10ppm	10ul		500ppb			
	SV613214	SV613107							
	SV613215	SV61311213	200ppm	20/20/20ul		20ppm			11/16/23
	SV613216								
	SV613217	SV613004	10ppm	10ul		500ppb			
20	SV613218							JP	11/16/23
25	SV613219	SV613218	1000ppm	1ml	100ml	10ppm	Acetone		11/17/23
	SV613220	SV613004	10ppm	10ul	200ul	500ppb	Mech	JP	11/20/23
	SV613221								11/21/23
	SV613222								
	SV613223	SV61311213	200ppm	20/20/20ul	200ul	20ppm			
30	SV613224								
35									

**RESTEK**  
31887  
Lot# A0197466  
Expire: 03/2029 Store: 10°C or colder  
Revised B/N Surrogate Mix  
1000 µg/mL each in Methylene chloride  
Sonication required. Mix is photosensitive.  
Full label information for the chemical is provided on the outside package

110 Danvers Circle Bellefonte, PA 16823  
814-353-1300  
www.restek.com

**Warning**  
For Laboratory Use Only

Receipt Date: \_\_\_\_\_  
Opened Date: \_\_\_\_\_  
Made in USA  
1 mL

**AccuStandard**® 125 Market St. New Haven, CT 06513  
www.AccuStandard.com

**M-8270-SS**  
Method 8270 - Surrogate Standard  
4.0 mg/mL in CH2Cl2  
Lot: 223021323  
Exp: Feb 15, 2033

6 comp(s)  
Storage: Ambient (>5 °C)

PRODUCT OF THE USA FOR LABORATORY USE ONLY



**AccuStandard**® 125 Market St. New Haven, CT 06513  
www.AccuStandard.com

**M-8270-SS**  
Method 8270 - Surrogate Standard  
4.0 mg/mL in CH2Cl2  
Lot: 223021323  
Exp: Feb 15, 2033

6 comp(s)  
Storage: Ambient (>5 °C)

PRODUCT OF THE USA FOR LABORATORY USE ONLY



continued to Page

Work continued from Page		Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Init	Date	
	Analyte Lab ID	ID								
	5270 Sur	SV613301	SV613224	400ppm	2ml	100mL	80ppm	Acetone	JP	11/21/23
5	BNA CCV	SV613302	SV61281123	200ppm	20ul each	200mL	20ppm	MeCl2	JP	11/22/23
	PAH CCV	03	SV613004	10ppm	10ul		500ppb			
	PAH CCV	04	SV613007							
	PAH CCV	05	SV613004							11/27/23
	PAH CCV	SV613306	1					JP		11/28/23
10	BNA CCV	SV613307	SV61281123	200ppm	20ul each		20ppm			
	PAH CCV	08	1							11/29/23
	PAH CCV	09	SV613004	10ppm	10ul		500ppb			
	BNA CCV	SV613310	SV61281123	200ppm	20ul each	200mL	20ppm	MeCl2	JP	11/30/23
	PAH CCV	11	SV613004	10ppm	10ul		500ppb			11/30/23
	PAH CCV	12	1							12/1/23
15	PAH CCV	SV613313	1					JP		12/1/23
	PAH 500	14	SV613004	10ppm	500ul	1mL	500ppb			
	1000	15			100		100			
	500	16			50		50			
	200	17			20		200			
20	100	18			10		100			
	50	19	SV613315	1000ppb	50		50			
	20	20			20		20			
	10	21			10		10			
	100	22	SV613007	10ppm	10	200ul	500			
25	PAH CCV	SV613323	SV613004	1	0ul	1	500ppb		JP	12/5/23
	BNA CCV	SV613324	SV61281123	200ppm	20ul each	200mL	20ppm	MeCl2	JP	12/5/23
	BNA CCV	25	1							12/10/23
	PAH CCV	SV613326	SV613004	10ppm	10ul	200ul	500ppb	MeCl2	JP	12/16/23
	PAH CCV	27	SV613007							12/17/23
30	BNA CCV	28	SV61281123	200ppm	20ul each		20ppm			
	BNA CCV	SV613329	1							12/18/23
	PAH CCV	30	SV613004	10ppm	10ul		500ppb			
	PAH CCV	SV613331	1							12/19/23
35	BNA CCV	32	SV61281123	200ppm	20/20/20mL		20ppm			

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

## Total Metals EPA 200.8

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration Data
- Administrative Forms

# Dataset Report

12-11-23  
KPM

User Name: kmckinney

Computer Name: ICPMS

Dataset File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121A\

Report Date/Time: Monday, December 11, 2023 15:59:21

## The Dataset

Batch ID	Sample ID	Date and Time	Read Type	Samp. File Name	Description
SmartTune - TTorch Alignment		07:06:21 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
SmartTune - NNebulizer Gas Flow S		07:07:41 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
SmartTune - CQID STD/DRC		07:09:15 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
SmartTune - KKED Mode QID		07:10:44 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
SmartTune - SSTD Performance Che		07:12:13 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
SmartTune - MMass Calibration and		07:15:42 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	Sample	07:23:07 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	Sample	07:28:27 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	Sample	07:33:47 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	Sample	07:39:06 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	Blank	07:44:27 Mon 11-	CBlank	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	Standard 1	07:48:56 Mon 11-	CStandard #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	Standard 2	07:53:26 Mon 11-	CStandard #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	Standard 3	07:57:55 Mon 11-	CStandard #3	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	Standard 4	08:02:25 Mon 11-	CStandard #4	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	Standard 5	08:06:55 Mon 11-	CStandard #5	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	Standard 6	08:11:25 Mon 11-	CStandard #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	Standard 7	08:15:54 Mon 11-	CStandard #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	QC Std 1	08:21:14 Mon 11-	CQC Std #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	QC Std 2	08:26:34 Mon 11-	CQC Std #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	QC Std 6	08:31:04 Mon 11-	CQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	QC Std 7	08:36:24 Mon 11-	CQC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	QC Std 8	08:41:44 Mon 11-	CQC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	MB1209WM1 2X	09:01:26 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	SB1209WM1 2X	09:06:45 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	12-053-07b 2X	09:12:03 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	12-053-07bD 2X	09:17:22 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	12-053-07bL 10X	09:22:40 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	12-053-07bMS 2X	09:27:58 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	12-053-07bMSD 2X	09:33:17 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	12-053-07bPS 2X	09:38:37 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	11-272-01c 2X	09:44:14 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	11-272-01c 5X	09:52:27 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	QC Std 6	10:08:59 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	QC Std 7	10:14:19 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	
	QC Std 8	10:19:38 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121\	

## Performance Check Report

**Sample ID: STD Performance Check**

Sample Date/Time: Monday, December 11, 2023 07:12:13

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Data Set\12dec23\231211A\STD Performance Check.063

Mass Cal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Mass Cal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

### Summary

Abundance	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens. SD	Net Intens. RSD	Mode
Be	9.0	6567.0	6566.976	6566.976	137.635	2.1	Standard	
In	114.9	126987.1	126987.062	126987.062	1835.560	1.4	Standard	
U	238.1	125077.4	125077.376	125077.376	603.379	0.5	Standard	
[ CeO	155.9	2787.1	0.022	0.022	0.000	1.5	Standard	
[ > Ce	139.9	124115.5	124115.499	124115.499	1573.848	1.3	Standard	
[ Ce++	70.0	3256.1	0.026	0.026	0.003	11.9	Standard	
Bkgd	220.0	0.2	0.233	0.233	0.190	81.4	Standard	

### Current Conditions File Data

Current Value	Description
1.02	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
16.00	Plasma Gas Flow
-12.00	Deflector Voltage
500.00	ICP RF Power
1937.00	Analog Stage Voltage
1200.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-14.00	Cell Rod Offset STD [CRO]
11.00	Discriminator Threshold
-9.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
1.02	DRC Mode NEB
-8.00	DRC Mode QRO
-2.00	DRC Mode CRO
-14.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
375.00	Axial Field Voltage
13.00	KED Mode CRO
-12.00	KED Mode QRO
-6.00	KED Mode Cell Entrance Voltage
-25.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.10	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

# Instrument Mass Calibration Report

File Name:

File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\

Acq. Date/Time: 08:41:44 Mon 11-Dec-23

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Peak Width	Custom Res.
Li	7.016	7.025	1252	2054	0.711	
Mg	23.985	23.975	4635	2056	0.688	
In	114.904	114.925	22825	2055	0.694	
U	238.050	238.075	47459	2047	0.695	

## Quantitative Analysis Calibration Report

File Name:

File Path:

Calibration Type: External Calibration

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Sc	44.956	Linear Thru Zero	0.00	0.00	0.000000
Ni	57.935	Linear Thru Zero	0.02	0.00	0.999933
Ni	59.933	Linear Thru Zero	0.01	0.00	0.999940
Ni	61.928	Linear Thru Zero	0.00	0.00	0.999941
Ge	71.922	Linear Thru Zero	0.00	0.00	0.000000
As	74.922	Linear Thru Zero	0.00	0.00	0.999890
As-1	74.922	Linear Thru Zero	0.00	0.00	0.999924
Se	76.920	Linear Thru Zero	0.00	0.00	0.999626
Se	77.917	Linear Thru Zero	0.00	0.00	0.999601
Br	78.918	Linear Thru Zero	0.00	0.00	0.000000
Se	81.917	Linear Thru Zero	0.00	0.00	0.999937
Kr	82.914	Linear Thru Zero	0.00	0.00	0.000000
Y	88.905	Linear Thru Zero	0.00	0.00	0.000000
Rh	102.905	Linear Thru Zero	0.00	0.00	0.000000
In	114.904	Linear Thru Zero	0.00	0.00	0.000000
Tb	158.925	Linear Thru Zero	0.00	0.00	0.000000
Ho	164.930	Linear Thru Zero	0.00	0.00	0.000000
Pb	207.977	Linear Thru Zero	0.08	0.00	0.999776
Bi	208.980	Linear Thru Zero	0.00	0.00	0.000000
Th	232.038	Linear Thru Zero	0.00	0.00	0.000000
Ni-1	57.935	Linear Thru Zero	0.16	0.00	0.999969
Ni-1	59.933	Linear Thru Zero	0.07	0.00	0.999905
Ni-1	61.928	Linear Thru Zero	0.01	0.00	0.999863
Ge-1	71.922	Linear Thru Zero	0.00	0.00	0.000000
As-2	74.922	Linear Thru Zero	0.01	0.00	0.999981
Y-1	88.905	Linear Thru Zero	0.00	0.00	0.000000
Rh-1	102.905	Linear Thru Zero	0.00	0.00	0.000000
In-1	114.904	Linear Thru Zero	0.00	0.00	0.000000

# Quantitative Analysis - Summary Report

**Sample ID: Blank**

Sample Date/Time: Monday, December 11, 2023 07:44:27

Report Date/Time: Monday, December 11, 2023 15:58:21

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\Blank.005

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	128.3	2.3				ug/L		KED
	Ni-1	60	59.0	9.4				ug/L		KED
	Ni-1	62	8.7	53.3				ug/L		KED
>	Ge-1	72	11286.1	1.1				ug/L		KED
[	As-2	75	0.7	86.6				ug/L		KED
	Y-1	89	20683.3	1.5				ug/L		KED
	Rh-1	103	155199.6	1.5				ug/L		KED
	In-1	115	14463.8	0.7				ug/L		KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

## Sample ID: Standard 1

Sample Date/Time: Monday, December 11, 2023 07:48:56

Report Date/Time: Monday, December 11, 2023 15:58:22

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\Standard 1.006

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	445.0	5.9				ug/L	128	KED
	Ni-1	60	172.3	4.5				ug/L	59	KED
	Ni-1	62	35.0	13.1				ug/L	9	KED
>	Ge-1	72	11495.0	3.0				ug/L	11286	KED
[	As-2	75	18.0	22.2	0.2000	0.044	22.2	ug/L	1	KED
	Y-1	89	21110.3	2.8				ug/L	20683	KED
	Rh-1	103	157681.9	3.8				ug/L	155200	KED
	In-1	115	14559.6	2.8				ug/L	14464	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

### Sample ID: Standard 2

Sample Date/Time: Monday, December 11, 2023 07:53:26

Report Date/Time: Monday, December 11, 2023 15:58:24

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\Standard 2.007

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1085.7	6.1	0.5000	0.037	7.5	ug/L	128	KED
	Ni-1	60	449.3	3.6	0.5000	0.027	5.4	ug/L	59	KED
	Ni-1	62	77.3	6.4	0.5000	0.044	8.7	ug/L	9	KED
>	Ge-1	72	11631.1	1.3				ug/L	11286	KED
	As-2	75	39.7	2.9	0.4916	0.011	2.3	ug/L	1	KED
	Y-1	89	21299.2	2.4				ug/L	20683	KED
	Rh-1	103	161787.8	2.8				ug/L	155200	KED
	In-1	115	14908.3	2.3				ug/L	14464	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: Standard 3**

Sample Date/Time: Monday, December 11, 2023 07:57:55

Report Date/Time: Monday, December 11, 2023 15:58:26

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\Standard 3.008

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	3944.5	2.7	1.9995	0.120	6.0	ug/L	128	KED
	Ni-1	60	1737.8	3.8	2.0081	0.076	3.8	ug/L	59	KED
	Ni-1	62	262.3	2.2	1.9900	0.048	2.4	ug/L	9	KED
>	Ge-1	72	11684.4	3.6				ug/L	11286	KED
[	As-2	75	145.7	4.6	1.9868	0.086	4.3	ug/L	1	KED
	Y-1	89	21106.9	2.0				ug/L	20683	KED
	Rh-1	103	159159.8	1.0				ug/L	155200	KED
	In-1	115	14557.0	1.4				ug/L	14464	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 4**

Sample Date/Time: Monday, December 11, 2023 08:02:25

Report Date/Time: Monday, December 11, 2023 15:58:28

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\Standard 4.009

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	8877.6	3.3	<b>4.9333</b>	0.138	2.8	ug/L	128	KED
	Ni-1	60	3865.5	1.0	<b>4.9290</b>	0.030	0.6	ug/L	59	KED
	Ni-1	62	602.7	4.9	<b>4.9469</b>	0.275	5.6	ug/L	9	KED
>	Ge-1	72	11699.8	1.1				ug/L	11286	KED
[	As-2	75	328.3	3.2	<b>4.9171</b>	0.201	4.1	ug/L	1	KED
	Y-1	89	21059.8	0.7				ug/L	20683	KED
	Rh-1	103	159090.7	1.5				ug/L	155200	KED
	In-1	115	14823.2	3.1				ug/L	14464	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 5**

Sample Date/Time: Monday, December 11, 2023 08:06:55

Report Date/Time: Monday, December 11, 2023 15:58:30

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\Standard 5.010

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	30838.2	5.2	20.1168	1.220	6.1	ug/L	128	KED
	Ni-1	60	13353.9	4.7	20.1091	1.024	5.1	ug/L	59	KED
	Ni-1	62	2072.2	4.1	20.1064	0.893	4.4	ug/L	9	KED
>	Ge-1	72	9282.7	1.1				ug/L	11286	KED
[	As-2	75	1202.4	3.9	20.1651	0.776	3.8	ug/L	1	KED
	Y-1	89	16783.2	2.2				ug/L	20683	KED
	Rh-1	103	126758.3	1.5				ug/L	155200	KED
	In-1	115	11832.2	3.1				ug/L	14464	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 6**

Sample Date/Time: Monday, December 11, 2023 08:11:25

Report Date/Time: Monday, December 11, 2023 15:58:31

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\Standard 6.011

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	64585.7	2.7	<b>39.8669</b>	1.547	3.9	ug/L	128	KED
	Ni-1	60	27989.7	2.0	<b>39.8732</b>	1.387	3.5	ug/L	59	KED
	Ni-1	62	4432.7	3.2	<b>40.0439</b>	1.539	3.8	ug/L	9	KED
>	Ge-1	72	9948.5	2.0				ug/L	11286	KED
	As-2	75	2544.2	0.9	<b>39.9643</b>	0.796	2.0	ug/L	1	KED
	Y-1	89	17647.6	2.0				ug/L	20683	KED
	Rh-1	103	133415.8	1.4				ug/L	155200	KED
	In-1	115	12417.2	1.1				ug/L	14464	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: Standard 7**

Sample Date/Time: Monday, December 11, 2023 08:15:54

Report Date/Time: Monday, December 11, 2023 15:58:33

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\Standard 7.012

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	164603.8	1.6	<b>99.7368</b>	3.359	3.4	ug/L	128	KED
	Ni-1	60	70027.6	0.6	<b>99.4212</b>	2.454	2.5	ug/L	59	KED
	Ni-1	62	10950.9	1.2	<b>99.2770</b>	2.695	2.7	ug/L	9	KED
>	Ge-1	72	10277.0	1.8				ug/L	11286	KED
[	As-2	75	6568.5	1.6	<b>99.9787</b>	1.061	1.1	ug/L	1	KED
	Y-1	89	18623.8	1.4				ug/L	20683	KED
	Rh-1	103	140006.4	0.7				ug/L	155200	KED
	In-1	115	13209.2	3.0				ug/L	14464	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 1**

Sample Date/Time: Monday, December 11, 2023 08:21:14

Report Date/Time: Monday, December 11, 2023 15:58:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\X231211A\QC Std 1.013

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	90760.6	2.4	<b>50.2804</b>	1.147	2.3	ug/L	128	KED
	Ni-1	60	39031.3	2.8	<b>50.6637</b>	1.089	2.1	ug/L	59	KED
	Ni-1	62	6083.3	3.5	<b>50.4175</b>	1.251	2.5	ug/L	9	KED
>	Ge-1	72	11228.4	1.1				ug/L	11286	KED
[	As-2	75	3369.7	1.2	<b>46.9400</b>	0.699	1.5	ug/L	1	KED
	Y-1	89	20384.5	1.9				ug/L	20683	KED
	Rh-1	103	151028.0	3.3				ug/L	155200	KED
	In-1	115	14449.8	3.6				ug/L	14464	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	100.561	
	Ni-1	60	101.327	
	Ni-1	62	100.835	
>	Ge-1	72		99.489
[	As-2	75	93.880	
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 2**

Sample Date/Time: Monday, December 11, 2023 08:26:34

Report Date/Time: Monday, December 11, 2023 15:58:37

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\QC Std 2.014

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	147.1	8.8	0.0108	0.006	56.8	ug/L	128	KED
	Ni-1	60	68.7	4.2	0.0130	0.006	43.6	ug/L	59	KED
	Ni-1	62	11.3	13.5	0.0223	0.011	48.7	ug/L	9	KED
>	Ge-1	72	11231.7	2.1				ug/L	11286	KED
	As-2	75	2.7	43.3	0.0281	0.017	60.6	ug/L	1	KED
	Y-1	89	20259.7	4.1				ug/L	20683	KED
	Rh-1	103	149691.6	1.5				ug/L	155200	KED
	In-1	115	14474.3	2.4				ug/L	14464	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		99.518
	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, December 11, 2023 08:31:04

Report Date/Time: Monday, December 11, 2023 15:58:39

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\QC Std 6.015

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	63387.2	2.6	<b>39.9796</b>	1.972	4.9	ug/L	128	KED
	Ni-1	60	27787.0	1.4	<b>41.0585</b>	1.449	3.5	ug/L	59	KED
	Ni-1	62	4320.0	3.4	<b>40.7514</b>	1.534	3.8	ug/L	9	KED
>	Ge-1	72	9866.1	2.3				ug/L	11286	KED
[	As-2	75	2585.6	3.8	<b>40.9788</b>	0.781	1.9	ug/L	1	KED
	Y-1	89	17636.6	2.2				ug/L	20683	KED
	Rh-1	103	131328.8	3.7				ug/L	155200	KED
	In-1	115	12593.7	3.8				ug/L	14464	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	99.949	
	Ni-1	60	102.646	
	Ni-1	62	101.878	
>	Ge-1	72		87.418
[	As-2	75	102.447	
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, December 11, 2023 08:36:24

Report Date/Time: Monday, December 11, 2023 15:58:40

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\QC Std 7.016

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	33141.6	0.8	19.7586	0.283	1.4	ug/L	128	KED
	Ni-1	60	14360.5	0.4	20.0586	0.097	0.5	ug/L	59	KED
	Ni-1	62	2217.2	2.8	19.7803	0.688	3.5	ug/L	9	KED
>	Ge-1	72	10411.5	0.7				ug/L	11286	KED
[	As-2	75	1328.1	3.3	19.9437	0.591	3.0	ug/L	1	KED
	Y-1	89	18547.7	1.0				ug/L	20683	KED
	Rh-1	103	137952.6	3.1				ug/L	155200	KED
	In-1	115	13022.8	3.3				ug/L	14464	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	98.793	
	Ni-1	60	100.293	
	Ni-1	62	98.902	
>	Ge-1	72		92.250
[	As-2	75	99.718	
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, December 11, 2023 08:41:44

Report Date/Time: Monday, December 11, 2023 15:58:42

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\QC Std 8.017

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	201.3	7.7	0.0399	0.009	23.2	ug/L	128	KED
	Ni-1	60	85.0	4.2	0.0332	0.005	14.5	ug/L	59	KED
	Ni-1	62	16.3	15.4	0.0628	0.021	33.7	ug/L	9	KED
>	Ge-1	72	11331.5	0.7				ug/L	11286	KED
[	As-2	75	1.0	100.0	0.0046	0.014	302.8	ug/L	1	KED
	Y-1	89	20459.0	0.8				ug/L	20683	KED
	Rh-1	103	150983.8	1.7				ug/L	155200	KED
	In-1	115	14592.4	2.8				ug/L	14464	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		100.402
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: MB1209WM1 2X**

Sample Date/Time: Monday, December 11, 2023 09:01:26

Report Date/Time: Monday, December 11, 2023 15:58:44

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\MB1209WM1 2X.018

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	460.0	2.9	<b>0.1852</b>	0.010	5.4	ug/L	128	KED
	Ni-1	60	186.7	7.8	<b>0.1676</b>	0.028	16.8	ug/L	59	KED
	Ni-1	62	27.7	13.7	<b>0.1584</b>	0.027	17.2	ug/L	9	KED
>	Ge-1	72	11200.7	3.6				ug/L	11286	KED
[	As-2	75	2.0	50.0	<b>0.0184</b>	0.013	72.0	ug/L	1	KED
	Y-1	89	20283.7	3.4				ug/L	20683	KED
	Rh-1	103	145593.3	3.0				ug/L	155200	KED
	In-1	115	14727.2	2.6				ug/L	14464	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		99.243
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: SB1209WM1 2X**

Sample Date/Time: Monday, December 11, 2023 09:06:45

Report Date/Time: Monday, December 11, 2023 15:58:46

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\SB1209WM1 2X.019

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	86767.5	1.5	<b>48.2638</b>	0.456	0.9	ug/L	128	KED
	Ni-1	60	37719.7	1.1	<b>49.1662</b>	0.250	0.5	ug/L	59	KED
	Ni-1	62	5804.2	1.3	<b>48.3138</b>	0.841	1.7	ug/L	9	KED
>	Ge-1	72	11181.7	0.9				ug/L	11286	KED
[	As-2	75	3363.1	0.4	<b>47.0431</b>	0.603	1.3	ug/L	1	KED
	Y-1	89	19771.7	2.9				ug/L	20683	KED
	Rh-1	103	144747.1	1.7				ug/L	155200	KED
	In-1	115	14431.0	2.1				ug/L	14464	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		99.075
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 12-053-07b 2X**

Sample Date/Time: Monday, December 11, 2023 09:12:03

Report Date/Time: Monday, December 11, 2023 15:58:48

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\12-053-07b 2X.020

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1376.9	2.6	0.6571	0.009	1.4	ug/L	128	KED
	Ni-1	60	530.0	5.2	0.5801	0.025	4.3	ug/L	59	KED
	Ni-1	62	84.0	8.3	0.5939	0.071	11.9	ug/L	9	KED
>	Ge-1	72	11782.9	2.2				ug/L	11286	KED
[	As-2	75	31.7	23.7	0.4114	0.099	24.2	ug/L	1	KED
	Y-1	89	21937.8	3.1				ug/L	20683	KED
	Rh-1	103	154289.5	3.0				ug/L	155200	KED
	In-1	115	15561.7	0.4				ug/L	14464	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		104.401
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 12-053-07bD 2X**

Sample Date/Time: Monday, December 11, 2023 09:17:22

Report Date/Time: Monday, December 11, 2023 15:58:49

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\12-053-07bD 2X.021

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1440.9	1.1	<b>0.6605</b>	0.020	3.0	ug/L	128	KED
	Ni-1	60	612.3	7.5	<b>0.6510</b>	0.032	5.0	ug/L	59	KED
	Ni-1	62	82.7	28.2	<b>0.5559</b>	0.178	32.0	ug/L	9	KED
>	Ge-1	72	12279.9	3.2				ug/L	11286	KED
[	As-2	75	35.3	8.2	<b>0.4419</b>	0.050	11.3	ug/L	1	KED
	Y-1	89	22615.2	1.9				ug/L	20683	KED
	Rh-1	103	159444.3	1.2				ug/L	155200	KED
	In-1	115	16160.0	1.8				ug/L	14464	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		108.806
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 12-053-07bL 10X**

Sample Date/Time: Monday, December 11, 2023 09:22:40

Report Date/Time: Monday, December 11, 2023 15:58:51

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\12-053-07bL 10X.022

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	474.4	2.4	<b>0.1723</b>	0.006	3.8	ug/L	128	KED
	Ni-1	60	190.7	14.0	<b>0.1527</b>	0.032	21.3	ug/L	59	KED
	Ni-1	62	29.0	20.7	<b>0.1507</b>	0.046	30.2	ug/L	9	KED
>	Ge-1	72	12156.2	0.3				ug/L	11286	KED
[	As-2	75	7.0	49.5	<b>0.0809</b>	0.045	55.3	ug/L	1	KED
	Y-1	89	22171.5	0.7				ug/L	20683	KED
	Rh-1	103	158262.9	1.3				ug/L	155200	KED
	In-1	115	16103.4	1.2				ug/L	14464	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		107.709
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 12-053-07bMS 2X**

Sample Date/Time: Monday, December 11, 2023 09:27:58

Report Date/Time: Monday, December 11, 2023 15:58:53

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\12-053-07bMS 2X.023

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	97157.3	1.1	<b>49.4657</b>	0.974	2.0	ug/L	128	KED
	Ni-1	60	41884.3	0.4	<b>49.9716</b>	1.054	2.1	ug/L	59	KED
	Ni-1	62	6415.8	3.8	<b>48.8512</b>	0.688	1.4	ug/L	9	KED
>	Ge-1	72	12220.6	2.4				ug/L	11286	KED
L	As-2	75	3773.5	3.0	<b>48.3008</b>	1.303	2.7	ug/L	1	KED
	Y-1	89	22887.0	0.5				ug/L	20683	KED
	Rh-1	103	159978.8	0.9				ug/L	155200	KED
	In-1	115	16430.7	1.7				ug/L	14464	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		108.280
L	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 12-053-07bMSD 2X**

Sample Date/Time: Monday, December 11, 2023 09:33:17

Report Date/Time: Monday, December 11, 2023 15:58:55

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\X231211A\12-053-07bMSD 2X.024

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	100023.0	2.1	<b>51.2334</b>	0.787	1.5	ug/L	128	KED
	Ni-1	60	43409.6	2.6	<b>52.1125</b>	1.654	3.2	ug/L	59	KED
	Ni-1	62	6644.5	1.2	<b>50.9317</b>	0.855	1.7	ug/L	9	KED
>	Ge-1	72	12145.2	2.2				ug/L	11286	KED
L	As-2	75	4036.9	1.3	<b>51.9938</b>	0.545	1.0	ug/L	1	KED
	Y-1	89	22660.0	2.5				ug/L	20683	KED
	Rh-1	103	157260.9	0.6				ug/L	155200	KED
	In-1	115	16285.3	1.0				ug/L	14464	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		107.611
L	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 12-053-07bPS 2X**

Sample Date/Time: Monday, December 11, 2023 09:38:37

Report Date/Time: Monday, December 11, 2023 15:58:56

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\12-053-07bPS 2X.025

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	80121.2	2.8	<b>40.9034</b>	1.059	2.6	ug/L	128	KED
	Ni-1	60	34557.8	1.6	<b>41.3402</b>	0.544	1.3	ug/L	59	KED
	Ni-1	62	5271.3	1.1	<b>40.2701</b>	0.709	1.8	ug/L	9	KED
>	Ge-1	72	12180.5	1.3				ug/L	11286	KED
L	As-2	75	3103.7	0.5	<b>39.8565</b>	0.715	1.8	ug/L	1	KED
	Y-1	89	22340.8	0.4				ug/L	20683	KED
	Rh-1	103	156975.4	0.1				ug/L	155200	KED
	In-1	115	15917.9	1.1				ug/L	14464	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		107.925
L	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-272-01c 2X**

Sample Date/Time: Monday, December 11, 2023 09:44:14

Report Date/Time: Monday, December 11, 2023 15:58:58

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\11-272-01c 2X.026

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	4053.4	1.2	<b>4.3329</b>	0.072	1.7	ug/L	128	KED
	Ni-1	60	1781.8	3.1	<b>4.4607</b>	0.176	3.9	ug/L	59	KED
	Ni-1	62	293.7	11.0	<b>4.7033</b>	0.536	11.4	ug/L	9	KED
>	Ge-1	72	5733.8	0.7				ug/L	11286	KED
[	As-2	75	68.3	6.1	<b>1.8547</b>	0.103	5.6	ug/L	1	KED
	Y-1	89	12917.8	1.6				ug/L	20683	KED
	Rh-1	103	70289.2	0.6				ug/L	155200	KED
	In-1	115	8620.3	0.5				ug/L	14464	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		50.804
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-272-01c 5X**

Sample Date/Time: Monday, December 11, 2023 09:52:27

Report Date/Time: Monday, December 11, 2023 15:59:00

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\11-272-01c 5X.028

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	2779.0	2.9	<b>1.7125</b>	0.049	2.8	ug/L	128	KED
	Ni-1	60	1201.7	2.7	<b>1.7308</b>	0.037	2.1	ug/L	59	KED
	Ni-1	62	238.0	7.3	<b>2.2134</b>	0.157	7.1	ug/L	9	KED
>	Ge-1	72	9706.6	0.7				ug/L	11286	KED
L	As-2	75	50.7	7.5	<b>0.8076</b>	0.067	8.3	ug/L	1	KED
	Y-1	89	19557.7	1.1				ug/L	20683	KED
	Rh-1	103	117303.3	0.9				ug/L	155200	KED
	In-1	115	13201.3	1.0				ug/L	14464	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		86.005
L	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, December 11, 2023 10:08:59

Report Date/Time: Monday, December 11, 2023 15:59:02

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\X231211A\QC Std 6.031

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	82061.1	1.9	<b>37.8321</b>	0.823	2.2	ug/L	128	KED
	Ni-1	60	35616.7	1.8	<b>38.4737</b>	0.608	1.6	ug/L	59	KED
	Ni-1	62	5490.7	1.6	<b>37.8753</b>	0.591	1.6	ug/L	9	KED
>	Ge-1	72	13486.7	0.5				ug/L	11286	KED
[	As-2	75	3340.4	2.3	<b>38.7333</b>	0.717	1.9	ug/L	1	KED
	Y-1	89	24567.1	3.5				ug/L	20683	KED
	Rh-1	103	170828.7	1.2				ug/L	155200	KED
	In-1	115	17547.8	2.7				ug/L	14464	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		119.498
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, December 11, 2023 10:14:19

Report Date/Time: Monday, December 11, 2023 15:59:04

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\QC Std 7.032

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	43406.6	1.5	20.0559	0.341	1.7	ug/L	128	KED
	Ni-1	60	18638.8	3.1	20.1766	0.624	3.1	ug/L	59	KED
	Ni-1	62	2890.3	2.9	19.9798	0.477	2.4	ug/L	9	KED
>	Ge-1	72	13434.3	0.6				ug/L	11286	KED
[	As-2	75	1792.1	2.9	20.8585	0.597	2.9	ug/L	1	KED
	Y-1	89	24713.4	3.4				ug/L	20683	KED
	Rh-1	103	167538.5	1.6				ug/L	155200	KED
	In-1	115	17474.0	0.1				ug/L	14464	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		119.034
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, December 11, 2023 10:19:38

Report Date/Time: Monday, December 11, 2023 15:59:05

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211A2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211A\QC Std 8.033

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	234.7	6.9	<b>0.0388</b>	0.007	19.0	ug/L	128	KED
	Ni-1	60	99.0	4.0	<b>0.0320</b>	0.004	12.2	ug/L	59	KED
	Ni-1	62	24.0	15.0	<b>0.0961</b>	0.025	25.8	ug/L	9	KED
>	Ge-1	72	13335.2	0.5				ug/L	11286	KED
L	As-2	75	2.0	50.0	<b>0.0142</b>	0.012	82.7	ug/L	1	KED
	Y-1	89	24532.4	1.3				ug/L	20683	KED
	Rh-1	103	168318.5	0.9				ug/L	155200	KED
	In-1	115	17239.2	0.1				ug/L	14464	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		118.156
L	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Dataset Report

12-11-23  
KDM

User Name: kmckinney

Computer Name: ICPMS

Dataset File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\

Report Date/Time: Monday, December 11, 2023 15:52:09

## The Dataset

Batch ID	Sample ID	Date and Time	Read Type	Samp. File Name	Description
	Blank	10:27:06 Mon 11-	CBlank	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	Standard 1	10:31:35 Mon 11-	CStandard #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	Standard 2	10:36:05 Mon 11-	CStandard #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	Standard 3	10:40:35 Mon 11-	CStandard #3	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	Standard 4	10:45:05 Mon 11-	CStandard #4	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	Standard 5	10:49:35 Mon 11-	CStandard #5	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	Standard 6	10:54:04 Mon 11-	CStandard #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	Standard 7	10:58:34 Mon 11-	CStandard #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 1	11:03:53 Mon 11-	CQC Std #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 2	11:09:13 Mon 11-	CQC Std #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 6	11:17:57 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 7	11:23:17 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 8	11:28:37 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-183-06a 2X	11:33:56 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-183-08c 2X	11:39:15 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-183-11e 2X	11:44:48 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-183-13e 2X	11:53:56 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-01f 2X	11:59:15 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-03f 2X	12:04:34 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-05c 2X	12:09:52 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-07a 2X	12:15:11 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-08f 2X	12:20:30 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-266-01c 2X	12:25:50 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 6	12:31:09 Mon 11-	CQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 7	12:36:28 Mon 11-	CQC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 8	12:41:48 Mon 11-	CQC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	MB1211D1 2X	12:48:51 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	SB1211D1 2X	12:54:11 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-03g 2X	12:59:30 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-03gD 2X	13:04:48 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-03gL 10X	13:10:08 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-03gMS 2X	13:15:27 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-03gMSD 2X	13:20:46 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-183-06b 2X	13:26:04 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-183-08d 2X	13:31:22 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-183-11f 2X	13:36:41 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 6	13:41:59 Mon 11-	CQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 7	13:47:19 Mon 11-	CQC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 8	13:52:39 Mon 11-	CQC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-183-13f 2X	13:57:08 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-01g 2X	14:02:28 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-05d 2X	14:07:47 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-07b 2X	14:13:06 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-08g 2X	14:18:25 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-266-01d 2X	14:23:45 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 6	14:29:04 Mon 11-	CQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 7	14:34:24 Mon 11-	CQC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 8	14:39:44 Mon 11-	CQC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-272-02c 10X	14:46:44 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-272-03c 10X	14:52:03 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	

11-272-04c 10X	14:57:22 Mon 11-CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
11-272-05c 10X	15:02:41 Mon 11-CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
11-272-01d 10X FF	15:08:00 Mon 11-CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
11-272-02d 10X	15:13:18 Mon 11-CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
11-272-03d 10X	15:18:37 Mon 11-CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
11-272-04d 10X	15:23:57 Mon 11-CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
11-272-05d 10X	15:29:16 Mon 11-CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
QC Std 6	15:34:35 Mon 11-CQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
QC Std 7	15:39:55 Mon 11-CQC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
QC Std 8	15:45:15 Mon 11-CQC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'

# Quantitative Analysis Calibration Report

File Name:

File Path:

Calibration Type: External Calibration

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Sc	44.956	Linear Thru Zero	0.00	0.00	0.000000
Ni	57.935	Linear Thru Zero	0.03	0.00	0.999779
Ni	59.933	Linear Thru Zero	0.01	0.00	0.999886
Ni	61.928	Linear Thru Zero	-0.00	0.00	-0.419754
Ge	71.922	Linear Thru Zero	0.00	0.00	0.000000
As	74.922	Linear Thru Zero	0.00	0.00	0.999705
As-1	74.922	Linear Thru Zero	0.01	0.00	0.999804
Se	76.920	Linear Thru Zero	0.00	0.00	0.999681
Se	77.917	Linear Thru Zero	0.00	0.00	0.999031
Br	78.918	Linear Thru Zero	0.00	0.00	0.000000
Se	81.917	Linear Thru Zero	0.00	0.00	0.999780
Kr	82.914	Linear Thru Zero	0.00	0.00	0.000000
Y	88.905	Linear Thru Zero	0.00	0.00	0.000000
Rh	102.905	Linear Thru Zero	0.00	0.00	0.000000
In	114.904	Linear Thru Zero	0.00	0.00	0.000000
Tb	158.925	Linear Thru Zero	0.00	0.00	0.000000
Ho	164.930	Linear Thru Zero	0.00	0.00	0.000000
Pb	207.977	Linear Thru Zero	0.08	0.00	0.999041
Bi	208.980	Linear Thru Zero	0.00	0.00	0.000000
Th	232.038	Linear Thru Zero	0.00	0.00	0.000000
Ni-1	57.935	Linear Thru Zero	0.15	0.00	0.999908
Ni-1	59.933	Linear Thru Zero	0.06	0.00	0.999890
Ni-1	61.928	Linear Thru Zero	0.01	0.00	0.999878
Ge-1	71.922	Linear Thru Zero	0.00	0.00	0.000000
As-2	74.922	Linear Thru Zero	0.01	0.00	0.999866
Y-1	88.905	Linear Thru Zero	0.00	0.00	0.000000
Rh-1	102.905	Linear Thru Zero	0.00	0.00	0.000000
In-1	114.904	Linear Thru Zero	0.00	0.00	0.000000

## Quantitative Analysis - Summary Report

**Sample ID: Blank**

Sample Date/Time: Monday, December 11, 2023 10:27:06

Report Date/Time: Monday, December 11, 2023 15:49:52

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\Blank.001

### Results (Mean Data)

IS	Analyte Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	80.6	11.2			ug/L		KED
	Ni-1	60	35.7	6.5			ug/L		KED
	Ni-1	62	14.7	7.9			ug/L		KED
>	Ge-1	72	16172.5	0.4			ug/L		KED
	As-2	75	2.3	24.7			ug/L		KED
	Y-1	89	30089.7	1.7			ug/L		KED
	Rh-1	103	200857.2	0.5			ug/L		KED
	In-1	115	21406.7	2.2			ug/L		KED

### QC Calculated Values

Internal Standard Symbol	Analyte Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	
	Ni-1	60	
	Ni-1	62	
>	Ge-1	72	
	As-2	75	
	Y-1	89	
	Rh-1	103	
	In-1	115	

# Quantitative Analysis - Summary Report

**Sample ID: Standard 1**

Sample Date/Time: Monday, December 11, 2023 10:31:35

Report Date/Time: Monday, December 11, 2023 15:49:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\Standard 1.002

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	653.7	5.1				ug/L	81	KED
	Ni-1	60	278.0	2.5				ug/L	36	KED
	Ni-1	62	47.0	38.7				ug/L	15	KED
>	Ge-1	72	17493.0	2.8				ug/L	16172	KED
[	As-2	75	24.3	6.3	0.2000	0.018	9.2	ug/L	2	KED
	Y-1	89	32802.3	1.5				ug/L	30090	KED
	Rh-1	103	218682.1	0.9				ug/L	200857	KED
	In-1	115	22699.3	1.2				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 2**

Sample Date/Time: Monday, December 11, 2023 10:36:05

Report Date/Time: Monday, December 11, 2023 15:49:55

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\Standard 2.003

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1511.7	1.1	0.5000	0.012	2.5	ug/L	81	KED
	Ni-1	60	690.0	0.9	0.5000	0.004	0.8	ug/L	36	KED
	Ni-1	62	105.3	20.9	0.5000	0.121	24.3	ug/L	15	KED
>	Ge-1	72	17368.9	1.4				ug/L	16172	KED
[	As-2	75	69.3	10.2	0.5134	0.059	11.4	ug/L	2	KED
	Y-1	89	32012.2	0.9				ug/L	30090	KED
	Rh-1	103	216053.5	0.6				ug/L	200857	KED
	In-1	115	22821.3	1.2				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 3**

Sample Date/Time: Monday, December 11, 2023 10:40:35

Report Date/Time: Monday, December 11, 2023 15:49:57

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\Standard 3.004

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	5279.2	3.8	1.9933	0.039	2.0	ug/L	81	KED
	Ni-1	60	2331.5	2.7	1.9890	0.033	1.7	ug/L	36	KED
	Ni-1	62	354.0	8.4	1.9979	0.153	7.7	ug/L	15	KED
>	Ge-1	72	16724.1	1.9				ug/L	16172	KED
[	As-2	75	215.3	1.6	1.9762	0.038	1.9	ug/L	2	KED
	Y-1	89	31626.6	1.5				ug/L	30090	KED
	Rh-1	103	210340.6	1.0				ug/L	200857	KED
	In-1	115	22089.8	0.6				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

### Sample ID: Standard 4

Sample Date/Time: Monday, December 11, 2023 10:45:05

Report Date/Time: Monday, December 11, 2023 15:49:59

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\Standard 4.005

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	12237.9	1.2	<b>4.9136</b>	0.108	2.2	ug/L	81	KED
	Ni-1	60	5292.3	3.3	<b>4.8946</b>	0.098	2.0	ug/L	36	KED
	Ni-1	62	839.4	4.8	<b>4.9447</b>	0.076	1.5	ug/L	15	KED
>	Ge-1	72	17492.0	3.4				ug/L	16172	KED
[	As-2	75	487.3	3.9	<b>4.8841</b>	0.164	3.4	ug/L	2	KED
	Y-1	89	32382.7	0.8				ug/L	30090	KED
	Rh-1	103	216484.0	0.6				ug/L	200857	KED
	In-1	115	22588.0	1.4				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

### Sample ID: Standard 5

Sample Date/Time: Monday, December 11, 2023 10:49:35

Report Date/Time: Monday, December 11, 2023 15:50:01

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\Standard 5.006

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	42927.3	1.2	<b>20.1402</b>	0.183	0.9	ug/L	81	KED
	Ni-1	60	18537.7	1.9	<b>20.1341</b>	0.323	1.6	ug/L	36	KED
	Ni-1	62	2886.6	1.5	<b>20.1359</b>	0.257	1.3	ug/L	15	KED
>	Ge-1	72	13603.5	0.4				ug/L	16172	KED
[	As-2	75	1799.8	1.4	<b>20.1943</b>	0.314	1.6	ug/L	2	KED
	Y-1	89	25065.0	1.0				ug/L	30090	KED
	Rh-1	103	168208.5	2.3				ug/L	200857	KED
	In-1	115	17707.0	0.2				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 6**

Sample Date/Time: Monday, December 11, 2023 10:54:04

Report Date/Time: Monday, December 11, 2023 15:50:03

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\Standard 6.007

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	79823.5	1.0	<b>39.4945</b>	0.916	2.3	ug/L	81	KED
	Ni-1	60	34514.3	1.9	<b>39.5032</b>	1.122	2.8	ug/L	36	KED
	Ni-1	62	5385.3	0.4	<b>39.5322</b>	0.776	2.0	ug/L	15	KED
>	Ge-1	72	13520.4	1.5				ug/L	16172	KED
[	As-2	75	3365.1	1.5	<b>39.5639</b>	1.146	2.9	ug/L	2	KED
	Y-1	89	25148.5	1.0				ug/L	30090	KED
	Rh-1	103	166473.4	0.9				ug/L	200857	KED
	In-1	115	17568.6	1.4				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 7**

Sample Date/Time: Monday, December 11, 2023 10:58:34

Report Date/Time: Monday, December 11, 2023 15:50:04

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\Standard 7.008

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	230964.2	1.4	99.6856	1.221	1.2	ug/L	81	KED
	Ni-1	60	99220.8	1.4	99.5785	0.947	1.0	ug/L	36	KED
	Ni-1	62	15381.9	1.2	99.4948	0.414	0.4	ug/L	15	KED
>	Ge-1	72	15744.0	1.1				ug/L	16172	KED
[	As-2	75	9611.2	2.8	99.4878	1.881	1.9	ug/L	2	KED
	Y-1	89	29316.7	0.5				ug/L	30090	KED
	Rh-1	103	196768.9	0.9				ug/L	200857	KED
	In-1	115	20948.7	1.1				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 1**

Sample Date/Time: Monday, December 11, 2023 11:03:53

Report Date/Time: Monday, December 11, 2023 15:50:06

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 1.009

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	125703.3	2.8	<b>50.7116</b>	0.281	0.6	ug/L	81	KED
	Ni-1	60	54169.2	1.6	<b>50.8251</b>	0.514	1.0	ug/L	36	KED
	Ni-1	62	8370.8	1.9	<b>50.5881</b>	0.211	0.4	ug/L	15	KED
>	Ge-1	72	16836.9	2.3				ug/L	16172	KED
[	As-2	75	5012.5	3.5	<b>48.5102</b>	1.277	2.6	ug/L	2	KED
	Y-1	89	31682.4	1.3				ug/L	30090	KED
	Rh-1	103	210434.7	1.1				ug/L	200857	KED
	In-1	115	22233.8	0.9				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	101.423	
	Ni-1	60	101.650	
	Ni-1	62	101.176	
>	Ge-1	72		104.108
[	As-2	75	97.020	
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 2**

Sample Date/Time: Monday, December 11, 2023 11:09:13

Report Date/Time: Monday, December 11, 2023 15:50:10

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 2.010

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	102.4	6.9	<b>0.0104</b>	0.003	29.7	ug/L	81	KED
	Ni-1	60	56.3	16.1	<b>0.0218</b>	0.009	42.2	ug/L	36	KED
	Ni-1	62	10.3	20.1	<b>-0.0254</b>	0.014	53.8	ug/L	15	KED
>	Ge-1	72	15722.0	1.8				ug/L	16172	KED
L	As-2	75	3.0	33.3	<b>0.0076</b>	0.011	139.6	ug/L	2	KED
	Y-1	89	29797.1	2.9				ug/L	30090	KED
	Rh-1	103	194034.6	1.3				ug/L	200857	KED
	In-1	115	20995.1	1.9				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		97.214
L	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, December 11, 2023 11:17:57

Report Date/Time: Monday, December 11, 2023 15:50:13

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 6.011

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni-1	58	88590.9	1.4	<b>40.3349</b>	0.867	2.1	ug/L	81	KED
	Ni-1	60	38027.9	1.8	<b>40.2528</b>	0.335	0.8	ug/L	36	KED
	Ni-1	62	5834.2	3.0	<b>39.7585</b>	0.206	0.5	ug/L	15	KED
>	Ge-1	72	14921.8	2.6				ug/L	16172	KED
	As-2	75	3745.8	1.4	<b>40.9091</b>	0.531	1.3	ug/L	2	KED
	Y-1	89	28056.9	2.1				ug/L	30090	KED
	Rh-1	103	179467.4	1.4				ug/L	200857	KED
	In-1	115	20147.7	1.1				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		92.267
	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, December 11, 2023 11:23:17

Report Date/Time: Monday, December 11, 2023 15:50:15

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 7.012

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	43909.0	3.0	<b>20.4276</b>	0.755	3.7	ug/L	81	KED
	Ni-1	60	19179.9	2.2	<b>20.7447</b>	0.383	1.8	ug/L	36	KED
	Ni-1	62	3010.0	2.4	<b>20.9387</b>	0.535	2.6	ug/L	15	KED
[>	Ge-1	72	14596.1	3.9				ug/L	16172	KED
[	As-2	75	1883.5	5.5	<b>21.0120</b>	0.801	3.8	ug/L	2	KED
	Y-1	89	27300.4	2.2				ug/L	30090	KED
	Rh-1	103	175859.5	2.3				ug/L	200857	KED
	In-1	115	19353.2	1.7				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
[>	Ge-1	72		90.253
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, December 11, 2023 11:28:37

Report Date/Time: Monday, December 11, 2023 15:50:17

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 8.013

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	143.3	1.7	0.0266	0.003	10.8	ug/L	81	KED
	Ni-1	60	64.0	1.6	0.0280	0.002	8.8	ug/L	36	KED
	Ni-1	62	8.0	33.1	-0.0414	0.018	44.1	ug/L	15	KED
>	Ge-1	72	16103.4	3.6				ug/L	16172	KED
[	As-2	75	2.0	50.0	-0.0033	0.010	318.0	ug/L	2	KED
	Y-1	89	30529.3	3.4				ug/L	30090	KED
	Rh-1	103	196960.5	0.7				ug/L	200857	KED
	In-1	115	21823.2	0.7				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		99.573
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-183-06a 2X**

Sample Date/Time: Monday, December 11, 2023 11:33:56

Report Date/Time: Monday, December 11, 2023 15:50:18

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-183-06a 2X.014

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	5502.9	9.2	<b>2.5821</b>	0.208	8.1	ug/L	81	KED
	Ni-1	60	2521.2	3.0	<b>2.7536</b>	0.051	1.9	ug/L	36	KED
	Ni-1	62	375.7	3.5	<b>2.5883</b>	0.126	4.9	ug/L	15	KED
>	Ge-1	72	14289.8	1.3				ug/L	16172	KED
[	As-2	75	339.0	4.8	<b>3.8432</b>	0.154	4.0	ug/L	2	KED
	Y-1	89	27873.2	1.4				ug/L	30090	KED
	Rh-1	103	167718.5	0.7				ug/L	200857	KED
	In-1	115	19241.5	0.4				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		88.359
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-183-08c 2X**

Sample Date/Time: Monday, December 11, 2023 11:39:15

Report Date/Time: Monday, December 11, 2023 15:50:20

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-183-08c 2X.015

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni-1	58	22469.8	0.8	<b>10.6167</b>	0.057	0.5	ug/L	81	KED
	Ni-1	60	9588.2	0.7	<b>10.5334</b>	0.068	0.6	ug/L	36	KED
	Ni-1	62	1480.7	6.7	<b>10.4312</b>	0.673	6.4	ug/L	15	KED
>	Ge-1	72	14341.2	1.3				ug/L	16172	KED
	As-2	75	897.7	7.0	<b>10.1768</b>	0.609	6.0	ug/L	2	KED
	Y-1	89	27385.2	1.3				ug/L	30090	KED
	Rh-1	103	170273.3	1.8				ug/L	200857	KED
	In-1	115	18946.3	0.5				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		88.677
	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-183-11e 2X**

Sample Date/Time: Monday, December 11, 2023 11:44:48

Report Date/Time: Monday, December 11, 2023 15:50:22

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\X231211B\11-183-11e 2X.016

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	49224.3	1.4	<b>22.4009</b>	0.175	0.8	ug/L	81	KED
	Ni-1	60	21430.7	1.3	<b>22.6776</b>	0.106	0.5	ug/L	36	KED
	Ni-1	62	3301.0	2.7	<b>22.4701</b>	0.623	2.8	ug/L	15	KED
Ge-1	72	14914.4	1.4				ug/L	16172	KED	
[	As-2	75	297.0	7.9	<b>3.2218</b>	0.234	7.3	ug/L	2	KED
	Y-1	89	31846.1	1.7				ug/L	30090	KED
	Rh-1	103	176387.9	2.0				ug/L	200857	KED
	In-1	115	19762.5	1.1				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
Ge-1	72		92.221	
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-183-13e 2X**

Sample Date/Time: Monday, December 11, 2023 11:53:56

Report Date/Time: Monday, December 11, 2023 15:50:24

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-183-13e 2X.017

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	9981.8	1.1	<b>4.4408</b>	0.165	3.7	ug/L	81	KED
	Ni-1	60	4256.3	3.5	<b>4.3984</b>	0.022	0.5	ug/L	36	KED
	Ni-1	62	666.0	8.6	<b>4.3767</b>	0.247	5.6	ug/L	15	KED
>	Ge-1	72	15173.7	3.0				ug/L	16172	KED
[	As-2	75	368.3	3.2	<b>3.9337</b>	0.010	0.3	ug/L	2	KED
	Y-1	89	28963.0	1.1				ug/L	30090	KED
	Rh-1	103	175218.4	0.6				ug/L	200857	KED
	In-1	115	20157.6	1.7				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		93.824
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-01f 2X**

Sample Date/Time: Monday, December 11, 2023 11:59:15

Report Date/Time: Monday, December 11, 2023 15:50:26

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-01f 2X.018

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	3679.6	2.3	<b>1.6220</b>	0.031	1.9	ug/L	81	KED
	Ni-1	60	1510.4	8.8	<b>1.5446</b>	0.116	7.5	ug/L	36	KED
	Ni-1	62	240.3	5.0	<b>1.5285</b>	0.042	2.7	ug/L	15	KED
>	Ge-1	72	15107.7	2.8				ug/L	16172	KED
[	As-2	75	487.3	4.6	<b>5.2336</b>	0.092	1.8	ug/L	2	KED
	Y-1	89	28597.3	1.0				ug/L	30090	KED
	Rh-1	103	179494.6	0.4				ug/L	200857	KED
	In-1	115	19825.2	1.9				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		93.416
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-213-03f 2X**

Sample Date/Time: Monday, December 11, 2023 12:04:34

Report Date/Time: Monday, December 11, 2023 15:50:28

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-03f 2X.019

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	3601.6	4.4	1.6021	0.094	5.9	ug/L	81	KED
	Ni-1	60	1445.4	5.7	1.4913	0.090	6.1	ug/L	36	KED
	Ni-1	62	217.3	6.2	1.3878	0.103	7.4	ug/L	15	KED
>	Ge-1	72	14972.5	1.4				ug/L	16172	KED
[	As-2	75	54.0	8.1	0.5650	0.056	9.9	ug/L	2	KED
	Y-1	89	28121.3	2.0				ug/L	30090	KED
	Rh-1	103	178037.2	0.6				ug/L	200857	KED
	In-1	115	20114.0	1.9				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		92.580
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-05c 2X**

Sample Date/Time: Monday, December 11, 2023 12:09:52

Report Date/Time: Monday, December 11, 2023 15:50:29

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-05c 2X.020

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	3080.8	5.4	<b>1.3210</b>	0.076	5.8	ug/L	81	KED
	Ni-1	60	1208.4	3.7	<b>1.2007</b>	0.040	3.3	ug/L	36	KED
	Ni-1	62	175.7	7.7	<b>1.0661</b>	0.091	8.6	ug/L	15	KED
>	Ge-1	72	15457.4	0.5				ug/L	16172	KED
	As-2	75	31.7	22.2	<b>0.3106</b>	0.075	24.1	ug/L	2	KED
	Y-1	89	29137.7	1.7				ug/L	30090	KED
	Rh-1	103	183152.3	0.8				ug/L	200857	KED
	In-1	115	20656.7	0.8				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		95.578
	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-07a 2X**

Sample Date/Time: Monday, December 11, 2023 12:15:11

Report Date/Time: Monday, December 11, 2023 15:50:31

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-07a 2X.021

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	731.2	4.6	<b>0.2856</b>	0.023	8.1	ug/L	81	KED
	Ni-1	60	327.7	7.9	<b>0.2973</b>	0.017	5.7	ug/L	36	KED
	Ni-1	62	51.7	11.8	<b>0.2460</b>	0.044	17.8	ug/L	15	KED
>	Ge-1	72	15578.5	2.8				ug/L	16172	KED
[	As-2	75	8.7	37.1	<b>0.0673</b>	0.034	50.8	ug/L	2	KED
	Y-1	89	29243.9	1.4				ug/L	30090	KED
	Rh-1	103	184970.5	0.5				ug/L	200857	KED
	In-1	115	20821.4	0.9				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		96.327
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-08f 2X**

Sample Date/Time: Monday, December 11, 2023 12:20:30

Report Date/Time: Monday, December 11, 2023 15:50:33

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-08f 2X.022

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1907.1	2.1	<b>0.8440</b>	0.028	3.4	ug/L	81	KED
	Ni-1	60	832.7	3.3	<b>0.8561</b>	0.022	2.6	ug/L	36	KED
	Ni-1	62	121.3	12.5	<b>0.7458</b>	0.114	15.3	ug/L	15	KED
>	Ge-1	72	14771.0	1.2				ug/L	16172	KED
[	As-2	75	11.0	39.6	<b>0.0980</b>	0.049	49.5	ug/L	2	KED
	Y-1	89	28125.3	0.7				ug/L	30090	KED
	Rh-1	103	172884.8	0.2				ug/L	200857	KED
	In-1	115	19709.9	1.1				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		91.334
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-266-01c 2X**

Sample Date/Time: Monday, December 11, 2023 12:25:50

Report Date/Time: Monday, December 11, 2023 15:50:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-266-01c 2X.023

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	15864.4	2.0	7.0772	0.113	1.6	ug/L	81	KED
	Ni-1	60	7043.7	2.7	7.3060	0.109	1.5	ug/L	36	KED
	Ni-1	62	1093.0	4.2	7.2517	0.151	2.1	ug/L	15	KED
>	Ge-1	72	15166.4	2.2				ug/L	16172	KED
[	As-2	75	101.0	8.1	1.0613	0.068	6.4	ug/L	2	KED
	Y-1	89	30355.9	0.9				ug/L	30090	KED
	Rh-1	103	177316.5	1.8				ug/L	200857	KED
	In-1	115	20180.6	1.8				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		93.779
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, December 11, 2023 12:31:09

Report Date/Time: Monday, December 11, 2023 15:50:37

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 6.024

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	86102.0	2.0	40.2242	0.328	0.8	ug/L	81	KED
	Ni-1	60	37555.0	2.1	40.7960	0.309	0.8	ug/L	36	KED
	Ni-1	62	5714.8	3.1	39.9731	0.767	1.9	ug/L	15	KED
>	Ge-1	72	14537.4	1.6				ug/L	16172	KED
[	As-2	75	3579.4	4.6	40.1240	1.960	4.9	ug/L	2	KED
	Y-1	89	26947.1	0.8				ug/L	30090	KED
	Rh-1	103	172448.6	2.3				ug/L	200857	KED
	In-1	115	19302.1	0.3				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	100.560	
	Ni-1	60	101.990	
	Ni-1	62	99.933	
>	Ge-1	72		89.890
[	As-2	75	100.310	
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, December 11, 2023 12:36:28

Report Date/Time: Monday, December 11, 2023 15:50:40

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 7.025

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	44970.9	2.5	<b>20.7791</b>	0.070	0.3	ug/L	81	KED
	Ni-1	60	19301.4	2.4	<b>20.7380</b>	0.208	1.0	ug/L	36	KED
	Ni-1	62	3052.7	1.3	<b>21.0981</b>	0.306	1.5	ug/L	15	KED
>	Ge-1	72	14686.9	2.3				ug/L	16172	KED
	As-2	75	1872.5	2.9	<b>20.7682</b>	0.771	3.7	ug/L	2	KED
	Y-1	89	27352.2	2.2				ug/L	30090	KED
	Rh-1	103	175530.6	1.3				ug/L	200857	KED
	In-1	115	19756.4	3.2				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	103.896	
	Ni-1	60	103.690	
	Ni-1	62	105.490	
>	Ge-1	72		90.814
	As-2	75	103.841	
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, December 11, 2023 12:41:48

Report Date/Time: Monday, December 11, 2023 15:50:43

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 8.026

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	92.4	10.8	0.0042	0.004	96.9	ug/L	81	KED
	Ni-1	60	36.3	12.4	0.0001	0.005	8039.9	ug/L	36	KED
	Ni-1	62	6.7	22.9	-0.0513	0.009	17.4	ug/L	15	KED
>	Ge-1	72	16471.2	2.0				ug/L	16172	KED
[	As-2	75	1.7	69.3	-0.0072	0.011	153.1	ug/L	2	KED
	Y-1	89	30889.4	1.6				ug/L	30090	KED
	Rh-1	103	197794.2	2.7				ug/L	200857	KED
	In-1	115	22540.7	1.2				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		101.847
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: MB1211D1 2X**

Sample Date/Time: Monday, December 11, 2023 12:48:51

Report Date/Time: Monday, December 11, 2023 15:50:46

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\MB1211D1 2X.027

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	101.5	4.7	0.0063	0.001	12.6	ug/L	81	KED
	Ni-1	60	40.0	27.5	0.0018	0.009	501.4	ug/L	36	KED
	Ni-1	62	6.3	55.5	-0.0543	0.022	40.8	ug/L	15	KED
>	Ge-1	72	17175.3	3.8				ug/L	16172	KED
[	As-2	75	1.7	34.6	-0.0077	0.005	70.0	ug/L	2	KED
	Y-1	89	32587.5	1.4				ug/L	30090	KED
	Rh-1	103	205711.9	1.0				ug/L	200857	KED
	In-1	115	23522.1	1.6				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		106.201
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: SB1211D1 2X**

Sample Date/Time: Monday, December 11, 2023 12:54:11

Report Date/Time: Monday, December 11, 2023 15:50:48

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\SB1211D1 2X.028

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	86958.9	0.5	<b>39.3526</b>	0.233	0.6	ug/L	81	KED
	Ni-1	60	37838.4	1.0	<b>39.8174</b>	0.390	1.0	ug/L	36	KED
	Ni-1	62	5719.1	1.1	<b>38.7508</b>	0.088	0.2	ug/L	15	KED
>	Ge-1	72	15007.9	0.9				ug/L	16172	KED
[	As-2	75	3742.8	1.7	<b>40.6324</b>	0.541	1.3	ug/L	2	KED
	Y-1	89	27795.0	0.7				ug/L	30090	KED
	Rh-1	103	177123.7	1.3				ug/L	200857	KED
	In-1	115	20227.9	0.5				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		92.799
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-03g 2X**

Sample Date/Time: Monday, December 11, 2023 12:59:30

Report Date/Time: Monday, December 11, 2023 15:50:50

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-03g 2X.029

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1140.3	1.9	<b>0.4505</b>	0.003	0.7	ug/L	81	KED
	Ni-1	60	481.3	6.3	<b>0.4403</b>	0.023	5.2	ug/L	36	KED
	Ni-1	62	75.3	16.1	<b>0.3869</b>	0.071	18.3	ug/L	15	KED
>	Ge-1	72	16003.0	1.5				ug/L	16172	KED
[	As-2	75	36.3	25.4	<b>0.3458</b>	0.088	25.6	ug/L	2	KED
	Y-1	89	30012.5	2.2				ug/L	30090	KED
	Rh-1	103	185396.4	1.2				ug/L	200857	KED
	In-1	115	21465.3	1.5				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		98.952
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-213-03gD 2X**

Sample Date/Time: Monday, December 11, 2023 13:04:48

Report Date/Time: Monday, December 11, 2023 15:50:52

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-03gD 2X.030

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1129.7	5.7	<b>0.4454</b>	0.030	6.7	ug/L	81	KED
	Ni-1	60	486.3	0.9	<b>0.4448</b>	0.004	0.8	ug/L	36	KED
	Ni-1	62	77.7	6.6	<b>0.4016</b>	0.035	8.6	ug/L	15	KED
>	Ge-1	72	16026.7	0.7				ug/L	16172	KED
[	As-2	75	39.3	10.3	<b>0.3765</b>	0.039	10.4	ug/L	2	KED
	Y-1	89	29962.4	2.0				ug/L	30090	KED
	Rh-1	103	185213.7	1.1				ug/L	200857	KED
	In-1	115	21637.0	0.7				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		99.098
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-213-03gL 10X**

Sample Date/Time: Monday, December 11, 2023 13:10:08

Report Date/Time: Monday, December 11, 2023 15:50:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-03gL 10X.031

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	302.3	5.9	<b>0.0960</b>	0.003	3.6	ug/L	81	KED
	Ni-1	60	124.0	6.9	<b>0.0893</b>	0.012	13.0	ug/L	36	KED
	Ni-1	62	19.7	16.3	<b>0.0340</b>	0.017	49.0	ug/L	15	KED
>	Ge-1	72	15807.1	3.7				ug/L	16172	KED
[	As-2	75	11.7	26.2	<b>0.0966</b>	0.030	31.5	ug/L	2	KED
	Y-1	89	29898.6	0.5				ug/L	30090	KED
	Rh-1	103	185382.9	1.4				ug/L	200857	KED
	In-1	115	21277.2	1.1				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		97.741
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-213-03gMS 2X**

Sample Date/Time: Monday, December 11, 2023 13:15:27

Report Date/Time: Monday, December 11, 2023 15:50:55

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-03gMS 2X.032

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	92688.7	2.9	<b>39.8469</b>	0.442	1.1	ug/L	81	KED
	Ni-1	60	40259.0	2.3	<b>40.2488</b>	0.279	0.7	ug/L	36	KED
	Ni-1	62	6213.7	2.3	<b>40.0035</b>	0.422	1.1	ug/L	15	KED
>	Ge-1	72	15797.4	2.5				ug/L	16172	KED
[	As-2	75	3982.9	1.2	<b>41.0875</b>	0.569	1.4	ug/L	2	KED
	Y-1	89	29536.9	2.8				ug/L	30090	KED
	Rh-1	103	183044.0	1.1				ug/L	200857	KED
	In-1	115	21208.1	2.7				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		97.681
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-213-03gMSD 2X**

Sample Date/Time: Monday, December 11, 2023 13:20:46

Report Date/Time: Monday, December 11, 2023 15:50:57

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-03gMSD 2X.033

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	93910.9	0.9	<b>40.2049</b>	0.138	0.3	ug/L	81	KED
	Ni-1	60	40716.3	1.0	<b>40.5333</b>	0.276	0.7	ug/L	36	KED
	Ni-1	62	6161.7	0.8	<b>39.4986</b>	0.086	0.2	ug/L	15	KED
>	Ge-1	72	15864.1	1.0				ug/L	16172	KED
[	As-2	75	4099.9	2.2	<b>42.1102</b>	0.966	2.3	ug/L	2	KED
	Y-1	89	29942.0	1.7				ug/L	30090	KED
	Rh-1	103	183808.9	0.1				ug/L	200857	KED
	In-1	115	21517.3	2.0				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		98.093
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-183-06b 2X**

Sample Date/Time: Monday, December 11, 2023 13:26:04

Report Date/Time: Monday, December 11, 2023 15:50:59

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-183-06b 2X.034

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	3744.8	11.3	1.7092	0.185	10.8	ug/L	81	KED
	Ni-1	60	1856.1	3.6	1.9753	0.073	3.7	ug/L	36	KED
	Ni-1	62	260.7	4.3	1.7281	0.080	4.7	ug/L	15	KED
>	Ge-1	72	14595.5	0.8				ug/L	16172	KED
[	As-2	75	280.0	5.1	3.1040	0.158	5.1	ug/L	2	KED
	Y-1	89	28830.1	0.5				ug/L	30090	KED
	Rh-1	103	171723.6	0.2				ug/L	200857	KED
	In-1	115	20589.4	1.9				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		90.249
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-183-08d 2X**

Sample Date/Time: Monday, December 11, 2023 13:31:22

Report Date/Time: Monday, December 11, 2023 15:51:01

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-183-08d 2X.035

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	18854.9	2.7	<b>8.6514</b>	0.198	2.3	ug/L	81	KED
	Ni-1	60	8192.0	3.4	<b>8.7400</b>	0.267	3.1	ug/L	36	KED
	Ni-1	62	1238.1	4.3	<b>8.4589</b>	0.326	3.9	ug/L	15	KED
>	Ge-1	72	14755.6	0.5				ug/L	16172	KED
[	As-2	75	717.0	6.3	<b>7.8971</b>	0.471	6.0	ug/L	2	KED
	Y-1	89	27836.8	1.3				ug/L	30090	KED
	Rh-1	103	169972.5	0.3				ug/L	200857	KED
	In-1	115	19952.8	1.7				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		91.239
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-183-11f 2X**

Sample Date/Time: Monday, December 11, 2023 13:36:41

Report Date/Time: Monday, December 11, 2023 15:51:03

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-183-11f 2X.036

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	851.6	4.3	<b>0.3345</b>	0.008	2.4	ug/L	81	KED
	Ni-1	60	364.3	4.4	<b>0.3318</b>	0.016	4.7	ug/L	36	KED
	Ni-1	62	63.0	8.4	<b>0.3160</b>	0.023	7.4	ug/L	15	KED
>	Ge-1	72	15708.3	2.6				ug/L	16172	KED
[	As-2	75	68.3	7.4	<b>0.6867</b>	0.067	9.7	ug/L	2	KED
	Y-1	89	29583.3	1.8				ug/L	30090	KED
	Rh-1	103	182781.6	0.6				ug/L	200857	KED
	In-1	115	21238.3	2.2				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		97.130
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, December 11, 2023 13:41:59

Report Date/Time: Monday, December 11, 2023 15:51:04

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 6.037

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	86252.7	0.7	<b>39.8340</b>	0.710	1.8	ug/L	81	KED
	Ni-1	60	37304.3	2.3	<b>40.0506</b>	0.192	0.5	ug/L	36	KED
	Ni-1	62	5695.5	1.3	<b>39.3850</b>	0.832	2.1	ug/L	15	KED
>	Ge-1	72	14709.6	2.2				ug/L	16172	KED
[	As-2	75	3572.1	1.2	<b>39.5751</b>	0.768	1.9	ug/L	2	KED
	Y-1	89	27286.4	2.1				ug/L	30090	KED
	Rh-1	103	172111.8	1.8				ug/L	200857	KED
	In-1	115	19848.8	2.7				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	99.585	
	Ni-1	60	100.127	
	Ni-1	62	98.462	
>	Ge-1	72		90.954
[	As-2	75	98.938	
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, December 11, 2023 13:47:19

Report Date/Time: Monday, December 11, 2023 15:51:06

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 7.038

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	44227.3	1.8	<b>20.6844</b>	0.210	1.0	ug/L	81	KED
	Ni-1	60	19053.0	1.8	<b>20.7198</b>	0.185	0.9	ug/L	36	KED
	Ni-1	62	2927.6	2.7	<b>20.4711</b>	0.234	1.1	ug/L	15	KED
>	Ge-1	72	14510.4	1.6				ug/L	16172	KED
[	As-2	75	1822.1	3.9	<b>20.4437</b>	0.517	2.5	ug/L	2	KED
	Y-1	89	26992.2	3.7				ug/L	30090	KED
	Rh-1	103	172017.5	1.0				ug/L	200857	KED
	In-1	115	19360.3	1.9				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	103.422	
	Ni-1	60	103.599	
	Ni-1	62	102.355	
>	Ge-1	72		89.723
[	As-2	75	102.218	
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, December 11, 2023 13:52:39

Report Date/Time: Monday, December 11, 2023 15:51:08

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 8.039

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	107.4	7.5	0.0081	0.002	30.7	ug/L	81	KED
	Ni-1	60	38.7	21.1	0.0002	0.007	3294.7	ug/L	36	KED
	Ni-1	62	6.3	9.1	-0.0553	0.004	6.6	ug/L	15	KED
>	Ge-1	72	17393.9	1.6				ug/L	16172	KED
[	As-2	75	2.0	50.0	-0.0048	0.009	197.3	ug/L	2	KED
	Y-1	89	31011.3	0.6				ug/L	30090	KED
	Rh-1	103	196441.5	1.2				ug/L	200857	KED
	In-1	115	22707.4	1.0				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		107.553
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-183-13f 2X**

Sample Date/Time: Monday, December 11, 2023 13:57:08

Report Date/Time: Monday, December 11, 2023 15:51:10

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-183-13f 2X.040

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	6028.2	2.9	<b>2.7958</b>	0.127	4.5	ug/L	81	KED
	Ni-1	60	2545.2	1.1	<b>2.7423</b>	0.031	1.1	ug/L	36	KED
	Ni-1	62	407.0	1.9	<b>2.7714</b>	0.053	1.9	ug/L	15	KED
>	Ge-1	72	14488.7	2.2				ug/L	16172	KED
[	As-2	75	259.0	3.0	<b>2.8909</b>	0.070	2.4	ug/L	2	KED
	Y-1	89	27404.9	1.7				ug/L	30090	KED
	Rh-1	103	163791.3	0.8				ug/L	200857	KED
	In-1	115	19208.1	2.2				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		89.588
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-01g 2X**

Sample Date/Time: Monday, December 11, 2023 14:02:28

Report Date/Time: Monday, December 11, 2023 15:51:11

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-01g 2X.041

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	2756.7	4.6	<b>1.1881</b>	0.040	3.3	ug/L	81	KED
	Ni-1	60	1167.4	2.7	<b>1.1688</b>	0.027	2.3	ug/L	36	KED
	Ni-1	62	177.7	9.0	<b>1.0899</b>	0.120	11.0	ug/L	15	KED
>	Ge-1	72	15329.6	1.4				ug/L	16172	KED
[	As-2	75	251.0	4.8	<b>2.6450</b>	0.095	3.6	ug/L	2	KED
	Y-1	89	28581.9	0.7				ug/L	30090	KED
	Rh-1	103	176052.2	0.9				ug/L	200857	KED
	In-1	115	20958.4	1.3				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		94.788
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-213-05d 2X**

Sample Date/Time: Monday, December 11, 2023 14:07:47

Report Date/Time: Monday, December 11, 2023 15:51:13

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-05d 2X.042

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	503.8	5.5	0.1841	0.014	7.6	ug/L	81	KED
	Ni-1	60	223.3	8.3	0.1896	0.016	8.7	ug/L	36	KED
	Ni-1	62	32.7	7.7	0.1195	0.018	14.7	ug/L	15	KED
Ge-1	72	15717.3	1.0				ug/L	16172	KED	
[	As-2	75	10.0	10.0	0.0802	0.011	13.8	ug/L	2	KED
	Y-1	89	29325.1	0.9				ug/L	30090	KED
	Rh-1	103	180785.4	0.4				ug/L	200857	KED
	In-1	115	21227.5	1.7				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
Ge-1	72		97.186	
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-213-07b 2X**

Sample Date/Time: Monday, December 11, 2023 14:13:06

Report Date/Time: Monday, December 11, 2023 15:51:15

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-07b 2X.043

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	393.4	6.8	<b>0.1395</b>	0.009	6.4	ug/L	81	KED
	Ni-1	60	182.3	4.9	<b>0.1523</b>	0.014	8.9	ug/L	36	KED
	Ni-1	62	25.7	45.2	<b>0.0771</b>	0.076	98.9	ug/L	15	KED
>	Ge-1	72	15418.0	2.6				ug/L	16172	KED
[	As-2	75	9.7	36.3	<b>0.0783</b>	0.036	46.1	ug/L	2	KED
	Y-1	89	27985.7	1.7				ug/L	30090	KED
	Rh-1	103	175198.9	1.3				ug/L	200857	KED
	In-1	115	20494.1	3.2				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		95.335
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-08g 2X**

Sample Date/Time: Monday, December 11, 2023 14:18:25

Report Date/Time: Monday, December 11, 2023 15:51:17

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-08g 2X.044

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1165.6	2.7	<b>0.5108</b>	0.007	1.3	ug/L	81	KED
	Ni-1	60	508.7	2.2	<b>0.5184</b>	0.029	5.6	ug/L	36	KED
	Ni-1	62	78.0	1.3	<b>0.4544</b>	0.014	3.1	ug/L	15	KED
>	Ge-1	72	14547.1	3.1				ug/L	16172	KED
[	As-2	75	13.3	11.5	<b>0.1263</b>	0.022	17.2	ug/L	2	KED
	Y-1	89	26699.9	2.0				ug/L	30090	KED
	Rh-1	103	162977.9	1.6				ug/L	200857	KED
	In-1	115	19482.9	1.2				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		89.950
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-266-01d 2X**

Sample Date/Time: Monday, December 11, 2023 14:23:45

Report Date/Time: Monday, December 11, 2023 15:51:19

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-266-01d 2X.045

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1634.4	1.6	<b>0.7321</b>	0.011	1.5	ug/L	81	KED
	Ni-1	60	706.0	5.4	<b>0.7347</b>	0.044	6.0	ug/L	36	KED
	Ni-1	62	112.3	6.1	<b>0.6970</b>	0.046	6.6	ug/L	15	KED
>	Ge-1	72	14503.0	0.6				ug/L	16172	KED
	As-2	75	9.3	37.6	<b>0.0815</b>	0.040	49.2	ug/L	2	KED
	Y-1	89	26225.4	3.1				ug/L	30090	KED
	Rh-1	103	165895.7	2.3				ug/L	200857	KED
	In-1	115	19391.7	0.9				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		89.677
	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, December 11, 2023 14:29:04

Report Date/Time: Monday, December 11, 2023 15:51:20

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 6.046

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	81866.4	1.6	39.8063	0.580	1.5	ug/L	81	KED
	Ni-1	60	35412.5	0.7	40.0396	0.317	0.8	ug/L	36	KED
	Ni-1	62	5446.4	2.8	39.6465	0.631	1.6	ug/L	15	KED
>	Ge-1	72	13968.5	1.4				ug/L	16172	KED
[	As-2	75	3445.1	1.6	40.1840	0.378	0.9	ug/L	2	KED
	Y-1	89	25622.6	1.5				ug/L	30090	KED
	Rh-1	103	162874.9	2.5				ug/L	200857	KED
	In-1	115	18981.1	0.6				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	99.516	
	Ni-1	60	100.099	
	Ni-1	62	99.116	
>	Ge-1	72		86.372
[	As-2	75	100.460	
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, December 11, 2023 14:34:24

Report Date/Time: Monday, December 11, 2023 15:51:22

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 7.047

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	43039.5	0.6	20.4548	0.280	1.4	ug/L	81	KED
	Ni-1	60	18554.7	1.2	20.5038	0.282	1.4	ug/L	36	KED
	Ni-1	62	2920.0	2.7	20.7464	0.183	0.9	ug/L	15	KED
>	Ge-1	72	14281.5	2.0				ug/L	16172	KED
[	As-2	75	1789.8	3.6	20.4049	0.515	2.5	ug/L	2	KED
	Y-1	89	26303.2	1.8				ug/L	30090	KED
	Rh-1	103	164281.6	1.0				ug/L	200857	KED
	In-1	115	18921.3	2.0				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	102.274	
	Ni-1	60	102.519	
	Ni-1	62	103.732	
>	Ge-1	72		88.307
[	As-2	75	102.025	
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, December 11, 2023 14:39:44

Report Date/Time: Monday, December 11, 2023 15:51:24

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 8.048

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	99.6	6.2	<b>0.0062</b>	0.002	40.1	ug/L	81	KED
	Ni-1	60	34.0	10.2	<b>-0.0030</b>	0.003	90.6	ug/L	36	KED
	Ni-1	62	7.3	28.4	<b>-0.0483</b>	0.012	24.8	ug/L	15	KED
>	Ge-1	72	16879.3	1.6				ug/L	16172	KED
[	As-2	75	3.3	62.4	<b>0.0085</b>	0.020	233.5	ug/L	2	KED
	Y-1	89	30090.7	0.5				ug/L	30090	KED
	Rh-1	103	187489.0	0.4				ug/L	200857	KED
	In-1	115	22018.4	1.4				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		104.371
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-272-02c 10X**

Sample Date/Time: Monday, December 11, 2023 14:46:44

Report Date/Time: Monday, December 11, 2023 15:51:26

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-272-02c 10X.049

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	510.3	4.5	<b>0.3047</b>	0.018	5.8	ug/L	81	KED
	Ni-1	60	211.7	8.5	<b>0.2920</b>	0.033	11.3	ug/L	36	KED
	Ni-1	62	44.0	28.4	<b>0.3451</b>	0.123	35.6	ug/L	15	KED
>	Ge-1	72	10247.7	1.6				ug/L	16172	KED
[	As-2	75	16.3	15.4	<b>0.2364</b>	0.040	17.0	ug/L	2	KED
	Y-1	89	21443.7	0.7				ug/L	30090	KED
	Rh-1	103	114667.4	0.6				ug/L	200857	KED
	In-1	115	15068.7	1.4				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		63.365
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-272-03c 10X**

Sample Date/Time: Monday, December 11, 2023 14:52:03

Report Date/Time: Monday, December 11, 2023 15:51:29

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-272-03c 10X.050

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	457.9	5.6	<b>0.2657</b>	0.013	5.0	ug/L	81	KED
	Ni-1	60	176.7	6.1	<b>0.2339</b>	0.012	5.0	ug/L	36	KED
	Ni-1	62	42.0	16.5	<b>0.3199</b>	0.069	21.6	ug/L	15	KED
>	Ge-1	72	10386.4	1.8				ug/L	16172	KED
[	As-2	75	21.0	8.2	<b>0.3065</b>	0.032	10.6	ug/L	2	KED
	Y-1	89	20996.8	0.4				ug/L	30090	KED
	Rh-1	103	114302.1	1.0				ug/L	200857	KED
	In-1	115	14708.8	1.7				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		64.223
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-272-04c 10X**

Sample Date/Time: Monday, December 11, 2023 14:57:22

Report Date/Time: Monday, December 11, 2023 15:51:31

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-272-04c 10X.051

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1402.1	4.3	<b>0.5799</b>	0.029	5.0	ug/L	81	KED
	Ni-1	60	469.3	3.5	<b>0.4431</b>	0.023	5.1	ug/L	36	KED
	Ni-1	62	90.7	8.3	<b>0.5024</b>	0.044	8.7	ug/L	15	KED
>	Ge-1	72	15529.4	1.7				ug/L	16172	KED
[	As-2	75	156.3	3.0	<b>1.6185</b>	0.075	4.6	ug/L	2	KED
	Y-1	89	29020.4	0.6				ug/L	30090	KED
	Rh-1	103	176255.4	1.3				ug/L	200857	KED
	In-1	115	20611.3	1.1				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		96.024
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-272-05c 10X**

Sample Date/Time: Monday, December 11, 2023 15:02:41

Report Date/Time: Monday, December 11, 2023 15:51:33

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-272-05c 10X.052

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	469.7	2.9	<b>0.2632</b>	0.010	3.9	ug/L	81	KED
	Ni-1	60	192.3	7.8	<b>0.2482</b>	0.025	9.9	ug/L	36	KED
	Ni-1	62	49.7	9.5	<b>0.3781</b>	0.036	9.4	ug/L	15	KED
>	Ge-1	72	10748.4	2.3				ug/L	16172	KED
[	As-2	75	23.0	37.9	<b>0.3271</b>	0.138	42.2	ug/L	2	KED
	Y-1	89	21899.8	1.2				ug/L	30090	KED
	Rh-1	103	119873.2	0.5				ug/L	200857	KED
	In-1	115	15128.1	2.0				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		66.461
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-272-01d 10X FF**

Sample Date/Time: Monday, December 11, 2023 15:08:00

Report Date/Time: Monday, December 11, 2023 15:51:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-272-01d 10X FF.053

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1566.2	3.3	<b>0.8672</b>	0.027	3.1	ug/L	81	KED
	Ni-1	60	706.7	1.2	<b>0.9106</b>	0.008	0.9	ug/L	36	KED
	Ni-1	62	124.7	13.3	<b>0.9830</b>	0.140	14.3	ug/L	15	KED
>	Ge-1	72	11813.9	0.3				ug/L	16172	KED
[	As-2	75	33.3	6.2	<b>0.4365</b>	0.030	6.8	ug/L	2	KED
	Y-1	89	22364.5	1.2				ug/L	30090	KED
	Rh-1	103	128501.4	0.7				ug/L	200857	KED
	In-1	115	15780.1	1.3				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		73.049
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-272-02d 10X**

Sample Date/Time: Monday, December 11, 2023 15:13:18

Report Date/Time: Monday, December 11, 2023 15:51:36

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-272-02d 10X.054

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	293.4	6.6	0.1613	0.012	7.1	ug/L	81	KED
	Ni-1	60	137.7	4.8	0.1782	0.010	5.8	ug/L	36	KED
	Ni-1	62	59.7	6.3	0.5032	0.042	8.3	ug/L	15	KED
>	Ge-1	72	10214.3	0.7				ug/L	16172	KED
[	As-2	75	21.7	11.6	0.3224	0.041	12.8	ug/L	2	KED
	Y-1	89	19892.2	0.6				ug/L	30090	KED
	Rh-1	103	113184.6	0.4				ug/L	200857	KED
	In-1	115	14254.7	3.1				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		63.159
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-272-03d 10X**

Sample Date/Time: Monday, December 11, 2023 15:18:37

Report Date/Time: Monday, December 11, 2023 15:51:38

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-272-03d 10X.055

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni-1	58	257.1	5.9	0.1331	0.012	9.1	ug/L	81	KED
	Ni-1	60	111.0	12.1	0.1328	0.022	16.5	ug/L	36	KED
	Ni-1	62	55.7	8.9	0.4490	0.042	9.4	ug/L	15	KED
>	Ge-1	72	10473.2	1.6				ug/L	16172	KED
	As-2	75	18.7	26.4	0.2666	0.075	28.0	ug/L	2	KED
	Y-1	89	20429.3	0.8				ug/L	30090	KED
	Rh-1	103	116981.0	1.0				ug/L	200857	KED
	In-1	115	14336.9	1.7				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		64.759
	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-272-04d 10X**

Sample Date/Time: Monday, December 11, 2023 15:23:57

Report Date/Time: Monday, December 11, 2023 15:51:40

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-272-04d 10X.056

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1139.4	2.5	<b>0.3999</b>	0.018	4.6	ug/L	81	KED
	Ni-1	60	401.0	1.7	<b>0.3201</b>	0.012	3.9	ug/L	36	KED
	Ni-1	62	100.7	17.9	<b>0.4812</b>	0.096	19.9	ug/L	15	KED
>	Ge-1	72	17863.5	2.0				ug/L	16172	KED
[	As-2	75	158.7	10.4	<b>1.4267</b>	0.177	12.4	ug/L	2	KED
	Y-1	89	32843.0	1.6				ug/L	30090	KED
	Rh-1	103	204241.0	2.0				ug/L	200857	KED
	In-1	115	23216.6	1.7				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		110.456
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-272-05d 10X**

Sample Date/Time: Monday, December 11, 2023 15:29:16

Report Date/Time: Monday, December 11, 2023 15:51:42

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-272-05d 10X.057

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	251.4	10.5	0.1171	0.015	13.2	ug/L	81	KED
	Ni-1	60	122.7	15.1	0.1365	0.026	19.2	ug/L	36	KED
	Ni-1	62	55.3	17.1	0.4059	0.084	20.7	ug/L	15	KED
>	Ge-1	72	11316.1	0.8				ug/L	16172	KED
[	As-2	75	19.3	6.0	0.2549	0.015	5.7	ug/L	2	KED
	Y-1	89	22726.1	0.2				ug/L	30090	KED
	Rh-1	103	126898.8	0.6				ug/L	200857	KED
	In-1	115	15824.1	1.5				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		69.972
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, December 11, 2023 15:34:35

Report Date/Time: Monday, December 11, 2023 15:51:44

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 6.058

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	95716.6	1.5	39.6895	1.044	2.6	ug/L	81	KED
	Ni-1	60	41238.5	2.1	39.7562	0.854	2.1	ug/L	36	KED
	Ni-1	62	6422.8	1.4	39.8784	0.974	2.4	ug/L	15	KED
>	Ge-1	72	16389.1	3.8				ug/L	16172	KED
	As-2	75	4087.6	1.3	40.6613	1.008	2.5	ug/L	2	KED
	Y-1	89	28981.4	3.1				ug/L	30090	KED
	Rh-1	103	190112.7	1.1				ug/L	200857	KED
	In-1	115	21446.8	2.0				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	99.224	
	Ni-1	60	99.391	
	Ni-1	62	99.696	
>	Ge-1	72		101.339
	As-2	75	101.653	
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, December 11, 2023 15:39:55

Report Date/Time: Monday, December 11, 2023 15:51:45

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 7.059

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	49309.9	1.1	<b>20.2062</b>	0.556	2.8	ug/L	81	KED
	Ni-1	60	21582.0	1.4	<b>20.5605</b>	0.306	1.5	ug/L	36	KED
	Ni-1	62	3296.4	1.4	<b>20.1970</b>	0.547	2.7	ug/L	15	KED
>	Ge-1	72	16565.3	1.8				ug/L	16172	KED
	As-2	75	2108.8	1.9	<b>20.7387</b>	0.751	3.6	ug/L	2	KED
	Y-1	89	29749.0	2.2				ug/L	30090	KED
	Rh-1	103	190879.9	1.1				ug/L	200857	KED
	In-1	115	21840.9	0.9				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	101.031	
	Ni-1	60	102.802	
	Ni-1	62	100.985	
>	Ge-1	72		102.429
	As-2	75	103.694	
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, December 11, 2023 15:45:15

Report Date/Time: Monday, December 11, 2023 15:51:47

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 8.060

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	101.3	9.4	0.0011	0.004	323.7	ug/L	81	KED
	Ni-1	60	35.3	21.2	-0.0064	0.006	100.3	ug/L	36	KED
	Ni-1	62	18.7	16.4	0.0044	0.017	385.2	ug/L	15	KED
>	Ge-1	72	19677.2	1.5				ug/L	16172	KED
[	As-2	75	3.0	33.3	0.0014	0.008	621.1	ug/L	2	KED
	Y-1	89	34240.0	1.4				ug/L	30090	KED
	Rh-1	103	217713.1	0.5				ug/L	200857	KED
	In-1	115	24962.6	2.0				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		121.671
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

Stal Name	Lab ID	Source	Source ID	Exp	Initial		Final		Comments	Int	Date
					Conc ppm	Vol ml	Conc ppm	Vol ml			
Stal 1	TM11-106-01	6020 100x	TM11-105-79	12-25-23	.2	.05	.0002	50	5% HNO <sub>3</sub>	KOM	12-11-23
2	02	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
3	03	6020 10x	TM11-105-37	↓	2	.05	.002	↓	↓	↓	↓
4	04	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	05	IUGO20 Cal-1	TZMEB726406	8-18-24	20	.05	.02	↓	↓	↓	↓
6	06	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	07	↓	↓	↓	↓	.25	.10	↓	↓	↓	↓
8	08	IUPECHKI	SZMEB709269	5-24-24	10	.25	.05	↓	↓	↓	↓
Stal 1	TM11-106-09	6020 100x	TM11-105-39	12-25-23	.2	.05	.0002	50	5% HNO <sub>3</sub>	KOM	12-11-23
2	10	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
3	11	6020 10x	TM11-105-37	↓	2	.05	.002	↓	↓	↓	↓
4	12	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	13	IUGO20 Cal-1	TZMEB726406	8-18-24	20	.05	.02	↓	↓	↓	↓
6	14	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	15	↓	↓	↓	↓	.75	.10	↓	↓	↓	↓
8	16	IUPECHKI	SZMEB709269	5-24-24	10	.25	.05	↓	↓	↓	↓
Stal 1	TM11-106-17	6020 100x	TM11-105-38	12-25-23	.2	.05	.0002	50	5% HNO <sub>3</sub>	KOM	12-11-23
2	18	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
3	19	6020 10x	TM11-105-37	↓	2	.05	.002	↓	↓	↓	↓
4	20	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	21	IUGO20 Cal-1	TZMEB726406	8-18-24	20	.05	.02	↓	↓	↓	↓
6	22	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	23	↓	↓	↓	↓	.25	.10	↓	↓	↓	↓
8	24	IUPECHKI	SZMEB709269	5-24-24	10	.25	.05	↓	↓	↓	↓
6020 10x	TM11-106-25	IUGO20 Cal-1	TZMEB726406	8-18-24	20	1.0	.2	10	2% HNO <sub>3</sub>	KOM	12-11-23
6020 100x	26	↓	↓	↓	20	0.1	.2	↓	↓	↓	↓
Stal 1	TM11-106-27	6020 100x	TM11-106-26	1-1-24	.2	.05	.0002	50	5% HNO <sub>3</sub>	KOM	12-11-23
2	28	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
3	29	6020 10x	TM11-106-25	↓	2	.05	.002	↓	↓	↓	↓
4	30	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	31	IUGO20 Cal-1	TZMEB726406	8-18-24	20	.05	.02	↓	↓	↓	↓
6	32	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	33	↓	↓	↓	↓	.25	.10	↓	↓	↓	↓
8	34	IUPECHKI	SZMEB709269	5-24-24	10	.25	.05	↓	↓	↓	↓
IUSA	TM11-106-35	IUGO20 IUSA	TZMEB726406	8-18-24	20	1.0	.2	50	5% HNO <sub>3</sub>	KOM	12-11-23
IUSA	36	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
↓	↓	IUGO20 Cal-1	TZMEB726406	8-18-24	20	1.0	.2	↓	↓	↓	↓

DIGESTION DATE:	12-9-23
ANALYST:	lcm

QC BATCH #:	11-053-076
MATRIX:	water
ANALYSIS METHOD:	200.8

OSE LAB ID#	INITIAL Wt.(g)/Vol.(ml)	FINAL Vol.(ml)	DILUTION FACTOR	PRE/POST DIGEST APPEARANCE	COMMENTS
MB1209 Wml	45ml	50			
SB1209 Wml					
12-053-076					
076D					
076MS					
076ml					
11-283-06a					
08c					
11e					
13e					
11-217-01f					
03f					
05e					
07a					
08f					
11-266-01c					
11-272-01c					
02c					
03c					
04c					
05c					
<del>RR 12/11/23</del>					

SPIKE ID# IV6020 Cal-1

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VOL ADDED: 25ul

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## Dissolved Metals EPA 200.8

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration Data
- Administrative Forms

# Dataset Report

12-11-23  
KDM

User Name: kmckinney  
Computer Name: ICPMS  
Dataset File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\  
Report Date/Time: Monday, December 11, 2023 15:52:09

## The Dataset

Batch ID	Sample ID	Date and Time	Read Type	Samp. File Name	Description
	Blank	10:27:06 Mon 11-	CBlank	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	Standard 1	10:31:35 Mon 11-	CStandard #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	Standard 2	10:36:05 Mon 11-	CStandard #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	Standard 3	10:40:35 Mon 11-	CStandard #3	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	Standard 4	10:45:05 Mon 11-	CStandard #4	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	Standard 5	10:49:35 Mon 11-	CStandard #5	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	Standard 6	10:54:04 Mon 11-	CStandard #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	Standard 7	10:58:34 Mon 11-	CStandard #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 1	11:03:53 Mon 11-	CQC Std #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 2	11:09:13 Mon 11-	CQC Std #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 6	11:17:57 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 7	11:23:17 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 8	11:28:37 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-183-06a 2X	11:33:56 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-183-08c 2X	11:39:15 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-183-11e 2X	11:44:48 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-183-13e 2X	11:53:56 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-01f 2X	11:59:15 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-03f 2X	12:04:34 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-05c 2X	12:09:52 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-07a 2X	12:15:11 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-08f 2X	12:20:30 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-266-01c 2X	12:25:50 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 6	12:31:09 Mon 11-	CQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 7	12:36:28 Mon 11-	CQC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 8	12:41:48 Mon 11-	CQC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	MB1211D1 2X	12:48:51 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	SB1211D1 2X	12:54:11 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-03g 2X	12:59:30 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-03gD 2X	13:04:48 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-03gL 10X	13:10:08 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-03gMS 2X	13:15:27 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-03gMSD 2X	13:20:46 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-183-06b 2X	13:26:04 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-183-08d 2X	13:31:22 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-183-11f 2X	13:36:41 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 6	13:41:59 Mon 11-	CQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 7	13:47:19 Mon 11-	CQC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 8	13:52:39 Mon 11-	CQC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-183-13f 2X	13:57:08 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-01g 2X	14:02:28 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-05d 2X	14:07:47 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-07b 2X	14:13:06 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-213-08g 2X	14:18:25 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-266-01d 2X	14:23:45 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 6	14:29:04 Mon 11-	CQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 7	14:34:24 Mon 11-	CQC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	QC Std 8	14:39:44 Mon 11-	CQC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-272-02c 10X	14:46:44 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	
	11-272-03c 10X	14:52:03 Mon 11-	CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\	

11-272-04c 10X	14:57:22 Mon 11-CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
11-272-05c 10X	15:02:41 Mon 11-CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
11-272-01d 10X FF	15:08:00 Mon 11-CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
11-272-02d 10X	15:13:18 Mon 11-CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
11-272-03d 10X	15:18:37 Mon 11-CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
11-272-04d 10X	15:23:57 Mon 11-CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
11-272-05d 10X	15:29:16 Mon 11-CSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
QC Std 6	15:34:35 Mon 11-CQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
QC Std 7	15:39:55 Mon 11-CQC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'
QC Std 8	15:45:15 Mon 11-CQC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X23121'

## Performance Check Report

Sample ID: STD Performance Check

Sample Date/Time: Monday, December 11, 2023 07:12:13

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\12dec23\231211A\STD Performance Check.063

Mass Filter: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

### Summary

Element	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode
Be	9.0		6567.0		6566.976		137.635		2.1	Standard
In	114.9		126987.1		126987.062		1835.560		1.4	Standard
U	238.1		125077.4		125077.376		603.379		0.5	Standard
CeO	155.9		2787.1		0.022		0.000		1.5	Standard
Ce	139.9		124115.5		124115.499		1573.848		1.3	Standard
Ce+1	70.0		3256.1		0.026		0.003		11.9	Standard
Bi	220.0		0.2		0.233		0.190		81.4	Standard

### Current Conditions File Data

Current Value	Description
1.02	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
16.00	Plasma Gas Flow
-12.00	Deflector Voltage
300.00	ICP RF Power
1937.00	Analog Stage Voltage
1200.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-14.00	Cell Rod Offset STD [CRO]
11.00	Discriminator Threshold
-9.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
1.02	DRC Mode NEB
-8.00	DRC Mode QRO
-2.00	DRC Mode CRO
-14.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
175.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-6.00	KED Mode Cell Entrance Voltage
-25.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.10	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
175.00	KED Mode Axial Field Voltage

# Instrument Mass Calibration Report

File Name:

File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\

Acq. Date/Time: 08:41:44 Mon 11-Dec-23

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Peak Width	Custom Res.
Li	7.016	7.025	1252	2054	0.711	
Mg	23.985	23.975	4635	2056	0.688	
In	114.904	114.925	22825	2055	0.694	
U	238.050	238.075	47459	2047	0.695	

## Quantitative Analysis Calibration Report

File Name:

File Path:

Calibration Type: External Calibration

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Sc	44.956	Linear Thru Zero	0.00	0.00	0.000000
Ni	57.935	Linear Thru Zero	0.03	0.00	0.999779
Ni	59.933	Linear Thru Zero	0.01	0.00	0.999886
Ni	61.928	Linear Thru Zero	-0.00	0.00	-0.419754
Ge	71.922	Linear Thru Zero	0.00	0.00	0.000000
As	74.922	Linear Thru Zero	0.00	0.00	0.999705
As-1	74.922	Linear Thru Zero	0.01	0.00	0.999804
Se	76.920	Linear Thru Zero	0.00	0.00	0.999681
Se	77.917	Linear Thru Zero	0.00	0.00	0.999031
Br	78.918	Linear Thru Zero	0.00	0.00	0.000000
Se	81.917	Linear Thru Zero	0.00	0.00	0.999780
Kr	82.914	Linear Thru Zero	0.00	0.00	0.000000
Y	88.905	Linear Thru Zero	0.00	0.00	0.000000
Rh	102.905	Linear Thru Zero	0.00	0.00	0.000000
In	114.904	Linear Thru Zero	0.00	0.00	0.000000
Tb	158.925	Linear Thru Zero	0.00	0.00	0.000000
Ho	164.930	Linear Thru Zero	0.00	0.00	0.000000
Pb	207.977	Linear Thru Zero	0.08	0.00	0.999041
Bi	208.980	Linear Thru Zero	0.00	0.00	0.000000
Th	232.038	Linear Thru Zero	0.00	0.00	0.000000
Ni-1	57.935	Linear Thru Zero	0.15	0.00	0.999908
Ni-1	59.933	Linear Thru Zero	0.06	0.00	0.999890
Ni-1	61.928	Linear Thru Zero	0.01	0.00	0.999878
Ge-1	71.922	Linear Thru Zero	0.00	0.00	0.000000
As-2	74.922	Linear Thru Zero	0.01	0.00	0.999866
Y-1	88.905	Linear Thru Zero	0.00	0.00	0.000000
Rh-1	102.905	Linear Thru Zero	0.00	0.00	0.000000
In-1	114.904	Linear Thru Zero	0.00	0.00	0.000000

# Quantitative Analysis - Summary Report

**Sample ID: Blank**

Sample Date/Time: Monday, December 11, 2023 10:27:06

Report Date/Time: Monday, December 11, 2023 15:49:52

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\Blank.001

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	80.6	11.2				ug/L		KED
	Ni-1	60	35.7	6.5				ug/L		KED
	Ni-1	62	14.7	7.9				ug/L		KED
>	Ge-1	72	16172.5	0.4				ug/L		KED
[	As-2	75	2.3	24.7				ug/L		KED
	Y-1	89	30089.7	1.7				ug/L		KED
	Rh-1	103	200857.2	0.5				ug/L		KED
	In-1	115	21406.7	2.2				ug/L		KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 1**

Sample Date/Time: Monday, December 11, 2023 10:31:35

Report Date/Time: Monday, December 11, 2023 15:49:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\Standard 1.002

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	653.7	5.1				ug/L	81	KED
	Ni-1	60	278.0	2.5				ug/L	36	KED
	Ni-1	62	47.0	38.7				ug/L	15	KED
>	Ge-1	72	17493.0	2.8				ug/L	16172	KED
[	As-2	75	24.3	6.3	0.2000	0.018	9.2	ug/L	2	KED
	Y-1	89	32802.3	1.5				ug/L	30090	KED
	Rh-1	103	218682.1	0.9				ug/L	200857	KED
	In-1	115	22699.3	1.2				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: Standard 2**

Sample Date/Time: Monday, December 11, 2023 10:36:05

Report Date/Time: Monday, December 11, 2023 15:49:55

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\Standard 2.003

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1511.7	1.1	0.5000	0.012	2.5	ug/L	81	KED
	Ni-1	60	690.0	0.9	0.5000	0.004	0.8	ug/L	36	KED
	Ni-1	62	105.3	20.9	0.5000	0.121	24.3	ug/L	15	KED
>	Ge-1	72	17368.9	1.4				ug/L	16172	KED
[	As-2	75	69.3	10.2	0.5134	0.059	11.4	ug/L	2	KED
	Y-1	89	32012.2	0.9				ug/L	30090	KED
	Rh-1	103	216053.5	0.6				ug/L	200857	KED
	In-1	115	22821.3	1.2				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

### Sample ID: Standard 3

Sample Date/Time: Monday, December 11, 2023 10:40:35

Report Date/Time: Monday, December 11, 2023 15:49:57

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\Standard 3.004

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	5279.2	3.8	<b>1.9933</b>	0.039	2.0	ug/L	81	KED
	Ni-1	60	2331.5	2.7	<b>1.9890</b>	0.033	1.7	ug/L	36	KED
	Ni-1	62	354.0	8.4	<b>1.9979</b>	0.153	7.7	ug/L	15	KED
>	Ge-1	72	16724.1	1.9				ug/L	16172	KED
[	As-2	75	215.3	1.6	<b>1.9762</b>	0.038	1.9	ug/L	2	KED
	Y-1	89	31626.6	1.5				ug/L	30090	KED
	Rh-1	103	210340.6	1.0				ug/L	200857	KED
	In-1	115	22089.8	0.6				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

### Sample ID: Standard 4

Sample Date/Time: Monday, December 11, 2023 10:45:05

Report Date/Time: Monday, December 11, 2023 15:49:59

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\Standard 4.005

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	12237.9	1.2	4.9136	0.108	2.2	ug/L	81	KED
	Ni-1	60	5292.3	3.3	4.8946	0.098	2.0	ug/L	36	KED
	Ni-1	62	839.4	4.8	4.9447	0.076	1.5	ug/L	15	KED
>	Ge-1	72	17492.0	3.4				ug/L	16172	KED
[	As-2	75	487.3	3.9	4.8841	0.164	3.4	ug/L	2	KED
	Y-1	89	32382.7	0.8				ug/L	30090	KED
	Rh-1	103	216484.0	0.6				ug/L	200857	KED
	In-1	115	22588.0	1.4				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: Standard 5**

Sample Date/Time: Monday, December 11, 2023 10:49:35

Report Date/Time: Monday, December 11, 2023 15:50:01

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\Standard 5.006

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	42927.3	1.2	20.1402	0.183	0.9	ug/L	81	KED
	Ni-1	60	18537.7	1.9	20.1341	0.323	1.6	ug/L	36	KED
	Ni-1	62	2886.6	1.5	20.1359	0.257	1.3	ug/L	15	KED
>	Ge-1	72	13603.5	0.4				ug/L	16172	KED
[	As-2	75	1799.8	1.4	20.1943	0.314	1.6	ug/L	2	KED
	Y-1	89	25065.0	1.0				ug/L	30090	KED
	Rh-1	103	168208.5	2.3				ug/L	200857	KED
	In-1	115	17707.0	0.2				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 6**

Sample Date/Time: Monday, December 11, 2023 10:54:04

Report Date/Time: Monday, December 11, 2023 15:50:03

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\Standard 6.007

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	79823.5	1.0	<b>39.4945</b>	0.916	2.3	ug/L	81	KED
	Ni-1	60	34514.3	1.9	<b>39.5032</b>	1.122	2.8	ug/L	36	KED
	Ni-1	62	5385.3	0.4	<b>39.5322</b>	0.776	2.0	ug/L	15	KED
>	Ge-1	72	13520.4	1.5				ug/L	16172	KED
[	As-2	75	3365.1	1.5	<b>39.5639</b>	1.146	2.9	ug/L	2	KED
	Y-1	89	25148.5	1.0				ug/L	30090	KED
	Rh-1	103	166473.4	0.9				ug/L	200857	KED
	In-1	115	17568.6	1.4				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: Standard 7**

Sample Date/Time: Monday, December 11, 2023 10:58:34

Report Date/Time: Monday, December 11, 2023 15:50:04

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\Standard 7.008

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	230964.2	1.4	<b>99.6856</b>	1.221	1.2	ug/L	81	KED
	Ni-1	60	99220.8	1.4	<b>99.5785</b>	0.947	1.0	ug/L	36	KED
	Ni-1	62	15381.9	1.2	<b>99.4948</b>	0.414	0.4	ug/L	15	KED
>	Ge-1	72	15744.0	1.1				ug/L	16172	KED
[	As-2	75	9611.2	2.8	<b>99.4878</b>	1.881	1.9	ug/L	2	KED
	Y-1	89	29316.7	0.5				ug/L	30090	KED
	Rh-1	103	196768.9	0.9				ug/L	200857	KED
	In-1	115	20948.7	1.1				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 1**

Sample Date/Time: Monday, December 11, 2023 11:03:53

Report Date/Time: Monday, December 11, 2023 15:50:06

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 1.009

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	125703.3	2.8	<b>50.7116</b>	0.281	0.6	ug/L	81	KED
	Ni-1	60	54169.2	1.6	<b>50.8251</b>	0.514	1.0	ug/L	36	KED
	Ni-1	62	8370.8	1.9	<b>50.5881</b>	0.211	0.4	ug/L	15	KED
[>	Ge-1	72	16836.9	2.3				ug/L	16172	KED
[	As-2	75	5012.5	3.5	<b>48.5102</b>	1.277	2.6	ug/L	2	KED
	Y-1	89	31682.4	1.3				ug/L	30090	KED
	Rh-1	103	210434.7	1.1				ug/L	200857	KED
	In-1	115	22233.8	0.9				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	101.423	
	Ni-1	60	101.650	
	Ni-1	62	101.176	
[>	Ge-1	72		104.108
[	As-2	75	97.020	
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 2**

Sample Date/Time: Monday, December 11, 2023 11:09:13

Report Date/Time: Monday, December 11, 2023 15:50:10

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 2.010

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	102.4	6.9	0.0104	0.003	29.7	ug/L	81	KED
	Ni-1	60	56.3	16.1	0.0218	0.009	42.2	ug/L	36	KED
	Ni-1	62	10.3	20.1	-0.0254	0.014	53.8	ug/L	15	KED
>	Ge-1	72	15722.0	1.8				ug/L	16172	KED
[	As-2	75	3.0	33.3	0.0076	0.011	139.6	ug/L	2	KED
	Y-1	89	29797.1	2.9				ug/L	30090	KED
	Rh-1	103	194034.6	1.3				ug/L	200857	KED
	In-1	115	20995.1	1.9				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		97.214
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, December 11, 2023 11:17:57

Report Date/Time: Monday, December 11, 2023 15:50:13

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 6.011

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	88590.9	1.4	40.3349	0.867	2.1	ug/L	81	KED
	Ni-1	60	38027.9	1.8	40.2528	0.335	0.8	ug/L	36	KED
	Ni-1	62	5834.2	3.0	39.7585	0.206	0.5	ug/L	15	KED
>	Ge-1	72	14921.8	2.6				ug/L	16172	KED
[	As-2	75	3745.8	1.4	40.9091	0.531	1.3	ug/L	2	KED
	Y-1	89	28056.9	2.1				ug/L	30090	KED
	Rh-1	103	179467.4	1.4				ug/L	200857	KED
	In-1	115	20147.7	1.1				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		92.267
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, December 11, 2023 11:23:17

Report Date/Time: Monday, December 11, 2023 15:50:15

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 7.012

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	43909.0	3.0	20.4276	0.755	3.7	ug/L	81	KED
	Ni-1	60	19179.9	2.2	20.7447	0.383	1.8	ug/L	36	KED
	Ni-1	62	3010.0	2.4	20.9387	0.535	2.6	ug/L	15	KED
>	Ge-1	72	14596.1	3.9				ug/L	16172	KED
[	As-2	75	1883.5	5.5	21.0120	0.801	3.8	ug/L	2	KED
	Y-1	89	27300.4	2.2				ug/L	30090	KED
	Rh-1	103	175859.5	2.3				ug/L	200857	KED
	In-1	115	19353.2	1.7				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		90.253
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, December 11, 2023 11:28:37

Report Date/Time: Monday, December 11, 2023 15:50:17

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 8.013

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	143.3	1.7	0.0266	0.003	10.8	ug/L	81	KED
	Ni-1	60	64.0	1.6	0.0280	0.002	8.8	ug/L	36	KED
	Ni-1	62	8.0	33.1	-0.0414	0.018	44.1	ug/L	15	KED
>	Ge-1	72	16103.4	3.6				ug/L	16172	KED
[	As-2	75	2.0	50.0	-0.0033	0.010	318.0	ug/L	2	KED
	Y-1	89	30529.3	3.4				ug/L	30090	KED
	Rh-1	103	196960.5	0.7				ug/L	200857	KED
	In-1	115	21823.2	0.7				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		99.573
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-183-06a 2X**

Sample Date/Time: Monday, December 11, 2023 11:33:56

Report Date/Time: Monday, December 11, 2023 15:50:18

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-183-06a 2X.014

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	5502.9	9.2	<b>2.5821</b>	0.208	8.1	ug/L	81	KED
	Ni-1	60	2521.2	3.0	<b>2.7536</b>	0.051	1.9	ug/L	36	KED
	Ni-1	62	375.7	3.5	<b>2.5883</b>	0.126	4.9	ug/L	15	KED
>	Ge-1	72	14289.8	1.3				ug/L	16172	KED
[	As-2	75	339.0	4.8	<b>3.8432</b>	0.154	4.0	ug/L	2	KED
	Y-1	89	27873.2	1.4				ug/L	30090	KED
	Rh-1	103	167718.5	0.7				ug/L	200857	KED
	In-1	115	19241.5	0.4				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		88.359
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-183-08c 2X**

Sample Date/Time: Monday, December 11, 2023 11:39:15

Report Date/Time: Monday, December 11, 2023 15:50:20

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-183-08c 2X.015

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	22469.8	0.8	<b>10.6167</b>	0.057	0.5	ug/L	81	KED
	Ni-1	60	9588.2	0.7	<b>10.5334</b>	0.068	0.6	ug/L	36	KED
	Ni-1	62	1480.7	6.7	<b>10.4312</b>	0.673	6.4	ug/L	15	KED
>	Ge-1	72	14341.2	1.3				ug/L	16172	KED
[	As-2	75	897.7	7.0	<b>10.1768</b>	0.609	6.0	ug/L	2	KED
	Y-1	89	27385.2	1.3				ug/L	30090	KED
	Rh-1	103	170273.3	1.8				ug/L	200857	KED
	In-1	115	18946.3	0.5				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		88.677
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-183-11e 2X**

Sample Date/Time: Monday, December 11, 2023 11:44:48

Report Date/Time: Monday, December 11, 2023 15:50:22

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-183-11e 2X.016

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	49224.3	1.4	22.4009	0.175	0.8	ug/L	81	KED
	Ni-1	60	21430.7	1.3	22.6776	0.106	0.5	ug/L	36	KED
	Ni-1	62	3301.0	2.7	22.4701	0.623	2.8	ug/L	15	KED
>	Ge-1	72	14914.4	1.4				ug/L	16172	KED
[	As-2	75	297.0	7.9	3.2218	0.234	7.3	ug/L	2	KED
	Y-1	89	31846.1	1.7				ug/L	30090	KED
	Rh-1	103	176387.9	2.0				ug/L	200857	KED
	In-1	115	19762.5	1.1				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		92.221
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-183-13e 2X**

Sample Date/Time: Monday, December 11, 2023 11:53:56

Report Date/Time: Monday, December 11, 2023 15:50:24

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-183-13e 2X.017

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	9981.8	1.1	<b>4.4408</b>	0.165	3.7	ug/L	81	KED
	Ni-1	60	4256.3	3.5	<b>4.3984</b>	0.022	0.5	ug/L	36	KED
	Ni-1	62	666.0	8.6	<b>4.3767</b>	0.247	5.6	ug/L	15	KED
>	Ge-1	72	15173.7	3.0				ug/L	16172	KED
[	As-2	75	368.3	3.2	<b>3.9337</b>	0.010	0.3	ug/L	2	KED
	Y-1	89	28963.0	1.1				ug/L	30090	KED
	Rh-1	103	175218.4	0.6				ug/L	200857	KED
	In-1	115	20157.6	1.7				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		93.824
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-01f 2X**

Sample Date/Time: Monday, December 11, 2023 11:59:15

Report Date/Time: Monday, December 11, 2023 15:50:26

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-01f 2X.018

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	3679.6	2.3	1.6220	0.031	1.9	ug/L	81	KED
	Ni-1	60	1510.4	8.8	1.5446	0.116	7.5	ug/L	36	KED
	Ni-1	62	240.3	5.0	1.5285	0.042	2.7	ug/L	15	KED
>	Ge-1	72	15107.7	2.8				ug/L	16172	KED
L	As-2	75	487.3	4.6	5.2336	0.092	1.8	ug/L	2	KED
	Y-1	89	28597.3	1.0				ug/L	30090	KED
	Rh-1	103	179494.6	0.4				ug/L	200857	KED
	In-1	115	19825.2	1.9				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		93.416
L	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-213-03f 2X**

Sample Date/Time: Monday, December 11, 2023 12:04:34

Report Date/Time: Monday, December 11, 2023 15:50:28

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-03f 2X.019

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	3601.6	4.4	<b>1.6021</b>	0.094	5.9	ug/L	81	KED
	Ni-1	60	1445.4	5.7	<b>1.4913</b>	0.090	6.1	ug/L	36	KED
	Ni-1	62	217.3	6.2	<b>1.3878</b>	0.103	7.4	ug/L	15	KED
>	Ge-1	72	14972.5	1.4				ug/L	16172	KED
[	As-2	75	54.0	8.1	<b>0.5650</b>	0.056	9.9	ug/L	2	KED
	Y-1	89	28121.3	2.0				ug/L	30090	KED
	Rh-1	103	178037.2	0.6				ug/L	200857	KED
	In-1	115	20114.0	1.9				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		92.580
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-05c 2X**

Sample Date/Time: Monday, December 11, 2023 12:09:52

Report Date/Time: Monday, December 11, 2023 15:50:29

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-05c 2X.020

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	3080.8	5.4	<b>1.3210</b>	0.076	5.8	ug/L	81	KED
	Ni-1	60	1208.4	3.7	<b>1.2007</b>	0.040	3.3	ug/L	36	KED
	Ni-1	62	175.7	7.7	<b>1.0661</b>	0.091	8.6	ug/L	15	KED
>	Ge-1	72	15457.4	0.5				ug/L	16172	KED
[	As-2	75	31.7	22.2	<b>0.3106</b>	0.075	24.1	ug/L	2	KED
	Y-1	89	29137.7	1.7				ug/L	30090	KED
	Rh-1	103	183152.3	0.8				ug/L	200857	KED
	In-1	115	20656.7	0.8				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		95.578
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-07a 2X**

Sample Date/Time: Monday, December 11, 2023 12:15:11

Report Date/Time: Monday, December 11, 2023 15:50:31

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-07a 2X.021

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	731.2	4.6	<b>0.2856</b>	0.023	8.1	ug/L	81	KED
	Ni-1	60	327.7	7.9	<b>0.2973</b>	0.017	5.7	ug/L	36	KED
	Ni-1	62	51.7	11.8	<b>0.2460</b>	0.044	17.8	ug/L	15	KED
>	Ge-1	72	15578.5	2.8				ug/L	16172	KED
[	As-2	75	8.7	37.1	<b>0.0673</b>	0.034	50.8	ug/L	2	KED
	Y-1	89	29243.9	1.4				ug/L	30090	KED
	Rh-1	103	184970.5	0.5				ug/L	200857	KED
	In-1	115	20821.4	0.9				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		96.327
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-08f 2X**

Sample Date/Time: Monday, December 11, 2023 12:20:30

Report Date/Time: Monday, December 11, 2023 15:50:33

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\X231211B\11-213-08f 2X.022

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1907.1	2.1	<b>0.8440</b>	0.028	3.4	ug/L	81	KED
	Ni-1	60	832.7	3.3	<b>0.8561</b>	0.022	2.6	ug/L	36	KED
	Ni-1	62	121.3	12.5	<b>0.7458</b>	0.114	15.3	ug/L	15	KED
>	Ge-1	72	14771.0	1.2				ug/L	16172	KED
L	As-2	75	11.0	39.6	<b>0.0980</b>	0.049	49.5	ug/L	2	KED
	Y-1	89	28125.3	0.7				ug/L	30090	KED
	Rh-1	103	172884.8	0.2				ug/L	200857	KED
	In-1	115	19709.9	1.1				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		91.334
L	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-266-01c 2X**

Sample Date/Time: Monday, December 11, 2023 12:25:50

Report Date/Time: Monday, December 11, 2023 15:50:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-266-01c 2X.023

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	15864.4	2.0	7.0772	0.113	1.6	ug/L	81	KED
	Ni-1	60	7043.7	2.7	7.3060	0.109	1.5	ug/L	36	KED
	Ni-1	62	1093.0	4.2	7.2517	0.151	2.1	ug/L	15	KED
>	Ge-1	72	15166.4	2.2				ug/L	16172	KED
[	As-2	75	101.0	8.1	1.0613	0.068	6.4	ug/L	2	KED
	Y-1	89	30355.9	0.9				ug/L	30090	KED
	Rh-1	103	177316.5	1.8				ug/L	200857	KED
	In-1	115	20180.6	1.8				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		93.779
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, December 11, 2023 12:31:09

Report Date/Time: Monday, December 11, 2023 15:50:37

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 6.024

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	86102.0	2.0	40.2242	0.328	0.8	ug/L	81	KED
	Ni-1	60	37555.0	2.1	40.7960	0.309	0.8	ug/L	36	KED
	Ni-1	62	5714.8	3.1	39.9731	0.767	1.9	ug/L	15	KED
>	Ge-1	72	14537.4	1.6				ug/L	16172	KED
[	As-2	75	3579.4	4.6	40.1240	1.960	4.9	ug/L	2	KED
	Y-1	89	26947.1	0.8				ug/L	30090	KED
	Rh-1	103	172448.6	2.3				ug/L	200857	KED
	In-1	115	19302.1	0.3				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	100.560	
	Ni-1	60	101.990	
	Ni-1	62	99.933	
>	Ge-1	72		89.890
[	As-2	75	100.310	
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, December 11, 2023 12:36:28

Report Date/Time: Monday, December 11, 2023 15:50:40

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 7.025

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	44970.9	2.5	20.7791	0.070	0.3	ug/L	81	KED
	Ni-1	60	19301.4	2.4	20.7380	0.208	1.0	ug/L	36	KED
	Ni-1	62	3052.7	1.3	21.0981	0.306	1.5	ug/L	15	KED
>	Ge-1	72	14686.9	2.3				ug/L	16172	KED
[	As-2	75	1872.5	2.9	20.7682	0.771	3.7	ug/L	2	KED
	Y-1	89	27352.2	2.2				ug/L	30090	KED
	Rh-1	103	175530.6	1.3				ug/L	200857	KED
	In-1	115	19756.4	3.2				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	103.896	
	Ni-1	60	103.690	
	Ni-1	62	105.490	
>	Ge-1	72		90.814
[	As-2	75	103.841	
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, December 11, 2023 12:41:48

Report Date/Time: Monday, December 11, 2023 15:50:43

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 8.026

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	92.4	10.8	0.0042	0.004	96.9	ug/L	81	KED
	Ni-1	60	36.3	12.4	0.0001	0.005	8039.9	ug/L	36	KED
	Ni-1	62	6.7	22.9	-0.0513	0.009	17.4	ug/L	15	KED
>	Ge-1	72	16471.2	2.0				ug/L	16172	KED
[	As-2	75	1.7	69.3	-0.0072	0.011	153.1	ug/L	2	KED
	Y-1	89	30889.4	1.6				ug/L	30090	KED
	Rh-1	103	197794.2	2.7				ug/L	200857	KED
	In-1	115	22540.7	1.2				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		101.847
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: MB1211D1 2X**

Sample Date/Time: Monday, December 11, 2023 12:48:51

Report Date/Time: Monday, December 11, 2023 15:50:46

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\MB1211D1 2X.027

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	101.5	4.7	0.0063	0.001	12.6	ug/L	81	KED
	Ni-1	60	40.0	27.5	0.0018	0.009	501.4	ug/L	36	KED
	Ni-1	62	6.3	55.5	-0.0543	0.022	40.8	ug/L	15	KED
>	Ge-1	72	17175.3	3.8				ug/L	16172	KED
[	As-2	75	1.7	34.6	-0.0077	0.005	70.0	ug/L	2	KED
	Y-1	89	32587.5	1.4				ug/L	30090	KED
	Rh-1	103	205711.9	1.0				ug/L	200857	KED
	In-1	115	23522.1	1.6				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		106.201
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: SB1211D1 2X**

Sample Date/Time: Monday, December 11, 2023 12:54:11

Report Date/Time: Monday, December 11, 2023 15:50:48

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\SB1211D1 2X.028

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	86958.9	0.5	<b>39.3526</b>	0.233	0.6	ug/L	81	KED
	Ni-1	60	37838.4	1.0	<b>39.8174</b>	0.390	1.0	ug/L	36	KED
	Ni-1	62	5719.1	1.1	<b>38.7508</b>	0.088	0.2	ug/L	15	KED
>	Ge-1	72	15007.9	0.9				ug/L	16172	KED
[	As-2	75	3742.8	1.7	<b>40.6324</b>	0.541	1.3	ug/L	2	KED
	Y-1	89	27795.0	0.7				ug/L	30090	KED
	Rh-1	103	177123.7	1.3				ug/L	200857	KED
	In-1	115	20227.9	0.5				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		92.799
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-03g 2X**

Sample Date/Time: Monday, December 11, 2023 12:59:30

Report Date/Time: Monday, December 11, 2023 15:50:50

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-03g 2X.029

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1140.3	1.9	<b>0.4505</b>	0.003	0.7	ug/L	81	KED
	Ni-1	60	481.3	6.3	<b>0.4403</b>	0.023	5.2	ug/L	36	KED
	Ni-1	62	75.3	16.1	<b>0.3869</b>	0.071	18.3	ug/L	15	KED
>	Ge-1	72	16003.0	1.5				ug/L	16172	KED
	As-2	75	36.3	25.4	<b>0.3458</b>	0.088	25.6	ug/L	2	KED
	Y-1	89	30012.5	2.2				ug/L	30090	KED
	Rh-1	103	185396.4	1.2				ug/L	200857	KED
	In-1	115	21465.3	1.5				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		98.952
	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-03gD 2X**

Sample Date/Time: Monday, December 11, 2023 13:04:48

Report Date/Time: Monday, December 11, 2023 15:50:52

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-03gD 2X.030

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1129.7	5.7	<b>0.4454</b>	0.030	6.7	ug/L	81	KED
	Ni-1	60	486.3	0.9	<b>0.4448</b>	0.004	0.8	ug/L	36	KED
	Ni-1	62	77.7	6.6	<b>0.4016</b>	0.035	8.6	ug/L	15	KED
>	Ge-1	72	16026.7	0.7				ug/L	16172	KED
L	As-2	75	39.3	10.3	<b>0.3765</b>	0.039	10.4	ug/L	2	KED
	Y-1	89	29962.4	2.0				ug/L	30090	KED
	Rh-1	103	185213.7	1.1				ug/L	200857	KED
	In-1	115	21637.0	0.7				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		99.098
L	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-213-03gL 10X**

Sample Date/Time: Monday, December 11, 2023 13:10:08

Report Date/Time: Monday, December 11, 2023 15:50:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-03gL 10X.031

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	302.3	5.9	<b>0.0960</b>	0.003	3.6	ug/L	81	KED
	Ni-1	60	124.0	6.9	<b>0.0893</b>	0.012	13.0	ug/L	36	KED
	Ni-1	62	19.7	16.3	<b>0.0340</b>	0.017	49.0	ug/L	15	KED
>	Ge-1	72	15807.1	3.7				ug/L	16172	KED
[	As-2	75	11.7	26.2	<b>0.0966</b>	0.030	31.5	ug/L	2	KED
	Y-1	89	29898.6	0.5				ug/L	30090	KED
	Rh-1	103	185382.9	1.4				ug/L	200857	KED
	In-1	115	21277.2	1.1				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		97.741
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-03gMS 2X**

Sample Date/Time: Monday, December 11, 2023 13:15:27

Report Date/Time: Monday, December 11, 2023 15:50:55

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-03gMS 2X.032

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	92688.7	2.9	<b>39.8469</b>	0.442	1.1	ug/L	81	KED
	Ni-1	60	40259.0	2.3	<b>40.2488</b>	0.279	0.7	ug/L	36	KED
	Ni-1	62	6213.7	2.3	<b>40.0035</b>	0.422	1.1	ug/L	15	KED
>	Ge-1	72	15797.4	2.5				ug/L	16172	KED
[	As-2	75	3982.9	1.2	<b>41.0875</b>	0.569	1.4	ug/L	2	KED
	Y-1	89	29536.9	2.8				ug/L	30090	KED
	Rh-1	103	183044.0	1.1				ug/L	200857	KED
	In-1	115	21208.1	2.7				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		97.681
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-03gMSD 2X**

Sample Date/Time: Monday, December 11, 2023 13:20:46

Report Date/Time: Monday, December 11, 2023 15:50:57

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-03gMSD 2X.033

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	93910.9	0.9	40.2049	0.138	0.3	ug/L	81	KED
	Ni-1	60	40716.3	1.0	40.5333	0.276	0.7	ug/L	36	KED
	Ni-1	62	6161.7	0.8	39.4986	0.086	0.2	ug/L	15	KED
>	Ge-1	72	15864.1	1.0				ug/L	16172	KED
[	As-2	75	4099.9	2.2	42.1102	0.966	2.3	ug/L	2	KED
	Y-1	89	29942.0	1.7				ug/L	30090	KED
	Rh-1	103	183808.9	0.1				ug/L	200857	KED
	In-1	115	21517.3	2.0				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		98.093
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-183-06b 2X**

Sample Date/Time: Monday, December 11, 2023 13:26:04

Report Date/Time: Monday, December 11, 2023 15:50:59

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-183-06b 2X.034

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	3744.8	11.3	<b>1.7092</b>	0.185	10.8	ug/L	81	KED
	Ni-1	60	1856.1	3.6	<b>1.9753</b>	0.073	3.7	ug/L	36	KED
	Ni-1	62	260.7	4.3	<b>1.7281</b>	0.080	4.7	ug/L	15	KED
>	Ge-1	72	14595.5	0.8				ug/L	16172	KED
[	As-2	75	280.0	5.1	<b>3.1040</b>	0.158	5.1	ug/L	2	KED
	Y-1	89	28830.1	0.5				ug/L	30090	KED
	Rh-1	103	171723.6	0.2				ug/L	200857	KED
	In-1	115	20589.4	1.9				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		90.249
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-183-08d 2X**

Sample Date/Time: Monday, December 11, 2023 13:31:22

Report Date/Time: Monday, December 11, 2023 15:51:01

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-183-08d 2X.035

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	18854.9	2.7	8.6514	0.198	2.3	ug/L	81	KED
	Ni-1	60	8192.0	3.4	8.7400	0.267	3.1	ug/L	36	KED
	Ni-1	62	1238.1	4.3	8.4589	0.326	3.9	ug/L	15	KED
>	Ge-1	72	14755.6	0.5				ug/L	16172	KED
L	As-2	75	717.0	6.3	7.8971	0.471	6.0	ug/L	2	KED
	Y-1	89	27836.8	1.3				ug/L	30090	KED
	Rh-1	103	169972.5	0.3				ug/L	200857	KED
	In-1	115	19952.8	1.7				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		91.239
L	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-183-11f 2X**

Sample Date/Time: Monday, December 11, 2023 13:36:41

Report Date/Time: Monday, December 11, 2023 15:51:03

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-183-11f 2X.036

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	851.6	4.3	<b>0.3345</b>	0.008	2.4	ug/L	81	KED
	Ni-1	60	364.3	4.4	<b>0.3318</b>	0.016	4.7	ug/L	36	KED
	Ni-1	62	63.0	8.4	<b>0.3160</b>	0.023	7.4	ug/L	15	KED
>	Ge-1	72	15708.3	2.6				ug/L	16172	KED
[	As-2	75	68.3	7.4	<b>0.6867</b>	0.067	9.7	ug/L	2	KED
	Y-1	89	29583.3	1.8				ug/L	30090	KED
	Rh-1	103	182781.6	0.6				ug/L	200857	KED
	In-1	115	21238.3	2.2				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		97.130
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, December 11, 2023 13:41:59

Report Date/Time: Monday, December 11, 2023 15:51:04

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 6.037

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	86252.7	0.7	<b>39.8340</b>	0.710	1.8	ug/L	81	KED
	Ni-1	60	37304.3	2.3	<b>40.0506</b>	0.192	0.5	ug/L	36	KED
	Ni-1	62	5695.5	1.3	<b>39.3850</b>	0.832	2.1	ug/L	15	KED
>	Ge-1	72	14709.6	2.2				ug/L	16172	KED
[	As-2	75	3572.1	1.2	<b>39.5751</b>	0.768	1.9	ug/L	2	KED
	Y-1	89	27286.4	2.1				ug/L	30090	KED
	Rh-1	103	172111.8	1.8				ug/L	200857	KED
	In-1	115	19848.8	2.7				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	99.585	
	Ni-1	60	100.127	
	Ni-1	62	98.462	
>	Ge-1	72		90.954
[	As-2	75	98.938	
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, December 11, 2023 13:47:19

Report Date/Time: Monday, December 11, 2023 15:51:06

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 7.038

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	44227.3	1.8	<b>20.6844</b>	0.210	1.0	ug/L	81	KED
	Ni-1	60	19053.0	1.8	<b>20.7198</b>	0.185	0.9	ug/L	36	KED
	Ni-1	62	2927.6	2.7	<b>20.4711</b>	0.234	1.1	ug/L	15	KED
>	Ge-1	72	14510.4	1.6				ug/L	16172	KED
[	As-2	75	1822.1	3.9	<b>20.4437</b>	0.517	2.5	ug/L	2	KED
	Y-1	89	26992.2	3.7				ug/L	30090	KED
	Rh-1	103	172017.5	1.0				ug/L	200857	KED
	In-1	115	19360.3	1.9				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	103.422	
	Ni-1	60	103.599	
	Ni-1	62	102.355	
>	Ge-1	72		89.723
[	As-2	75	102.218	
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, December 11, 2023 13:52:39

Report Date/Time: Monday, December 11, 2023 15:51:08

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 8.039

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	107.4	7.5	0.0081	0.002	30.7	ug/L	81	KED
	Ni-1	60	38.7	21.1	0.0002	0.007	3294.7	ug/L	36	KED
	Ni-1	62	6.3	9.1	-0.0553	0.004	6.6	ug/L	15	KED
>	Ge-1	72	17393.9	1.6				ug/L	16172	KED
[	As-2	75	2.0	50.0	-0.0048	0.009	197.3	ug/L	2	KED
	Y-1	89	31011.3	0.6				ug/L	30090	KED
	Rh-1	103	196441.5	1.2				ug/L	200857	KED
	In-1	115	22707.4	1.0				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		107.553
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-183-13f 2X**

Sample Date/Time: Monday, December 11, 2023 13:57:08

Report Date/Time: Monday, December 11, 2023 15:51:10

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-183-13f 2X.040

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	6028.2	2.9	<b>2.7958</b>	0.127	4.5	ug/L	81	KED
	Ni-1	60	2545.2	1.1	<b>2.7423</b>	0.031	1.1	ug/L	36	KED
	Ni-1	62	407.0	1.9	<b>2.7714</b>	0.053	1.9	ug/L	15	KED
>	Ge-1	72	14488.7	2.2				ug/L	16172	KED
[	As-2	75	259.0	3.0	<b>2.8909</b>	0.070	2.4	ug/L	2	KED
	Y-1	89	27404.9	1.7				ug/L	30090	KED
	Rh-1	103	163791.3	0.8				ug/L	200857	KED
	In-1	115	19208.1	2.2				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		89.588
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-01g 2X**

Sample Date/Time: Monday, December 11, 2023 14:02:28

Report Date/Time: Monday, December 11, 2023 15:51:11

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-01g 2X.041

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	2756.7	4.6	1.1881	0.040	3.3	ug/L	81	KED
	Ni-1	60	1167.4	2.7	1.1688	0.027	2.3	ug/L	36	KED
	Ni-1	62	177.7	9.0	1.0899	0.120	11.0	ug/L	15	KED
>	Ge-1	72	15329.6	1.4				ug/L	16172	KED
[	As-2	75	251.0	4.8	2.6450	0.095	3.6	ug/L	2	KED
	Y-1	89	28581.9	0.7				ug/L	30090	KED
	Rh-1	103	176052.2	0.9				ug/L	200857	KED
	In-1	115	20958.4	1.3				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		94.788
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-05d 2X**

Sample Date/Time: Monday, December 11, 2023 14:07:47

Report Date/Time: Monday, December 11, 2023 15:51:13

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-05d 2X.042

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	503.8	5.5	<b>0.1841</b>	0.014	7.6	ug/L	81	KED
	Ni-1	60	223.3	8.3	<b>0.1896</b>	0.016	8.7	ug/L	36	KED
	Ni-1	62	32.7	7.7	<b>0.1195</b>	0.018	14.7	ug/L	15	KED
>	Ge-1	72	15717.3	1.0				ug/L	16172	KED
[	As-2	75	10.0	10.0	<b>0.0802</b>	0.011	13.8	ug/L	2	KED
	Y-1	89	29325.1	0.9				ug/L	30090	KED
	Rh-1	103	180785.4	0.4				ug/L	200857	KED
	In-1	115	21227.5	1.7				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		97.186
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-213-07b 2X**

Sample Date/Time: Monday, December 11, 2023 14:13:06

Report Date/Time: Monday, December 11, 2023 15:51:15

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-07b 2X.043

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	393.4	6.8	<b>0.1395</b>	0.009	6.4	ug/L	81	KED
	Ni-1	60	182.3	4.9	<b>0.1523</b>	0.014	8.9	ug/L	36	KED
	Ni-1	62	25.7	45.2	<b>0.0771</b>	0.076	98.9	ug/L	15	KED
>	Ge-1	72	15418.0	2.6				ug/L	16172	KED
[	As-2	75	9.7	36.3	<b>0.0783</b>	0.036	46.1	ug/L	2	KED
	Y-1	89	27985.7	1.7				ug/L	30090	KED
	Rh-1	103	175198.9	1.3				ug/L	200857	KED
	In-1	115	20494.1	3.2				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		95.335
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-213-08g 2X**

Sample Date/Time: Monday, December 11, 2023 14:18:25

Report Date/Time: Monday, December 11, 2023 15:51:17

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-213-08g 2X.044

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1165.6	2.7	<b>0.5108</b>	0.007	1.3	ug/L	81	KED
	Ni-1	60	508.7	2.2	<b>0.5184</b>	0.029	5.6	ug/L	36	KED
	Ni-1	62	78.0	1.3	<b>0.4544</b>	0.014	3.1	ug/L	15	KED
>	Ge-1	72	14547.1	3.1				ug/L	16172	KED
[	As-2	75	13.3	11.5	<b>0.1263</b>	0.022	17.2	ug/L	2	KED
	Y-1	89	26699.9	2.0				ug/L	30090	KED
	Rh-1	103	162977.9	1.6				ug/L	200857	KED
	In-1	115	19482.9	1.2				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		89.950
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-266-01d 2X**

Sample Date/Time: Monday, December 11, 2023 14:23:45

Report Date/Time: Monday, December 11, 2023 15:51:19

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-266-01d 2X.045

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1634.4	1.6	<b>0.7321</b>	0.011	1.5	ug/L	81	KED
	Ni-1	60	706.0	5.4	<b>0.7347</b>	0.044	6.0	ug/L	36	KED
	Ni-1	62	112.3	6.1	<b>0.6970</b>	0.046	6.6	ug/L	15	KED
>	Ge-1	72	14503.0	0.6				ug/L	16172	KED
[	As-2	75	9.3	37.6	<b>0.0815</b>	0.040	49.2	ug/L	2	KED
	Y-1	89	26225.4	3.1				ug/L	30090	KED
	Rh-1	103	165895.7	2.3				ug/L	200857	KED
	In-1	115	19391.7	0.9				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		89.677
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, December 11, 2023 14:29:04

Report Date/Time: Monday, December 11, 2023 15:51:20

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 6.046

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	81866.4	1.6	<b>39.8063</b>	0.580	1.5	ug/L	81	KED
	Ni-1	60	35412.5	0.7	<b>40.0396</b>	0.317	0.8	ug/L	36	KED
	Ni-1	62	5446.4	2.8	<b>39.6465</b>	0.631	1.6	ug/L	15	KED
>	Ge-1	72	13968.5	1.4				ug/L	16172	KED
[	As-2	75	3445.1	1.6	<b>40.1840</b>	0.378	0.9	ug/L	2	KED
	Y-1	89	25622.6	1.5				ug/L	30090	KED
	Rh-1	103	162874.9	2.5				ug/L	200857	KED
	In-1	115	18981.1	0.6				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	99.516	
	Ni-1	60	100.099	
	Ni-1	62	99.116	
>	Ge-1	72		86.372
[	As-2	75	100.460	
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, December 11, 2023 14:34:24

Report Date/Time: Monday, December 11, 2023 15:51:22

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 7.047

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	43039.5	0.6	20.4548	0.280	1.4	ug/L	81	KED
	Ni-1	60	18554.7	1.2	20.5038	0.282	1.4	ug/L	36	KED
	Ni-1	62	2920.0	2.7	20.7464	0.183	0.9	ug/L	15	KED
>	Ge-1	72	14281.5	2.0				ug/L	16172	KED
	As-2	75	1789.8	3.6	20.4049	0.515	2.5	ug/L	2	KED
	Y-1	89	26303.2	1.8				ug/L	30090	KED
	Rh-1	103	164281.6	1.0				ug/L	200857	KED
	In-1	115	18921.3	2.0				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	102.274	
	Ni-1	60	102.519	
	Ni-1	62	103.732	
>	Ge-1	72		88.307
	As-2	75	102.025	
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, December 11, 2023 14:39:44

Report Date/Time: Monday, December 11, 2023 15:51:24

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 8.048

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	99.6	6.2	0.0062	0.002	40.1	ug/L	81	KED
	Ni-1	60	34.0	10.2	-0.0030	0.003	90.6	ug/L	36	KED
	Ni-1	62	7.3	28.4	-0.0483	0.012	24.8	ug/L	15	KED
>	Ge-1	72	16879.3	1.6				ug/L	16172	KED
[	As-2	75	3.3	62.4	0.0085	0.020	233.5	ug/L	2	KED
	Y-1	89	30090.7	0.5				ug/L	30090	KED
	Rh-1	103	187489.0	0.4				ug/L	200857	KED
	In-1	115	22018.4	1.4				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		104.371
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-272-02c 10X**

Sample Date/Time: Monday, December 11, 2023 14:46:44

Report Date/Time: Monday, December 11, 2023 15:51:26

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\X231211B\11-272-02c 10X.049

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	510.3	4.5	<b>0.3047</b>	0.018	5.8	ug/L	81	KED
	Ni-1	60	211.7	8.5	<b>0.2920</b>	0.033	11.3	ug/L	36	KED
	Ni-1	62	44.0	28.4	<b>0.3451</b>	0.123	35.6	ug/L	15	KED
>	Ge-1	72	10247.7	1.6				ug/L	16172	KED
[	As-2	75	16.3	15.4	<b>0.2364</b>	0.040	17.0	ug/L	2	KED
	Y-1	89	21443.7	0.7				ug/L	30090	KED
	Rh-1	103	114667.4	0.6				ug/L	200857	KED
	In-1	115	15068.7	1.4				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		63.365
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-272-03c 10X**

Sample Date/Time: Monday, December 11, 2023 14:52:03

Report Date/Time: Monday, December 11, 2023 15:51:29

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-272-03c 10X.050

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	457.9	5.6	<b>0.2657</b>	0.013	5.0	ug/L	81	KED
	Ni-1	60	176.7	6.1	<b>0.2339</b>	0.012	5.0	ug/L	36	KED
	Ni-1	62	42.0	16.5	<b>0.3199</b>	0.069	21.6	ug/L	15	KED
>	Ge-1	72	10386.4	1.8				ug/L	16172	KED
L	As-2	75	21.0	8.2	<b>0.3065</b>	0.032	10.6	ug/L	2	KED
	Y-1	89	20996.8	0.4				ug/L	30090	KED
	Rh-1	103	114302.1	1.0				ug/L	200857	KED
	In-1	115	14708.8	1.7				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		64.223
L	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-272-04c 10X**

Sample Date/Time: Monday, December 11, 2023 14:57:22

Report Date/Time: Monday, December 11, 2023 15:51:31

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-272-04c 10X.051

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1402.1	4.3	0.5799	0.029	5.0	ug/L	81	KED
	Ni-1	60	469.3	3.5	0.4431	0.023	5.1	ug/L	36	KED
	Ni-1	62	90.7	8.3	0.5024	0.044	8.7	ug/L	15	KED
>	Ge-1	72	15529.4	1.7				ug/L	16172	KED
[	As-2	75	156.3	3.0	1.6185	0.075	4.6	ug/L	2	KED
	Y-1	89	29020.4	0.6				ug/L	30090	KED
	Rh-1	103	176255.4	1.3				ug/L	200857	KED
	In-1	115	20611.3	1.1				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		96.024
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-272-05c 10X**

Sample Date/Time: Monday, December 11, 2023 15:02:41

Report Date/Time: Monday, December 11, 2023 15:51:33

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-272-05c 10X.052

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	469.7	2.9	<b>0.2632</b>	0.010	3.9	ug/L	81	KED
	Ni-1	60	192.3	7.8	<b>0.2482</b>	0.025	9.9	ug/L	36	KED
	Ni-1	62	49.7	9.5	<b>0.3781</b>	0.036	9.4	ug/L	15	KED
>	Ge-1	72	10748.4	2.3				ug/L	16172	KED
[	As-2	75	23.0	37.9	<b>0.3271</b>	0.138	42.2	ug/L	2	KED
	Y-1	89	21899.8	1.2				ug/L	30090	KED
	Rh-1	103	119873.2	0.5				ug/L	200857	KED
	In-1	115	15128.1	2.0				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		66.461
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-272-01d 10X FF**

Sample Date/Time: Monday, December 11, 2023 15:08:00

Report Date/Time: Monday, December 11, 2023 15:51:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-272-01d 10X FF.053

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	1566.2	3.3	<b>0.8672</b>	0.027	3.1	ug/L	81	KED
	Ni-1	60	706.7	1.2	<b>0.9106</b>	0.008	0.9	ug/L	36	KED
	Ni-1	62	124.7	13.3	<b>0.9830</b>	0.140	14.3	ug/L	15	KED
>	Ge-1	72	11813.9	0.3				ug/L	16172	KED
[	As-2	75	33.3	6.2	<b>0.4365</b>	0.030	6.8	ug/L	2	KED
	Y-1	89	22364.5	1.2				ug/L	30090	KED
	Rh-1	103	128501.4	0.7				ug/L	200857	KED
	In-1	115	15780.1	1.3				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		73.049
[	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-272-02d 10X**

Sample Date/Time: Monday, December 11, 2023 15:13:18

Report Date/Time: Monday, December 11, 2023 15:51:36

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-272-02d 10X.054

## Results (Mean Data)

IS	Analyte Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	293.4	6.6	<b>0.1613</b>	0.012	7.1	ug/L	81 KED
	Ni-1	60	137.7	4.8	<b>0.1782</b>	0.010	5.8	ug/L	36 KED
	Ni-1	62	59.7	6.3	<b>0.5032</b>	0.042	8.3	ug/L	15 KED
>	Ge-1	72	10214.3	0.7			ug/L	16172	KED
[	As-2	75	21.7	11.6	<b>0.3224</b>	0.041	12.8	ug/L	2 KED
	Y-1	89	19892.2	0.6			ug/L	30090	KED
	Rh-1	103	113184.6	0.4			ug/L	200857	KED
	In-1	115	14254.7	3.1			ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	
	Ni-1	60	
	Ni-1	62	
>	Ge-1	72	63.159
[	As-2	75	
	Y-1	89	
	Rh-1	103	
	In-1	115	

# Quantitative Analysis - Summary Report

**Sample ID: 11-272-03d 10X**

Sample Date/Time: Monday, December 11, 2023 15:18:37

Report Date/Time: Monday, December 11, 2023 15:51:38

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-272-03d 10X.055

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	257.1	5.9	<b>0.1331</b>	0.012	9.1	ug/L	81	KED
	Ni-1	60	111.0	12.1	<b>0.1328</b>	0.022	16.5	ug/L	36	KED
	Ni-1	62	55.7	8.9	<b>0.4490</b>	0.042	9.4	ug/L	15	KED
>	Ge-1	72	10473.2	1.6				ug/L	16172	KED
[	As-2	75	18.7	26.4	<b>0.2666</b>	0.075	28.0	ug/L	2	KED
	Y-1	89	20429.3	0.8				ug/L	30090	KED
	Rh-1	103	116981.0	1.0				ug/L	200857	KED
	In-1	115	14336.9	1.7				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		64.759
	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: 11-272-04d 10X**

Sample Date/Time: Monday, December 11, 2023 15:23:57

Report Date/Time: Monday, December 11, 2023 15:51:40

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-272-04d 10X.056

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni-1	58	1139.4	2.5	<b>0.3999</b>	0.018	4.6	ug/L	81	KED
	Ni-1	60	401.0	1.7	<b>0.3201</b>	0.012	3.9	ug/L	36	KED
	Ni-1	62	100.7	17.9	<b>0.4812</b>	0.096	19.9	ug/L	15	KED
>	Ge-1	72	17863.5	2.0				ug/L	16172	KED
	As-2	75	158.7	10.4	<b>1.4267</b>	0.177	12.4	ug/L	2	KED
	Y-1	89	32843.0	1.6				ug/L	30090	KED
	Rh-1	103	204241.0	2.0				ug/L	200857	KED
	In-1	115	23216.6	1.7				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		110.456
	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: 11-272-05d 10X**

Sample Date/Time: Monday, December 11, 2023 15:29:16

Report Date/Time: Monday, December 11, 2023 15:51:42

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\11-272-05d 10X.057

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	251.4	10.5	0.1171	0.015	13.2	ug/L	81	KED
	Ni-1	60	122.7	15.1	0.1365	0.026	19.2	ug/L	36	KED
	Ni-1	62	55.3	17.1	0.4059	0.084	20.7	ug/L	15	KED
>	Ge-1	72	11316.1	0.8				ug/L	16172	KED
	As-2	75	19.3	6.0	0.2549	0.015	5.7	ug/L	2	KED
	Y-1	89	22726.1	0.2				ug/L	30090	KED
	Rh-1	103	126898.8	0.6				ug/L	200857	KED
	In-1	115	15824.1	1.5				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		69.972
	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, December 11, 2023 15:39:55

Report Date/Time: Monday, December 11, 2023 15:51:45

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 7.059

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	49309.9	1.1	<b>20.2062</b>	0.556	2.8	ug/L	81	KED
	Ni-1	60	21582.0	1.4	<b>20.5605</b>	0.306	1.5	ug/L	36	KED
	Ni-1	62	3296.4	1.4	<b>20.1970</b>	0.547	2.7	ug/L	15	KED
>	Ge-1	72	16565.3	1.8				ug/L	16172	KED
	As-2	75	2108.8	1.9	<b>20.7387</b>	0.751	3.6	ug/L	2	KED
	Y-1	89	29749.0	2.2				ug/L	30090	KED
	Rh-1	103	190879.9	1.1				ug/L	200857	KED
	In-1	115	21840.9	0.9				ug/L	21407	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58	101.031	
	Ni-1	60	102.802	
	Ni-1	62	100.985	
>	Ge-1	72		102.429
	As-2	75	103.694	
	Y-1	89		
	Rh-1	103		
	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, December 11, 2023 15:45:15

Report Date/Time: Monday, December 11, 2023 15:51:47

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\X231211B2.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\X231211B\QC Std 8.060

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
[	Ni-1	58	101.3	9.4	0.0011	0.004	323.7	ug/L	81	KED
	Ni-1	60	35.3	21.2	-0.0064	0.006	100.3	ug/L	36	KED
	Ni-1	62	18.7	16.4	0.0044	0.017	385.2	ug/L	15	KED
>	Ge-1	72	19677.2	1.5				ug/L	16172	KED
	As-2	75	3.0	33.3	0.0014	0.008	621.1	ug/L	2	KED
	Y-1	89	34240.0	1.4				ug/L	30090	KED
	Rh-1	103	217713.1	0.5				ug/L	200857	KED
	In-1	115	24962.6	2.0				ug/L	21407	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
[	Ni-1	58		
	Ni-1	60		
	Ni-1	62		
>	Ge-1	72		121.671
	As-2	75		
	Y-1	89		
	Rh-1	103		
	In-1	115		

Stal Name	Lab ID	Source	Source ID	Exp	Intake		Final		Comments	Int	Date
					Conc ppm	Vol ml	Conc ppm	Vol ml			
Stal 1	TM11-106-01	6020 100x	TM11-105-39	12-15-23	.2	.05	.0002	50	5% HNO <sub>3</sub>	KOM	12-11-23
2	02	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
3	03	6020 10x	TM11-105-37	↓	2	.05	.002	↓	↓	↓	↓
4	04	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	05	IU 6020 Cal-1	TZMEB726406	8-18-24	20	.05	.02	↓	↓	↓	↓
6	06	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	07	↓	↓	↓	↓	.25	.10	↓	↓	↓	↓
8	08	IU PECHKI	SZMEB709269	5-24-24	10	.25	.05	↓	↓	↓	↓
Stal 1	TM11-106-09	6020 100x	TM11-105-39	12-15-23	.2	.05	.0002	50	5% HNO <sub>3</sub>	KOM	12-11-23
2	10	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
3	11	6020 10x	TM11-105-37	↓	2	.05	.002	↓	↓	↓	↓
4	12	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	13	IU 6020 Cal-1	TZMEB726406	8-18-24	20	.05	.02	↓	↓	↓	↓
6	14	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	15	↓	↓	↓	↓	.75	.10	↓	↓	↓	↓
8	16	IU PECHKI	SZMEB709269	5-24-24	10	.25	.05	↓	↓	↓	↓
Stal 1	TM11-106-17	6020 100x	TM11-105-38	12-15-23	.2	.05	.0002	50	5% HNO <sub>3</sub>	KOM	12-11-23
2	18	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
3	19	6020 10x	TM11-105-37	↓	2	.05	.002	↓	↓	↓	↓
4	20	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	21	IU 6020 Cal-1	TZMEB726406	8-18-24	20	.05	.02	↓	↓	↓	↓
6	22	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	23	↓	↓	↓	↓	.25	.10	↓	↓	↓	↓
8	24	IU PECHKI	SZMEB709269	5-24-24	10	.25	.05	↓	↓	↓	↓
6020 10x	TM11-106-25	IU 6020 Cal-1	TZMEB726406	8-18-24	20	1.0	2	10	2% HNO <sub>3</sub>	KOM	12-11-23
6020 100x	26	↓	↓	↓	20	0.1	.2	↓	↓	↓	↓
Stal 1	TM11-106-27	6020 100x	TM11-106-26	1-1-24	.2	.05	.0002	50	5% HNO <sub>3</sub>	KOM	12-11-23
2	28	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
3	29	6020 10x	TM11-106-25	↓	2	.05	.002	↓	↓	↓	↓
4	30	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	31	IU 6020 Cal-1	TZMEB726406	8-18-24	20	.05	.02	↓	↓	↓	↓
6	32	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	33	↓	↓	↓	↓	.25	.10	↓	↓	↓	↓
8	34	IU PECHKI	SZMEB709269	5-14-24	10	.25	.05	↓	↓	↓	↓
IUSAD	TM11-106-35	IU 6020 IUSAD	TZMEB726406	8-18-24	20	1.0	2	50	5% HNO <sub>3</sub>	KOM	12-11-23
IUSAD	36	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
↓	↓	IU 6020 Cal-1	TZMEB726406	8-18-24	20	1	.04	↓	↓	↓	↓



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

March 8, 2024

Robert Trahan  
GeoEngineers, Inc.  
2101 4th Avenue, Suite 950  
Seattle, WA 98121

Re: Analytical Data for Project 5147-006-18  
Laboratory Reference No. 2402-208

Dear Robert:

Enclosed are the analytical results and associated quality control data for samples submitted on February 15, 2024.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



Date of Report: March 8, 2024  
Samples Submitted: February 15, 2024  
Laboratory Reference: 2402-208  
Project: 5147-006-18

### Case Narrative

Samples were collected on February 14, 2024 and received by the laboratory on February 15, 2024. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below. However the soil results for the QA/QC samples are reported on a wet-weight basis.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### PAHs EPA 8270E/SIM Analysis

Samples MW-3A-240214 and DUP-240214 had one surrogate recovery outside of control limits. This is within allowance of our standard operating procedure as long as the recovery is above 10%.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.



Date of Report: March 8, 2024  
Samples Submitted: February 15, 2024  
Laboratory Reference: 2402-208  
Project: 5147-006-18

#### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-2B-240214	02-208-01	Water	2-14-24	2-15-24	
MW-3A-240214	02-208-02	Water	2-14-24	2-15-24	
MW-6-240214	02-208-03	Water	2-14-24	2-15-24	
MW-8-240214	02-208-04	Water	2-14-24	2-15-24	
DUP-240214	02-208-05	Water	2-14-24	2-15-24	



Date of Report: March 8, 2024  
 Samples Submitted: February 15, 2024  
 Laboratory Reference: 2402-208  
 Project: 5147-006-18

PAHs EPA 8270E/SIM

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-2B-240214</b>					
Laboratory ID:	02-208-01					
Naphthalene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
2-Methylnaphthalene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
1-Methylnaphthalene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
Acenaphthylene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
Acenaphthene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
Fluorene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
Phenanthrene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
Anthracene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
Fluoranthene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
Pyrene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
Benzo[a]anthracene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
Chrysene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
Benzo[b]fluoranthene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
Benzo(j,k)fluoranthene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
Benzo[a]pyrene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
Indeno(1,2,3-c,d)pyrene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
Dibenz[a,h]anthracene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
Benzo[g,h,i]perylene	ND	0.0094	EPA 8270E/SIM	2-21-24	2-21-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>51</i>	<i>26-106</i>				
<i>Pyrene-d10</i>	<i>58</i>	<i>45-104</i>				
<i>Terphenyl-d14</i>	<i>60</i>	<i>43-114</i>				



Date of Report: March 8, 2024  
 Samples Submitted: February 15, 2024  
 Laboratory Reference: 2402-208  
 Project: 5147-006-18

PAHs EPA 8270E/SIM

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-3A-240214</b>					
Laboratory ID:	02-208-02					
Naphthalene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
2-Methylnaphthalene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
1-Methylnaphthalene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
Acenaphthylene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
Acenaphthene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
Fluorene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
Phenanthrene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
Anthracene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
Fluoranthene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
Pyrene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
Benzo[a]anthracene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
Chrysene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
Benzo[b]fluoranthene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
Benzo(j,k)fluoranthene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
Benzo[a]pyrene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
Indeno(1,2,3-c,d)pyrene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
Dibenz[a,h]anthracene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
Benzo[g,h,i]perylene	ND	0.0093	EPA 8270E/SIM	2-21-24	2-21-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	46	26-106				
<i>Pyrene-d10</i>	44	45-104				
<i>Terphenyl-d14</i>	44	43-114				

Q



Date of Report: March 8, 2024  
 Samples Submitted: February 15, 2024  
 Laboratory Reference: 2402-208  
 Project: 5147-006-18

**PAHs EPA 8270E/SIM**

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-6-240214</b>					
Laboratory ID:	02-208-03					
Naphthalene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
2-Methylnaphthalene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
1-Methylnaphthalene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
Acenaphthylene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
Acenaphthene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
Fluorene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
Phenanthrene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
Anthracene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
Fluoranthene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
Pyrene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
Benzo[a]anthracene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
Chrysene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
Benzo[b]fluoranthene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
Benzo(j,k)fluoranthene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
Benzo[a]pyrene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
Indeno(1,2,3-c,d)pyrene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
Dibenz[a,h]anthracene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
Benzo[g,h,i]perylene	ND	0.0093	EPA 8270E/SIM	2-16-24	2-16-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>43</i>	<i>26-106</i>				
<i>Pyrene-d10</i>	<i>54</i>	<i>45-104</i>				
<i>Terphenyl-d14</i>	<i>55</i>	<i>43-114</i>				



Date of Report: March 8, 2024  
 Samples Submitted: February 15, 2024  
 Laboratory Reference: 2402-208  
 Project: 5147-006-18

**PAHs EPA 8270E/SIM**

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-8-240214</b>					
Laboratory ID:	02-208-04					
Naphthalene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
2-Methylnaphthalene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
1-Methylnaphthalene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
Acenaphthylene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
Acenaphthene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
Fluorene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
Phenanthrene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
Anthracene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
Fluoranthene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
Pyrene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
Benzo[a]anthracene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
Chrysene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
Benzo[b]fluoranthene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
Benzo(j,k)fluoranthene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
Benzo[a]pyrene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
Indeno(1,2,3-c,d)pyrene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
Dibenz[a,h]anthracene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
Benzo[g,h,i]perylene	ND	0.0095	EPA 8270E/SIM	2-21-24	2-21-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>50</i>	<i>26-106</i>				
<i>Pyrene-d10</i>	<i>56</i>	<i>45-104</i>				
<i>Terphenyl-d14</i>	<i>60</i>	<i>43-114</i>				



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 Project: 5147-006-18

**PAHs EPA 8270E/SIM**

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>DUP-240214</b>					
Laboratory ID:	02-208-05					
Naphthalene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
2-Methylnaphthalene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
1-Methylnaphthalene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
Acenaphthylene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
Acenaphthene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
Fluorene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
Phenanthrene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
Anthracene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
Fluoranthene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
Pyrene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
Benzo[a]anthracene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
Chrysene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
Benzo[b]fluoranthene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
Benzo(j,k)fluoranthene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
Benzo[a]pyrene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
Indeno(1,2,3-c,d)pyrene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
Dibenz[a,h]anthracene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
Benzo[g,h,i]perylene	ND	0.0094	EPA 8270E/SIM	2-16-24	2-21-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	45	26-106				
<i>Pyrene-d10</i>	45	45-104				Q
<i>Terphenyl-d14</i>	46	43-114				



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**TOTAL METALS**  
**EPA 200.8**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-2B-240214</b>					
Laboratory ID:	02-208-01					
Arsenic	<b>ND</b>	6.9	EPA 200.8	3-8-24	3-8-24	
Nickel	<b>ND</b>	6.9	EPA 200.8	3-8-24	3-8-24	

<b>Client ID:</b>	<b>MW-3A-240214</b>					
Laboratory ID:	02-208-02					
Arsenic	<b>ND</b>	6.9	EPA 200.8	3-8-24	3-8-24	
Nickel	<b>ND</b>	6.9	EPA 200.8	3-8-24	3-8-24	

<b>Client ID:</b>	<b>MW-6-240214</b>					
Laboratory ID:	02-208-03					
Arsenic	<b>ND</b>	6.9	EPA 200.8	3-8-24	3-8-24	
Nickel	<b>ND</b>	6.9	EPA 200.8	3-8-24	3-8-24	

<b>Client ID:</b>	<b>MW-8-240214</b>					
Laboratory ID:	02-208-04					
Arsenic	<b>16</b>	6.9	EPA 200.8	3-8-24	3-8-24	
Nickel	<b>ND</b>	6.9	EPA 200.8	3-8-24	3-8-24	

<b>Client ID:</b>	<b>DUP-240214</b>					
Laboratory ID:	02-208-05					
Arsenic	<b>ND</b>	6.9	EPA 200.8	3-8-24	3-8-24	
Nickel	<b>ND</b>	6.9	EPA 200.8	3-8-24	3-8-24	



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**DISSOLVED METALS**  
**EPA 200.8**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-2B-240214</b>					
Laboratory ID:	02-208-01					
Arsenic	<b>ND</b>	6.3	EPA 200.8		3-8-24	
Nickel	<b>ND</b>	6.3	EPA 200.8		3-8-24	

<b>Client ID:</b>	<b>MW-3A-240214</b>					
Laboratory ID:	02-208-02					
Arsenic	<b>ND</b>	6.3	EPA 200.8		3-8-24	
Nickel	<b>ND</b>	6.3	EPA 200.8		3-8-24	

<b>Client ID:</b>	<b>MW-6-240214</b>					
Laboratory ID:	02-208-03					
Arsenic	<b>ND</b>	6.3	EPA 200.8		3-8-24	
Nickel	<b>ND</b>	6.3	EPA 200.8		3-8-24	

<b>Client ID:</b>	<b>MW-8-240214</b>					
Laboratory ID:	02-208-04					
Arsenic	<b>16</b>	6.3	EPA 200.8		3-8-24	
Nickel	<b>ND</b>	6.3	EPA 200.8		3-8-24	

<b>Client ID:</b>	<b>DUP-240214</b>					
Laboratory ID:	02-208-05					
Arsenic	<b>ND</b>	6.3	EPA 200.8		3-8-24	
Nickel	<b>ND</b>	6.3	EPA 200.8		3-8-24	



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**PAHs EPA 8270E/SIM  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>METHOD BLANK</b>						
Laboratory ID:	MB0216W1					
Naphthalene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
2-Methylnaphthalene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
1-Methylnaphthalene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
Acenaphthylene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
Acenaphthene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
Fluorene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
Phenanthrene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
Anthracene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
Fluoranthene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
Pyrene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
Chrysene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	2-16-24	2-20-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>58</i>	<i>26-106</i>				
<i>Pyrene-d10</i>	<i>77</i>	<i>45-104</i>				
<i>Terphenyl-d14</i>	<i>79</i>	<i>43-114</i>				



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**PAHs EPA 8270E/SIM  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>METHOD BLANK</b>						
Laboratory ID:	MB0221W1					
Naphthalene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
2-Methylnaphthalene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
1-Methylnaphthalene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
Acenaphthylene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
Acenaphthene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
Fluorene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
Phenanthrene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
Anthracene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
Fluoranthene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
Pyrene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
Chrysene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	2-21-24	2-22-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>37</i>	<i>26-106</i>				
<i>Pyrene-d10</i>	<i>45</i>	<i>45-104</i>				
<i>Terphenyl-d14</i>	<i>45</i>	<i>43-114</i>				



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**PAHs EPA 8270E/SIM  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	Limit			
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0216W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	0.298	0.275	0.500	0.500	60	55	35 - 84	8	34	
Acenaphthylene	0.358	0.315	0.500	0.500	72	63	44 - 97	13	29	
Acenaphthene	0.319	0.286	0.500	0.500	64	57	40 - 93	11	29	
Fluorene	0.344	0.301	0.500	0.500	69	60	46 - 97	13	24	
Phenanthrene	0.364	0.317	0.500	0.500	73	63	49 - 102	14	21	
Anthracene	0.370	0.316	0.500	0.500	74	63	50 - 99	16	21	
Fluoranthene	0.393	0.350	0.500	0.500	79	70	53 - 107	12	21	
Pyrene	0.422	0.347	0.500	0.500	84	69	52 - 111	20	23	
Benzo[a]anthracene	0.458	0.390	0.500	0.500	92	78	51 - 119	16	20	
Chrysene	0.380	0.331	0.500	0.500	76	66	52 - 113	14	21	
Benzo[b]fluoranthene	0.467	0.415	0.500	0.500	93	83	50 - 116	12	24	
Benzo(j,k)fluoranthene	0.446	0.367	0.500	0.500	89	73	54 - 113	19	22	
Benzo[a]pyrene	0.449	0.387	0.500	0.500	90	77	52 - 110	15	21	
Indeno(1,2,3-c,d)pyrene	0.495	0.424	0.500	0.500	99	85	55 - 114	15	21	
Dibenz[a,h]anthracene	0.468	0.396	0.500	0.500	94	79	55 - 111	17	19	
Benzo[g,h,i]perylene	0.460	0.393	0.500	0.500	92	79	52 - 111	16	20	
<i>Surrogate:</i>										
2-Fluorobiphenyl					66	60	26-106			
Pyrene-d10					86	73	45-104			
Terphenyl-d14					90	78	43-114			



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**PAHs EPA 8270E/SIM  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	Limit			
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0221W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	0.271	0.294	0.500	0.500	54	59	35 - 84	8	34	
Acenaphthylene	0.309	0.342	0.500	0.500	62	68	44 - 97	10	29	
Acenaphthene	0.282	0.315	0.500	0.500	56	63	40 - 93	11	29	
Fluorene	0.298	0.324	0.500	0.500	60	65	46 - 97	8	24	
Phenanthrene	0.300	0.329	0.500	0.500	60	66	49 - 102	9	21	
Anthracene	0.313	0.340	0.500	0.500	63	68	50 - 99	8	21	
Fluoranthene	0.315	0.341	0.500	0.500	63	68	53 - 107	8	21	
Pyrene	0.326	0.353	0.500	0.500	65	71	52 - 111	8	23	
Benzo[a]anthracene	0.306	0.353	0.500	0.500	61	71	51 - 119	14	20	
Chrysene	0.325	0.350	0.500	0.500	65	70	52 - 113	7	21	
Benzo[b]fluoranthene	0.380	0.425	0.500	0.500	76	85	50 - 116	11	24	
Benzo(j,k)fluoranthene	0.301	0.322	0.500	0.500	60	64	54 - 113	7	22	
Benzo[a]pyrene	0.341	0.381	0.500	0.500	68	76	52 - 110	11	21	
Indeno(1,2,3-c,d)pyrene	0.355	0.432	0.500	0.500	71	86	55 - 114	20	21	
Dibenz[a,h]anthracene	0.343	0.403	0.500	0.500	69	81	55 - 111	16	19	
Benzo[g,h,i]perylene	0.340	0.397	0.500	0.500	68	79	52 - 111	15	20	
<i>Surrogate:</i>										
2-Fluorobiphenyl					60	69	26-106			
Pyrene-d10					72	72	45-104			
Terphenyl-d14					72	74	43-114			



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**TOTAL METALS  
 EPA 200.8  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0308WM1					
Arsenic	ND	3.3	EPA 200.8	3-8-24	3-8-24	
Nickel	ND	7.8	EPA 200.8	3-8-24	3-8-24	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	01-243-13							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Nickel	ND	ND	NA	NA	NA	NA	20	

**MATRIX SPIKES**

Laboratory ID:	01-243-13									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	111	115	111	111	ND	100	104	75-125	3	20
Nickel	109	112	111	111	ND	98	101	75-125	3	20



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**DISSOLVED METALS  
 EPA 200.8  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0308D1					
Arsenic	ND	3.0	EPA 200.8		3-8-24	
Nickel	ND	8.0	EPA 200.8		3-8-24	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	02-208-02							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	NA	20
Nickel	ND	ND	NA	NA	NA	NA	NA	20

**MATRIX SPIKES**

Laboratory ID:	02-208-02									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	1020	1080	1000	1000	ND	102	108	75-125	5	20
Nickel	933	960	1000	1000	ND	93	96	75-125	3	20





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - X2 - Sample extract treated with a silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





# Sample/Cooler Receipt and Acceptance Checklist

Client: GER  
 Client Project Name/Number: 5147-006-18  
 OnSite Project Number: 02-208

Initiated by: DMV  
 Date Initiated: 2/15/24

## 1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	<input checked="" type="radio"/> No	N/A	1	2	3	4
1.2 Were the custody seals intact?	Yes	No	<input checked="" type="radio"/> N/A	1	2	3	4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	<input checked="" type="radio"/> N/A	1	2	3	4
1.4 Were the samples delivered on ice or blue ice?	<input checked="" type="radio"/> Yes	No	N/A	1	2	3	4
1.5 Were samples received between 0-6 degrees Celsius?	<input checked="" type="radio"/> Yes	No	N/A	Temperature: <u>4</u>			
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	<input checked="" type="radio"/> N/A					
1.7 How were the samples delivered?	<input checked="" type="radio"/> Client	<input type="radio"/> Courier	<input type="radio"/> UPS/FedEx	<input type="radio"/> OSE Pickup	<input type="radio"/> Other		

## 2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	<input checked="" type="radio"/> Yes	No		1	2	3	4
2.2 Was the COC legible and written in permanent ink?	<input checked="" type="radio"/> Yes	No		1	2	3	4
2.3 Have samples been relinquished and accepted by each custodian?	<input checked="" type="radio"/> Yes	No		1	2	3	4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<input checked="" type="radio"/> Yes	No		1	2	3	4
2.5 Were all of the samples listed on the COC submitted?	<input checked="" type="radio"/> Yes	No		1	2	3	4
2.6 Were any of the samples submitted omitted from the COC?	Yes	<input checked="" type="radio"/> No		1	2	3	4

## 3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	<input checked="" type="radio"/> No		1	2	3	4
3.2 Were any sample labels missing or illegible?	Yes	<input checked="" type="radio"/> No		1	2	3	4
3.3 Have the correct containers been used for each analysis requested?	<input checked="" type="radio"/> Yes	No		1	2	3	4
3.4 Have the samples been correctly preserved?	<input checked="" type="radio"/> Yes	No	N/A	1	2	3	4
3.5 Are volatile samples free from headspace and bubbles greater than 6mm?	Yes	No	<input checked="" type="radio"/> N/A	1	2	3	4
3.6 Is there sufficient sample submitted to perform requested analyses?	<input checked="" type="radio"/> Yes	No		1	2	3	4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	<input checked="" type="radio"/> No		1	2	3	4
3.8 Was method 5035A used?	Yes	No	<input checked="" type="radio"/> N/A	1	2	3	4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		<input checked="" type="radio"/> N/A	1	2	3	4

### Explain any discrepancies:


- |                                     |  |
|-------------------------------------|--|
| 1 - Discuss issue in Case Narrative | 3 - Client contacted to discuss problem                          |
| 2 - Process Sample As-is            | 4 - Sample cannot be analyzed or client does not wish to proceed |

## COMPLETE DATA PACKAGE

- PAHs EPA 8270E/SIM
- Total Metals EPA 200.8
- Dissolved Metals by EPA 200.8

## PAHs EPA 8270E/SIM

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration Data
- Administrative Forms

Data Path : X:\semivols\Corey\DATA\C240221\  
 Data File : C0221013.D  
 Acq On : 21 Feb 2024 3:54 pm  
 Operator : JP  
 Sample : 02-208-01 REX  
 Misc :  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 23 08:42:59 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Naphthalene-d8	2.754	136	101251	2000.00	ppb	-0.10
5) Acenaphthene-d10	4.056	164	46481	2000.00	ppb	-0.09
9) Phenanthrene-d10	5.045	188	88396	2000.00	ppb	-0.09
16) Chrysene-d12	6.787	240	73696	2000.00	ppb	-0.14
20) Perylene-d12	7.844	264	79742	2000.00	ppb	-0.18
<b>System Monitoring Compounds</b>						
6) 2-Fluorobiphenyl	3.640	172	21405	510.47	ppb	-0.08
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	51.05%	
10) Pyrene-d10	5.973	212	24415	580.45	ppb	-0.10
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	58.05%	
17) Terphenyl-d14	6.155	244	20390	603.63	ppb	-0.10
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	60.36%	

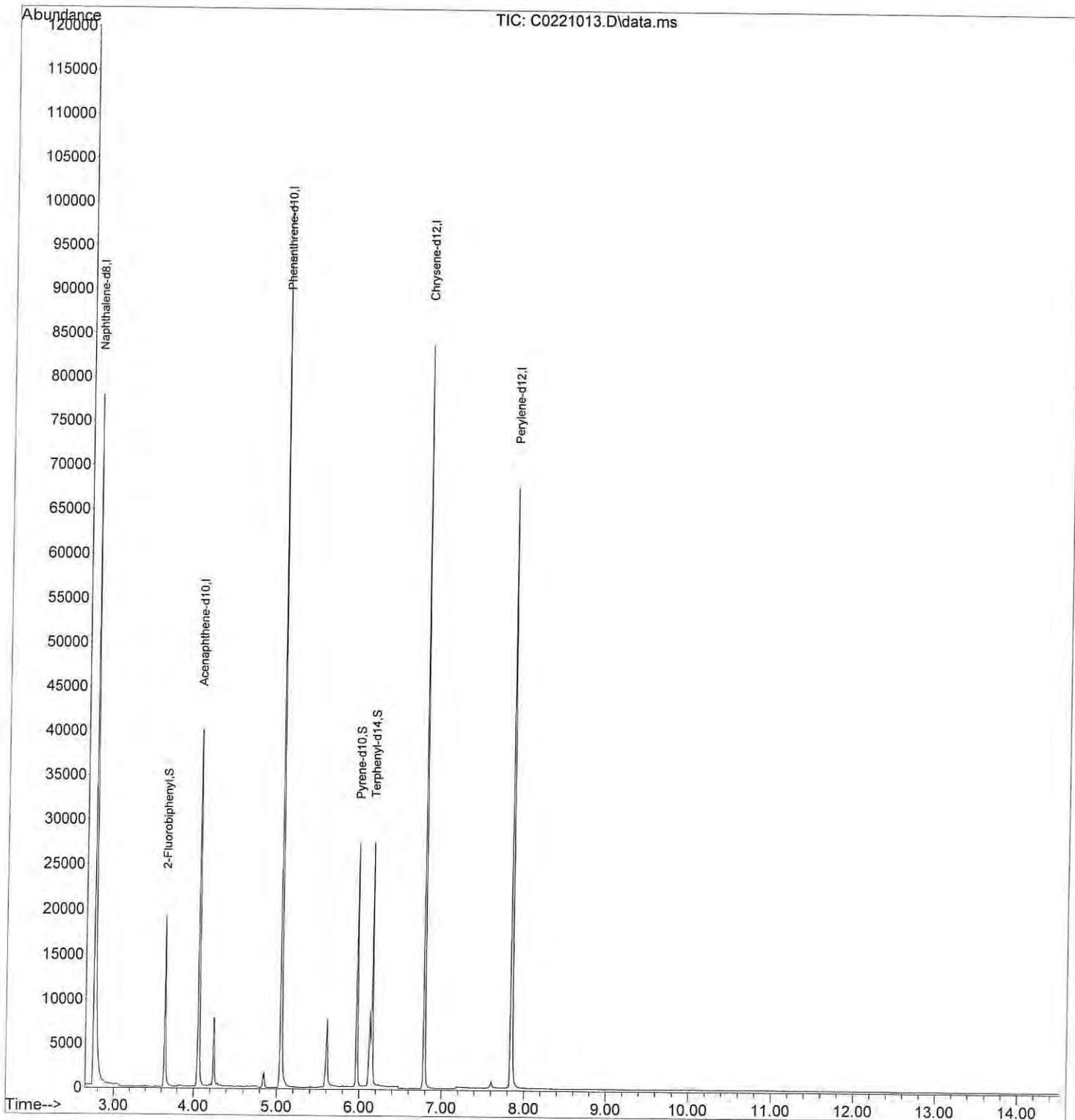
Target Compounds Qvalue

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

*JP* 2/26/24

Data Path : X:\semivols\Corey\DATA\C240221\  
 Data File : C0221013.D  
 Acq On : 21 Feb 2024 3:54 pm  
 Operator : JP  
 Sample : 02-208-01 REX  
 Misc :  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 23 08:42:59 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240221\  
 Data File : C0221014.D  
 Acq On : 21 Feb 2024 4:15 pm  
 Operator : JP  
 Sample : 02-208-02 REX  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 23 08:43:29 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
-----						
Internal Standards						
1) Naphthalene-d8	2.755	136	92159	2000.00	ppb	-0.10
5) Acenaphthene-d10	4.063	164	45192	2000.00	ppb	-0.08
9) Phenanthrene-d10	5.051	188	85522	2000.00	ppb	-0.08
16) Chrysene-d12	6.782	240	72567	2000.00	ppb	-0.15
20) Perylene-d12	7.844	264	76460	2000.00	ppb	-0.18
System Monitoring Compounds						
6) 2-Fluorobiphenyl	3.641	172	18556	455.15	ppb	-0.08
Spiked Amount	1000.000	Range	25 - 89	Recovery	=	45.52%
10) Pyrene-d10	5.974	212	17928	440.55	ppb	-0.10
Spiked Amount	1000.000	Range	40 - 110	Recovery	=	44.06%
17) Terphenyl-d14	6.156	244	14642	440.21	ppb	-0.10
Spiked Amount	1000.000	Range	39 - 92	Recovery	=	44.02%

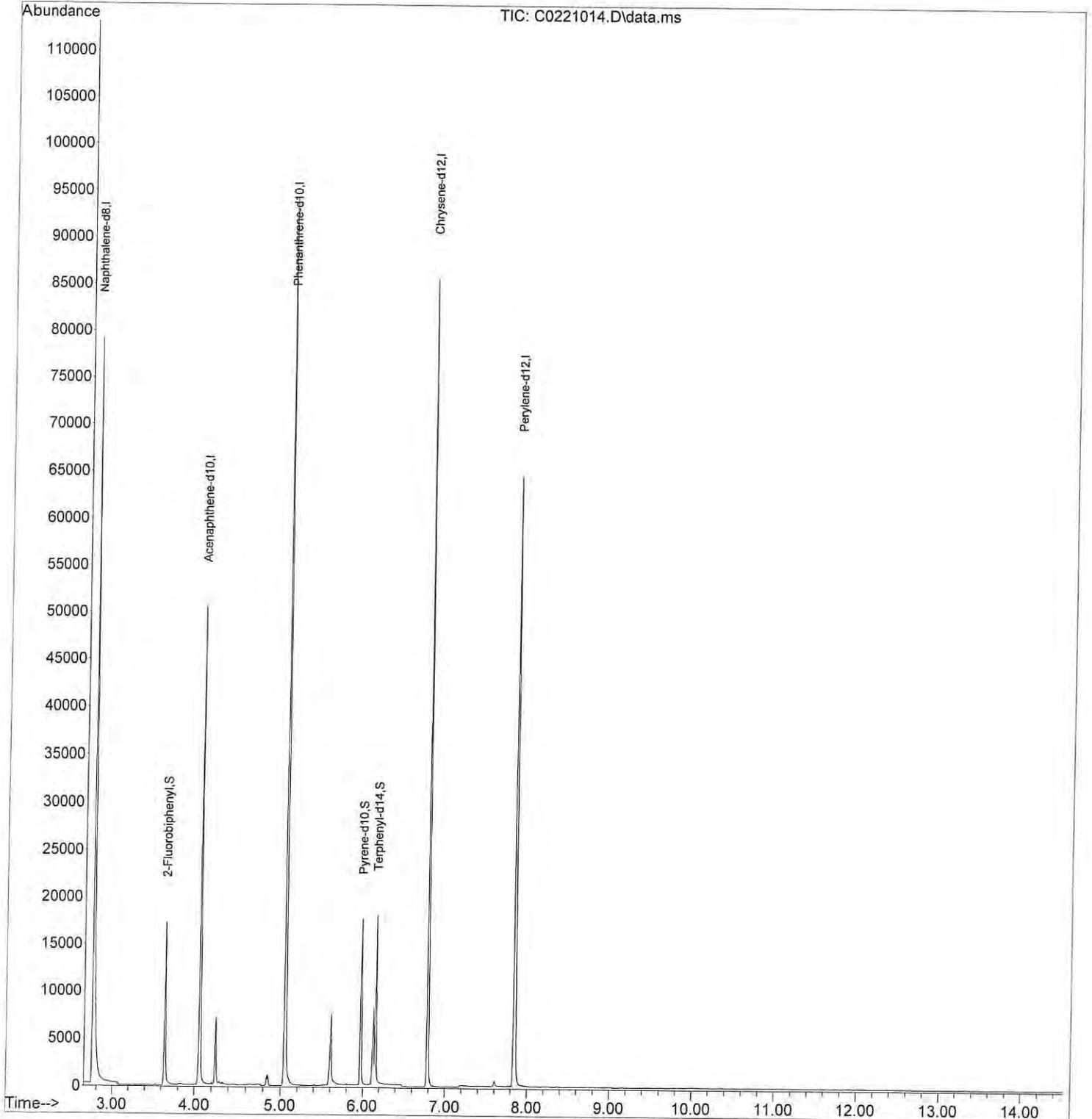
Target Compounds Qvalue

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

UP  
2/26/24

Data Path : X:\semivols\Corey\DATA\C240221\  
 Data File : C0221014.D  
 Acq On : 21 Feb 2024 4:15 pm  
 Operator : JP  
 Sample : 02-208-02 REX  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 23 08:43:29 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240216\  
 Data File : C0216017.D  
 Acq On : 16 Feb 2024 4:45 pm  
 Operator : JP  
 Sample : 02-208-03  
 Misc :  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 20 09:54:42 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Naphthalene-d8	2.762	136	100622	2000.00	ppb	-0.09
5) Acenaphthene-d10	4.064	164	47657	2000.00	ppb	-0.08
9) Phenanthrene-d10	5.051	188	91329	2000.00	ppb	-0.08
16) Chrysene-d12	6.787	240	78212	2000.00	ppb	-0.14
20) Perylene-d12	7.845	264	82604	2000.00	ppb	-0.17
System Monitoring Compounds						
6) 2-Fluorobiphenyl	3.640	172	18699	434.93	ppb	-0.08
Spiked Amount	1000.000	Range	25 - 89	Recovery	=	43.49%
10) Pyrene-d10	5.973	212	23371	537.79	ppb	-0.10
Spiked Amount	1000.000	Range	40 - 110	Recovery	=	53.78%
17) Terphenyl-d14	6.155	244	19562	545.68	ppb	-0.10
Spiked Amount	1000.000	Range	39 - 92	Recovery	=	54.57%

Target Compounds Qvalue

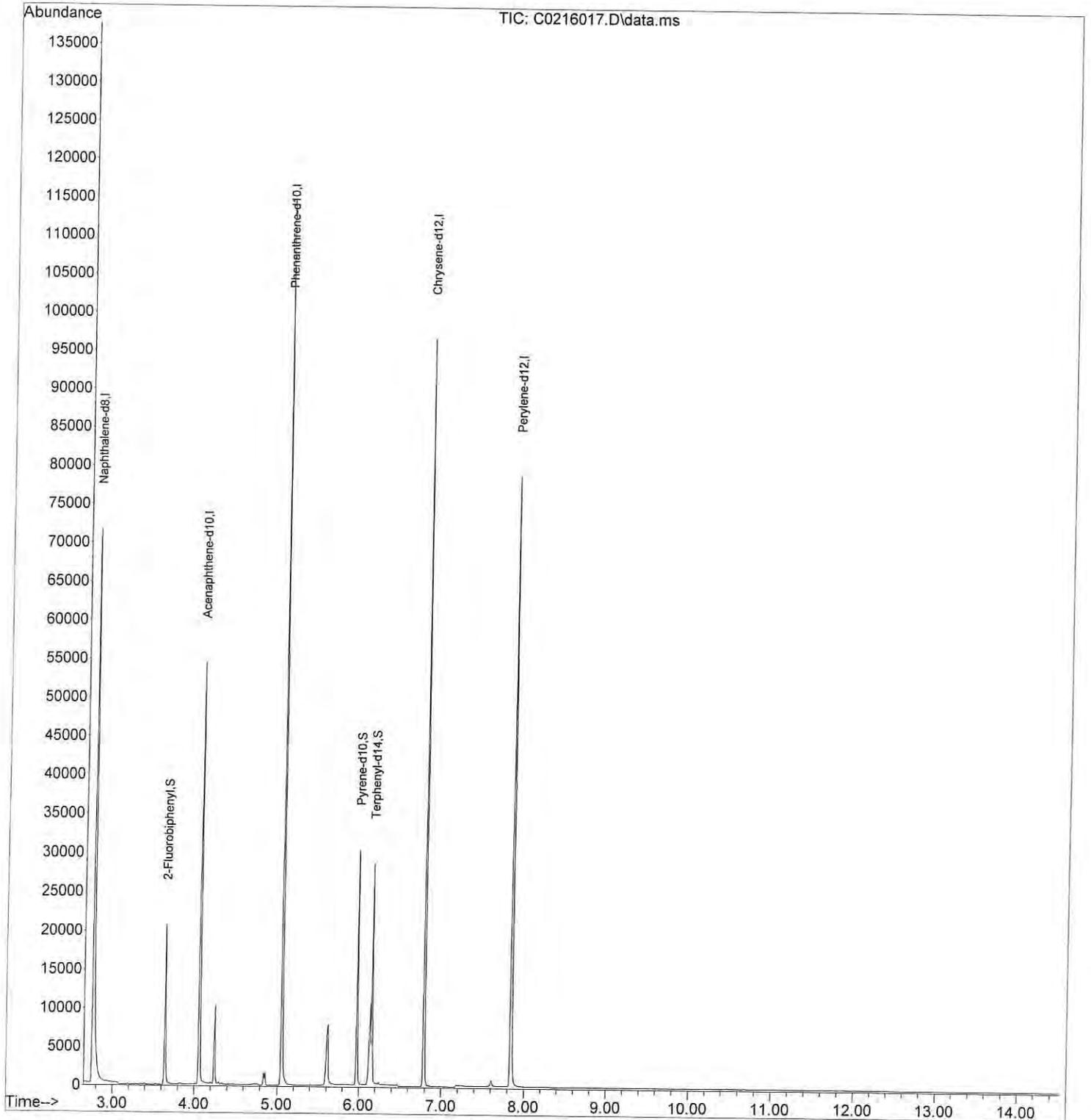
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

*JP*  
*2/26/24*

Data Path : X:\semivols\Corey\DATA\C240216\  
 Data File : C0216017.D  
 Acq On : 16 Feb 2024 4:45 pm  
 Operator : JP  
 Sample : 02-208-03  
 Misc :  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 20 09:54:42 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240221\  
 Data File : C0221015.D  
 Acq On : 21 Feb 2024 4:37 pm  
 Operator : JP  
 Sample : 02-208-04 REX  
 Misc :  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 23 08:44:37 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Naphthalene-d8	2.755	136	99172	2000.00	ppb	-0.10
5) Acenaphthene-d10	4.063	164	47297	2000.00	ppb	-0.08
9) Phenanthrene-d10	5.045	188	86909	2000.00	ppb	-0.09
16) Chrysene-d12	6.781	240	73944	2000.00	ppb	-0.15
20) Perylene-d12	7.838	264	79193	2000.00	ppb	-0.18
System Monitoring Compounds						
6) 2-Fluorobiphenyl	3.639	172	21204	496.95	ppb	-0.08
Spiked Amount	1000.000	Range	25 - 89	Recovery	=	49.70%
10) Pyrene-d10	5.973	212	23330	564.15	ppb	-0.10
Spiked Amount	1000.000	Range	40 - 110	Recovery	=	56.41%
17) Terphenyl-d14	6.155	244	20405	602.04	ppb	-0.10
Spiked Amount	1000.000	Range	39 - 92	Recovery	=	60.20%

Target Compounds Qvalue

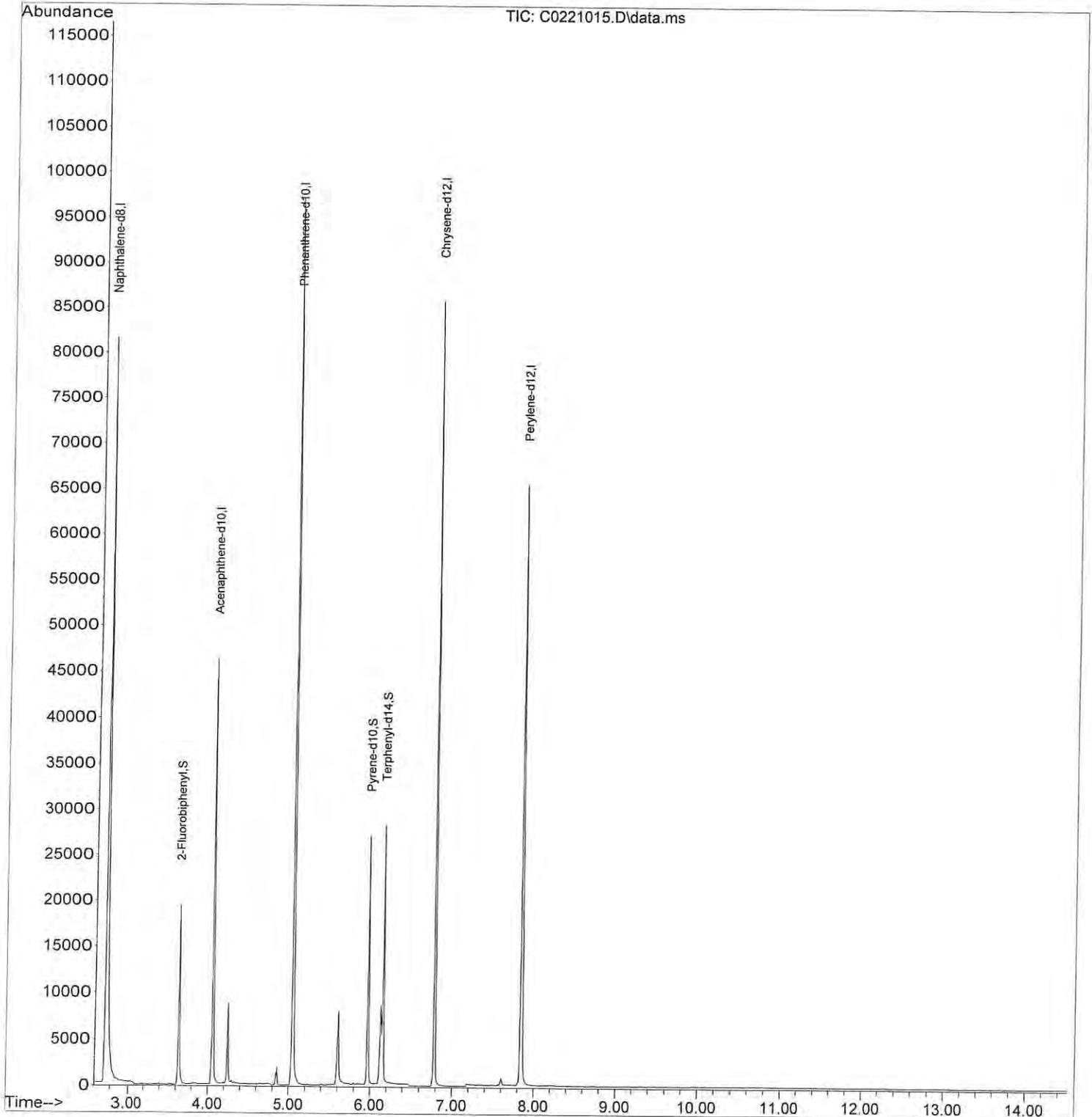
-----

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

JP  
 2/26/24

Data Path : X:\semivols\Corey\DATA\C240221\  
Data File : C0221015.D  
Acq On : 21 Feb 2024 4:37 pm  
Operator : JP  
Sample : 02-208-04 REX  
Misc :  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 23 08:44:37 2024  
Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Fri Feb 09 10:28:25 2024  
Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240221\  
 Data File : C0221012.D  
 Acq On : 21 Feb 2024 3:32 pm  
 Operator : JP  
 Sample : 02-208-05 RR  
 Misc :  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 23 08:42:21 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Naphthalene-d8	2.754	136	93795	2000.00	ppb	-0.10
5) Acenaphthene-d10	4.064	164	46216	2000.00	ppb	-0.08
9) Phenanthrene-d10	5.050	188	87295	2000.00	ppb	-0.08
16) Chrysene-d12	6.782	240	72819	2000.00	ppb	-0.15
20) Perylene-d12	7.843	264	78653	2000.00	ppb	-0.18
System Monitoring Compounds						
6) 2-Fluorobiphenyl	3.640	172	18783	450.51	ppb	-0.08
Spiked Amount	1000.000	Range	25 - 89	Recovery	=	45.05%
10) Pyrene-d10	5.973	212	18598	447.73	ppb	-0.10
Spiked Amount	1000.000	Range	40 - 110	Recovery	=	44.77%
17) Terphenyl-d14	6.156	244	15363	460.28	ppb	-0.10
Spiked Amount	1000.000	Range	39 - 92	Recovery	=	46.03%

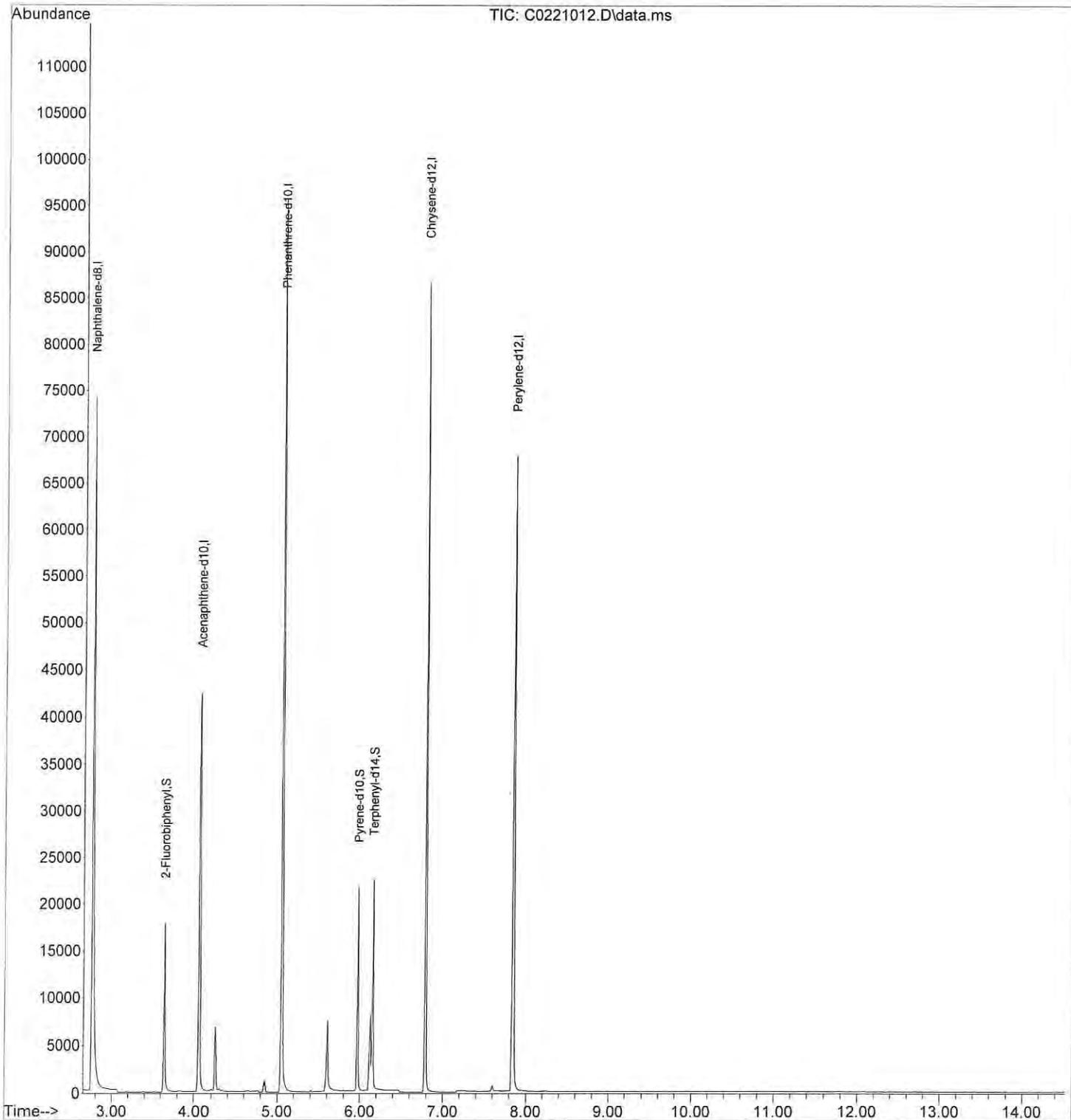
Target Compounds Qvalue

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

*JP*  
*2/26/24*

Data Path : X:\semivols\Corey\DATA\C240221\  
Data File : C0221012.D  
Acq On : 21 Feb 2024 3:32 pm  
Operator : JP  
Sample : 02-208-05 RR  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 23 08:42:21 2024  
Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Fri Feb 09 10:28:25 2024  
Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240220\  
 Data File : C0220003.D  
 Acq On : 20 Feb 24 11:21 am  
 Operator : JP  
 Sample : MB0216W1 REX  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 09:42:44 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Naphthalene-d8	2.756	136	103973	2000.00	ppb	-0.09
5) Acenaphthene-d10	4.063	164	50960	2000.00	ppb	-0.08
9) Phenanthrene-d10	5.051	188	96024	2000.00	ppb	-0.08
16) Chrysene-d12	6.788	240	82721	2000.00	ppb	-0.14
20) Perylene-d12	7.844	264	89730	2000.00	ppb	-0.18
<b>System Monitoring Compounds</b>						
6) 2-Fluorobiphenyl	3.641	172	26793	582.80	ppb	-0.08
Spiked Amount	1000.000	Range	25 - 89	Recovery	=	58.28%
10) Pyrene-d10	5.974	212	35208	770.56	ppb	-0.10
Spiked Amount	1000.000	Range	40 - 110	Recovery	=	77.06%
17) Terphenyl-d14	6.156	244	29935	789.51	ppb	-0.10
Spiked Amount	1000.000	Range	39 - 92	Recovery	=	78.95%

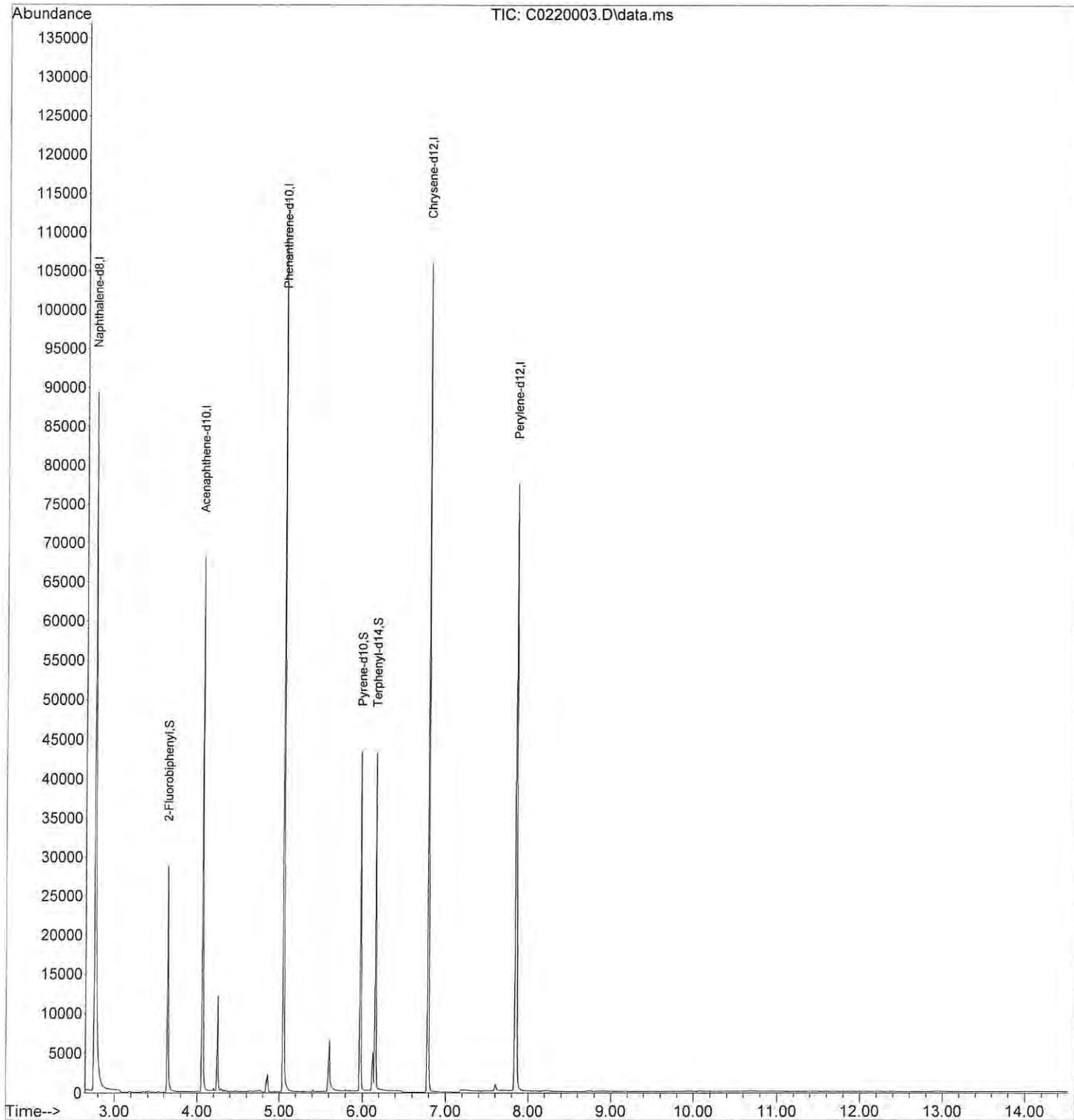
Target Compounds Qvalue

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

*JP 2/23/24*

Data Path : X:\semivols\Corey\DATA\C240220\  
 Data File : C0220003.D  
 Acq On : 20 Feb 24 11:21 am  
 Operator : JP  
 Sample : MB0216W1 REX  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 23 09:42:44 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240222\  
 Data File : C0222007.D  
 Acq On : 22 Feb 2024 11:38 am  
 Operator : JP  
 Sample : MB0221W1 RR  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 23 07:46:30 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
-----						
Internal Standards						
1) Naphthalene-d8	2.755	136	104818	2000.00	ppb	-0.10
5) Acenaphthene-d10	4.063	164	49492	2000.00	ppb	-0.08
9) Phenanthrene-d10	5.051	188	94760	2000.00	ppb	-0.08
16) Chrysene-d12	6.781	240	81475	2000.00	ppb	-0.15
20) Perylene-d12	7.838	264	86765	2000.00	ppb	-0.18
System Monitoring Compounds						
6) 2-Fluorobiphenyl	3.647	172	16346	366.10	ppb	-0.08
Spiked Amount	1000.000	Range	25 - 89	Recovery	=	36.61%
10) Pyrene-d10	5.974	212	20488	454.38	ppb	-0.10
Spiked Amount	1000.000	Range	40 - 110	Recovery	=	45.44%
17) Terphenyl-d14	6.157	244	16938	453.56	ppb	-0.10
Spiked Amount	1000.000	Range	39 - 92	Recovery	=	45.36%

Target Compounds Qvalue

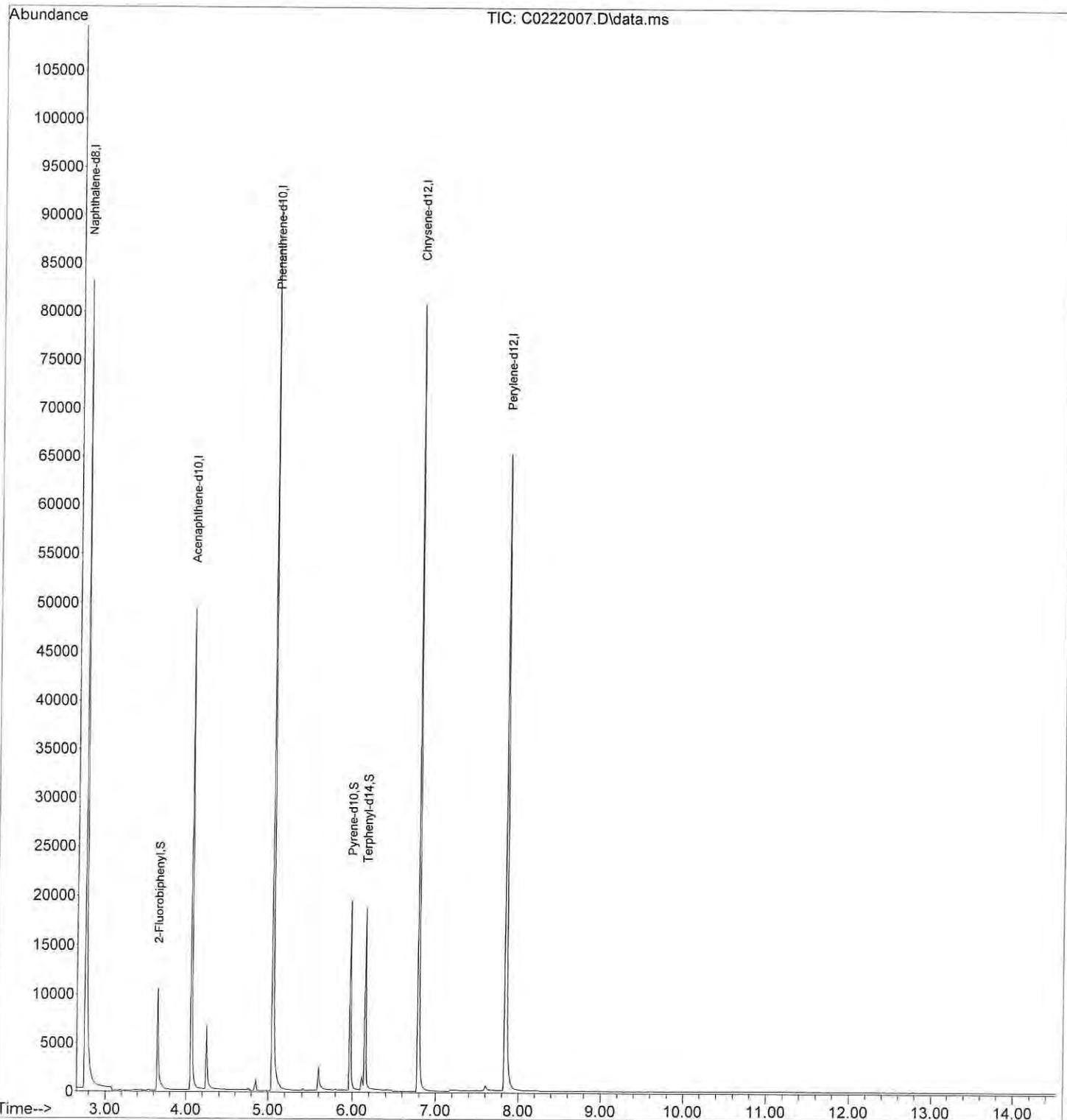
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

*JP 2/26/24*

Data Path : X:\semivols\Corey\DATA\C240222\  
Data File : C0222007.D  
Acq On : 22 Feb 2024 11:38 am  
Operator : JP  
Sample : MB0221W1 RR  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 23 07:46:30 2024  
Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Fri Feb 09 10:28:25 2024  
Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240216\  
 Data File : C0216011.D  
 Acq On : 16 Feb 2024 2:34 pm  
 Operator : JP  
 Sample : SB0216W1  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 16 15:33:28 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

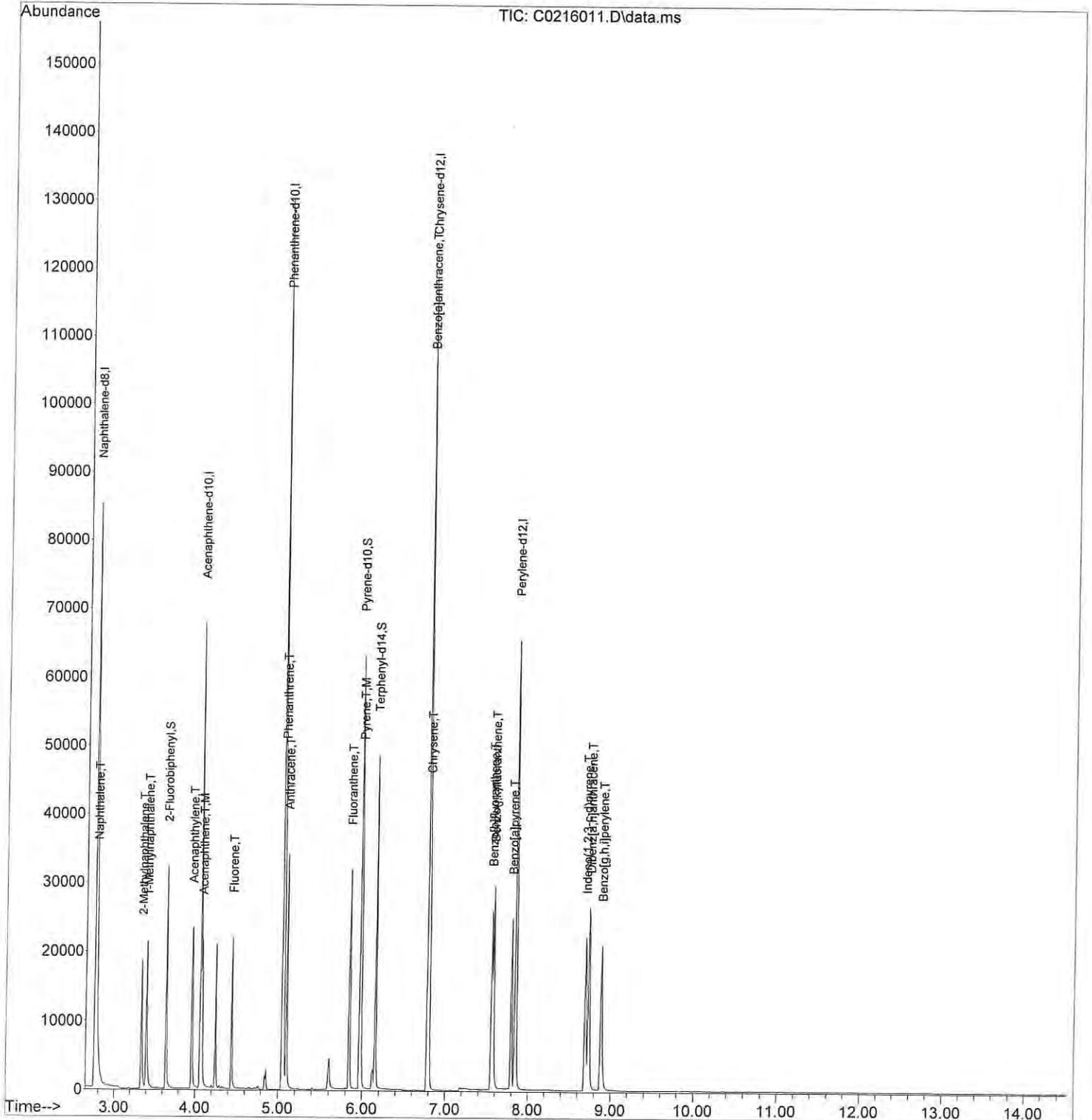
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	2.762	136	103997	2000.00	ppb	-0.09	
5) Acenaphthene-d10	4.063	164	48798	2000.00	ppb	-0.08	
9) Phenanthrene-d10	5.050	188	92162	2000.00	ppb	-0.08	
16) Chrysene-d12	6.788	240	78982	2000.00	ppb	-0.14	
20) Perylene-d12	7.843	264	82736	2000.00	ppb	-0.18	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	3.641	172	29226	663.89	ppb	-0.08	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	66.39%			
10) Pyrene-d10	5.973	212	37710	859.90	ppb	-0.10	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	85.99%			
17) Terphenyl-d14	6.156	244	32689	902.96	ppb	-0.10	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	90.30%			
Target Compounds							
							Qvalue
2) Naphthalene	2.778	128	20413	298.20	ppb		98
3) 2-Methylnaphthalene	3.339	142	10061	284.03	ppb		96
4) 1-Methylnaphthalene	3.403	142	11426	269.82	ppb		98
7) Acenaphthylene	3.955	152	22706	358.29	ppb		100
8) Acenaphthene	4.078	153	12898	319.21	ppb		100
11) Fluorene	4.440	166	14463	344.17	ppb		100
12) Phenanthrene	5.062	178	22927	363.70	ppb		92
13) Anthracene	5.097	178	22819	370.47	ppb		96
14) Fluoranthene	5.848	202	24114	392.72	ppb		93
15) Pyrene	5.983	202	26771	422.30	ppb		99
18) Benzo[a]anthracene	6.782	228	26147	457.67	ppb		98
19) Chrysene	6.799	228	21190	379.89	ppb		92
21) Benzo[b]fluoranthene	7.553	252	24809	466.80	ppb		87
22) Benzo[j,k]fluoranthene	7.576	252	25299	446.05	ppb		85
23) Benzo[a]pyrene	7.797	252	20953	449.34	ppb		88
24) Indeno(1,2,3-c,d)pyrene	8.692	276	22044m	494.51	ppb		
25) Dibenz[a,h]anthracene	8.738	278	23967	468.03	ppb		89
26) Benzo[g,h,i]perylene	8.885	276	23818	459.68	ppb		84
-----							

2/20/24

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

Data Path : X:\semivols\Corey\DATA\C240216\  
 Data File : C0216011.D  
 Acq On : 16 Feb 2024 2:34 pm  
 Operator : JP  
 Sample : SB0216W1  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 16 15:33:28 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Coreey\DATA\C240216\  
 Data File : C0216010.D  
 Acq On : 16 Feb 2024 2:12 pm  
 Operator : JP  
 Sample : SB0216W1 DUP  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 16 15:32:24 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

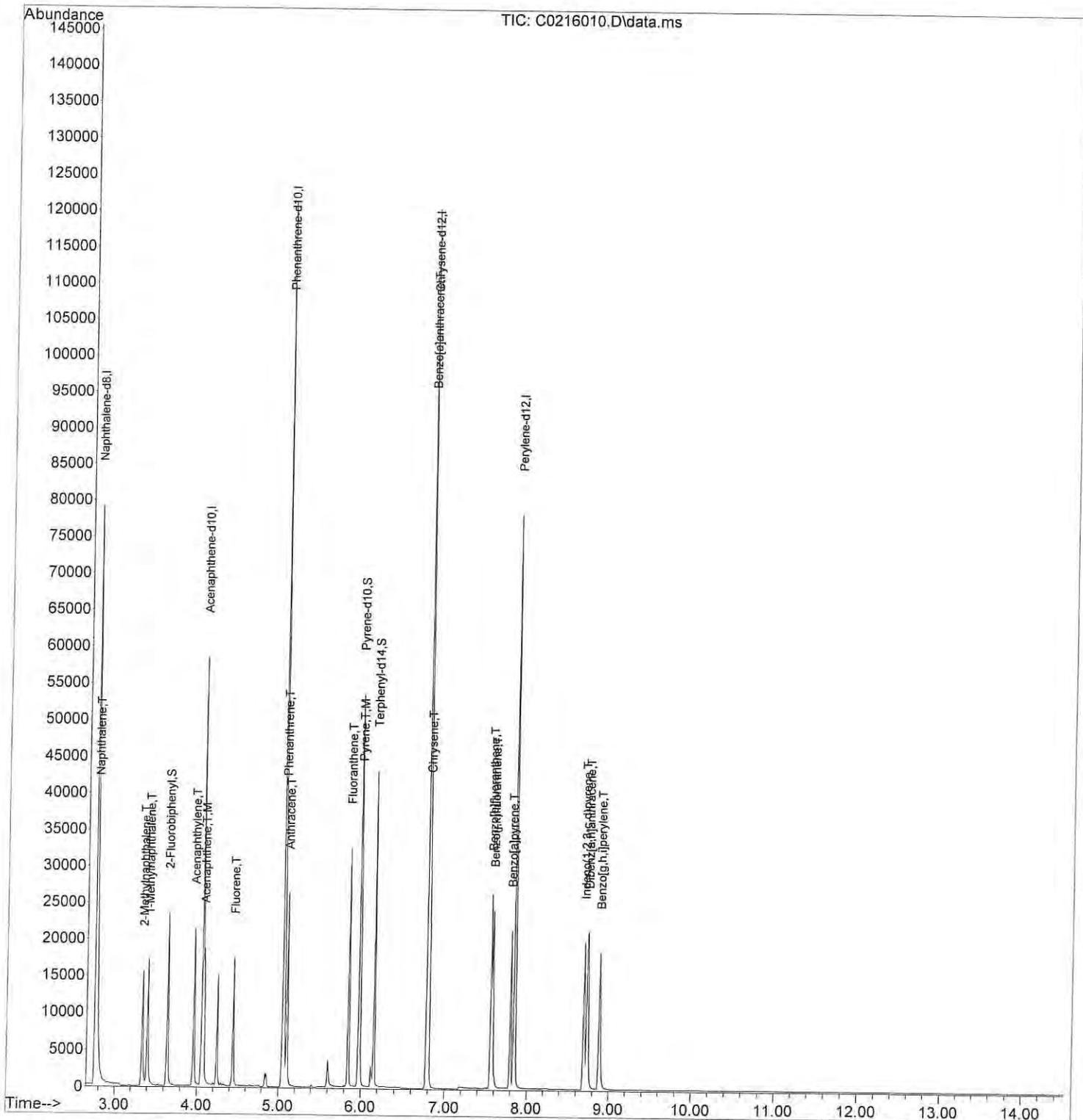
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
Internal Standards							
1) Naphthalene-d8	2.755	136	103561	2000.00	ppb	-0.10	
5) Acenaphthene-d10	4.063	164	48397	2000.00	ppb	-0.08	
9) Phenanthrene-d10	5.052	188	93608	2000.00	ppb	-0.08	
16) Chrysene-d12	6.787	240	80666	2000.00	ppb	-0.14	
20) Perylene-d12	7.844	264	84191	2000.00	ppb	-0.18	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	3.640	172	26098	597.75	ppb	-0.08	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	59.77%			
10) Pyrene-d10	5.973	212	32361	726.53	ppb	-0.10	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	72.65%			
17) Terphenyl-d14	6.155	244	28812	779.25	ppb	-0.10	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	77.92%			
Target Compounds							
							Qvalue
2) Naphthalene	2.770	128	18740	274.91	ppb		99
3) 2-Methylnaphthalene	3.338	142	9126	258.72	ppb		94
4) 1-Methylnaphthalene	3.402	142	10420	247.10	ppb		98
7) Acenaphthylene	3.955	152	19782	314.74	ppb		100
8) Acenaphthene	4.079	153	11456	285.87	ppb		100
11) Fluorene	4.441	166	12839	300.80	ppb		100
12) Phenanthrene	5.063	178	20307	317.16	ppb		91
13) Anthracene	5.098	178	19748	315.66	ppb		97
14) Fluoranthene	5.848	202	21814	349.78	ppb		96
15) Pyrene	5.982	202	22368	347.40	ppb		98
18) Benzo[a]anthracene	6.781	228	22772	390.28	ppb		97
19) Chrysene	6.799	228	18842	330.75	ppb		94
21) Benzo[b]fluoranthene	7.553	252	22456	415.22	ppb		85
22) Benzo[j,k]fluoranthene	7.577	252	21205	367.41	ppb		91
23) Benzo[a]pyrene	7.797	252	18364	387.02	ppb		87
24) Indeno(1,2,3-c,d)pyrene	8.691	276	19234m	424.01	ppb		
25) Dibenz[a,h]anthracene	8.738	278	20660	396.47	ppb		87
26) Benzo[g,h,i]perylene	8.884	276	20730	393.16	ppb		83

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

JP  
2/26/24

Data Path : X:\semivols\Corey\DATA\C240216\  
 Data File : C0216010.D  
 Acq On : 16 Feb 2024 2:12 pm  
 Operator : JP  
 Sample : SB0216W1 DUP  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 16 15:32:24 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240221\  
 Data File : C0221007.D  
 Acq On : 21 Feb 2024 12:13 pm  
 Operator : JP  
 Sample : SB0221W1  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 21 12:29:25 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

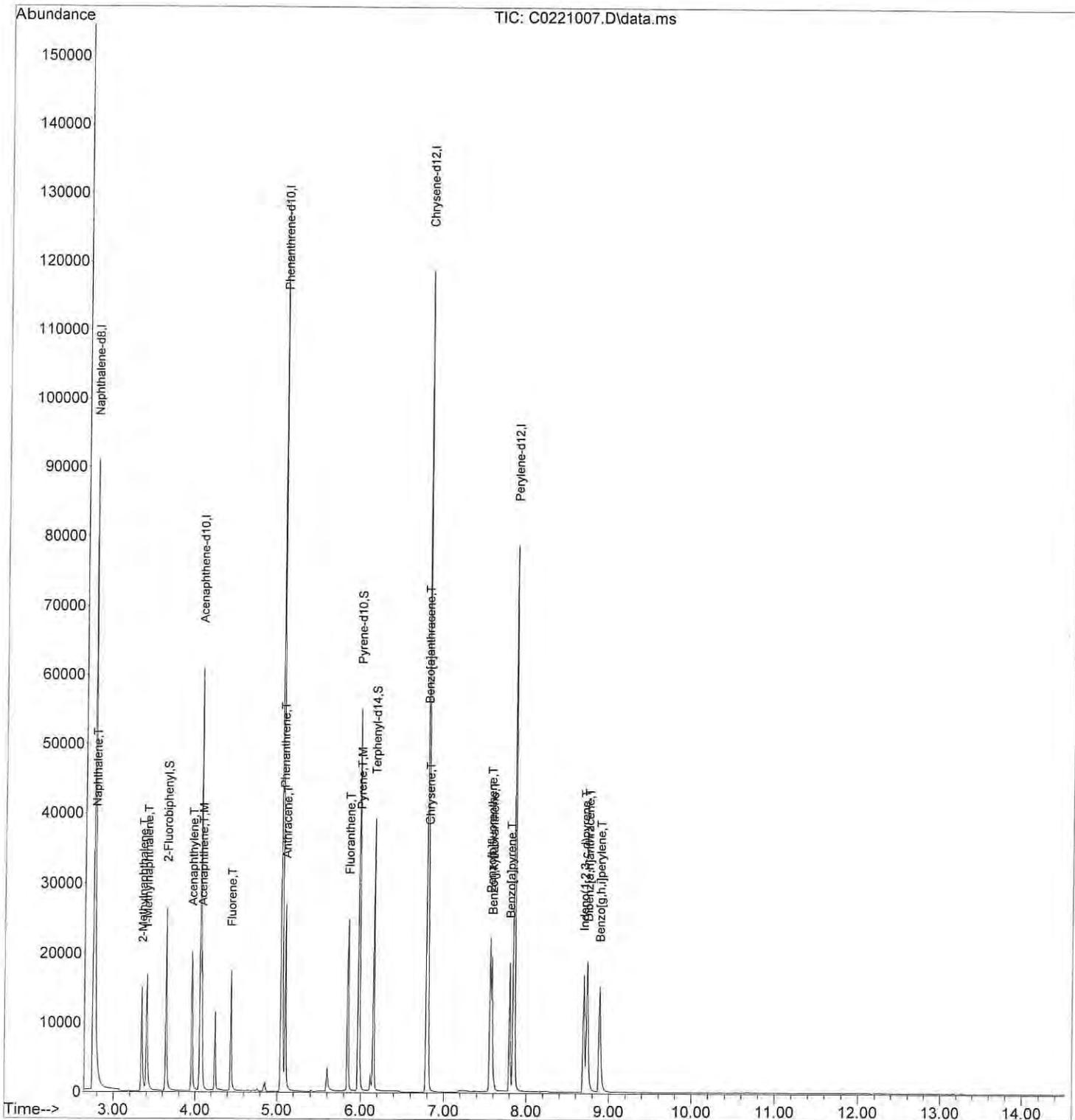
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	2.755	136	103917	2000.00	ppb	-0.10	
5) Acenaphthene-d10	4.063	164	50056	2000.00	ppb	-0.08	
9) Phenanthrene-d10	5.051	188	97014	2000.00	ppb	-0.08	
16) Chrysene-d12	6.788	240	85421	2000.00	ppb	-0.14	
20) Perylene-d12	7.849	264	89982	2000.00	ppb	-0.17	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	3.641	172	27301	604.58	ppb	-0.08	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	60.46%			
10) Pyrene-d10	5.973	212	33208	719.37	ppb	-0.10	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	71.94%			
17) Terphenyl-d14	6.156	244	28311	723.08	ppb	-0.10	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	72.31%			
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	2.770	128	18543	271.09	ppb		99
3) 2-Methylnaphthalene	3.339	142	9286	262.35	ppb		96
4) 1-Methylnaphthalene	3.403	142	10714	253.20	ppb		97
7) Acenaphthylene	3.955	152	20084	308.95	ppb		100
8) Acenaphthene	4.078	153	11703	282.36	ppb		100
11) Fluorene	4.440	166	13162	297.54	ppb		100
12) Phenanthrene	5.063	178	19903	299.94	ppb		94
13) Anthracene	5.097	178	20295	313.01	ppb		98
14) Fluoranthene	5.848	202	20377	315.26	ppb		93
15) Pyrene	5.983	202	21736	325.73	ppb		99
18) Benzo[a]anthracene	6.782	228	18928	306.34	ppb		95
19) Chrysene	6.806	228	19614	325.13	ppb		100
21) Benzo[b]fluoranthene	7.559	252	21972	380.13	ppb		94
22) Benzo[j,k]fluoranthene	7.582	252	18548	300.69	ppb	#	71
23) Benzo[a]pyrene	7.797	252	17315	341.42	ppb		89
24) Indeno[1,2,3-c,d]pyrene	8.693	276	17213m	355.04	ppb		
25) Dibenz[a,h]anthracene	8.739	278	19125	343.40	ppb		88
26) Benzo[g,h,i]perylene	8.886	276	19168	340.14	ppb		84

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

JP 2/20/24

Data Path : X:\semivols\Corey\DATA\C240221\  
 Data File : C0221007.D  
 Acq On : 21 Feb 2024 12:13 pm  
 Operator : JP  
 Sample : SB0221W1  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 21 12:29:25 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240221\  
 Data File : C0221008.D  
 Acq On : 21 Feb 2024 12:35 pm  
 Operator : JP  
 Sample : SB0221W1 DUP  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 21 12:50:26 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

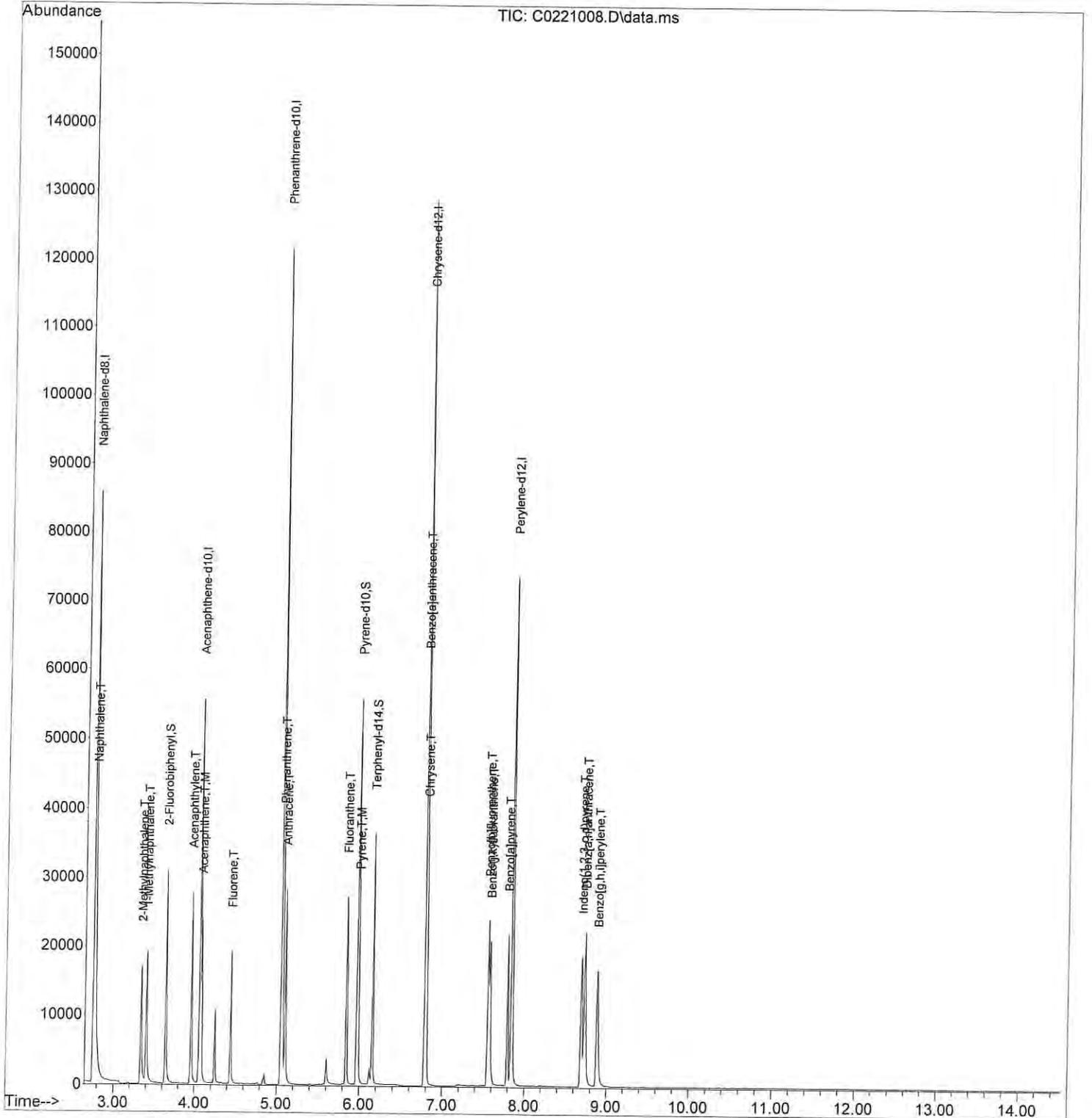
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Naphthalene-d8	2.755	136	108677	2000.00	ppb	-0.10	
5) Acenaphthene-d10	4.063	164	49746	2000.00	ppb	-0.08	
9) Phenanthrene-d10	5.045	188	96356	2000.00	ppb	-0.09	
16) Chrysene-d12	6.782	240	84058	2000.00	ppb	-0.15	
20) Perylene-d12	7.844	264	89448	2000.00	ppb	-0.18	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	3.641	172	30748	685.15	ppb	-0.08	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	68.51%			
10) Pyrene-d10	5.974	212	32956	718.78	ppb	-0.10	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	71.88%			
17) Terphenyl-d14	6.157	244	28369	736.31	ppb	-0.10	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	73.63%			
Target Compounds							
							Qvalue
2) Naphthalene	2.770	128	21061	294.41	ppb		99
3) 2-Methylnaphthalene	3.340	142	10491	283.41	ppb		96
4) 1-Methylnaphthalene	3.403	142	12050	272.30	ppb		98
7) Acenaphthylene	3.955	152	22086	341.87	ppb		100
8) Acenaphthene	4.079	153	12986	315.26	ppb		100
11) Fluorene	4.441	166	14217	323.59	ppb		100
12) Phenanthrene	5.063	178	21661	328.66	ppb		95
13) Anthracene	5.098	178	21906	340.16	ppb		98
14) Fluoranthene	5.840	202	21905	341.22	ppb		92
15) Pyrene	5.984	202	23385	352.83	ppb		97
18) Benzo[a]anthracene	6.776	228	21469	353.10	ppb		95
19) Chrysene	6.799	228	20796	350.32	ppb		99
21) Benzo[b]fluoranthene	7.553	252	24435	425.26	ppb		95
22) Benzo[j,k]fluoranthene	7.576	252	19764	322.31	ppb	#	71
23) Benzo[a]pyrene	7.791	252	19204	380.93	ppb		89
24) Indeno(1,2,3-c,d)pyrene	8.692	276	20807	431.73	ppb		86
25) Dibenz[a,h]anthracene	8.731	278	22310	402.98	ppb		90
26) Benzo[g,h,i]perylene	8.885	276	22229	396.82	ppb		85

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

JP 2/26/24

Data Path : X:\semivols\Corey\DATA\C240221\  
 Data File : C0221008.D  
 Acq On : 21 Feb 2024 12:35 pm  
 Operator : JP  
 Sample : SB0221W1 DUP  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 21 12:50:26 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration



Method Path : C:\MSDCHEM\1\METHODS\  
 Method File : CS240201.M  
 Title : PAH'S BY SIMS  
 Last Update : Wed Mar 06 08:56:36 2024  
 Response Via : Initial Calibration

Calibration Files

10 =C0201013.D 20 =C0201014.D 50 =C0201015.D 100 =C0201016.D 200 =C0201017.D 500 =C0305001.D 1000=C0201019.D  
 5000=C0201020.D

Compound	10	20	50	100	200	500	1000	5000	Avg	%RSD
1) I Naphthalene-d8				ISTD						
2) T Naphthalene	1.333	1.393	1.333	1.337	1.282	1.328	1.263	1.264	1.316	3.35
3) T 2-Methylnaphth...	0.664	0.673	0.661	0.677	0.670	0.712	0.685	0.706	0.681	2.77
4) T 1-Methylnaphth...	0.998	0.921	0.808	0.797	0.739	0.768	0.736	0.748	0.814	11.71
5) I Acenaphthene-d10				ISTD						
6) S 2-Fluorobiphenyl	1.895	1.695	1.661	1.940	1.843	1.848	1.816	1.737	1.804	5.42
7) T Acenaphthylene	2.740	2.933	2.594	2.594	2.538	2.574	2.504	2.301	2.597	7.03
8) T,M Acenaphthene	1.878	1.835	1.667	1.642	1.615	1.603	1.579	1.430	1.656	8.63
9) I Phenanthrene-d10				ISTD						
10) S Pyrene-d10	1.097	0.951	0.930	0.947	0.961	0.905	0.930	0.893	0.952	6.62
11) T Fluorene	0.984	1.045	0.924	0.897	0.873	0.857	0.852	0.863	0.912	7.62
12) T Phenanthrene	1.656	1.622	1.369	1.339	1.296	1.261	1.236	1.165	1.368	13.06
13) T Anthracene	1.550	1.561	1.305	1.292	1.260	1.247	1.269	1.209	1.337	10.34
14) T Fluoranthene	1.476	1.523	1.320	1.293	1.285	1.250	1.231	1.282	1.332	8.05
15) T,M Pyrene	1.494	1.556	1.355	1.381	1.352	1.334	1.362	1.171	1.376	8.31
16) I Chrysene-d12				ISTD						
17) S Terphenyl-d14	1.069	0.974	0.869	0.922	0.913	0.898	0.872	0.817	0.917	8.33
18) T Benzo [a] anthra...	2.019	1.735	1.427	1.330	1.325	1.263	1.254	1.219	1.447	19.59
19) T Chrysene	1.554	1.618	1.458	1.468	1.390	1.350	1.337	1.125	1.412	10.72
20) I Perylene-d12				ISTD						
21) T Benzo [b] Fluora...	1.386	1.337	1.220	1.312	1.230	1.301	1.250	1.241	1.285	4.58
22) T Benzo [j, k] Fluo...	1.397	1.651	1.417	1.277	1.354	1.239	1.332	1.302	1.371	9.30
23) T Benzo [a] pyrene	1.200	1.240	1.103	1.075	1.091	1.080	1.109	1.119	1.127	5.34
24) T Indeno (1, 2, 3-c...	1.124	1.118	0.989	0.999	1.067	1.073	1.107	1.144	1.078	5.35
25) T Dibenz [a, h] ant...	1.191	1.364	1.238	1.213	1.193	1.216	1.239	1.249	1.238	4.46
26) T Benzo [g, h, i] pe...	1.335	1.400	1.234	1.201	1.205	1.205	1.222	1.218	1.253	5.88

(#) = Out Of Range

Compound List Report Corey

Method Path : C:\MSDCHEM\1\METHODS\  
 Method File : CS240201.M  
 Title : PAH'S BY SIMS  
 Last Update : Wed Mar 06 08:56:36 2024  
 Response Via : Initial Calibration

Total Cpnds : 26

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Naphthalene-d8	136	2.599	1.000	A	0	A	R
2	T	Naphthalene	128	2.614	1.006	A	1	A	R
3	T	2-Methylnaphthalene	142	3.195	1.229	A	1	A	R
4	T	1-Methylnaphthalene	142	3.259	1.254	A	1	A	R
5	I	Acenaphthene-d10	164	3.922	1.000	A	0	A	R
6	S	2-Fluorobiphenyl	172	3.503	0.893	A	0	A	R
7	T	Acenaphthylene	152	3.822	0.974	A	0	A	R
8	T	Acenaphthene	153	3.945	1.006	A	0	A	R
9	I	Phenanthrene-d10	188	4.913	1.000	A	0	A	R
10	S	Pyrene-d10	212	5.832	1.187	A	0	A	R
11	T	Fluorene	166	4.308	0.877	A	0	A	R
12	T	Phenanthrene	178	4.925	1.002	A	1	A	R
13	T	Anthracene	178	4.959	1.009	A	1	A	R
14	T	Fluoranthene	202	5.707	1.162	A	1	A	R
15	T	Pyrene	202	5.832	1.187	A	1	A	R
16	I	Chrysene-d12	240	6.660	1.000	A	0	A	R
17	S	Terphenyl-d14	244	6.015	0.903	A	0	A	R
18	T	Benzo[a]anthracene	228	6.648	0.998	A	1	A	R
19	T	Chrysene	228	6.671	1.002	A	1	A	R
20	I	Perylene-d12	264	7.660	1.000	A	0	A	R
21	T	Benzo[b]fluoranthene	252	7.387	0.964	A	1	A	R
22	T	Benzo(j,k)fluoranthene	252	7.404	0.967	A	1	A	R
23	T	Benzo[a]pyrene	252	7.613	0.994	A	1	A	R
24	T	Indeno(1,2,3-c,d)pyrene	276	8.476	1.107	A	1	A	R
25	T	Dibenz[a,h]anthracene	278	8.515	1.112	A	1	A	R
26	T	Benzo[g,h,i]perylene	276	8.662	1.131	A	1	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin

#Qual = number of qualifiers

A/H = Area or Height

ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

Data Path : X:\semivols\Corey\DATA\C240201\  
 Data File : C0201013.D  
 Acq On : 1 Feb 2024 2:10 pm  
 Operator : JP  
 Sample : 10 PPB ICAL  
 Misc : SV6-141-08  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 02 09:41:19 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration

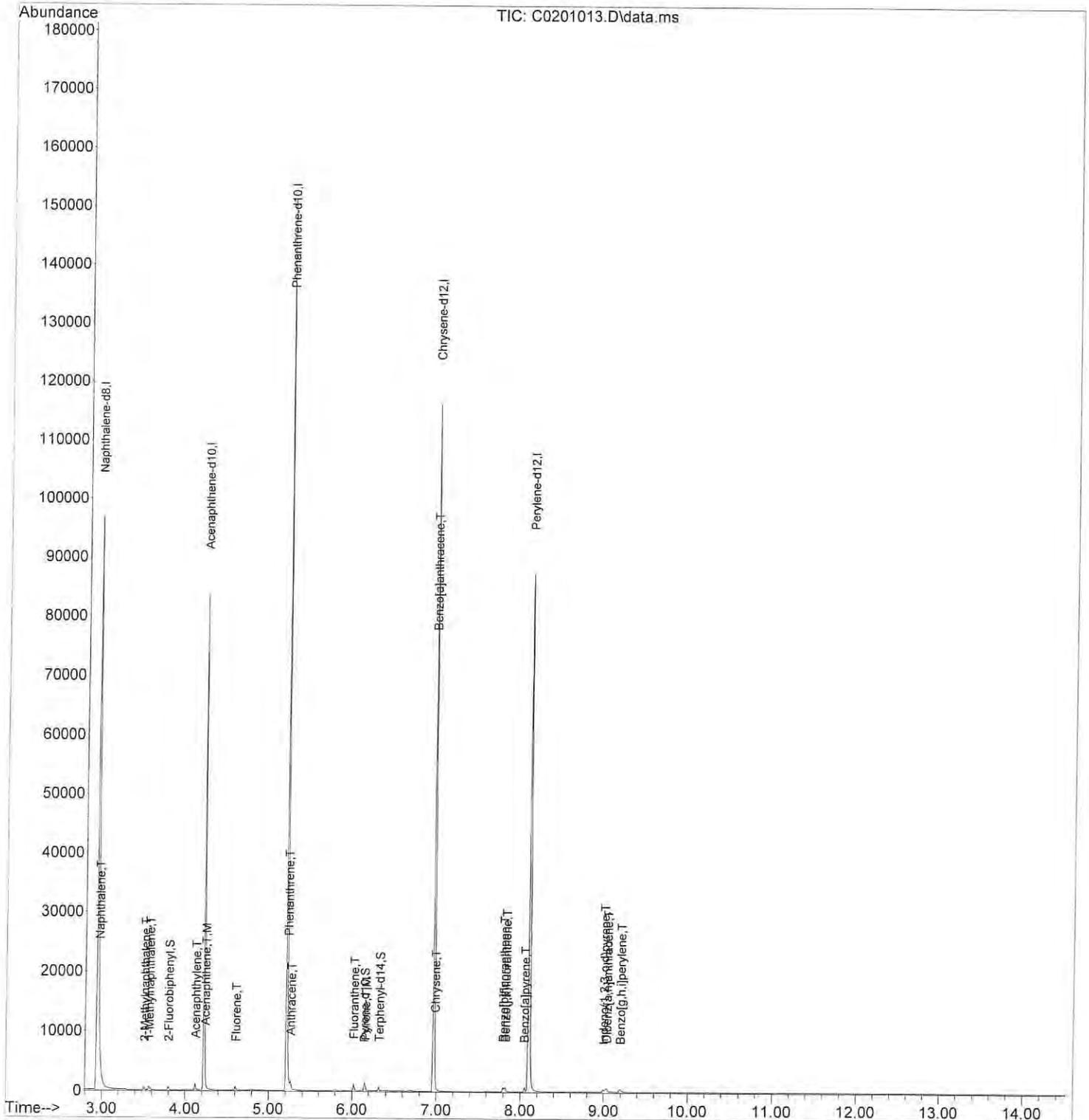
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Naphthalene-d8	2.943	136	119893	2000.00	ppb	0.00
5) Acenaphthene-d10	4.220	164	58907	2000.00	ppb	0.00
9) Phenanthrene-d10	5.210	188	111376	2000.00	ppb	0.00
16) Chrysene-d12	6.965	240	98450	2000.00	ppb	0.00
20) Perylene-d12	8.100	264	105479	2000.00	ppb	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl	3.799	172	558	10.50	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =		1.05%#	
10) Pyrene-d10	6.140	212	611	11.53	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =		1.15%#	
17) Terphenyl-d14	6.322	244	526	11.66	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =		1.17%#	
Target Compounds						
						Qvalue
2) Naphthalene	2.958	128	799	10.12	ppb	95
3) 2-Methylnaphthalene	3.509	142	398	9.75	ppb	97
4) 1-Methylnaphthalene	3.567	142	529	10.84	ppb	90
7) Acenaphthylene	4.120	152	807	10.55	ppb	100
8) Acenaphthene	4.236	153	553	11.34	ppb	100
11) Fluorene	4.605	166	548	10.79	ppb	100
12) Phenanthrene	5.221	178	922	12.10	ppb	95
13) Anthracene	5.262	178	863	11.59	ppb	96
14) Fluoranthene	6.015	202	822	11.08	ppb	89
15) Pyrene	6.159	202	832	10.86	ppb	97
18) Benzo[a]anthracene	6.960	228	994	13.96	ppb	97
19) Chrysene	6.983	228	765	11.00	ppb	96
21) Benzo[b]fluoranthene	7.798	252	731	10.79	ppb	94
22) Benzo(j,k)fluoranthene	7.821	252	737	10.19	ppb	89
23) Benzo[a]pyrene	8.048	252	633	10.65	ppb	87
24) Indeno(1,2,3-c,d)pyrene	8.998	276	590m	10.38	ppb	
25) Dibenz[a,h]anthracene	9.036	278	680	10.42	ppb	95
26) Benzo[g,h,i]perylene	9.198	276	704	10.66	ppb	86

JP  
8/23/24

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

Data Path : X:\semivol\Corey\DATA\C240201\  
 Data File : C0201013.D  
 Acq On : 1 Feb 2024 2:10 pm  
 Operator : JP  
 Sample : 10 PPB ICAL  
 Misc : SV6-141-08  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 02 09:41:19 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240201\  
 Data File : C0201014.D  
 Acq On : 1 Feb 2024 2:32 pm  
 Operator : JP  
 Sample : 20 PPB ICAL  
 Misc : SV6-141-07  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 02 09:42:26 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration

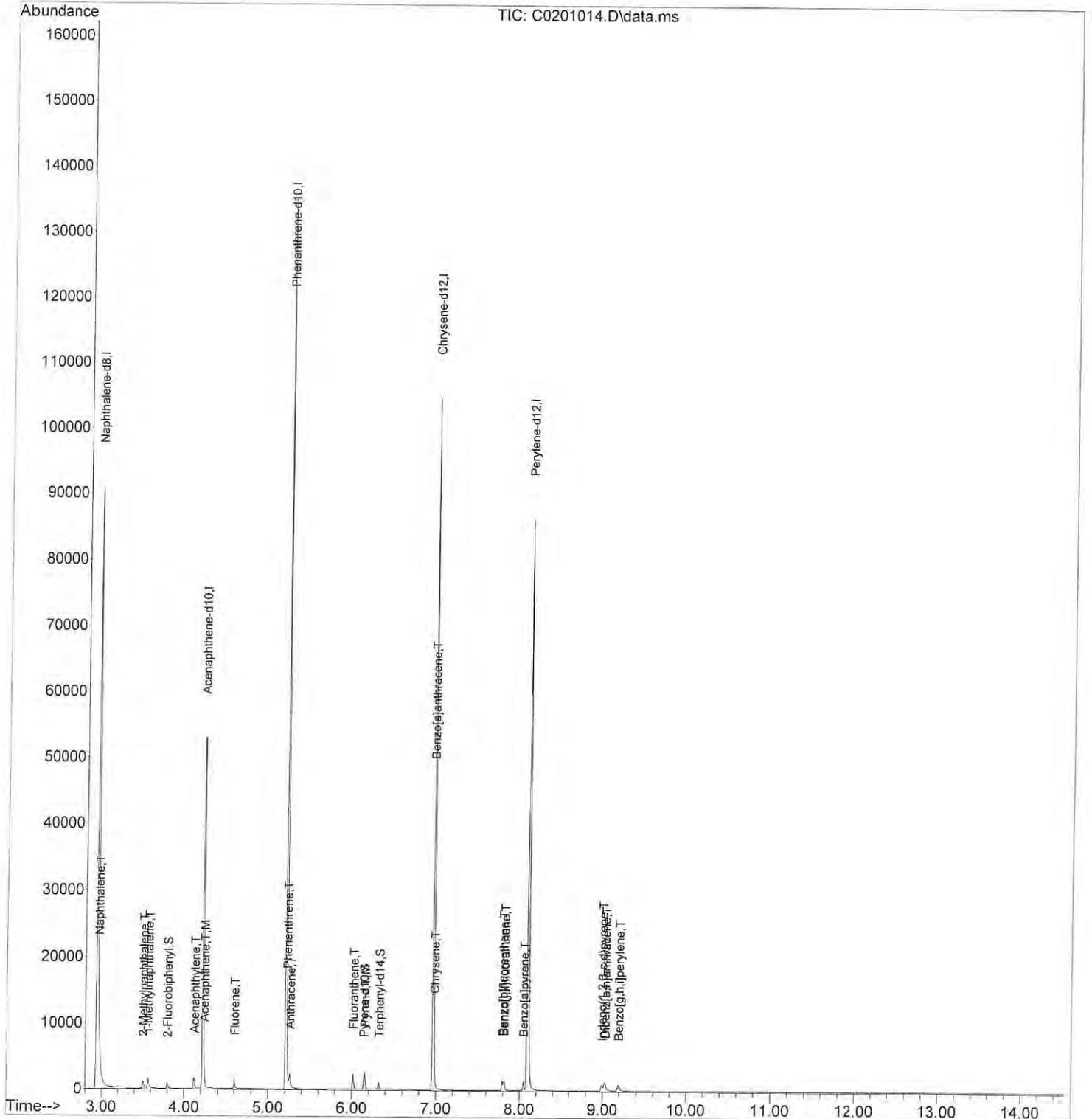
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	2.943	136	115401	2000.00	ppb	0.00
5) Acenaphthene-d10	4.214	164	53731	2000.00	ppb	0.00
9) Phenanthrene-d10	5.211	188	103824	2000.00	ppb	0.00
16) Chrysene-d12	6.960	240	91104	2000.00	ppb	0.00
20) Perylene-d12	8.093	264	97233	2000.00	ppb	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl	3.798	172	911	18.79	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	1.88%#		
10) Pyrene-d10	6.139	212	987	19.98	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	2.00%#		
17) Terphenyl-d14	6.322	244	887	21.24	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	2.12%#		
Target Compounds						
						Qvalue
2) Naphthalene	2.958	128	1607	21.16	ppb	95
3) 2-Methylnaphthalene	3.502	142	777	19.77	ppb	97
4) 1-Methylnaphthalene	3.566	142	1018	21.66	ppb	92
7) Acenaphthylene	4.122	152	1576	22.59	ppb	100
8) Acenaphthene	4.237	153	986	22.16	ppb	100
11) Fluorene	4.599	166	1085	22.92	ppb	100
12) Phenanthrene	5.222	178	1684	23.71	ppb	100
13) Anthracene	5.263	178	1621	23.36	ppb	99
14) Fluoranthene	6.014	202	1581	22.86	ppb	92
15) Pyrene	6.149	202	1616	22.63	ppb	97
18) Benzo[a]anthracene	6.954	228	1581	23.99	ppb	99
19) Chrysene	6.978	228	1474	22.91	ppb	100
21) Benzo[b]fluoranthene	7.797	252	1300	20.81	ppb	88
22) Benzo(j,k)fluoranthene	7.814	252	1561m	23.42	ppb	
23) Benzo[a]pyrene	8.047	252	1206	22.01	ppb	89
24) Indeno(1,2,3-c,d)pyrene	8.991	276	1081m	20.63	ppb	
25) Dibenz[a,h]anthracene	9.030	278	1326	22.03	ppb	87
26) Benzo[g,h,i]perylene	9.192	276	1361	22.35	ppb	87

UP  
8/23/24

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

Data Path : X:\semivols\Corey\DATA\C240201\  
 Data File : C0201014.D  
 Acq On : 1 Feb 2024 2:32 pm  
 Operator : JP  
 Sample : 20 PPB ICAL  
 Misc : SV6-141-07  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 02 09:42:26 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240201\  
 Data File : C0201015.D  
 Acq On : 1 Feb 2024 2:54 pm  
 Operator : JP  
 Sample : 50 PPB ICAL  
 Misc : SV6-141-06  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 02 09:43:58 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration

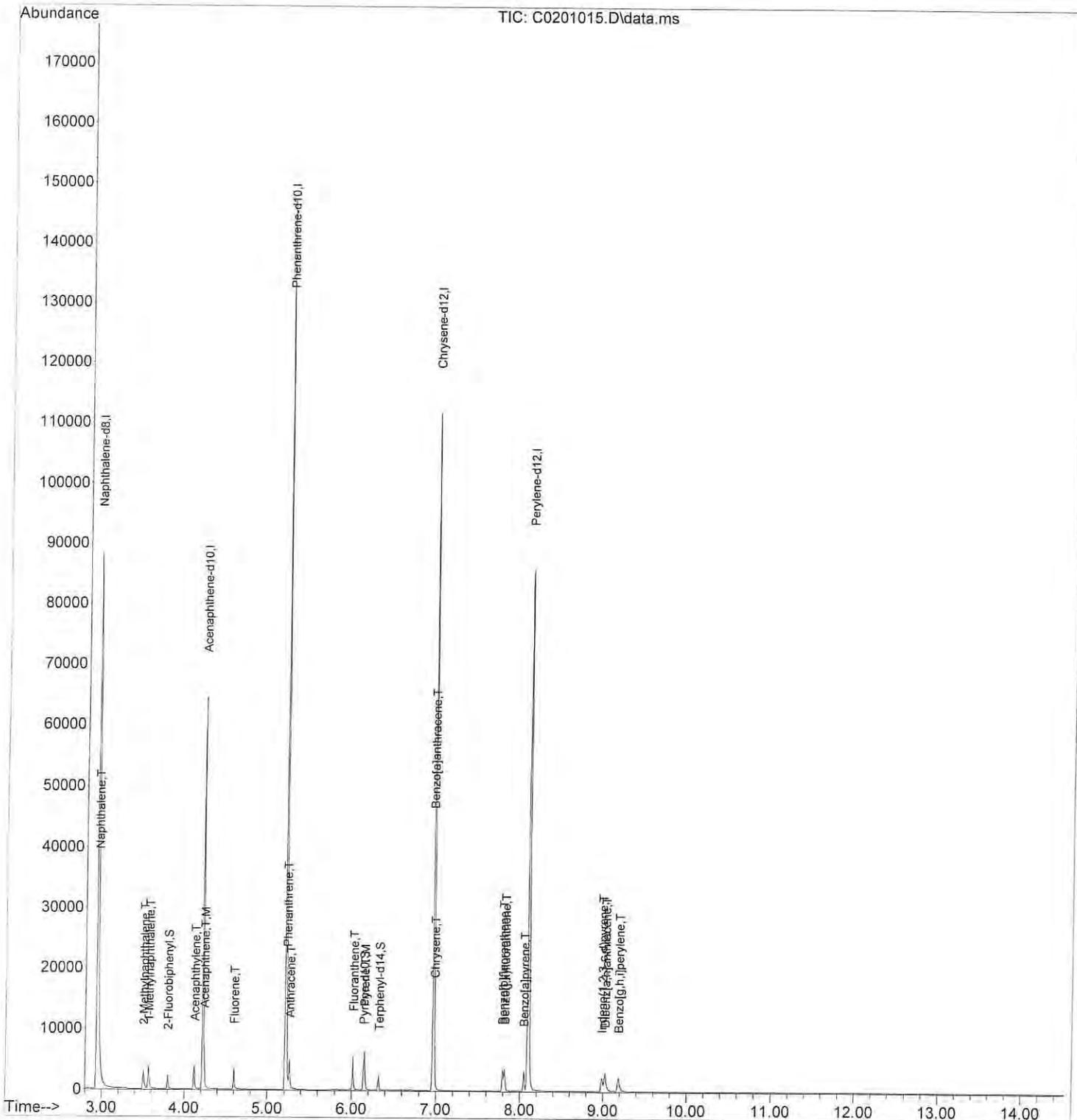
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	2.936	136	115805	2000.00	ppb	0.00	
5) Acenaphthene-d10	4.221	164	55372	2000.00	ppb	0.00	
9) Phenanthrene-d10	5.211	188	109053	2000.00	ppb	0.00	
16) Chrysene-d12	6.960	240	95998	2000.00	ppb	0.00	
20) Perylene-d12	8.098	264	102981	2000.00	ppb	0.00	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	3.798	172	2299	46.02	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	4.60%#			
10) Pyrene-d10	6.139	212	2536	48.87	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	4.89%#			
17) Terphenyl-d14	6.322	244	2086	47.41	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	4.74%#			
Target Compounds							
							Qvalue
2) Naphthalene	2.951	128	3858	50.61	ppb		100
3) 2-Methylnaphthalene	3.502	142	1915	48.55	ppb		99
4) 1-Methylnaphthalene	3.566	142	2344	49.71	ppb		95
7) Acenaphthylene	4.121	152	3591	49.94	ppb		100
8) Acenaphthene	4.237	153	2307	50.32	ppb		100
11) Fluorene	4.599	166	2519	50.66	ppb		100
12) Phenanthrene	5.222	178	3733	50.05	ppb		98
13) Anthracene	5.263	178	3557	48.80	ppb		99
14) Fluoranthene	6.014	202	3599	49.53	ppb		94
15) Pyrene	6.149	202	3693	49.23	ppb		97
18) Benzo[a]anthracene	6.955	228	3424	49.31	ppb		100
19) Chrysene	6.978	228	3500	51.63	ppb		98
21) Benzo[b]fluoranthene	7.791	252	3141	47.48	ppb		86
22) Benzo[j,k]fluoranthene	7.814	252	3648m	51.67	ppb		
23) Benzo[a]pyrene	8.046	252	2839	48.91	ppb		90
24) Indeno[1,2,3-c,d]pyrene	8.983	276	2547m	45.90	ppb		
25) Dibenz[a,h]anthracene	9.022	278	3188	50.02	ppb		92
26) Benzo[g,h,i]perylene	9.184	276	3176	49.25	ppb		86
-----							

VP  
8/23/24

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

Data Path : X:\semivols\Corey\DATA\C240201\  
 Data File : C0201015.D  
 Acq On : 1 Feb 2024 2:54 pm  
 Operator : JP  
 Sample : 50 PPB ICAL  
 Misc : SV6-141-06  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 02 09:43:58 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240201\  
 Data File : C0201016.D  
 Acq On : 1 Feb 2024 3:16 pm  
 Operator : JP  
 Sample : 100 PPB ICAL  
 Misc : SV6-141-05  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 02 09:44:52 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration

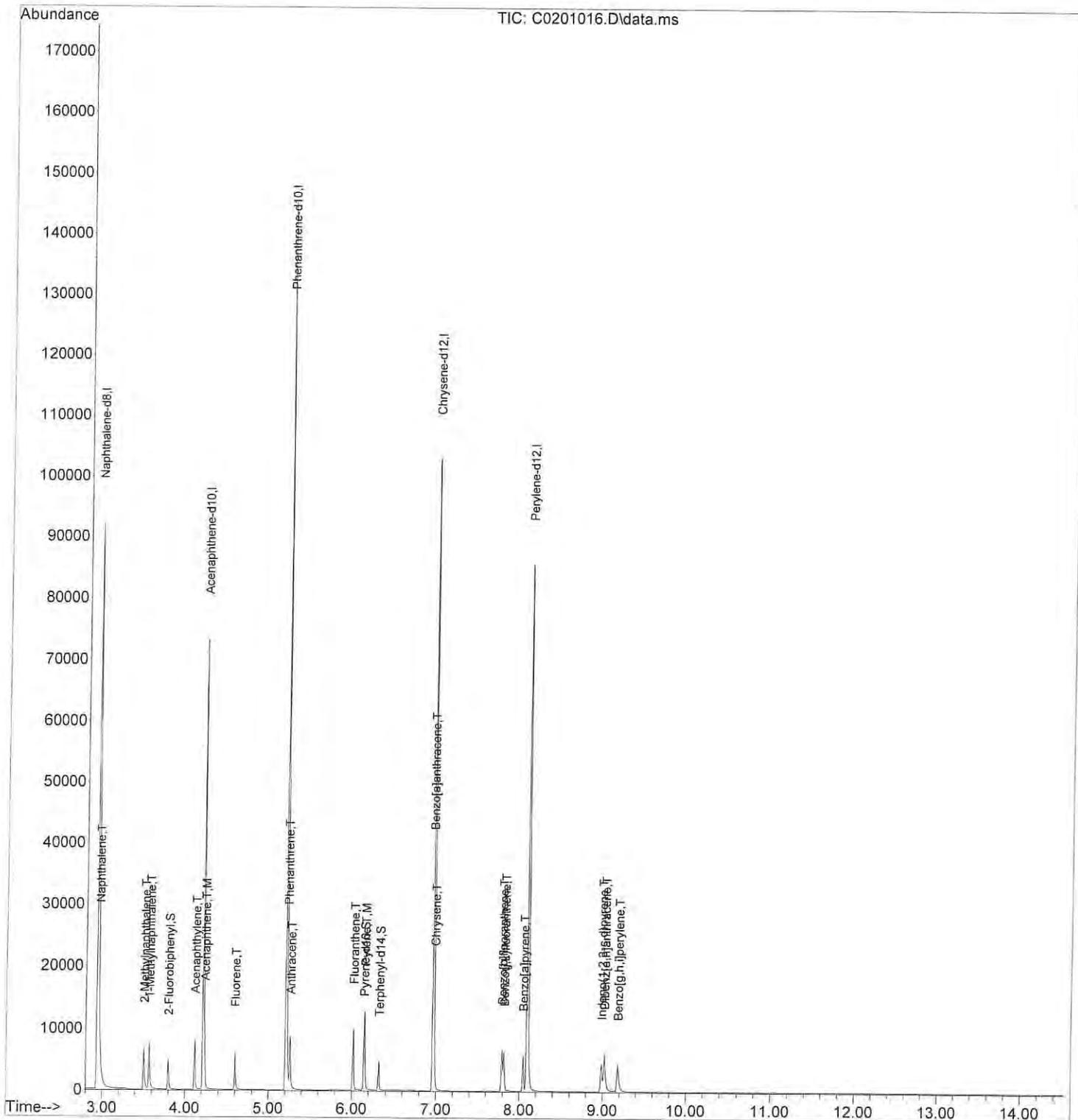
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	2.943	136	113327	2000.00	ppb	0.00	
5) Acenaphthene-d10	4.220	164	54724	2000.00	ppb	0.00	
9) Phenanthrene-d10	5.210	188	105436	2000.00	ppb	0.00	
16) Chrysene-d12	6.966	240	92697	2000.00	ppb	0.00	
20) Perylene-d12	8.094	264	99727	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	3.799	172	5308	107.52	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	10.75%#			
10) Pyrene-d10	6.140	212	4990	99.46	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	9.95%#			
17) Terphenyl-d14	6.322	244	4274	100.59	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	10.06%#			
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	2.958	128	7575	101.55	ppb		99
3) 2-Methylnaphthalene	3.503	142	3836	99.38	ppb		98
4) 1-Methylnaphthalene	3.567	142	4443	96.28	ppb		100
7) Acenaphthylene	4.120	152	7099	99.89	ppb		100
8) Acenaphthene	4.236	153	4493	99.15	ppb		100
11) Fluorene	4.598	166	4730	98.39	ppb		100
12) Phenanthrene	5.221	178	7058	97.87	ppb		98
13) Anthracene	5.262	178	6813	96.68	ppb		97
14) Fluoranthene	6.015	202	6817	97.04	ppb		94
15) Pyrene	6.149	202	7280	100.38	ppb		100
18) Benzo[a]anthracene	6.954	228	6166	91.96	ppb		98
19) Chrysene	6.977	228	6804	103.93	ppb		98
21) Benzo[b]fluoranthene	7.792	252	6542	102.12	ppb		87
22) Benzo[j,k]fluoranthene	7.815	252	6367	93.13	ppb		93
23) Benzo[a]pyrene	8.048	252	5358	95.33	ppb		89
24) Indeno(1,2,3-c,d)pyrene	8.982	276	4961m	92.33	ppb		
25) Dibenz[a,h]anthracene	9.021	278	6047	97.97	ppb		92
26) Benzo[g,h,i]perylene	9.183	276	5990	95.91	ppb		86

NO  
8/23/24

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

Data Path : X:\semivols\Corey\DATA\C240201\  
 Data File : C0201016.D  
 Acq On : 1 Feb 2024 3:16 pm  
 Operator : JP  
 Sample : 100 PPB ICAL  
 Misc : SV6-141-05  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 02 09:44:52 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Coreey\DATA\C240201\  
 Data File : C0201017.D  
 Acq On : 1 Feb 2024 3:38 pm  
 Operator : JP  
 Sample : 200 PPB ICAL  
 Misc : SV6-141-04  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 02 09:45:22 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration

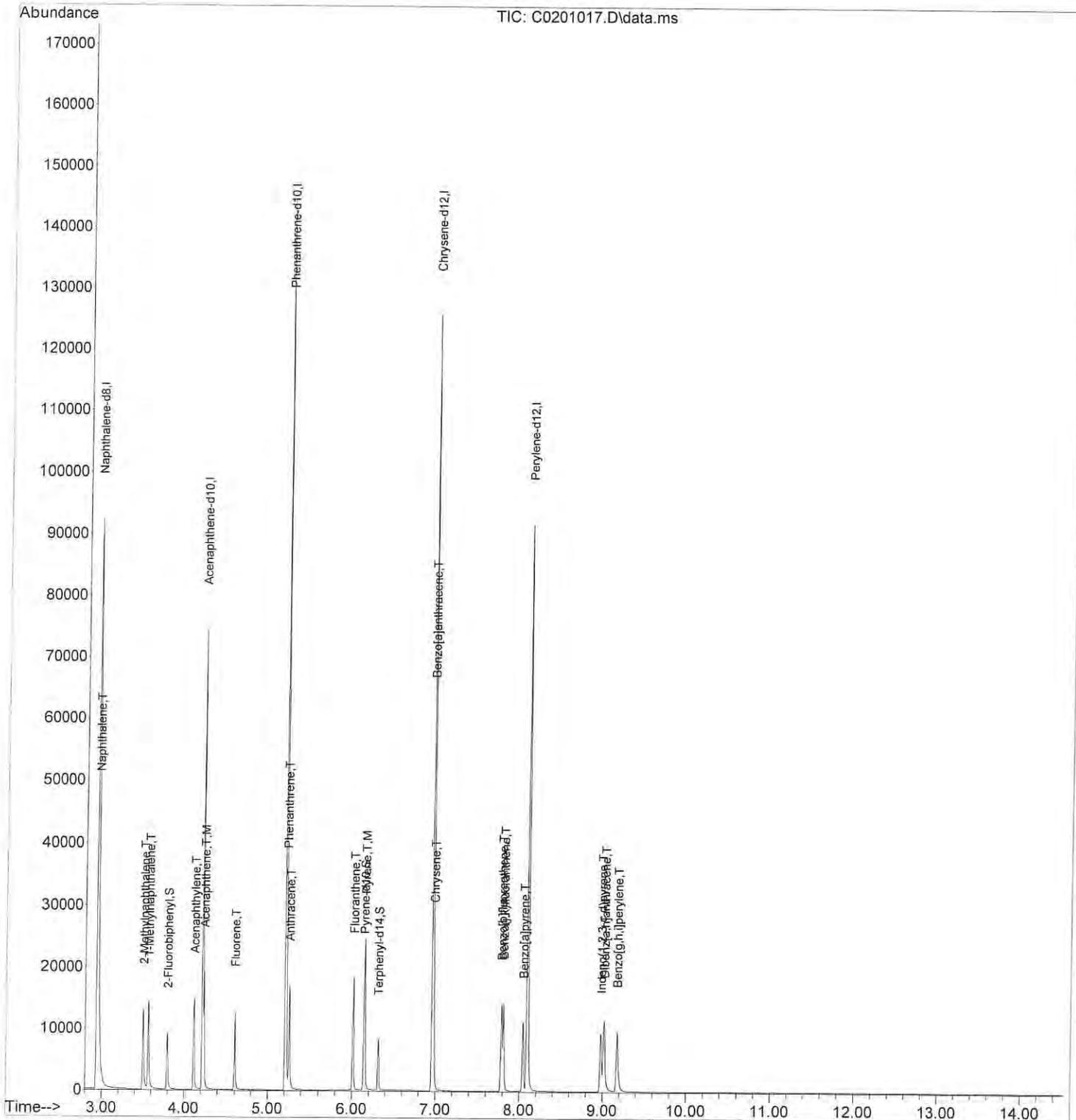
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	2.943	136	117640	2000.00	ppb	0.00	
5) Acenaphthene-d10	4.220	164	55244	2000.00	ppb	0.00	
9) Phenanthrene-d10	5.209	188	106287	2000.00	ppb	0.00	
16) Chrysene-d12	6.961	240	93585	2000.00	ppb	0.00	
20) Perylene-d12	8.093	264	101068	2000.00	ppb	0.00	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	3.799	172	10181	204.28	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	20.43%#			
10) Pyrene-d10	6.139	212	10210	201.88	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	20.19%#			
17) Terphenyl-d14	6.312	244	8540	199.09	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	19.91%#			
Target Compounds							
							Qvalue
2) Naphthalene	2.951	128	15080	194.74	ppb		99
3) 2-Methylnaphthalene	3.503	142	7887	196.83	ppb		98
4) 1-Methylnaphthalene	3.567	142	8716	181.96	ppb		97
7) Acenaphthylene	4.120	152	14023	195.46	ppb		100
8) Acenaphthene	4.236	153	8921	195.02	ppb		100
11) Fluorene	4.598	166	9283	191.54	ppb		100
12) Phenanthrene	5.221	178	13778	189.52	ppb		98
13) Anthracene	5.256	178	13391	188.51	ppb		97
14) Fluoranthene	6.014	202	13655	192.83	ppb		94
15) Pyrene	6.149	202	14375	196.62	ppb		100
18) Benzo[a]anthracene	6.955	228	12399	183.16	ppb		95
19) Chrysene	6.978	228	13010	196.85	ppb		96
21) Benzo[b]fluoranthene	7.786	252	12436	191.55	ppb		89
22) Benzo(j,k)fluoranthene	7.809	252	13683	197.49	ppb		92
23) Benzo[a]pyrene	8.047	252	11025	193.55	ppb		91
24) Indeno(1,2,3-c,d)pyrene	8.982	276	10782	198.00	ppb		87
25) Dibenz[a,h]anthracene	9.020	278	12058	192.76	ppb		91
26) Benzo[g,h,i]perylene	9.175	276	12177	192.38	ppb		86
-----							

UP  
8/23/24

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

Data Path : X:\semivols\Corey\DATA\C240201\  
 Data File : C0201017.D  
 Acq On : 1 Feb 2024 3:38 pm  
 Operator : JP  
 Sample : 200 PPB ICAL  
 Misc : SV6-141-04  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 02 09:45:22 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240201\  
 Data File : C0201018.D  
 Acq On : 1 Feb 2024 3:59 pm  
 Operator : JP  
 Sample : 500 PPB ICAL  
 Misc : SV6-141-03  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 02 09:45:57 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration

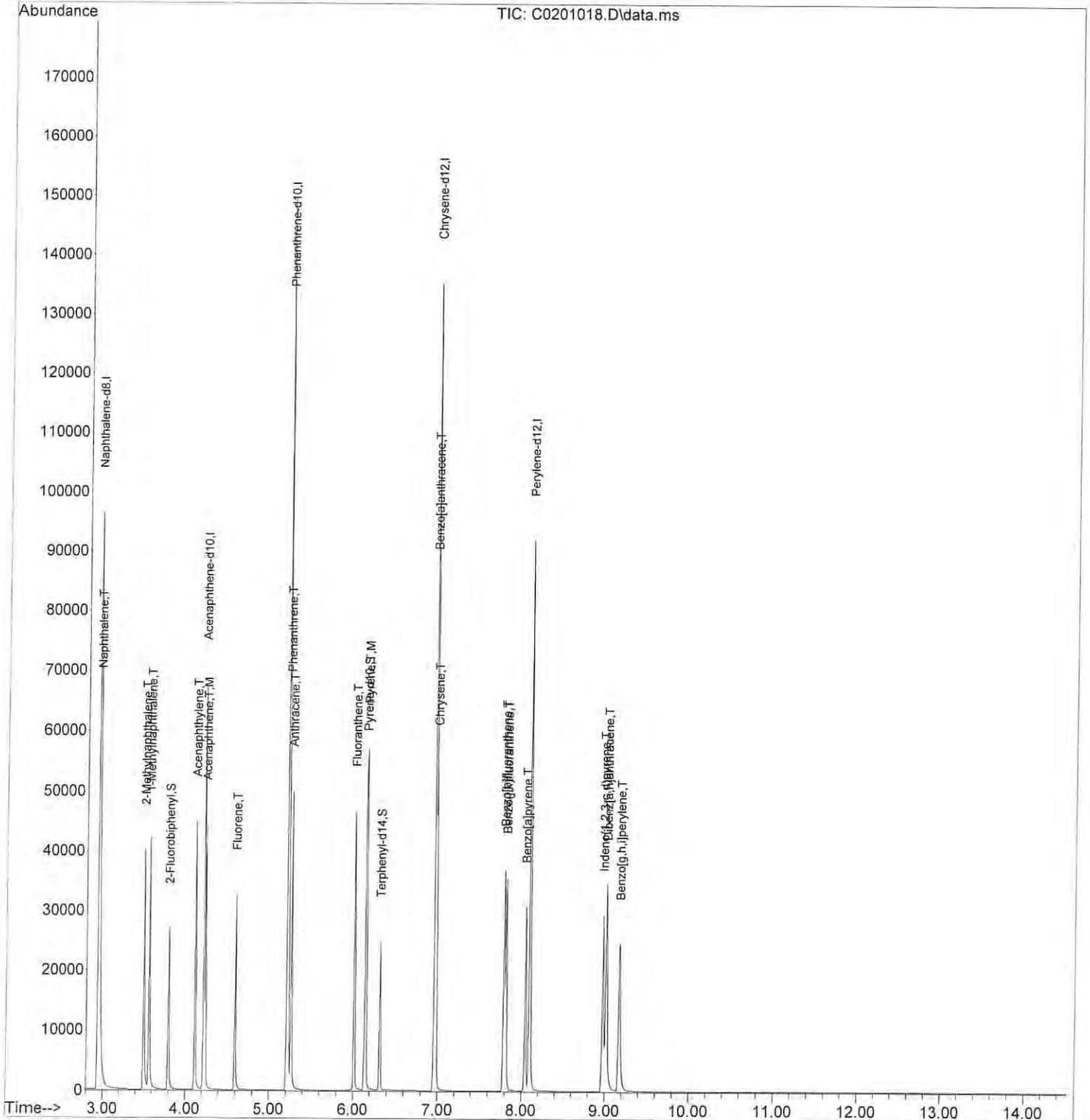
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Naphthalene-d8	2.943	136	113498	2000.00	ppb	0.00
5) Acenaphthene-d10	4.221	164	54985	2000.00	ppb	0.00
9) Phenanthrene-d10	5.210	188	107872	2000.00	ppb	0.00
16) Chrysene-d12	6.960	240	96261	2000.00	ppb	0.00
20) Perylene-d12	8.094	264	103222	2000.00	ppb	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl	3.794	172	25401	512.08	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	51.21%		
10) Pyrene-d10	6.140	212	24399	475.34	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	47.53%		
17) Terphenyl-d14	6.313	244	21621	490.03	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	49.00%		
Target Compounds						
						Qvalue
2) Naphthalene	2.951	128	37670	504.23	ppb	99
3) 2-Methylnaphthalene	3.498	142	20209	522.76	ppb	97
4) 1-Methylnaphthalene	3.561	142	22096	478.11	ppb	98
7) Acenaphthylene	4.113	152	35382	495.49	ppb	100
8) Acenaphthene	4.236	153	22041	484.11	ppb	100
11) Fluorene	4.598	166	23104	469.72	ppb	100
12) Phenanthrene	5.222	178	33998	460.78	ppb	98
13) Anthracene	5.256	178	33642	466.63	ppb	97
14) Fluoranthene	6.006	202	33710	469.05	ppb	91
15) Pyrene	6.150	202	35963	484.68	ppb	99
18) Benzo[a]anthracene	6.954	228	30406	436.69	ppb	96
19) Chrysene	6.978	228	32478	477.75	ppb	99
21) Benzo[b]fluoranthene	7.786	252	33570	506.28	ppb	87
22) Benzo[j,k]fluoranthene	7.810	252	31983	451.98	ppb	93
23) Benzo[a]pyrene	8.042	252	27881	479.25	ppb	89
24) Indeno(1,2,3-c,d)pyrene	8.975	276	27683	497.76	ppb	88
25) Dibenz[a,h]anthracene	9.014	278	31392	491.36	ppb	91
26) Benzo[g,h,i]perylene	9.175	276	31102	481.12	ppb	86
-----						

JP  
8/23/24

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

Data Path : X:\semivols\Corey\DATA\C240201\  
 Data File : C0201018.D  
 Acq On : 1 Feb 2024 3:59 pm  
 Operator : JP  
 Sample : 500 PPB ICAL  
 Misc : SV6-141-03  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 02 09:45:57 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240201\  
 Data File : C0201019.D  
 Acq On : 1 Feb 2024 4:21 pm  
 Operator : JP  
 Sample : 1000 PPB ICAL  
 Misc : SV6-141-02  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 02 09:46:27 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration

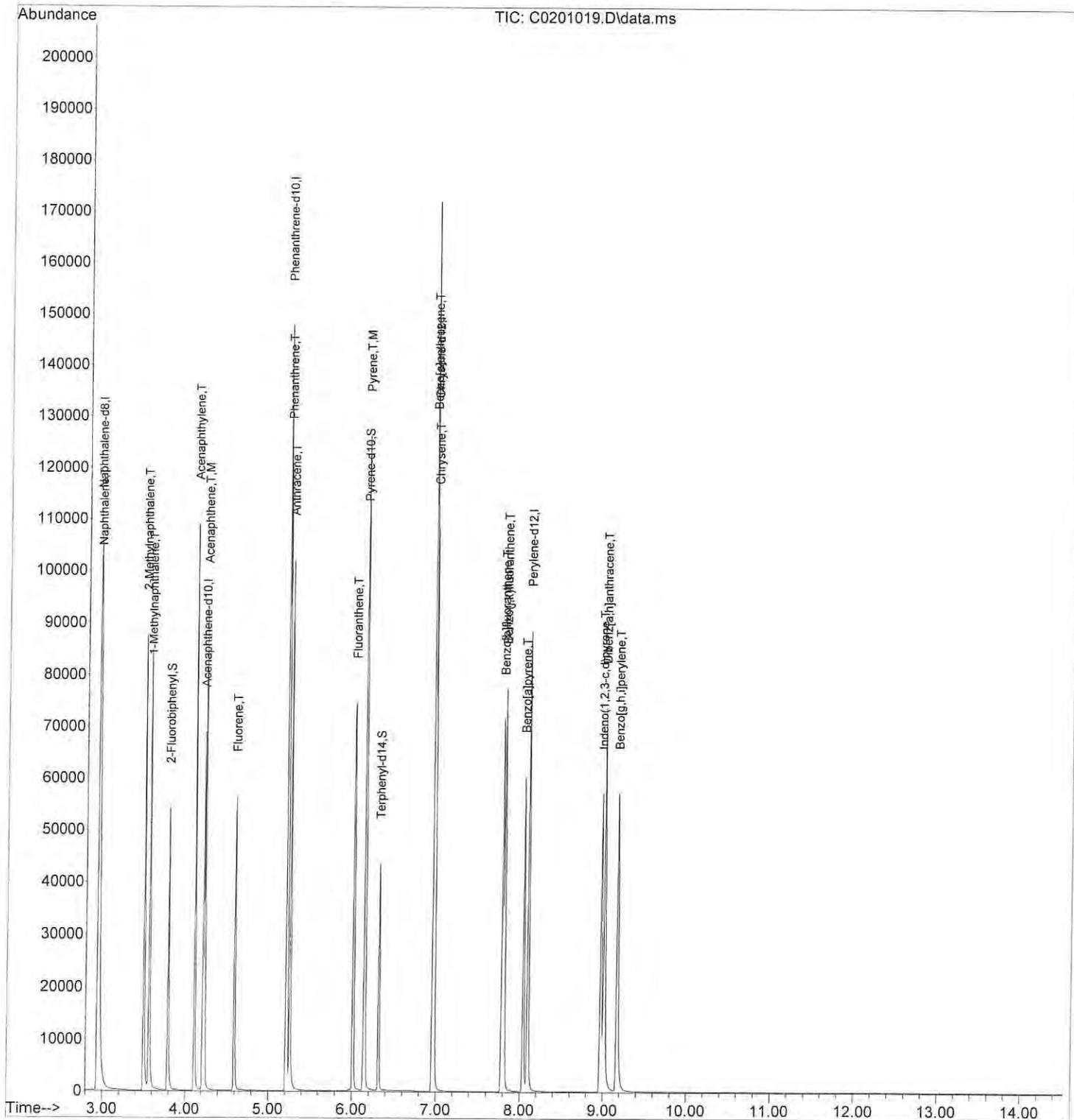
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	2.942	136	118947	2000.00	ppb	0.00	
5) Acenaphthene-d10	4.221	164	56109	2000.00	ppb	0.00	
9) Phenanthrene-d10	5.211	188	107192	2000.00	ppb	0.00	
16) Chrysene-d12	6.966	240	97228	2000.00	ppb	0.00	
20) Perylene-d12	8.099	264	103344	2000.00	ppb	0.00	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	3.792	172	50943	1006.42	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	100.64%	#		
10) Pyrene-d10	6.139	212	49849	977.32	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	97.73%			
17) Terphenyl-d14	6.312	244	42382	951.01	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	95.10%	#		
Target Compounds							
							Qvalue
2) Naphthalene	2.950	128	75132	959.60	ppb		99
3) 2-Methylnaphthalene	3.496	142	40745	1005.69	ppb		96
4) 1-Methylnaphthalene	3.566	142	44022	908.91	ppb		97
7) Acenaphthylene	4.113	152	70243	963.98	ppb		100
8) Acenaphthene	4.237	153	44289	953.28	ppb		100
11) Fluorene	4.599	166	45653	934.05	ppb		100
12) Phenanthrene	5.222	178	66258	903.69	ppb		96
13) Anthracene	5.257	178	68037	949.70	ppb		97
14) Fluoranthene	6.014	202	65967	923.70	ppb		91
15) Pyrene	6.149	202	73003	990.12	ppb		99
18) Benzo[a]anthracene	6.954	228	60954	866.71	ppb		96
19) Chrysene	6.978	228	64982	946.37	ppb		99
21) Benzo[b]fluoranthene	7.785	252	64597	973.06	ppb		87
22) Benzo(j,k)fluoranthene	7.808	252	68818	971.39	ppb		91
23) Benzo[a]pyrene	8.041	252	57319	984.10	ppb		89
24) Indeno(1,2,3-c,d)pyrene	8.975	276	57198	1027.24	ppb		87
25) Dibenz[a,h]anthracene	9.014	278	64002	1000.60	ppb		91
26) Benzo[g,h,i]perylene	9.168	276	63162	975.91	ppb		86
-----							

W  
8/23/24

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

Data Path : X:\semivols\Corey\DATA\C240201\  
 Data File : C0201019.D  
 Acq On : 1 Feb 2024 4:21 pm  
 Operator : JP  
 Sample : 1000 PPB ICAL  
 Misc : SV6-141-02  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 02 09:46:27 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240201\  
 Data File : C0201020.D  
 Acq On : 1 Feb 2024 4:43 pm  
 Operator : JP  
 Sample : 5000 PPB ICAL  
 Misc : SV6-141-01  
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 02 09:47:14 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration

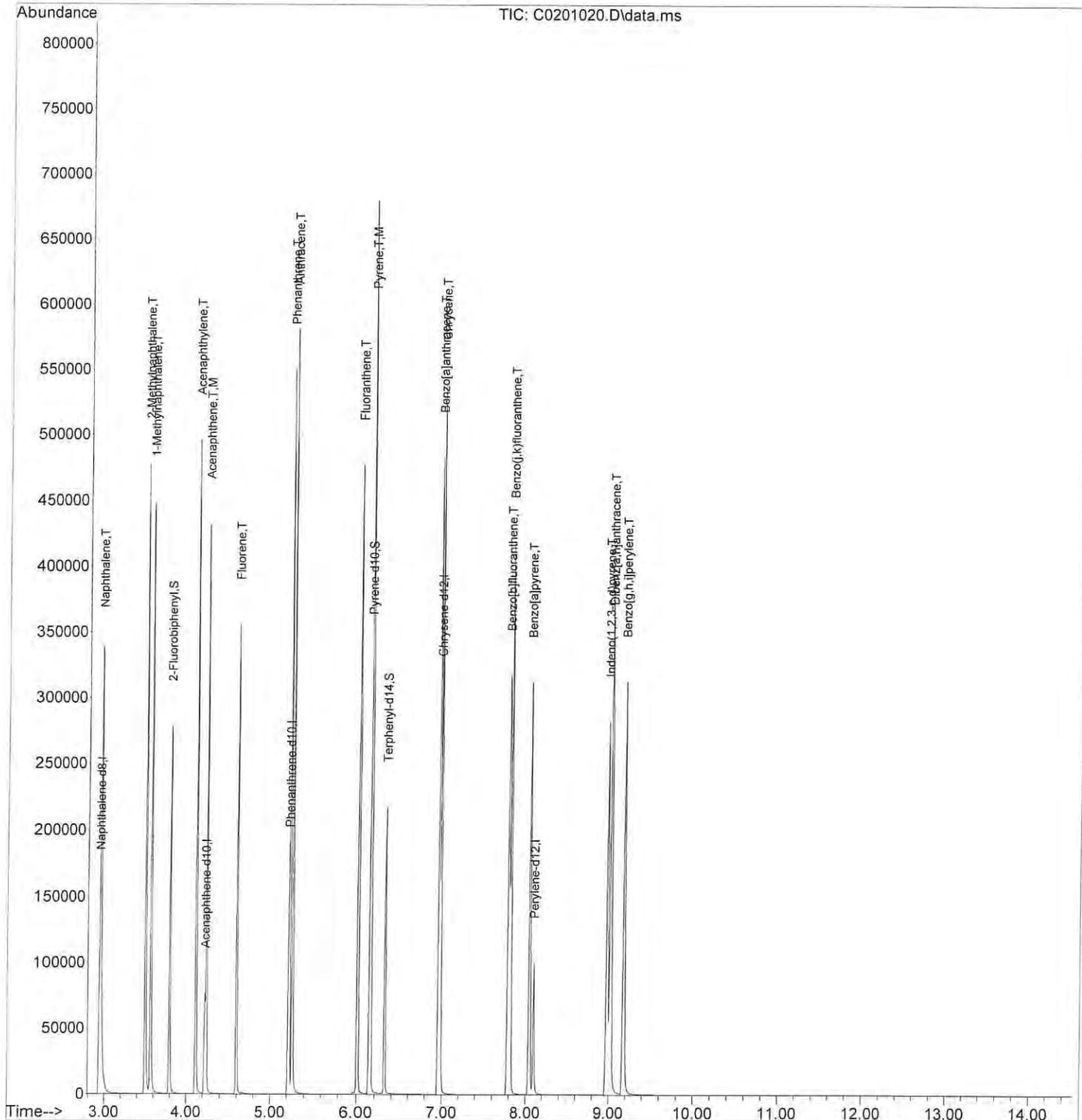
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	2.942	136	118633	2000.00	ppb	0.00	
5) Acenaphthene-d10	4.221	164	59171	2000.00	ppb	0.00	
9) Phenanthrene-d10	5.211	188	109874	2000.00	ppb	0.00	
16) Chrysene-d12	6.966	240	105360	2000.00	ppb	0.00	
20) Perylene-d12	8.099	264	106359	2000.00	ppb	0.00	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	3.792	172	256932	4813.24	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery = 481.32%#				
10) Pyrene-d10	6.139	212	245397	4693.72	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery = 469.37%#				
17) Terphenyl-d14	6.322	244	215315	4458.55	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery = 445.85%#				
Target Compounds							
							Qvalue
2) Naphthalene	2.957	128	374949	4801.57	ppb		98
3) 2-Methylnaphthalene	3.496	142	209491	5184.44	ppb		95
4) 1-Methylnaphthalene	3.566	142	221950	4594.67	ppb		96
7) Acenaphthylene	4.113	152	340418	4429.96	ppb		100
8) Acenaphthene	4.237	153	211579	4318.36	ppb		100
11) Fluorene	4.599	166	237154	4733.67	ppb		100
12) Phenanthrene	5.222	178	320024	4258.26	ppb		93
13) Anthracene	5.257	178	331976	4520.80	ppb		94
14) Fluoranthene	6.014	202	352231	4811.71	ppb		94
15) Pyrene	6.149	202	321754	4257.35	ppb		91
18) Benzo[a]anthracene	6.961	228	321190	4214.51	ppb		97
19) Chrysene	6.984	228	296237	3981.29	ppb		91
21) Benzo[b]fluoranthene	7.791	252	330084	4831.30	ppb		86
22) Benzo[j,k]fluoranthene	7.820	252	346149	4747.49	ppb		88
23) Benzo[a]pyrene	8.047	252	297604	4964.69	ppb		86
24) Indeno[1,2,3-c,d]pyrene	8.983	276	304148	5307.46	ppb		85
25) Dibenz[a,h]anthracene	9.029	278	332212	5046.52	ppb		89
26) Benzo[g,h,i]perylene	9.183	276	323951	4863.46	ppb		84
-----							

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

W  
8/23/24

Data Path : X:\semivols\Corey\DATA\C240201\  
 Data File : C0201020.D  
 Acq On : 1 Feb 2024 4:43 pm  
 Operator : JP  
 Sample : 5000 PPB ICAL  
 Misc : SV6-141-01  
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 02 09:47:14 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\semivols\Coreey\DATA\C240201\  
 Data File : C0201022.D  
 Acq On : 1 Feb 2024 5:27 pm  
 Operator : JP  
 Sample : ICV  
 Misc : SV6-141-09  
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 02 09:50:24 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Naphthalene-d8	2000.000	2000.000	0.0	107	0.34
2 T	Naphthalene	500.000	482.918	3.4	102	0.34
3 T	2-Methylnaphthalene	500.000	527.681	-5.5	108	0.30
4 T	1-Methylnaphthalene	500.000	457.154	8.6	104	0.30
5 I	Acenaphthene-d10	2000.000	2000.000	0.0	104	0.30
6 S	2-Fluorobiphenyl	500.000	509.094	-1.8	103	0.29
7 T	Acenaphthylene	500.000	487.828	2.4	102	0.29
8 T,M	Acenaphthene	500.000	493.588	1.3	106	0.29
9 I	Phenanthrene-d10	2000.000	2000.000	0.0	102	0.30
10 S	Pyrene-d10	500.000	477.367	4.5	102	0.31
11 T	Fluorene	500.000	462.937	7.4	100	0.29
12 T	Phenanthrene	500.000	464.353	7.1	103	0.30
13 T	Anthracene	500.000	461.726	7.7	101	0.30
14 T	Fluoranthene	500.000	467.917	6.4	102	0.30
15 T,M	Pyrene	500.000	490.679	1.9	103	0.32
16 I	Chrysene-d12	2000.000	2000.000	0.0	103	0.31
17 S	Terphenyl-d14	500.000	483.328	3.3	102	0.30
18 T	Benzo[a]anthracene	500.000	447.991	10.4	106	0.31
19 T	Chrysene	500.000	440.753	11.8	95	0.31
20 I	Perylene-d12	2000.000	2000.000	0.0	102	0.43
21 T	Benzo[b]fluoranthene	500.000	469.417	6.1	95	0.40
22 T	Benzo(j,k)fluoranthene	500.000	461.361	7.7	104	0.41
23 T	Benzo[a]pyrene	500.000	489.348	2.1	105	0.43
24 T	Indeno(1,2,3-c,d)pyrene	500.000	507.889	-1.6	104	0.50
25 T	Dibenz[a,h]anthracene	500.000	487.294	2.5	102	0.50
26 T	Benzo[g,h,i]perylene	500.000	488.137	2.4	104	0.51#

(#) = Out of Range

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

Data Path : X:\semivols\Corey\DATA\C240201\  
 Data File : C0201022.D  
 Acq On : 1 Feb 2024 5:27 pm  
 Operator : JP  
 Sample : ICV  
 Misc : SV6-141-09  
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 02 09:50:24 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 02 08:38:55 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
<b>Internal Standards</b>						
1) Naphthalene-d8	2.937	136	121296	2000.00	ppb	0.00
5) Acenaphthene-d10	4.221	164	56914	2000.00	ppb	0.00
9) Phenanthrene-d10	5.210	188	109884	2000.00	ppb	0.00
16) Chrysene-d12	6.966	240	99464	2000.00	ppb	0.00
20) Perylene-d12	8.095	264	105661	2000.00	ppb	0.00
<b>System Monitoring Compounds</b>						
6) 2-Fluorobiphenyl	3.794	172	26139	509.09	ppb	0.00
Spiked Amount 1000.000	Range 25	- 89	Recovery =	50.91%		
10) Pyrene-d10	6.140	212	24960	477.37	ppb	0.00
Spiked Amount 1000.000	Range 40	- 110	Recovery =	47.74%		
17) Terphenyl-d14	6.313	244	22035	483.33	ppb	0.00
Spiked Amount 1000.000	Range 39	- 92	Recovery =	48.33%		
<b>Target Compounds</b>						
						Qvalue
2) Naphthalene	2.952	128	38557	482.92	ppb	99
3) 2-Methylnaphthalene	3.498	142	21801	527.68	ppb	97
4) 1-Methylnaphthalene	3.561	142	22579	457.15	ppb	97
7) Acenaphthylene	4.114	152	36057	487.83	ppb	100
8) Acenaphthene	4.237	153	23261	493.59	ppb	100
11) Fluorene	4.599	166	23195	462.94	ppb	100
12) Phenanthrene	5.222	178	34901	464.35	ppb	97
13) Anthracene	5.257	178	33909	461.73	ppb	97
14) Fluoranthene	6.006	202	34256	467.92	ppb	91
15) Pyrene	6.150	202	37087	490.68	ppb	99
18) Benzo[a]anthracene	6.954	228	32231	447.99	ppb	96
19) Chrysene	6.977	228	30960	440.75	ppb	99
21) Benzo[b]fluoranthene	7.787	252	31861	469.42	ppb	88
22) Benzo[j,k]fluoranthene	7.810	252	33418	461.36	ppb	91
23) Benzo[a]pyrene	8.042	252	29141	489.35	ppb	89
24) Indeno(1,2,3-c,d)pyrene	8.975	276	28914	507.89	ppb	88
25) Dibenz[a,h]anthracene	9.014	278	31868	487.29	ppb	92
26) Benzo[g,h,i]perylene	9.168	276	32301	488.14	ppb	85

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

Evaluate Continuing Calibration Report

Data Path : X:\semivols\Corey\DATA\C240216\  
 Data File : C0216005.D  
 Acq On : 16 Feb 2024 12:23 pm  
 Operator : JP  
 Sample : PAH CCV0216-4  
 Misc : SV6-142-20  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 16 12:41:23 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Naphthalene-d8	2000.000	2000.000	0.0	97	-0.09
2 T	Naphthalene	500.000	480.382	3.9	92	-0.09
3 T	2-Methylnaphthalene	500.000	490.419	1.9	91	-0.09
4 T	1-Methylnaphthalene	500.000	449.953	10.0	92	-0.09
5 I	Acenaphthene-d10	2000.000	2000.000	0.0	94	-0.08
6 S	2-Fluorobiphenyl	500.000	516.976	-3.4	94	-0.08
7 T	Acenaphthylene	500.000	497.345	0.5	94	-0.09
8 T,M	Acenaphthene	500.000	481.249	3.8	93	-0.09
9 I	Phenanthrene-d10	2000.000	2000.000	0.0	93	-0.08
10 S	Pyrene-d10	500.000	472.359	5.5	92	-0.10
11 T	Fluorene	500.000	474.455	5.1	94	-0.08
12 T	Phenanthrene	500.000	455.880	8.8	92	-0.08
13 T	Anthracene	500.000	463.950	7.2	92	-0.08
14 T	Fluoranthene	500.000	474.405	5.1	94	-0.09
15 T,M	Pyrene	500.000	479.140	4.2	92	-0.10
16 I	Chrysene-d12	2000.000	2000.000	0.0	90	-0.14
17 S	Terphenyl-d14	500.000	501.088	-0.2	92	-0.10
18 T	Benzo[a]anthracene	500.000	475.184	5.0	98	-0.14
19 T	Chrysene	500.000	469.656	6.1	89	-0.14
20 I	Perylene-d12	2000.000	2000.000	0.0	88	-0.17
21 T	Benzo[b]fluoranthene	500.000	498.820	0.2	87	-0.17
22 T	Benzo(j,k)fluoranthene	500.000	505.038	-1.0	98	-0.17
23 T	Benzo[a]pyrene	500.000	517.796	-3.6	95	-0.17
24 T	Indeno(1,2,3-c,d)pyrene	500.000	546.519	-9.3	97	-0.18
25 T	Dibenz[a,h]anthracene	500.000	513.273	-2.7	92	-0.18
26 T	Benzo[g,h,i]perylene	500.000	510.645	-2.1	93	-0.19

(#) = Out of Range

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

Data Path : X:\semivols\Corey\DATA\C240216\  
 Data File : C0216005.D  
 Acq On : 16 Feb 2024 12:23 pm  
 Operator : JP  
 Sample : PAH CCV0216-4  
 Misc : SV6-142-20  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 16 12:41:23 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

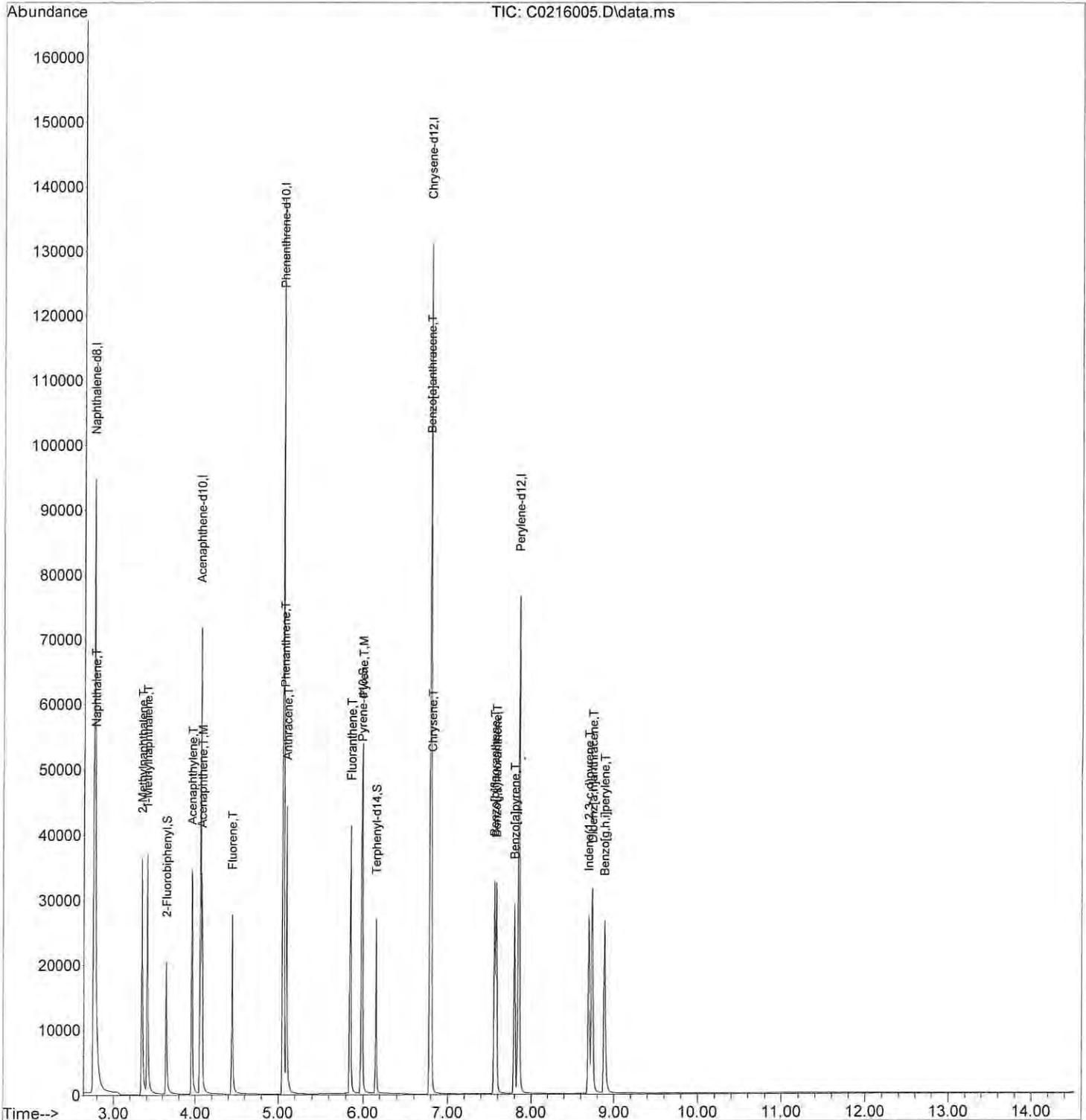
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	2.762	136	109685	2000.00	ppb	-0.09	
5) Acenaphthene-d10	4.064	164	51417	2000.00	ppb	-0.08	
9) Phenanthrene-d10	5.051	188	100269	2000.00	ppb	-0.08	
16) Chrysene-d12	6.787	240	86900	2000.00	ppb	-0.14	
20) Perylene-d12	7.849	264	90813	2000.00	ppb	-0.17	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	3.646	172	23980	516.98	ppb	-0.08	
Spiked Amount	1000.000	Range	25 - 89	Recovery	=	51.70%	
10) Pyrene-d10	5.973	212	22537	472.36	ppb	-0.10	
Spiked Amount	1000.000	Range	40 - 110	Recovery	=	47.24%	
17) Terphenyl-d14	6.156	244	19959	501.09	ppb	-0.10	
Spiked Amount	1000.000	Range	39 - 92	Recovery	=	50.11%	
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	2.777	128	34683	480.38	ppb		99
3) 2-Methylnaphthalene	3.339	142	18322	490.42	ppb		96
4) 1-Methylnaphthalene	3.403	142	20096	449.95	ppb		94
7) Acenaphthylene	3.956	152	33210	497.35	ppb		100
8) Acenaphthene	4.079	153	20489	481.25	ppb		100
11) Fluorene	4.441	166	21692	474.45	ppb		100
12) Phenanthrene	5.063	178	31266	455.88	ppb		98
13) Anthracene	5.098	178	31091	463.95	ppb		97
14) Fluoranthene	5.848	202	31692	474.41	ppb		91
15) Pyrene	5.983	202	33046	479.14	ppb		99
18) Benzo[a]anthracene	6.781	228	29869	475.18	ppb		94
19) Chrysene	6.805	228	28823	469.66	ppb		97
21) Benzo[b]fluoranthene	7.552	252	29099	498.82	ppb		87
22) Benzo(j,k)fluoranthene	7.576	252	31441m	505.04	ppb		
23) Benzo[a]pyrene	7.796	252	26502	517.80	ppb		88
24) Indeno(1,2,3-c,d)pyrene	8.692	276	26741m	546.52	ppb		
25) Dibenz[a,h]anthracene	8.738	278	28850	513.27	ppb		89
26) Benzo[g,h,i]perylene	8.884	276	29042	510.64	ppb		84

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

*UP 2/26/24*

Data Path : X:\semivols\Corey\DATA\C240216\  
 Data File : C0216005.D  
 Acq On : 16 Feb 2024 12:23 pm  
 Operator : JP  
 Sample : PAH CCV0216-4  
 Misc : SV6-142-20  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 16 12:41:23 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\semivols\Corey\DATA\C240220\  
 Data File : C0220001.D  
 Acq On : 20 Feb 2024 10:22 am  
 Operator : JP  
 Sample : PAH CCV0220-1  
 Misc : SV6-142-21  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 20 10:56:44 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Naphthalene-d8	2000.000	2000.000	0.0	102	-0.10
2 T	Naphthalene	500.000	546.513	-9.3	110	-0.10
3 T	2-Methylnaphthalene	500.000	492.681	1.5	96	-0.09
4 T	1-Methylnaphthalene	500.000	442.389	11.5	96	-0.09
5 I	Acenaphthene-d10	2000.000	2000.000	0.0	95	-0.08
6 S	2-Fluorobiphenyl	500.000	485.108	3.0	90	-0.08
7 T	Acenaphthylene	500.000	500.726	-0.1	96	-0.08
8 T,M	Acenaphthene	500.000	484.275	3.1	95	-0.08
9 I	Phenanthrene-d10	2000.000	2000.000	0.0	96	-0.08
10 S	Pyrene-d10	500.000	489.928	2.0	99	-0.10
11 T	Fluorene	500.000	470.961	5.8	96	-0.08
12 T	Phenanthrene	500.000	458.379	8.3	96	-0.08
13 T	Anthracene	500.000	472.283	5.5	97	-0.08
14 T	Fluoranthene	500.000	488.271	2.3	100	-0.09
15 T,M	Pyrene	500.000	479.171	4.2	95	-0.10
16 I	Chrysene-d12	2000.000	2000.000	0.0	92	-0.13
17 S	Terphenyl-d14	500.000	510.323	-2.1	96	-0.10
18 T	Benzo[a]anthracene	500.000	462.059	7.6	97	-0.13
19 T	Chrysene	500.000	473.929	5.2	91	-0.13
20 I	Perylene-d12	2000.000	2000.000	0.0	92	-0.16
21 T	Benzo[b]fluoranthene	500.000	490.100	2.0	89	-0.15
22 T	Benzo(j,k)fluoranthene	500.000	492.961	1.4	100	-0.15
23 T	Benzo[a]pyrene	500.000	504.988	-1.0	97	-0.16
24 T	Indeno(1,2,3-c,d)pyrene	500.000	516.133	-3.2	95	-0.18
25 T	Dibenz[a,h]anthracene	500.000	462.020	7.6	86	-0.18
26 T	Benzo[g,h,i]perylene	500.000	494.042	1.2	94	-0.18

(#) = Out of Range

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

Data Path : X:\semivols\Corey\DATA\C240220\  
 Data File : C0220001.D  
 Acq On : 20 Feb 2024 10:22 am  
 Operator : JP  
 Sample : PAH CCV0220-1  
 Misc : SV6-142-21  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 20 10:56:44 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

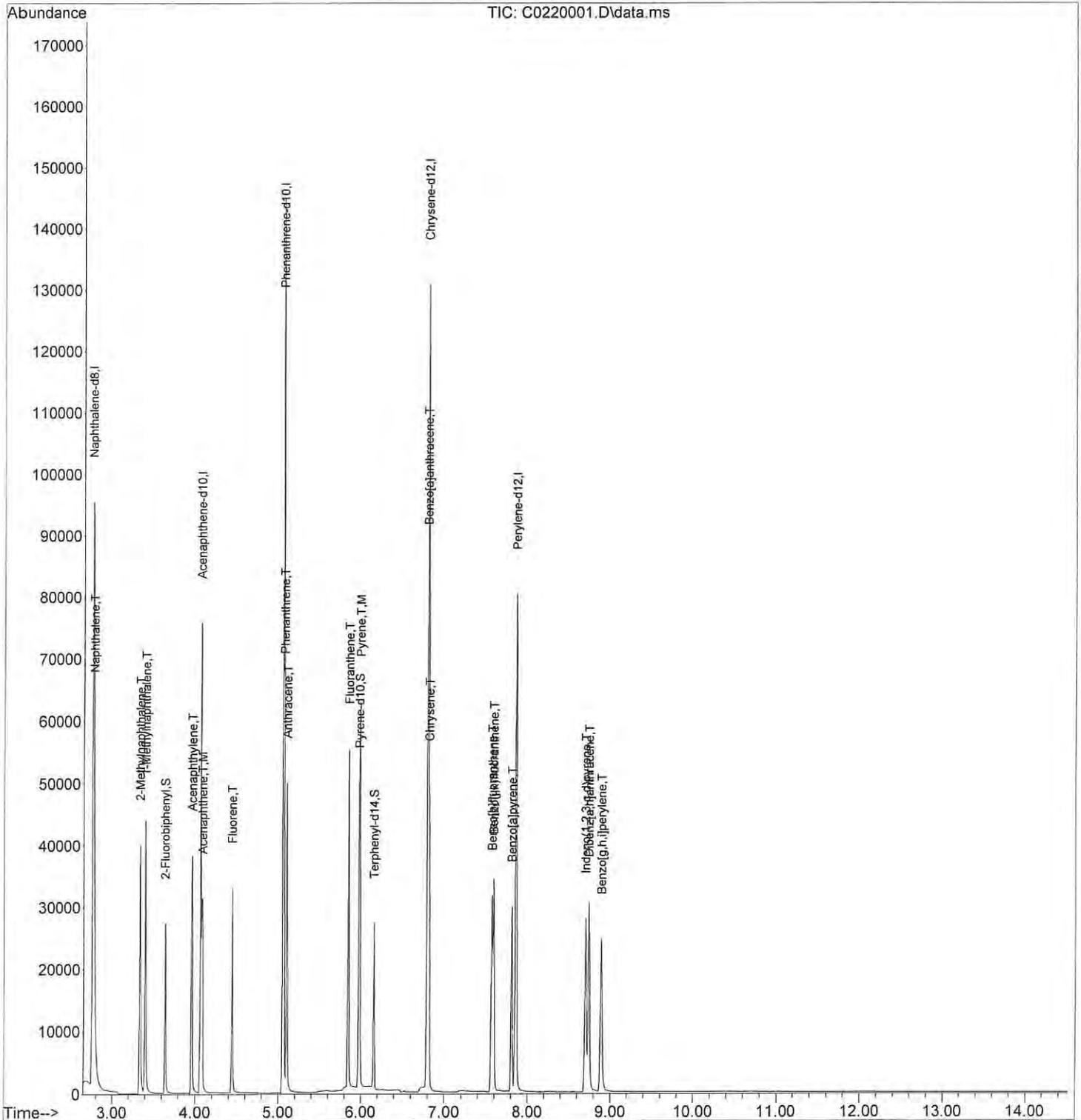
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	2.756	136	115635	2000.00	ppb	-0.10	
5) Acenaphthene-d10	4.062	164	52400	2000.00	ppb	-0.08	
9) Phenanthrene-d10	5.050	188	103588	2000.00	ppb	-0.08	
16) Chrysene-d12	6.799	240	88444	2000.00	ppb	-0.13	
20) Perylene-d12	7.855	264	94757	2000.00	ppb	-0.16	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	3.641	172	22932	485.11	ppb	-0.08	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	48.51%			
10) Pyrene-d10	5.973	212	24149	489.93	ppb	-0.10	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	48.99%			
17) Terphenyl-d14	6.156	244	20688	510.32	ppb	-0.10	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	51.03%			
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	2.771	128	41598	546.51	ppb		99
3) 2-Methylnaphthalene	3.339	142	19405	492.68	ppb		95
4) 1-Methylnaphthalene	3.403	142	20830	442.39	ppb		96
7) Acenaphthylene	3.962	152	34075	500.73	ppb		100
8) Acenaphthene	4.085	153	21012	484.27	ppb		100
11) Fluorene	4.440	166	22245	470.96	ppb		100
12) Phenanthrene	5.062	178	32478	458.38	ppb		97
13) Anthracene	5.097	178	32697	472.28	ppb		98
14) Fluoranthene	5.848	202	33698	488.27	ppb		94
15) Pyrene	5.983	202	34142	479.17	ppb		97
18) Benzo[a]anthracene	6.793	228	29560	462.06	ppb		95
19) Chrysene	6.816	228	29602	473.93	ppb		100
21) Benzo[b]fluoranthene	7.570	252	29832	490.10	ppb		87
22) Benzo(j,k)fluoranthene	7.588	252	32022m	492.96	ppb		
23) Benzo[a]pyrene	7.808	252	26969	504.99	ppb		89
24) Indeno(1,2,3-c,d)pyrene	8.700	276	26351	516.13	ppb		85
25) Dibenz[a,h]anthracene	8.738	278	27097	462.02	ppb		89
26) Benzo[g,h,i]perylene	8.893	276	29318	494.04	ppb		85

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

*JP*  
*2/26/24*

Data Path : X:\semivols\Corey\DATA\C240220\  
 Data File : C0220001.D  
 Acq On : 20 Feb 2024 10:22 am  
 Operator : JP  
 Sample : PAH CCV0220-1  
 Misc : SV6-142-21  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 20 10:56:44 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\semivols\Corey\DATA\C240221\  
 Data File : C0221006.D  
 Acq On : 21 Feb 2024 11:50 am  
 Operator : JP  
 Sample : PAH CCV0221-3  
 Misc : SV6-142-23  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 21 12:04:36 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Naphthalene-d8	2000.000	2000.000	0.0	101	-0.09
2 T	Naphthalene	500.000	460.388	7.9	92	-0.10
3 T	2-Methylnaphthalene	500.000	457.375	8.5	88	-0.09
4 T	1-Methylnaphthalene	500.000	435.308	12.9	93	-0.09
5 I	Acenaphthene-d10	2000.000	2000.000	0.0	97	-0.08
6 S	2-Fluorobiphenyl	500.000	486.897	2.6	92	-0.08
7 T	Acenaphthylene	500.000	470.350	5.9	92	-0.08
8 T,M	Acenaphthene	500.000	454.573	9.1	91	-0.09
9 I	Phenanthrene-d10	2000.000	2000.000	0.0	97	-0.08
10 S	Pyrene-d10	500.000	456.877	8.6	93	-0.10
11 T	Fluorene	500.000	450.898	9.8	93	-0.08
12 T	Phenanthrene	500.000	423.510	15.3	89	-0.08
13 T	Anthracene	500.000	438.245	12.4	91	-0.08
14 T	Fluoranthene	500.000	441.284	11.7	91	-0.09
15 T,M	Pyrene	500.000	454.752	9.0	91	-0.10
16 I	Chrysene-d12	2000.000	2000.000	0.0	95	-0.14
17 S	Terphenyl-d14	500.000	485.493	2.9	94	-0.10
18 T	Benzo[a]anthracene	500.000	445.069	11.0	97	-0.14
19 T	Chrysene	500.000	439.176	12.2	87	-0.14
20 I	Perylene-d12	2000.000	2000.000	0.0	95	-0.18
21 T	Benzo[b]fluoranthene	500.000	459.690	8.1	86	-0.17
22 T	Benzo(j,k)fluoranthene	500.000	463.147	7.4	97	-0.16
23 T	Benzo[a]pyrene	500.000	464.659	7.1	92	-0.17
24 T	Indeno(1,2,3-c,d)pyrene	500.000	480.859	3.8	92	-0.18
25 T	Dibenz[a,h]anthracene	500.000	466.006	6.8	90	-0.18
26 T	Benzo[g,h,i]perylene	500.000	462.625	7.5	91	-0.19

(#) = Out of Range

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

Data Path : X:\semivols\Corey\DATA\C240221\  
 Data File : C0221006.D  
 Acq On : 21 Feb 2024 11:50 am  
 Operator : JP  
 Sample : PAH CCV0221-3  
 Misc : SV6-142-23  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 21 12:04:36 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

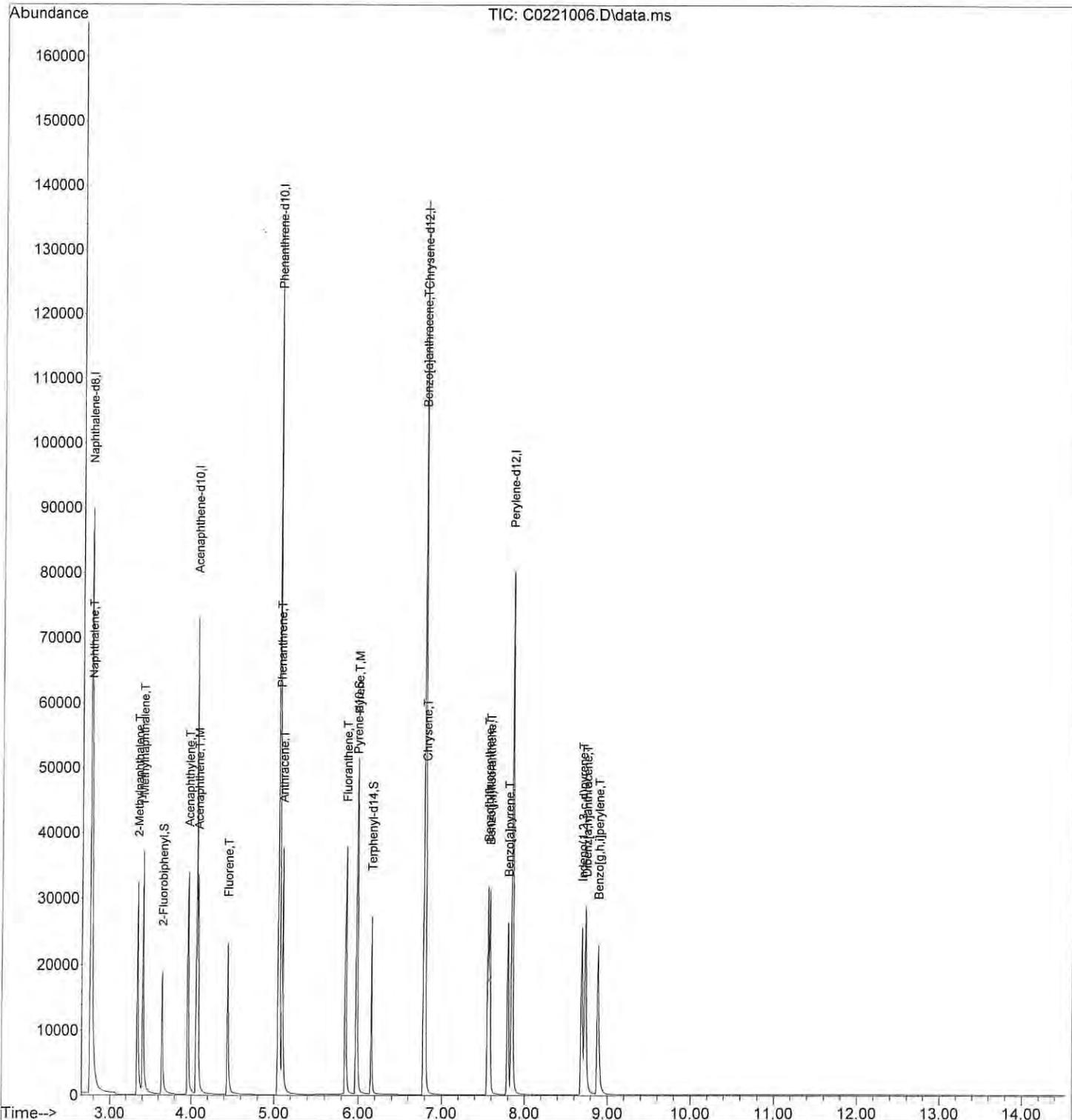
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	2.762	136	114554	2000.00	ppb	-0.09	
5) Acenaphthene-d10	4.062	164	53430	2000.00	ppb	-0.08	
9) Phenanthrene-d10	5.051	188	104812	2000.00	ppb	-0.08	
16) Chrysene-d12	6.788	240	91435	2000.00	ppb	-0.14	
20) Perylene-d12	7.844	264	97937	2000.00	ppb	-0.18	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	3.647	172	23469	486.90	ppb	-0.08	
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	48.69%		
10) Pyrene-d10	5.973	212	22786	456.88	ppb	-0.10	
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	45.69%		
17) Terphenyl-d14	6.156	244	20347	485.49	ppb	-0.10	
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	48.55%		
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	2.770	128	34715	460.39	ppb		98
3) 2-Methylnaphthalene	3.339	142	17846	457.38	ppb		96
4) 1-Methylnaphthalene	3.403	142	20305	435.31	ppb		95
7) Acenaphthylene	3.962	152	32637	470.35	ppb		100
8) Acenaphthene	4.078	153	20111	454.57	ppb		100
11) Fluorene	4.440	166	21549	450.90	ppb		100
12) Phenanthrene	5.063	178	30362	423.51	ppb		98
13) Anthracene	5.097	178	30699	438.24	ppb		97
14) Fluoranthene	5.848	202	30815	441.28	ppb		92
15) Pyrene	5.983	202	32785	454.75	ppb		99
18) Benzo[a]anthracene	6.782	228	29436	445.07	ppb		99
19) Chrysene	6.806	228	28359	439.18	ppb		95
21) Benzo[b]fluoranthene	7.553	252	28920	459.69	ppb		86
22) Benzo[j,k]fluoranthene	7.576	252	31095	463.15	ppb		91
23) Benzo[a]pyrene	7.797	252	25648	464.66	ppb		88
24) Indeno[1,2,3-c,d]pyrene	8.692	276	25374	480.86	ppb		87
25) Dibenz[a,h]anthracene	8.738	278	28248	466.01	ppb		90
26) Benzo[g,h,i]perylene	8.885	276	28375	462.63	ppb		84

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

UP  
2/26/24

Data Path : X:\semivols\Corey\DATA\C240221\  
 Data File : C0221006.D  
 Acq On : 21 Feb 2024 11:50 am  
 Operator : JP  
 Sample : PAH CCV0221-3  
 Misc : SV6-142-23  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 21 12:04:36 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\semivols\Corey\DATA\C240222\  
 Data File : C0222001.D  
 Acq On : 22 Feb 2024 9:22 am  
 Operator : JP  
 Sample : PAH CCV0222-1  
 Misc : SV6-142-24  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 22 09:40:26 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound		Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Naphthalene-d8	2000.000	2000.000	0.0	97	-0.10
2 T	Naphthalene	500.000	491.216	1.8	94	-0.10
3 T	2-Methylnaphthalene	500.000	439.049	12.2	81	-0.09
4 T	1-Methylnaphthalene	500.000	444.083	11.2	91	-0.09
5 I	Acenaphthene-d10	2000.000	2000.000	0.0	97	-0.08
6 S	2-Fluorobiphenyl	500.000	489.199	2.2	92	-0.08
7 T	Acenaphthylene	500.000	472.434	5.5	92	-0.09
8 T,M	Acenaphthene	500.000	461.201	7.8	92	-0.09
9 I	Phenanthrene-d10	2000.000	2000.000	0.0	94	-0.09
10 S	Pyrene-d10	500.000	469.847	6.0	93	-0.10
11 T	Fluorene	500.000	453.602	9.3	91	-0.08
12 T	Phenanthrene	500.000	417.927	16.4	86	-0.09
13 T	Anthracene	500.000	450.782	9.8	91	-0.09
14 T	Fluoranthene	500.000	461.730	7.7	93	-0.09
15 T,M	Pyrene	500.000	461.051	7.8	90	-0.10
16 I	Chrysene-d12	2000.000	2000.000	0.0	95	-0.12
17 S	Terphenyl-d14	500.000	496.447	0.7	96	-0.10
18 T	Benzo[a]anthracene	500.000	430.653	13.9	94	-0.13
19 T	Chrysene	500.000	463.991	7.2	92	-0.12
20 I	Perylene-d12	2000.000	2000.000	0.0	94	-0.16
21 T	Benzo[b]fluoranthene	500.000	456.457	8.7	84	-0.15
22 T	Benzo(j,k)fluoranthene	500.000	477.739	4.5	99	-0.15
23 T	Benzo[a]pyrene	500.000	484.572	3.1	95	-0.15
24 T	Indeno(1,2,3-c,d)pyrene	500.000	511.991	-2.4	96	-0.17
25 T	Dibenz[a,h]anthracene	500.000	463.386	7.3	88	-0.18
26 T	Benzo[g,h,i]perylene	500.000	466.757	6.6	91	-0.18

(#) = Out of Range

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

Data Path : X:\semivols\Corey\DATA\C240222\  
 Data File : C0222001.D  
 Acq On : 22 Feb 2024 9:22 am  
 Operator : JP  
 Sample : PAH CCV0222-1  
 Misc : SV6-142-24  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 22 09:40:26 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration

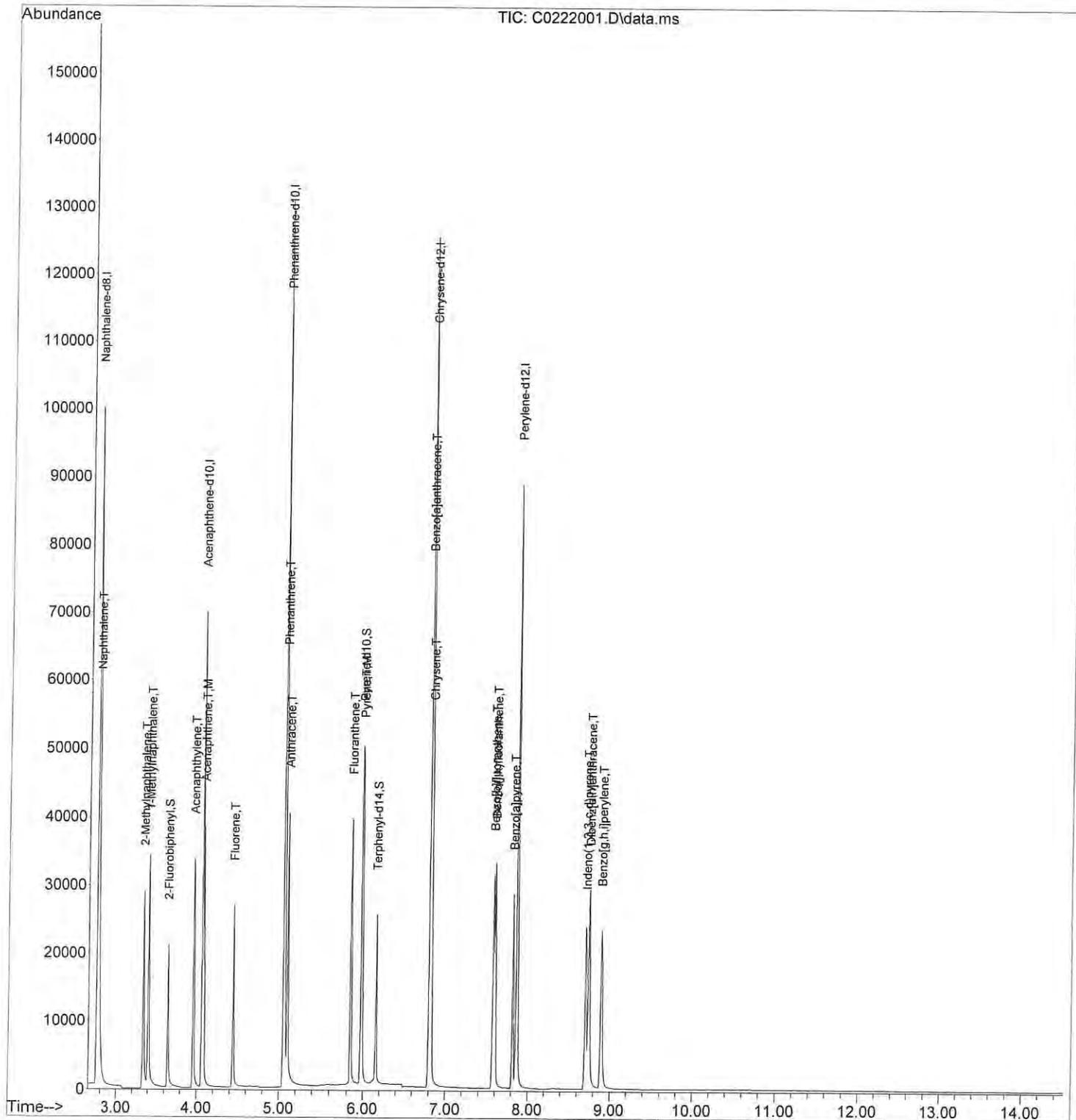
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	2.756	136	109907	2000.00	ppb	-0.10	
5) Acenaphthene-d10	4.062	164	53165	2000.00	ppb	-0.08	
9) Phenanthrene-d10	5.050	188	101731	2000.00	ppb	-0.09	
16) Chrysene-d12	6.810	240	91382	2000.00	ppb	-0.12	
20) Perylene-d12	7.861	264	96622	2000.00	ppb	-0.16	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	3.641	172	23463	489.20	ppb	-0.08	
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	48.92%		
10) Pyrene-d10	5.973	212	22744	469.85	ppb	-0.10	
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	46.99%		
17) Terphenyl-d14	6.156	244	20794	496.45	ppb	-0.10	
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	49.65%		
<b>Target Compounds</b>							
							<b>Qvalue</b>
2) Naphthalene	2.771	128	35537	491.22	ppb		99
3) 2-Methylnaphthalene	3.339	142	16436	439.05	ppb		97
4) 1-Methylnaphthalene	3.403	142	19874	444.08	ppb		97
7) Acenaphthylene	3.954	152	32619	472.43	ppb		100
8) Acenaphthene	4.078	153	20303	461.20	ppb		100
11) Fluorene	4.440	166	21041	453.60	ppb		100
12) Phenanthrene	5.062	178	29081	417.93	ppb		97
13) Anthracene	5.096	178	30649	450.78	ppb		98
14) Fluoranthene	5.849	202	31295	461.73	ppb		91
15) Pyrene	5.983	202	32262	461.05	ppb		96
18) Benzo[a]anthracene	6.799	228	28466	430.65	ppb		94
19) Chrysene	6.822	228	29944	463.99	ppb		100
21) Benzo[b]fluoranthene	7.576	252	28331	456.46	ppb		86
22) Benzo[j,k]fluoranthene	7.593	252	31644m	477.74	ppb		
23) Benzo[a]pyrene	7.814	252	26388	484.57	ppb		89
24) Indeno(1,2,3-c,d)pyrene	8.707	276	26654	511.99	ppb		87
25) Dibenz[a,h]anthracene	8.746	278	27712	463.39	ppb		89
26) Benzo[g,h,i]perylene	8.893	276	28244	466.76	ppb		83

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

UP  
2/26/24

Data Path : X:\semivols\Corey\DATA\C240222\  
 Data File : C0222001.D  
 Acq On : 22 Feb 2024 9:22 am  
 Operator : JP  
 Sample : PAH CCV0222-1  
 Misc : SV6-142-24  
 ALS Vial : 1 Sample Multiplier: 1

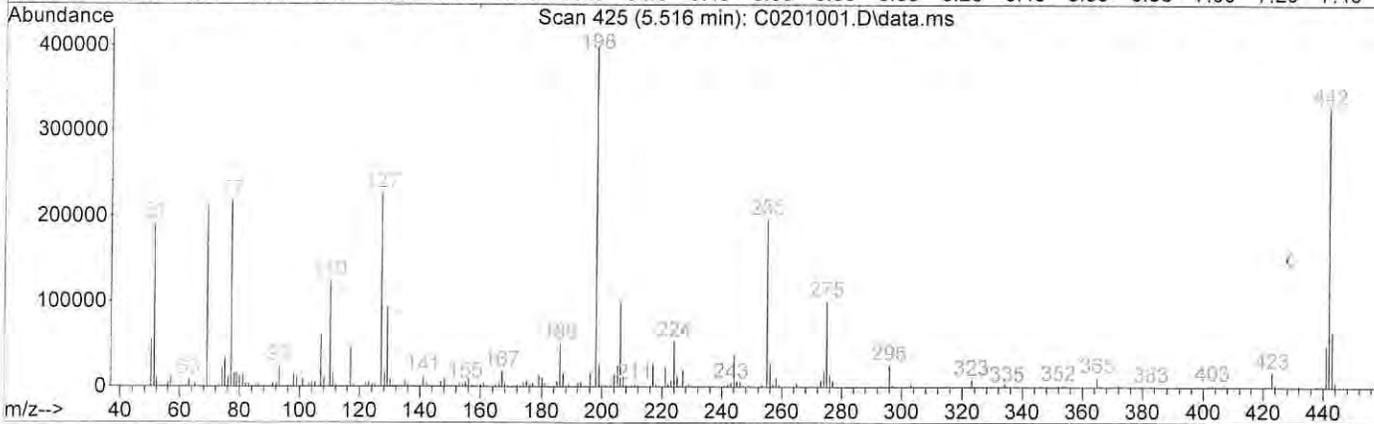
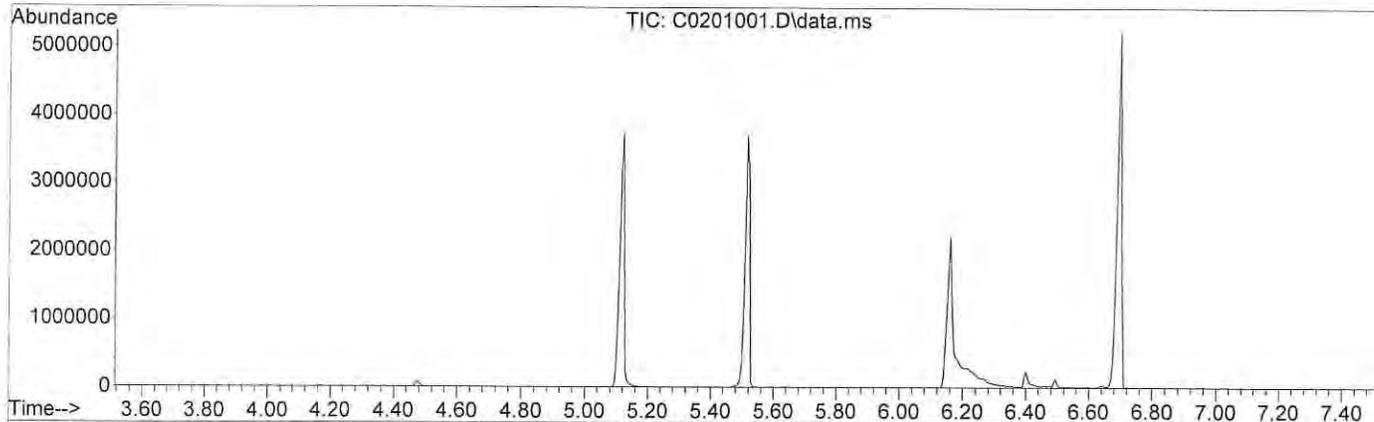
Quant Time: Feb 22 09:40:26 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Fri Feb 09 10:28:25 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240201\  
 Data File : C0201001.D  
 Acq On : 1 Feb 2024 9:16 am  
 Operator : JP  
 Sample : DFTPP  
 Misc : SV6-139-31  
 ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\CS240201.M  
 Title : PAH'S BY SIMS  
 Last Update : Wed Mar 06 08:56:36 2024



Spectrum Information: Scan 425

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	47.8	190912	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	53.5	213824	PASS
70	69	0.00	2	0.4	924	PASS
127	198	10	80	56.7	226496	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	399744	PASS
199	198	5	9	6.5	25896	PASS
275	198	10	60	25.1	100512	PASS
365	198	0.10	100	2.8	11338	PASS
441	443	0.01	100	76.7	49456	PASS
442	198	40	110	82.0	327744	PASS
443	442	15	24	19.7	64480	PASS

GC/MS QA-QC Check Report

Tune File : X:\semivols\Corey\DATA\C240201\C0201022.D

Tune Time : 1 Feb 2024 5:27 pm

Daily Calibration File : X:\semivols\Corey\DATA\C240201\C0201022.D

(PRY)	(NPT)	(ACE)	(PHN)
	121296	56914	109884
	(CRY)	(PRY)	
	99464	105661	

File            Sample            Surrogate Recovery %            Internal Standard Responses

```

=====
C0201013.D
  10 PPB ICA      1*    1*    1*
                                 119893      58907      111376
                                 98450      105479
-----
C0201014.D
  20 PPB ICA      2*    2*    2*
                                 115401      53731      103824
                                 91104      97233
-----
C0201015.D
  50 PPB ICA      5*    5*    5*
                                 115805      55372      109053
                                 95998      102981
-----
C0201016.D
  100 PPB IC      11*   10*   10*
                                 113327      54724      105436
                                 92697      99727
-----
C0201017.D
  200 PPB IC      20*   20*   20*
                                 117640      55244      106287
                                 93585      101068
-----
C0201018.D
  500 PPB IC      51    48    49
                                 113498      54985      107872
                                 96261      103222
-----
C0201019.D
  1000 PPB I     101*  98    95*
                                 118947      56109      107192
                                 97228      103344
-----
C0201020.D
  5000 PPB I     481* 469* 446*
                                 118633      59171      109874
                                 105360      106359
=====

```

(fails) - fails 12hr time check \* - fails criteria

Created: Thu Aug 22 10:48:28 2024 Corey

GC/MS QA-QC Check Report

Tune File : X:\semivols\Corey\DATA\C240216\C0216005.D

Tune Time : 16 Feb 2024 12:23 pm

Daily Calibration File : X:\semivols\Corey\DATA\C240216\C0216005.D

(PRY)	(NPT)	(ACE)	(PHN)
	109685	51417	100269
	(CRY)	(PRY)	
	86900	90813	

File	Sample	Surrogate Recovery %			Internal Standard Responses		
C0216009.D	MB0216W1	69	80	99*	105267	48485	91458
				77722	81885		
C0216010.D	SB0216W1 D	60	73	78	103561	48397	93608
				80666	84191		
C0216011.D	SB0216W1	66	86	90	103997	48798	92162
				78982	82736		
C0216017.D	02-208-03	43	54	55	100622	47657	91329
				78212	82604		

(fails) - fails 12hr time check \* - fails criteria

Created: Thu Aug 22 10:46:31 2024 Corey

GC/MS QA-QC Check Report

Tune File : X:\semivols\Corey\DATA\C240220\C0220001.D

Tune Time : 20 Feb 2024 10:22 am

Daily Calibration File : X:\semivols\Corey\DATA\C240220\C0220001.D

(PRY)	(NPT)	(ACE)	(PHN)
	115635	52400	103588
	(CRY)	(PRY)	
	88444	94757	

File	Sample	Surrogate	Recovery %	Internal	Standard	Responses
C0220003.D	MB0216W1 R	58	77	79	103973	50960 96024
			82721	89730		

(fails) - fails 12hr time check \* - fails criteria

Created: Thu Aug 22 10:55:33 2024 Corey

GC/MS QA-QC Check Report

Tune File : X:\semivols\Corey\DATA\C240221\C0221006.D  
 Tune Time : 21 Feb 2024 11:50 am

Daily Calibration File : X:\semivols\Corey\DATA\C240221\C0221006.D

(PRY)	(NPT)	(ACE)	(PHN)
	114554	53430	104812
	(CRY)	(PRY)	
	91435	97937	

File	Sample	Surrogate Recovery %			Internal Standard Responses		
C0221007.D	SB0221W1	60	72	72	103917	50056	97014
			85421		89982		
C0221008.D	SB0221W1 D	69	72	74	108677	49746	96356
			84058		89448		
C0221010.D	MB0221W1	39	44	47	107702	50119	97948
			83513		89242		
C0221012.D	02-208-05	45	45	46	93795	46216	87295
			72819		78653		
C0221013.D	02-208-01	51	58	60	101251	46481	88396
			73696		79742		
C0221014.D	02-208-02	46	44	44	92159	45192	85522
			72567		76460		
C0221015.D	02-208-04	50	56	60	99172	47297	86909
			73944		79193		

(fails) - fails 12hr time check \* - fails criteria

Created: Thu Aug 22 10:47:31 2024 Corey

GC/MS QA-QC Check Report

Tune File : X:\semivols\Corey\DATA\C240222\C0222001.D

Tune Time : 22 Feb 2024 9:22 am

Daily Calibration File : X:\semivols\Corey\DATA\C240222\C0222001.D

(PRY)	(NPT)	(ACE)	(PHN)
	109907	53165	101731
	(CRY)	(PRY)	
	91382	96622	

File	Sample	Surrogate	Recovery %	Internal	Standard	Responses
C0222007.D	MB0221W1 R	37	45 45	104818	49492	94760
			81475	86765		

-----  
(fails) - fails 12hr time check \* - fails criteria

Created: Fri Aug 23 10:09:25 2024 Corey

Sequence Name: C:\msdchem\1\sequence\C240201.S

Comment:

Operator: JP

Data Path: C:\MSDCHEM\1\DATA\C240201\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run      On A Barcode Mismatch  
(X) Full Method              (X) Inject Anyway  
( ) Reprocessing Only        ( ) Don't Inject

---

Line	Sample Name/Misc Info
1) Sample	1 C0201001 CSIMSCAN DFTPP
2) Sample	2 C0201002 CS240111 M
3) Sample	3 C0201003 CS240111 M
4) Sample	4 C0201004 CS240111 M
5) Sample	5 C0201005 CS240111 M
6) Sample	6 C0201006 CS240111 M
7) Sample	7 C0201007 CS240111 M
8) Sample	8 C0201008 CS240111 10 PPB ICAL
9) Sample	9 C0201009 CS240111 20 PPB ICAL
10) Sample	10 C0201010 CS240111 M
11) Sample	11 C0201011 CS240111 M
12) Sample	12 C0201012 CS240111 M
13) Sample	13 C0201013 CS240111 10 PPB ICAL
14) Sample	14 C0201014 CS240111 20 PPB ICAL
15) Sample	15 C0201015 CS240111 50 PPB ICAL
16) Sample	16 C0201016 CS240111 100 PPB ICAL
17) Sample	17 C0201017 CS240111 200 PPB ICAL
18) Sample	18 C0201018 CS240111 500 PPB ICAL
19) Sample	19 C0201019 CS240111 1000 PPB ICAL
20) Sample	20 C0201020 CS240111 5000 PPB ICAL
21) Sample	21 C0201021 CS240111 M
22) Sample	22 C0201022 CS240111 ICV
23) Sample	23 C0201023 CS240111 M
24) Sample	24 C0201024 CS240111 M
25) Sample	25 C0201025 CS240111 MB1227S1
26) Sample	26 C0201026 CS240111 PAH SONIC LLOQ
27) Sample	27 C0201027 CS240111 01-262-24 5X

Sequence Name: C:\msdchem\1\sequence\C240216.S

Comment:

Operator: JP

Data Path: C:\MSDCHEM\1\DATA\C240216\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run      On A Barcode Mismatch  
(X) Full Method              (X) Inject Anyway  
( ) Reprocessing Only      ( ) Don't Inject

-----

Line	Sample Name/Misc Info
1) Sample	1 C0216001 CS240201 PAH CCV0216-1
2) Sample	2 C0216002 CS240201 M
3) Sample	3 C0216003 CS240201 PAH CCV0216-2
4) Sample	4 C0216004 CS240201 PAH CCV0216-3
5) Sample	5 C0216005 CS240201 PAH CCV0216-4
6) Sample	6 C0216006 CS240201 M
7) Sample	7 C0216007 CS240201 SB0216W1
8) Sample	8 C0216008 CS240201 SB0216W1 DUP
9) Sample	9 C0216009 CS240201 MB0216W1
10) Sample	10 C0216010 CS240201 SB0216W1 DUP
11) Sample	11 C0216011 CS240201 SB0216W1
12) Sample	12 C0216012 CS240201 M
13) Sample	13 C0216013 CS240201 MB0216W1 RR
14) Sample	14 C0216014 CS240201 02-186-01
15) Sample	15 C0216015 CS240201 02-208-01
16) Sample	16 C0216016 CS240201 02-208-02
17) Sample	17 C0216017 CS240201 02-208-03
18) Sample	18 C0216018 CS240201 02-208-05
19) Sample	19 C0216019 CS240201 02-208-04

Sequence Name: C:\msdchem\1\sequence\C240220.S

Comment:

Operator: JP

Data Path: C:\MSDCHEM\1\DATA\C240216\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run      On A Barcode Mismatch  
(X) Full Method              (X) Inject Anyway  
( ) Reprocessing Only        ( ) Don't Inject

-----  
Line                              Sample Name/Misc Info  
1) Sample                        1 C0220001 CS240201 PAH CCV0220-1  
2) Sample                        2 C0220002 CS240201 M  
3) Sample                        3 C0220003 CS240201 MB0216W1 REX

Sequence Name: C:\msdchem\1\sequence\C240222.S

Comment:

Operator: JP

Data Path: C:\MSDCHEM\1\DATA\C240222\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run      On A Barcode Mismatch  
(X) Full Method              (X) Inject Anyway  
( ) Reprocessing Only        ( ) Don't Inject

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Line	Sample Name/Misc Info
1) Sample	1 C0222001 CS240201 PAH CCV0222-1
2) Sample	2 C0222002 CS240201 M
3) Sample	3 C0222003 CS240201 SB0222W1
4) Sample	4 C0222004 CS240201 SB0222W1 DUP
5) Sample	5 C0222005 CS240201 M
6) Sample	6 C0222006 CS240201 MB0222W1
7) Sample	7 C0222007 CS240201 MB0221W1 RR
8) Sample	8 C0222008 CS240201 02-224-03 REX
9) Sample	9 C0222009 CS240201 02-224-08 REX
10) Sample	10 C0222010 CS240201 02-224-11 REX
11) Sample	11 C0222011 CS240201 02-224-01
12) Sample	12 C0222012 CS240201 02-224-10
13) Sample	13 C0222013 CS240201 02-224-01 ACTUAL
14) Sample	14 C0222014 CS240201 02-224-10 ACTUAL
15) Sample	15 C0222015 CS240201 02-224-14
16) Sample	16 C0222016 CS240201 02-230-01
17) Sample	17 C0222017 CS240201 02-230-02
18) Sample	18 C0222018 CS240201 02-230-03
19) Sample	19 C0222019 CS240201 02-230-04
20) Sample	20 C0222020 CS240201 mb test

Sequence Name: C:\msdchem\1\sequence\C240221.S

Comment:

Operator: JP

Data Path: C:\MSDCHEM\1\DATA\C240221\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run      On A Barcode Mismatch  
(X) Full Method              (X) Inject Anyway  
( ) Reprocessing Only        ( ) Don't Inject

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Line		Sample Name/Misc Info
1)	Sample	1 C0221001 CS240201 PAH CCV0221-1
2)	Sample	2 C0221002 CS240201 M
3)	Sample	3 C0221003 CS240201 SB0221W1
4)	Sample	4 C0221004 CS240201 SB0221W1 DUP
5)	Sample	5 C0221005 CS240201 PAH CCV0221-2
6)	Sample	6 C0221006 CS240201 PAH CCV0221-3
7)	Sample	7 C0221007 CS240201 SB0221W1
8)	Sample	8 C0221008 CS240201 SB0221W1 DUP
9)	Sample	9 C0221009 CS240201 M
10)	Sample	10 C0221010 CS240201 MB0221W1
11)	Sample	11 C0221011 CS240201 02-186-01 REX
12)	Sample	12 C0221012 CS240201 02-208-05 RR
13)	Sample	13 C0221013 CS240201 02-208-01 REX
14)	Sample	14 C0221014 CS240201 02-208-02 REX
15)	Sample	15 C0221015 CS240201 02-208-04 REX
16)	Sample	16 C0221016 CS240201 02-224-03
17)	Sample	17 C0221017 CS240201 02-224-05
18)	Sample	18 C0221018 CS240201 02-224-07
19)	Sample	19 C0221019 CS240201 02-224-08
20)	Sample	20 C0221020 CS240201 02-224-09
21)	Sample	21 C0221021 CS240201 02-224-11



Date Extracted: 2/21/24 Time Ext: \_\_\_\_\_ am/pm \_\_\_\_\_  
 Analysis: DATA Surrogate Std. ID: SV6-142-08  
 Matrix: H2O Spike Std. ID: SV6-138-02

OSE TRAVELER #	pH	SAMPLE W/V	INTER VOLUME	SAMPLE FIN VOL	AMT SUR	AMT SPIKE	CLEAN UP	ANALYST	COMMENTS/ BATCH QA
M8 0221w1		1000m <sup>1</sup>	30ml	1m <sup>1</sup>	100w <sup>1</sup>	100w <sup>1</sup>	✓	JS	Red
58 0221w1						100w <sup>1</sup>	✓		Red
5800221w1									Red
02-186-01e		1530-498							
02-268-01b Red		1574-507							
02a Red		1579-508							
04b Red		1560-507							Color
05b Red		1584-506							Extract test
02-224-01e		1593-508							Color
03e		1562-512							Color
05f		1553-508							Color
07g		1533-510							Color, smell
08g		1563-508							Color
09g		1521-510							Color, smell
10g		1552-508							Color
11g		1554-511							Color, smell
14g		1557-509							Color
02-230-01e		1554-506							Color, smell
02c		1553-504							Color
03c		1561-506							Color
04c		1558-504							Color
<div style="border: 1px solid black; width: 100%; height: 100%; position: relative;"> <span style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; border: 1px solid black; opacity: 0.5;"></span> </div>									
								2/28/24 QH	

Work continued from Page

Analyte	Lab ID	Start ID	Start Conc	Start Vol	Final Vol	Final Conc	Solvent	Instr	Date
BNA CV	SUB13001	SUB1287213	200ppm	100/100/100µL	200µL	20ppm	MeCl2	JP	11/1/23
8270 Cal	SUB13002							JP	11/1/23
MR #5									
BIN Surrogate	03								
PAH working stock	04	SUB13002	2000 ppm	50µL	10µL	10ppm	MeCl2		
PAH M-X	05	03	1000	100µL	1	1	1		
BIN Surrogate	06								
PAH CV	07	SUB13005	2000 ppm	50 µL	10µL	10ppm	MeCl2		
working stock	08	06	1000	100	100	100	100		
PAH CV	09	SUB13005	4000ppm	1µL	8µL	50ppm	MeCl2		
ISTD M-X									
BMA									
8270 ISTD									

31995  
8270 Calibration Mix #5, Revised  
Lot# A0191064  
Expire: 09/2028 Store: 10°C or colder  
2000 µg/mL each in Methylene Chloride  
1 mL  
RESTEK

RESTEK 31887  
Lot# A0197466  
Expire: 03/2029 Store: 10°C or colder  
Revised BIN Surrogate Mix  
1000 µg/mL each in Methylene chloride  
Sonication required Mix is photosensitive  
Full label information for the chemical is provided on the outside package  
Warning  
Receipt Date:  
Opened Date:  
Made in USA  
1 mL  
For Laboratory Use Only

SIGMA-ALDRICH  
sigma-aldrich.com  
Store at: 2-8°C Exp. Mar/24  
to 11°C, based on  
CRM47543 Lot # LRAC8973  
Polynuclear Aromatic Hydrocarbons  
Mix  
certified reference material,  
2000 µg/mL each component in  
benzene: dichloromethane (50:50),  
ampule of 1 mL  
EPA 8310 PAH Mix, EPA Polynuclear aromatic hydro-  
carbon mix  
Product of USA  
H373 Danger: Highly flammable liquid and vapor. May be fatal if  
inhalated and enters respiratory tract. Causes serious  
eye irritation. May cause drowsiness or dizziness. May cause genetic  
defects. May cause cancer. Causes damage to organs (kidney) through  
prolonged or repeated exposure. Very toxic to aquatic life with long  
and severe after-effects. May be fatal to aquatic life through  
leaching effects. Keep away from heat, hot surfaces, sparks, open flames  
and other ignition sources. No smoking. Avoid release to the  
environment. IF SWALLOWED: Immediately call a POISON CENTER or  
doctor. IF ON SKIN (or hair): Take off immediately all contaminated  
clothing. Rinse skin with water. IF IN EYES: Rinse cautiously with  
water for several minutes. Remove contact lenses, if present and easy  
to do. Continue rinsing. Do NOT breathe vapors.  
Contains Methylene chloride, Benzene, 3,4-Benzopyrene. May  
produce an allergic reaction. Restricted to professional users.  
Safety data sheet is available. For MSD info only. Not for drug,  
household, or other uses.  
SIGMA-ALDRICH Co., 300 Route 208E, St. Louis, MO 63103 USA 314-771-0715  
SIGMA-ALDRICH CHEMIE GmbH, Route 3 D-69126 Sondheim 49 7329 870

RESTEK 31887  
Lot# A0194460  
Expire: 01/2025 Store: 10°C or colder  
Revised BIN Surrogate Mix  
1000 µg/mL each in Methylene chloride  
Sonication required Mix is photosensitive  
Full label information for the chemical is provided on the outside package  
Warning  
Receipt Date:  
Opened Date:  
Made in USA  
1 mL  
For Laboratory Use Only

AccuStandard® 125 Market St, New Haven, CT 06513  
www.AccuStandard.com  
Z-014J 1 mL  
Internal Standard Mix  
4.0 mg/mL in CH2Cl2  
Lot: 222091449 6 comp(s)  
Exp: Sep 30, 2032 Storage: Ambient (>5 °C)/Sonicate  
FOR LABORATORY USE ONLY  
4315 H335  
4332 H302  
4351 H350  
5338 P360  
5331 P233  
2622 P202  
Refer to SDS  
Signal Word Warning

SIGNATURE

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WITNESS

DATE

Work continued from Page		Stock	Stock	Stock	Final	Final	Solvent	Int	Date
Analyte	Lab ID	ID	Conc	Vol	Vol	Conc			
8270 CALI	SV613701	SV613617	1000ppm	1 mL	5mL	200ppm	MeCl2	JP	12/19/23
	2	18							
		19	4000	0.25 mL					
		20	2000	0.5 mL					
Carbonic Acid		03							
BNA CV	04	SV613711/13	200ppm	20/20/20 mL	200 mL	20ppm	MeCl2	JP	12/19/23
PAH CV	05	SV613004	10ppm	10 mL		500ppb		JP	12/24/23
BNA CV	08	SV612811/13	200ppm	20/20/20 mL		20ppm			
PAH CV	SV613707	SV613007	10ppm	10 mL		500ppb			12/20/23
PAH Stock	SV613708	SV613002	200ppm	0.5 mL	10 mL	100ppm	MeCl2	JP	12/21/23
BNA CV	09	SV612711/13	200ppm	20/20/20 mL	200 mL	20ppm			
PAH Molar Spike	10	SV613708	100ppm	50	10 mL	500ppb	Acetone		
PAH CV	11	SV613004	10ppm	10	200 mL	500ppb	MeCl2		
PAH CV	SV613712			10					12/22/23
BNA CV	13	SV612711/13	200ppm	20/20/20		20ppm			
PAH CV	SV613714	SV613007	10ppm	10 mL	200 mL	500ppb	MeCl2	JP	12/22/23
PAH	5000	15	SV613004		500 mL	500			
	1000	16				1000			
	500	17				500			
	200	18				200			
	100	19				100			
	50	20	SV613716	1000ppb	50	50			
	20	21			20	20			
	10	22			10	10			
PAH CV	23	SV613004	10ppm	10	200 mL	500		JP	12/28/23
BNA CV	SV613724	SV612711/13	200ppm	20/20/20		20ppm			
PAH CV	SV613725	SV613004	10ppm	10 mL	200 mL	500ppb	MeCl2	JP	12/27/23
PAH CV	26							JP	1/3/24
PAH CV	27	SV613004						JP	1/4/24
PAH CV	SV613728							JP	1/5/24
PAH CV	SV613729							JP	1/8/24
PAH CV	SV613730							JP	1/9/24
PAH CV	SV613731							JP	1/30/24
BNA CV	SV613732	SV612711/13	200ppm	20/20/20 mL		20ppm			
BNA CV	SV613733								

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Work continued from Page		Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Init	Date
5	Analyte	SV613801	SV613801	10ppm	10µL	200µL	MeCl2	JP	1/11/24
	PAH Spike	SV613802	SV613708	10ppm	2.5mL	50mL	Acetone	JP	1/11/24
	PAH ICV	SV613803	SV613807	10ppm	10µL	200µL	MeCl2	JP	1/11/24
	PAH ICV	SV613804	SV613804	1	1	1	1	JP	1/12/24
	Surr Stock	SV613805							
15	PAH Sum	06 SV613805	1000ppm	1mL	100mL	10ppm	Acetone		
	PAH ICV	SV613807	SV613807	10ppm	10µL	200	MeCl2		
	PAH ICV	SV613808	SV613804	1	1	1	1	JP	1/15/24
	PAH Working Stock	1	03	2000ppm	50mL	10mL	MeCl2	JP	1/15/24
	BNA ICV	SV613810	SV613813	20ppm	20µL	200µL	MeCl2	JP	1/16/24
25	PAH ICV	11	SV613809	10ppm	10µL	1	500µL		
	Custom Stock	12							
30	8270 Sum Std	13							
	Benzene Acid Stock	14							
35	8270 ICAL #1	15	SV613509	1000ppm	0.5mL	2.5mL	200ppm	MeCl2	
	#2	16	SV613812	1	1mL	5mL			
	1	13		1000ppm	0.25mL				
	Benzene Acid	17	14	2000ppm	0.5mL				

**RESTEK** 110 Benner Circle Bellefonte, PA 16823  
814-353-1300 www.restek.com

Lot# A0209940 Expir: 09/2029 Store: 10°C or colder  
Revised BIN Surrogate Mix  
1000 µg/mL each in Methylene chloride  
Sonication required. Mix is photosensitive  
Full label information for the chemical is provided on the outside package For Laboratory Use Only

**Warning**  
Receipt Date: \_\_\_\_\_  
Opened Date: \_\_\_\_\_  
Made in USA  
1 mL

**AccuStandard** 125 Market St, New Haven, CT 06513  
www.AccuStandard.com

**S-15651** 1 mL  
Custom SVOC and VOC Standard  
1000 µg/mL in Methylene chloride  
Lot: 222051034-01 5 comp(s)  
Exp: Mar 14, 2024 Storage: Freeze (<-10 °C)  
PRODUCT OF THE USA FOR LABORATORY USE ONLY

Signal Word: Danger

**AccuStandard** 125 Market St, New Haven, CT 06513  
www.AccuStandard.com

**M-8270-SS** 1 mL  
Method 8270 - Surrogate Standard  
4.0 mg/mL in CH2Cl2  
Lot: 223021323 6 comp(s)  
Exp: Feb 15, 2033 Storage: Ambient (>5 °C)  
PRODUCT OF THE USA FOR LABORATORY USE ONLY

Signal Word: Warning

**RESTEK** 110 Benner Circle Bellefonte, PA 16823  
814-353-1300 www.restek.com

Lot# A0202174 Expir: 09/2027 Store: 10°C or colder  
Benzene Acid Mix  
2000 µg/mL each in Methylene Chloride  
Full label information for the chemical is provided on the outside package For Laboratory Use Only

**Warning**  
Receipt Date: \_\_\_\_\_  
Opened Date: \_\_\_\_\_  
Made in USA  
1 mL

H315 H335  
H332 H302  
H350 H350  
P338 P360  
P331 P233  
P262 P202  
Refer to SDS

Signal Word: Danger

H315 H335  
H332 H302  
H351 H350  
P338 P360  
P331 P233  
P262 P202  
Refer to SDS

Signal Word: Warning

SIGNATURE	DATE
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Work continued from Page		Stock W	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Int	Date
Analyte	Lab ID								
<del>BNA</del> 60	SV613901	SV613711213	200ppm	60/60 µl	200µl	60 ppm	Mech	JP	1/16/24
50	02			50/50		50			
35	03			35/35		35			
20	04			40/40	400µl	20			
10	05			10 µl	200µl	10			
5	06	SV613901	20ppm	50		5			
2	07			20		2			
1	08			10		1			
0.5	09			5		0.5			
ICV	10	SV613851117	200ppm	20 each		20			
PAH CV	SV613911	SV613001	10ppm	10µl		500ppb		JP	1/17/24
BNA CV	SV613912	SV613711213	200ppm	20µl each		20ppm		JP	1/18/24
BNA CV	13						Mech	JP	1/18/24
PAH CV	14	SV613004	10ppm	10µl		500ppb		JP	1/14/24
PAH CV	SV613915							JP	1/22/24
PAH CV	SV613916							JP	1/23/24
PAH CV	SV613917							JP	1/23/24
BNA CV	SV613918	SV613711213	20ppm	20/20 µl	200µl	20ppm	Mech	JP	1/23/24
PAH CV	SV613919	SV613001	10ppm	10µl	200µl	500ppb	Mech	JP	1/24/24
PAH CV	SV613920							JP	1/25/24
BNA 60	21	SV613711213	200ppm	60µl each		60 ppm			
50	22			50		50			
35	23			35		35			
20	24			40	400 µl	20			
10	25			10	200µl	10			
5	26	SV613724	20ppm	50		5			
2	27			20		2			
1	28			10		1			
0.5	29			5		0.5			
ICV	30	SV613851117	200ppm	20µl each		20			
2FTPP	31	SV612707	1000ppm	50µl	1mL	50ppm	Mech	JP	1/25/24
PAH CV	SV613932	SV613004	10ppm	10µl	200µl	500ppb		JP	1/26/24
PAH CV	33								1/29/24

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Work continued from Page	Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Int	Date
5	ISTD Mix	SV614001	125 Market St. New Haven, CT 06513 www.AccuStandard.com <b>Z-014J</b> Internal Standard Mix 4.0 mg/mL in CH <sub>2</sub> Cl <sub>2</sub> Lot: 223061537 Exp: Jun 28, 2033 Storage: Ambient (>5 °C)/Sonicate PRODUCT OF THE USA FOR LABORATORY USE ONLY			1 mL	6 comp(s)		JP	1/29/24
10	PAPP ISTD 8270 Megamix	02 03	SV614001	4000ppm	0.5ml	50ml	40ppm	MeCl <sub>2</sub>	JP	1/29/24
15	Custom Std	04	125 Market St. New Haven, CT 06513 www.AccuStandard.com <b>S-15651</b> Custom SVOC and VOC Standard 1000 µg/mL in Methylene chloride Lot: 222051034-01 Exp: Mar 14, 2024 Storage: Freeze (<-10 °C) PRODUCT OF THE USA FOR LABORATORY USE ONLY			1 mL	5 comp(s)		JP	1/29/24
20	8270 Spike #1 #2	05 06	SV614003 04	1000ppm	1ml	5ml	200ppm	Acetone	JP	1/29/24
	Benzoic Acid Spike	07	SV61381M	2000ppm	0.25ml	2.5ml	200ppm	Acetone	JP	1/30/24
	PAPP CW	08	SV61300M	10ppm	10µl	200µl	500ppb	MeCl <sub>2</sub>		
	BNA CW	09	SV613815/16/17	20ppm	20µl/20µl		20ppm			1/31/24
	PAPP CW	10	SV61300M	10ppm	10µl		500ppb			
25	BNA 60	11	SV61371M/3	200 ppm	60 µl each		60 ppm			
	50	12			50		50			
	35	13			35		35			
	20	14			40	400 µl	20			
	10	15			10	200 µl	10			
	5	16	SV61401M	20	50	1	5			
30	2	17			20		2			
	1	18			10		1			
	0.5	19			5		0.5			
	100	20	SV613815/16/17	200	20 µl each		20			
35										

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

DISCLOSED TO AND UNDERSTOOD BY \_\_\_\_\_ DATE \_\_\_\_\_ WITNESS \_\_\_\_\_ DATE \_\_\_\_\_

Work continued from Page		Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Instr	Date	
5	PAH 5000	SV614101	10ppm	500 µL	2 mL	5000 ppb	MeCl2	JP	2/1/24	
	1000	02		100		1000				
	500	03		50		500				
	200	04		20		200				
	100	05		10		100				
	50	06	SV614102	50		50				
	20	07		20		20				
	10	08		10		10				
	PAH 100	09	SV613007	10 ppm	10 µL	200 µL	500 ppb			
	PAH 100	10	SV613809	1	10	1		JP	2/2/24	
	BNA 100	11	SV613810	200 ppm	20/20/20	20 ppm				
	PAH 100	12	SV613809	10 ppm	10	500 ppb		JP	2/5/24	
15	BNA 100	13	SV613810	200 ppm	20/20/20	20 ppm				
	BNA 100	14	1	1	1	1		JP	2/6/24	
	PAH 100	15	SV613809	10 ppm	10	500 ppb		JP	2/6/24	
	8270 Surrogate Standard	16						JP	2/6/24	
20	 125 Market St. New Haven, CT 06513 www.AccuStandard.com <b>M-8270-SS</b> 1 mL Method 8270 - Surrogate Standard 4.0 mg/mL in CH2Cl2 Lot: 223021602 Exp: Mar 01, 2033 Storage: Ambient (>5 °C) 6 comp(s) PRODUCT OF THE USA FOR LABORATORY USE ONLY		 H315 H335 H332 H302 H351 H350 P338 P360 P331 P233 P262 P202 Refer to SDS Signal Word: Warning 							
25	 125 Market St. New Haven, CT 06513 www.AccuStandard.com <b>M-8270-SS</b> 1 mL Method 8270 - Surrogate Standard 4.0 mg/mL in CH2Cl2 Lot: 223021602 Exp: Mar 01, 2033 Storage: Ambient (>5 °C) 6 comp(s) PRODUCT OF THE USA FOR LABORATORY USE ONLY		 H315 H335 H332 H302 H351 H350 P338 P360 P331 P233 P262 P202 Refer to SDS Signal Word: Warning 							
30	8270 Surrogate Standard	17	SV614116	400ppm	2 mL	100 µL	800ppm	Acetone	JP	2/6/24
	BNA 100	18	SV613810	200 ppm	20/20/20 mL	20 ppm	MeCl2	JP	2/7/24	
	PAH 100	19	SV613809	10	10 µL	200 µL	500 ppb			
	PAH 100	20	1	1	1	1			2/8/24	
	BNA 100	21	SV613810	200	20/20/20 mL	20 ppm				
	BNA 100	22	1	1	1	1		JP	2/9/24	
	PAH 100	23	SV613809	10	10 µL	500 ppb				
	PAH 100	24	1	1	1	1		JP	2/12/24	
35	BNA 100	25	SV613810	200	20/20/20 µL	20 ppm				

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Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Init	Date
BNA CW	SV04201	SV038151161	200ppm	20/20/20 mL	200 mL	20ppm	MeCl2	JP	2/13/24
PAH CW	02	SV03809	10ppm	10 mL	200 mL	500ppb	+	+	+
ISTD M.K	03								
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>AccuStandard</b>® 125 Market St, New Haven, CT 06513 www.AccuStandard.com</p> <p><b>Z-014J</b> 1 mL Internal Standard Mix 4.0 mg/mL in CH2Cl2 Lot: 223061537 6 comp(s) Exp: Jun 28, 2033 Storage: Ambient (&gt;5 °C)/Sonicate PRODUCT OF THE USA FOR LABORATORY USE ONLY</p> </div> <div style="width: 10%; text-align: center;"> </div> <div style="width: 40%;"> <p>H315 H335 H372 H302 H351 H350 P338 P360 P331 P233 P262 P202 Refer to SDS</p> <p>Signal Word: Warning</p> </div> </div>									
BNA ISTD	04	SV04203	200ppm	1 mL	8 mL	500ppm	MeCl2		
DATE CW	05	SV03809	10ppm	10 mL	200 mL	500ppb		JP	2/14/24
BNA CW	06	SV038151161	200ppm	20/20/20 mL	+	20ppm			
B/N Sur Stock	07							JP	2/15/24
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>REXTEK</b> 110 Berner Circle Bellefonte, PA 16823 31887 814-353-1300 www.rextek.com</p> <p>Lot# A0197436 Store 10°C or colder Expire 03/2029 Revised BAN Surrogate Mix 1000 µg/mL each in Methylene chloride Sonication required Mix is photosensitive</p> </div> <div style="width: 10%; text-align: center;"> <p>Warning</p> </div> <div style="width: 40%;"> <p>Receipt Date: _____ Opened Date: _____ Made in USA 1 mL</p> </div> </div>									
PAH Sur	08	SV04207	1000ppm	1 mL	100 mL	10ppm	Acetone		
BNA 60	09	SV0371213	200ppm	60/60/60 mL	200 mL	60 ppm	MeCl2	JP	<del>MeCl2</del>
50	10								
35	11								
20	12								
10	13								
5	14		20ppm						
2	15	SV04212							
1	16								
0.5	17								
100	18	SV038151161	200ppm	20/20/20 mL					
BNA CW	19						MeCl2	JP	2/16/24
PAH CW	20	SV03809	10ppm	10 mL	200 mL	500ppb	MeCl2	JP	2/16/24
PAH CW	21							JP	2/20/24
BNA CW	22	SV038151161	200ppm	20/20/20 mL		20ppm			
PAH CW	23	SV03809	10	10 mL		500ppb		JP	2/21/24
DATE CW	24							JP	2/21/24
BNA CW	25	SV038151161	200	20/20/20 mL		20ppm		JP	2/23/24
PAH CW	26	SV03809	10	10 mL		500ppb			

SIGNATURE	DATE	DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE	WITNESS

## Total Metals EPA 200.8

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration Data
- Administrative Forms

# Dataset Report

3-8-24  
kom

User Name: kmckinney

Computer Name: DESKTOP-RIRVUDN

Dataset File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\

Report Date/Time: Friday, March 08, 2024 09:50:27

## The Dataset

Batch ID	Sample ID	Date and Time	Read Type	Samp. File Name	Description
SmartTune - [STD/KED] Nebulizer		06:59:04 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
SmartTune - CQID		07:02:27 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
SmartTune - CQID		07:04:35 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
SmartTune - CQID		07:06:46 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
SmartTune - MMass Calibration and		07:09:07 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
SmartTune - [STD] Performance C		07:09:46 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
SmartTune - [STD] Performance C		07:13:16 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
SmartTune - [STD] Performance C		07:15:37 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Sample	07:22:55 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Sample	07:26:04 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Blank	07:31:39 Fri 08-Ma	Blank	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Standard 1	07:33:58 Fri 08-Ma	Standard #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Standard 2	07:36:16 Fri 08-Ma	Standard #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Standard 3	07:38:36 Fri 08-Ma	Standard #3	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Standard 4	07:40:55 Fri 08-Ma	Standard #4	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Standard 5	07:43:14 Fri 08-Ma	Standard #5	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Standard 6	07:45:33 Fri 08-Ma	Standard #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Standard 7	07:47:51 Fri 08-Ma	Standard #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 1	07:51:00 Fri 08-Ma	QC Std #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 2	07:54:09 Fri 08-Ma	QC Std #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 6	07:56:27 Fri 08-Ma	QC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 7	07:59:36 Fri 08-Ma	QC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 8	08:02:44 Fri 08-Ma	QC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	MB0308D1 2X	08:05:04 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	SB0308D1 2X	08:08:13 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-01c 25X	08:12:09 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-02c 25X	08:15:17 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-03c 25X	08:18:25 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-04c 25X	08:21:34 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-05c 25X	08:24:42 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-02cD 25X	08:27:58 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-02cL 125X	08:31:07 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-02cMS 25X	08:34:15 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 6	08:37:25 Fri 08-Ma	QC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 7	08:40:35 Fri 08-Ma	QC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 8	08:43:45 Fri 08-Ma	QC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-02cMSD 25X	08:47:34 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	MB0308WM1 2X	08:50:42 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	SB0308WM1 2X	08:53:51 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	01-243-13b 2X	08:56:58 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	01-243-13bD 2X	09:00:06 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	01-243-13bL 10X	09:03:14 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	01-243-13bMS 2X	09:06:21 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	01-243-13bMSD 2X	09:09:29 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	01-243-13bPS 2X	09:12:37 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-01d 25X	09:15:46 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 6	09:18:56 Fri 08-Ma	QC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 7	09:22:05 Fri 08-Ma	QC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 8	09:25:15 Fri 08-Ma	QC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-02d 25X	09:28:46 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	

02-208-03d 25X	09:31:55 Fri 08-MaSample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240308
02-208-04d 25X	09:35:03 Fri 08-MaSample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240308
02-208-05d 25X	09:38:11 Fri 08-MaSample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240308
QC Std 6	09:41:21 Fri 08-MaQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240308
QC Std 7	09:44:30 Fri 08-MaQC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240308
QC Std 8	09:47:40 Fri 08-MaQC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240308

## Performance Check Report

### Sample ID: [STD] Performance Check

Sample Date/Time: Friday, March 08, 2024 07:15:37

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Optimizations\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\03MAR24\Y240308A\[STD] Performance Check.008

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

### Summary

IS	Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode
	Li	7.0	65637.7	65637.718	65637.718	472.516	0.7	Standard			
	In	114.9	427306.0	427306.003	11109.324	2.6	Standard				
	U	238.1	276850.5	276850.513	2523.994	0.9	Standard				
Ce	CeO	155.9	19655.8	0.023	0.000	0.8	Standard				
Ce	Ce++	70.0	8192.5	0.010	0.000	1.3	Standard				
	Bkgd	220.5	0.9	0.867	0.321	37.0	Standard				
	Ce	139.9	859100.3	859100.276	9398.000	1.1	Standard				

### Current Conditions File Data

Current Value	Description
-100.00	Standard - OmniRing Park Voltage
4.00	Standard - Hyperskimmer Park Voltage
0.96	Standard - Nebulizer Gas Flow STD/KED [NEB]
1.20	Standard - Auxiliary Gas Flow
15.00	Standard - Plasma Gas Flow
0.10	Standard - Oxygen Gas Flow
-10.00	Standard - QID Fixed Voltage
1600.00	Standard - ICP RF Power
-1675.00	Standard - Analog Stage
1050.00	Standard - Pulse Stage
0.00	Standard - Q1 Rod Offset STD [QRO]
-12.00	Standard - Cell Rod Offset STD [CRO]
-3.00	Standard - Cell Entrance/Exit Voltage STD
0.00	Standard - Axial Field Voltage
5.00	Ammonia DRC - OmniRing Park Voltage
-9.50	Ammonia DRC - DRC Mode QRO
-2.50	Ammonia DRC - DRC Mode CRO
-7.00	Ammonia DRC - DRC Mode Cell Entrance/Exit Voltage
250.00	Ammonia DRC - Axial Field Voltage
0.60	Ammonia DRC - Cell Gas A
2.00	Ammonia DRC - Hyperskimmer Park Voltage
0.98	Ammonia DRC - DRC Mode NEB
5.00	Helium KED - OmniRing Park Voltage
2.00	Helium KED - Hyperskimmer Park Voltage
-12.00	Helium KED - KED Mode QRO
-15.00	Helium KED - KED Mode CRO
-4.00	Helium KED - KED Mode Cell Entrance Voltage
-32.00	Helium KED - KED Mode Cell Exit Voltage
475.00	Helium KED - KED Mode Axial Field Voltage

2.00 Helium KED - Cell Gas B

## Instrument Mass Calibration Report

File Name:

File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\

Acq. Date/Time: 07:09:07 Fri 08-Mar-24

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Peak Width	Custom Res.
Li	7.016	7.025	1227	2062	0.706	
Mg	23.985	24.025	4587	2063	0.690	
In	114.904	114.925	22600	2066	0.707	
Pb	207.977	207.975	41058	2065	0.702	
U	238.050	238.025	47021	2065	0.706	

# Quantitative Analysis Calibration Report

File Name:

File Path:

Calibration Type: External Calibration

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Ni -3	57.935	Weighted Linear	0.07	0.00	0.999914
Ni -4	59.933	Weighted Linear	0.03	-0.00	0.999801
Ni -5	61.928	Weighted Linear	0.00	-0.00	0.999790
As-2	74.922	Weighted Linear	0.01	-0.00	0.999903
Y-1	88.905	Weighted Linear	0.00	0.00	0.000000
Rh-1	102.905	Weighted Linear	0.00	0.00	0.000000
Ge-1	71.922	Linear Thru Zero	0.00	0.00	0.000000
In-1	114.904	Linear Thru Zero	0.00	0.00	0.000000
Sc-2	44.956	Linear Thru Zero	0.00	0.00	0.000000

# Quantitative Analysis - Summary Report

**Sample ID: Blank**

Sample Date/Time: Friday, March 08, 2024 07:31:39

Report Date/Time: Friday, March 08, 2024 07:32:27

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\Blank.011

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	114.9	22.0				ug/L		KED
	Ni -4	60	52.7	4.0				ug/L		KED
	Ni -5	62	10.3	14.8				ug/L		KED
	As-2	75	5.0	52.9				ug/L		KED
	Y-1	89	60452.4	3.3				ug/L		KED
	Rh-1	103	73774.4	2.6				ug/L		KED
>	Ge-1	72	45794.7	3.9				ug/L		KED
	In-1	115	46923.5	1.9				ug/L		KED
	Sc-2	45	7392.2	5.6				ug/L		KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

## Sample ID: Standard 1

Sample Date/Time: Friday, March 08, 2024 07:33:58

Report Date/Time: Friday, March 08, 2024 07:34:46

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\Standard 1.012

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	881.1	3.9				ug/L	115	KED
	Ni -4	60	381.3	3.3				ug/L	53	KED
	Ni -5	62	56.3	24.2				ug/L	10	KED
	As-2	75	60.3	6.3				ug/L	5	KED
	Y-1	89	71033.5	0.8				ug/L	60452	KED
	Rh-1	103	85522.9	0.8				ug/L	73774	KED
>	Ge-1	72	52790.4	0.8				ug/L	45795	KED
	In-1	115	54710.3	0.6				ug/L	46923	KED
	Sc-2	45	8645.6	1.0				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 2**

Sample Date/Time: Friday, March 08, 2024 07:36:16

Report Date/Time: Friday, March 08, 2024 07:37:05

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\Standard 2.013

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	1935.7	3.1				ug/L	115	KED
	Ni -4	60	837.0	6.3				ug/L	53	KED
	Ni -5	62	129.3	7.4				ug/L	10	KED
	As-2	75	142.7	7.0	0.5000	0.038	7.7	ug/L	5	KED
	Y-1	89	69713.7	1.1				ug/L	60452	KED
	Rh-1	103	83762.5	1.1				ug/L	73774	KED
>	Ge-1	72	51825.8	0.5				ug/L	45795	KED
	In-1	115	53312.9	1.7				ug/L	46923	KED
	Sc-2	45	8434.5	1.1				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: Standard 3**

Sample Date/Time: Friday, March 08, 2024 07:38:36

Report Date/Time: Friday, March 08, 2024 07:39:25

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\Standard 3.014

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	7335.3	1.5	2.0000	0.022	1.1	ug/L	115	KED
	Ni -4	60	3264.4	1.8	2.0000	0.029	1.4	ug/L	53	KED
	Ni -5	62	504.7	5.6	2.0000	0.127	6.3	ug/L	10	KED
	As-2	75	580.0	1.8	2.0186	0.041	2.1	ug/L	5	KED
	Y-1	89	69928.7	0.2				ug/L	60452	KED
	Rh-1	103	84015.7	0.6				ug/L	73774	KED
>	Ge-1	72	51954.0	0.8				ug/L	45795	KED
	In-1	115	54159.8	1.3				ug/L	46923	KED
	Sc-2	45	8488.9	1.6				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 4**

Sample Date/Time: Friday, March 08, 2024 07:40:55

Report Date/Time: Friday, March 08, 2024 07:41:44

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\Standard 4.015

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	18053.8	0.8	<b>5.0330</b>	0.033	0.7	ug/L	115	KED
	Ni -4	60	7996.6	2.7	<b>5.0113</b>	0.153	3.1	ug/L	53	KED
	Ni -5	62	1239.1	3.1	<b>5.0149</b>	0.168	3.3	ug/L	10	KED
	As-2	75	1451.7	3.9	<b>5.0888</b>	0.210	4.1	ug/L	5	KED
	Y-1	89	68473.0	0.7				ug/L	60452	KED
	Rh-1	103	82504.9	0.8				ug/L	73774	KED
>	Ge-1	72	50913.6	0.3				ug/L	45795	KED
	In-1	115	53210.7	1.4				ug/L	46923	KED
	Sc-2	45	8377.5	0.2				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: Standard 5**

Sample Date/Time: Friday, March 08, 2024 07:43:14

Report Date/Time: Friday, March 08, 2024 07:44:02

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\Standard 5.016

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	68298.1	0.4	<b>19.8164</b>	0.136	0.7	ug/L	115	KED
	Ni -4	60	29606.6	0.2	<b>19.4889</b>	0.102	0.5	ug/L	53	KED
	Ni -5	62	4649.8	2.6	<b>19.6514</b>	0.552	2.8	ug/L	10	KED
	As-2	75	5495.4	1.3	<b>19.8825</b>	0.198	1.0	ug/L	5	KED
	Y-1	89	66872.2	1.0				ug/L	60452	KED
	Rh-1	103	79399.4	0.7				ug/L	73774	KED
>	Ge-1	72	49483.2	0.3				ug/L	45795	KED
	In-1	115	51420.0	0.3				ug/L	46923	KED
	Sc-2	45	8094.3	0.6				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 6**

Sample Date/Time: Friday, March 08, 2024 07:45:33

Report Date/Time: Friday, March 08, 2024 07:46:21

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\Standard 6.017

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	129161.4	0.4	<b>39.6805</b>	0.335	0.8	ug/L	115	KED
	Ni -4	60	57068.1	0.9	<b>39.7416</b>	0.367	0.9	ug/L	53	KED
	Ni -5	62	8717.3	1.2	<b>39.1968</b>	0.261	0.7	ug/L	10	KED
	As-2	75	10516.2	0.8	<b>40.0847</b>	0.083	0.2	ug/L	5	KED
	Y-1	89	63347.1	0.4				ug/L	60452	KED
	Rh-1	103	75236.6	0.9				ug/L	73774	KED
>	Ge-1	72	46940.3	0.8				ug/L	45795	KED
	In-1	115	48940.6	0.6				ug/L	46923	KED
	Sc-2	45	7588.3	0.3				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

### Sample ID: Standard 7

Sample Date/Time: Friday, March 08, 2024 07:47:51

Report Date/Time: Friday, March 08, 2024 07:48:40

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\Standard 7.018

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	313775.7	0.1	<b>98.3214</b>	0.451	0.5	ug/L	115	KED
	Ni -4	60	138100.3	0.6	<b>98.1356</b>	0.798	0.8	ug/L	53	KED
	Ni -5	62	21301.9	1.2	<b>97.8292</b>	0.820	0.8	ug/L	10	KED
	As-2	75	25750.5	0.9	<b>99.6358</b>	0.362	0.4	ug/L	5	KED
	Y-1	89	62917.9	0.4				ug/L	60452	KED
	Rh-1	103	74758.4	0.2				ug/L	73774	KED
>	Ge-1	72	46285.9	0.6				ug/L	45795	KED
	In-1	115	49301.0	0.9				ug/L	46923	KED
	Sc-2	45	7453.3	2.0				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 1**

Sample Date/Time: Friday, March 08, 2024 07:51:00

Report Date/Time: Friday, March 08, 2024 07:51:49

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 1.019

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	154625.3	0.9	<b>49.9971</b>	0.102	0.2	ug/L	115	KED
	Ni -4	60	68216.5	0.4	<b>50.0274</b>	0.341	0.7	ug/L	53	KED
	Ni -5	62	10600.3	2.4	<b>50.2361</b>	0.754	1.5	ug/L	10	KED
	As-2	75	12452.1	0.3	<b>49.7423</b>	0.673	1.4	ug/L	5	KED
	Y-1	89	61657.5	1.2				ug/L	60452	KED
	Rh-1	103	72689.1	0.2				ug/L	73774	KED
>	Ge-1	72	44835.9	1.0				ug/L	45795	KED
	In-1	115	47755.2	0.6				ug/L	46923	KED
	Sc-2	45	7421.9	1.3				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	99.994	
	Ni -4	60	100.055	
	Ni -5	62	100.472	
	As-2	75	99.485	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		97.906
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 2**

Sample Date/Time: Friday, March 08, 2024 07:54:09

Report Date/Time: Friday, March 08, 2024 07:54:57

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 2.020

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	129.9	7.1	-0.0020	0.003	149.0	ug/L	115	KED
	Ni -4	60	56.0	12.5	0.0058	0.005	85.9	ug/L	53	KED
	Ni -5	62	11.3	22.2	0.0187	0.012	62.5	ug/L	10	KED
	As-2	75	7.3	61.5	0.0255	0.018	69.2	ug/L	5	KED
	Y-1	89	62212.2	0.8				ug/L	60452	KED
	Rh-1	103	73567.9	0.6				ug/L	73774	KED
>	Ge-1	72	45715.7	0.1				ug/L	45795	KED
	In-1	115	48859.3	0.6				ug/L	46923	KED
	Sc-2	45	7417.9	1.1				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		99.828
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Friday, March 08, 2024 07:56:27

Report Date/Time: Friday, March 08, 2024 07:57:16

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 6.021

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	119329.7	0.3	39.7916	0.236	0.6	ug/L	115	KED
	Ni -4	60	52361.1	0.3	39.6011	0.220	0.6	ug/L	53	KED
	Ni -5	62	8102.6	1.4	39.6050	0.433	1.1	ug/L	10	KED
	As-2	75	9859.4	1.6	40.6207	0.494	1.2	ug/L	5	KED
	Y-1	89	59544.2	0.5				ug/L	60452	KED
	Rh-1	103	69801.5	0.8				ug/L	73774	KED
>	Ge-1	72	43466.4	0.4				ug/L	45795	KED
	In-1	115	46510.6	0.5				ug/L	46923	KED
	Sc-2	45	7194.5	1.4				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	99.479	
	Ni -4	60	99.003	
	Ni -5	62	99.013	
	As-2	75	101.552	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		94.916
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Friday, March 08, 2024 07:59:36

Report Date/Time: Friday, March 08, 2024 08:00:24

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 7.022

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	61089.4	1.0	19.6476	0.176	0.9	ug/L	115	KED
	Ni -4	60	26817.5	0.1	19.5668	0.077	0.4	ug/L	53	KED
	Ni -5	62	4236.3	2.4	19.9768	0.432	2.2	ug/L	10	KED
	As-2	75	4993.9	1.5	19.8652	0.252	1.3	ug/L	5	KED
	Y-1	89	62111.4	0.9				ug/L	60452	KED
	Rh-1	103	71981.6	0.3				ug/L	73774	KED
>	Ge-1	72	45015.5	0.3				ug/L	45795	KED
	In-1	115	48137.4	0.5				ug/L	46923	KED
	Sc-2	45	7359.2	1.3				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	98.238	
	Ni -4	60	97.834	
	Ni -5	62	99.884	
	As-2	75	99.326	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		98.298
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Friday, March 08, 2024 08:02:44

Report Date/Time: Friday, March 08, 2024 08:03:33

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 8.023

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	112.8	14.5	-0.0073	0.005	73.4	ug/L	115	KED
	Ni -4	60	43.3	7.4	-0.0032	0.002	76.7	ug/L	53	KED
	Ni -5	62	7.0	14.3	-0.0014	0.005	345.5	ug/L	10	KED
	As-2	75	5.0	40.0	0.0164	0.008	47.3	ug/L	5	KED
	Y-1	89	61865.0	1.0				ug/L	60452	KED
	Rh-1	103	72635.9	0.8				ug/L	73774	KED
>	Ge-1	72	45654.8	0.6				ug/L	45795	KED
	In-1	115	48062.5	0.5				ug/L	46923	KED
	Sc-2	45	7394.6	0.6				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		99.695
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: MB0308D1 2X**

Sample Date/Time: Friday, March 08, 2024 08:05:04

Report Date/Time: Friday, March 08, 2024 08:05:53

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\MB0308D1 2X.024

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	113.6	7.2	<b>-0.0070</b>	0.003	37.5	ug/L	115	KED
	Ni -4	60	54.3	8.7	<b>0.0048</b>	0.003	70.8	ug/L	53	KED
	Ni -5	62	9.3	22.3	<b>0.0097</b>	0.010	100.8	ug/L	10	KED
	As-2	75	3.3	75.5	<b>0.0099</b>	0.010	100.1	ug/L	5	KED
	Y-1	89	62165.0	1.1				ug/L	60452	KED
	Rh-1	103	72897.2	0.7				ug/L	73774	KED
>	Ge-1	72	45485.0	0.0				ug/L	45795	KED
	In-1	115	48273.1	0.2				ug/L	46923	KED
	Sc-2	45	7389.6	1.3				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		99.324
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: SB0308D1 2X**

Sample Date/Time: Friday, March 08, 2024 08:08:13

Report Date/Time: Friday, March 08, 2024 08:09:02

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\SB0308D1 2X.025

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	116768.2	0.5	<b>39.4476</b>	0.380	1.0	ug/L	115	KED
	Ni -4	60	51383.6	0.1	<b>39.3705</b>	0.130	0.3	ug/L	53	KED
	Ni -5	62	8017.2	0.8	<b>39.7031</b>	0.475	1.2	ug/L	10	KED
	As-2	75	9686.6	0.9	<b>40.4341</b>	0.522	1.3	ug/L	5	KED
	Y-1	89	59459.5	0.7				ug/L	60452	KED
	Rh-1	103	69457.1	0.8				ug/L	73774	KED
>	Ge-1	72	42904.3	0.4				ug/L	45795	KED
	In-1	115	46166.0	1.2				ug/L	46923	KED
	Sc-2	45	7029.1	0.3				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		93.688
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 02-208-01c 25X**

Sample Date/Time: Friday, March 08, 2024 08:12:09

Report Date/Time: Friday, March 08, 2024 08:12:57

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-01c 25X.026

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	548.1	3.0	0.1762	0.013	7.5	ug/L	115	KED
	Ni -4	60	239.7	17.7	0.1824	0.035	19.0	ug/L	53	KED
	Ni -5	62	48.3	29.9	0.2494	0.085	34.0	ug/L	10	KED
	As-2	75	14.7	41.7	0.0686	0.028	41.1	ug/L	5	KED
	Y-1	89	50308.5	3.5				ug/L	60452	KED
	Rh-1	103	54787.2	2.9				ug/L	73774	KED
>	Ge-1	72	36294.4	3.1				ug/L	45795	KED
	In-1	115	37344.5	1.7				ug/L	46923	KED
	Sc-2	45	6550.8	3.5				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		79.255
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 02-208-02c 25X**

Sample Date/Time: Friday, March 08, 2024 08:15:17

Report Date/Time: Friday, March 08, 2024 08:16:05

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-02c 25X.027

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	212.2	3.1	<b>0.0324</b>	0.002	5.6	ug/L	115	KED
	Ni -4	60	89.7	12.4	<b>0.0381</b>	0.009	24.7	ug/L	53	KED
	Ni -5	62	22.7	6.7	<b>0.0845</b>	0.009	10.6	ug/L	10	KED
	As-2	75	27.3	35.9	<b>0.1173</b>	0.044	37.4	ug/L	5	KED
	Y-1	89	57385.0	1.3				ug/L	60452	KED
	Rh-1	103	60976.9	0.8				ug/L	73774	KED
>	Ge-1	72	40700.6	0.9				ug/L	45795	KED
	In-1	115	41144.8	1.6				ug/L	46923	KED
	Sc-2	45	7668.7	1.5				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		88.876
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: 02-208-03c 25X**

Sample Date/Time: Friday, March 08, 2024 08:18:25

Report Date/Time: Friday, March 08, 2024 08:19:14

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-03c 25X.028

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	180.7	5.2	0.0212	0.004	16.9	ug/L	115	KED
	Ni -4	60	99.7	7.6	0.0462	0.007	14.4	ug/L	53	KED
	Ni -5	62	23.3	22.0	0.0879	0.027	30.3	ug/L	10	KED
	As-2	75	22.3	11.3	0.0951	0.011	11.4	ug/L	5	KED
	Y-1	89	57230.1	0.6				ug/L	60452	KED
	Rh-1	103	60795.8	1.6				ug/L	73774	KED
>	Ge-1	72	40686.9	0.7				ug/L	45795	KED
	In-1	115	40964.6	0.8				ug/L	46923	KED
	Sc-2	45	7565.0	2.1				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		88.846
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: 02-208-04c 25X**

Sample Date/Time: Friday, March 08, 2024 08:21:34

Report Date/Time: Friday, March 08, 2024 08:22:22

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-04c 25X.029

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	867.2	3.7	<b>0.2197</b>	0.008	3.8	ug/L	115	KED
	Ni -4	60	233.7	3.9	<b>0.1262</b>	0.007	5.4	ug/L	53	KED
	Ni -5	62	34.3	11.8	<b>0.1186</b>	0.018	15.5	ug/L	10	KED
	As-2	75	169.0	8.2	<b>0.6295</b>	0.055	8.8	ug/L	5	KED
	Y-1	89	64215.0	1.2				ug/L	60452	KED
	Rh-1	103	73070.4	0.1				ug/L	73774	KED
>	Ge-1	72	47853.7	0.6				ug/L	45795	KED
	In-1	115	48399.3	0.5				ug/L	46923	KED
	Sc-2	45	8072.3	0.6				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		104.496
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 02-208-05c 25X**

Sample Date/Time: Friday, March 08, 2024 08:24:42

Report Date/Time: Friday, March 08, 2024 08:25:31

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-05c 25X.030

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	188.9	8.0	<b>0.0230</b>	0.005	20.9	ug/L	115	KED
	Ni -4	60	90.3	10.8	<b>0.0374</b>	0.008	22.0	ug/L	53	KED
	Ni -5	62	20.3	31.2	<b>0.0703</b>	0.032	45.7	ug/L	10	KED
	As-2	75	28.7	8.8	<b>0.1208</b>	0.011	9.3	ug/L	5	KED
	Y-1	89	58729.8	0.2				ug/L	60452	KED
	Rh-1	103	61698.3	0.5				ug/L	73774	KED
>	Ge-1	72	41395.6	0.7				ug/L	45795	KED
	In-1	115	41514.4	0.8				ug/L	46923	KED
	Sc-2	45	7832.1	1.6				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		90.394
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: 02-208-02cD 25X**

Sample Date/Time: Friday, March 08, 2024 08:27:58

Report Date/Time: Friday, March 08, 2024 08:28:47

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240308A\02-208-02cD 25X.031

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	221.2	7.8	<b>0.0373</b>	0.007	19.1	ug/L	115	KED
	Ni -4	60	102.0	5.5	<b>0.0496</b>	0.004	8.3	ug/L	53	KED
	Ni -5	62	18.0	48.4	<b>0.0611</b>	0.043	70.5	ug/L	10	KED
	As-2	75	31.3	21.7	<b>0.1369</b>	0.026	19.0	ug/L	5	KED
	Y-1	89	55585.0	2.7				ug/L	60452	KED
	Rh-1	103	59152.6	2.5				ug/L	73774	KED
>	Ge-1	72	39909.7	3.0				ug/L	45795	KED
	In-1	115	39672.3	2.0				ug/L	46923	KED
	Sc-2	45	7459.9	2.9				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		87.149
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 02-208-02cL 125X**

Sample Date/Time: Friday, March 08, 2024 08:31:07

Report Date/Time: Friday, March 08, 2024 08:31:55

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-02cL 125X.032

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	277.0	4.2	<b>0.0388</b>	0.004	9.1	ug/L	115	KED
	Ni -4	60	110.3	7.0	<b>0.0396</b>	0.005	12.8	ug/L	53	KED
	Ni -5	62	30.0	39.3	<b>0.0962</b>	0.051	53.3	ug/L	10	KED
	As-2	75	8.7	26.6	<b>0.0285</b>	0.008	29.8	ug/L	5	KED
	Y-1	89	66305.9	1.1				ug/L	60452	KED
	Rh-1	103	73797.5	0.5				ug/L	73774	KED
>	Ge-1	72	49006.6	0.2				ug/L	45795	KED
	In-1	115	48338.2	0.4				ug/L	46923	KED
	Sc-2	45	8559.9	0.6				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		107.014
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 02-208-02cMS 25X**

Sample Date/Time: Friday, March 08, 2024 08:34:15

Report Date/Time: Friday, March 08, 2024 08:35:04

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-02cMS 25X.033

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	110326.8	0.8	<b>37.6401</b>	0.363	1.0	ug/L	115	KED
	Ni -4	60	48213.9	1.2	<b>37.3084</b>	0.515	1.4	ug/L	53	KED
	Ni -5	62	7378.9	1.0	<b>36.9022</b>	0.376	1.0	ug/L	10	KED
	As-2	75	9661.9	0.8	<b>40.7324</b>	0.478	1.2	ug/L	5	KED
	Y-1	89	59666.7	0.6				ug/L	60452	KED
	Rh-1	103	62495.1	0.1				ug/L	73774	KED
>	Ge-1	72	42481.4	0.4				ug/L	45795	KED
	In-1	115	42198.8	0.3				ug/L	46923	KED
	Sc-2	45	7917.5	1.8				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		92.765
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Friday, March 08, 2024 08:37:25

Report Date/Time: Friday, March 08, 2024 08:38:14

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 6.034

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	131327.0	3.0	<b>40.6770</b>	0.407	1.0	ug/L	115	KED
	Ni -4	60	57413.2	2.7	<b>40.3339</b>	0.206	0.5	ug/L	53	KED
	Ni -5	62	8914.4	1.8	<b>40.4827</b>	0.446	1.1	ug/L	10	KED
	As-2	75	10697.3	3.1	<b>40.9385</b>	0.464	1.1	ug/L	5	KED
	Y-1	89	62207.9	2.4				ug/L	60452	KED
	Rh-1	103	72869.8	2.3				ug/L	73774	KED
>	Ge-1	72	46790.9	2.2				ug/L	45795	KED
	In-1	115	47314.2	2.0				ug/L	46923	KED
	Sc-2	45	7918.5	2.1				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	101.692	
	Ni -4	60	100.835	
	Ni -5	62	101.207	
	As-2	75	102.346	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		102.175
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Friday, March 08, 2024 08:40:35

Report Date/Time: Friday, March 08, 2024 08:41:24

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 7.035

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	66575.0	3.5	<b>20.1916</b>	0.193	1.0	ug/L	115	KED
	Ni -4	60	29153.7	3.5	<b>20.0592</b>	0.214	1.1	ug/L	53	KED
	Ni -5	62	4482.7	3.5	<b>19.9339</b>	0.179	0.9	ug/L	10	KED
	As-2	75	5369.7	5.8	<b>20.1345</b>	0.684	3.4	ug/L	5	KED
	Y-1	89	63153.7	2.7				ug/L	60452	KED
	Rh-1	103	74727.4	2.6				ug/L	73774	KED
>	Ge-1	72	47731.0	2.6				ug/L	45795	KED
	In-1	115	48288.6	1.8				ug/L	46923	KED
	Sc-2	45	8139.0	3.1				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	100.958	
	Ni -4	60	100.296	
	Ni -5	62	99.669	
	As-2	75	100.673	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		104.228
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Friday, March 08, 2024 08:43:45

Report Date/Time: Friday, March 08, 2024 08:44:33

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 8.036

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	152.2	1.5	<b>0.0032</b>	0.001	38.2	ug/L	115	KED
	Ni -4	60	77.3	8.6	<b>0.0191</b>	0.006	30.7	ug/L	53	KED
	Ni -5	62	12.0	46.4	<b>0.0191</b>	0.023	122.1	ug/L	10	KED
	As-2	75	3.7	31.5	<b>0.0106</b>	0.004	41.5	ug/L	5	KED
	Y-1	89	62977.2	2.6				ug/L	60452	KED
	Rh-1	103	74131.3	2.6				ug/L	73774	KED
>	Ge-1	72	47616.6	3.2				ug/L	45795	KED
	In-1	115	47623.7	2.4				ug/L	46923	KED
	Sc-2	45	8079.0	4.2				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		103.978
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 02-208-02cMSD 25X**

Sample Date/Time: Friday, March 08, 2024 08:47:34

Report Date/Time: Friday, March 08, 2024 08:48:22

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-02cMSD 25X.037

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	102000.6	3.8	<b>38.7290</b>	0.663	1.7	ug/L	115	KED
	Ni -4	60	44609.6	3.8	<b>38.4166</b>	0.616	1.6	ug/L	53	KED
	Ni -5	62	6896.0	4.3	<b>38.3780</b>	0.757	2.0	ug/L	10	KED
	As-2	75	9155.6	3.4	<b>42.9559</b>	0.380	0.9	ug/L	5	KED
	Y-1	89	52870.7	2.3				ug/L	60452	KED
	Rh-1	103	55966.5	2.4				ug/L	73774	KED
>	Ge-1	72	38164.9	2.5				ug/L	45795	KED
	In-1	115	38097.1	1.4				ug/L	46923	KED
	Sc-2	45	7204.2	2.6				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		83.339
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: MB0308WM1 2X**

Sample Date/Time: Friday, March 08, 2024 08:50:42

Report Date/Time: Friday, March 08, 2024 08:51:31

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\MB0308WM1 2X.038

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	139.1	4.0	-0.0027	0.002	72.4	ug/L	115	KED
	Ni -4	60	59.0	4.5	0.0045	0.001	31.6	ug/L	53	KED
	Ni -5	62	15.3	10.0	0.0314	0.007	21.2	ug/L	10	KED
	As-2	75	7.0	57.1	0.0219	0.014	65.9	ug/L	5	KED
	Y-1	89	65852.8	1.1				ug/L	60452	KED
	Rh-1	103	76842.8	0.2				ug/L	73774	KED
>	Ge-1	72	49839.1	0.8				ug/L	45795	KED
	In-1	115	49375.3	0.8				ug/L	46923	KED
	Sc-2	45	8403.5	1.2				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		108.832
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: SB0308WM1 2X**

Sample Date/Time: Friday, March 08, 2024 08:53:51

Report Date/Time: Friday, March 08, 2024 08:54:38

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\SB0308WM1 2X.039

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	159538.4	0.6	<b>47.5731</b>	0.583	1.2	ug/L	115	KED
	Ni -4	60	70385.3	0.4	<b>47.6013</b>	0.494	1.0	ug/L	53	KED
	Ni -5	62	10760.4	0.7	<b>47.0310</b>	0.317	0.7	ug/L	10	KED
	As-2	75	12860.8	0.8	<b>47.3779</b>	0.747	1.6	ug/L	5	KED
	Y-1	89	64531.1	1.0				ug/L	60452	KED
	Rh-1	103	74931.3	0.5				ug/L	73774	KED
>	Ge-1	72	48618.3	1.0				ug/L	45795	KED
	In-1	115	48687.2	0.6				ug/L	46923	KED
	Sc-2	45	8270.7	0.9				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		106.166
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 01-243-13b 2X**

Sample Date/Time: Friday, March 08, 2024 08:56:58

Report Date/Time: Friday, March 08, 2024 08:57:46

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\01-243-13b 2X.040

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	2162.2	2.4	<b>0.5925</b>	0.019	3.3	ug/L	115	KED
	Ni -4	60	851.4	5.0	<b>0.5332</b>	0.031	5.8	ug/L	53	KED
	Ni -5	62	141.3	11.9	<b>0.5748</b>	0.071	12.3	ug/L	10	KED
	As-2	75	145.3	1.7	<b>0.5241</b>	0.006	1.1	ug/L	5	KED
	Y-1	89	66155.2	0.9				ug/L	60452	KED
	Rh-1	103	75702.7	0.8				ug/L	73774	KED
>	Ge-1	72	49357.8	0.7				ug/L	45795	KED
	In-1	115	48855.9	0.5				ug/L	46923	KED
	Sc-2	45	8478.8	0.9				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		107.781
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 01-243-13bD 2X**

Sample Date/Time: Friday, March 08, 2024 09:00:06

Report Date/Time: Friday, March 08, 2024 09:00:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\01-243-13bD 2X.041

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	2240.0	0.4	<b>0.6089</b>	0.003	0.5	ug/L	115	KED
	Ni -4	60	840.7	4.9	<b>0.5206</b>	0.029	5.6	ug/L	53	KED
	Ni -5	62	110.7	5.8	<b>0.4381</b>	0.026	5.9	ug/L	10	KED
	As-2	75	144.3	7.2	<b>0.5155</b>	0.038	7.5	ug/L	5	KED
	Y-1	89	66908.3	0.6				ug/L	60452	KED
	Rh-1	103	76899.1	0.8				ug/L	73774	KED
>	Ge-1	72	49842.5	0.3				ug/L	45795	KED
	In-1	115	50073.0	0.7				ug/L	46923	KED
	Sc-2	45	8656.3	2.4				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		108.839
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 01-243-13bL 10X**

Sample Date/Time: Friday, March 08, 2024 09:03:14

Report Date/Time: Friday, March 08, 2024 09:04:01

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\01-243-13bL 10X.042

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	1002.2	3.6	0.2435	0.010	4.0	ug/L	115	KED
	Ni -4	60	440.0	4.5	0.2509	0.012	4.9	ug/L	53	KED
	Ni -5	62	71.0	11.5	0.2636	0.033	12.6	ug/L	10	KED
	As-2	75	27.3	22.4	0.0933	0.022	23.6	ug/L	5	KED
	Y-1	89	66676.3	1.3				ug/L	60452	KED
	Rh-1	103	77359.6	1.7				ug/L	73774	KED
>	Ge-1	72	50724.9	0.4				ug/L	45795	KED
	In-1	115	49867.2	0.5				ug/L	46923	KED
	Sc-2	45	8551.6	0.4				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		110.766
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 01-243-13bMS 2X**

Sample Date/Time: Friday, March 08, 2024 09:06:21

Report Date/Time: Friday, March 08, 2024 09:07:09

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\01-243-13bMS 2X.043

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	167267.9	0.7	<b>49.2622</b>	0.397	0.8	ug/L	115	KED
	Ni -4	60	73222.8	0.3	<b>48.9083</b>	0.119	0.2	ug/L	53	KED
	Ni -5	62	11231.1	0.4	<b>48.4832</b>	0.115	0.2	ug/L	10	KED
	As-2	75	13741.9	0.6	<b>49.9959</b>	0.238	0.5	ug/L	5	KED
	Y-1	89	65923.8	1.0				ug/L	60452	KED
	Rh-1	103	75239.3	0.6				ug/L	73774	KED
>	Ge-1	72	49224.7	0.2				ug/L	45795	KED
	In-1	115	49044.3	0.5				ug/L	46923	KED
	Sc-2	45	8376.8	1.0				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		107.490
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 01-243-13bMSD 2X**

Sample Date/Time: Friday, March 08, 2024 09:09:29

Report Date/Time: Friday, March 08, 2024 09:10:17

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\01-243-13bMSD 2X.044

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	173684.4	0.3	<b>50.4670</b>	0.148	0.3	ug/L	115	KED
	Ni -4	60	76120.9	0.9	<b>50.1637</b>	0.469	0.9	ug/L	53	KED
	Ni -5	62	11647.4	1.1	<b>49.6075</b>	0.561	1.1	ug/L	10	KED
	As-2	75	14394.6	0.6	<b>51.6687</b>	0.318	0.6	ug/L	5	KED
	Y-1	89	66991.7	1.5				ug/L	60452	KED
	Rh-1	103	76555.6	0.8				ug/L	73774	KED
>	Ge-1	72	49893.3	0.1				ug/L	45795	KED
	In-1	115	49818.5	1.2				ug/L	46923	KED
	Sc-2	45	8610.6	0.7				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		108.950
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: 01-243-13bPS 2X**

Sample Date/Time: Friday, March 08, 2024 09:12:37

Report Date/Time: Friday, March 08, 2024 09:13:26

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\01-243-13bPS 2X.045

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	159056.3	0.9	<b>51.5302</b>	0.699	1.4	ug/L	115	KED
	Ni -4	60	68716.9	0.8	<b>50.4902</b>	0.676	1.3	ug/L	53	KED
	Ni -5	62	10646.6	2.5	<b>50.5616</b>	1.535	3.0	ug/L	10	KED
	As-2	75	12786.4	0.3	<b>51.1714</b>	0.474	0.9	ug/L	5	KED
	Y-1	89	60598.3	0.1				ug/L	60452	KED
	Rh-1	103	69076.6	0.4				ug/L	73774	KED
>	Ge-1	72	44751.3	0.6				ug/L	45795	KED
	In-1	115	45369.9	0.7				ug/L	46923	KED
	Sc-2	45	7777.1	1.7				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		97.722
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: 02-208-01d 25X**

Sample Date/Time: Friday, March 08, 2024 09:15:46

Report Date/Time: Friday, March 08, 2024 09:16:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-01d 25X.046

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	741.3	6.2	<b>0.1938</b>	0.014	7.2	ug/L	115	KED
	Ni -4	60	302.0	12.9	<b>0.1844</b>	0.027	14.7	ug/L	53	KED
	Ni -5	62	51.3	7.9	<b>0.2066</b>	0.019	9.2	ug/L	10	KED
	As-2	75	19.7	23.5	<b>0.0743</b>	0.018	23.8	ug/L	5	KED
	Y-1	89	61892.1	1.1				ug/L	60452	KED
	Rh-1	103	66880.9	0.5				ug/L	73774	KED
>	Ge-1	72	45371.6	0.7				ug/L	45795	KED
	In-1	115	44393.7	0.3				ug/L	46923	KED
	Sc-2	45	8351.1	2.2				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		99.076
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Friday, March 08, 2024 09:18:56

Report Date/Time: Friday, March 08, 2024 09:19:44

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 6.047

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	142364.5	3.0	41.1161	0.933	2.3	ug/L	115	KED
	Ni -4	60	61995.3	2.8	40.6092	0.806	2.0	ug/L	53	KED
	Ni -5	62	9525.8	3.6	40.3232	0.954	2.4	ug/L	10	KED
	As-2	75	11297.1	1.1	40.3165	0.203	0.5	ug/L	5	KED
	Y-1	89	65653.9	2.3				ug/L	60452	KED
	Rh-1	103	77023.5	2.3				ug/L	73774	KED
>	Ge-1	72	50183.7	1.4				ug/L	45795	KED
	In-1	115	49376.7	2.1				ug/L	46923	KED
	Sc-2	45	8654.6	2.6				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	102.790	
	Ni -4	60	101.523	
	Ni -5	62	100.808	
	As-2	75	100.791	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		109.584
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Friday, March 08, 2024 09:22:05

Report Date/Time: Friday, March 08, 2024 09:22:53

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 7.048

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	70522.6	3.2	20.3977	0.126	0.6	ug/L	115	KED
	Ni -4	60	30979.9	3.5	20.3258	0.169	0.8	ug/L	53	KED
	Ni -5	62	4701.4	4.4	19.9331	0.394	2.0	ug/L	10	KED
	As-2	75	5588.8	3.1	19.9920	0.132	0.7	ug/L	5	KED
	Y-1	89	66211.8	2.6				ug/L	60452	KED
	Rh-1	103	77761.8	2.4				ug/L	73774	KED
>	Ge-1	72	50056.9	2.8				ug/L	45795	KED
	In-1	115	49880.6	1.8				ug/L	46923	KED
	Sc-2	45	8869.8	5.2				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	101.989	
	Ni -4	60	101.629	
	Ni -5	62	99.665	
	As-2	75	99.960	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		109.307
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Friday, March 08, 2024 09:25:15

Report Date/Time: Friday, March 08, 2024 09:26:04

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 8.049

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	155.8	6.0	0.0022	0.003	129.6	ug/L	115	KED
	Ni -4	60	71.7	14.0	0.0127	0.005	41.2	ug/L	53	KED
	Ni -5	62	10.3	24.4	0.0100	0.010	98.7	ug/L	10	KED
	As-2	75	4.0	50.0	0.0111	0.007	63.9	ug/L	5	KED
	Y-1	89	65022.0	2.5				ug/L	60452	KED
	Rh-1	103	76861.3	2.3				ug/L	73774	KED
>	Ge-1	72	49872.0	3.1				ug/L	45795	KED
	In-1	115	48979.8	1.5				ug/L	46923	KED
	Sc-2	45	8624.9	3.8				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		108.903
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: 02-208-02d 25X**

Sample Date/Time: Friday, March 08, 2024 09:28:46

Report Date/Time: Friday, March 08, 2024 09:29:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-02d 25X.050

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	283.0	1.9	0.0605	0.001	1.9	ug/L	115	KED
	Ni -4	60	124.3	5.5	0.0688	0.004	5.9	ug/L	53	KED
	Ni -5	62	23.0	7.5	0.0894	0.007	7.3	ug/L	10	KED
	As-2	75	29.3	16.1	0.1292	0.019	14.7	ug/L	5	KED
	Y-1	89	54799.3	3.9				ug/L	60452	KED
	Rh-1	103	58243.9	2.6				ug/L	73774	KED
>	Ge-1	72	39609.5	2.8				ug/L	45795	KED
	In-1	115	39112.1	2.3				ug/L	46923	KED
	Sc-2	45	7674.1	3.7				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		86.494
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 02-208-03d 25X**

Sample Date/Time: Friday, March 08, 2024 09:31:55

Report Date/Time: Friday, March 08, 2024 09:32:43

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-03d 25X.051

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	234.8	1.0	0.0325	0.001	3.7	ug/L	115	KED
	Ni -4	60	107.3	12.0	0.0440	0.010	22.1	ug/L	53	KED
	Ni -5	62	22.0	7.9	0.0700	0.009	12.2	ug/L	10	KED
	As-2	75	24.7	26.1	0.0950	0.026	27.2	ug/L	5	KED
	Y-1	89	61894.5	0.6				ug/L	60452	KED
	Rh-1	103	65113.7	0.3				ug/L	73774	KED
>	Ge-1	72	45009.1	0.9				ug/L	45795	KED
	In-1	115	42930.7	0.8				ug/L	46923	KED
	Sc-2	45	8621.9	0.3				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		98.285
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: 02-208-04d 25X**

Sample Date/Time: Friday, March 08, 2024 09:35:03

Report Date/Time: Friday, March 08, 2024 09:35:51

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-04d 25X.052

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	999.9	6.8	<b>0.2410</b>	0.018	7.4	ug/L	115	KED
	Ni -4	60	276.7	1.8	<b>0.1439</b>	0.004	2.9	ug/L	53	KED
	Ni -5	62	41.3	5.0	<b>0.1383</b>	0.010	7.2	ug/L	10	KED
	As-2	75	165.3	4.9	<b>0.5772</b>	0.032	5.6	ug/L	5	KED
	Y-1	89	67827.0	0.6				ug/L	60452	KED
	Rh-1	103	76679.2	0.4				ug/L	73774	KED
>	Ge-1	72	51030.0	0.8				ug/L	45795	KED
	In-1	115	49694.3	0.5				ug/L	46923	KED
	Sc-2	45	9026.5	0.5				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		111.432
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 02-208-05d 25X**

Sample Date/Time: Friday, March 08, 2024 09:38:11

Report Date/Time: Friday, March 08, 2024 09:39:00

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-05d 25X.053

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	345.3	3.8	<b>0.0655</b>	0.004	6.6	ug/L	115	KED
	Ni -4	60	145.7	6.9	<b>0.0695</b>	0.008	11.0	ug/L	53	KED
	Ni -5	62	30.3	10.6	<b>0.1059</b>	0.015	13.7	ug/L	10	KED
	As-2	75	29.0	19.2	<b>0.1095</b>	0.022	20.2	ug/L	5	KED
	Y-1	89	63284.5	0.4				ug/L	60452	KED
	Rh-1	103	66776.4	0.1				ug/L	73774	KED
>	Ge-1	72	46110.3	0.5				ug/L	45795	KED
	In-1	115	44849.3	0.3				ug/L	46923	KED
	Sc-2	45	8891.8	0.1				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		100.689
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Friday, March 08, 2024 09:41:21

Report Date/Time: Friday, March 08, 2024 09:42:09

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 6.054

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	147054.5	2.3	<b>41.8655</b>	0.479	1.1	ug/L	115	KED
	Ni -4	60	64165.8	2.6	<b>41.4303</b>	0.547	1.3	ug/L	53	KED
	Ni -5	62	9819.4	3.5	<b>40.9707</b>	0.748	1.8	ug/L	10	KED
	As-2	75	11595.4	0.8	<b>40.7943</b>	0.662	1.6	ug/L	5	KED
	Y-1	89	66851.4	1.9				ug/L	60452	KED
	Rh-1	103	78117.0	1.3				ug/L	73774	KED
>	Ge-1	72	50915.9	2.3				ug/L	45795	KED
	In-1	115	49689.0	1.4				ug/L	46923	KED
	Sc-2	45	9055.2	2.6				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	104.664	
	Ni -4	60	103.576	
	Ni -5	62	102.427	
	As-2	75	101.986	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		111.183
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Friday, March 08, 2024 09:44:30

Report Date/Time: Friday, March 08, 2024 09:45:19

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 7.055

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	74000.9	2.8	20.5480	0.191	0.9	ug/L	115	KED
	Ni -4	60	32605.5	3.4	20.5372	0.325	1.6	ug/L	53	KED
	Ni -5	62	4892.8	2.4	19.9229	0.440	2.2	ug/L	10	KED
	As-2	75	5918.9	1.4	20.3314	0.340	1.7	ug/L	5	KED
	Y-1	89	67633.1	2.8				ug/L	60452	KED
	Rh-1	103	79299.9	2.0				ug/L	73774	KED
>	Ge-1	72	52142.0	2.3				ug/L	45795	KED
	In-1	115	50797.4	1.4				ug/L	46923	KED
	Sc-2	45	9316.4	3.0				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	102.740	
	Ni -4	60	102.686	
	Ni -5	62	99.614	
	As-2	75	101.657	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		113.860
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Friday, March 08, 2024 09:47:40

Report Date/Time: Friday, March 08, 2024 09:48:28

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 8.056

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	176.5	5.3	0.0061	0.004	60.6	ug/L	115	KED
	Ni -4	60	79.0	14.4	0.0155	0.007	44.8	ug/L	53	KED
	Ni -5	62	10.7	10.8	0.0096	0.005	51.7	ug/L	10	KED
	As-2	75	4.0	43.3	0.0105	0.006	55.3	ug/L	5	KED
	Y-1	89	67498.2	3.2				ug/L	60452	KED
	Rh-1	103	79968.3	2.5				ug/L	73774	KED
>	Ge-1	72	52025.6	2.2				ug/L	45795	KED
	In-1	115	50823.5	2.8				ug/L	46923	KED
	Sc-2	45	9178.3	3.3				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		113.606
	In-1	115		
	Sc-2	45		

Work continued from Page

Std Name	Lab ID	Source	Source ID	Exp	Initial conc ppm	Initial vol ml	Final conc ppm	Final vol ml	Comments	Std	Date
6020 10x	TM12-004-01	IV 6020 Cal-1	T2ME5726406	2-9-25	20	1.0	2	10	2% HNO <sub>3</sub>	KOM	3-6-24
6020 100x	TM12-004-02	↓	↓	↓	↓	0.1	.2	↓	↓	↓	↓
5 Std 1	TM12-004-03	6020 100x	TM12-004-02	3-20-24	.2	.05	.0002	50	5% HNO <sub>3</sub>	KOM	3-6-24
2	04	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
3	05	6020 10x	TM12-004-01	↓	↓	.05	.002	↓	↓	↓	↓
4	06	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	07	IV 6020 Cal-1	T2ME5726406	2-9-25	20	.05	.02	↓	↓	↓	↓
10 6	08	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	09	↓	↓	↓	↓	.25	.10	↓	↓	↓	↓
IW	10	IV PECKK1	S2ME5709269	5-24-24	10	.25	.05	↓	↓	↓	↓
Std 1	TM12-004-11	6020 100x	TM12-004-02	3-20-24	.2	.05	.0007	50	5% HNO <sub>3</sub>	KOM	3-8-24
2	12	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
3	13	6020 10x	TM12-004-01	↓	↓	.05	.002	↓	↓	↓	↓
4	14	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	15	IV 6020 Cal-1	T2ME5726406	2-9-25	20	.05	.02	↓	↓	↓	↓
6	16	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	17	↓	↓	↓	↓	.25	.16	↓	↓	↓	↓
20 IW	18	IV PECKK1	S2ME5709269	5-24-24	10	.25	.05	↓	↓	↓	↓
Std 1	TM12-004-19	6020 100x	TM12-004-02	3-20-24	.2	.05	.0001	50	5% HNO <sub>3</sub>	KOM	3-8-24
2	20	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
3	21	6020 10x	TM12-004-01	↓	↓	.05	.002	↓	↓	↓	↓
4	22	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	23	IV 6020 Cal-1	T2ME5726406	2-9-25	20	.05	.02	↓	↓	↓	↓
6	24	↓	↓	↓	↓	.110	.04	↓	↓	↓	↓
7	25	↓	↓	↓	↓	.75	.16	↓	↓	↓	↓
IW	26	IV PECKK1	S2ME5709269	5-24-24	10	.25	.05	↓	↓	↓	↓
6020 10x	TM12-004-27	IV 6020 Cal-1	T2ME5726406	2-9-25	20	1.0	2	10	2% HNO <sub>3</sub>	KOM	3-12-24
6020 100x	TM12-004-28	↓	↓	↓	↓	0.1	.2	↓	↓	↓	↓

SIGNATURE

Work continued to Page

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

DIGESTION DATE:	3-8-24
ANALYST:	kmr

QC BATCH #:	01-243-136
MATRIX:	water
ANALYSIS METHOD:	3015

OSE LAB ID#	INITIAL Wt.(g)/Vol.(ml)	FINAL Vol.(ml)	DILUTION FACTOR	PRE/POST DIGEST APPEARANCE	COMMENTS
mg0308 Wm1	45ml	50			
SB 0308 Wm1					
01-243-136					
136 D					
136ms					
136ms0					
02-208-01d					
02d					
03d					
04d					
05d					
kmr 2-11-24					

SPIKE ID# IV6000 cal-1

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

VOL ADDED: 25ml

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Dissolved Metals EPA 200.8

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration Data
- Administrative Forms

# Dataset Report

3-8-24  
kom

User Name: kmckinney  
Computer Name: DESKTOP-RIRVUDN  
Dataset File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\  
Report Date/Time: Friday, March 08, 2024 09:50:27

## The Dataset

Batch ID	Sample ID	Date and Time	Read Type	Samp. File Name	Description
SmartTune - [STD/KED] Nebulizer		06:59:04 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
SmartTune - CQID		07:02:27 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
SmartTune - CQID		07:04:35 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
SmartTune - CQID		07:06:46 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
SmartTune - MMass Calibration and		07:09:07 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
SmartTune - [STD] Performance Ch		07:09:46 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
SmartTune - [STD] Performance Ch		07:13:16 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
SmartTune - [STD] Performance Ch		07:15:37 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Sample	07:22:55 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Sample	07:26:04 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Blank	07:31:39 Fri 08-Ma	Blank	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Standard 1	07:33:58 Fri 08-Ma	Standard #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Standard 2	07:36:16 Fri 08-Ma	Standard #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Standard 3	07:38:36 Fri 08-Ma	Standard #3	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Standard 4	07:40:55 Fri 08-Ma	Standard #4	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Standard 5	07:43:14 Fri 08-Ma	Standard #5	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Standard 6	07:45:33 Fri 08-Ma	Standard #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	Standard 7	07:47:51 Fri 08-Ma	Standard #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 1	07:51:00 Fri 08-Ma	QC Std #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 2	07:54:09 Fri 08-Ma	QC Std #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 6	07:56:27 Fri 08-Ma	QC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 7	07:59:36 Fri 08-Ma	QC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 8	08:02:44 Fri 08-Ma	QC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	MB0308D1 2X	08:05:04 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	SB0308D1 2X	08:08:13 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-01c 25X	08:12:09 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-02c 25X	08:15:17 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-03c 25X	08:18:25 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-04c 25X	08:21:34 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-05c 25X	08:24:42 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-02cD 25X	08:27:58 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-02cL 125X	08:31:07 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-02cMS 25X	08:34:15 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 6	08:37:25 Fri 08-Ma	QC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 7	08:40:35 Fri 08-Ma	QC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 8	08:43:45 Fri 08-Ma	QC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-02cMSD 25X	08:47:34 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	MB0308WM1 2X	08:50:42 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	SB0308WM1 2X	08:53:51 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	01-243-13b 2X	08:56:58 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	01-243-13bD 2X	09:00:06 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	01-243-13bL 10X	09:03:14 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	01-243-13bMS 2X	09:06:21 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	01-243-13bMSD 2X	09:09:29 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	01-243-13bPS 2X	09:12:37 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-01d 25X	09:15:46 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 6	09:18:56 Fri 08-Ma	QC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 7	09:22:05 Fri 08-Ma	QC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	QC Std 8	09:25:15 Fri 08-Ma	QC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	
	02-208-02d 25X	09:28:46 Fri 08-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\	

02-208-03d 25X	09:31:55 Fri 08-MaSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308
02-208-04d 25X	09:35:03 Fri 08-MaSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308
02-208-05d 25X	09:38:11 Fri 08-MaSample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308
QC Std 6	09:41:21 Fri 08-MaQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308
QC Std 7	09:44:30 Fri 08-MaQC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308
QC Std 8	09:47:40 Fri 08-MaQC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308

## Performance Check Report

### Sample ID: [STD] Performance Check

Sample Date/Time: Friday, March 08, 2024 07:15:37

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Optimizations\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\03MAR24\Y240308A\[STD] Performance Check.008

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

### Summary

IS	Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode
	Li	7.0		65637.7		65637.718		472.516		0.7	Standard
	In	114.9		427306.0		427306.003		11109.324		2.6	Standard
	U	238.1		276850.5		276850.513		2523.994		0.9	Standard
Ce	CeO	155.9		19655.8		0.023		0.000		0.8	Standard
Ce	Ce++	70.0		8192.5		0.010		0.000		1.3	Standard
	Bkgd	220.5		0.9		0.867		0.321		37.0	Standard
	Ce	139.9		859100.3		859100.276		9398.000		1.1	Standard

### Current Conditions File Data

Current Value	Description
-100.00	Standard - OmniRing Park Voltage
4.00	Standard - Hyperskimmer Park Voltage
0.96	Standard - Nebulizer Gas Flow STD/KED [NEB]
1.20	Standard - Auxiliary Gas Flow
15.00	Standard - Plasma Gas Flow
0.10	Standard - Oxygen Gas Flow
-10.00	Standard - QID Fixed Voltage
1600.00	Standard - ICP RF Power
-1675.00	Standard - Analog Stage
1050.00	Standard - Pulse Stage
0.00	Standard - Q1 Rod Offset STD [QRO]
-12.00	Standard - Cell Rod Offset STD [CRO]
-3.00	Standard - Cell Entrance/Exit Voltage STD
0.00	Standard - Axial Field Voltage
5.00	Ammonia DRC - OmniRing Park Voltage
-9.50	Ammonia DRC - DRC Mode QRO
-2.50	Ammonia DRC - DRC Mode CRO
-7.00	Ammonia DRC - DRC Mode Cell Entrance/Exit Voltage
250.00	Ammonia DRC - Axial Field Voltage
0.60	Ammonia DRC - Cell Gas A
2.00	Ammonia DRC - Hyperskimmer Park Voltage
0.98	Ammonia DRC - DRC Mode NEB
5.00	Helium KED - OmniRing Park Voltage
2.00	Helium KED - Hyperskimmer Park Voltage
-12.00	Helium KED - KED Mode QRO
-15.00	Helium KED - KED Mode CRO
-4.00	Helium KED - KED Mode Cell Entrance Voltage
-32.00	Helium KED - KED Mode Cell Exit Voltage
475.00	Helium KED - KED Mode Axial Field Voltage

2.00 Helium KED - Cell Gas B

## Instrument Mass Calibration Report

File Name:

File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\

Acq. Date/Time: 07:09:07 Fri 08-Mar-24

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Peak Width	Custom Res.
Li	7.016	7.025	1227	2062	0.706	
Mg	23.985	24.025	4587	2063	0.690	
In	114.904	114.925	22600	2066	0.707	
Pb	207.977	207.975	41058	2065	0.702	
U	238.050	238.025	47021	2065	0.706	

## Quantitative Analysis Calibration Report

File Name:

File Path:

Calibration Type: External Calibration

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Ni -3	57.935	Weighted Linear	0.07	0.00	0.999914
Ni -4	59.933	Weighted Linear	0.03	-0.00	0.999801
Ni -5	61.928	Weighted Linear	0.00	-0.00	0.999790
As-2	74.922	Weighted Linear	0.01	-0.00	0.999903
Y-1	88.905	Weighted Linear	0.00	0.00	0.000000
Rh-1	102.905	Weighted Linear	0.00	0.00	0.000000
Ge-1	71.922	Linear Thru Zero	0.00	0.00	0.000000
In-1	114.904	Linear Thru Zero	0.00	0.00	0.000000
Sc-2	44.956	Linear Thru Zero	0.00	0.00	0.000000

# Quantitative Analysis - Summary Report

## Sample ID: Blank

Sample Date/Time: Friday, March 08, 2024 07:31:39

Report Date/Time: Friday, March 08, 2024 07:32:27

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\Blank.011

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	114.9	22.0				ug/L		KED
	Ni -4	60	52.7	4.0				ug/L		KED
	Ni -5	62	10.3	14.8				ug/L		KED
	As-2	75	5.0	52.9				ug/L		KED
	Y-1	89	60452.4	3.3				ug/L		KED
	Rh-1	103	73774.4	2.6				ug/L		KED
>	Ge-1	72	45794.7	3.9				ug/L		KED
	In-1	115	46923.5	1.9				ug/L		KED
	Sc-2	45	7392.2	5.6				ug/L		KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 1**

Sample Date/Time: Friday, March 08, 2024 07:33:58

Report Date/Time: Friday, March 08, 2024 07:34:46

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\Standard 1.012

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	881.1	3.9				ug/L	115	KED
	Ni -4	60	381.3	3.3				ug/L	53	KED
	Ni -5	62	56.3	24.2				ug/L	10	KED
	As-2	75	60.3	6.3				ug/L	5	KED
	Y-1	89	71033.5	0.8				ug/L	60452	KED
	Rh-1	103	85522.9	0.8				ug/L	73774	KED
>	Ge-1	72	52790.4	0.8				ug/L	45795	KED
	In-1	115	54710.3	0.6				ug/L	46923	KED
	Sc-2	45	8645.6	1.0				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 2**

Sample Date/Time: Friday, March 08, 2024 07:36:16

Report Date/Time: Friday, March 08, 2024 07:37:05

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\Standard 2.013

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	1935.7	3.1				ug/L	115	KED
	Ni -4	60	837.0	6.3				ug/L	53	KED
	Ni -5	62	129.3	7.4				ug/L	10	KED
	As-2	75	142.7	7.0	<b>0.5000</b>	0.038	7.7	ug/L	5	KED
	Y-1	89	69713.7	1.1				ug/L	60452	KED
	Rh-1	103	83762.5	1.1				ug/L	73774	KED
>	Ge-1	72	51825.8	0.5				ug/L	45795	KED
	In-1	115	53312.9	1.7				ug/L	46923	KED
	Sc-2	45	8434.5	1.1				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

## Sample ID: Standard 3

Sample Date/Time: Friday, March 08, 2024 07:38:36

Report Date/Time: Friday, March 08, 2024 07:39:25

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\Standard 3.014

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	7335.3	1.5	2.0000	0.022	1.1	ug/L	115	KED
	Ni -4	60	3264.4	1.8	2.0000	0.029	1.4	ug/L	53	KED
	Ni -5	62	504.7	5.6	2.0000	0.127	6.3	ug/L	10	KED
	As-2	75	580.0	1.8	2.0186	0.041	2.1	ug/L	5	KED
	Y-1	89	69928.7	0.2				ug/L	60452	KED
	Rh-1	103	84015.7	0.6				ug/L	73774	KED
>	Ge-1	72	51954.0	0.8				ug/L	45795	KED
	In-1	115	54159.8	1.3				ug/L	46923	KED
	Sc-2	45	8488.9	1.6				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: Standard 4**

Sample Date/Time: Friday, March 08, 2024 07:40:55

Report Date/Time: Friday, March 08, 2024 07:41:44

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\Standard 4.015

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	18053.8	0.8	<b>5.0330</b>	0.033	0.7	ug/L	115	KED
	Ni -4	60	7996.6	2.7	<b>5.0113</b>	0.153	3.1	ug/L	53	KED
	Ni -5	62	1239.1	3.1	<b>5.0149</b>	0.168	3.3	ug/L	10	KED
	As-2	75	1451.7	3.9	<b>5.0888</b>	0.210	4.1	ug/L	5	KED
	Y-1	89	68473.0	0.7				ug/L	60452	KED
	Rh-1	103	82504.9	0.8				ug/L	73774	KED
>	Ge-1	72	50913.6	0.3				ug/L	45795	KED
	In-1	115	53210.7	1.4				ug/L	46923	KED
	Sc-2	45	8377.5	0.2				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 5**

Sample Date/Time: Friday, March 08, 2024 07:43:14

Report Date/Time: Friday, March 08, 2024 07:44:02

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\Standard 5.016

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	68298.1	0.4	<b>19.8164</b>	0.136	0.7	ug/L	115	KED
	Ni -4	60	29606.6	0.2	<b>19.4889</b>	0.102	0.5	ug/L	53	KED
	Ni -5	62	4649.8	2.6	<b>19.6514</b>	0.552	2.8	ug/L	10	KED
	As-2	75	5495.4	1.3	<b>19.8825</b>	0.198	1.0	ug/L	5	KED
	Y-1	89	66872.2	1.0				ug/L	60452	KED
	Rh-1	103	79399.4	0.7				ug/L	73774	KED
>	Ge-1	72	49483.2	0.3				ug/L	45795	KED
	In-1	115	51420.0	0.3				ug/L	46923	KED
	Sc-2	45	8094.3	0.6				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 6**

Sample Date/Time: Friday, March 08, 2024 07:45:33

Report Date/Time: Friday, March 08, 2024 07:46:21

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\Standard 6.017

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	129161.4	0.4	<b>39.6805</b>	0.335	0.8	ug/L	115	KED
	Ni -4	60	57068.1	0.9	<b>39.7416</b>	0.367	0.9	ug/L	53	KED
	Ni -5	62	8717.3	1.2	<b>39.1968</b>	0.261	0.7	ug/L	10	KED
	As-2	75	10516.2	0.8	<b>40.0847</b>	0.083	0.2	ug/L	5	KED
	Y-1	89	63347.1	0.4				ug/L	60452	KED
	Rh-1	103	75236.6	0.9				ug/L	73774	KED
>	Ge-1	72	46940.3	0.8				ug/L	45795	KED
	In-1	115	48940.6	0.6				ug/L	46923	KED
	Sc-2	45	7588.3	0.3				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

### Sample ID: Standard 7

Sample Date/Time: Friday, March 08, 2024 07:47:51

Report Date/Time: Friday, March 08, 2024 07:48:40

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\Standard 7.018

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	313775.7	0.1	<b>98.3214</b>	0.451	0.5	ug/L	115	KED
	Ni -4	60	138100.3	0.6	<b>98.1356</b>	0.798	0.8	ug/L	53	KED
	Ni -5	62	21301.9	1.2	<b>97.8292</b>	0.820	0.8	ug/L	10	KED
	As-2	75	25750.5	0.9	<b>99.6358</b>	0.362	0.4	ug/L	5	KED
	Y-1	89	62917.9	0.4				ug/L	60452	KED
	Rh-1	103	74758.4	0.2				ug/L	73774	KED
>	Ge-1	72	46285.9	0.6				ug/L	45795	KED
	In-1	115	49301.0	0.9				ug/L	46923	KED
	Sc-2	45	7453.3	2.0				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 1**

Sample Date/Time: Friday, March 08, 2024 07:51:00

Report Date/Time: Friday, March 08, 2024 07:51:49

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 1.019

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	154625.3	0.9	49.9971	0.102	0.2	ug/L	115	KED
	Ni -4	60	68216.5	0.4	50.0274	0.341	0.7	ug/L	53	KED
	Ni -5	62	10600.3	2.4	50.2361	0.754	1.5	ug/L	10	KED
	As-2	75	12452.1	0.3	49.7423	0.673	1.4	ug/L	5	KED
	Y-1	89	61657.5	1.2				ug/L	60452	KED
	Rh-1	103	72689.1	0.2				ug/L	73774	KED
>	Ge-1	72	44835.9	1.0				ug/L	45795	KED
	In-1	115	47755.2	0.6				ug/L	46923	KED
	Sc-2	45	7421.9	1.3				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	99.994	
	Ni -4	60	100.055	
	Ni -5	62	100.472	
	As-2	75	99.485	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		97.906
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 2**

Sample Date/Time: Friday, March 08, 2024 07:54:09

Report Date/Time: Friday, March 08, 2024 07:54:57

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 2.020

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	129.9	7.1	-0.0020	0.003	149.0	ug/L	115	KED
	Ni -4	60	56.0	12.5	0.0058	0.005	85.9	ug/L	53	KED
	Ni -5	62	11.3	22.2	0.0187	0.012	62.5	ug/L	10	KED
	As-2	75	7.3	61.5	0.0255	0.018	69.2	ug/L	5	KED
	Y-1	89	62212.2	0.8				ug/L	60452	KED
	Rh-1	103	73567.9	0.6				ug/L	73774	KED
>	Ge-1	72	45715.7	0.1				ug/L	45795	KED
	In-1	115	48859.3	0.6				ug/L	46923	KED
	Sc-2	45	7417.9	1.1				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		99.828
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Friday, March 08, 2024 07:56:27

Report Date/Time: Friday, March 08, 2024 07:57:16

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 6.021

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	119329.7	0.3	<b>39.7916</b>	0.236	0.6	ug/L	115	KED
	Ni -4	60	52361.1	0.3	<b>39.6011</b>	0.220	0.6	ug/L	53	KED
	Ni -5	62	8102.6	1.4	<b>39.6050</b>	0.433	1.1	ug/L	10	KED
	As-2	75	9859.4	1.6	<b>40.6207</b>	0.494	1.2	ug/L	5	KED
	Y-1	89	59544.2	0.5				ug/L	60452	KED
	Rh-1	103	69801.5	0.8				ug/L	73774	KED
>	Ge-1	72	43466.4	0.4				ug/L	45795	KED
	In-1	115	46510.6	0.5				ug/L	46923	KED
	Sc-2	45	7194.5	1.4				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	99.479	
	Ni -4	60	99.003	
	Ni -5	62	99.013	
	As-2	75	101.552	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		94.916
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Friday, March 08, 2024 07:59:36

Report Date/Time: Friday, March 08, 2024 08:00:24

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 7.022

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	61089.4	1.0	<b>19.6476</b>	0.176	0.9	ug/L	115	KED
	Ni -4	60	26817.5	0.1	<b>19.5668</b>	0.077	0.4	ug/L	53	KED
	Ni -5	62	4236.3	2.4	<b>19.9768</b>	0.432	2.2	ug/L	10	KED
	As-2	75	4993.9	1.5	<b>19.8652</b>	0.252	1.3	ug/L	5	KED
	Y-1	89	62111.4	0.9				ug/L	60452	KED
	Rh-1	103	71981.6	0.3				ug/L	73774	KED
>	Ge-1	72	45015.5	0.3				ug/L	45795	KED
	In-1	115	48137.4	0.5				ug/L	46923	KED
	Sc-2	45	7359.2	1.3				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	98.238	
	Ni -4	60	97.834	
	Ni -5	62	99.884	
	As-2	75	99.326	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		98.298
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Friday, March 08, 2024 08:02:44

Report Date/Time: Friday, March 08, 2024 08:03:33

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 8.023

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	112.8	14.5	-0.0073	0.005	73.4	ug/L	115	KED
	Ni -4	60	43.3	7.4	-0.0032	0.002	76.7	ug/L	53	KED
	Ni -5	62	7.0	14.3	-0.0014	0.005	345.5	ug/L	10	KED
	As-2	75	5.0	40.0	0.0164	0.008	47.3	ug/L	5	KED
	Y-1	89	61865.0	1.0				ug/L	60452	KED
	Rh-1	103	72635.9	0.8				ug/L	73774	KED
>	Ge-1	72	45654.8	0.6				ug/L	45795	KED
	In-1	115	48062.5	0.5				ug/L	46923	KED
	Sc-2	45	7394.6	0.6				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		99.695
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: MB0308D1 2X**

Sample Date/Time: Friday, March 08, 2024 08:05:04

Report Date/Time: Friday, March 08, 2024 08:05:53

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\MB0308D1 2X.024

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	113.6	7.2	-0.0070	0.003	37.5	ug/L	115	KED
	Ni -4	60	54.3	8.7	0.0048	0.003	70.8	ug/L	53	KED
	Ni -5	62	9.3	22.3	0.0097	0.010	100.8	ug/L	10	KED
	As-2	75	3.3	75.5	0.0099	0.010	100.1	ug/L	5	KED
	Y-1	89	62165.0	1.1				ug/L	60452	KED
	Rh-1	103	72897.2	0.7				ug/L	73774	KED
>	Ge-1	72	45485.0	0.0				ug/L	45795	KED
	In-1	115	48273.1	0.2				ug/L	46923	KED
	Sc-2	45	7389.6	1.3				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		99.324
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: SB0308D1 2X**

Sample Date/Time: Friday, March 08, 2024 08:08:13

Report Date/Time: Friday, March 08, 2024 08:09:02

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\SB0308D1 2X.025

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	116768.2	0.5	<b>39.4476</b>	0.380	1.0	ug/L	115	KED
	Ni -4	60	51383.6	0.1	<b>39.3705</b>	0.130	0.3	ug/L	53	KED
	Ni -5	62	8017.2	0.8	<b>39.7031</b>	0.475	1.2	ug/L	10	KED
	As-2	75	9686.6	0.9	<b>40.4341</b>	0.522	1.3	ug/L	5	KED
	Y-1	89	59459.5	0.7				ug/L	60452	KED
	Rh-1	103	69457.1	0.8				ug/L	73774	KED
>	Ge-1	72	42904.3	0.4				ug/L	45795	KED
	In-1	115	46166.0	1.2				ug/L	46923	KED
	Sc-2	45	7029.1	0.3				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		93.688
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 02-208-01c 25X**

Sample Date/Time: Friday, March 08, 2024 08:12:09

Report Date/Time: Friday, March 08, 2024 08:12:57

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-01c 25X.026

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	548.1	3.0	<b>0.1762</b>	0.013	7.5	ug/L	115	KED
	Ni -4	60	239.7	17.7	<b>0.1824</b>	0.035	19.0	ug/L	53	KED
	Ni -5	62	48.3	29.9	<b>0.2494</b>	0.085	34.0	ug/L	10	KED
	As-2	75	14.7	41.7	<b>0.0686</b>	0.028	41.1	ug/L	5	KED
	Y-1	89	50308.5	3.5				ug/L	60452	KED
	Rh-1	103	54787.2	2.9				ug/L	73774	KED
>	Ge-1	72	36294.4	3.1				ug/L	45795	KED
	In-1	115	37344.5	1.7				ug/L	46923	KED
	Sc-2	45	6550.8	3.5				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		79.255
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 02-208-02c 25X**

Sample Date/Time: Friday, March 08, 2024 08:15:17

Report Date/Time: Friday, March 08, 2024 08:16:05

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-02c 25X.027

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	212.2	3.1	<b>0.0324</b>	0.002	5.6	ug/L	115	KED
	Ni -4	60	89.7	12.4	<b>0.0381</b>	0.009	24.7	ug/L	53	KED
	Ni -5	62	22.7	6.7	<b>0.0845</b>	0.009	10.6	ug/L	10	KED
	As-2	75	27.3	35.9	<b>0.1173</b>	0.044	37.4	ug/L	5	KED
	Y-1	89	57385.0	1.3				ug/L	60452	KED
	Rh-1	103	60976.9	0.8				ug/L	73774	KED
>	Ge-1	72	40700.6	0.9				ug/L	45795	KED
	In-1	115	41144.8	1.6				ug/L	46923	KED
	Sc-2	45	7668.7	1.5				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		88.876
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 02-208-03c 25X**

Sample Date/Time: Friday, March 08, 2024 08:18:25

Report Date/Time: Friday, March 08, 2024 08:19:14

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-03c 25X.028

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	180.7	5.2	0.0212	0.004	16.9	ug/L	115	KED
	Ni -4	60	99.7	7.6	0.0462	0.007	14.4	ug/L	53	KED
	Ni -5	62	23.3	22.0	0.0879	0.027	30.3	ug/L	10	KED
	As-2	75	22.3	11.3	0.0951	0.011	11.4	ug/L	5	KED
	Y-1	89	57230.1	0.6				ug/L	60452	KED
	Rh-1	103	60795.8	1.6				ug/L	73774	KED
>	Ge-1	72	40686.9	0.7				ug/L	45795	KED
	In-1	115	40964.6	0.8				ug/L	46923	KED
	Sc-2	45	7565.0	2.1				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		88.846
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 02-208-04c 25X**

Sample Date/Time: Friday, March 08, 2024 08:21:34

Report Date/Time: Friday, March 08, 2024 08:22:22

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-04c 25X.029

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	867.2	3.7	<b>0.2197</b>	0.008	3.8	ug/L	115	KED
	Ni -4	60	233.7	3.9	<b>0.1262</b>	0.007	5.4	ug/L	53	KED
	Ni -5	62	34.3	11.8	<b>0.1186</b>	0.018	15.5	ug/L	10	KED
	As-2	75	169.0	8.2	<b>0.6295</b>	0.055	8.8	ug/L	5	KED
	Y-1	89	64215.0	1.2				ug/L	60452	KED
	Rh-1	103	73070.4	0.1				ug/L	73774	KED
>	Ge-1	72	47853.7	0.6				ug/L	45795	KED
	In-1	115	48399.3	0.5				ug/L	46923	KED
	Sc-2	45	8072.3	0.6				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		104.496
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 02-208-05c 25X**

Sample Date/Time: Friday, March 08, 2024 08:24:42

Report Date/Time: Friday, March 08, 2024 08:25:31

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-05c 25X.030

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	188.9	8.0	<b>0.0230</b>	0.005	20.9	ug/L	115	KED
	Ni -4	60	90.3	10.8	<b>0.0374</b>	0.008	22.0	ug/L	53	KED
	Ni -5	62	20.3	31.2	<b>0.0703</b>	0.032	45.7	ug/L	10	KED
	As-2	75	28.7	8.8	<b>0.1208</b>	0.011	9.3	ug/L	5	KED
	Y-1	89	58729.8	0.2				ug/L	60452	KED
	Rh-1	103	61698.3	0.5				ug/L	73774	KED
>	Ge-1	72	41395.6	0.7				ug/L	45795	KED
	In-1	115	41514.4	0.8				ug/L	46923	KED
	Sc-2	45	7832.1	1.6				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		90.394
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 02-208-02cD 25X**

Sample Date/Time: Friday, March 08, 2024 08:27:58

Report Date/Time: Friday, March 08, 2024 08:28:47

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-02cD 25X.031

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	221.2	7.8	<b>0.0373</b>	0.007	19.1	ug/L	115	KED
	Ni -4	60	102.0	5.5	<b>0.0496</b>	0.004	8.3	ug/L	53	KED
	Ni -5	62	18.0	48.4	<b>0.0611</b>	0.043	70.5	ug/L	10	KED
	As-2	75	31.3	21.7	<b>0.1369</b>	0.026	19.0	ug/L	5	KED
	Y-1	89	55585.0	2.7				ug/L	60452	KED
	Rh-1	103	59152.6	2.5				ug/L	73774	KED
>	Ge-1	72	39909.7	3.0				ug/L	45795	KED
	In-1	115	39672.3	2.0				ug/L	46923	KED
	Sc-2	45	7459.9	2.9				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		87.149
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: 02-208-02cL 125X**

Sample Date/Time: Friday, March 08, 2024 08:31:07

Report Date/Time: Friday, March 08, 2024 08:31:55

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-02cL 125X.032

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	277.0	4.2	<b>0.0388</b>	0.004	9.1	ug/L	115	KED
	Ni -4	60	110.3	7.0	<b>0.0396</b>	0.005	12.8	ug/L	53	KED
	Ni -5	62	30.0	39.3	<b>0.0962</b>	0.051	53.3	ug/L	10	KED
	As-2	75	8.7	26.6	<b>0.0285</b>	0.008	29.8	ug/L	5	KED
	Y-1	89	66305.9	1.1				ug/L	60452	KED
	Rh-1	103	73797.5	0.5				ug/L	73774	KED
>	Ge-1	72	49006.6	0.2				ug/L	45795	KED
	In-1	115	48338.2	0.4				ug/L	46923	KED
	Sc-2	45	8559.9	0.6				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		107.014
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: 02-208-02cMS 25X**

Sample Date/Time: Friday, March 08, 2024 08:34:15

Report Date/Time: Friday, March 08, 2024 08:35:04

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-02cMS 25X.033

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	110326.8	0.8	<b>37.6401</b>	0.363	1.0	ug/L	115	KED
	Ni -4	60	48213.9	1.2	<b>37.3084</b>	0.515	1.4	ug/L	53	KED
	Ni -5	62	7378.9	1.0	<b>36.9022</b>	0.376	1.0	ug/L	10	KED
	As-2	75	9661.9	0.8	<b>40.7324</b>	0.478	1.2	ug/L	5	KED
	Y-1	89	59666.7	0.6				ug/L	60452	KED
	Rh-1	103	62495.1	0.1				ug/L	73774	KED
>	Ge-1	72	42481.4	0.4				ug/L	45795	KED
	In-1	115	42198.8	0.3				ug/L	46923	KED
	Sc-2	45	7917.5	1.8				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		92.765
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Friday, March 08, 2024 08:37:25

Report Date/Time: Friday, March 08, 2024 08:38:14

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 6.034

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	131327.0	3.0	40.6770	0.407	1.0	ug/L	115	KED
	Ni -4	60	57413.2	2.7	40.3339	0.206	0.5	ug/L	53	KED
	Ni -5	62	8914.4	1.8	40.4827	0.446	1.1	ug/L	10	KED
	As-2	75	10697.3	3.1	40.9385	0.464	1.1	ug/L	5	KED
	Y-1	89	62207.9	2.4				ug/L	60452	KED
	Rh-1	103	72869.8	2.3				ug/L	73774	KED
>	Ge-1	72	46790.9	2.2				ug/L	45795	KED
	In-1	115	47314.2	2.0				ug/L	46923	KED
	Sc-2	45	7918.5	2.1				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	101.692	
	Ni -4	60	100.835	
	Ni -5	62	101.207	
	As-2	75	102.346	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		102.175
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Friday, March 08, 2024 08:40:35

Report Date/Time: Friday, March 08, 2024 08:41:24

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 7.035

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	66575.0	3.5	<b>20.1916</b>	0.193	1.0	ug/L	115	KED
	Ni -4	60	29153.7	3.5	<b>20.0592</b>	0.214	1.1	ug/L	53	KED
	Ni -5	62	4482.7	3.5	<b>19.9339</b>	0.179	0.9	ug/L	10	KED
	As-2	75	5369.7	5.8	<b>20.1345</b>	0.684	3.4	ug/L	5	KED
	Y-1	89	63153.7	2.7				ug/L	60452	KED
	Rh-1	103	74727.4	2.6				ug/L	73774	KED
>	Ge-1	72	47731.0	2.6				ug/L	45795	KED
	In-1	115	48288.6	1.8				ug/L	46923	KED
	Sc-2	45	8139.0	3.1				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	100.958	
	Ni -4	60	100.296	
	Ni -5	62	99.669	
	As-2	75	100.673	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		104.228
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Friday, March 08, 2024 08:43:45

Report Date/Time: Friday, March 08, 2024 08:44:33

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 8.036

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	152.2	1.5	0.0032	0.001	38.2	ug/L	115	KED
	Ni -4	60	77.3	8.6	0.0191	0.006	30.7	ug/L	53	KED
	Ni -5	62	12.0	46.4	0.0191	0.023	122.1	ug/L	10	KED
	As-2	75	3.7	31.5	0.0106	0.004	41.5	ug/L	5	KED
	Y-1	89	62977.2	2.6				ug/L	60452	KED
	Rh-1	103	74131.3	2.6				ug/L	73774	KED
>	Ge-1	72	47616.6	3.2				ug/L	45795	KED
	In-1	115	47623.7	2.4				ug/L	46923	KED
	Sc-2	45	8079.0	4.2				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		103.978
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 02-208-02cMSD 25X**

Sample Date/Time: Friday, March 08, 2024 08:47:34

Report Date/Time: Friday, March 08, 2024 08:48:22

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-02cMSD 25X.037

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	102000.6	3.8	<b>38.7290</b>	0.663	1.7	ug/L	115	KED
	Ni -4	60	44609.6	3.8	<b>38.4166</b>	0.616	1.6	ug/L	53	KED
	Ni -5	62	6896.0	4.3	<b>38.3780</b>	0.757	2.0	ug/L	10	KED
	As-2	75	9155.6	3.4	<b>42.9559</b>	0.380	0.9	ug/L	5	KED
	Y-1	89	52870.7	2.3				ug/L	60452	KED
	Rh-1	103	55966.5	2.4				ug/L	73774	KED
>	Ge-1	72	38164.9	2.5				ug/L	45795	KED
	In-1	115	38097.1	1.4				ug/L	46923	KED
	Sc-2	45	7204.2	2.6				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		83.339
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: MB0308WM1 2X**

Sample Date/Time: Friday, March 08, 2024 08:50:42

Report Date/Time: Friday, March 08, 2024 08:51:31

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\MB0308WM1 2X.038

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	139.1	4.0	-0.0027	0.002	72.4	ug/L	115	KED
	Ni -4	60	59.0	4.5	0.0045	0.001	31.6	ug/L	53	KED
	Ni -5	62	15.3	10.0	0.0314	0.007	21.2	ug/L	10	KED
	As-2	75	7.0	57.1	0.0219	0.014	65.9	ug/L	5	KED
	Y-1	89	65852.8	1.1				ug/L	60452	KED
	Rh-1	103	76842.8	0.2				ug/L	73774	KED
>	Ge-1	72	49839.1	0.8				ug/L	45795	KED
	In-1	115	49375.3	0.8				ug/L	46923	KED
	Sc-2	45	8403.5	1.2				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		108.832
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: SB0308WM1 2X**

Sample Date/Time: Friday, March 08, 2024 08:53:51

Report Date/Time: Friday, March 08, 2024 08:54:38

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\SB0308WM1 2X.039

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	159538.4	0.6	<b>47.5731</b>	0.583	1.2	ug/L	115	KED
	Ni -4	60	70385.3	0.4	<b>47.6013</b>	0.494	1.0	ug/L	53	KED
	Ni -5	62	10760.4	0.7	<b>47.0310</b>	0.317	0.7	ug/L	10	KED
	As-2	75	12860.8	0.8	<b>47.3779</b>	0.747	1.6	ug/L	5	KED
	Y-1	89	64531.1	1.0				ug/L	60452	KED
	Rh-1	103	74931.3	0.5				ug/L	73774	KED
>	Ge-1	72	48618.3	1.0				ug/L	45795	KED
	In-1	115	48687.2	0.6				ug/L	46923	KED
	Sc-2	45	8270.7	0.9				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		106.166
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: 01-243-13b 2X**

Sample Date/Time: Friday, March 08, 2024 08:56:58

Report Date/Time: Friday, March 08, 2024 08:57:46

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\01-243-13b 2X.040

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	2162.2	2.4	<b>0.5925</b>	0.019	3.3	ug/L	115	KED
	Ni -4	60	851.4	5.0	<b>0.5332</b>	0.031	5.8	ug/L	53	KED
	Ni -5	62	141.3	11.9	<b>0.5748</b>	0.071	12.3	ug/L	10	KED
	As-2	75	145.3	1.7	<b>0.5241</b>	0.006	1.1	ug/L	5	KED
	Y-1	89	66155.2	0.9				ug/L	60452	KED
	Rh-1	103	75702.7	0.8				ug/L	73774	KED
>	Ge-1	72	49357.8	0.7				ug/L	45795	KED
	In-1	115	48855.9	0.5				ug/L	46923	KED
	Sc-2	45	8478.8	0.9				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		107.781
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: 01-243-13bD 2X**

Sample Date/Time: Friday, March 08, 2024 09:00:06

Report Date/Time: Friday, March 08, 2024 09:00:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\01-243-13bD 2X.041

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	2240.0	0.4	<b>0.6089</b>	0.003	0.5	ug/L	115	KED
	Ni -4	60	840.7	4.9	<b>0.5206</b>	0.029	5.6	ug/L	53	KED
	Ni -5	62	110.7	5.8	<b>0.4381</b>	0.026	5.9	ug/L	10	KED
	As-2	75	144.3	7.2	<b>0.5155</b>	0.038	7.5	ug/L	5	KED
	Y-1	89	66908.3	0.6				ug/L	60452	KED
	Rh-1	103	76899.1	0.8				ug/L	73774	KED
>	Ge-1	72	49842.5	0.3				ug/L	45795	KED
	In-1	115	50073.0	0.7				ug/L	46923	KED
	Sc-2	45	8656.3	2.4				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		108.839
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: 01-243-13bL 10X**

Sample Date/Time: Friday, March 08, 2024 09:03:14

Report Date/Time: Friday, March 08, 2024 09:04:01

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\01-243-13bL 10X.042

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	1002.2	3.6	<b>0.2435</b>	0.010	4.0	ug/L	115	KED
	Ni -4	60	440.0	4.5	<b>0.2509</b>	0.012	4.9	ug/L	53	KED
	Ni -5	62	71.0	11.5	<b>0.2636</b>	0.033	12.6	ug/L	10	KED
	As-2	75	27.3	22.4	<b>0.0933</b>	0.022	23.6	ug/L	5	KED
	Y-1	89	66676.3	1.3				ug/L	60452	KED
	Rh-1	103	77359.6	1.7				ug/L	73774	KED
>	Ge-1	72	50724.9	0.4				ug/L	45795	KED
	In-1	115	49867.2	0.5				ug/L	46923	KED
	Sc-2	45	8551.6	0.4				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		110.766
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: 01-243-13bMS 2X**

Sample Date/Time: Friday, March 08, 2024 09:06:21

Report Date/Time: Friday, March 08, 2024 09:07:09

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\01-243-13bMS 2X.043

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	167267.9	0.7	<b>49.2622</b>	0.397	0.8	ug/L	115	KED
	Ni -4	60	73222.8	0.3	<b>48.9083</b>	0.119	0.2	ug/L	53	KED
	Ni -5	62	11231.1	0.4	<b>48.4832</b>	0.115	0.2	ug/L	10	KED
	As-2	75	13741.9	0.6	<b>49.9959</b>	0.238	0.5	ug/L	5	KED
	Y-1	89	65923.8	1.0				ug/L	60452	KED
	Rh-1	103	75239.3	0.6				ug/L	73774	KED
>	Ge-1	72	49224.7	0.2				ug/L	45795	KED
	In-1	115	49044.3	0.5				ug/L	46923	KED
	Sc-2	45	8376.8	1.0				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		107.490
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 01-243-13bMSD 2X**

Sample Date/Time: Friday, March 08, 2024 09:09:29

Report Date/Time: Friday, March 08, 2024 09:10:17

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\01-243-13bMSD 2X.044

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	173684.4	0.3	50.4670	0.148	0.3	ug/L	115	KED
	Ni -4	60	76120.9	0.9	50.1637	0.469	0.9	ug/L	53	KED
	Ni -5	62	11647.4	1.1	49.6075	0.561	1.1	ug/L	10	KED
	As-2	75	14394.6	0.6	51.6687	0.318	0.6	ug/L	5	KED
	Y-1	89	66991.7	1.5				ug/L	60452	KED
	Rh-1	103	76555.6	0.8				ug/L	73774	KED
>	Ge-1	72	49893.3	0.1				ug/L	45795	KED
	In-1	115	49818.5	1.2				ug/L	46923	KED
	Sc-2	45	8610.6	0.7				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		108.950
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 01-243-13bPS 2X**

Sample Date/Time: Friday, March 08, 2024 09:12:37

Report Date/Time: Friday, March 08, 2024 09:13:26

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\01-243-13bPS 2X.045

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	159056.3	0.9	51.5302	0.699	1.4	ug/L	115	KED
	Ni -4	60	68716.9	0.8	50.4902	0.676	1.3	ug/L	53	KED
	Ni -5	62	10646.6	2.5	50.5616	1.535	3.0	ug/L	10	KED
	As-2	75	12786.4	0.3	51.1714	0.474	0.9	ug/L	5	KED
	Y-1	89	60598.3	0.1				ug/L	60452	KED
	Rh-1	103	69076.6	0.4				ug/L	73774	KED
>	Ge-1	72	44751.3	0.6				ug/L	45795	KED
	In-1	115	45369.9	0.7				ug/L	46923	KED
	Sc-2	45	7777.1	1.7				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		97.722
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: 02-208-01d 25X**

Sample Date/Time: Friday, March 08, 2024 09:15:46

Report Date/Time: Friday, March 08, 2024 09:16:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-01d 25X.046

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	741.3	6.2	<b>0.1938</b>	0.014	7.2	ug/L	115	KED
	Ni -4	60	302.0	12.9	<b>0.1844</b>	0.027	14.7	ug/L	53	KED
	Ni -5	62	51.3	7.9	<b>0.2066</b>	0.019	9.2	ug/L	10	KED
	As-2	75	19.7	23.5	<b>0.0743</b>	0.018	23.8	ug/L	5	KED
	Y-1	89	61892.1	1.1				ug/L	60452	KED
	Rh-1	103	66880.9	0.5				ug/L	73774	KED
>	Ge-1	72	45371.6	0.7				ug/L	45795	KED
	In-1	115	44393.7	0.3				ug/L	46923	KED
	Sc-2	45	8351.1	2.2				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		99.076
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Friday, March 08, 2024 09:18:56

Report Date/Time: Friday, March 08, 2024 09:19:44

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 6.047

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	142364.5	3.0	41.1161	0.933	2.3	ug/L	115	KED
	Ni -4	60	61995.3	2.8	40.6092	0.806	2.0	ug/L	53	KED
	Ni -5	62	9525.8	3.6	40.3232	0.954	2.4	ug/L	10	KED
	As-2	75	11297.1	1.1	40.3165	0.203	0.5	ug/L	5	KED
	Y-1	89	65653.9	2.3				ug/L	60452	KED
	Rh-1	103	77023.5	2.3				ug/L	73774	KED
>	Ge-1	72	50183.7	1.4				ug/L	45795	KED
	In-1	115	49376.7	2.1				ug/L	46923	KED
	Sc-2	45	8654.6	2.6				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	102.790	
	Ni -4	60	101.523	
	Ni -5	62	100.808	
	As-2	75	100.791	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		109.584
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, March 08, 2024 09:22:05

Report Date/Time: Friday, March 08, 2024 09:22:53

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 7.048

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	70522.6	3.2	<b>20.3977</b>	0.126	0.6	ug/L	115	KED
	Ni -4	60	30979.9	3.5	<b>20.3258</b>	0.169	0.8	ug/L	53	KED
	Ni -5	62	4701.4	4.4	<b>19.9331</b>	0.394	2.0	ug/L	10	KED
	As-2	75	5588.8	3.1	<b>19.9920</b>	0.132	0.7	ug/L	5	KED
	Y-1	89	66211.8	2.6				ug/L	60452	KED
	Rh-1	103	77761.8	2.4				ug/L	73774	KED
>	Ge-1	72	50056.9	2.8				ug/L	45795	KED
	In-1	115	49880.6	1.8				ug/L	46923	KED
	Sc-2	45	8869.8	5.2				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	101.989	
	Ni -4	60	101.629	
	Ni -5	62	99.665	
	As-2	75	99.960	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		109.307
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Friday, March 08, 2024 09:25:15

Report Date/Time: Friday, March 08, 2024 09:26:04

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 8.049

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	155.8	6.0	0.0022	0.003	129.6	ug/L	115	KED
	Ni -4	60	71.7	14.0	0.0127	0.005	41.2	ug/L	53	KED
	Ni -5	62	10.3	24.4	0.0100	0.010	98.7	ug/L	10	KED
	As-2	75	4.0	50.0	0.0111	0.007	63.9	ug/L	5	KED
	Y-1	89	65022.0	2.5				ug/L	60452	KED
	Rh-1	103	76861.3	2.3				ug/L	73774	KED
>	Ge-1	72	49872.0	3.1				ug/L	45795	KED
	In-1	115	48979.8	1.5				ug/L	46923	KED
	Sc-2	45	8624.9	3.8				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		108.903
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: 02-208-02d 25X**

Sample Date/Time: Friday, March 08, 2024 09:28:46

Report Date/Time: Friday, March 08, 2024 09:29:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-02d 25X.050

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	283.0	1.9	<b>0.0605</b>	0.001	1.9	ug/L	115	KED
	Ni -4	60	124.3	5.5	<b>0.0688</b>	0.004	5.9	ug/L	53	KED
	Ni -5	62	23.0	7.5	<b>0.0894</b>	0.007	7.3	ug/L	10	KED
	As-2	75	29.3	16.1	<b>0.1292</b>	0.019	14.7	ug/L	5	KED
	Y-1	89	54799.3	3.9				ug/L	60452	KED
	Rh-1	103	58243.9	2.6				ug/L	73774	KED
>	Ge-1	72	39609.5	2.8				ug/L	45795	KED
	In-1	115	39112.1	2.3				ug/L	46923	KED
	Sc-2	45	7674.1	3.7				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		86.494
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: 02-208-03d 25X**

Sample Date/Time: Friday, March 08, 2024 09:31:55

Report Date/Time: Friday, March 08, 2024 09:32:43

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-03d 25X.051

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	234.8	1.0	<b>0.0325</b>	0.001	3.7	ug/L	115	KED
	Ni -4	60	107.3	12.0	<b>0.0440</b>	0.010	22.1	ug/L	53	KED
	Ni -5	62	22.0	7.9	<b>0.0700</b>	0.009	12.2	ug/L	10	KED
	As-2	75	24.7	26.1	<b>0.0950</b>	0.026	27.2	ug/L	5	KED
	Y-1	89	61894.5	0.6				ug/L	60452	KED
	Rh-1	103	65113.7	0.3				ug/L	73774	KED
>	Ge-1	72	45009.1	0.9				ug/L	45795	KED
	In-1	115	42930.7	0.8				ug/L	46923	KED
	Sc-2	45	8621.9	0.3				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		98.285
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: 02-208-04d 25X**

Sample Date/Time: Friday, March 08, 2024 09:35:03

Report Date/Time: Friday, March 08, 2024 09:35:51

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-04d 25X.052

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	999.9	6.8	<b>0.2410</b>	0.018	7.4	ug/L	115	KED
	Ni -4	60	276.7	1.8	<b>0.1439</b>	0.004	2.9	ug/L	53	KED
	Ni -5	62	41.3	5.0	<b>0.1383</b>	0.010	7.2	ug/L	10	KED
	As-2	75	165.3	4.9	<b>0.5772</b>	0.032	5.6	ug/L	5	KED
	Y-1	89	67827.0	0.6				ug/L	60452	KED
	Rh-1	103	76679.2	0.4				ug/L	73774	KED
>	Ge-1	72	51030.0	0.8				ug/L	45795	KED
	In-1	115	49694.3	0.5				ug/L	46923	KED
	Sc-2	45	9026.5	0.5				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		111.432
	In-1	115		
	Sc-2	45		

**Sample ID: 02-208-04d 25X**

Report Date/Time: Friday, March 08, 2024 09:35:51

## Quantitative Analysis - Summary Report

**Sample ID: 02-208-05d 25X**

Sample Date/Time: Friday, March 08, 2024 09:38:11

Report Date/Time: Friday, March 08, 2024 09:39:00

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\02-208-05d 25X.053

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	345.3	3.8	<b>0.0655</b>	0.004	6.6	ug/L	115	KED
	Ni -4	60	145.7	6.9	<b>0.0695</b>	0.008	11.0	ug/L	53	KED
	Ni -5	62	30.3	10.6	<b>0.1059</b>	0.015	13.7	ug/L	10	KED
	As-2	75	29.0	19.2	<b>0.1095</b>	0.022	20.2	ug/L	5	KED
	Y-1	89	63284.5	0.4				ug/L	60452	KED
	Rh-1	103	66776.4	0.1				ug/L	73774	KED
>	Ge-1	72	46110.3	0.5				ug/L	45795	KED
	In-1	115	44849.3	0.3				ug/L	46923	KED
	Sc-2	45	8891.8	0.1				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		100.689
	In-1	115		
	Sc-2	45		

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Friday, March 08, 2024 09:41:21

Report Date/Time: Friday, March 08, 2024 09:42:09

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 6.054

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	147054.5	2.3	<b>41.8655</b>	0.479	1.1	ug/L	115	KED
	Ni -4	60	64165.8	2.6	<b>41.4303</b>	0.547	1.3	ug/L	53	KED
	Ni -5	62	9819.4	3.5	<b>40.9707</b>	0.748	1.8	ug/L	10	KED
	As-2	75	11595.4	0.8	<b>40.7943</b>	0.662	1.6	ug/L	5	KED
	Y-1	89	66851.4	1.9				ug/L	60452	KED
	Rh-1	103	78117.0	1.3				ug/L	73774	KED
>	Ge-1	72	50915.9	2.3				ug/L	45795	KED
	In-1	115	49689.0	1.4				ug/L	46923	KED
	Sc-2	45	9055.2	2.6				ug/L	7392	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	104.664	
	Ni -4	60	103.576	
	Ni -5	62	102.427	
	As-2	75	101.986	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		111.183
	In-1	115		
	Sc-2	45		

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Friday, March 08, 2024 09:44:30

Report Date/Time: Friday, March 08, 2024 09:45:19

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 7.055

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	74000.9	2.8	<b>20.5480</b>	0.191	0.9	ug/L	115	KED
	Ni -4	60	32605.5	3.4	<b>20.5372</b>	0.325	1.6	ug/L	53	KED
	Ni -5	62	4892.8	2.4	<b>19.9229</b>	0.440	2.2	ug/L	10	KED
	As-2	75	5918.9	1.4	<b>20.3314</b>	0.340	1.7	ug/L	5	KED
	Y-1	89	67633.1	2.8				ug/L	60452	KED
	Rh-1	103	79299.9	2.0				ug/L	73774	KED
>	Ge-1	72	52142.0	2.3				ug/L	45795	KED
	In-1	115	50797.4	1.4				ug/L	46923	KED
	Sc-2	45	9316.4	3.0				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58	102.740	
	Ni -4	60	102.686	
	Ni -5	62	99.614	
	As-2	75	101.657	
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		113.860
	In-1	115		
	Sc-2	45		

**Sample ID: QC Std 7**

Report Date/Time: Friday, March 08, 2024 09:45:19

Page 1

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Friday, March 08, 2024 09:47:40

Report Date/Time: Friday, March 08, 2024 09:48:28

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240308A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240308A\QC Std 8.056

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni -3	58	176.5	5.3	<b>0.0061</b>	0.004	60.6	ug/L	115	KED
	Ni -4	60	79.0	14.4	<b>0.0155</b>	0.007	44.8	ug/L	53	KED
	Ni -5	62	10.7	10.8	<b>0.0096</b>	0.005	51.7	ug/L	10	KED
	As-2	75	4.0	43.3	<b>0.0105</b>	0.006	55.3	ug/L	5	KED
	Y-1	89	67498.2	3.2				ug/L	60452	KED
	Rh-1	103	79968.3	2.5				ug/L	73774	KED
>	Ge-1	72	52025.6	2.2				ug/L	45795	KED
	In-1	115	50823.5	2.8				ug/L	46923	KED
	Sc-2	45	9178.3	3.3				ug/L	7392	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge-1	72		113.606
	In-1	115		
	Sc-2	45		

Work continued from Page

Stk Name	Lab ID	Source	Source ID	Exp	Initial		Final		Comments	Stk	Date
					Conc ppm	Vol ml	Conc ppm	Vol ml			
6020 10x	TM12-004-01	IV 6020cal-1	T2MEST726406	2-9-25	20	1.0	2	10	20% HNO <sub>3</sub>	KOM	3-6-24
6020 100x	TM12-004-02	↓	↓	↓	↓	0.1	.2	↓	↓	↓	↓
5 Std 1	TM12-004-03	6020 100x	TM12-004-02	3-20-24	.2	.05	.0002	50	5% HNO <sub>3</sub>	KOM	3-6-24
2	04	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
3	05	6020 10x	TM12-004-01	↓	↓	.05	.002	↓	↓	↓	↓
4	06	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	07	IV 6020cal-1	T2MEST726406	2-9-25	20	.05	.02	↓	↓	↓	↓
10 6	08	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	09	↓	↓	↓	↓	.25	.10	↓	↓	↓	↓
10 IW	10	IV PECK1	S2MEST709269	5-24-24	10	.25	.05	↓	↓	↓	↓
Std 1	TM12-004-11	6020 100x	TM12-004-02	3-20-24	.2	.05	.0007	50	5% HNO <sub>3</sub>	KOM	3-8-24
2	12	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
15 3	13	6020 10x	TM12-004-01	↓	↓	.05	.002	↓	↓	↓	↓
4	14	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	15	IV 6020cal-1	T2MEST726406	2-9-25	20	.05	.02	↓	↓	↓	↓
6	16	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	17	↓	↓	↓	↓	.25	.10	↓	↓	↓	↓
20 IW	18	IV PECK1	S2MEST709269	5-24-24	10	.25	.05	↓	↓	↓	↓
Std 1	TM12-004-19	6020 100x	TM12-004-02	3-20-24	.2	.05	.0009	50	5% HNO <sub>3</sub>	KOM	2-12-24
2	20	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
3	21	6020 10x	TM12-004-01	↓	↓	.05	.002	↓	↓	↓	↓
4	22	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
15 5	23	IV 6020cal-1	T2MEST726406	2-9-25	20	.05	.02	↓	↓	↓	↓
6	24	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	25	↓	↓	↓	↓	.25	.10	↓	↓	↓	↓
20 IW	26	IV PECK1	S2MEST709269	5-24-24	10	.25	.05	↓	↓	↓	↓
6020 10x	TM12-004-27	IV 6020cal-1	T2MEST726406	2-9-25	20	1.0	2	10	20% HNO <sub>3</sub>	KOM	3-12-24
6020 100x	TM12-004-28	↓	↓	↓	↓	0.1	.2	↓	↓	↓	↓

SIGNATURE

Work continued to Page

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 4, 2024

Robert Trahan  
GeoEngineers, Inc.  
2101 4th Avenue, Suite 950  
Seattle, WA 98121

Re: Analytical Data for Project 5147-006-18  
Laboratory Reference No. 2405-311

Dear Robert:

Enclosed are the analytical results and associated quality control data for samples submitted on May 24, 2024.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Baumeister", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



Date of Report: June 4, 2024  
Samples Submitted: May 24, 2024  
Laboratory Reference: 2405-311  
Project: 5147-006-18

### Case Narrative

Samples were collected on May 21 and 24, 2024 and received by the laboratory on May 24, 2024. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below. However the soil results for the QA/QC samples are reported on a wet-weight basis.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### Dissolved Metals by EPA 200.8 Analysis

The dissolved field filter sample MW-8-240521 was received containing solid material. The sample was digested according to OnSite Environmental standard operating procedure.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.



Date of Report: June 4, 2024  
Samples Submitted: May 24, 2024  
Laboratory Reference: 2405-311  
Project: 5147-006-18

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-2B-240521	05-311-01	Water	5-21-24	5-24-24	
MW-3A-240521	05-311-02	Water	5-21-24	5-24-24	
MW-8-240521	05-311-03	Water	5-21-24	5-24-24	
MW-6-240524	05-311-04	Water	5-24-24	5-24-24	
DUP-240524	05-311-05	Water	5-24-24	5-24-24	



Date of Report: June 4, 2024  
 Samples Submitted: May 24, 2024  
 Laboratory Reference: 2405-311  
 Project: 5147-006-18

PAHs EPA 8270E/SIM

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-2B-240521</b>					
Laboratory ID:	05-311-01					
Naphthalene	ND	0.095	EPA 8270E/SIM	5-23-24	5-23-24	
2-Methylnaphthalene	ND	0.095	EPA 8270E/SIM	5-23-24	5-23-24	
1-Methylnaphthalene	ND	0.095	EPA 8270E/SIM	5-23-24	5-23-24	
Acenaphthylene	ND	0.095	EPA 8270E/SIM	5-23-24	5-23-24	
Acenaphthene	ND	0.095	EPA 8270E/SIM	5-23-24	5-23-24	
Fluorene	ND	0.095	EPA 8270E/SIM	5-23-24	5-23-24	
Phenanthrene	ND	0.095	EPA 8270E/SIM	5-23-24	5-23-24	
Anthracene	ND	0.095	EPA 8270E/SIM	5-23-24	5-23-24	
Fluoranthene	ND	0.095	EPA 8270E/SIM	5-23-24	5-23-24	
Pyrene	ND	0.095	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo[a]anthracene	0.013	0.0095	EPA 8270E/SIM	5-23-24	5-23-24	
Chrysene	0.026	0.0095	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo[b]fluoranthene	0.024	0.0095	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo(j,k)fluoranthene	ND	0.0095	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo[a]pyrene	0.015	0.0095	EPA 8270E/SIM	5-23-24	5-23-24	
Indeno(1,2,3-c,d)pyrene	0.016	0.0095	EPA 8270E/SIM	5-23-24	5-23-24	
Dibenz[a,h]anthracene	ND	0.0095	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo[g,h,i]perylene	0.024	0.0095	EPA 8270E/SIM	5-23-24	5-23-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	65	27-106				
<i>Pyrene-d10</i>	90	37-125				
<i>Terphenyl-d14</i>	88	37-110				



Date of Report: June 4, 2024  
 Samples Submitted: May 24, 2024  
 Laboratory Reference: 2405-311  
 Project: 5147-006-18

**PAHs EPA 8270E/SIM**

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-3A-240521</b>					
Laboratory ID:	05-311-02					
Naphthalene	ND	0.094	EPA 8270E/SIM	5-23-24	5-23-24	
2-Methylnaphthalene	ND	0.094	EPA 8270E/SIM	5-23-24	5-23-24	
1-Methylnaphthalene	ND	0.094	EPA 8270E/SIM	5-23-24	5-23-24	
Acenaphthylene	ND	0.094	EPA 8270E/SIM	5-23-24	5-23-24	
Acenaphthene	ND	0.094	EPA 8270E/SIM	5-23-24	5-23-24	
Fluorene	ND	0.094	EPA 8270E/SIM	5-23-24	5-23-24	
Phenanthrene	ND	0.094	EPA 8270E/SIM	5-23-24	5-23-24	
Anthracene	ND	0.094	EPA 8270E/SIM	5-23-24	5-23-24	
Fluoranthene	ND	0.094	EPA 8270E/SIM	5-23-24	5-23-24	
Pyrene	ND	0.094	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo[a]anthracene	ND	0.0094	EPA 8270E/SIM	5-23-24	5-23-24	
Chrysene	ND	0.0094	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo[b]fluoranthene	ND	0.0094	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo(j,k)fluoranthene	ND	0.0094	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo[a]pyrene	ND	0.0094	EPA 8270E/SIM	5-23-24	5-23-24	
Indeno(1,2,3-c,d)pyrene	ND	0.0094	EPA 8270E/SIM	5-23-24	5-23-24	
Dibenz[a,h]anthracene	ND	0.0094	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo[g,h,i]perylene	ND	0.0094	EPA 8270E/SIM	5-23-24	5-23-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>61</i>	<i>27-106</i>				
<i>Pyrene-d10</i>	<i>88</i>	<i>37-125</i>				
<i>Terphenyl-d14</i>	<i>84</i>	<i>37-110</i>				



Date of Report: June 4, 2024  
 Samples Submitted: May 24, 2024  
 Laboratory Reference: 2405-311  
 Project: 5147-006-18

**PAHs EPA 8270E/SIM**

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-8-240521</b>					
Laboratory ID:	05-311-03					
Naphthalene	ND	0.096	EPA 8270E/SIM	5-23-24	5-23-24	
2-Methylnaphthalene	ND	0.096	EPA 8270E/SIM	5-23-24	5-23-24	
1-Methylnaphthalene	ND	0.096	EPA 8270E/SIM	5-23-24	5-23-24	
Acenaphthylene	ND	0.096	EPA 8270E/SIM	5-23-24	5-23-24	
Acenaphthene	ND	0.096	EPA 8270E/SIM	5-23-24	5-23-24	
Fluorene	ND	0.096	EPA 8270E/SIM	5-23-24	5-23-24	
Phenanthrene	ND	0.096	EPA 8270E/SIM	5-23-24	5-23-24	
Anthracene	ND	0.096	EPA 8270E/SIM	5-23-24	5-23-24	
Fluoranthene	ND	0.096	EPA 8270E/SIM	5-23-24	5-23-24	
Pyrene	ND	0.096	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo[a]anthracene	ND	0.0096	EPA 8270E/SIM	5-23-24	5-23-24	
Chrysene	ND	0.0096	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo[b]fluoranthene	ND	0.0096	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo(j,k)fluoranthene	ND	0.0096	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo[a]pyrene	ND	0.0096	EPA 8270E/SIM	5-23-24	5-23-24	
Indeno(1,2,3-c,d)pyrene	ND	0.0096	EPA 8270E/SIM	5-23-24	5-23-24	
Dibenz[a,h]anthracene	ND	0.0096	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo[g,h,i]perylene	ND	0.0096	EPA 8270E/SIM	5-23-24	5-23-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>65</i>	<i>27-106</i>				
<i>Pyrene-d10</i>	<i>88</i>	<i>37-125</i>				
<i>Terphenyl-d14</i>	<i>91</i>	<i>37-110</i>				



Date of Report: June 4, 2024  
 Samples Submitted: May 24, 2024  
 Laboratory Reference: 2405-311  
 Project: 5147-006-18

PAHs EPA 8270E/SIM

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-6-240524</b>					
Laboratory ID:	05-311-04					
Naphthalene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
2-Methylnaphthalene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
1-Methylnaphthalene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
Acenaphthylene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
Acenaphthene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
Fluorene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
Phenanthrene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
Anthracene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
Fluoranthene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
Pyrene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
Benzo[a]anthracene	ND	0.0093	EPA 8270E/SIM	5-29-24	5-29-24	
Chrysene	ND	0.0093	EPA 8270E/SIM	5-29-24	5-29-24	
Benzo[b]fluoranthene	ND	0.0093	EPA 8270E/SIM	5-29-24	5-29-24	
Benzo(j,k)fluoranthene	ND	0.0093	EPA 8270E/SIM	5-29-24	5-29-24	
Benzo[a]pyrene	ND	0.0093	EPA 8270E/SIM	5-29-24	5-29-24	
Indeno(1,2,3-c,d)pyrene	ND	0.0093	EPA 8270E/SIM	5-29-24	5-29-24	
Dibenz[a,h]anthracene	ND	0.0093	EPA 8270E/SIM	5-29-24	5-29-24	
Benzo[g,h,i]perylene	ND	0.0093	EPA 8270E/SIM	5-29-24	5-29-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>57</i>	<i>27-106</i>				
<i>Pyrene-d10</i>	<i>88</i>	<i>37-125</i>				
<i>Terphenyl-d14</i>	<i>84</i>	<i>37-110</i>				



Date of Report: June 4, 2024  
 Samples Submitted: May 24, 2024  
 Laboratory Reference: 2405-311  
 Project: 5147-006-18

**PAHs EPA 8270E/SIM**

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>DUP-240524</b>					
Laboratory ID:	05-311-05					
Naphthalene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
2-Methylnaphthalene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
1-Methylnaphthalene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
Acenaphthylene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
Acenaphthene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
Fluorene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
Phenanthrene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
Anthracene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
Fluoranthene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
Pyrene	ND	0.093	EPA 8270E/SIM	5-29-24	5-29-24	
Benzo[a]anthracene	ND	0.0093	EPA 8270E/SIM	5-29-24	5-29-24	
Chrysene	ND	0.0093	EPA 8270E/SIM	5-29-24	5-29-24	
Benzo[b]fluoranthene	ND	0.0093	EPA 8270E/SIM	5-29-24	5-29-24	
Benzo(j,k)fluoranthene	ND	0.0093	EPA 8270E/SIM	5-29-24	5-29-24	
Benzo[a]pyrene	ND	0.0093	EPA 8270E/SIM	5-29-24	5-29-24	
Indeno(1,2,3-c,d)pyrene	ND	0.0093	EPA 8270E/SIM	5-29-24	5-29-24	
Dibenz[a,h]anthracene	ND	0.0093	EPA 8270E/SIM	5-29-24	5-29-24	
Benzo[g,h,i]perylene	ND	0.0093	EPA 8270E/SIM	5-29-24	5-29-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>47</i>	<i>27-106</i>				
<i>Pyrene-d10</i>	<i>76</i>	<i>37-125</i>				
<i>Terphenyl-d14</i>	<i>73</i>	<i>37-110</i>				



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**TOTAL METALS**  
**EPA 200.8**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-2B-240521</b>					
Laboratory ID:	05-311-01					
Arsenic	<b>ND</b>	5.6	EPA 200.8	5-29-24	6-1-24	
Nickel	<b>13</b>	5.6	EPA 200.8	5-29-24	6-1-24	

<b>Client ID:</b>	<b>MW-3A-240521</b>					
Laboratory ID:	05-311-02					
Arsenic	<b>ND</b>	5.6	EPA 200.8	5-29-24	6-1-24	
Nickel	<b>6.9</b>	5.6	EPA 200.8	5-29-24	6-1-24	

<b>Client ID:</b>	<b>MW-8-240521</b>					
Laboratory ID:	05-311-03					
Arsenic	<b>19</b>	5.6	EPA 200.8	5-29-24	6-1-24	
Nickel	<b>ND</b>	5.6	EPA 200.8	5-29-24	6-1-24	

<b>Client ID:</b>	<b>MW-6-240524</b>					
Laboratory ID:	05-311-04					
Arsenic	<b>ND</b>	5.6	EPA 200.8	5-29-24	6-1-24	
Nickel	<b>ND</b>	5.6	EPA 200.8	5-29-24	6-1-24	

<b>Client ID:</b>	<b>DUP-240524</b>					
Laboratory ID:	05-311-05					
Arsenic	<b>ND</b>	5.6	EPA 200.8	5-29-24	6-1-24	
Nickel	<b>ND</b>	5.6	EPA 200.8	5-29-24	6-1-24	



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**DISSOLVED METALS**  
**EPA 200.8**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-2B-240521</b>					
Laboratory ID:	05-311-01					
Arsenic	<b>ND</b>	5.0	EPA 200.8		6-1-24	
Nickel	<b>5.2</b>	5.0	EPA 200.8		6-1-24	

<b>Client ID:</b>	<b>MW-3A-240521</b>					
Laboratory ID:	05-311-02					
Arsenic	<b>ND</b>	5.0	EPA 200.8		6-1-24	
Nickel	<b>ND</b>	5.0	EPA 200.8		6-1-24	

<b>Client ID:</b>	<b>MW-8-240521</b>					
Laboratory ID:	05-311-03					
Arsenic	<b>18</b>	5.6	EPA 200.8	5-29-24	6-1-24	
Nickel	<b>ND</b>	5.6	EPA 200.8	5-29-24	6-1-24	

<b>Client ID:</b>	<b>MW-6-240524</b>					
Laboratory ID:	05-311-04					
Arsenic	<b>ND</b>	5.0	EPA 200.8		6-1-24	
Nickel	<b>ND</b>	5.0	EPA 200.8		6-1-24	

<b>Client ID:</b>	<b>DUP-240524</b>					
Laboratory ID:	05-311-05					
Arsenic	<b>ND</b>	5.0	EPA 200.8		6-1-24	
Nickel	<b>ND</b>	5.0	EPA 200.8		6-1-24	



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**PAHs EPA 8270E/SIM  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>METHOD BLANK</b>						
Laboratory ID:	MB0523W1					
Naphthalene	ND	0.10	EPA 8270E/SIM	5-23-24	5-23-24	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	5-23-24	5-23-24	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	5-23-24	5-23-24	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	5-23-24	5-23-24	
Acenaphthene	ND	0.10	EPA 8270E/SIM	5-23-24	5-23-24	
Fluorene	ND	0.10	EPA 8270E/SIM	5-23-24	5-23-24	
Phenanthrene	ND	0.10	EPA 8270E/SIM	5-23-24	5-23-24	
Anthracene	ND	0.10	EPA 8270E/SIM	5-23-24	5-23-24	
Fluoranthene	ND	0.10	EPA 8270E/SIM	5-23-24	5-23-24	
Pyrene	ND	0.10	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	5-23-24	5-23-24	
Chrysene	ND	0.010	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	5-23-24	5-23-24	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270E/SIM	5-23-24	5-23-24	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	5-23-24	5-23-24	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	5-23-24	5-23-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>44</i>	<i>27-106</i>				
<i>Pyrene-d10</i>	<i>82</i>	<i>37-125</i>				
<i>Terphenyl-d14</i>	<i>75</i>	<i>37-110</i>				



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**PAHs EPA 8270E/SIM  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		
					Recovery	Limits	RPD	Limit	Flags	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0523W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	0.270	0.274	0.500	0.500	54	55	36-95	1	34	
Acenaphthylene	0.374	0.360	0.500	0.500	75	72	51-103	4	26	
Acenaphthene	0.326	0.311	0.500	0.500	65	62	47-97	5	25	
Fluorene	0.338	0.328	0.500	0.500	68	66	51-105	3	23	
Phenanthrene	0.332	0.320	0.500	0.500	66	64	52-110	4	24	
Anthracene	0.407	0.390	0.500	0.500	81	78	55-104	4	24	
Fluoranthene	0.391	0.370	0.500	0.500	78	74	59-111	6	24	
Pyrene	0.395	0.371	0.500	0.500	79	74	59-110	6	22	
Benzo[a]anthracene	0.454	0.438	0.500	0.500	91	88	55-116	4	22	
Chrysene	0.404	0.382	0.500	0.500	81	76	59-111	6	23	
Benzo[b]fluoranthene	0.445	0.428	0.500	0.500	89	86	62-115	4	27	
Benzo(j,k)fluoranthene	0.410	0.391	0.500	0.500	82	78	59-117	5	23	
Benzo[a]pyrene	0.432	0.413	0.500	0.500	86	83	64-109	4	24	
Indeno(1,2,3-c,d)pyrene	0.441	0.432	0.500	0.500	88	86	58-114	2	22	
Dibenz[a,h]anthracene	0.437	0.423	0.500	0.500	87	85	63-114	3	24	
Benzo[g,h,i]perylene	0.424	0.411	0.500	0.500	85	82	61-110	3	24	
<i>Surrogate:</i>										
2-Fluorobiphenyl					53	52	27-106			
Pyrene-d10					87	83	37-125			
Terphenyl-d14					80	79	37-110			



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**PAHs EPA 8270E/SIM  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>METHOD BLANK</b>						
Laboratory ID:	MB0529W1					
Naphthalene	ND	0.10	EPA 8270E/SIM	5-29-24	5-29-24	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	5-29-24	5-29-24	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	5-29-24	5-29-24	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	5-29-24	5-29-24	
Acenaphthene	ND	0.10	EPA 8270E/SIM	5-29-24	5-29-24	
Fluorene	ND	0.10	EPA 8270E/SIM	5-29-24	5-29-24	
Phenanthrene	ND	0.10	EPA 8270E/SIM	5-29-24	5-29-24	
Anthracene	ND	0.10	EPA 8270E/SIM	5-29-24	5-29-24	
Fluoranthene	ND	0.10	EPA 8270E/SIM	5-29-24	5-29-24	
Pyrene	ND	0.10	EPA 8270E/SIM	5-29-24	5-29-24	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	5-29-24	5-29-24	
Chrysene	ND	0.010	EPA 8270E/SIM	5-29-24	5-29-24	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	5-29-24	5-29-24	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	5-29-24	5-29-24	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	5-29-24	5-29-24	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270E/SIM	5-29-24	5-29-24	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	5-29-24	5-29-24	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	5-29-24	5-29-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>67</i>	<i>27-106</i>				
<i>Pyrene-d10</i>	<i>86</i>	<i>37-125</i>				
<i>Terphenyl-d14</i>	<i>82</i>	<i>37-110</i>				



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**PAHs EPA 8270E/SIM  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0529W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	0.309	0.297	0.500	0.500	62	59	36-95	4	34	
Acenaphthylene	0.340	0.322	0.500	0.500	68	64	51-103	5	26	
Acenaphthene	0.283	0.286	0.500	0.500	57	57	47-97	1	25	
Fluorene	0.312	0.327	0.500	0.500	62	65	51-105	5	23	
Phenanthrene	0.360	0.356	0.500	0.500	72	71	52-110	1	24	
Anthracene	0.443	0.443	0.500	0.500	89	89	55-104	0	24	
Fluoranthene	0.443	0.435	0.500	0.500	89	87	59-111	2	24	
Pyrene	0.451	0.440	0.500	0.500	90	88	59-110	2	22	
Benzo[a]anthracene	0.512	0.483	0.500	0.500	102	97	55-116	6	22	
Chrysene	0.459	0.434	0.500	0.500	92	87	59-111	6	23	
Benzo[b]fluoranthene	0.509	0.469	0.500	0.500	102	94	62-115	8	27	
Benzo(j,k)fluoranthene	0.468	0.446	0.500	0.500	94	89	59-117	5	23	
Benzo[a]pyrene	0.493	0.471	0.500	0.500	99	94	64-109	5	24	
Indeno(1,2,3-c,d)pyrene	0.528	0.477	0.500	0.500	106	95	58-114	10	22	
Dibenz[a,h]anthracene	0.494	0.468	0.500	0.500	99	94	63-114	5	24	
Benzo[g,h,i]perylene	0.482	0.455	0.500	0.500	96	91	61-110	6	24	
<i>Surrogate:</i>										
2-Fluorobiphenyl					59	64	27-106			
Pyrene-d10					97	98	37-125			
Terphenyl-d14					92	89	37-110			



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**TOTAL METALS  
 EPA 200.8  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0529WM1					
Arsenic	ND	3.3	EPA 200.8	5-29-24	5-31-24	
Nickel	ND	22	EPA 200.8	5-29-24	5-31-24	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-300-07							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Nickel	ND	ND	NA	NA	NA	NA	20	

**MATRIX SPIKES**

Laboratory ID:	05-300-07									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	110	113	111	111	ND	99	102	75-125	3	20
Nickel	108	110	111	111	ND	97	99	75-125	2	20



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**TOTAL METALS  
 EPA 200.8  
 CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppb)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Arsenic	ICV053124Y	50.0	49.6	0.80	+/- 10%
Nickel	ICV053124Y	50.0	48.5	3.0	+/- 10%
Arsenic	CCV1053124Y	40.0	40.9	-2.3	+/- 10%
Nickel	CCV1053124Y	40.0	41.1	-2.8	+/- 10%
	CCV1053124Y				
Arsenic	CCV1053124Y	20.0	19.4	3.0	+/- 10%
Nickel	CCV1053124Y	20.0	19.9	0.50	+/- 10%
Arsenic	CCV2053124Y	40.0	40.3	-0.75	+/- 10%
Nickel	CCV2053124Y	40.0	39.8	0.50	+/- 10%
Arsenic	CCV2053124Y	20.0	19.9	0.50	+/- 10%
Nickel	CCV2053124Y	20.0	20.2	-1.0	+/- 10%



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**TOTAL METALS  
 EPA 200.8  
 CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppb)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Arsenic	ICV060124Y	50.0	49.8	0.40	+/- 10%
Nickel	ICV060124Y	50.0	48.6	2.8	+/- 10%
Arsenic	CCV1060124Y	40.0	39.7	0.75	+/- 10%
Nickel	CCV1060124Y	40.0	39.2	2.0	+/- 10%
Arsenic	CCV1060124Y	20.0	19.9	0.50	+/- 10%
Nickel	CCV1060124Y	20.0	20.3	-1.5	+/- 10%
Arsenic	CCV2060124Y	40.0	38.5	3.8	+/- 10%
Nickel	CCV2060124Y	40.0	41.3	-3.2	+/- 10%
Arsenic	CCV2060124Y	20.0	20.1	-0.50	+/- 10%
Nickel	CCV2060124Y	20.0	21.6	-8.0	+/- 10%
Arsenic	CCV3060124Y	40.0	37.9	5.3	+/- 10%
Nickel	CCV3060124Y	40.0	39.7	0.75	+/- 10%
Arsenic	CCV3060124Y	20.0	18.6	7.0	+/- 10%
Nickel	CCV3060124Y	20.0	19.7	1.5	+/- 10%



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**DISSOLVED METALS  
 EPA 200.8  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0529WM1					
Arsenic	ND	3.3	EPA 200.8	5-29-24	5-31-24	
Nickel	ND	22	EPA 200.8	5-29-24	5-31-24	
<b>METHOD BLANK</b>						
Laboratory ID:	MB0529F1					
Arsenic	ND	3.0	EPA 200.8	5-29-24	6-1-24	
Nickel	ND	20	EPA 200.8	5-29-24	6-1-24	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-300-07							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Nickel	ND	ND	NA	NA	NA	NA	20	
<b>DUPLICATE</b>								
Laboratory ID:	05-353-02							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Nickel	ND	ND	NA	NA	NA	NA	20	

**MATRIX SPIKES**

Laboratory ID:	05-300-07									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	110	113	111	111	ND	99	102	75-125	3	20
Nickel	108	110	111	111	ND	97	99	75-125	2	20
<b>MATRIX SPIKES</b>										
Laboratory ID:	05-353-02									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	76.2	77.6	80.0	80.0	ND	95	97	75-125	2	20
Nickel	66.4	67.0	80.0	80.0	ND	83	84	75-125	1	20



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**DISSOLVED METALS  
 EPA 200.8  
 CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppb)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Arsenic	ICV053124Y	50.0	49.6	0.80	+/- 10%
Nickel	ICV053124Y	50.0	48.5	3.0	+/- 10%
Arsenic	CCV1053124Y	40.0	40.9	-2.3	+/- 10%
Nickel	CCV1053124Y	40.0	41.1	-2.8	+/- 10%
	CCV1053124Y				
Arsenic	CCV1053124Y	20.0	19.4	3.0	+/- 10%
Nickel	CCV1053124Y	20.0	19.9	0.50	+/- 10%
Arsenic	CCV2053124Y	40.0	40.3	-0.75	+/- 10%
Nickel	CCV2053124Y	40.0	39.8	0.50	+/- 10%
Arsenic	CCV2053124Y	20.0	19.9	0.50	+/- 10%
Nickel	CCV2053124Y	20.0	20.2	-1.0	+/- 10%



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**DISSOLVED METALS  
 EPA 200.8  
 CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppb)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Arsenic	ICV060124Y	50.0	49.1	1.8	+/- 10%
Nickel	ICV060124Y	50.0	49.4	1.2	+/- 10%
Arsenic	CCV1060124Y	40.0	39.5	1.3	+/- 10%
Nickel	CCV1060124Y	40.0	39.6	1.0	+/- 10%
Arsenic	CCV1060124Y	20.0	19.6	2.0	+/- 10%
Nickel	CCV1060124Y	20.0	19.7	1.5	+/- 10%
Arsenic	CCV2060124Y	40.0	38.5	3.8	+/- 10%
Nickel	CCV2060124Y	40.0	36.7	8.2	+/- 10%
Arsenic	CCV2060124Y	20.0	19.7	1.5	+/- 10%
Nickel	CCV2060124Y	20.0	18.3	8.5	+/- 10%
Arsenic	CCV3060124Y	40.0	41.1	-2.8	+/- 10%
Nickel	CCV3060124Y	40.0	36.5	8.8	+/- 10%
Arsenic	CCV3060124Y	20.0	20.4	-2.0	+/- 10%
Nickel	CCV3060124Y	20.0	18.5	7.5	+/- 10%



Date of Report: June 4, 2024  
 Samples Submitted: May 24, 2024  
 Laboratory Reference: 2405-311  
 Project: 5147-006-18

**DISSOLVED METALS  
 EPA 200.8  
 CONTINUING CALIBRATION SUMMARY**

<b>Analyte</b>	<b>Lab ID</b>	<b>True Value (ppb)</b>	<b>Calc. Value</b>	<b>Percent Difference</b>	<b>Control Limits</b>
Arsenic	ICV060124Y	50.0	49.8	0.40	+/- 10%
Nickel	ICV060124Y	50.0	48.6	2.8	+/- 10%
Arsenic	CCV1060124Y	40.0	39.7	0.75	+/- 10%
Nickel	CCV1060124Y	40.0	39.2	2.0	+/- 10%
Arsenic	CCV1060124Y	20.0	19.9	0.50	+/- 10%
Nickel	CCV1060124Y	20.0	20.3	-1.5	+/- 10%
Arsenic	CCV2060124Y	40.0	38.5	3.8	+/- 10%
Nickel	CCV2060124Y	40.0	41.3	-3.2	+/- 10%
Arsenic	CCV2060124Y	20.0	20.1	-0.50	+/- 10%
Nickel	CCV2060124Y	20.0	21.6	-8.0	+/- 10%
Arsenic	CCV3060124Y	40.0	37.9	5.3	+/- 10%
Nickel	CCV3060124Y	40.0	39.7	0.75	+/- 10%
Arsenic	CCV3060124Y	20.0	18.6	7.0	+/- 10%
Nickel	CCV3060124Y	20.0	19.7	1.5	+/- 10%





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - X2 - Sample extract treated with a silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





# Sample/Cooler Receipt and Acceptance Checklist

Client: GES

Client Project Name/Number: S147-006-18

OnSite Project Number: 05-311

Initiated by: QMV

Date Initiated: 5/22/24

## 1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	<input checked="" type="radio"/> No	N/A	1	2	3	4
1.2 Were the custody seals intact?	Yes	No	N/A	1	2	3	4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1	2	3	4
1.4 Were the samples delivered on ice or blue ice?	<input checked="" type="radio"/> Yes	No	N/A	1	2	3	4
1.5 Were samples received between 0-6 degrees Celsius?	<input checked="" type="radio"/> Yes	No	N/A	Temperature: <u>4</u>			
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	<input checked="" type="radio"/> N/A					
1.7 How were the samples delivered?	<input checked="" type="radio"/> Client	<input type="radio"/> Courier	<input type="radio"/> UPS/FedEx	<input type="radio"/> OSE Pickup	<input type="radio"/> Other		

## 2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	<input checked="" type="radio"/> Yes	No		1	2	3	4
2.2 Was the COC legible and written in permanent ink?	<input checked="" type="radio"/> Yes	No		1	2	3	4
2.3 Have samples been relinquished and accepted by each custodian?	<input checked="" type="radio"/> Yes	No		1	2	3	4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<input checked="" type="radio"/> Yes	No		1	2	3	4
2.5 Were all of the samples listed on the COC submitted?	<input checked="" type="radio"/> Yes	No		1	2	3	4
2.6 Were any of the samples submitted omitted from the COC?	Yes	<input checked="" type="radio"/> No		1	2	3	4

## 3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	<input checked="" type="radio"/> No		1	2	3	4
3.2 Were any sample labels missing or illegible?	Yes	<input checked="" type="radio"/> No		1	2	3	4
3.3 Have the correct containers been used for each analysis requested?	<input checked="" type="radio"/> Yes	No		1	2	3	4
3.4 Have the samples been correctly preserved?	<input checked="" type="radio"/> Yes	No	N/A	1	2	3	4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	<input checked="" type="radio"/> N/A	1	2	3	4
3.6 Is there sufficient sample submitted to perform requested analyses?	<input checked="" type="radio"/> Yes	No		1	2	3	4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	<input checked="" type="radio"/> No		1	2	3	4
3.8 Was method 5035A used?	Yes	No	<input checked="" type="radio"/> N/A	1	2	3	4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		<input checked="" type="radio"/> N/A	1	2	3	4

Explain any discrepancies:


1 - Discuss issue in Case Narrative

3 - Client contacted to discuss problem

2 - Process Sample As-is

4 - Sample cannot be analyzed or client does not wish to proceed

# Sample/Cooler Receipt and Acceptance Checklist

Client: GES  
 Client Project Name/Number: 5147-006-18  
 OnSite Project Number: 05-311

Initiated by: DMV  
 Date Initiated: 5/24/24

## 1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	<input type="radio"/> No	N/A	1	2	3	4
1.2 Were the custody seals intact?	Yes	No	N/A	1	2	3	4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1	2	3	4
1.4 Were the samples delivered on ice or blue ice?	<input checked="" type="radio"/> Yes	No	N/A	1	2	3	4
1.5 Were samples received between 0-6 degrees Celsius?	<input checked="" type="radio"/> Yes	No	N/A	Temperature: <u>6</u>			
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A					
1.7 How were the samples delivered?	<input checked="" type="radio"/> Client	<input type="radio"/> Courier	<input type="radio"/> UPS/FedEx	<input type="radio"/> OSE Pickup	<input type="radio"/> Other		

## 2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	<input checked="" type="radio"/> Yes	No		1	2	3	4
2.2 Was the COC legible and written in permanent ink?	<input checked="" type="radio"/> Yes	No		1	2	3	4
2.3 Have samples been relinquished and accepted by each custodian?	<input checked="" type="radio"/> Yes	No		1	2	3	4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<input checked="" type="radio"/> Yes	No		1	2	3	4
2.5 Were all of the samples listed on the COC submitted?	<input checked="" type="radio"/> Yes	No		1	2	3	4
2.6 Were any of the samples submitted omitted from the COC?	Yes	<input checked="" type="radio"/> No		1	2	3	4

## 3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	<input checked="" type="radio"/> No		1	2	3	4
3.2 Were any sample labels missing or illegible?	Yes	<input checked="" type="radio"/> No		1	2	3	4
3.3 Have the correct containers been used for each analysis requested?	<input checked="" type="radio"/> Yes	No		1	2	3	4
3.4 Have the samples been correctly preserved?	<input checked="" type="radio"/> Yes	No	N/A	1	2	3	4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	<input checked="" type="radio"/> N/A	1	2	3	4
3.6 Is there sufficient sample submitted to perform requested analyses?	<input checked="" type="radio"/> Yes	No		1	2	3	4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	<input checked="" type="radio"/> No		1	2	3	4
3.8 Was method 5035A used?	Yes	No	<input checked="" type="radio"/> N/A	1	2	3	4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		<input checked="" type="radio"/> N/A	1	2	3	4

### Explain any discrepancies:


1 - Discuss issue in Case Narrative

3 - Client contacted to discuss problem

2 - Process Sample As-is

4 - Sample cannot be analyzed or client does not wish to proceed

## COMPLETE DATA PACKAGE

- PAHs EPA 8270E/SIM
- Total Metals EPA 200.8
- Dissolved Metals by EPA 200.8

## PAHs EPA 8270E/SIM

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration Data
- Administrative Forms

Data Path : X:\semivols\Corey\DATA\C240523\  
 Data File : C0523018.D  
 Acq On : 23 May 2024 5:47 pm  
 Operator : JP  
 Sample : 05-311-01  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 24 08:13:35 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

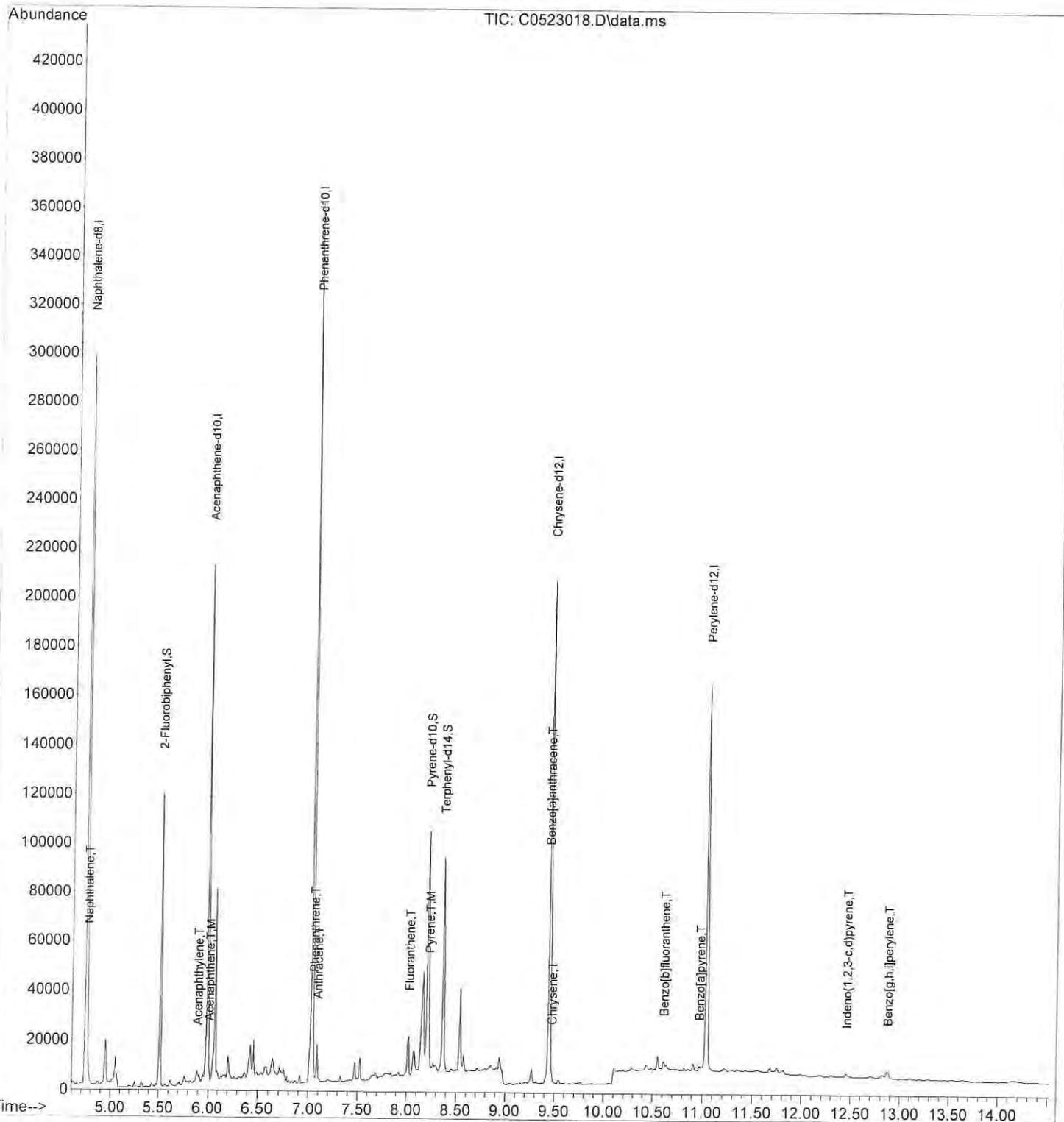
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	4.744	136	320885	2000.00	ppb	-0.05	
5) Acenaphthene-d10	5.990	164	164163	2000.00	ppb	-0.05	
9) Phenanthrene-d10	7.034	188	290416	2000.00	ppb	-0.05	
16) Chrysene-d12	9.449	240	212172	2000.00	ppb	-0.06	
20) Perylene-d12	11.040	264	201610	2000.00	ppb	-0.06	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	5.512	172	97257	649.68	ppb	-0.05	
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	64.97%		
10) Pyrene-d10	8.210	212	109580	900.13	ppb	-0.05	
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	90.01%		
17) Terphenyl-d14	8.363	244	82809	877.12	ppb	-0.06	
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	87.71%		
Target Compounds							
							Qvalue
2) Naphthalene	4.759	128	3225	17.05	ppb		91
7) Acenaphthylene	5.890	152	3842	19.51	ppb		100
8) Acenaphthene	6.005	153	2370	18.78	ppb		100
12) Phenanthrene	7.046	178	7207	32.74	ppb		65
13) Anthracene	7.086	178	10081	54.31	ppb		91
14) Fluoranthene	8.017	202	16120	75.64	ppb	#	1
15) Pyrene	8.219	202	16617	77.54	ppb		92
18) Benzo[a]anthracene	9.438	228	3108	13.36	ppb		92
19) Chrysene	9.473	228	4825	27.65	ppb		92
21) Benzo[b]fluoranthene	10.610	252	3977m	25.38	ppb		
23) Benzo[a]pyrene	10.970	252	2230	16.22	ppb		99
24) Indeno(1,2,3-c,d)pyrene	12.458	276	2239	16.87	ppb		81
26) Benzo[g,h,i]perylene	12.874	276	3670	25.34	ppb	#	1
-----							

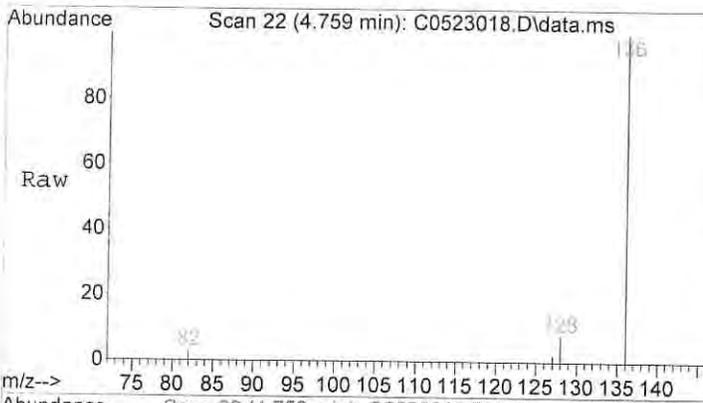
(#) = qualifier out of range (m) = manual integration (+) = signals summed

*J*  
 5/28/24

Data Path : X:\semivols\Corey\DATA\C240523\  
 Data File : C0523018.D  
 Acq On : 23 May 2024 5:47 pm  
 Operator : JP  
 Sample : 05-311-01  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

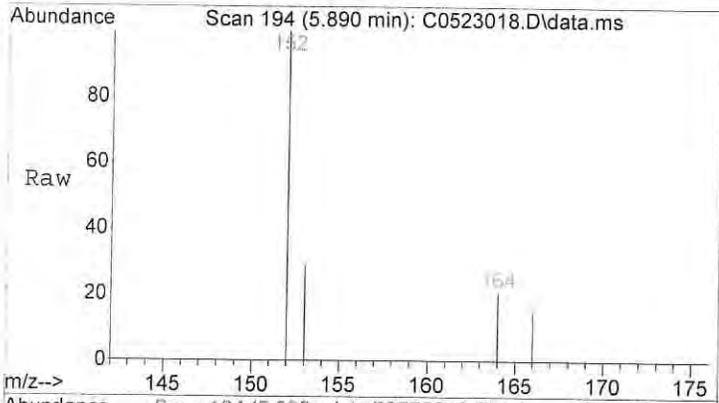
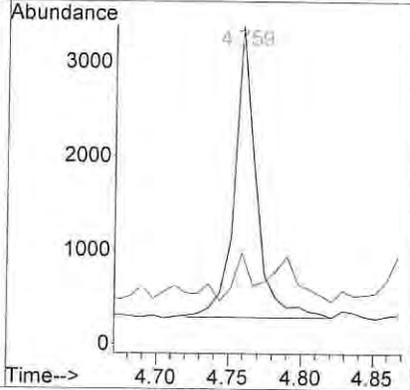
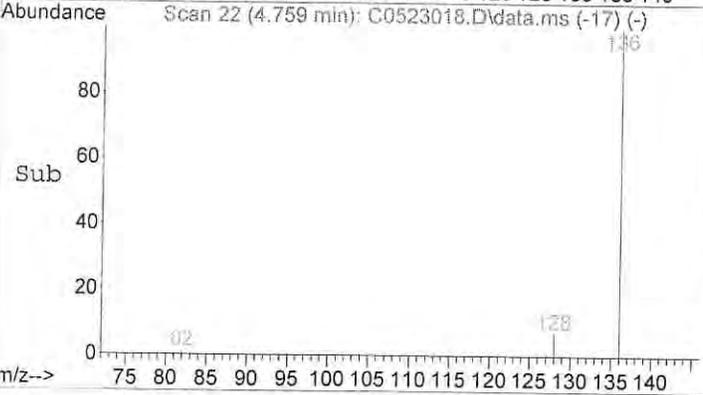
Quant Time: May 24 08:13:35 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration





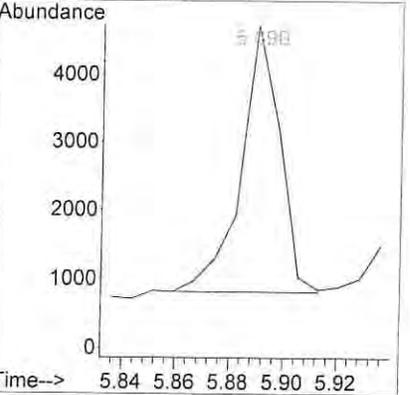
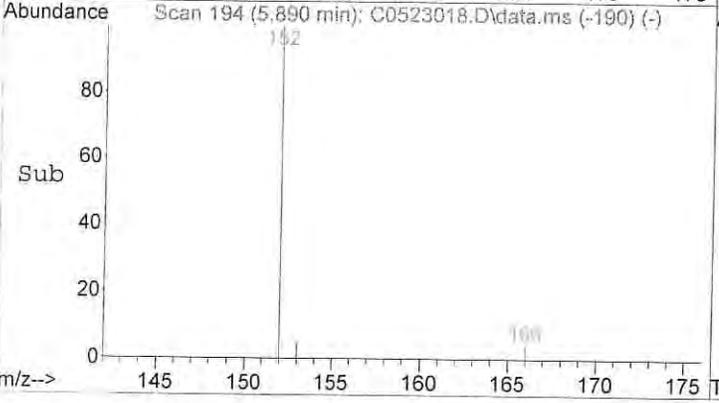
#2  
 Naphthalene  
 Concen: 17.05 ppb  
 RT: 4.759 min Scan# 22  
 Delta R.T. -0.046 min  
 Lab File: C0523018.D  
 Acq: 23 May 24 5:47 pm

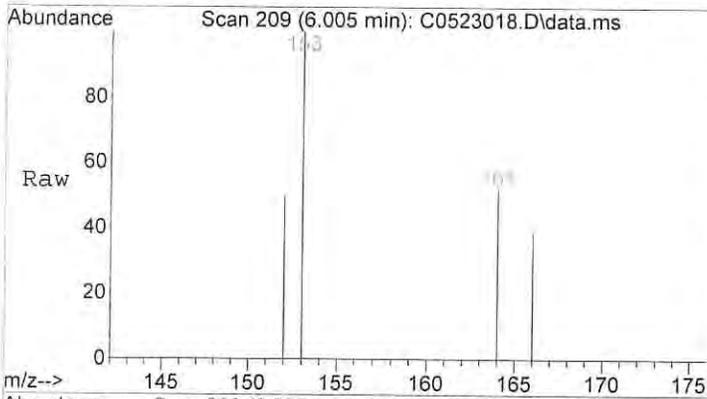
Tgt Ion:128	Resp:	3225
Ion Ratio	Lower	Upper
128	100	
127	15.9	0.0 32.5



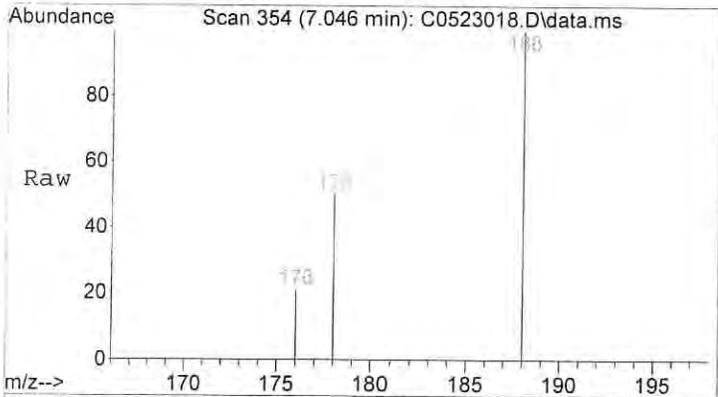
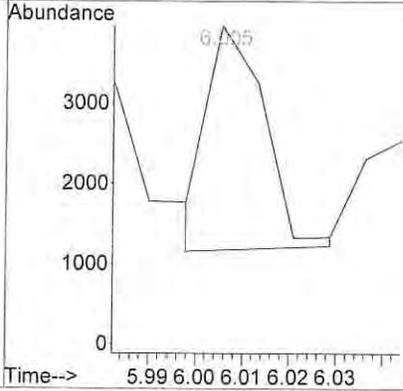
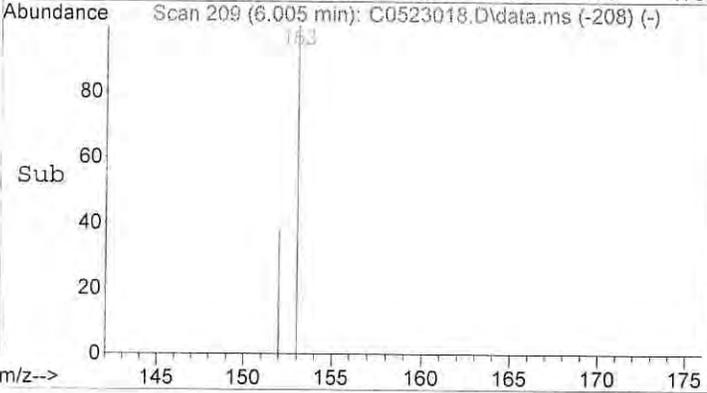
#7  
 Acenaphthylene  
 Concen: 19.51 ppb  
 RT: 5.890 min Scan# 194  
 Delta R.T. -0.046 min  
 Lab File: C0523018.D  
 Acq: 23 May 24 5:47 pm

Tgt Ion:152	Resp:	3842
-------------	-------	------

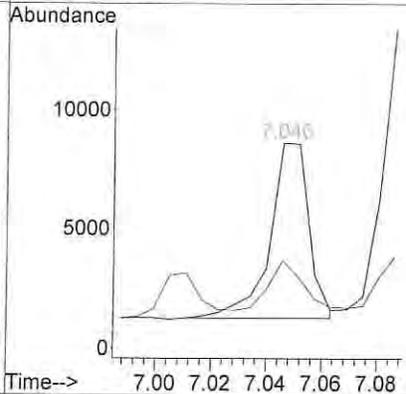
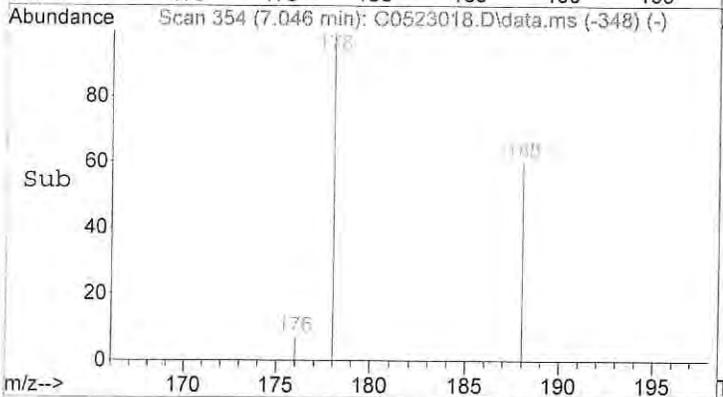


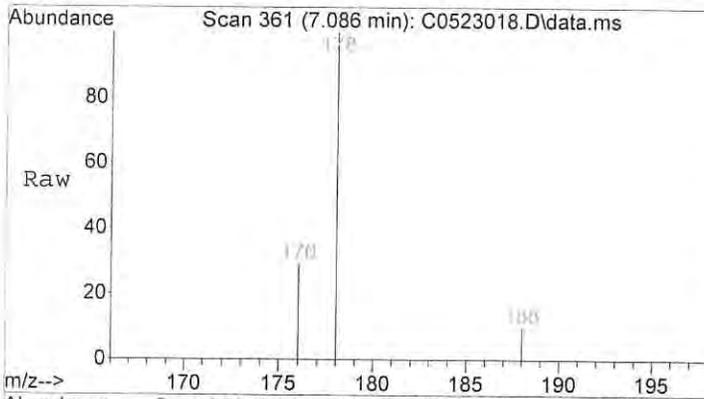


#8  
 Acenaphthene  
 Concen: 18.78 ppb  
 RT: 6.005 min Scan# 209  
 Delta R.T. -0.053 min  
 Lab File: C0523018.D  
 Acq: 23 May 24 5:47 pm  
 Tgt Ion:153 Resp: 2370



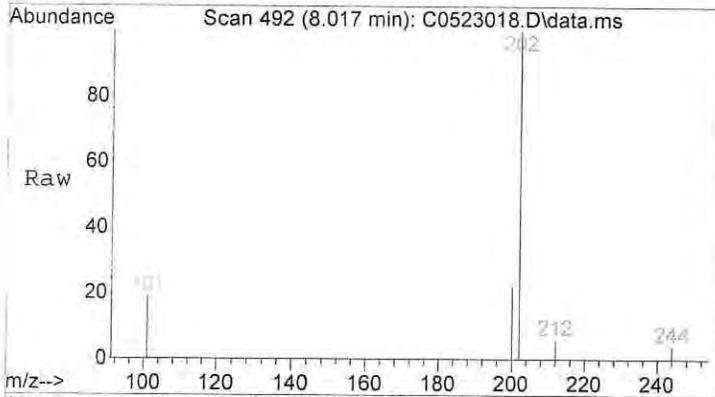
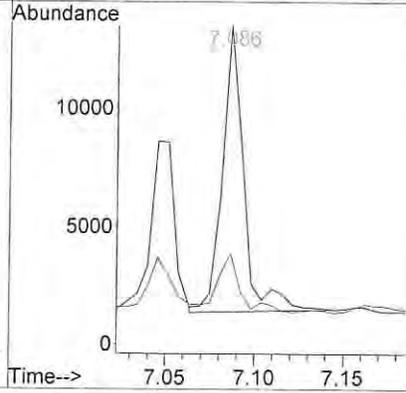
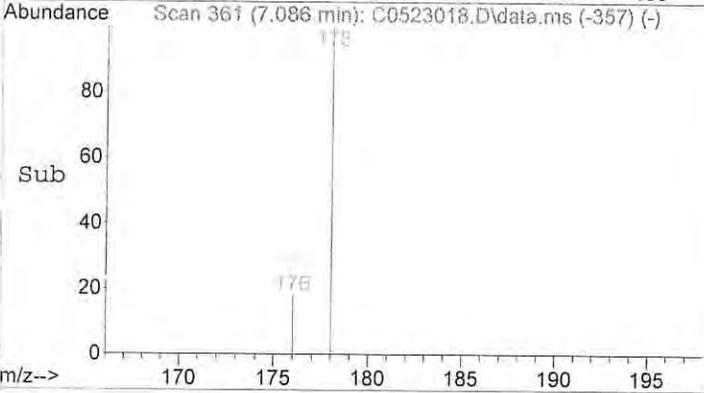
#12  
 Phenanthrene  
 Concen: 32.74 ppb  
 RT: 7.046 min Scan# 354  
 Delta R.T. -0.052 min  
 Lab File: C0523018.D  
 Acq: 23 May 24 5:47 pm  
 Tgt Ion:178 Resp: 7207  
 Ion Ratio Lower Upper  
 178 100  
 176 33.9 0.0 38.2





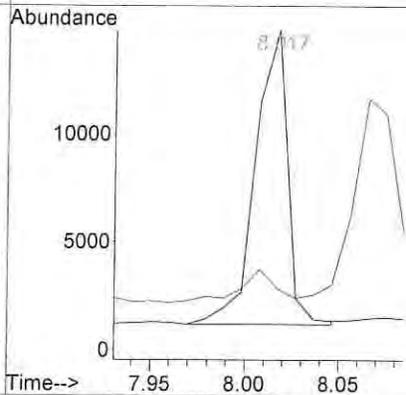
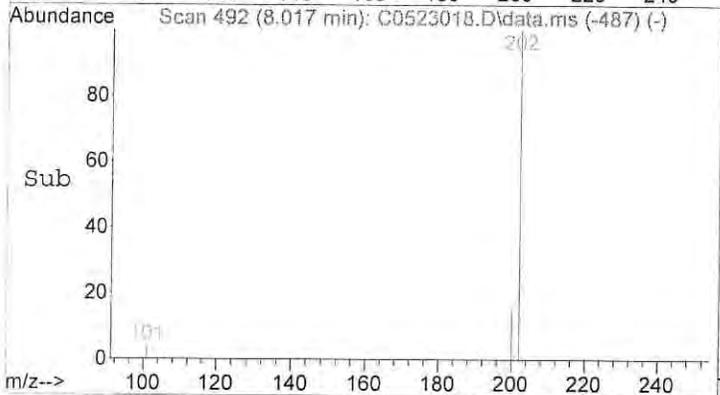
#13  
 Anthracene  
 Concen: 54.31 ppb  
 RT: 7.086 min Scan# 361  
 Delta R.T. -0.052 min  
 Lab File: C0523018.D  
 Acq: 23 May 24 5:47 pm

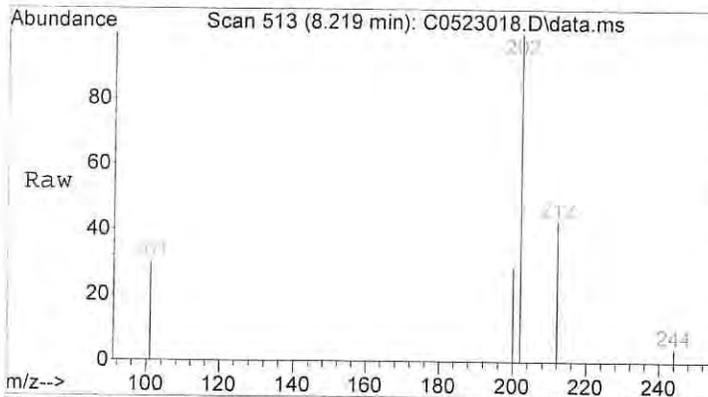
Tgt Ion:178 Resp: 10081  
 Ion Ratio Lower Upper  
 178 100  
 176 21.9 0.0 37.7



#14  
 Fluoranthene  
 Concen: 75.64 ppb  
 RT: 8.017 min Scan# 492  
 Delta R.T. -0.047 min  
 Lab File: C0523018.D  
 Acq: 23 May 24 5:47 pm

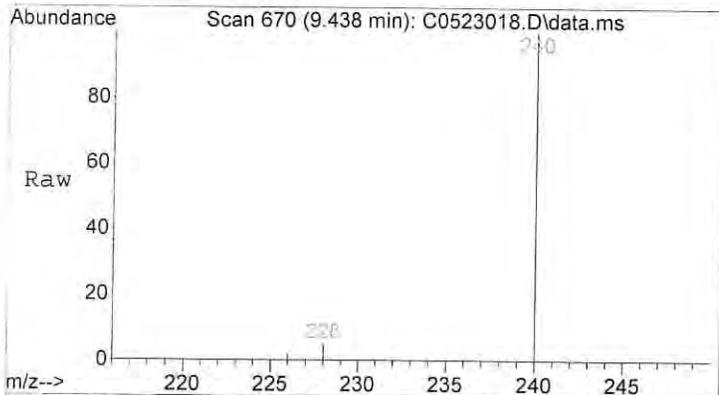
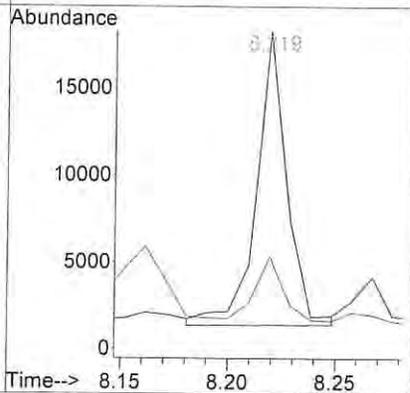
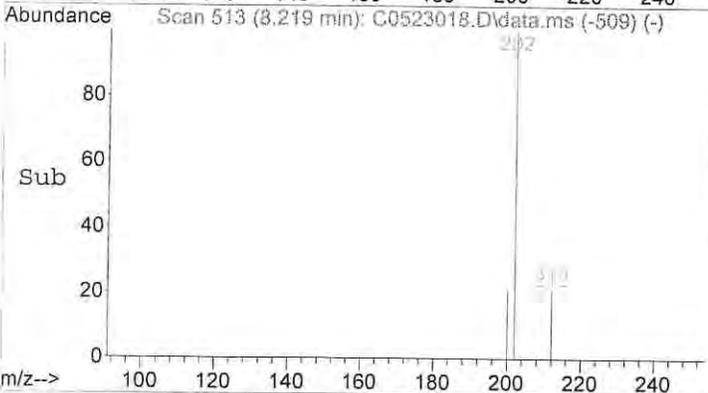
Tgt Ion:202 Resp: 16120  
 Ion Ratio Lower Upper  
 202 100  
 101 111.5 0.0 31.5#





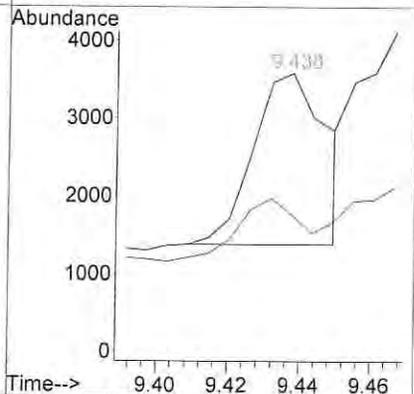
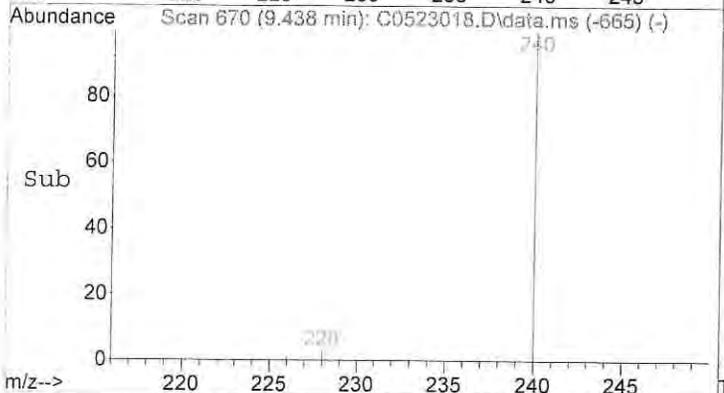
#15  
 Pyrene  
 Concen: 77.54 ppb  
 RT: 8.219 min Scan# 513  
 Delta R.T. -0.057 min  
 Lab File: C0523018.D  
 Acq: 23 May 24 5:47 pm

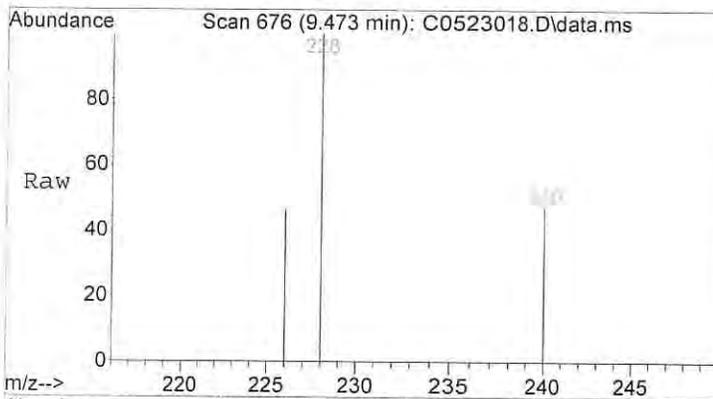
Tgt Ion:202 Resp: 16617  
 Ion Ratio Lower Upper  
 202 100  
 200 23.4 0.0 39.9



#18  
 Benzo[a]anthracene  
 Concen: 13.36 ppb  
 RT: 9.438 min Scan# 670  
 Delta R.T. -0.052 min  
 Lab File: C0523018.D  
 Acq: 23 May 24 5:47 pm

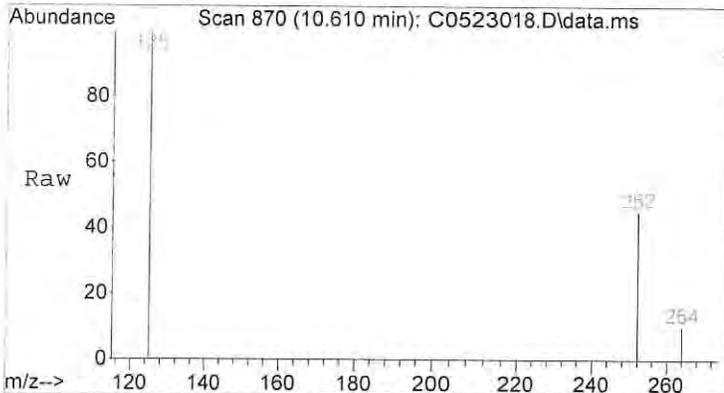
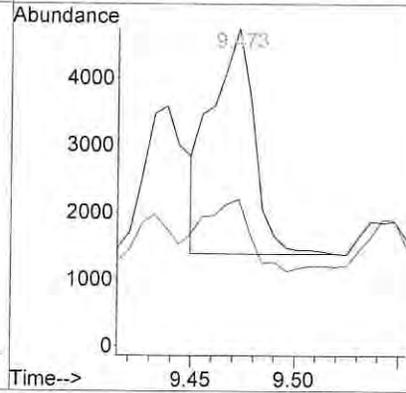
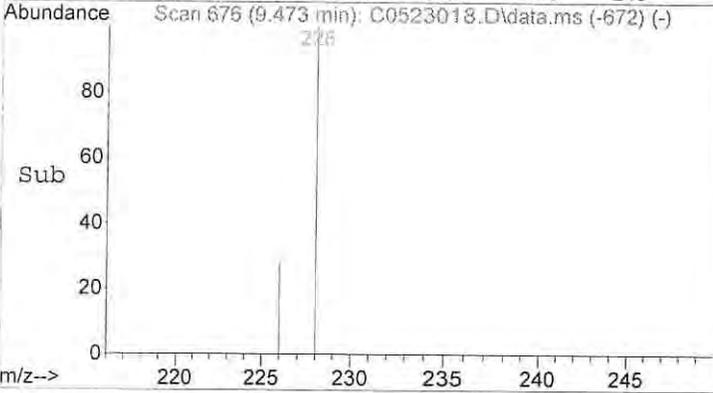
Tgt Ion:228 Resp: 3108  
 Ion Ratio Lower Upper  
 228 100  
 226 29.5 5.3 45.3





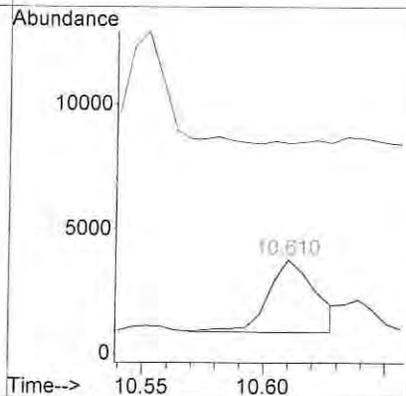
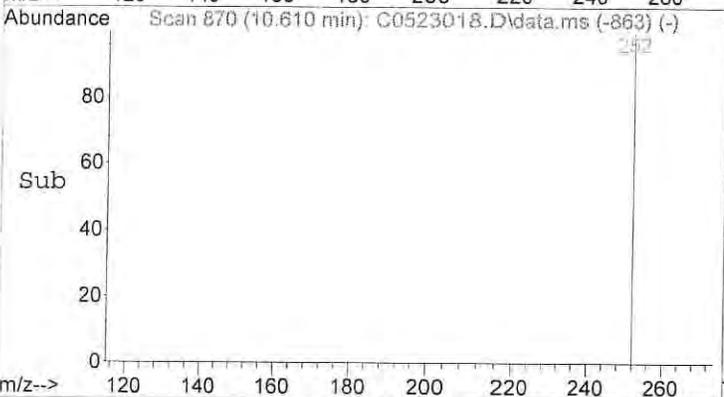
#19  
 Chrysene  
 Concen: 27.65 ppb  
 RT: 9.473 min Scan# 676  
 Delta R.T. -0.057 min  
 Lab File: C0523018.D  
 Acq: 23 May 24 5:47 pm

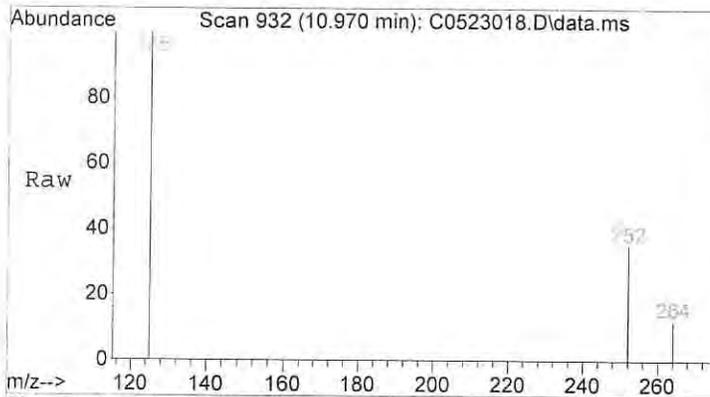
Tgt Ion:228	Resp:	4825
Ion Ratio	Lower	Upper
228	100	
226	32.7	8.7 48.7



#21  
 Benzo[b] fluoranthene  
 Concen: 25.38 ppb m  
 RT: 10.610 min Scan# 870  
 Delta R.T. -0.057 min  
 Lab File: C0523018.D  
 Acq: 23 May 24 5:47 pm

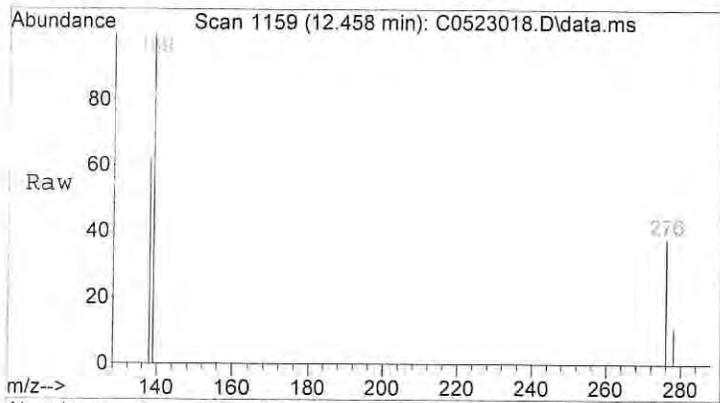
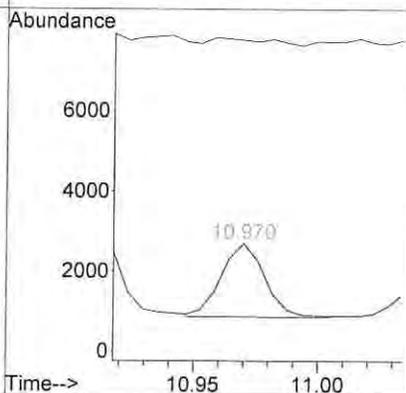
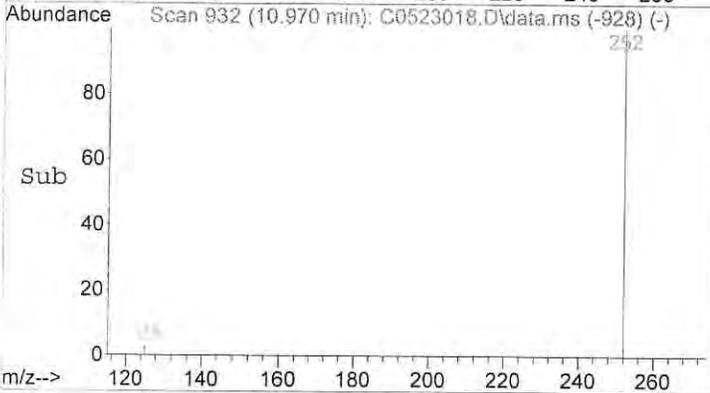
Tgt Ion:252	Resp:	3977
Ion Ratio	Lower	Upper
252	100	
125	0.0	0.0 31.5





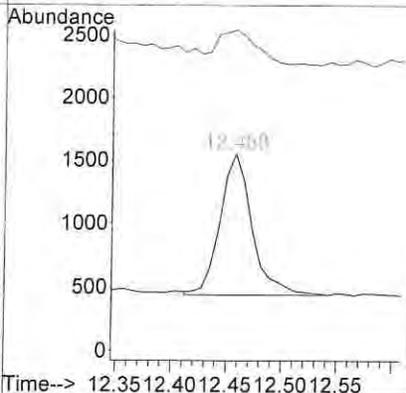
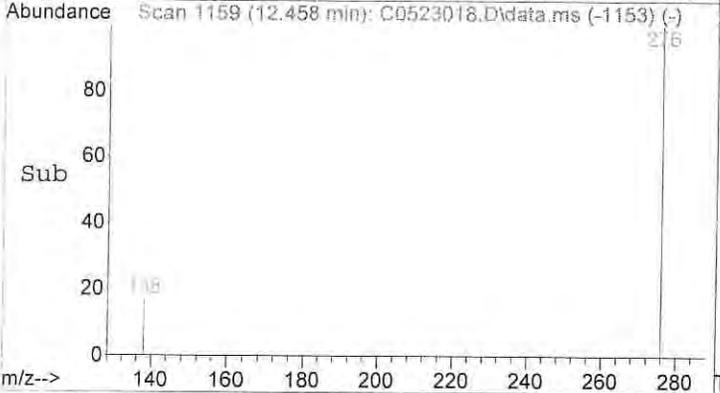
#23  
 Benzo[a]pyrene  
 Concen: 16.22 ppb  
 RT: 10.970 min Scan# 932  
 Delta R.T. -0.057 min  
 Lab File: C0523018.D  
 Acq: 23 May 24 5:47 pm

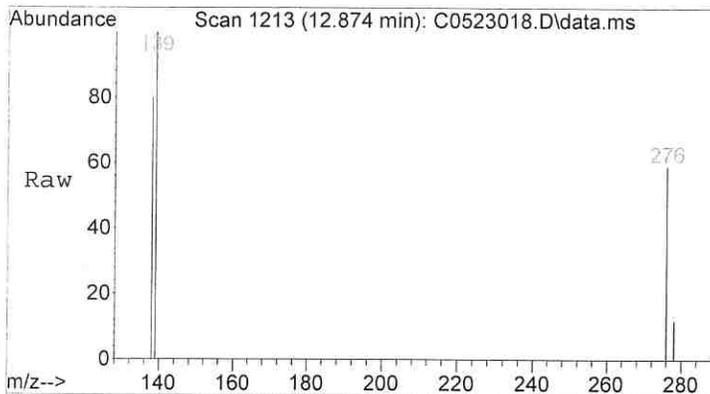
Tgt Ion:252 Resp: 2230  
 Ion Ratio Lower Upper  
 252 100  
 125 12.8 0.0 32.5



#24  
 Indeno(1,2,3-c,d)pyrene  
 Concen: 16.87 ppb  
 RT: 12.458 min Scan# 1159  
 Delta R.T. -0.076 min  
 Lab File: C0523018.D  
 Acq: 23 May 24 5:47 pm

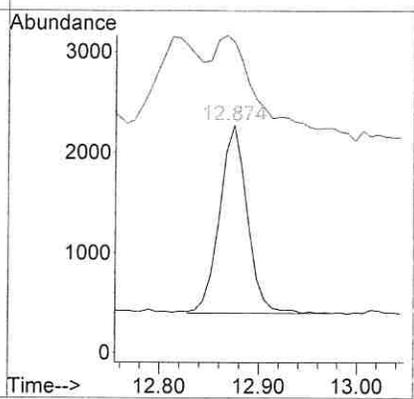
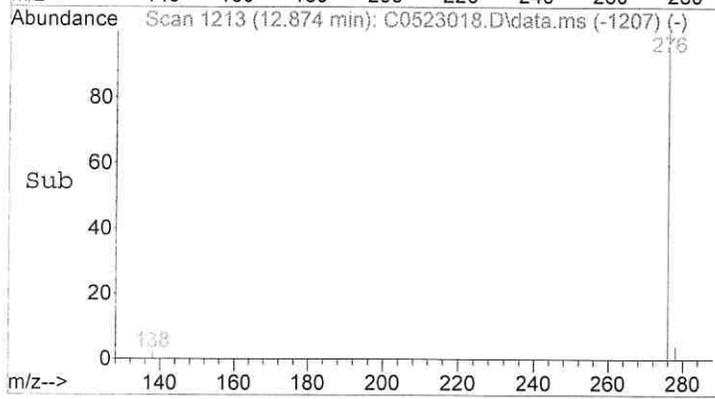
Tgt Ion:276 Resp: 2239  
 Ion Ratio Lower Upper  
 276 100  
 138 31.4 2.5 42.5





#26  
 Benzo [g, h, i] perylene  
 Concen: 25.34 ppb  
 RT: 12.874 min Scan# 1213  
 Delta R.T. -0.084 min  
 Lab File: C0523018.D  
 Acq: 23 May 24 5:47 pm

Tgt Ion	Resp	Lower	Upper
276	100		
138	86.2	4.1	44.1#



Data Path : X:\semivols\Corey\DATA\C240523\  
 Data File : C0523017.D  
 Acq On : 23 May 2024 5:25 pm  
 Operator : JP  
 Sample : 05-311-02  
 Misc :  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 24 08:12:39 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.743	136	320006	2000.00	ppb	-0.06
5) Acenaphthene-d10	5.990	164	167736	2000.00	ppb	-0.05
9) Phenanthrene-d10	7.029	188	304365	2000.00	ppb	-0.06
16) Chrysene-d12	9.438	240	228506	2000.00	ppb	-0.07
20) Perylene-d12	11.022	264	230004	2000.00	ppb	-0.08
System Monitoring Compounds						
6) 2-Fluorobiphenyl	5.513	172	93270	609.77	ppb	-0.05
Spiked Amount	1000.000	Range 25 - 89	Recovery =	60.98%		
10) Pyrene-d10	8.201	212	112150	879.02	ppb	-0.06
Spiked Amount	1000.000	Range 40 - 110	Recovery =	87.90%		
17) Terphenyl-d14	8.364	244	85513	841.02	ppb	-0.06
Spiked Amount	1000.000	Range 39 - 92	Recovery =	84.10%		

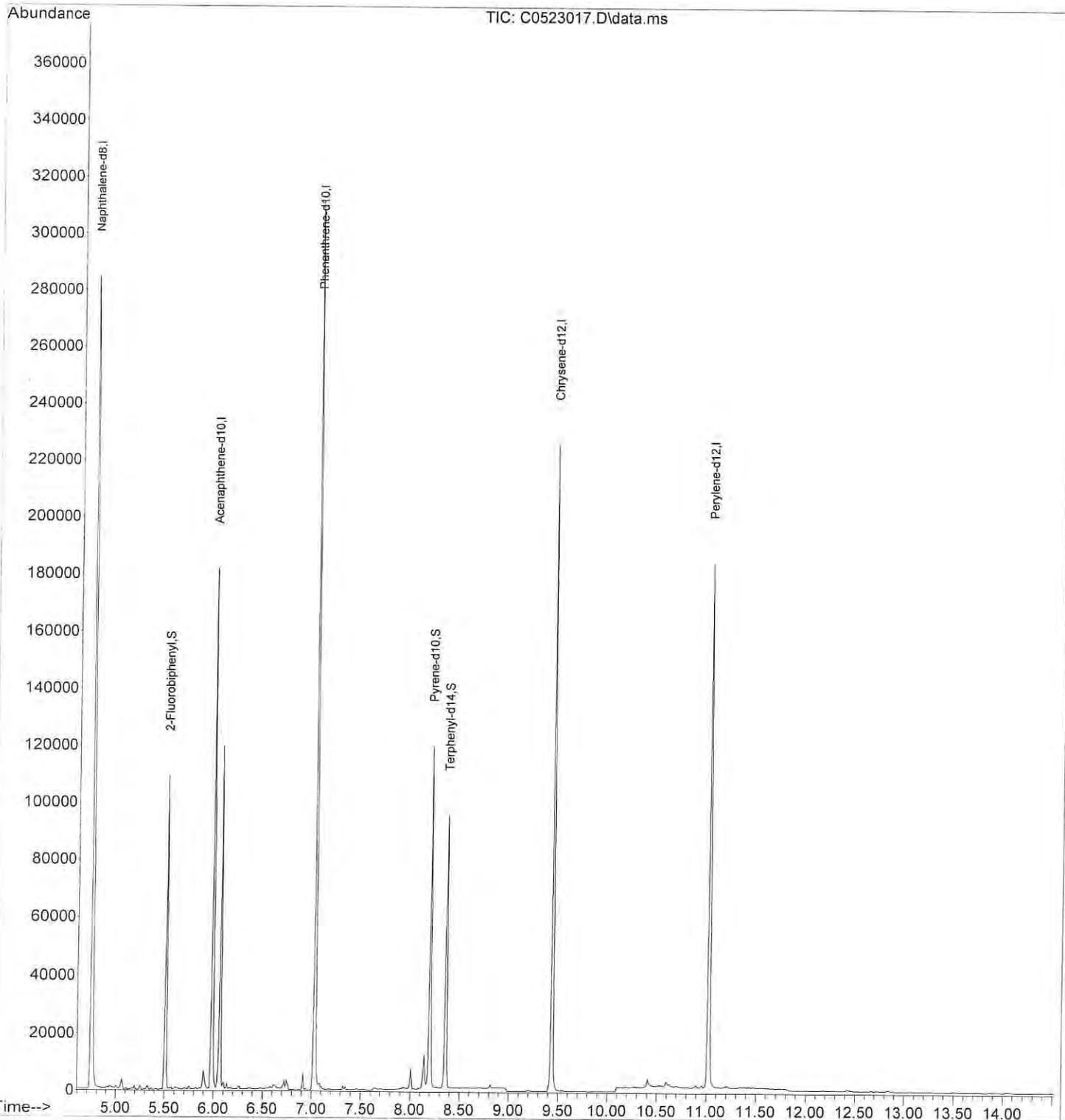
Target Compounds Qvalue

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

*JP*  
*5/28/24*

Data Path : X:\semivols\Corey\DATA\C240523\  
 Data File : C0523017.D  
 Acq On : 23 May 2024 5:25 pm  
 Operator : JP  
 Sample : 05-311-02  
 Misc :  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 24 08:12:39 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Coreey\DATA\C240523\  
 Data File : C0523019.D  
 Acq On : 23 May 2024 6:09 pm  
 Operator : JP  
 Sample : 05-311-03  
 Misc :  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 23 18:24:10 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.751	136	308423	2000.00	ppb	-0.05
5) Acenaphthene-d10	5.990	164	161608	2000.00	ppb	-0.05
9) Phenanthrene-d10	7.034	188	291771	2000.00	ppb	-0.05
16) Chrysene-d12	9.444	240	213146	2000.00	ppb	-0.06
20) Perylene-d12	11.034	264	210726	2000.00	ppb	-0.07
System Monitoring Compounds						
6) 2-Fluorobiphenyl	5.518	172	95168	645.78	ppb	-0.04
Spiked Amount	1000.000	Range 25 - 89	Recovery =	64.58%		
10) Pyrene-d10	8.210	212	107155	876.12	ppb	-0.05
Spiked Amount	1000.000	Range 40 - 110	Recovery =	87.61%		
17) Terphenyl-d14	8.363	244	86217	909.04	ppb	-0.06
Spiked Amount	1000.000	Range 39 - 92	Recovery =	90.90%		

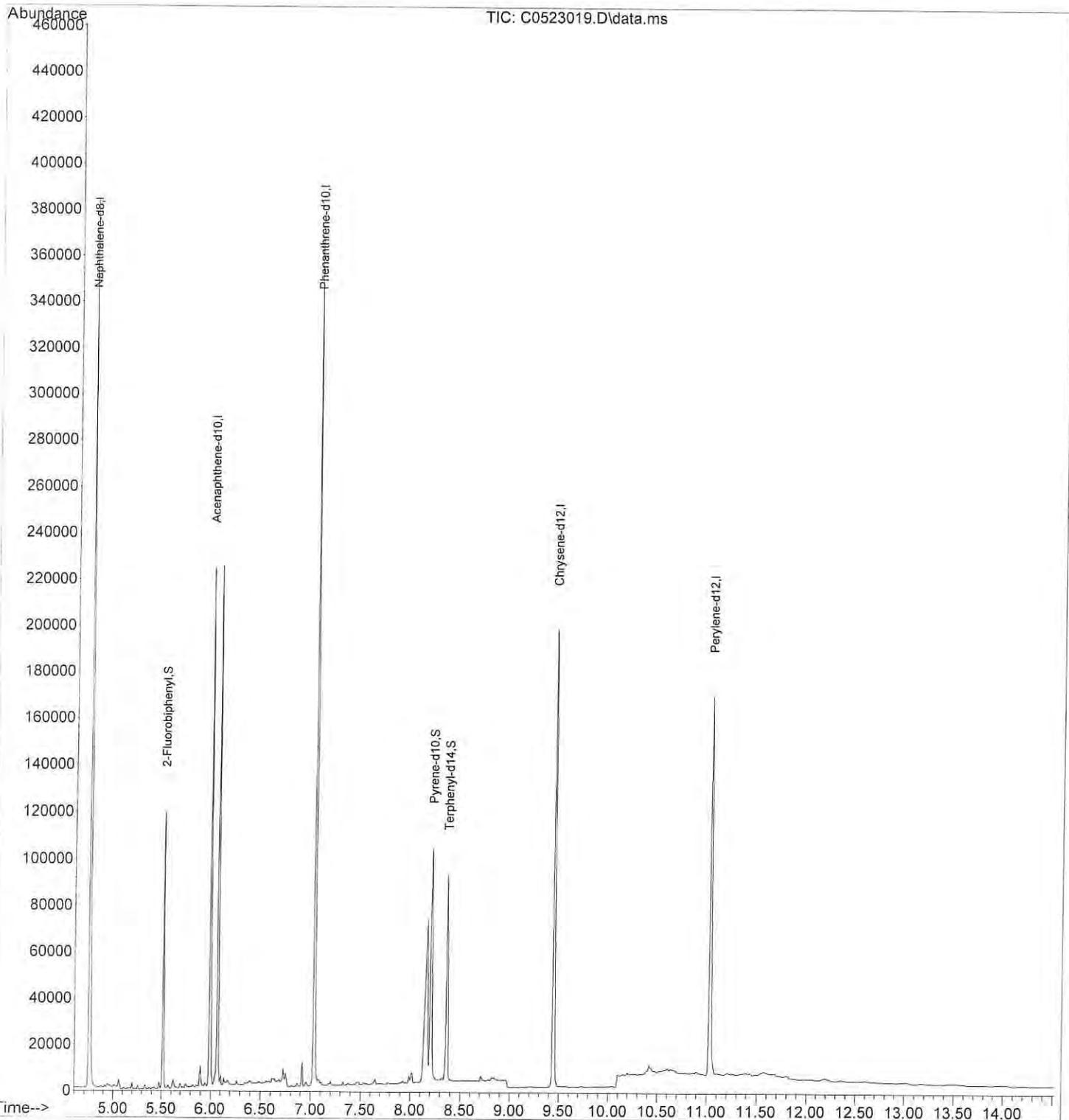
Target Compounds Qvalue

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

JP  
5/28/24

Data Path : X:\semivols\Corey\DATA\C240523\  
 Data File : C0523019.D  
 Acq On : 23 May 2024 6:09 pm  
 Operator : JP  
 Sample : 05-311-03  
 Misc :  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 23 18:24:10 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240529\  
 Data File : C0529006.D  
 Acq On : 29 May 2024 12:28 pm  
 Operator : JP  
 Sample : 05-311-04  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 29 12:42:42 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed May 29 08:38:40 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Naphthalene-d8	4.644	136	278423	2000.00	ppb	0.00
5) Acenaphthene-d10	5.883	164	145115	2000.00	ppb	0.00
9) Phenanthrene-d10	6.922	188	263089	2000.00	ppb	0.00
16) Chrysene-d12	9.298	240	201788	2000.00	ppb	0.02
20) Perylene-d12	10.858	264	206315	2000.00	ppb	0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl	5.413	172	74911	566.09	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	56.61%		
10) Pyrene-d10	8.074	212	96530	875.29	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	87.53%		
17) Terphenyl-d14	8.237	244	75074	836.11	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	83.61%		

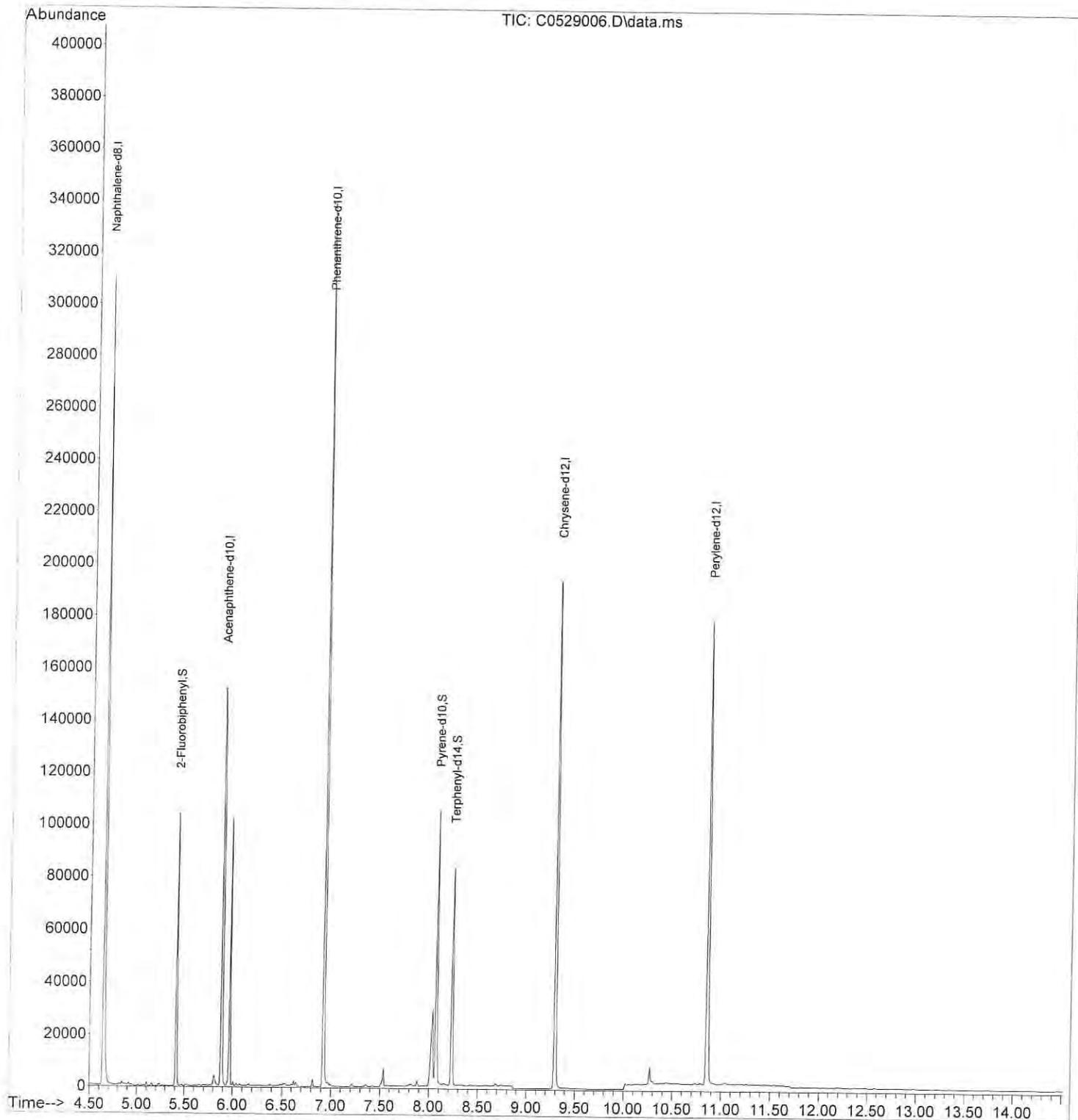
Target Compounds Qvalue

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

JP  
 5/30/24

Data Path : X:\semivols\Corey\DATA\C240529\  
 Data File : C0529006.D  
 Acq On : 29 May 2024 12:28 pm  
 Operator : JP  
 Sample : 05-311-04  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 29 12:42:42 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed May 29 08:38:40 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240529\  
 Data File : C0529007.D  
 Acq On : 29 May 2024 12:50 pm  
 Operator : JP  
 Sample : 05-311-05  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 29 13:04:45 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed May 29 08:38:40 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.642	136	284961	2000.00	ppb	0.00
5) Acenaphthene-d10	5.882	164	150022	2000.00	ppb	0.00
9) Phenanthrene-d10	6.923	188	274572	2000.00	ppb	0.00
16) Chrysene-d12	9.292	240	213806	2000.00	ppb	0.01
20) Perylene-d12	10.858	264	217635	2000.00	ppb	0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl	5.414	172	64056	468.23	ppb	0.00
Spiked Amount	1000.000	Range	25 - 89	Recovery	=	46.82%
10) Pyrene-d10	8.074	212	87704	762.00	ppb	0.00
Spiked Amount	1000.000	Range	40 - 110	Recovery	=	76.20%
17) Terphenyl-d14	8.237	244	69006	725.33	ppb	0.00
Spiked Amount	1000.000	Range	39 - 92	Recovery	=	72.53%

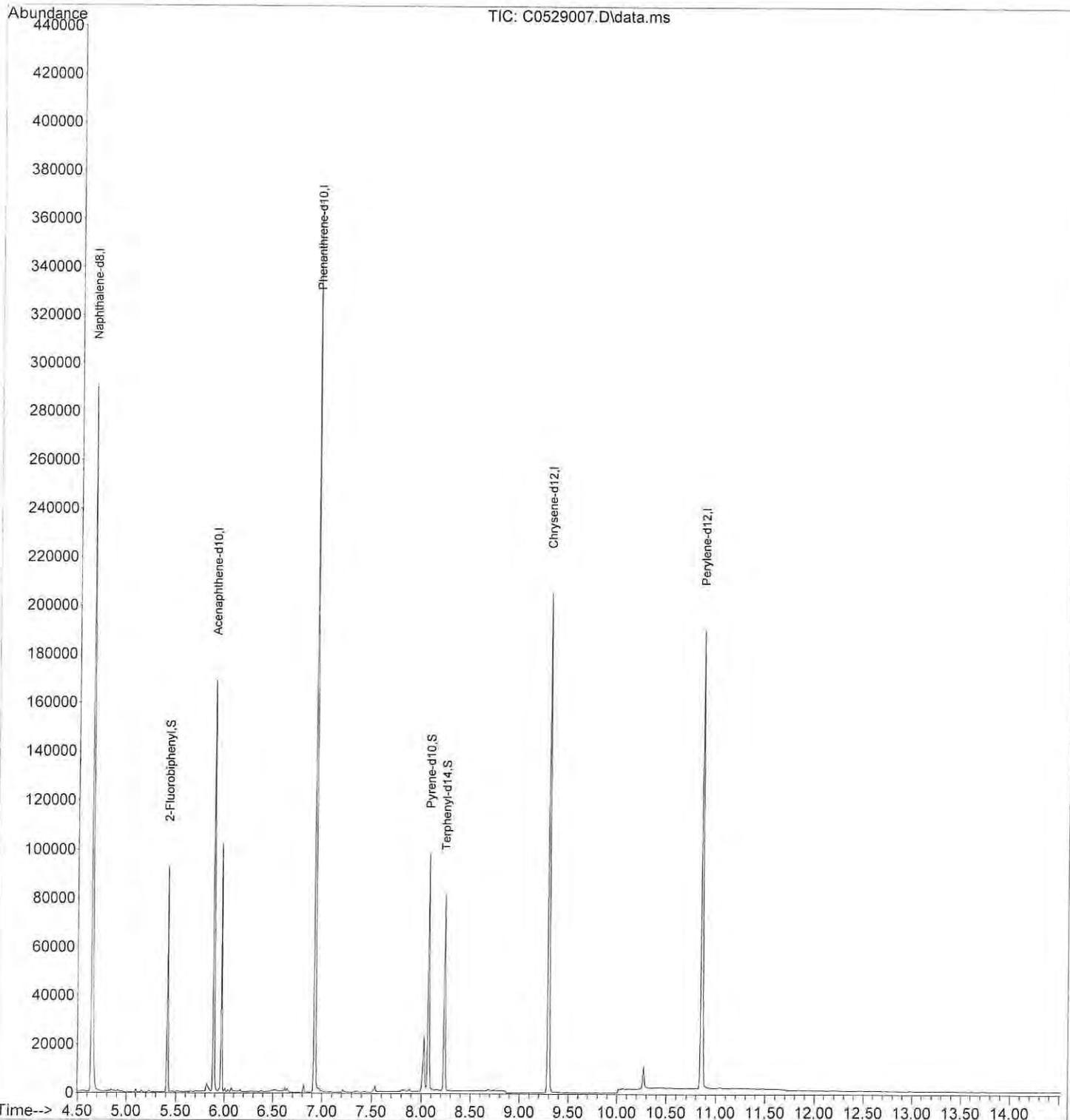
Target Compounds Qvalue

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

JP  
5/30/24

Data Path : X:\semivols\Corey\DATA\C240529\  
 Data File : C0529007.D  
 Acq On : 29 May 2024 12:50 pm  
 Operator : JP  
 Sample : 05-311-05  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 29 13:04:45 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed May 29 08:38:40 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240523\  
 Data File : C0523011.D  
 Acq On : 23 May 2024 3:13 pm  
 Operator : JP  
 Sample : MB0523W1  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 23 15:28:15 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

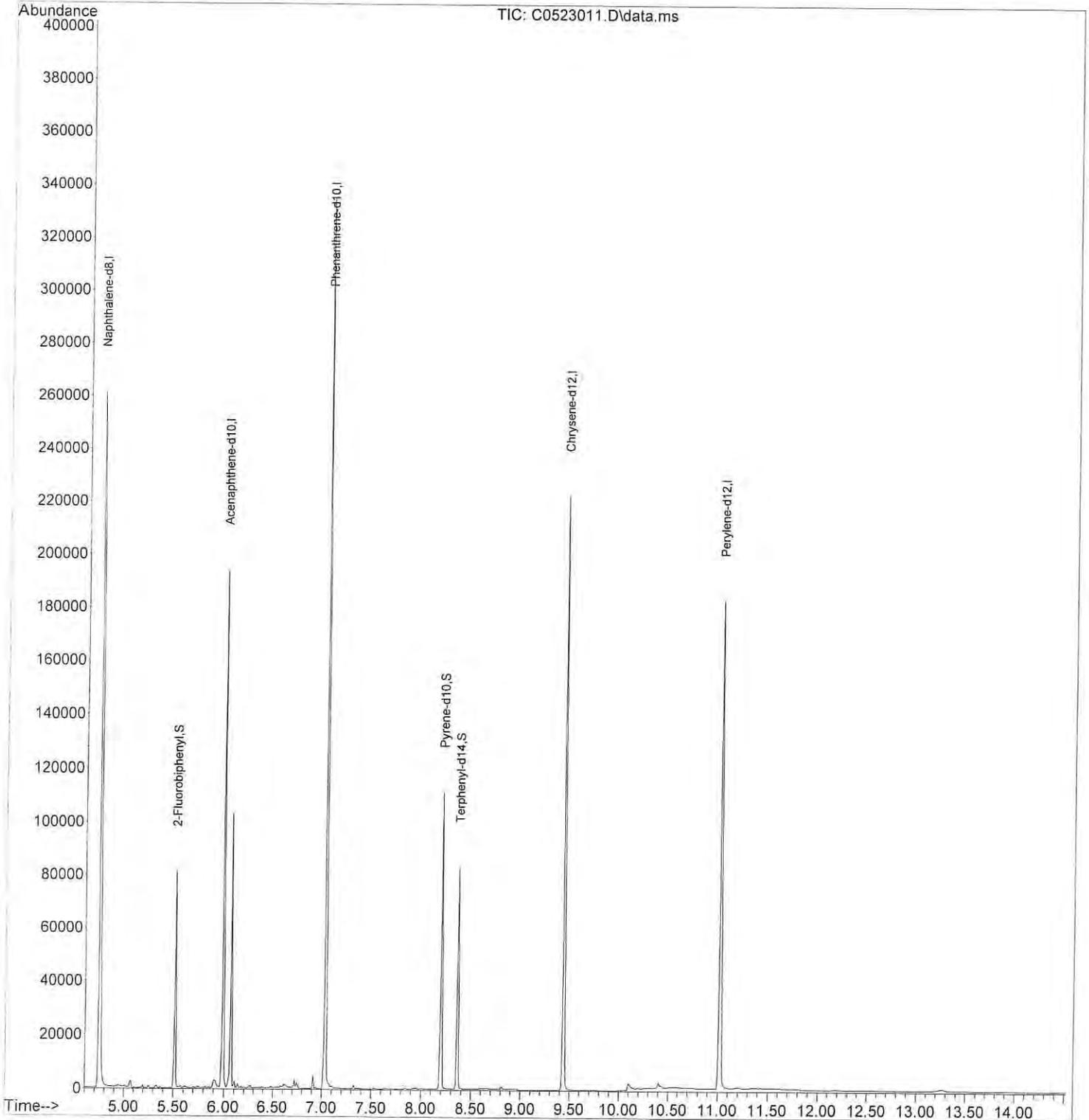
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	4.744	136	297748	2000.00	ppb	-0.05
5) Acenaphthene-d10	5.989	164	153773	2000.00	ppb	-0.05
9) Phenanthrene-d10	7.034	188	285727	2000.00	ppb	-0.05
16) Chrysene-d12	9.437	240	219990	2000.00	ppb	-0.07
20) Perylene-d12	11.021	264	220429	2000.00	ppb	-0.08
System Monitoring Compounds						
6) 2-Fluorobiphenyl	5.514	172	62280	444.14	ppb	-0.05
Spiked Amount	1000.000	Range 25 - 89	Recovery =	44.41%		
10) Pyrene-d10	8.200	212	98377	821.37	ppb	-0.06
Spiked Amount	1000.000	Range 40 - 110	Recovery =	82.14%		
17) Terphenyl-d14	8.363	244	73892	754.86	ppb	-0.06
Spiked Amount	1000.000	Range 39 - 92	Recovery =	75.49%		
Target Compounds						
18) Benzo[a]anthracene	9.437	228	830	Below Cal		Qvalue 80

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

JP  
 5/28/24

Data Path : X:\semivols\Corey\DATA\C240523\  
Data File : C0523011.D  
Acq On : 23 May 2024 3:13 pm  
Operator : JP  
Sample : MB0523W1  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 23 15:28:15 2024  
Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Mon May 20 07:52:31 2024  
Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240529\  
 Data File : C0529005.D  
 Acq On : 29 May 2024 12:05 pm  
 Operator : JP  
 Sample : MB0529W1  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 29 12:20:36 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed May 29 08:38:40 2024  
 Response via : Initial Calibration

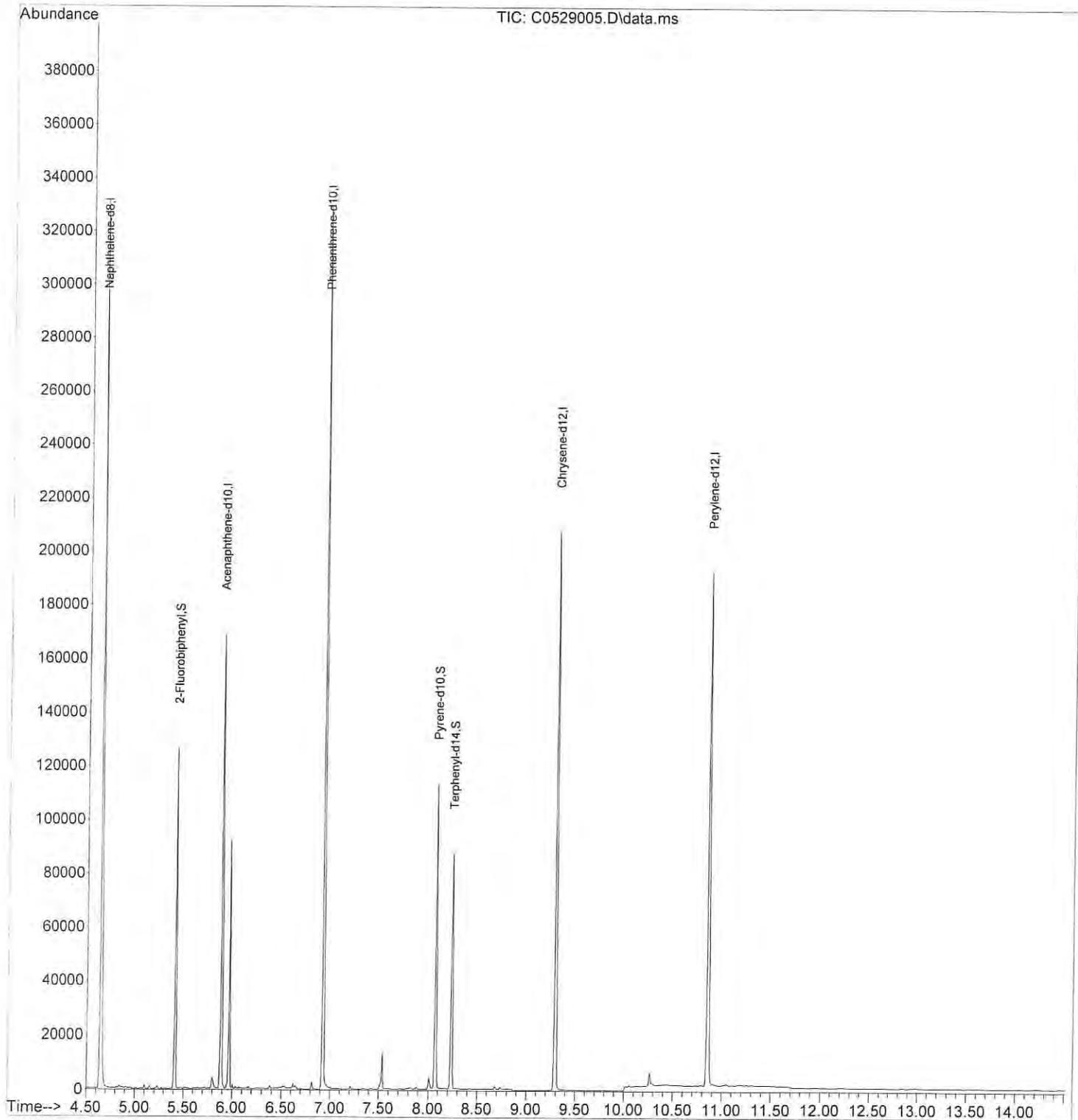
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Naphthalene-d8	4.645	136	284983	2000.00	ppb	0.00
5) Acenaphthene-d10	5.882	164	152642	2000.00	ppb	0.00
9) Phenanthrene-d10	6.922	188	278616	2000.00	ppb	0.00
16) Chrysene-d12	9.292	240	214499	2000.00	ppb	0.01
20) Perylene-d12	10.858	264	218577	2000.00	ppb	0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl	5.414	172	93751	673.53	ppb	0.00
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	67.35%	
10) Pyrene-d10	8.073	212	100794	863.02	ppb	0.00
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	86.30%	
17) Terphenyl-d14	8.237	244	78498	822.44	ppb	0.00
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	82.24%	
Target Compounds						
18) Benzo[a]anthracene	9.292	228	942	Below Cal		Qvalue 65
-----						

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

JP  
5/30/24

Data Path : X:\semivols\Corey\DATA\C240529\  
Data File : C0529005.D  
Acq On : 29 May 2024 12:05 pm  
Operator : JP  
Sample : MB0529W1  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 29 12:20:36 2024  
Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Wed May 29 08:38:40 2024  
Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240523\  
 Data File : C0523008.D  
 Acq On : 23 May 2024 2:07 pm  
 Operator : JP  
 Sample : SB0523W1  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 23 14:38:43 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

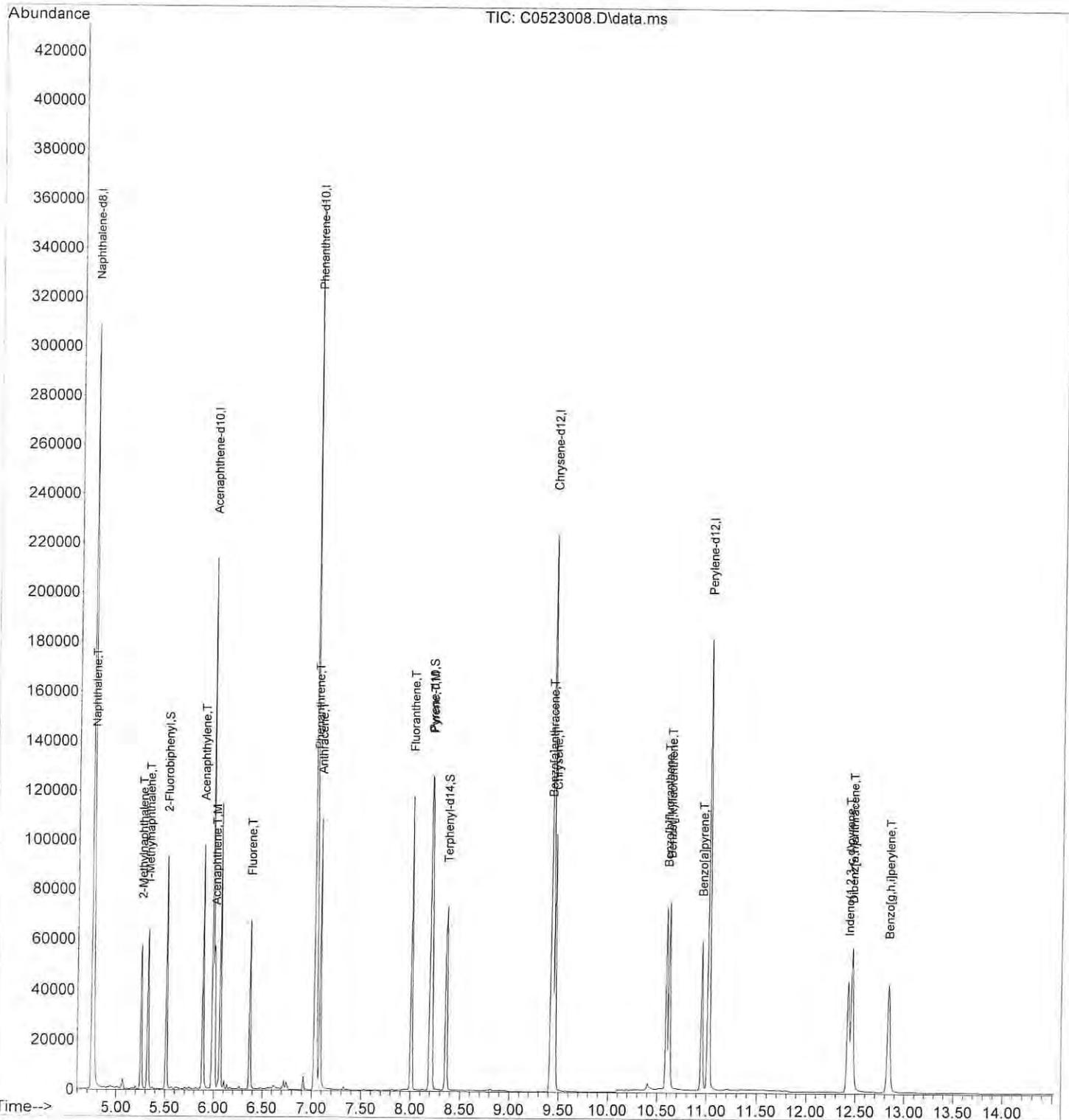
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	4.751	136	299140	2000.00	ppb	-0.05	
5) Acenaphthene-d10	5.989	164	155777	2000.00	ppb	-0.05	
9) Phenanthrene-d10	7.033	188	283677	2000.00	ppb	-0.05	
16) Chrysene-d12	9.439	240	217717	2000.00	ppb	-0.07	
20) Perylene-d12	11.021	264	218936	2000.00	ppb	-0.08	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	5.513	172	74683	525.74	ppb	-0.05	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	52.57%			
10) Pyrene-d10	8.201	212	103857	873.39	ppb	-0.06	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	87.34%			
17) Terphenyl-d14	8.364	244	77180	796.68	ppb	-0.06	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	79.67%			
Target Compounds							
							Qvalue
2) Naphthalene	4.758	128	47675	270.43	ppb		96
3) 2-Methylnaphthalene	5.258	142	29590	264.94	ppb		98
4) 1-Methylnaphthalene	5.327	142	31198	282.95	ppb		99
7) Acenaphthylene	5.889	152	69981	374.48	ppb		100
8) Acenaphthene	6.012	153	38985	325.55	ppb		100
11) Fluorene	6.374	166	48404	337.80	ppb		100
12) Phenanthrene	7.044	178	71498	332.47	ppb		95
13) Anthracene	7.085	178	73847	407.27	ppb		95
14) Fluoranthene	8.009	202	81437	391.19	ppb		93
15) Pyrene	8.211	202	82598	394.61	ppb		95
18) Benzo[a]anthracene	9.421	228	73031	453.76	ppb		94
19) Chrysene	9.462	228	72327	403.90	ppb		94
21) Benzo[b]fluoranthene	10.597	252	75667	444.68	ppb		98
22) Benzo[j,k]fluoranthene	10.626	252	74823	410.33	ppb		97
23) Benzo[a]pyrene	10.951	252	64555	432.45	ppb		96
24) Indeno[1,2,3-c,d]pyrene	12.427	276	63558m	440.96	ppb		
25) Dibenz[a,h]anthracene	12.466	278	65989	436.66	ppb		94
26) Benzo[g,h,i]perylene	12.836	276	66703	424.19	ppb		96
-----							

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

*JP*  
*5/28/24*

Data Path : X:\semivols\Corey\DATA\C240523\  
 Data File : C0523008.D  
 Acq On : 23 May 2024 2:07 pm  
 Operator : JP  
 Sample : SB0523W1  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 23 14:38:43 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240523\  
 Data File : C0523009.D  
 Acq On : 23 May 2024 2:29 pm  
 Operator : JP  
 Sample : SB0523W1 DUP  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 23 14:46:12 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

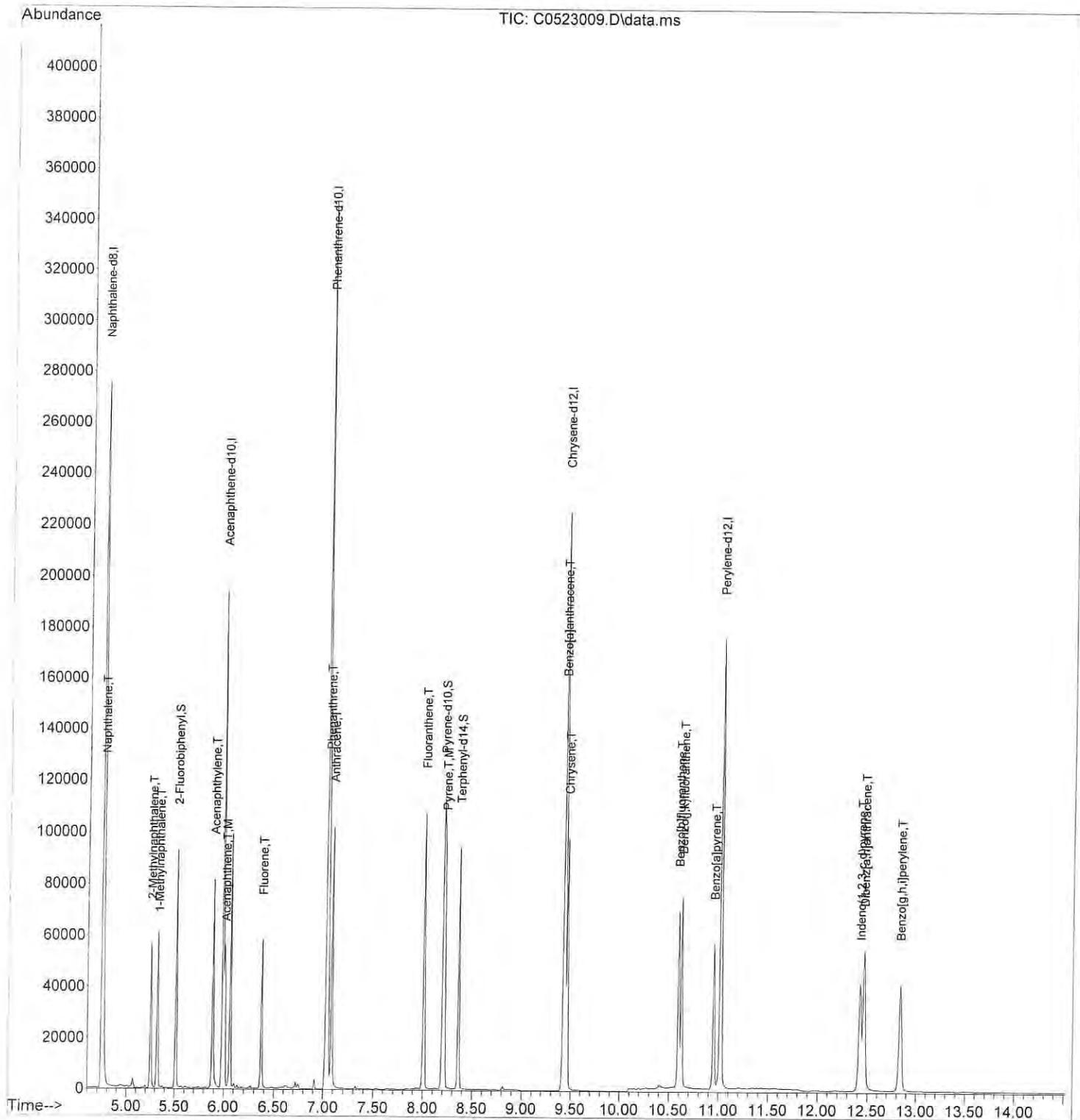
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Naphthalene-d8	4.751	136	294596	2000.00	ppb	-0.05	
5) Acenaphthene-d10	5.989	164	154901	2000.00	ppb	-0.05	
9) Phenanthrene-d10	7.033	188	284962	2000.00	ppb	-0.05	
16) Chrysene-d12	9.439	240	220319	2000.00	ppb	-0.07	
20) Perylene-d12	11.022	264	221546	2000.00	ppb	-0.08	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	5.514	172	74042	524.18	ppb	-0.05	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	52.42%			
10) Pyrene-d10	8.200	212	99154	830.08	ppb	-0.06	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	83.01%			
17) Terphenyl-d14	8.363	244	77042	785.86	ppb	-0.06	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	78.59%			
Target Compounds							
							Qvalue
2) Naphthalene	4.758	128	47555	273.91	ppb		96
3) 2-Methylnaphthalene	5.252	142	28710	261.02	ppb		98
4) 1-Methylnaphthalene	5.328	142	30724	282.95	ppb		98
7) Acenaphthylene	5.889	152	66850	359.75	ppb		100
8) Acenaphthene	6.012	153	37000	310.72	ppb		100
11) Fluorene	6.375	166	47154	327.60	ppb		100
12) Phenanthrene	7.045	178	69164	320.17	ppb		95
13) Anthracene	7.085	178	71053	390.09	ppb		95
14) Fluoranthene	8.007	202	77413	370.18	ppb		93
15) Pyrene	8.219	202	78103	371.45	ppb		95
18) Benzo[a]anthracene	9.427	228	71363	437.93	ppb		93
19) Chrysene	9.462	228	69151	381.60	ppb		95
21) Benzo[b]fluoranthene	10.592	252	73692	427.97	ppb		95
22) Benzo[j,k]fluoranthene	10.627	252	72098	390.73	ppb		95
23) Benzo[a]pyrene	10.952	252	62461	413.50	ppb		96
24) Indeno(1,2,3-c,d)pyrene	12.428	276	62952m	431.61	ppb		
25) Dibenz[a,h]anthracene	12.467	278	64686	423.00	ppb		95
26) Benzo[g,h,i]perylene	12.837	276	65471	411.45	ppb		95

*VP*  
*5/28/24*

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

Data Path : X:\semivols\Corey\DATA\C240523\  
Data File : C0523009.D  
Acq On : 23 May 2024 2:29 pm  
Operator : JP  
Sample : SB0523W1 DUP  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 23 14:46:12 2024  
Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Mon May 20 07:52:31 2024  
Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240529\  
 Data File : C0529003.D  
 Acq On : 29 May 2024 11:22 am  
 Operator : JP  
 Sample : SB0529W1  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 29 11:48:12 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed May 29 08:38:40 2024  
 Response via : Initial Calibration

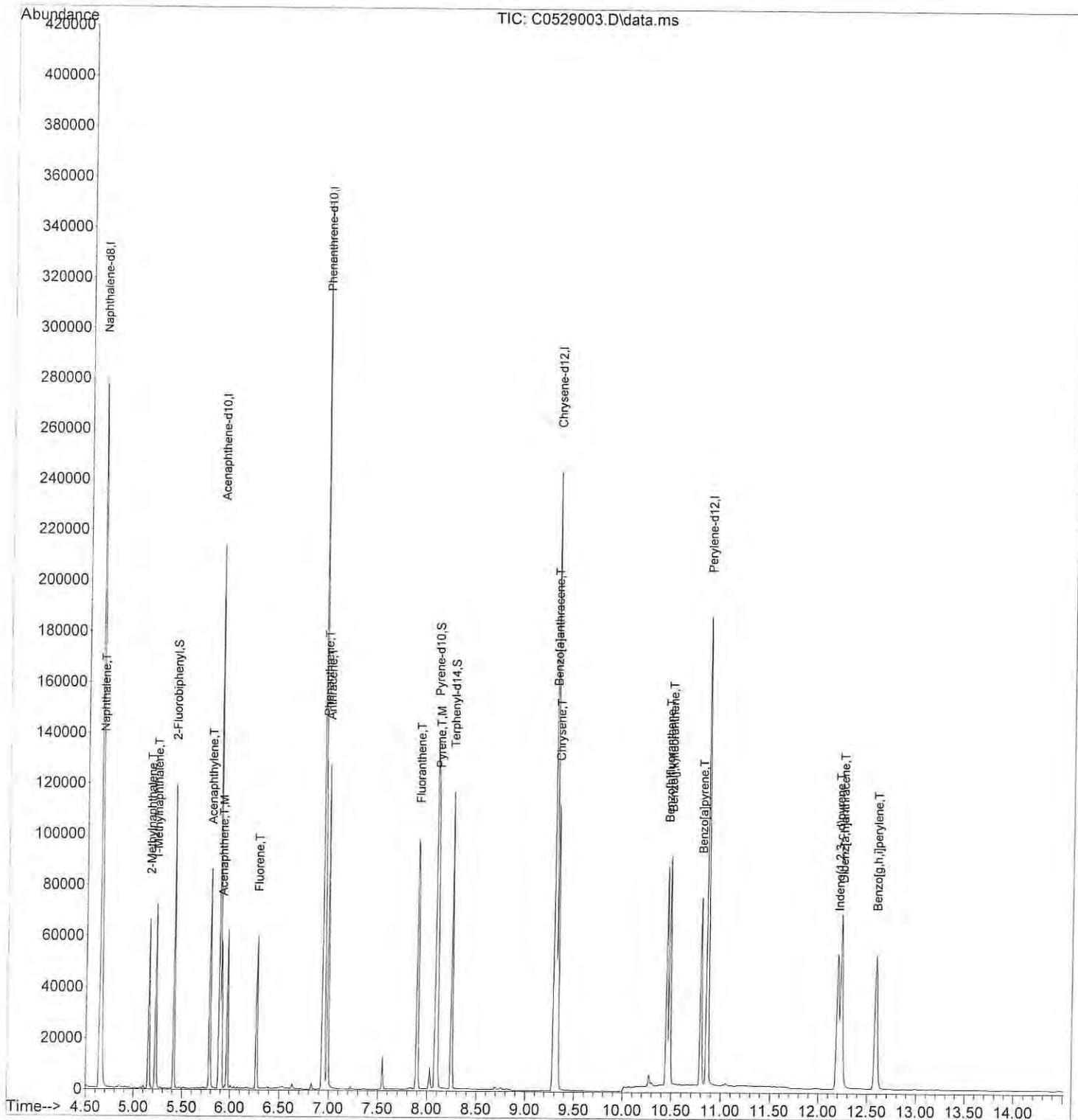
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	4.643	136	291796	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.889	164	155187	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.933	188	277808	2000.00	ppb	0.02	
16) Chrysene-d12	9.305	240	217040	2000.00	ppb	0.02	
20) Perylene-d12	10.863	264	218929	2000.00	ppb	0.02	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	5.414	172	83875	592.69	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	59.27%			
10) Pyrene-d10	8.084	212	113400	973.78	ppb	0.02	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	97.38%			
17) Terphenyl-d14	8.247	244	88649	917.92	ppb	0.02	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	91.79%			
Target Compounds							
							Qvalue
2) Naphthalene	4.659	128	53106	308.82	ppb		97
3) 2-Methylnaphthalene	5.153	142	29979	275.18	ppb		98
4) 1-Methylnaphthalene	5.222	142	30994	288.18	ppb		100
7) Acenaphthylene	5.789	152	63312	340.09	ppb		100
8) Acenaphthene	5.904	153	33763	283.01	ppb		100
11) Fluorene	6.274	166	43766	311.89	ppb		100
12) Phenanthrene	6.951	178	75907	360.43	ppb		95
13) Anthracene	6.986	178	78660	442.98	ppb		96
14) Fluoranthene	7.901	202	90341	443.13	ppb		93
15) Pyrene	8.103	202	92477	451.14	ppb		95
18) Benzo[a]anthracene	9.293	228	81950	511.61	ppb		93
19) Chrysene	9.328	228	81991	459.29	ppb		95
21) Benzo[b]fluoranthene	10.456	252	86554	508.68	ppb		95
22) Benzo[j,k]fluoranthene	10.485	252	85416	468.44	ppb		94
23) Benzo[a]pyrene	10.799	252	73626	493.24	ppb		96
24) Indeno[1,2,3-c,d]pyrene	12.203	276	76140m	528.27	ppb		
25) Dibenz[a,h]anthracene	12.241	278	74705	494.36	ppb		95
26) Benzo[g,h,i]perylene	12.588	276	75765	481.84	ppb		96

*Handwritten:*  
 07  
 5/30/24

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

Data Path : X:\semivols\Corey\DATA\C240529\  
 Data File : C0529003.D  
 Acq On : 29 May 2024 11:22 am  
 Operator : JP  
 Sample : SB0529W1  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 29 11:48:12 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed May 29 08:38:40 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240529\  
 Data File : C0529010.D  
 Acq On : 29 May 2024 2:12 pm  
 Operator : JP  
 Sample : SB0529W1 DUP REX  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 29 14:28:01 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed May 29 08:38:40 2024  
 Response via : Initial Calibration

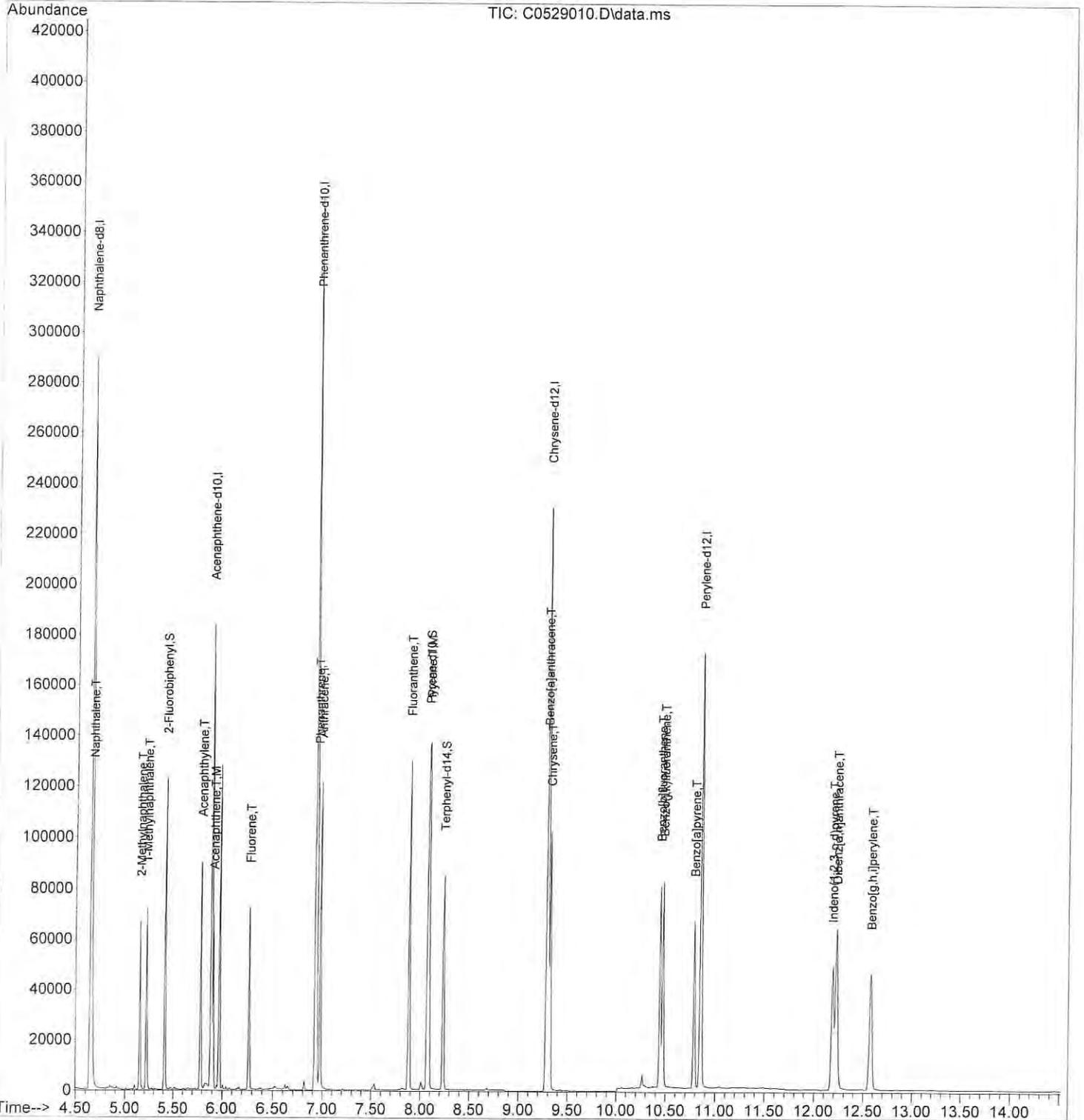
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.643	136	281383	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.883	164	147667	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.923	188	266352	2000.00	ppb	0.00	
16) Chrysene-d12	9.292	240	206655	2000.00	ppb	0.01	
20) Perylene-d12	10.858	264	209826	2000.00	ppb	0.02	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	5.414	172	85608	635.75	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	63.58%			
10) Pyrene-d10	8.074	212	109901	984.33	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	98.43%			
17) Terphenyl-d14	8.237	244	81812	889.69	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	88.97%			
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	4.658	128	49312	297.37	ppb		97
3) 2-Methylnaphthalene	5.152	142	27822	264.83	ppb		98
4) 1-Methylnaphthalene	5.222	142	29184	281.39	ppb		99
7) Acenaphthylene	5.783	152	57044	322.02	ppb		100
8) Acenaphthene	5.906	153	32454	285.89	ppb		100
11) Fluorene	6.268	166	44018	327.18	ppb		100
12) Phenanthrene	6.940	178	71838	355.78	ppb		95
13) Anthracene	6.975	178	75432	443.07	ppb		95
14) Fluoranthene	7.881	202	84988	434.80	ppb		93
15) Pyrene	8.083	202	86430	439.77	ppb		95
18) Benzo[a]anthracene	9.281	228	73678	482.71	ppb		93
19) Chrysene	9.316	228	73826	434.34	ppb		95
21) Benzo[b]fluoranthene	10.445	252	76464	468.88	ppb		94
22) Benzo[j,k]fluoranthene	10.474	252	77966	446.13	ppb		95
23) Benzo[a]pyrene	10.788	252	67378	470.96	ppb		95
24) Indeno(1,2,3-c,d)pyrene	12.187	276	65835m	476.59	ppb		
25) Dibenz[a,h]anthracene	12.226	278	67759	467.84	ppb		97
26) Benzo[g,h,i]perylene	12.580	276	68633	455.42	ppb		97

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

JP  
5/30/24

Data Path : X:\semivols\Corey\DATA\C240529\  
 Data File : C0529010.D  
 Acq On : 29 May 2024 2:12 pm  
 Operator : JP  
 Sample : SB0529W1 DUP REX  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 29 14:28:01 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed May 29 08:38:40 2024  
 Response via : Initial Calibration



Method Path : C:\MSDCHEM\1\METHODS\  
 Method File : CS240517.M  
 Title : PAH'S BY SIMS  
 Last Update : Thu Jun 06 15:35:35 2024  
 Response Via : Initial Calibration

Calibration Files  
 10 =C0517017.D 20 =C0517009.D 50 =C0517010.D 100 =C0517011.D 200 =C0517012.D 500 =C0606015.D 1000=C0517018.D  
 5000=C0517019.D

Compound	10	20	50	100	200	500	1000	5000	Avg	%RSD
1) I Naphthalene-d8										
2) T Naphthalene	1.286	1.211	1.215	1.163	1.169	1.181	1.180	1.024	1.179	6.27
3) T 2-Methylnaphth...	0.809	0.781	0.780	0.724	0.716	0.727	0.766	0.671	0.747	6.01
4) T 1-Methylnaphth...	0.792	0.752	0.746	0.727	0.726	0.735	0.737	0.683	0.737	4.12
5) I Acenaphthene-d10										
6) S 2-Fluorobiphenyl	2.294	1.793	1.802	1.807	1.931	1.749	1.681	1.532	1.824	12.18
7) T Acenaphthylene	2.520	2.449	2.500	2.473	2.440	2.420	2.327	2.065	2.399	6.14
8) T,M Acenaphthene	1.680	1.594	1.602	1.512	1.510	1.510	1.552	1.339	1.537	6.47
9) I Phenanthrene-d10										
10) S Pyrene-d10	0.821	0.825	0.850	0.859	0.865	0.849	0.834	0.804	0.838	2.49
11) T Fluorene	1.057	1.053	1.056	1.008	1.020	1.006	1.000	0.882	1.010	5.63
12) T Phenanthrene	2.097	1.576	1.557	1.412	1.427	1.402	1.463	1.195	1.516	17.28
13) T Anthracene	1.341	1.273	1.290	1.284	1.296	1.292	1.280	1.172	1.278	3.72
14) T Fluoranthene	1.713	1.506	1.505	1.459	1.438	1.400	1.443	1.278	1.468	8.35
15) T,M Pyrene	1.631	1.511	1.490	1.455	1.453	1.456	1.467	1.343	1.476	5.41
16) I Chrysene-d12										
17) S Terphenyl-d14	1.162	0.894	0.857	0.875	0.869	0.856	0.826	0.781	0.890	12.95
18) T Benzo[a]anthra...	2.191	1.870	1.696	1.598	1.612	1.574	1.533	1.431	1.688	14.21
19) T Chrysene	1.703	1.637	1.643	1.718	1.701	1.681	1.609	1.468	1.645	4.93
20) I Perylene-d12										
21) T Benzo[b]fluora...	1.541	1.551	1.557	1.575	1.576	1.572	1.530	1.533	1.554	1.22
22) T Benzo(j,k)fluora...	1.675	1.617	1.635	1.690	1.731	1.736	1.716	1.526	1.666	4.25
23) T Benzo[a]pyrene	1.344	1.338	1.345	1.363	1.385	1.403	1.375	1.356	1.364	1.66
24) T Indeno(1,2,3-c...	1.252	1.317	1.304	1.335	1.355	1.346	1.301	1.324	1.317	2.46
25) T Dibenz[a,h]ant...	1.356	1.345	1.326	1.384	1.418	1.417	1.406	1.392	1.381	2.51
26) T Benzo[g,h,i]pe...	1.405	1.387	1.409	1.441	1.484	1.482	1.459	1.424	1.436	2.51

(#) = Out Of Range

## Compound List Report Corey

Method Path : C:\MSDCHEM\1\METHODS\  
 Method File : CS240517.M  
 Title : PAH'S BY SIMS  
 Last Update : Thu Jun 06 15:35:35 2024  
 Response Via : Initial Calibration

Total Cpnds : 26

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Naphthalene-d8	136	4.251	1.000	A	0	A	R
2	T	Naphthalene	128	4.267	1.004	A	1	A	R
3	T	2-Methylnaphthalene	142	4.767	1.121	A	1	A	R
4	T	1-Methylnaphthalene	142	4.831	1.136	A	1	A	R
5	I	Acenaphthene-d10	164	5.493	1.000	A	0	A	R
6	S	2-Fluorobiphenyl	172	5.028	0.915	A	0	A	R
7	T	Acenaphthylene	152	5.386	0.980	A	0	A	R
8	T	Acenaphthene	153	5.509	1.003	A	0	A	R
9	I	Phenanthrene-d10	188	6.513	1.000	A	0	A	R
10	S	Pyrene-d10	212	7.566	1.162	A	0	A	R
11	T	Fluorene	166	5.871	0.901	A	0	A	R
12	T	Phenanthrene	178	6.530	1.003	A	1	A	R
13	T	Anthracene	178	6.565	1.008	A	1	A	R
14	T	Fluoranthene	202	7.402	1.137	A	1	A	R
15	T	Pyrene	202	7.585	1.165	A	1	A	R
16	I	Chrysene-d12	240	8.720	1.000	A	0	A	R
17	S	Terphenyl-d14	244	7.739	0.888	A	0	A	R
18	T	Benzo[a]anthracene	228	8.708	0.999	L	1	A	R
19	T	Chrysene	228	8.737	1.002	A	1	A	R
20	I	Perylene-d12	264	10.210	1.000	A	0	A	R
21	T	Benzo[b]fluoranthene	252	9.821	0.962	A	1	A	R
22	T	Benzo(j,k)fluoranthene	252	9.850	0.965	A	1	A	R
23	T	Benzo[a]pyrene	252	10.146	0.994	A	1	A	R
24	T	Indeno(1,2,3-c,d)pyrene	276	11.291	1.106	A	1	A	R
25	T	Dibenz[a,h]anthracene	278	11.330	1.110	A	1	A	R
26	T	Benzo[g,h,i]perylene	276	11.584	1.135	A	1	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin

#Qual = number of qualifiers

A/H = Area or Height

ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

Data Path : X:\semivols\Coreey\DATA\C240517\  
 Data File : C0517017.D  
 Acq On : 17 May 2024 2:50 pm  
 Operator : JP  
 Sample : 10 PPB ICAL  
 Misc : SV6-150-12  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 20 07:55:56 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

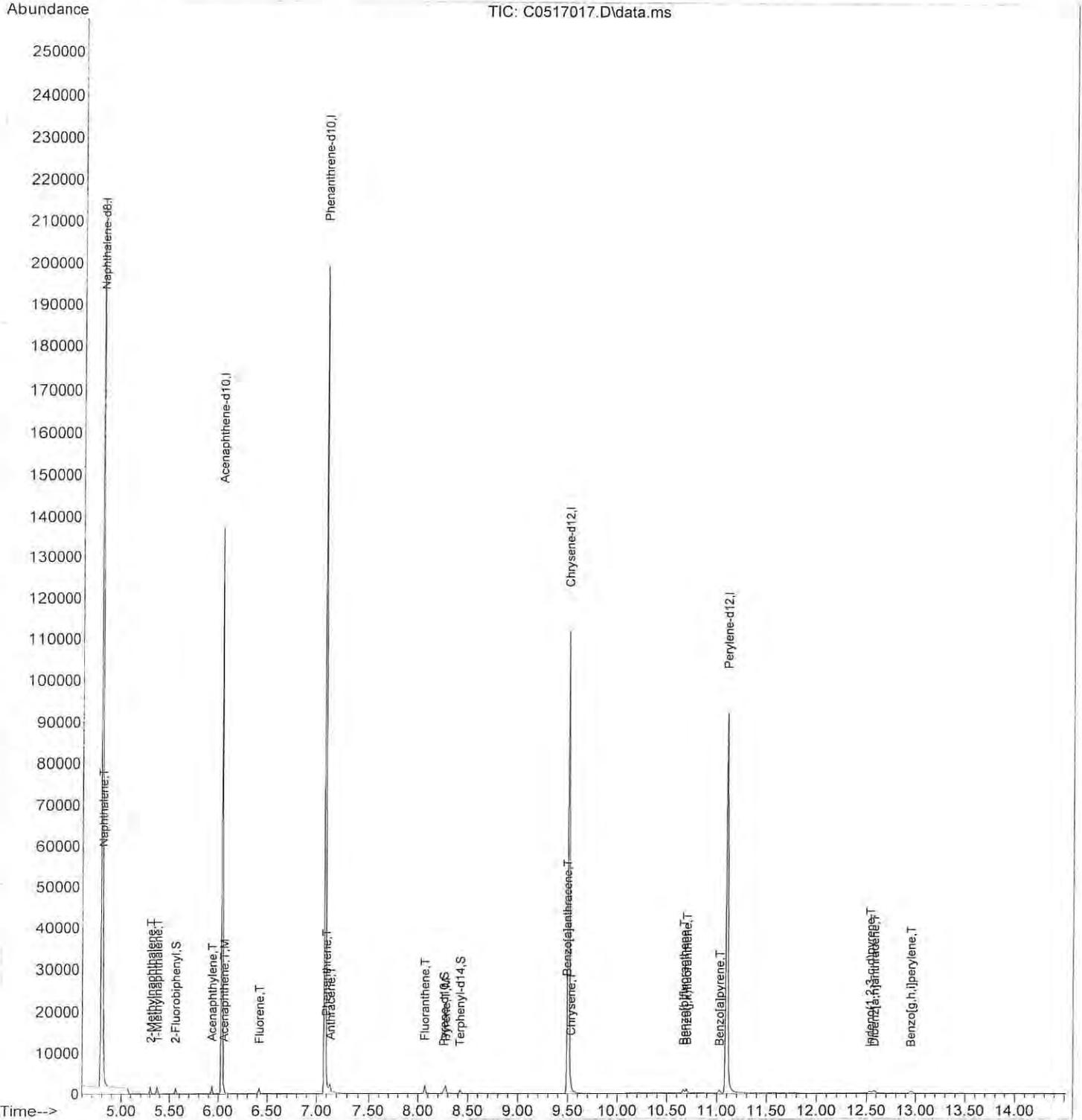
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.798	136	211653	2000.00	ppb	0.00	
5) Acenaphthene-d10	6.036	164	100247	2000.00	ppb	0.00	
9) Phenanthrene-d10	7.080	188	176181	2000.00	ppb	0.00	
16) Chrysene-d12	9.502	240	121523	2000.00	ppb	0.00	
20) Perylene-d12	11.104	264	120959	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	5.560	172	1150	12.58	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	1.26%#			
10) Pyrene-d10	8.257	212	723	9.79	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	0.98%#			
17) Terphenyl-d14	8.421	244	706	13.06	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	1.31%#			
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	4.805	128	1361	10.91	ppb		100
3) 2-Methylnaphthalene	5.305	142	856	10.83	ppb		98
4) 1-Methylnaphthalene	5.375	142	838	10.74	ppb		96
7) Acenaphthylene	5.936	152	1263	10.50	ppb		100
8) Acenaphthene	6.059	153	842	10.93	ppb		100
11) Fluorene	6.421	166	931	10.46	ppb		100
12) Phenanthrene	7.098	178	1847	13.83	ppb		97
13) Anthracene	7.138	178	1181	10.49	ppb		96
14) Fluoranthene	8.065	202	1509	11.67	ppb		96
15) Pyrene	8.276	202	1437	11.05	ppb		97
18) Benzo[a]anthracene	9.490	228	1331	8.29	ppb		95
19) Chrysene	9.531	228	1035	10.35	ppb		93
21) Benzo[b]fluoranthene	10.668	252	932	9.91	ppb		99
22) Benzo(j,k)fluoranthene	10.697	252	1013	10.06	ppb		97
23) Benzo[a]pyrene	11.028	252	813	9.86	ppb		97
24) Indeno(1,2,3-c,d)pyrene	12.534	276	757	9.51	ppb		87
25) Dibenz[a,h]anthracene	12.581	278	820	9.82	ppb		86
26) Benzo[g,h,i]perylene	12.951	276	850	9.78	ppb		86

JP  
5/20/24

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

Data Path : X:\semivols\Corey\DATA\C240517\  
 Data File : C0517017.D  
 Acq On : 17 May 2024 2:50 pm  
 Operator : JP  
 Sample : 10 PPB ICAL  
 Misc : SV6-150-12  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 20 07:55:56 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Coreey\DATA\C240517\  
 Data File : C0517009.D  
 Acq On : 17 May 2024 11:52 am  
 Operator : JP  
 Sample : 20 PPB ICAL  
 Misc : SV6-150-11  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 20 07:56:53 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

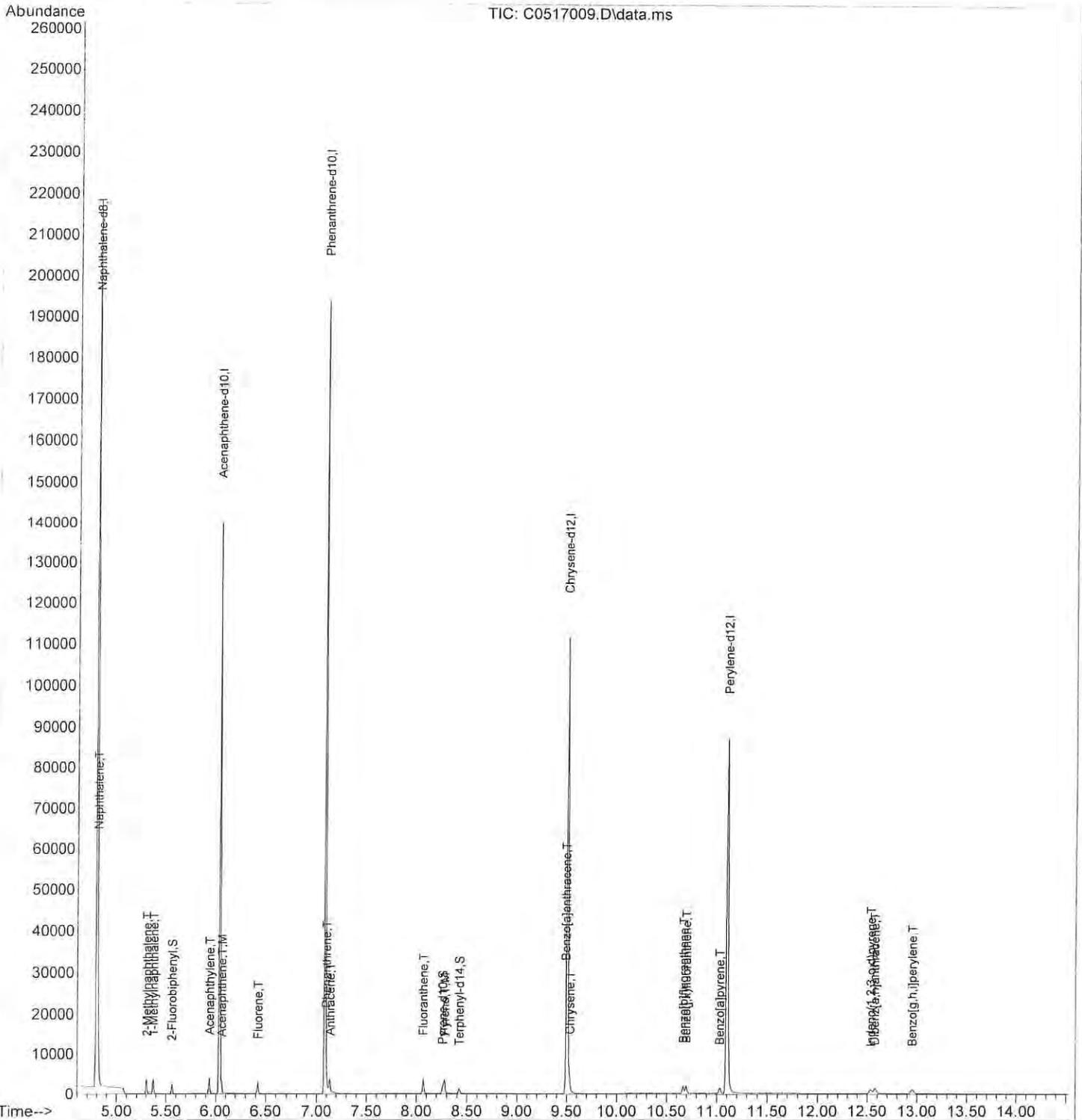
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Naphthalene-d8	4.797	136	208921	2000.00	ppb	0.00
5) Acenaphthene-d10	6.035	164	97919	2000.00	ppb	0.00
9) Phenanthrene-d10	7.086	188	167849	2000.00	ppb	0.00
16) Chrysene-d12	9.503	240	116554	2000.00	ppb	0.00
20) Perylene-d12	11.102	264	114606	2000.00	ppb	0.00
<b>System Monitoring Compounds</b>						
6) 2-Fluorobiphenyl	5.560	172	1756	19.67	ppb	0.00
Spiked Amount	1000.000	Range 25 - 89	Recovery =	1.97%#		
10) Pyrene-d10	8.257	212	1385	19.68	ppb	0.00
Spiked Amount	1000.000	Range 40 - 110	Recovery =	1.97%#		
17) Terphenyl-d14	8.420	244	1042	20.09	ppb	0.00
Spiked Amount	1000.000	Range 39 - 92	Recovery =	2.01%#		
<b>Target Compounds</b>						
						Qvalue
2) Naphthalene	4.805	128	2531	20.56	ppb	99
3) 2-Methylnaphthalene	5.304	142	1631	20.91	ppb	99
4) 1-Methylnaphthalene	5.374	142	1572	20.41	ppb	98
7) Acenaphthylene	5.935	152	2398	20.41	ppb	100
8) Acenaphthene	6.059	153	1561	20.74	ppb	100
11) Fluorene	6.421	166	1767	20.84	ppb	100
12) Phenanthrene	7.097	178	2646	20.80	ppb	96
13) Anthracene	7.138	178	2136	19.91	ppb	96
14) Fluoranthene	8.065	202	2527	20.52	ppb	95
15) Pyrene	8.276	202	2537	20.48	ppb	96
18) Benzo[a]anthracene	9.491	228	2180	18.93	ppb	99
19) Chrysene	9.532	228	1908	19.90	ppb	93
21) Benzo[b]fluoranthene	10.667	252	1778	19.96	ppb	99
22) Benzo[j,k]fluoranthene	10.696	252	1853	19.41	ppb	99
23) Benzo[a]pyrene	11.027	252	1533	19.62	ppb	100
24) Indeno(1,2,3-c,d)pyrene	12.536	276	1520m	20.15	ppb	
25) Dibenz[a,h]anthracene	12.574	278	1542	19.49	ppb	84
26) Benzo[g,h,i]perylene	12.952	276	1590	19.32	ppb	87

JP  
5/17/24

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

Data Path : X:\semivols\Corey\DATA\C240517\  
 Data File : C0517009.D  
 Acq On : 17 May 2024 11:52 am  
 Operator : JP  
 Sample : 20 PPB ICAL  
 Misc : SV6-150-11  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 20 07:56:53 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Coreey\DATA\C240517\  
 Data File : C0517010.D  
 Acq On : 17 May 2024 12:14 pm  
 Operator : JP  
 Sample : 50 PPB ICAL  
 Misc : SV6-150-10  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 20 08:01:17 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

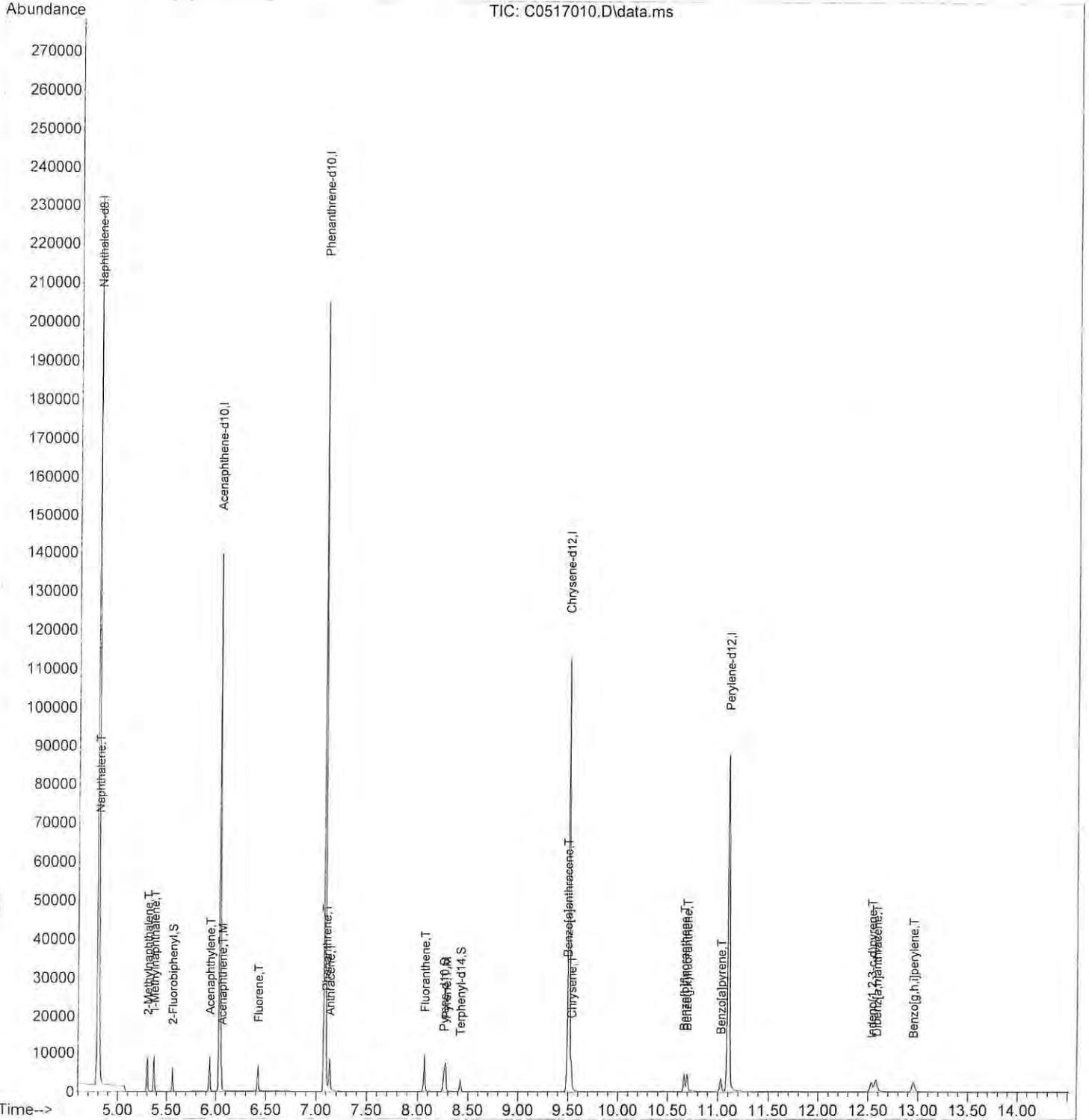
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.796	136	210088	2000.00	ppb	0.00	
5) Acenaphthene-d10	6.037	164	96704	2000.00	ppb	0.00	
9) Phenanthrene-d10	7.081	188	167436	2000.00	ppb	0.00	
16) Chrysene-d12	9.502	240	115857	2000.00	ppb	0.00	
20) Perylene-d12	11.104	264	115355	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	5.559	172	4357	49.41	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	4.94%#			
10) Pyrene-d10	8.258	212	3557	50.68	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	5.07%#			
17) Terphenyl-d14	8.421	244	2482	48.14	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	4.81%#			
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	4.804	128	6381	51.54	ppb		99
3) 2-Methylnaphthalene	5.304	142	4096	52.22	ppb		98
4) 1-Methylnaphthalene	5.374	142	3916	50.57	ppb		97
7) Acenaphthylene	5.937	152	6043	52.09	ppb		100
8) Acenaphthene	6.060	153	3874	52.11	ppb		100
11) Fluorene	6.422	166	4420	52.26	ppb		100
12) Phenanthrene	7.098	178	6519	51.36	ppb		96
13) Anthracene	7.133	178	5399	50.45	ppb		96
14) Fluoranthene	8.066	202	6300	51.27	ppb		94
15) Pyrene	8.277	202	6236	50.47	ppb		95
18) Benzo[a]anthracene	9.490	228	4911	51.44	ppb		97
19) Chrysene	9.531	228	4758	49.93	ppb		93
21) Benzo[b]fluoranthene	10.662	252	4489	50.07	ppb		99
22) Benzo[j,k]fluoranthene	10.691	252	4716	49.09	ppb		97
23) Benzo[a]pyrene	11.028	252	3878	49.31	ppb		99
24) Indeno(1,2,3-c,d)pyrene	12.535	276	3766m	49.59	ppb		
25) Dibenz[a,h]anthracene	12.581	278	3823	48.01	ppb		86
26) Benzo[g,h,i]perylene	12.951	276	4064	49.05	ppb		87

JP  
5/20/24

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

Data Path : X:\semivols\Corey\DATA\C240517\  
 Data File : C0517010.D  
 Acq On : 17 May 2024 12:14 pm  
 Operator : JP  
 Sample : 50 PPB ICAL  
 Misc : SV6-150-10  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 20 08:01:17 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Coreey\DATA\C240517\  
 Data File : C0517011.D  
 Acq On : 17 May 2024 12:36 pm  
 Operator : JP  
 Sample : 100 PPB ICAL  
 Misc : SV6-150-09  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 20 07:55:14 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

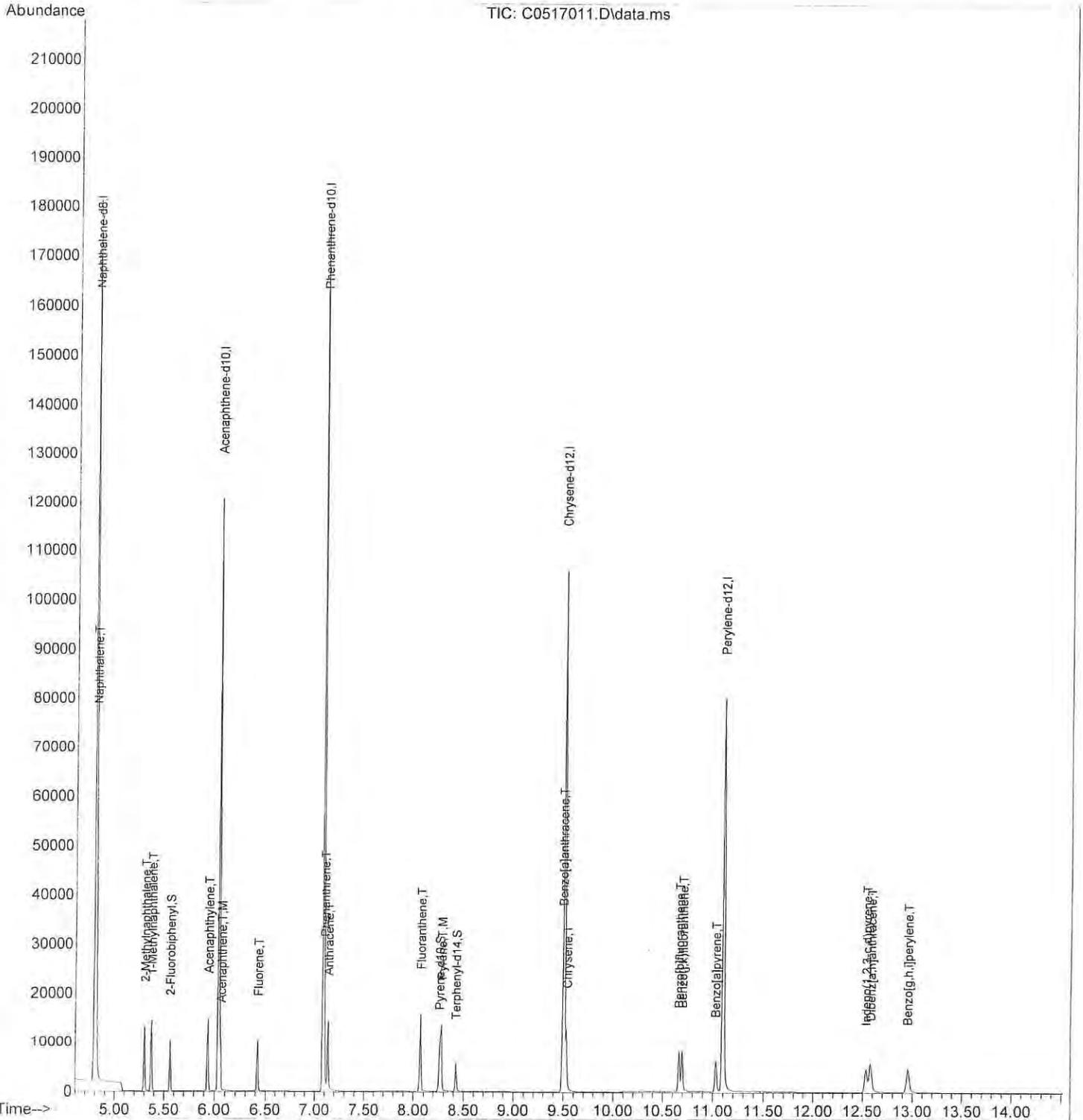
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Naphthalene-d8	4.797	136	178431	2000.00	ppb	0.00
5) Acenaphthene-d10	6.037	164	84497	2000.00	ppb	0.00
9) Phenanthrene-d10	7.085	188	150088	2000.00	ppb	0.00
16) Chrysene-d12	9.502	240	105428	2000.00	ppb	0.00
20) Perylene-d12	11.102	264	105554	2000.00	ppb	0.00
<b>System Monitoring Compounds</b>						
6) 2-Fluorobiphenyl	5.560	172	7635	99.09	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	9.91%#		
10) Pyrene-d10	8.258	212	6449	102.50	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	10.25%#		
17) Terphenyl-d14	8.421	244	4614	98.35	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	9.83%#		
<b>Target Compounds</b>						
						Qvalue
2) Naphthalene	4.804	128	10377	98.68	ppb	99
3) 2-Methylnaphthalene	5.304	142	6461	96.99	ppb	97
4) 1-Methylnaphthalene	5.374	142	6488	98.65	ppb	98
7) Acenaphthylene	5.937	152	10450	103.09	ppb	100
8) Acenaphthene	6.060	153	6388	98.34	ppb	100
11) Fluorene	6.422	166	7566	99.80	ppb	100
12) Phenanthrene	7.097	178	10598	93.15	ppb	95
13) Anthracene	7.137	178	9634	100.42	ppb	95
14) Fluoranthene	8.066	202	10949	99.41	ppb	94
15) Pyrene	8.277	202	10917	98.58	ppb	95
18) Benzo[a]anthracene	9.491	228	8426	102.97	ppb	94
19) Chrysene	9.531	228	9056	104.43	ppb	95
21) Benzo[b]fluoranthene	10.661	252	8315	101.36	ppb	99
22) Benzo[j,k]fluoranthene	10.696	252	8920	101.46	ppb	98
23) Benzo[a]pyrene	11.027	252	7194	99.96	ppb	99
24) Indeno(1,2,3-c,d)pyrene	12.536	276	7048	101.42	ppb	93
25) Dibenz[a,h]anthracene	12.582	278	7306	100.28	ppb	85
26) Benzo[g,h,i]perylene	12.952	276	7604	100.30	ppb	86

JD  
5/20/24

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

Data Path : X:\semivols\Corey\DATA\C240517\  
 Data File : C0517011.D  
 Acq On : 17 May 2024 12:36 pm  
 Operator : JP  
 Sample : 100 PPB ICAL  
 Misc : SV6-150-09  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 20 07:55:14 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240517\  
 Data File : C0517012.D  
 Acq On : 17 May 2024 12:58 pm  
 Operator : JP  
 Sample : 200 PPB ICAL  
 Misc : SV6-150-08  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 20 07:55:28 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

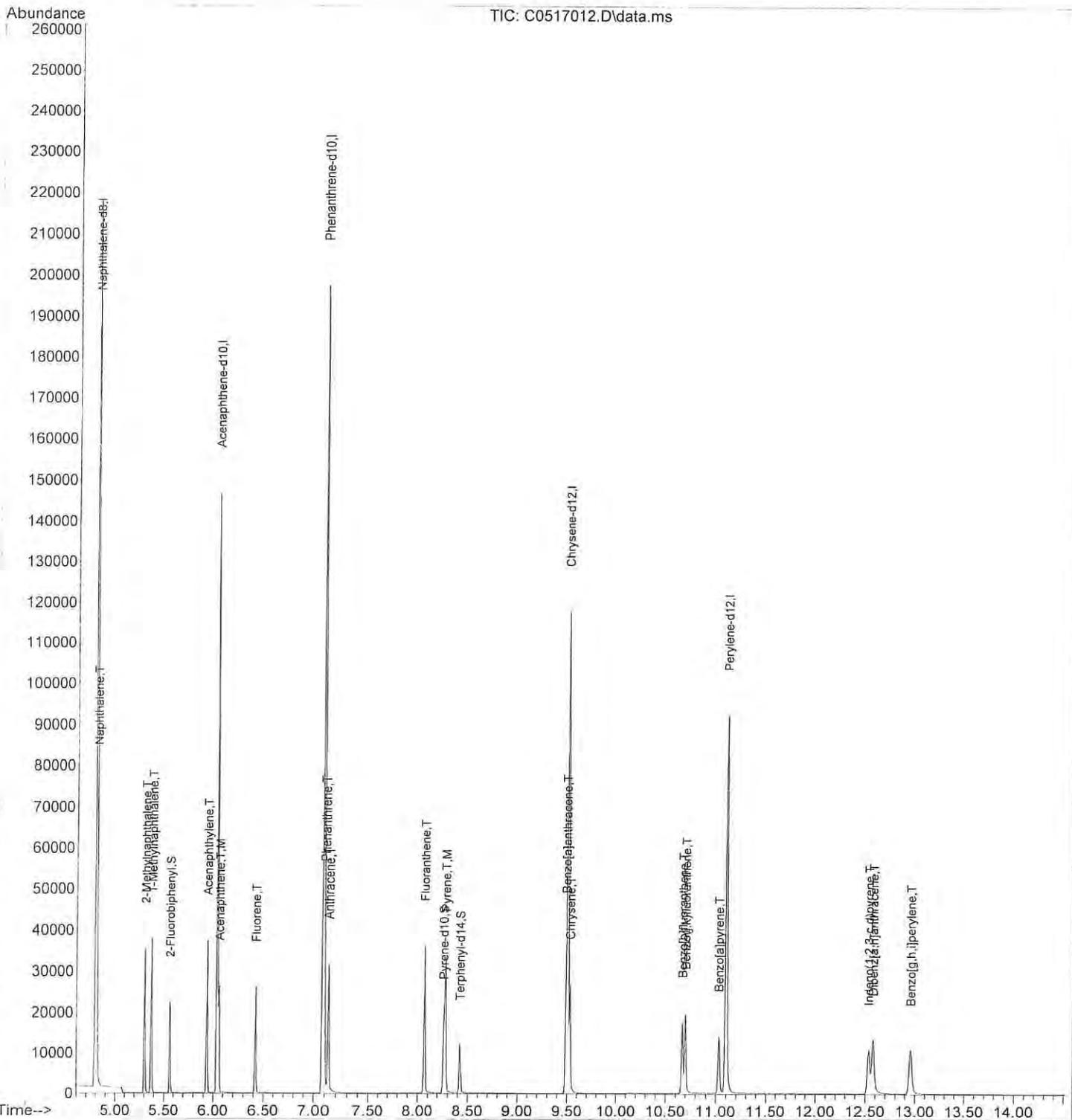
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) Naphthalene-d8	4.797	136	214731	2000.00	ppb	0.00
5) Acenaphthene-d10	6.036	164	100847	2000.00	ppb	0.00
9) Phenanthrene-d10	7.080	188	174176	2000.00	ppb	0.00
16) Chrysene-d12	9.502	240	120306	2000.00	ppb	0.00
20) Perylene-d12	11.103	264	118751	2000.00	ppb	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl	5.559	172	19474	211.76	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	21.18%#		
10) Pyrene-d10	8.258	212	15061	206.28	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	20.63%#		
17) Terphenyl-d14	8.421	244	10450	195.21	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	19.52%#		
Target Compounds						
						Qvalue
2) Naphthalene	4.805	128	25105	198.38	ppb	99
3) 2-Methylnaphthalene	5.303	142	15383	191.88	ppb	98
4) 1-Methylnaphthalene	5.373	142	15580	196.85	ppb	98
7) Acenaphthylene	5.936	152	24609	203.42	ppb	100
8) Acenaphthene	6.059	153	15230	196.45	ppb	100
11) Fluorene	6.422	166	17760	201.87	ppb	100
12) Phenanthrene	7.098	178	24851	188.21	ppb	95
13) Anthracene	7.132	178	22575	202.77	ppb	95
14) Fluoranthene	8.065	202	25049	195.97	ppb	94
15) Pyrene	8.277	202	25301	196.86	ppb	95
18) Benzo[a]anthracene	9.490	228	19393	214.55	ppb	94
19) Chrysene	9.531	228	20469	206.86	ppb	94
21) Benzo[b]fluoranthene	10.668	252	18716	202.78	ppb	99
22) Benzo[j,k]fluoranthene	10.697	252	20552	207.79	ppb	98
23) Benzo[a]pyrene	11.028	252	16452	203.19	ppb	98
24) Indeno(1,2,3-c,d)pyrene	12.535	276	16091	205.82	ppb	93
25) Dibenz[a,h]anthracene	12.581	278	16843	205.48	ppb	87
26) Benzo[g,h,i]perylene	12.959	276	17624	206.63	ppb	87

JP  
5/20/24

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

Data Path : X:\semivols\Corey\DATA\C240517\  
 Data File : C0517012.D  
 Acq On : 17 May 2024 12:58 pm  
 Operator : JP  
 Sample : 200 PPB ICAL  
 Misc : SV6-150-08  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 20 07:55:28 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration



Data Path : X:\semivol\Corey\DATA\C240517\  
 Data File : C0517013.D  
 Acq On : 17 May 2024 1:20 pm  
 Operator : JP  
 Sample : 500 PPB ICAL  
 Misc : SV6-150-07  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 20 07:55:40 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

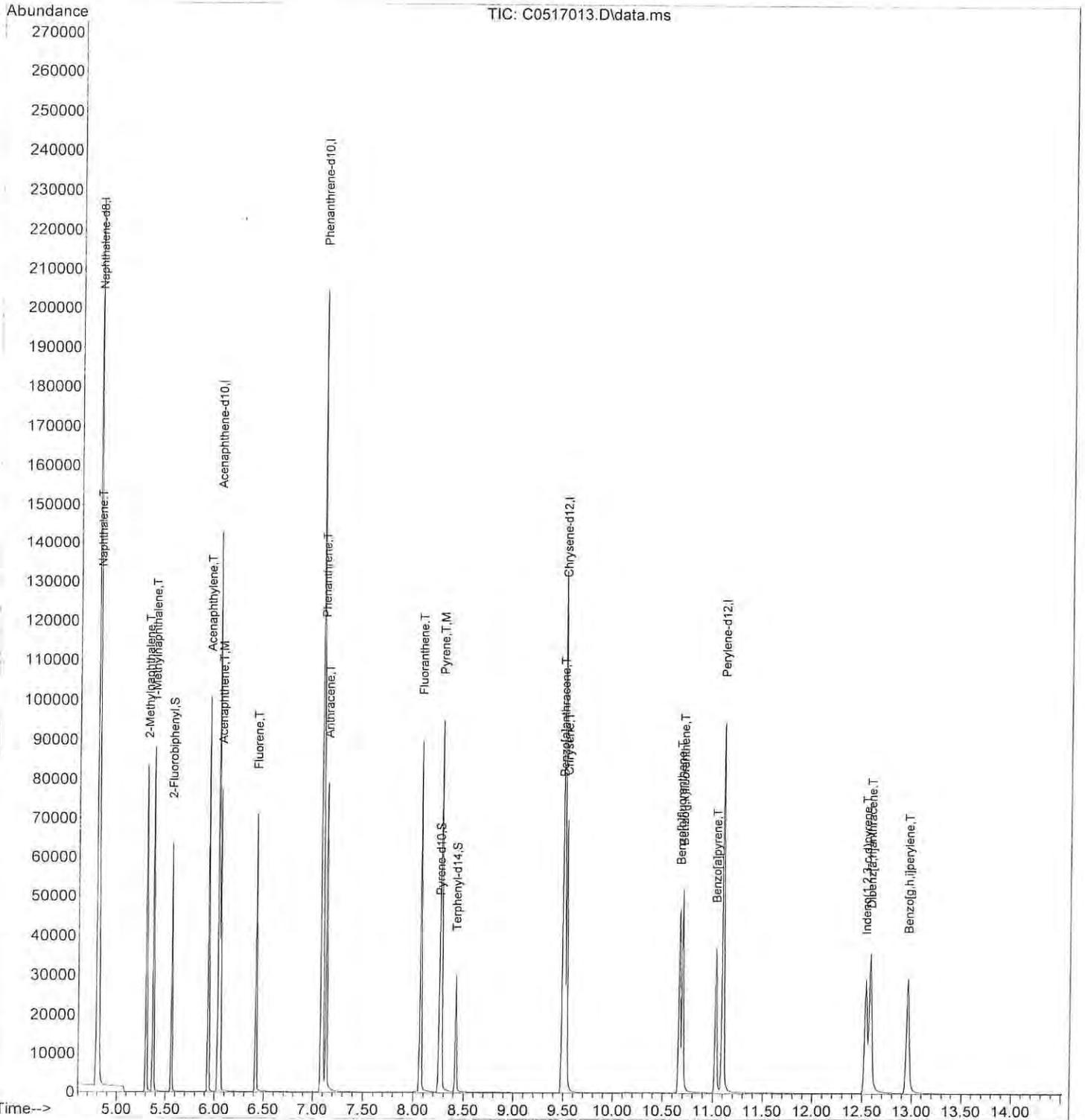
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Naphthalene-d8	4.798	136	214595	2000.00	ppb	0.00
5) Acenaphthene-d10	6.036	164	102701	2000.00	ppb	0.00
9) Phenanthrene-d10	7.086	188	178660	2000.00	ppb	0.00
16) Chrysene-d12	9.507	240	125100	2000.00	ppb	0.00
20) Perylene-d12	11.103	264	123990	2000.00	ppb	0.00
<b>System Monitoring Compounds</b>						
6) 2-Fluorobiphenyl	5.560	172	44911	479.55	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	47.96%		
10) Pyrene-d10	8.257	212	37914	506.25	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	50.63%		
17) Terphenyl-d14	8.420	244	26781	481.10	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	48.11%		
<b>Target Compounds</b>						
						Qvalue
2) Naphthalene	4.805	128	63347	500.89	ppb	99
3) 2-Methylnaphthalene	5.305	142	39005	486.83	ppb	98
4) 1-Methylnaphthalene	5.374	142	39417	498.34	ppb	98
7) Acenaphthylene	5.935	152	62131	504.30	ppb	100
8) Acenaphthene	6.059	153	38760	490.94	ppb	100
11) Fluorene	6.421	166	44933	497.90	ppb	100
12) Phenanthrene	7.097	178	62625	462.39	ppb	94
13) Anthracene	7.138	178	57708	505.33	ppb	94
14) Fluoranthene	8.065	202	62535	476.96	ppb	96
15) Pyrene	8.276	202	65015	493.18	ppb	95
18) Benzo[a]anthracene	9.489	228	49236	533.57	ppb	94
19) Chrysene	9.530	228	52575	510.96	ppb	93
21) Benzo[b]fluoranthene	10.667	252	48739	505.77	ppb	100
22) Benzo[j,k]fluoranthene	10.696	252	53801	520.98	ppb	99
23) Benzo[a]pyrene	11.027	252	43479	514.30	ppb	98
24) Indeno(1,2,3-c,d)pyrene	12.534	276	41708	510.95	ppb	88
25) Dibenz[a,h]anthracene	12.581	278	43921	513.19	ppb	86
26) Benzo[g,h,i]perylene	12.958	276	45928	515.73	ppb	87

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

JP  
5/20/24

Data Path : X:\semivols\Corey\DATA\C240517\  
 Data File : C0517013.D  
 Acq On : 17 May 2024 1:20 pm  
 Operator : JP  
 Sample : 500 PPB ICAL  
 Misc : SV6-150-07  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 20 07:55:40 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration



Data Path : X:\semivolts\Corey\DATA\C240517\  
 Data File : C0517018.D  
 Acq On : 17 May 2024 3:12 pm  
 Operator : JP  
 Sample : 1000 PPB ICAL  
 Misc : SV6-150-06  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 20 07:56:05 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

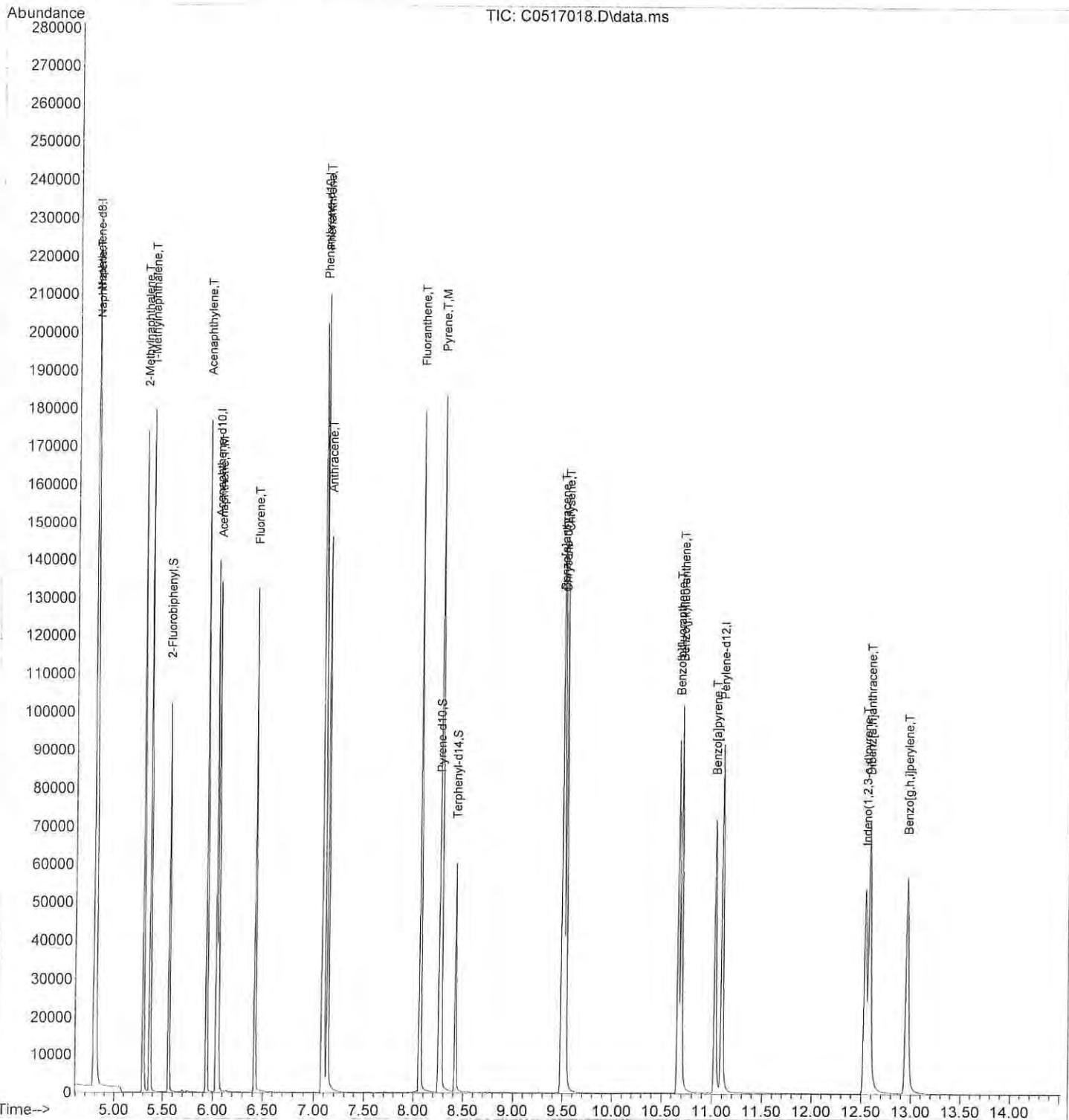
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Naphthalene-d8	4.796	136	202420	2000.00	ppb	0.00	
5) Acenaphthene-d10	6.037	164	97114	2000.00	ppb	0.00	
9) Phenanthrene-d10	7.081	188	170165	2000.00	ppb	0.00	
16) Chrysene-d12	9.507	240	121497	2000.00	ppb	0.00	
20) Perylene-d12	11.104	264	121287	2000.00	ppb	0.00	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	5.559	172	81629	921.76	ppb	0.00	
Spiked Amount	1000.000	Range	25 - 89	Recovery	=	92.18%#	
10) Pyrene-d10	8.258	212	70996	995.31	ppb	0.00	
Spiked Amount	1000.000	Range	40 - 110	Recovery	=	99.53%	
17) Terphenyl-d14	8.421	244	50149	927.61	ppb	0.00	
Spiked Amount	1000.000	Range	39 - 92	Recovery	=	92.76%#	
Target Compounds							
							Qvalue
2) Naphthalene	4.804	128	119428	1001.13	ppb		98
3) 2-Methylnaphthalene	5.304	142	77526	1025.82	ppb		99
4) 1-Methylnaphthalene	5.374	142	74567	999.44	ppb		99
7) Acenaphthylene	5.936	152	113007	970.02	ppb		100
8) Acenaphthene	6.060	153	75374	1009.63	ppb		100
11) Fluorene	6.422	166	85086	989.91	ppb		100
12) Phenanthrene	7.098	178	124464	964.85	ppb		93
13) Anthracene	7.139	178	108888	1001.11	ppb		94
14) Fluoranthene	8.065	202	122782	983.22	ppb		96
15) Pyrene	8.277	202	124835	994.23	ppb		93
18) Benzo[a]anthracene	9.490	228	93128	1045.54	ppb		92
19) Chrysene	9.531	228	97744	978.11	ppb		92
21) Benzo[b]fluoranthene	10.668	252	92781	984.25	ppb		100
22) Benzo[j,k]fluoranthene	10.697	252	104083	1030.34	ppb		99
23) Benzo[a]pyrene	11.028	252	83405	1008.57	ppb		99
24) Indeno(1,2,3-c,d)pyrene	12.543	276	78921	988.38	ppb		87
25) Dibenz[a,h]anthracene	12.581	278	85251	1018.31	ppb		86
26) Benzo[g,h,i]perylene	12.959	276	88473	1015.62	ppb		86

UP  
5/20/24

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

Data Path : X:\semivols\Corey\DATA\C240517\  
 Data File : C0517018.D  
 Acq On : 17 May 2024 3:12 pm  
 Operator : JP  
 Sample : 1000 PPB ICAL  
 Misc : SV6-150-06  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 20 07:56:05 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240517\  
 Data File : C0517019.D  
 Acq On : 17 May 2024 3:34 pm  
 Operator : JP  
 Sample : 5000 PPB ICAL  
 Misc : SV6-150-05  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 20 07:56:16 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

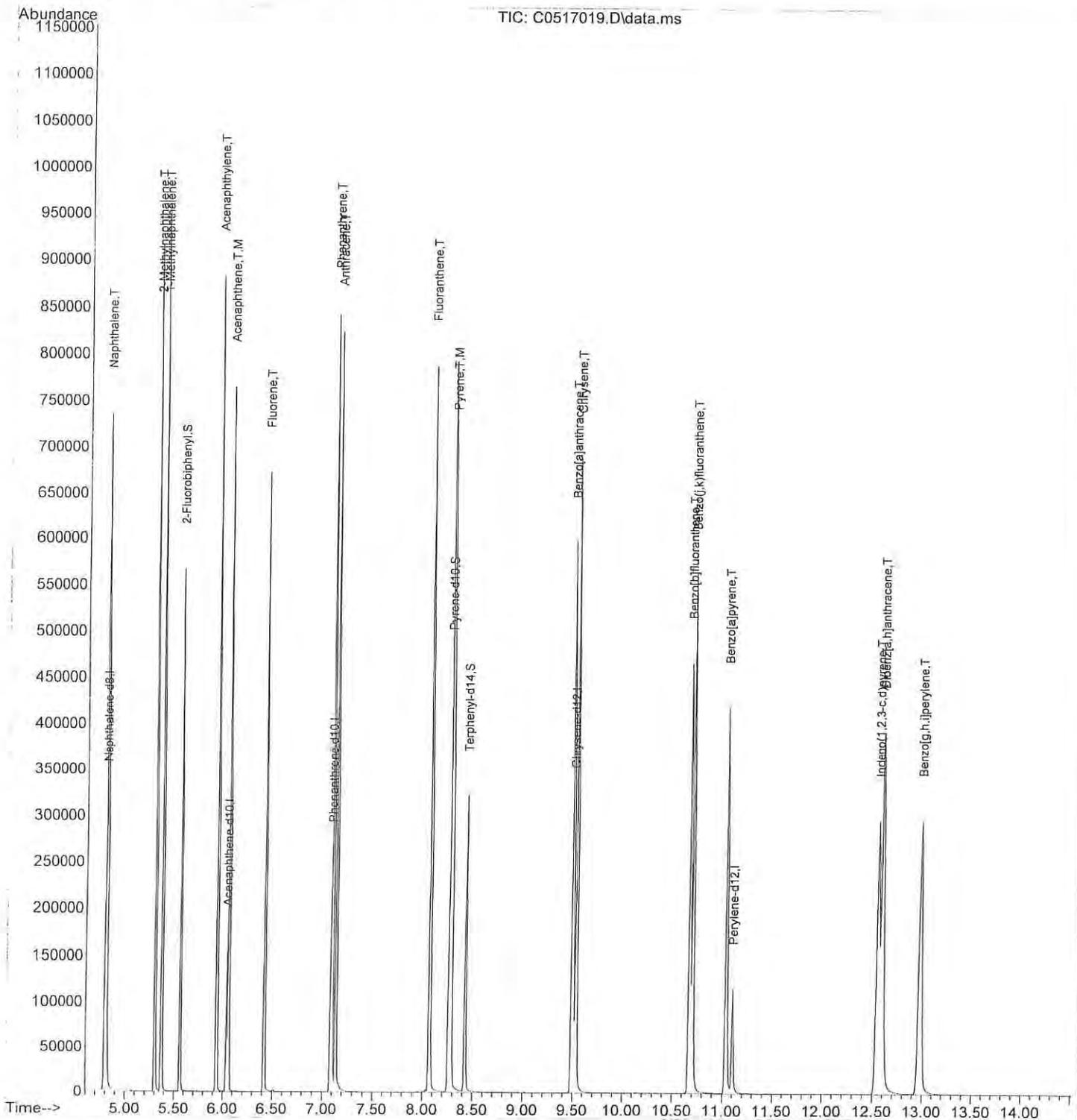
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Naphthalene-d8	4.798	136	220930	2000.00	ppb	0.00	
5) Acenaphthene-d10	6.036	164	109229	2000.00	ppb	0.00	
9) Phenanthrene-d10	7.086	188	190911	2000.00	ppb	0.00	
16) Chrysene-d12	9.507	240	143474	2000.00	ppb	0.00	
20) Perylene-d12	11.103	264	141777	2000.00	ppb	0.00	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	5.565	172	418356	4200.12	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	420.01%#		
10) Pyrene-d10	8.267	212	383709	4794.74	ppb	0.01	
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	479.47%#		
17) Terphenyl-d14	8.430	244	280111	4387.59	ppb	0.01	
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	438.76%#		
Target Compounds							
							Qvalue
2) Naphthalene	4.806	128	565529	4343.46	ppb		94
3) 2-Methylnaphthalene	5.303	142	370432	4490.86	ppb		99
4) 1-Methylnaphthalene	5.373	142	377335	4633.79	ppb		99
7) Acenaphthylene	5.936	152	563802	4302.75	ppb		100
8) Acenaphthene	6.060	153	365719	4355.42	ppb		100
11) Fluorene	6.422	166	421172	4367.53	ppb		100
12) Phenanthrene	7.103	178	570214	3939.99	ppb		88
13) Anthracene	7.138	178	559508	4585.07	ppb		89
14) Fluoranthene	8.075	202	609874	4353.08	ppb		98
15) Pyrene	8.286	202	641098	4551.06	ppb		89
18) Benzo[a]anthracene	9.496	228	513289	4904.71	ppb		89
19) Chrysene	9.536	228	526393	4460.65	ppb		88
21) Benzo[b]fluoranthene	10.674	252	543199	4929.61	ppb		98
22) Benzo[j,k]fluoranthene	10.709	252	540965	4581.21	ppb		99
23) Benzo[a]pyrene	11.040	252	480663	4972.34	ppb		99
24) Indeno(1,2,3-c,d)pyrene	12.558	276	469283	5027.77	ppb		86
25) Dibenz[a,h]anthracene	12.604	278	493278	5040.56	ppb		85
26) Benzo[g,h,i]perylene	12.990	276	504818	4957.51	ppb		86

JP  
5/20/24

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

Data Path : X:\semivols\Corey\DATA\C240517\  
 Data File : C0517019.D  
 Acq On : 17 May 2024 3:34 pm  
 Operator : JP  
 Sample : 5000 PPB ICAL  
 Misc : SV6-150-05  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 20 07:56:16 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\semivols\Corey\DATA\C240517\  
 Data File : C0517020.D  
 Acq On : 17 May 2024 3:56 pm  
 Operator : JP  
 Sample : ICV  
 Misc : SV6-154-07  
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 20 08:06:43 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Naphthalene-d8	2000.000	2000.000	0.0	94	0.55#
2 T	Naphthalene	500.000	466.492	6.7	87	0.55#
3 T	2-Methylnaphthalene	500.000	509.197	-1.8	98	0.54#
4 T	1-Methylnaphthalene	500.000	480.250	4.0	90	0.54#
5 I	Acenaphthene-d10	2000.000	2000.000	0.0	93	0.54#
6 S	2-Fluorobiphenyl	500.000	489.054	2.2	95	0.54#
7 T	Acenaphthylene	500.000	499.484	0.1	92	0.55#
8 T,M	Acenaphthene	500.000	497.822	0.4	94	0.55#
9 I	Phenanthrene-d10	2000.000	2000.000	0.0	93	0.57#
10 S	Pyrene-d10	500.000	523.329	-4.7	96	0.69#
11 T	Fluorene	500.000	494.168	1.2	93	0.55#
12 T	Phenanthrene	500.000	467.084	6.6	94	0.57#
13 T	Anthracene	500.000	545.655	-9.1	101	0.57#
14 T	Fluoranthene	500.000	483.143	3.4	94	0.66#
15 T,M	Pyrene	500.000	491.622	1.7	93	0.69#
16 I	Chrysene-d12	2000.000	2000.000	0.0	93	0.78#
17 S	Terphenyl-d14	500.000	514.444	-2.9	99	0.68#
18 T	Benzo[a]anthracene	500.000	563.099	-12.6	98	0.78#
19 T	Chrysene	500.000	534.753	-7.0	97	0.79#
20 I	Perylene-d12	2000.000	2000.000	0.0	93	0.89#
21 T	Benzo[b]fluoranthene	500.000	505.719	-1.1	93	0.85#
22 T	Benzo(j,k)fluoranthene	500.000	526.152	-5.2	94	0.85#
23 T	Benzo[a]pyrene	500.000	552.876	-10.6	100	0.88#
24 T	Indeno(1,2,3-c,d)pyrene	500.000	537.445	-7.5	98	1.24#
25 T	Dibenz[a,h]anthracene	500.000	517.179	-3.4	94	1.25#
26 T	Benzo[g,h,i]perylene	500.000	524.222	-4.8	94	1.38#

UP  
8/22/24

(#) = Out of Range

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

Data Path : X:\semivols\Corey\DATA\C240517\  
 Data File : C0517020.D  
 Acq On : 17 May 2024 3:56 pm  
 Operator : JP  
 Sample : ICV  
 Misc : SV6-154-07  
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 20 08:06:43 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

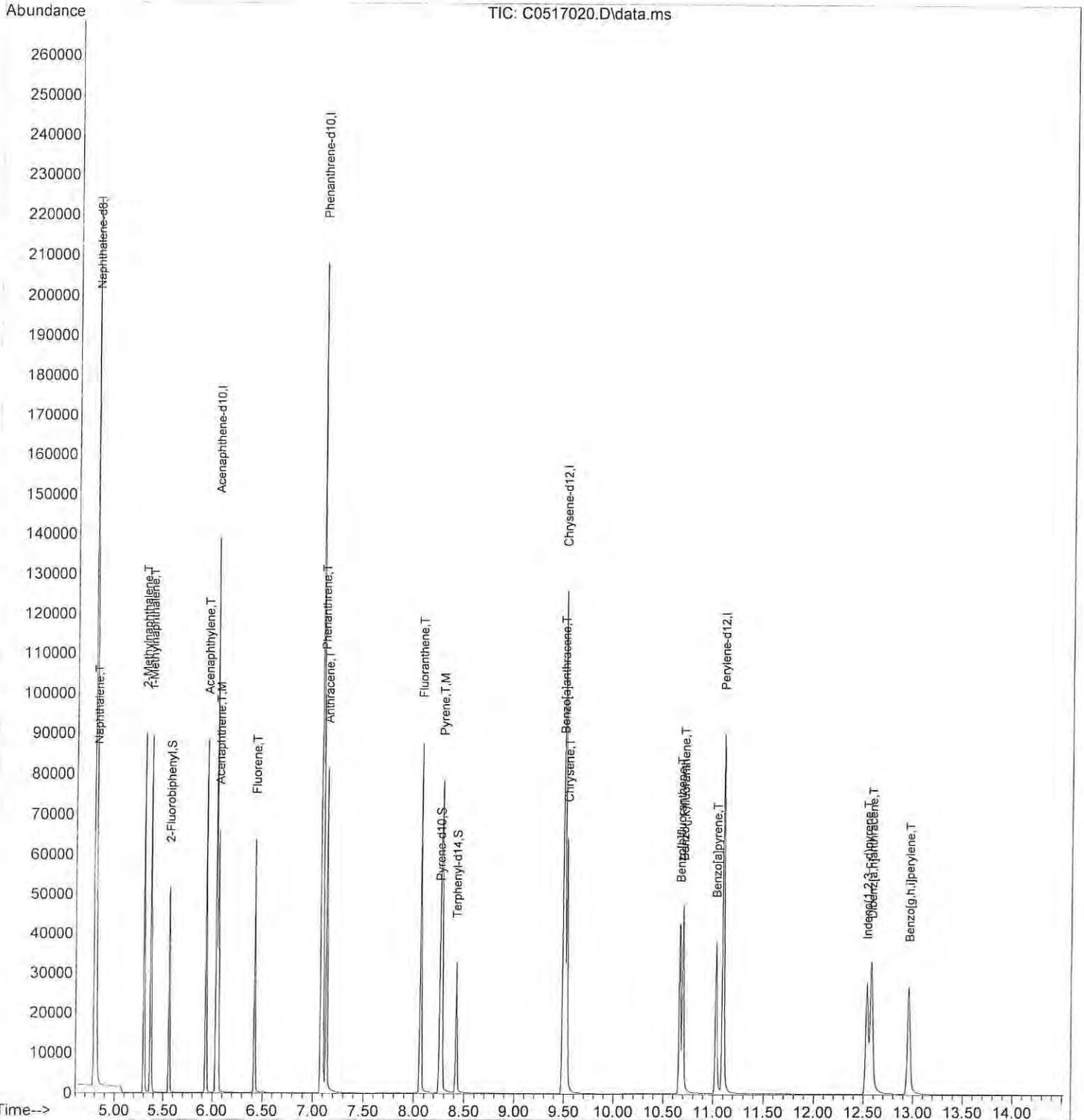
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Naphthalene-d8	4.797	136	201523	2000.00	ppb	0.00
5) Acenaphthene-d10	6.036	164	95444	2000.00	ppb	0.00
9) Phenanthrene-d10	7.080	188	166562	2000.00	ppb	0.00
16) Chrysene-d12	9.502	240	116193	2000.00	ppb	0.00
20) Perylene-d12	11.098	264	115252	2000.00	ppb	0.00
System Monitoring Compounds						
6) 2-Fluorobiphenyl	5.565	172	42565	489.05	ppb	0.00
Spiked Amount	1000.000	Range 25 - 89	Recovery =	48.91%		
10) Pyrene-d10	8.258	212	36539	523.33	ppb	0.00
Spiked Amount	1000.000	Range 40 - 110	Recovery =	52.33%		
17) Terphenyl-d14	8.421	244	26598	514.44	ppb	0.00
Spiked Amount	1000.000	Range 39 - 92	Recovery =	51.44%		
Target Compounds						
						Qvalue
2) Naphthalene	4.812	128	55403	466.49	ppb	99
3) 2-Methylnaphthalene	5.303	142	38312	509.20	ppb	98
4) 1-Methylnaphthalene	5.373	142	35672	480.25	ppb	99
7) Acenaphthylene	5.936	152	57189	499.48	ppb	100
8) Acenaphthene	6.060	153	36526	497.82	ppb	100
11) Fluorene	6.422	166	41576	494.17	ppb	100
12) Phenanthrene	7.098	178	58977	467.08	ppb	94
13) Anthracene	7.133	178	58093	545.66	ppb	95
14) Fluoranthene	8.065	202	59056	483.14	ppb	95
15) Pyrene	8.277	202	60421	491.62	ppb	94
18) Benzo[a]anthracene	9.490	228	48230	563.10	ppb	92
19) Chrysene	9.531	228	51106	534.75	ppb	94
21) Benzo[b]fluoranthene	10.668	252	45300	505.72	ppb	99
22) Benzo[j,k]fluoranthene	10.697	252	50506	526.15	ppb	98
23) Benzo[a]pyrene	11.028	252	43446	552.88	ppb	98
24) Indeno(1,2,3-c,d)pyrene	12.536	276	40779	537.45	ppb	88
25) Dibenz[a,h]anthracene	12.582	278	41143	517.18	ppb	87
26) Benzo[g,h,i]perylene	12.960	276	43394	524.22	ppb	87
-----						

JD  
5/20/24

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

Data Path : X:\semivols\Corey\DATA\C240517\  
 Data File : C0517020.D  
 Acq On : 17 May 2024 3:56 pm  
 Operator : JP  
 Sample : ICV  
 Misc : SV6-154-07  
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 20 08:06:43 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\semivols\Coreey\DATA\C240523\  
 Data File : C0523002.D  
 Acq On : 23 May 2024 9:57 am  
 Operator : JP  
 Sample : PAH CCV0523-1  
 Misc : SV6-156-04  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 23 10:29:24 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound		Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Naphthalene-d8	2000.000	2000.000	0.0	138	0.50
2 T	Naphthalene	500.000	461.596	7.7	127	0.50
3 T	2-Methylnaphthalene	500.000	459.287	8.1	130	0.49
4 T	1-Methylnaphthalene	500.000	475.687	4.9	132	0.50
5 I	Acenaphthene-d10	2000.000	2000.000	0.0	152	0.50
6 S	2-Fluorobiphenyl	500.000	436.664	12.7	138	0.49
7 T	Acenaphthylene	500.000	442.619	11.5	133	0.50#
8 T,M	Acenaphthene	500.000	432.819	13.4	134	0.50#
9 I	Phenanthrene-d10	2000.000	2000.000	0.0	157	0.52#
10 S	Pyrene-d10	500.000	493.399	1.3	153	0.63#
11 T	Fluorene	500.000	442.646	11.5	140	0.50#
12 T	Phenanthrene	500.000	424.923	15.0	145	0.51#
13 T	Anthracene	500.000	433.718	13.3	135	0.52#
14 T	Fluoranthene	500.000	452.504	9.5	149	0.60#
15 T,M	Pyrene	500.000	467.785	6.4	149	0.63#
16 I	Chrysene-d12	2000.000	2000.000	0.0	171	0.72#
17 S	Terphenyl-d14	500.000	453.310	9.3	161	0.62#
18 T	Benzo[a]anthracene	500.000	495.834	0.8	159	0.72#
19 T	Chrysene	500.000	455.186	9.0	153	0.72#
20 I	Perylene-d12	2000.000	2000.000	0.0	172	0.81#
21 T	Benzo[b]fluoranthene	500.000	498.591	0.3	170	0.78#
22 T	Benzo(j,k)fluoranthene	500.000	459.433	8.1	152	0.78#
23 T	Benzo[a]pyrene	500.000	477.520	4.5	160	0.81#
24 T	Indeno(1,2,3-c,d)pyrene	500.000	532.655	-6.5	180	1.14#
25 T	Dibenz[a,h]anthracene	500.000	499.045	0.2	168	1.14#
26 T	Benzo[g,h,i]perylene	500.000	481.327	3.7	161	1.26#

U  
8/22/24

(#) = Out of Range

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

Data Path : X:\semivols\Corey\DATA\C240523\  
 Data File : C0523002.D  
 Acq On : 23 May 2024 9:57 am  
 Operator : JP  
 Sample : PAH CCV0523-1  
 Misc : SV6-156-04  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 23 10:29:24 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration

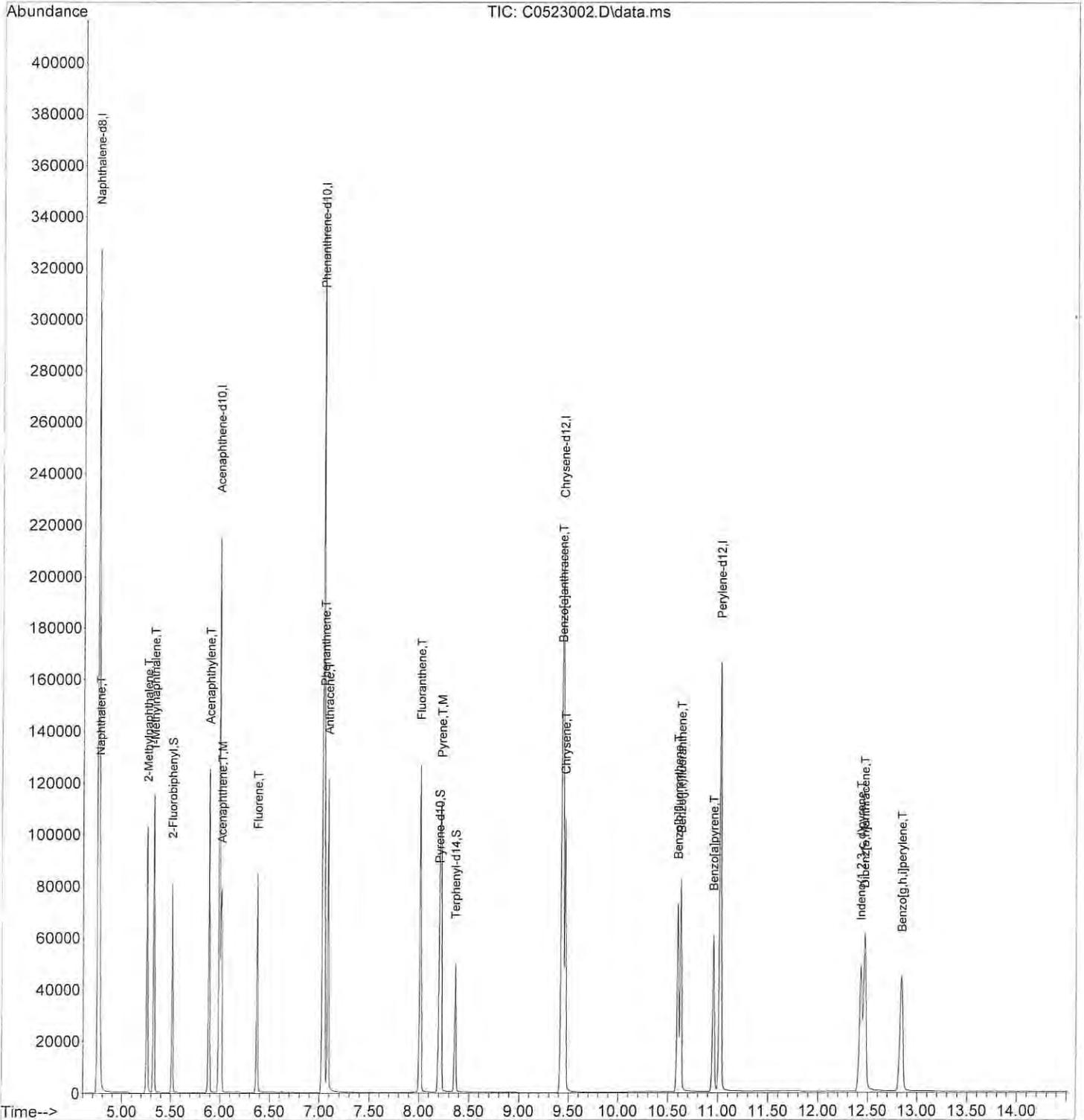
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	4.750	136	296446	2000.00	ppb	-0.05	
5) Acenaphthene-d10	5.989	164	156183	2000.00	ppb	-0.05	
9) Phenanthrene-d10	7.033	188	281097	2000.00	ppb	-0.05	
16) Chrysene-d12	9.439	240	214358	2000.00	ppb	-0.07	
20) Perylene-d12	11.021	264	213867	2000.00	ppb	-0.08	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	5.514	172	62191	436.66	ppb	-0.05	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	43.67%			
10) Pyrene-d10	8.199	212	58138	493.40	ppb	-0.06	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	49.34%			
17) Terphenyl-d14	8.363	244	43238	453.31	ppb	-0.06	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	45.33%			
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	4.766	128	80644	461.60	ppb		99
3) 2-Methylnaphthalene	5.258	142	50834	459.29	ppb		98
4) 1-Methylnaphthalene	5.328	142	51976	475.69	ppb		98
7) Acenaphthylene	5.889	152	82929	442.62	ppb		100
8) Acenaphthene	6.012	153	51966	432.82	ppb		100
11) Fluorene	6.375	166	62850	442.65	ppb		100
12) Phenanthrene	7.045	178	90548	424.92	ppb		95
13) Anthracene	7.085	178	77928	433.72	ppb		95
14) Fluoranthene	8.007	202	93345	452.50	ppb		93
15) Pyrene	8.218	202	97025	467.79	ppb		96
18) Benzo[a]anthracene	9.427	228	78474	495.83	ppb		94
19) Chrysene	9.462	228	80254	455.19	ppb		94
21) Benzo[b]fluoranthene	10.597	252	82876	498.59	ppb		96
22) Benzo[j,k]fluoranthene	10.626	252	81837	459.43	ppb		95
23) Benzo[a]pyrene	10.952	252	69632	477.52	ppb		95
24) Indeno(1,2,3-c,d)pyrene	12.428	276	74997m	532.66	ppb		
25) Dibenz[a,h]anthracene	12.466	278	73670	499.05	ppb		95
26) Benzo[g,h,i]perylene	12.844	276	73935	481.33	ppb		94

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

JP  
8/22/24

Data Path : X:\semivols\Corey\DATA\C240523\  
 Data File : C0523002.D  
 Acq On : 23 May 2024 9:57 am  
 Operator : JP  
 Sample : PAH CCV0523-1  
 Misc : SV6-156-04  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 23 10:29:24 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Mon May 20 07:52:31 2024  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\semivols\Corey\DATA\C240529\  
 Data File : C0529002.D  
 Acq On : 29 May 2024 8:55 am  
 Operator : JP  
 Sample : PAH CCV0529-1  
 Misc : SV6-156-09  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 29 09:11:44 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed May 29 08:38:40 2024  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound		Amount	Calc.	%Dev	Area%	Dev(min)
1	I Naphthalene-d8	2000.000	2000.000	0.0	137	0.00
2	T Naphthalene	500.000	459.666	8.1	126	0.00
3	T 2-Methylnaphthalene	500.000	460.150	8.0	130	0.00
4	T 1-Methylnaphthalene	500.000	471.368	5.7	130	0.00
5	I Acenaphthene-d10	2000.000	2000.000	0.0	150	0.00
6	S 2-Fluorobiphenyl	500.000	437.169	12.6	137	0.00
7	T Acenaphthylene	500.000	446.173	10.8	133	0.00
8	T,M Acenaphthene	500.000	428.246	14.4	131	0.00
9	I Phenanthrene-d10	2000.000	2000.000	0.0	156	0.00
10	S Pyrene-d10	500.000	496.900	0.6	153	0.00
11	T Fluorene	500.000	432.864	13.4	136	0.00
12	T Phenanthrene	500.000	410.947	17.8	139	0.00
13	T Anthracene	500.000	434.198	13.2	134	0.00
14	T Fluoranthene	500.000	453.630	9.3	148	0.00
15	T,M Pyrene	500.000	452.670	9.5	143	0.00
16	I Chrysene-d12	2000.000	2000.000	0.0	172	0.01
17	S Terphenyl-d14	500.000	452.598	9.5	162	0.00
18	T Benzo[a]anthracene	500.000	496.354	0.7	160	0.01
19	T Chrysene	500.000	439.179	12.2	148	0.02
20	I Perylene-d12	2000.000	2000.000	0.0	176	0.02
21	T Benzo[b]fluoranthene	500.000	507.630	-1.5	176	0.01
22	T Benzo(j,k)fluoranthene	500.000	431.208	13.8	145	0.01
23	T Benzo[a]pyrene	500.000	472.528	5.5	161	0.01
24	T Indeno(1,2,3-c,d)pyrene	500.000	513.596	-2.7	176	0.02
25	T Dibenz[a,h]anthracene	500.000	475.480	4.9	163	0.02
26	T Benzo[g,h,i]perylene	500.000	467.681	6.5	159	0.03

(#) = Out of Range

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

*JD*  
*5/30/24*

Data Path : X:\semivols\Corey\DATA\C240529\  
 Data File : C0529002.D  
 Acq On : 29 May 2024 8:55 am  
 Operator : JP  
 Sample : PAH CCV0529-1  
 Misc : SV6-156-09  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 29 09:11:44 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed May 29 08:38:40 2024  
 Response via : Initial Calibration

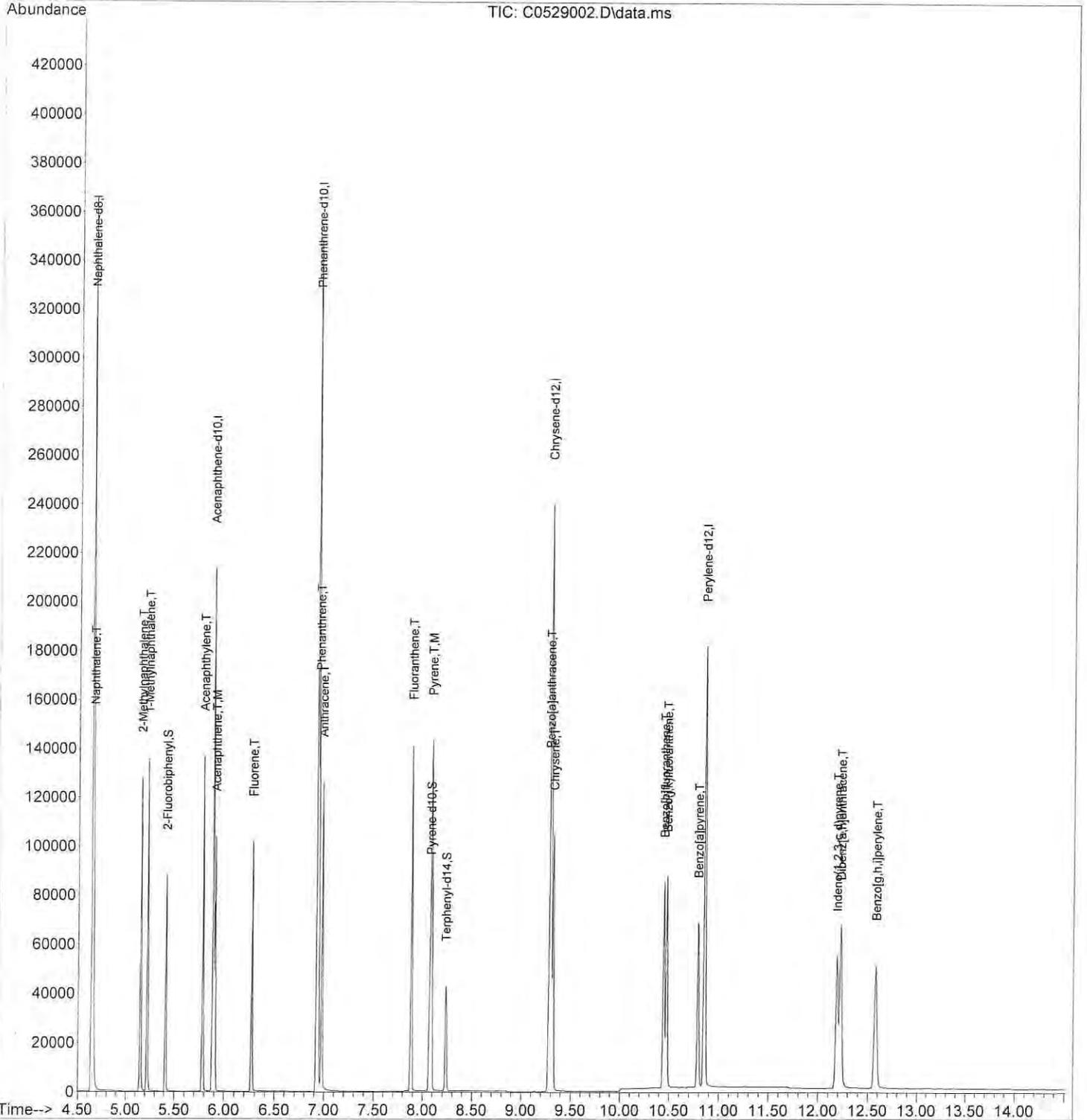
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Naphthalene-d8	4.644	136	294575	2000.00	ppb	0.00
5) Acenaphthene-d10	5.884	164	153820	2000.00	ppb	0.00
9) Phenanthrene-d10	6.922	188	278819	2000.00	ppb	0.00
16) Chrysene-d12	9.293	240	214854	2000.00	ppb	0.01
20) Perylene-d12	10.856	264	217678	2000.00	ppb	0.02
<b>System Monitoring Compounds</b>						
6) 2-Fluorobiphenyl	5.414	172	61321	437.17	ppb	0.00
Spiked Amount	1000.000	Range 25 - 89	Recovery =	43.72%		
10) Pyrene-d10	8.074	212	58076	496.90	ppb	0.00
Spiked Amount	1000.000	Range 40 - 110	Recovery =	49.69%		
17) Terphenyl-d14	8.228	244	43270	452.60	ppb	0.00
Spiked Amount	1000.000	Range 39 - 92	Recovery =	45.26%		
<b>Target Compounds</b>						
						Qvalue
2) Naphthalene	4.659	128	79800	459.67	ppb	99
3) 2-Methylnaphthalene	5.153	142	50608	460.15	ppb	97
4) 1-Methylnaphthalene	5.222	142	51179	471.37	ppb	97
7) Acenaphthylene	5.784	152	82330	446.17	ppb	100
8) Acenaphthene	5.907	153	50639	428.25	ppb	100
11) Fluorene	6.269	166	60963	432.86	ppb	100
12) Phenanthrene	6.939	178	86860	410.95	ppb	95
13) Anthracene	6.974	178	77382	434.20	ppb	96
14) Fluoranthene	7.882	202	92819	453.63	ppb	93
15) Pyrene	8.084	202	93129	452.67	ppb	95
18) Benzo[a]anthracene	9.281	228	78737	496.35	ppb	94
19) Chrysene	9.322	228	77611	439.18	ppb	94
21) Benzo[b]fluoranthene	10.444	252	85882	507.63	ppb	94
22) Benzo[j,k]fluoranthene	10.473	252	78178	431.21	ppb	97
23) Benzo[a]pyrene	10.787	252	70132	472.53	ppb	95
24) Indeno(1,2,3-c,d)pyrene	12.187	276	73602m	513.60	ppb	
25) Dibenz[a,h]anthracene	12.226	278	71442	475.48	ppb	95
26) Benzo[g,h,i]perylene	12.580	276	73119	467.68	ppb	96

JP  
5/30/24

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

Data Path : X:\semivols\Corey\DATA\C240529\  
 Data File : C0529002.D  
 Acq On : 29 May 2024 8:55 am  
 Operator : JP  
 Sample : PAH CCV0529-1  
 Misc : SV6-156-09  
 ALS Vial : 2 Sample Multiplier: 1

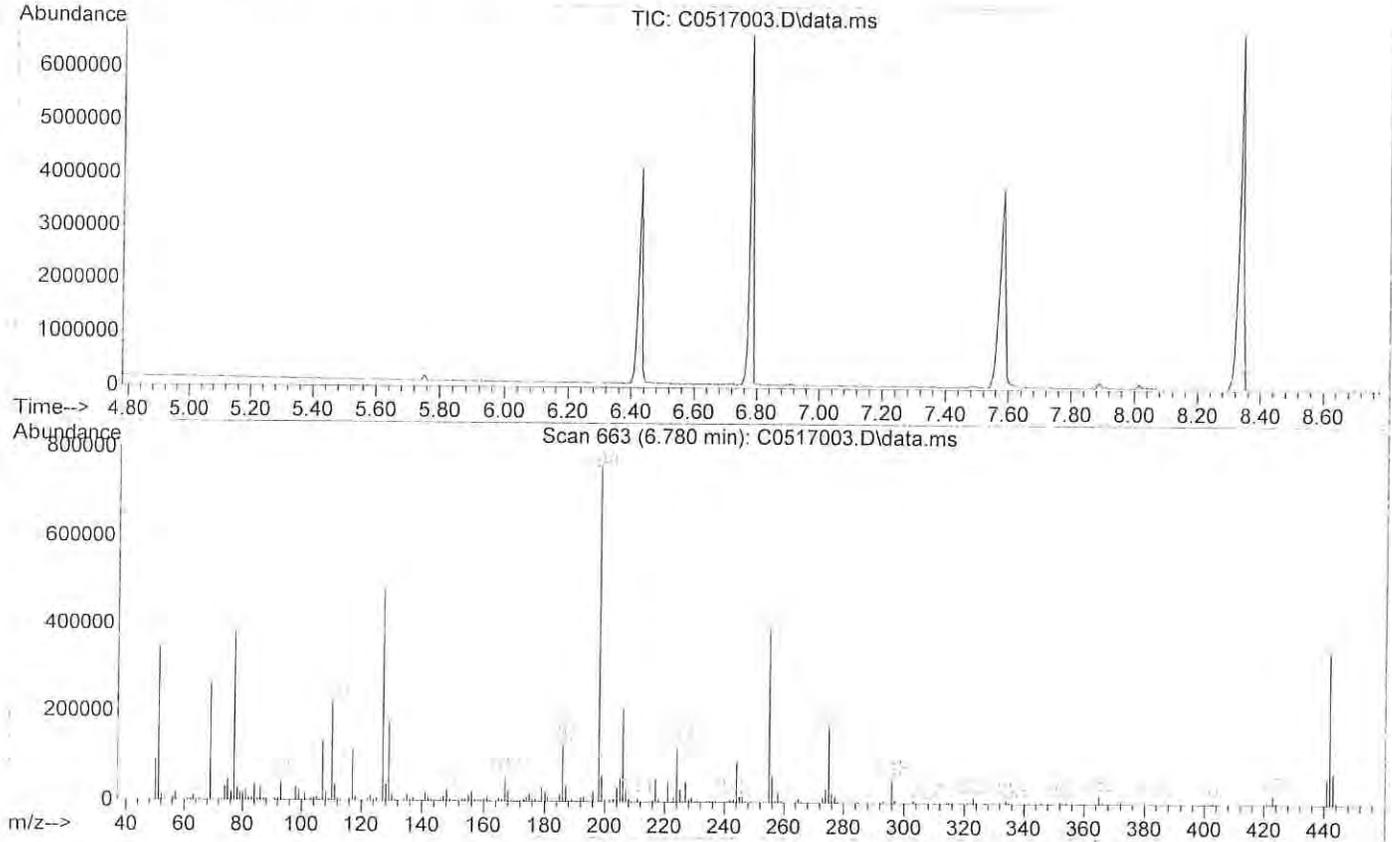
Quant Time: May 29 09:11:44 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240517.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Wed May 29 08:38:40 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240517\  
 Data File : C0517003.D  
 Acq On : 17 May 2024 9:40 am  
 Operator : JP  
 Sample : DFTPP  
 Misc : SV6-154-06  
 ALS Vial : 3 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\CS240415.M  
 Title : PAH'S BY SIMS  
 Last Update : Thu May 16 10:10:57 2024



Spectrum Information: Scan 663

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	45.4	345856	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	34.7	264384	PASS
70	69	0.00	2	0.7	1779	PASS
127	198	10	80	62.7	477568	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	762176	PASS
199	198	5	9	7.7	58336	PASS
275	198	10	60	21.8	166400	PASS
365	198	0.10	100	2.4	18320	PASS
441	443	0.01	100	82.7	57192	PASS
442	198	40	110	45.0	342720	PASS
443	442	15	24	20.2	69168	PASS

GC/MS QA-QC Check Report

Tune File : X:\semivols\Corey\DATA\C240517\C0517020.D  
 Tune Time : 17 May 2024 3:56 pm

Daily Calibration File : X:\semivols\Corey\DATA\C240517\C0517020.D

(PRY)	(NPT)	(ACE)	(PHN)
	201523	95444	166562
	(CRY)	(PRY)	
	116193	115252	

File	Sample	Surrogate Recovery %			Internal Standard Responses		
=====							
C0517009.D	20 PPB ICA	2*	2*	2*	208921	97919	167849
					116554	114606	
-----							
C0517010.D	50 PPB ICA	5*	5*	5*	210088	96704	167436
					115857	115355	
-----							
C0517011.D	100 PPB IC	10*	10*	10*	178431	84497	150088
					105428	105554	
-----							
C0517012.D	200 PPB IC	21*	21*	20*	214731	100847	174176
					120306	118751	
-----							
C0517013.D	500 PPB IC	48	51	48	214595	102701	178660
					125100	123990	
-----							
C0517017.D	10 PPB ICA	1*	1*	1*	211653	100247	176181
					121523	120959	
-----							
C0517018.D	1000 PPB I	92*	100	93*	202420	97114	170165
					121497	121287	
-----							
C0517019.D	5000 PPB I	420*	479*	439*	220930	109229	190911
					143474	141777	

(fails) - fails 12hr time check \* - fails criteria

Created: Fri May 31 09:52:48 2024 Corey

GC/MS QA-QC Check Report

Tune File : X:\semivols\Corey\DATA\C240523\C0523002.D

Tune Time : 23 May 2024 9:57 am

Daily Calibration File : X:\semivols\Corey\DATA\C240523\C0523002.D

(PRY) (NPT) (ACE) (PHN)  
296446 156183 281097

(CRY) (PRY)  
214358 213867

File Sample Surrogate Recovery % Internal Standard Responses

=====  
C0523008.D  
SB0523W1 53 87 80 299140 155777 283677  
217717 218936

-----  
C0523009.D  
SB0523W1 D 52 83 79 294596 154901 284962  
220319 221546

-----  
C0523011.D  
MB0523W1 44 82 75 297748 153773 285727  
219990 220429

-----  
C0523017.D  
05-311-02 61 88 84 320006 167736 304365  
228506 230004

-----  
C0523018.D  
05-311-01 65 90 88 320885 164163 290416  
212172 201610

-----  
C0523019.D  
05-311-03 65 88 91 308423 161608 291771  
213146 210726

-----  
(fails) - fails 12hr time check \* - fails criteria

Created: Thu Aug 22 09:07:48 2024 Corey

GC/MS QA-QC Check Report

Tune File : X:\semivols\Corey\DATA\C240529\C0529002.D

Tune Time : 29 May 2024 8:55 am

Daily Calibration File : X:\semivols\Corey\DATA\C240529\C0529002.D

(PRY) (NPT) (ACE) (PHN)  
 294575 153820 278819

(CRY) (PRY)  
 214854 217678

File Sample Surrogate Recovery % Internal Standard Responses

=====  
 C0529003.D  
 SB0529W1 59 97 92 291796 155187 277808  
 217040 218929

-----  
 C0529005.D  
 MB0529W1 67 86 82 284983 152642 278616  
 214499 218577

-----  
 C0529006.D  
 05-311-04 57 88 84 278423 145115 263089  
 201788 206315

-----  
 C0529007.D  
 05-311-05 47 76 73 284961 150022 274572  
 213806 217635

-----  
 C0529010.D  
 SB0529W1 D 64 98 89 281383 147667 266352  
 206655 209826

-----  
 (fails) - fails 12hr time check \* - fails criteria

Created: Thu Aug 22 10:00:38 2024 Corey

Sequence Name: C:\msdchem\1\sequence\C240517.S

Comment:

Operator: JP

Data Path: C:\MSDCHEM\1\DATA\C240517\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run      On A Barcode Mismatch  
 Full Method                     Inject Anyway  
 Reprocessing Only             Don't Inject

-----

Line		Sample Name/Misc Info
1)	Sample	1 C0517001 CS240415 TEST
2)	Sample	2 C0517002 SIMSCAN DFTPP
3)	Sample	3 C0517003 SIMSCAN DFTPP
4)	Sample	4 C0517004 CS240415 M
5)	Sample	5 C0517005 CS240415 M
6)	Sample	6 C0517006 CS240415 M
7)	Sample	7 C0517007 CS240415 M
8)	Sample	8 C0517008 CS240415 10 PPB ICAL
9)	Sample	9 C0517009 CS240415 20 PPB ICAL
10)	Sample	10 C0517010 CS240415 50 PPB ICAL
11)	Sample	11 C0517011 CS240415 100 PPB ICAL
12)	Sample	12 C0517012 CS240415 200 PPB ICAL
13)	Sample	13 C0517013 CS240415 500 PPB ICAL
14)	Sample	14 C0517014 CS240415 M
15)	Sample	15 C0517015 CS240415 M
16)	Sample	16 C0517016 CS240415 m
17)	Sample	17 C0517017 CS240415 10 PPB ICAL
18)	Sample	18 C0517018 CS240415 1000 PPB ICAL
19)	Sample	19 C0517019 CS240415 5000 PPB ICAL
20)	Sample	20 C0517020 CS240415 ICV

Sequence Name: C:\msdchem\1\sequence\C240523.S

Comment:

Operator: JP

Data Path: C:\MSDCHEM\1\DATA\C240523\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run      On A Barcode Mismatch  
(X) Full Method              (X) Inject Anyway  
( ) Reprocessing Only        ( ) Don't Inject

-----  
Line                                  Sample Name/Misc Info  
1) Sample                            1 C0523001 CS240517 M  
2) Sample                            2 C0523002 CS240517 PAH CCV0522-1  
3) Sample                            3 C0523003 CS240517 SB0523S1  
4) Sample                            4 C0523004 CS240517 SB0523S1 DUP  
5) Sample                            5 C0523005 CS240517 MB0523S1  
6) Sample                            6 C0523006 CS240517 05-326-05  
7) Sample                            7 C0523007 CS240517 MB0523S3  
8) Sample                            8 C0523008 CS240517 SB0523W1  
9) Sample                            9 C0523009 CS240517 SB0523W1 DUP  
10) Sample                           10 C0523010 CS240517 05-354-02  
11) Sample                           11 C0523011 CS240517 MB0523W1  
12) Sample                           12 C0523012 CS240517 MB0523S2  
13) Sample                           13 C0523013 CS240517 05-286-01  
14) Sample                           14 C0523014 CS240517 05-286-03  
15) Sample                           15 C0523015 CS240517 05-334-58  
16) Sample                           16 C0523016 CS240517 05-334-59  
17) Sample                           17 C0523017 CS240517 05-311-02  
18) Sample                           18 C0523018 CS240517 05-311-01  
19) Sample                           19 C0523019 CS240517 05-311-03  
20) Sample                           20 C0523020 CS240517 05-300-01  
21) Sample                           21 C0523021 CS240517 05-300-02  
22) Sample                           22 C0523022 CS240517 05-300-03  
23) Sample                           23 C0523023 CS240517 05-300-09

Sequence Name: C:\msdchem\1\sequence\C240529.S

Comment:

Operator: JP

Data Path: C:\MSDCHEM\1\DATA\C240529\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run      On A Barcode Mismatch  
(X) Full Method              (X) Inject Anyway  
( ) Reprocessing Only        ( ) Don't Inject

-----

Line		Sample Name/Misc Info
1)	Sample	1 C0529001 CS240517 M
2)	Sample	2 C0529002 CS240517 PAH CCV0529-1
3)	Sample	3 C0529003 CS240517 SB0529W1
4)	Sample	4 C0529004 CS240517 SB0529W1 DUP
5)	Sample	5 C0529005 CS240517 MB0529W1
6)	Sample	6 C0529006 CS240517 05-311-04
7)	Sample	7 C0529007 CS240517 05-311-05
8)	Sample	8 C0529008 CS240517 SB0529S2
9)	Sample	9 C0529009 CS240517 SB0529S2 DUP
10)	Sample	10 C0529010 CS240517 SB0529W1 DUP REX
11)	Sample	11 C0529011 CS240517 MB0529S2
12)	Sample	12 C0529012 CS240517 05-400-01 MS
13)	Sample	13 C0529013 CS240517 05-400-01 MSD
14)	Sample	14 C0529014 CS240517 05-400-01
15)	Sample	15 C0529015 CS240517 05-400-02
16)	Sample	16 C0529016 CS240517 05-400-03 5X
17)	Sample	17 C0529017 CS240517 05-400-04 5X
18)	Sample	18 C0529018 CS240517 05-400-05
19)	Sample	19 C0529019 CS240517 05-400-06
20)	Sample	20 C0529020 CS240517 05-400-07 5X





Work continued from Page	Start	Start	Start	Final	Final	Solvent	Instr	Date
Analyte	Lab ID	ID	Conc	Vol	Vol	Conc		
BNA con	SV613001	SV6128923	200ppm	100/100/100 µL	200 µL	20ppm	MeCl <sub>2</sub>	JP
8270 Cal	SV613002							JP
MR #5								11/12/23
								11/12/23
BIN Swr Mix	03							
DAH Working Stock	04	SV613002	2000 ppm	50 µL	10 µL	10ppm	MeCl <sub>2</sub>	
DAH M.A	05		1000	100 µL	1	1		
BIN Swr	06							
DAH 1CU	07	SV613005	2000 ppm	50 µL	10 µL	10ppm	MeCl <sub>2</sub>	
Working Stock	08		1000	100	1	1		
DAH 1CU								
Working Stock								
ISTD M.A								
BNA	09	SV613008	4000ppm	1 mL	8 µL	50ppm	MeCl <sub>2</sub>	
8270 ISTD								

31995  
8270 Calibration Mix #5, Revised  
Lot# A0191064  
Expire: 09/2028 Store: 10°C or colder  
2000 µg/mL each in Methylene Chloride

RESTEK

RESTEK 31887  
Lot# A0197469  
Expire: 03/2029 Store: 10°C or colder  
Revised BIN Surrogate Mix  
1000 µg/mL each in Methylene chloride  
Sonication required. Mix is photosensitive  
Full label information for the chemical is provided on the outside package For Laboratory Use Only



Warning



Receipt Date:  
Opened Date:  
Made in USA

SIGMA-ALDRICH

Store at 2-8°C Exp Mar/24  
In 11°C closed cap

CRM47543 Lot # LRAC6973  
Polynuclear Aromatic Hydrocarbons  
Mix  
certified reference material,  
2000 µg/mL each component in  
benzene: dichloromethane (50:50),  
ampule of 1 mL  
EPA 8310 PAH Mix, EPA Polynuclear aromatic hydrocarbon mix

Product of USA  
H410 Danger Highly flammable liquid and vapor. May be fatal if inhaled and enters severely. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer. Causes damage to organs (liver) through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. IF SWALLOWED: Immediately call a POISON CENTER or doctor if you have (or have) symptoms. Take off immediately all contaminated clothing. Rinse skin with water if in EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do NOT induce vomiting.

Contains: Methylene chloride, Benzene, 3,4-Benzopyrene. May produce an allergic reaction. Restriction to professional users. Safety data sheet is available. For RSD use only. Not for drug, household, or other uses.



SIGMA-ALDRICH Co., 300 Silver Street, St. Louis, MO 63103 USA 314-771-8765  
SIGMA-ALDRICH CHEMIE GmbH, Route 2, D-69003 Schwaben 49 220 070

RESTEK 31887  
Lot# A0194460  
Expire: 01/2029 Store: 10°C or colder  
Revised BIN Surrogate Mix  
1000 µg/mL each in Methylene chloride  
Sonication required. Mix is photosensitive  
Full label information for the chemical is provided on the outside package For Laboratory Use Only

Warning



Receipt Date:  
Opened Date:  
Made in USA

AccuStandard® 125 Market St, New Haven, CT 06513  
www.AccuStandard.com  
Z-014J 1 mL  
Internal Standard Mix  
4.0 mg/mL in CH<sub>2</sub>Cl<sub>2</sub>  
Lot: 222091449  
Exp: Sep 30, 2032 Storage: Ambient (>5 °C)/Sonicate

FOR LABORATORY USE ONLY  
4315 H335  
4332 H302  
4351 H350  
2338 P260  
2331 P223  
2262 P202  
Refer to SDS

Signal Word Warning



SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

Work continued from Page		Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Init	Date
5	PAH CV	SV613801	SV613004	10ppm	10ml	200ppb	MeCl2	JP	1/11/24
	PAH Spike	SV613802	SV613708	10ppm	2.5ml	50ml	Acetone	JP	1/11/24
	PAH CV	SV613803	SV613007	10ppm	10ml	200ppb	MeCl2	JP	1/11/24
	PAH CV	SV613804	SV613004	10ppm	10ml	200ppb	MeCl2	JP	1/11/24
	Surr Stock	SV613805							
10	PAH Surr	06	SV613805	1000ppm	1ml	100ml	Acetone		
	PAH CV	SV613807	SV613007	10ppm	10ml	200ppb	MeCl2		
	PAH CV	SV613808	SV613004	10ppm	10ml	200ppb	MeCl2	JP	1/15/24
	PAH Working Stock	1	SV613808	2000ppm	50ml	10ml	MeCl2	JP	1/15/24
	PAH CV	1	SV613808	1000ppm	100ml	10ml	MeCl2	JP	1/15/24
15	BNA CV	SV613810	SV613123	200ppm	20ml	200ppb	MeCl2	JP	1/16/24
	PAH CV	11	SV613004	10ppm	10ml	200ppb	MeCl2		
	Custom Stock	12							
	8270 Surr Std	13							
	Benzene Acid Stock	14							
20	8270 CAL #1	15	SV613509	1000ppm	0.5ml	2.5ml	MeCl2		
	#2	16	SV613812	1000ppm	1ml	5ml	MeCl2		
	1	13	SV613004	1000ppm	0.25ml	1ml	MeCl2		
	Benzene Acid	17	14	2000ppm	0.5ml	1ml	MeCl2		

**RESTEK**  
31887  
Lot# A020340  
Expire 09/2029 Store 10°C or colder  
Revised B/N Surrogate Mix  
1000 µg/ml, each in Methylene chloride  
Sonication required. Mix is photosensitive.  
Full label information for the chemical is provided on the outside package. For Laboratory Use Only.

110 Bannock Circle Bellefonte, PA 16823  
814-353-1300  
www.restek.com

**Warning**  
Recept Date: \_\_\_\_\_  
Opened Date: \_\_\_\_\_  
Made in USA

1 mL

**AccuStandard**® 125 Market St, New Haven, CT 06513  
www.AccuStandard.com

**S-15651** 1 mL  
Custom SVOC and VOC Standard  
1000 µg/mL in Methylene chloride  
Lot: 222051034-01 5 comp(s)  
Exp: Mar 14, 2024 Storage: Freeze (<-10 °C)  
PRODUCT OF THE USA FOR LABORATORY USE ONLY

H315 H335  
H332 H302  
H350 H350  
P338 P360  
P331 P233  
P262 P202  
Refer to SDS  
Signal Word: Danger

**AccuStandard**® 125 Market St, New Haven, CT 06513  
www.AccuStandard.com

**M-8270-SS** 1 mL  
Method 8270 - Surrogate Standard  
4.0 mg/mL in CH2Cl2  
Lot: 223021323 6 comp(s)  
Exp: Feb 15, 2033 Storage: Ambient (>5 °C)  
PRODUCT OF THE USA FOR LABORATORY USE ONLY

H315 H335  
H332 H302  
H351 H350  
P338 P360  
P331 P233  
P262 P202  
Refer to SDS  
Signal Word: Warning

**RESTEK**  
31879  
Lot# A0202174  
Expire 09/2027 Store 10°C or colder  
Benzene Acid Mix  
2000 µg/ml, each in Methylene Chloride  
Full label information for the chemical is provided on the outside package. For Laboratory Use Only.

110 Bannock Circle Bellefonte, PA 16823  
814-353-1300  
www.restek.com

**Warning**  
Recept Date: \_\_\_\_\_  
Opened Date: \_\_\_\_\_  
Made in USA

1 mL

SIGNATURE	DATE
DISCLOSED TO AND UNDERSTOOD BY	DATE
WITNESS	DATE

Work continued from Page

Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Int	Date
ISTD Mix	SV614001							JP	1/29/24
PAH ISTD 8270 Megamix	02 03	SV614001	4000ppm	0.5ml	50ml	40ppm	MeCl2	JP	1/29/24
Custom Std	04								
8270 Spike #1 ↓ #2	05 06	SV614003 04	1000ppm	1ml	5ml	200ppm	Acetone	JP	1/29/24
Benzon Acid Spike	07	SV61381M	200ppm	0.25ml	2.5ml	200ppm	Acetone	JP	1/30/24
PAH CV	08	SV61300M	10ppm	10ml	200ml	500ppb	MeCl2		
BNA CV	09	SV613815/16/17	200ppm	20ml		20ppm			
PAH CV	10	SV61300M	10ppm	10ml		500ppb			1/31/24
BNA 60	11	SV61371M3	200ppm	60 ml each		60 ppm			
50	12			50		50			
35	13			35		35			
20	14			40	400 ml	20			
10	15			10	200 ml	10			
5	16	SV61401M	20	50		5			
2	17			20		2			
1	18			10		1			
0.5	19			5		0.5			
100	20	SV613815/16/17	200	20		20			

**AccuStandard** 125 Market St. New Haven, CT 06513  
www.AccuStandard.com

**Z-014J**  
Internal Standard Mix  
4.0 mg/mL in CH2Cl2  
Lot: 223061537  
Exp: Jun 28, 2033 Storage: Ambient (>5 °C)/Sonicate  
PRODUCT OF THE USA FOR LABORATORY USE ONLY

1 mL

6 comp(s)

Signal Word: Warning

H315 H335  
H332 H302  
H351 H350  
P333 P360  
P331 P233  
P262 P202  
Refer to SDS

Signal Word: Warning

**RESTEK** 31850  
110 Brenner Circle Bellefonte, PA 16823  
814-353-1300  
www.restek.com

**31850**  
Lot# A0204762  
Expiry: 05/2025  
E070 MegaMix®  
Store 0°C or colder  
500-1000 µg/mL each in Methylene Chloride  
Sonication required. Mix is photosensitive.  
Full label of emission for the chemical is provided on the outside package.

Warning Danger

Receipt Date: \_\_\_\_\_  
Opened Date: \_\_\_\_\_  
Made in USA

1 mL

For Laboratory Use Only

H315 H335  
H332 H302  
H351 H350  
P333 P360  
P331 P233  
P262 P202  
Refer to SDS

Signal Word: Danger

**AccuStandard** 125 Market St. New Haven, CT 06513  
www.AccuStandard.com

**S-15651**  
Custom SVOC and VOC Standard  
1000 µg/mL in Methylene chloride  
Lot: 222051034-01  
Exp: Mar 14, 2024  
PRODUCT OF THE USA FOR LABORATORY USE ONLY

1 mL

5 comp(s)

Storage: Freeze (<-10 °C)

Signal Word: Danger

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

DISCLOSED TO AND UNDERSTOOD BY \_\_\_\_\_ DATE \_\_\_\_\_ WITNESS \_\_\_\_\_ DATE \_\_\_\_\_

Work continued from Page		Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Init	Date
Analyte	Lab ID								
<del>5270</del> IAL # 2	SV614701	SV614614	1000 ppm	1ml	5ml	200 ppm	Mech	JP	3/26/24
5270 IAL # 2	SV614702	SV614615		1ml					
		16	2000 ppm	0.5ml					
		17	4000 ppm	0.25ml					
<del>5270</del> BNA CC	SV614703	SV614712	200 ppm	60/60 µL	200 µL	60 ppm	Mech	JP	3/26/24
50	04			50/50		50			
35	05			35/35		35			
20	06			40/40	400 µL	20			
10	07			10/10	200 µL	10			
5	08	SV614706	20 ppm	50		5			
2	09			20		2			
1	10			10		1			
0.5	11			5		0.5			
100	12	SV613701/4001	200 ppm	20/20		20			
PAH CC	SV614713	SV613809	10 ppm	20/20 ml	200 µL	500 ppb	Mech	JP	3/26/24
BNA CC	14	SV614712	200 ppm	20/20 ml		20 ppm			
BNA CC	15								
PAH CC	16	SV613809	10.	10 ml		500 ppb			
PAH CC	SV614717								
BNA CC	18	SV614712	200	20/20 ml		20 ppm			
BNA CC	SV614719	SV614712							
PAH CC	SV614720	SV613809	10	10 ml		500 ppb		JP	3/29/24
PAH CC	21	SV613809						JP	4/1/24
BNA CC	22	SV614712	200	20/20 ml		20 ppm			
BNA CC	23								4/2/24
PAH CC	24	SV613809	10	10 ml		500 ppb			4/2/24
BNA CC	25	SV614712	200	20/20 ml		20 ppm			4/3/24
PAH Mir	SV614726								

**LRAD2030**  
30/04/25  
(in the container)

**CRM47543**  
Polynuclear Aromatic Hydrocarbons Mix  
certified reference material, 2000 µg/mL each component in benzene, dichloromethane (50:50).

(Contains: Methylene chloride, Benzene, 3,4-Benzopyrene)

Contains 3,4-Benzopyrene. May produce an allergic reaction. For R&D use only. Not for drug, household, or other uses. May produce an allergic reaction. Store at +2° C to +8° C. SDS available.

Made in USA

EN Danger May cause genetic defects. May cause cancer. Causes damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways. IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Do NOT induce vomiting.

www.scientificbindery88yrs.com

sigmaaldrich.com

SIGMA ALDRICH Co. 3050 Spruce Street, St. Louis, MO 63103 USA  
+1 314 771 9700  
SIGMA ALDRICH CHEMIE GmbH, Reuterstr. 2, 85660 Steinheim, Germany +49 7145 970

nued to Page

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

DISCLOSED TO AND UNDERSTOOD BY \_\_\_\_\_ DATE \_\_\_\_\_

WITNESS \_\_\_\_\_ DATE \_\_\_\_\_

Work continued from Page	Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	In it	Date
5	<del>SV614801</del> BIN Mix	SV614801						Mech	JP	4/13/24
	DATE CV	02	SV614826	2000 ppm	50 mL	10 mL	100 ppm			
	Stock		14801	1000	100 mL					
10	DATE CV	03	SV614802	10 ppm	1 mL	200 mL	500 ppb			4/14/24
	OPP A		SV614804							
15	OPP A	05								
20	OPP B	06								
	OPP B	07								
25	OPP ICAL A	08	SV614804	200 ppm	100 µL	2 mL	10 ppm	Mech		
			SV613416	1000 ppm	20					
	OPP ICAL	09	SV614806	200 ppm	100					
	OPP ICV ICAL A	10	SV614805	1	100					
			SV613501	1000 ppm	20					
30	OPP ICV B	11	SV614807	200 ppm	100					
	OPP 200	2007	SV6148819	10 ppm	4/4 µL	200 µL	200 ppb			
	500	13			10/10		500			
	1000	14			20/20		1000			
	2000	15			40/40		2000			
35	3000	16			60/60		3000			
		17			80/80		4000			

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Work continued to Page

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DATE

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DATE

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DATE

Stock

Work continued from Page		Stock ID	Stock Conc	<del>Vol</del>	Final Vol	Final Conc	Solvent	Init	Date
5	BNA CV	SV6150-01	200ppm	20/20ml	200µL	20ppm	MeCl2	JP	4/11/24
	PAH CV	02	10ppm	10µL	L	500ppb		I	
	PAH CV	03	L	L	200µL	L		UP	4/12/24
	BNA CV	04	200ppm	20/20ml	L	20ppm			
	PAH 5000	SV6150-05	10ppm	500µL	1mL	5000ppb			
	1000	06		100		100			
	500	07		50		500			
10	200	08		20		200			
	100	09		10		100			
	50	10	SV615000	1000ppb	50	50			
	20	11		20		20			
	10	12		10		10			
15	PAH CV	SV615013	10ppm	10µL	200µL	500ppb		JP	4/15/24
	BNA CV	SV615014	20ppm	20/20ml	200µL	20ppm	MeCl2	JP	4/15/24
	BNA CV	SV615015	I					UP	4/16/24
	PAH CV	SV615016	10ppm	10µL		500ppb	MeCl2	UP	4/16/24
	PAH CV	SV615017	L	L		L		JP	4/17/24
20	BNA CV	SV615018	200ppm	20/20ml		20ppm			
	Swr Stock	19							
		<p>110 Beaver Circle Bellefonte, PA 16823 814-353-1300 www.restek.com</p>		<p>Warning</p> <p>Receipt Date: Opened Date: Made in USA</p>					
		<p>Lot# A0203840 Expire 09/2029 Store: 10°C or colder Revised BIN Surrogate Mix 1000 µg/mL each in Methylene chloride Sonication required. Mix is photosensitive. Full label information for the chemical is provided on the outside package</p>		<p>1 mL</p>					
25	PAH Swr	SV615019	100ppm	1mL	100µL	10ppm	Acetone		
	PAH CV	SV615020	10ppm	10µL	300µL	500ppb	MeCl2	JP	4/15/24
	BNA CV	SV615022	200ppm	20/20ml	20µL	20ppm	MeCl2	JP	4/16/24
	PAH CV	SV615023	10ppm	10µL	200µL	500ppb	MeCl2	JP	4/16/24
	BNA CV	SV615024	200ppm	20/20ml	20µL	20ppm	MeCl2	UP	4/22/24
30	Custom SVOC	25							
		<p>125 Market St, New Haven, CT 06513 www.AccuStandard.com</p>		<p>1 mL</p>		<p>H315 H335 H332 H302 H350 H360 P338 P360 P331 P233 P262 P202 Refer to SDS</p> <p>Signal Word: Warning</p>			
		<p>S-15651 Custom SVOC and VOC Standard 1000 µg/mL in Methylene chloride Lot: 224021347 Exp: Mar 26, 2025 PRODUCT OF THE USA</p>		<p>5 comp(s) Storage: Freeze (-10 °C) FOR LABORATORY USE ONLY</p>					
35	Swr Swr #2	26	SV615025	1000ppm	1mL	Swr	Acetone	JP	4/23/24

Work continued to Page

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Work continued from Page		Stock	Stock	Final	Final	Solvent	Unit	Date
Analyte	Lab ID	Stock ID	Conc	Vol	Vol	Conc		
<del>SV615501</del> Dimethyl Phthalate	SV615501	 125 Market St, New Haven, CT 06513 www.AccuStandard.com APP-9-088-10X Dimethyl phthalate 1000 µg/mL in Methanol Lot: 221121015 Exp: Mar 03, 2030 PRODUCT OF THE USA		1 mL			JP	5/20/24
8270 MDL Spike A	SV615502	SV612509	1000 ppm	100 µL	10 mL	10 ppm	Acetone	
8270 MDL Spike B	03	SV615419	1	1000		100		
8270 MDL Extra #1	04	SV612601	2000	250		50		
		02	1	250		50		
		03	5000	100		50		
		04	1000	500		50		
		05	2000	250		50		
8270 MDL Extra #2	05	SV615501	1000	1000		100		
		SV612607	2000	5		1		
20 2,4-Dichloroaziridine	06	SV612601	2000	250		50		
PAT Spike	SV615507	SV613708	100 ppm	2.5 mL	50 mL	5 ppm	Acetone	JP
OPP 1500	SV615508	SV613510	1000 ppm	320 µL	8 mL	40 ppm	Meth	JP
OPP 200	SV615509	SV6148819	10 ppm	4/4 µL	200 µL	200 ppb		
500	10			10/10		500		
1000	11			20/20		1000		
25 2000	12			40/40		2000		
3000	13			60/60		3000		
4000	14			80/80		4000		
1000	15	SV6148810/11		20/20		1000		
8270 CALMIX #5	16	31995  USIEN 8270 Calibration Mix #5, Revised Lot# A0191064  Expire: 09/2028 Store: 10°C or colder 2000 µg/mL each in Methylene Chloride RESTEK  		1 mL				
PAT Spike	17	SV615516	2000 ppm	1 mL	20 mL	100 ppm	Meth	
PAT Spike	18	SV615517	100 ppm	2.5 mL	50 mL	5 ppm	Acetone	

SIGNATURE		DATE	
DISCLOSED TO AND UNDERSTOOD BY	DATE	WITNESS	DATE

Work continued from Page	Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Instr	Date
	PAA CCV	SV615601	SV613804	10ppm	10ul	200ul	500ppb	MeCl2	JP	5/21/24
	OPP CCV	+ 02	SV6148819		20/20ul		100ppb		JP	5/22/24
5	PAA CCV	+ 03	SV613809		10ul		500ppb		JP	5/23/24
	PAA CCV	SV615604							JP	5/23/24
	BNA CCV	SV615605	SV6147112	200ppm	20/20ul		20ppm		JP	5/24/24
	BNA CCV	SV615606							JP	5/24/24
	PAA CCV	SV615607	SV615809	10ppm	10ul		500ppb		JP	5/28/24
10	PAA CCV	SV615608							JP	5/29/24
	PAA CCV	+ 09							JP	5/29/24
	BNA CCV	+ 10	SV6147112	200ppm	20/20ul		20ppm		JP	5/30/24
	BNA CCV	+ 11	SV613815 (146ul)						JP	5/30/24
15	8270 Surrogate Stand	+ 12							JP	5/30/24
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p><b>AccuStandard</b>® 125 Market St, New Haven, CT 06513 www.AccuStandard.com</p> <p><b>M-8270-SS</b> 1 mL Method 8270 - Surrogate Standard 4.0 mg/mL in CH2Cl2 Lot: 223021602 Exp: Mar 01, 2033 PRODUCT OF THE USA</p> </div> <div style="width: 35%;"> <p>H315 H335 H332 H302 H351 H350 P338 P360 P331 P333 P262 P202 Refer to SDS</p> <p>Signal Word: Warning</p> </div> </div>										
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p><b>AccuStandard</b>® 125 Market St, New Haven, CT 06513 www.AccuStandard.com</p> <p><b>M-8270-SS</b> 1 mL Method 8270 - Surrogate Standard 4.0 mg/mL in CH2Cl2 Lot: 223021602 Exp: Mar 01, 2033 PRODUCT OF THE USA</p> </div> <div style="width: 35%;"> <p>H315 H335 H332 H302 H351 H350 P338 P360 P331 P333 P262 P202 Refer to SDS</p> <p>Signal Word: Warning</p> </div> </div>										
25	8270 Surrogate BNA 60 50 35 20 10 5 2 1 0.5 12V PAA CCV	13 14 15 16 17 18 19 20 21 22 23 24	SV615612 SV6147112         SV615617     SV613815 (146ul) SV615809	400ppm 200ppm         20ppm     200ppm 10ppm	2ml 60/60 ul 50/50 35/35 40/40 10/10 50 20 10 5 20/20 10	100ul 200ul   + 400ul 200ul           	80ppm 60 ppm 50 35 20 10 5 2 1 0.5 20 0.5	acetone MeCl2   	JP   	5/30/24   

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## Total Metals EPA 200.8

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration Data
- Administrative Forms

## Dataset Report

User Name: kmckinney  
Computer Name: DESKTOP-RIRVUDN  
Dataset File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\  
Report Date/Time: Friday, May 31, 2024 16:11:30

5-31-24  
km

### The Dataset

Batch ID	Sample ID	Date and Time	Read Type	Samp. File Name	Description
	Sample	12:37:38 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	Sample	12:43:19 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	Blank	12:50:17 Fri	31-MaBlank	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	Standard 1	12:55:07 Fri	31-MaStandard #1	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	Standard 2	12:59:58 Fri	31-MaStandard #2	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	Standard 3	13:04:49 Fri	31-MaStandard #3	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	Standard 4	13:09:40 Fri	31-MaStandard #4	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	Standard 5	13:14:31 Fri	31-MaStandard #5	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	Standard 6	13:19:22 Fri	31-MaStandard #6	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	Standard 7	13:24:12 Fri	31-MaStandard #7	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	QC Std 1	13:29:53 Fri	31-MaQC Std #1	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	QC Std 2	13:35:34 Fri	31-MaQC Std #2	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	QC Std 6	13:40:27 Fri	31-MaQC Std #6	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	QC Std 7	13:46:08 Fri	31-MaQC Std #7	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	QC Std 8	13:51:49 Fri	31-MaQC Std #8	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	MB0529WM1 2X	13:56:40 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	SB0529WM1 2X	14:02:20 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	05-300-07b 2X	14:08:00 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	05-300-07bD 2X	14:13:39 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	05-300-07bL 10X	14:19:56 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	05-300-07bMS 2X	14:25:35 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	05-300-07bMSD 2X	14:31:15 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	05-300-07bPS 2X	14:36:55 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	05-353-02k 2X	14:42:36 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	05-353-07k 2X	14:48:16 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	QC Std 6	14:53:57 Fri	31-MaQC Std #6	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	QC Std 7	14:59:38 Fri	31-MaQC Std #7	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	QC Std 8	15:05:20 Fri	31-MaQC Std #8	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	05-353-10k 2X	15:11:02 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	05-353-15k 2X	15:16:42 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	05-330-02c 2X 29WH	15:22:22 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	05-335-01 10X	15:28:02 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	05-335-02 10X	15:33:42 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	05-335-03 10X	15:39:21 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	05-335-04 10X	15:45:01 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	05-335-05 10X	15:50:40 Fri	31-MaSample	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	QC Std 6	15:56:21 Fri	31-MaQC Std #6	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	QC Std 7	16:02:02 Fri	31-MaQC Std #7	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\
	QC Std 8	16:07:42 Fri	31-MaQC Std #8	C:\Users\Public\Documents\PerkinElmer	Syngistix\ICPMS\DataSet\Y240531C\

## Performance Check Report

Sample ID: [STD] Performance Check

Sample Date/Time: Friday, May 31, 2024 07:00:46

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Optimizations\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\05MAY24\Y240531A\STD] Performance Check.003

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

### Summary

IS	Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode
	Li	7.0		60966.2		60966.226		664.149		1.1	Standard
	In	114.9		372756.9		372756.943		307.370		0.1	Standard
	U	238.1		395564.4		395564.394		3631.895		0.9	Standard
Ce	CeO	155.9		11058.3		0.024		0.000		2.0	Standard
Ce	Ce++	70.0		12977.2		0.029		0.000		0.5	Standard
	Bkgd	220.5		0.4		0.400		0.253		63.2	Standard
	Ce	139.9		452141.0		452140.981		1713.129		0.4	Standard

### Current Conditions File Data

Current Value	Description
-100.00	Standard - OmniRing Park Voltage
4.00	Standard - Hyperskimmer Park Voltage
1.00	Standard - Nebulizer Gas Flow STD/KED [NEB]
1.20	Standard - Auxiliary Gas Flow
15.00	Standard - Plasma Gas Flow
0.00	Standard - Oxygen Gas Flow
-10.00	Standard - QID Fixed Voltage
1600.00	Standard - ICP RF Power
-1675.00	Standard - Analog Stage
1050.00	Standard - Pulse Stage
0.00	Standard - Q1 Rod Offset STD [QRO]
-12.00	Standard - Cell Rod Offset STD [CRO]
-3.00	Standard - Cell Entrance/Exit Voltage STD
0.00	Standard - Axial Field Voltage
5.00	Ammonia DRC - OmniRing Park Voltage
1.00	Ammonia DRC - DRC Mode NEB
2.00	Ammonia DRC - Hyperskimmer Park Voltage
-9.50	Ammonia DRC - DRC Mode QRO
-2.50	Ammonia DRC - DRC Mode CRO
-7.00	Ammonia DRC - DRC Mode Cell Entrance/Exit Voltage
250.00	Ammonia DRC - Axial Field Voltage
0.60	Ammonia DRC - Cell Gas A
2.00	Helium KED - Hyperskimmer Park Voltage
5.00	Helium KED - OmniRing Park Voltage
-12.00	Helium KED - KED Mode QRO
-15.00	Helium KED - KED Mode CRO
-4.00	Helium KED - KED Mode Cell Entrance Voltage
-32.00	Helium KED - KED Mode Cell Exit Voltage
475.00	Helium KED - KED Mode Axial Field Voltage

2.00 Helium KED - Cell Gas B

## Instrument Mass Calibration Report

File Name:

File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\

Acq. Date/Time: 07:00:04 Fri 31-May-24

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Peak Width	Custom Res.
Li	7.016	6.975	1222	2062	0.696	
Mg	23.985	23.975	4579	2063	0.715	
In	114.904	114.875	22592	2066	0.719	
Pb	207.977	207.975	41052	2066	0.719	
U	238.050	238.075	47019	2067	0.724	

# Quantitative Analysis Calibration Report

File Name:

File Path:

Calibration Type: External Calibration

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Cr	51.941	Weighted Linear	0.03	-0.00	0.999593
Cr -1	52.941	Weighted Linear	0.00	-0.00	0.998856
Ni	57.935	Weighted Linear	0.03	0.01	0.999330
Ni -1	59.933	Weighted Linear	0.01	-0.00	0.998532
Ni -2	61.928	Weighted Linear	0.00	-0.00	0.997156
Cu	62.930	Weighted Linear	0.02	-0.00	0.998239
Cu -1	64.928	Weighted Linear	0.01	-0.00	0.998509
Zn	65.926	Weighted Linear	0.01	0.00	0.998793
Zn -1	66.927	Weighted Linear	0.00	0.00	0.998483
Zn -2	67.925	Weighted Linear	0.00	-0.00	0.999251
As	74.922	Weighted Linear	0.01	0.00	0.999172
As-1	74.922	Weighted Linear	0.01	0.00	0.998848
Se	76.920	Weighted Linear	0.00	0.00	0.999796
Se -1	77.917	Weighted Linear	0.00	-0.00	0.999029
Br	78.918	Weighted Linear	0.00	0.00	0.000000
Se -2	81.917	Weighted Linear	0.00	-0.00	0.999418
Kr	82.914	Weighted Linear	0.00	0.00	0.000000
Y	88.905	Weighted Linear	0.00	0.00	0.000000
Rh	102.905	Weighted Linear	0.00	0.00	0.000000
Cd	110.904	Weighted Linear	0.01	0.00	0.998556
Cd -1	113.904	Weighted Linear	0.02	0.00	0.998819
Ho	164.930	Weighted Linear	0.00	0.00	0.000000
Pb	207.977	Weighted Linear	0.07	0.00	0.998870
Bi	208.980	Weighted Linear	0.00	0.00	0.000000
Th	232.038	Weighted Linear	0.00	0.00	0.000000
Cr-2	51.941	Weighted Linear	0.07	0.00	0.999112
Cr-3	52.941	Weighted Linear	0.01	0.00	0.997333
Ni -3	57.935	Weighted Linear	0.09	-0.00	0.998625
Ni -4	59.933	Weighted Linear	0.04	-0.00	0.999076
Ni -5	61.928	Weighted Linear	0.01	-0.00	0.997681
Cu -2	62.930	Weighted Linear	0.10	-0.00	0.998337
Cu -3	64.928	Weighted Linear	0.05	-0.00	0.998050
Zn -3	65.926	Weighted Linear	0.01	0.00	0.998330
Zn -4	66.927	Weighted Linear	0.00	0.00	0.999388
Zn -5	67.925	Weighted Linear	0.01	0.00	0.999687
As-2	74.922	Weighted Linear	0.01	-0.00	0.998560
Y-1	88.905	Weighted Linear	0.00	0.00	0.000000
Rh-1	102.905	Weighted Linear	0.00	0.00	0.000000
Cd -2	110.904	Weighted Linear	0.01	0.00	0.998664
Cd -3	113.904	Weighted Linear	0.04	0.00	0.998593
Sc	44.956	Linear Thru Zero	0.00	0.00	0.000000
Ge	71.922	Linear Thru Zero	0.00	0.00	0.000000
In	114.904	Linear Thru Zero	0.00	0.00	0.000000
Tb	158.925	Linear Thru Zero	0.00	0.00	0.000000
Ge-1	71.922	Linear Thru Zero	0.00	0.00	0.000000
In-1	114.904	Linear Thru Zero	0.00	0.00	0.000000

## Quantitative Analysis - Summary Report

**Sample ID: Blank**

Sample Date/Time: Friday, May 31, 2024 12:50:17

Report Date/Time: Friday, May 31, 2024 12:53:37

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\Blank.003

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	23727.7	1.5				ug/L		Standard
	Cr -1	53	4227.3	2.3				ug/L		Standard
	Ni	58	-9346.7	2.1				ug/L		Standard
	Ni -1	60	242.0	8.3				ug/L		Standard
	Ni -2	62	1958.5	3.7				ug/L		Standard
	Cu	63	2501.9	2.0				ug/L		Standard
	Cu -1	65	483.3	3.5				ug/L		Standard
	Zn	66	770.4	2.3				ug/L		Standard
	Zn -1	67	161.3	4.7				ug/L		Standard
	Zn -2	68	753.7	1.8				ug/L		Standard
	As	75	12256.1	1.2				ug/L		Standard
	As-1	75	25.3	89.5				ug/L		Standard
	Se	77	145.0	8.5				ug/L		Standard
	Se -1	78	12290.6	1.1				ug/L		Standard
	Br	79	304.0	2.0				ug/L		Standard
	Se -2	82	41.7	9.7				ug/L		Standard
	Kr	83	35.7	16.2				ug/L		Standard
	Y	89	618385.9	1.1				ug/L		Standard
	Rh	103	111544.1	0.2				ug/L		Standard
	Cd	111	192.5	2.8				ug/L		Standard
	Cd -1	114	22.9	1.6				ug/L		Standard
	Ho	165	521140.0	0.2				ug/L		Standard
	Pb	208	518.0	6.4				ug/L		Standard
	Bi	209	295515.6	2.9				ug/L		Standard
	Th	232	378918.0	1.9				ug/L		Standard
	Cr -2	52	283.0	3.9				ug/L		KED
	Cr -3	53	38.0	9.5				ug/L		KED
	Ni -3	58	148.2	13.2				ug/L		KED
	Ni -4	60	58.0	12.1				ug/L		KED
	Ni -5	62	12.3	24.8				ug/L		KED
	Cu -2	63	286.7	5.5				ug/L		KED
	Cu -3	65	136.0	8.9				ug/L		KED
	Zn -3	66	93.3	8.2				ug/L		KED
	Zn -4	67	15.3	27.2				ug/L		KED
	Zn -5	68	67.7	6.2				ug/L		KED
	As-2	75	3.0	33.3				ug/L		KED
	Y-1	89	64897.4	0.5				ug/L		KED
	Rh-1	103	44712.2	0.5				ug/L		KED
	Cd -2	111	3.7	15.7				ug/L		KED
	Cd -3	114	8.0	33.1				ug/L		KED
>	Sc	45	772315.6	3.0				ug/L		Standard
>	Ge	72	431845.8	1.6				ug/L		Standard
>	In	115	412956.7	0.9				ug/L		Standard
>	Tb	159	554760.7	0.7				ug/L		Standard
>	Ge-1	72	30473.5	1.5				ug/L		KED
>	In-1	115	42430.8	1.3				ug/L		KED

### QC Calculated Values

Sample ID: Blank

Report Date/Time: Friday, May 31, 2024 12:53:37

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 1**

Sample Date/Time: Friday, May 31, 2024 12:55:07

Report Date/Time: Friday, May 31, 2024 12:58:28

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\Standard 1.004

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	27698.5	1.0				ug/L	23728	Standard
	Cr -1	53	4540.1	2.0				ug/L	4227	Standard
	Ni	58	-6658.6	3.0				ug/L	-9347	Standard
	Ni -1	60	1165.0	1.7				ug/L	242	Standard
	Ni -2	62	1881.5	4.3				ug/L	1958	Standard
	Cu	63	3910.9	2.9				ug/L	2502	Standard
	Cu -1	65	1175.7	2.5				ug/L	483	Standard
	Zn	66	791.7	6.0				ug/L	770	Standard
	Zn -1	67	187.0	8.3				ug/L	161	Standard
	Zn -2	68	756.7	4.2				ug/L	754	Standard
	As	75	13422.1	2.6				ug/L	12256	Standard
	As-1	75	533.6	3.0				ug/L	25	Standard
	Se	77	178.7	3.9				ug/L	145	Standard
	Se -1	78	13043.3	2.6				ug/L	12291	Standard
	Br	79	269.7	2.2				ug/L	304	Standard
	Se -2	82	80.0	10.0				ug/L	42	Standard
	Kr	83	28.7	2.0				ug/L	36	Standard
	Y	89	596057.4	1.7				ug/L	618386	Standard
	Rh	103	107228.7	1.6				ug/L	111544	Standard
	Cd	111	855.3	3.7				ug/L	192	Standard
	Cd -1	114	1690.1	3.5				ug/L	23	Standard
	Ho	165	537713.3	1.6				ug/L	521140	Standard
	Pb	208	8841.7	1.8				ug/L	518	Standard
	Bi	209	303803.3	1.0				ug/L	295516	Standard
	Th	232	382000.4	0.6				ug/L	378918	Standard
	Cr -2	52	759.0	3.8				ug/L	283	KED
	Cr -3	53	97.3	2.1				ug/L	38	KED
	Ni -3	58	594.7	4.7				ug/L	148	KED
	Ni -4	60	265.7	7.0				ug/L	58	KED
	Ni -5	62	41.7	3.7				ug/L	12	KED
	Cu -2	63	735.4	2.5				ug/L	287	KED
	Cu -3	65	346.7	1.0				ug/L	136	KED
	Zn -3	66	101.7	9.1				ug/L	93	KED
	Zn -4	67	15.7	35.2				ug/L	15	KED
	Zn -5	68	72.0	13.2				ug/L	68	KED
	As-2	75	49.3	3.1				ug/L	3	KED
	Y-1	89	63670.6	0.6				ug/L	64897	KED
	Rh-1	103	43501.5	0.4				ug/L	44712	KED
	Cd -2	111	141.7	18.7				ug/L	4	KED
	Cd -3	114	384.0	5.9				ug/L	8	KED
>	Sc	45	738798.4	1.1				ug/L	772316	Standard
>	Ge	72	437471.8	1.9				ug/L	431846	Standard
>	In	115	414720.4	2.1				ug/L	412957	Standard
>	Tb	159	564376.7	1.6				ug/L	554761	Standard
>	Ge-1	72	29881.9	1.0				ug/L	30473	KED
>	In-1	115	41503.7	1.4				ug/L	42431	KED

**QC Calculated Values**

Sample ID: Standard 1

Report Date/Time: Friday, May 31, 2024 12:58:28

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 2**

Sample Date/Time: Friday, May 31, 2024 12:59:58

Report Date/Time: Friday, May 31, 2024 13:03:18

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\Standard 2.005

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	34092.7	3.0				ug/L	23728	Standard
	Cr -1	53	5035.9	0.7				ug/L	4227	Standard
	Ni	58	-3305.3	6.8				ug/L	-9347	Standard
	Ni -1	60	2431.9	2.4				ug/L	242	Standard
	Ni -2	62	2126.5	1.9				ug/L	1958	Standard
	Cu	63	6867.7	0.7				ug/L	2502	Standard
	Cu -1	65	2523.9	0.4				ug/L	483	Standard
	Zn	66	1512.7	2.5				ug/L	770	Standard
	Zn -1	67	290.0	2.5				ug/L	161	Standard
	Zn -2	68	1281.4	4.1				ug/L	754	Standard
	As	75	14195.1	0.3				ug/L	12256	Standard
	As-1	75	1143.1	2.8	<b>0.5000</b>	0.021	4.2	ug/L	25	Standard
	Se	77	234.3	6.5				ug/L	145	Standard
	Se -1	78	13346.6	0.5				ug/L	12291	Standard
	Br	79	273.3	8.4				ug/L	304	Standard
	Se -2	82	135.3	1.1				ug/L	42	Standard
	Kr	83	35.0	4.9				ug/L	36	Standard
	Y	89	604232.2	1.0				ug/L	618386	Standard
	Rh	103	109399.8	2.5				ug/L	111544	Standard
	Cd	111	1643.0	6.1	<b>0.5000</b>	0.036	7.1	ug/L	192	Standard
	Cd -1	114	3797.1	1.4	<b>0.5000</b>	0.011	2.2	ug/L	23	Standard
	Ho	165	545863.9	0.6				ug/L	521140	Standard
	Pb	208	19238.7	1.1	<b>0.5000</b>	0.008	1.6	ug/L	518	Standard
	Bi	209	309635.5	0.9				ug/L	295516	Standard
	Th	232	392961.9	1.3				ug/L	378918	Standard
	Cr -2	52	1384.7	0.9				ug/L	283	KED
	Cr -3	53	178.3	12.2				ug/L	38	KED
	Ni -3	58	1395.7	4.7				ug/L	148	KED
	Ni -4	60	619.7	1.7				ug/L	58	KED
	Ni -5	62	88.3	22.0				ug/L	12	KED
	Cu -2	63	1576.1	1.0				ug/L	287	KED
	Cu -3	65	714.0	3.9				ug/L	136	KED
	Zn -3	66	180.0	3.3				ug/L	93	KED
	Zn -4	67	30.3	16.6				ug/L	15	KED
	Zn -5	68	136.7	7.3				ug/L	68	KED
	As-2	75	106.3	12.2				ug/L	3	KED
	Y-1	89	64599.4	0.5				ug/L	64897	KED
	Rh-1	103	44311.3	0.5				ug/L	44712	KED
	Cd -2	111	314.7	5.6	<b>0.5000</b>	0.031	6.2	ug/L	4	KED
	Cd -3	114	825.4	4.6	<b>0.5000</b>	0.026	5.1	ug/L	8	KED
>	Sc	45	754739.0	0.5				ug/L	772316	Standard
>	Ge	72	441905.8	1.8				ug/L	431846	Standard
>	In	115	419935.3	1.4				ug/L	412957	Standard
>	Tb	159	573679.5	1.0				ug/L	554761	Standard
>	Ge-1	72	30135.1	0.6				ug/L	30473	KED
>	In-1	115	42337.4	0.3				ug/L	42431	KED

## QC Calculated Values

Sample ID: Standard 2

Report Date/Time: Friday, May 31, 2024 13:03:18

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: Standard 3**

Sample Date/Time: Friday, May 31, 2024 13:04:49

Report Date/Time: Friday, May 31, 2024 13:08:09

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\Standard 3.006

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	72780.3	1.7	2.0000	0.053	2.6	ug/L	23728	Standard
	Cr -1	53	9809.7	2.8	2.0000	0.072	3.6	ug/L	4227	Standard
	Ni	58	16361.1	3.1				ug/L	-9347	Standard
	Ni -1	60	10378.4	2.2	2.0000	0.033	1.7	ug/L	242	Standard
	Ni -2	62	3343.4	0.6	2.0000	0.086	4.3	ug/L	1958	Standard
	Cu	63	24459.9	3.3	2.0000	0.038	1.9	ug/L	2502	Standard
	Cu -1	65	10581.6	2.4	2.0000	0.031	1.5	ug/L	483	Standard
	Zn	66	5926.6	4.4				ug/L	770	Standard
	Zn -1	67	1050.0	8.2				ug/L	161	Standard
	Zn -2	68	4360.0	4.7				ug/L	754	Standard
	As	75	17259.4	2.5	2.0000	0.037	1.8	ug/L	12256	Standard
	As-1	75	5045.9	1.9	2.1099	0.067	3.2	ug/L	25	Standard
	Se	77	456.3	3.9	2.0000	0.097	4.9	ug/L	145	Standard
	Se -1	78	13393.9	3.1				ug/L	12291	Standard
	Br	79	284.3	3.2				ug/L	304	Standard
	Se -2	82	483.0	4.7	2.0000	0.131	6.6	ug/L	42	Standard
	Kr	83	32.3	36.6				ug/L	36	Standard
	Y	89	605029.1	1.3				ug/L	618386	Standard
	Rh	103	108391.4	1.5				ug/L	111544	Standard
	Cd	111	6657.3	2.6	2.1046	0.030	1.4	ug/L	192	Standard
	Cd -1	114	16468.5	2.5	2.0800	0.018	0.9	ug/L	23	Standard
	Ho	165	538083.0	1.8				ug/L	521140	Standard
	Pb	208	81940.4	1.4	2.0874	0.035	1.7	ug/L	518	Standard
	Bi	209	311676.8	0.9				ug/L	295516	Standard
	Th	232	388499.8	0.5				ug/L	378918	Standard
	Cr -2	52	5215.6	2.9	2.0000	0.068	3.4	ug/L	283	KED
	Cr -3	53	697.0	3.9	2.0000	0.086	4.3	ug/L	38	KED
	Ni -3	58	6031.3	2.7	2.0000	0.056	2.8	ug/L	148	KED
	Ni -4	60	2579.6	3.4	2.0000	0.071	3.5	ug/L	58	KED
	Ni -5	62	403.7	3.7	2.0000	0.070	3.5	ug/L	12	KED
	Cu -2	63	6753.9	0.5	2.0000	0.017	0.8	ug/L	287	KED
	Cu -3	65	3178.7	3.0	2.0000	0.054	2.7	ug/L	136	KED
	Zn -3	66	751.7	5.1				ug/L	93	KED
	Zn -4	67	123.3	9.0				ug/L	15	KED
	Zn -5	68	547.7	5.5				ug/L	68	KED
	As-2	75	479.0	4.8	2.0000	0.096	4.8	ug/L	3	KED
	Y-1	89	65555.7	1.1				ug/L	64897	KED
	Rh-1	103	45475.6	1.2				ug/L	44712	KED
	Cd -2	111	1361.7	3.1	2.0863	0.055	2.6	ug/L	4	KED
	Cd -3	114	3572.8	2.1	2.0974	0.033	1.5	ug/L	8	KED
>	Sc	45	776062.7	0.6				ug/L	772316	Standard
>	Ge	72	438778.7	2.6				ug/L	431846	Standard
>	In	115	421081.7	2.5				ug/L	412957	Standard
>	Tb	159	570426.3	2.5				ug/L	554761	Standard
>	Ge-1	72	31025.0	0.4				ug/L	30473	KED
>	In-1	115	42414.7	0.5				ug/L	42431	KED

### QC Calculated Values

Sample ID: Standard 3

Report Date/Time: Friday, May 31, 2024 13:08:09

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 4**

Sample Date/Time: Friday, May 31, 2024 13:09:40

Report Date/Time: Friday, May 31, 2024 13:13:00

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\Standard 4.007

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	132548.8	1.6	<b>4.8716</b>	0.117	2.4	ug/L	23728	Standard
	Cr -1	53	16329.0	2.3	<b>4.7518</b>	0.158	3.3	ug/L	4227	Standard
	Ni	58	47564.4	2.8	<b>5.0000</b>	0.074	1.5	ug/L	-9347	Standard
	Ni -1	60	22247.0	3.3	<b>4.7389</b>	0.101	2.1	ug/L	242	Standard
	Ni -2	62	5004.5	2.6	<b>4.6723</b>	0.058	1.2	ug/L	1958	Standard
	Cu	63	50152.2	1.0	<b>4.7170</b>	0.073	1.6	ug/L	2502	Standard
	Cu -1	65	22688.7	1.6	<b>4.7462</b>	0.049	1.0	ug/L	483	Standard
	Zn	66	12296.6	1.4	<b>5.0000</b>	0.072	1.4	ug/L	770	Standard
	Zn -1	67	2049.1	1.7	<b>5.0000</b>	0.213	4.3	ug/L	161	Standard
	Zn -2	68	8886.4	1.0	<b>5.0000</b>	0.061	1.2	ug/L	754	Standard
	As	75	23028.4	1.4	<b>5.0711</b>	0.091	1.8	ug/L	12256	Standard
	As-1	75	11415.6	1.0	<b>4.9967</b>	0.131	2.6	ug/L	25	Standard
	Se	77	861.0	5.1	<b>4.9790</b>	0.291	5.8	ug/L	145	Standard
	Se -1	78	14204.7	2.2	<b>5.0000</b>	0.327	6.5	ug/L	12291	Standard
	Br	79	267.3	11.0				ug/L	304	Standard
	Se -2	82	1038.0	3.2	<b>4.8150</b>	0.250	5.2	ug/L	42	Standard
	Kr	83	36.3	23.4				ug/L	36	Standard
	Y	89	579986.9	0.7				ug/L	618386	Standard
	Rh	103	104714.4	0.9				ug/L	111544	Standard
	Cd	111	14145.7	1.8	<b>4.8226</b>	0.109	2.3	ug/L	192	Standard
	Cd -1	114	35254.5	2.8	<b>4.7654</b>	0.005	0.1	ug/L	23	Standard
	Ho	165	517135.1	2.4				ug/L	521140	Standard
	Pb	208	174786.8	1.7	<b>4.8116</b>	0.133	2.8	ug/L	518	Standard
	Bi	209	298747.3	2.5				ug/L	295516	Standard
	Th	232	377487.8	1.2				ug/L	378918	Standard
	Cr -2	52	11094.6	1.5	<b>4.7759</b>	0.022	0.5	ug/L	283	KED
	Cr -3	53	1379.7	1.6	<b>4.6071</b>	0.128	2.8	ug/L	38	KED
	Ni -3	58	12804.7	2.2	<b>4.7178</b>	0.081	1.7	ug/L	148	KED
	Ni -4	60	5537.4	0.8	<b>4.7549</b>	0.083	1.7	ug/L	58	KED
	Ni -5	62	836.0	1.0	<b>4.6473</b>	0.012	0.3	ug/L	12	KED
	Cu -2	63	14125.6	0.7	<b>4.6897</b>	0.087	1.9	ug/L	287	KED
	Cu -3	65	6578.8	1.3	<b>4.6547</b>	0.102	2.2	ug/L	136	KED
	Zn -3	66	1480.1	2.0	<b>5.0000</b>	0.182	3.6	ug/L	93	KED
	Zn -4	67	258.3	3.7	<b>5.0000</b>	0.149	3.0	ug/L	15	KED
	Zn -5	68	1171.4	4.1	<b>5.0000</b>	0.167	3.3	ug/L	68	KED
	As-2	75	1003.4	1.0	<b>4.6757</b>	0.098	2.1	ug/L	3	KED
	Y-1	89	63371.9	0.3				ug/L	64897	KED
	Rh-1	103	43730.8	1.8				ug/L	44712	KED
	Cd -2	111	2884.3	1.1	<b>4.7902</b>	0.115	2.4	ug/L	4	KED
	Cd -3	114	7585.7	1.0	<b>4.8164</b>	0.022	0.5	ug/L	8	KED
>	Sc	45	732066.9	2.8				ug/L	772316	Standard
>	Ge	72	421674.8	2.0				ug/L	431846	Standard
>	In	115	410368.2	2.9				ug/L	412957	Standard
>	Tb	159	548311.9	2.9				ug/L	554761	Standard
>	Ge-1	72	29956.7	1.1				ug/L	30473	KED
>	In-1	115	40721.5	1.3				ug/L	42431	KED

**QC Calculated Values**

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

## Quantitative Analysis - Summary Report

### Sample ID: Standard 5

Sample Date/Time: Friday, May 31, 2024 13:14:31

Report Date/Time: Friday, May 31, 2024 13:17:51

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\Standard 5.008

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	502835.9	1.1	19.7265	0.414	2.1	ug/L	23728	Standard
	Cr -1	53	58530.0	1.6	19.3162	0.251	1.3	ug/L	4227	Standard
	Ni	58	237061.4	0.5	20.3952	0.439	2.2	ug/L	-9347	Standard
	Ni -1	60	96979.1	1.6	19.6274	0.173	0.9	ug/L	242	Standard
	Ni -2	62	15871.5	0.8	19.1320	0.457	2.4	ug/L	1958	Standard
	Cu	63	213341.0	1.0	19.5459	0.393	2.0	ug/L	2502	Standard
	Cu -1	65	98809.6	1.8	19.6512	0.131	0.7	ug/L	483	Standard
	Zn	66	53635.8	1.4	20.5907	0.238	1.2	ug/L	770	Standard
	Zn -1	67	9060.9	4.3	20.8872	0.687	3.3	ug/L	161	Standard
	Zn -2	68	38156.6	2.4	20.5687	0.282	1.4	ug/L	754	Standard
	As	75	59394.4	2.2	20.4592	0.074	0.4	ug/L	12256	Standard
	As-1	75	48683.3	1.5	20.0220	0.168	0.8	ug/L	25	Standard
	Se	77	3256.4	3.5	20.2168	0.311	1.5	ug/L	145	Standard
	Se -1	78	21825.3	3.0	19.7225	0.646	3.3	ug/L	12291	Standard
	Br	79	346.7	1.2				ug/L	304	Standard
	Se -2	82	4393.3	1.1	19.6735	0.475	2.4	ug/L	42	Standard
	Kr	83	26.3	12.2				ug/L	36	Standard
	Y	89	626919.7	2.9				ug/L	618386	Standard
	Rh	103	113287.4	0.6				ug/L	111544	Standard
	Cd	111	61695.3	1.7	19.9056	0.061	0.3	ug/L	192	Standard
	Cd -1	114	155568.7	2.5	19.7723	0.165	0.8	ug/L	23	Standard
	Ho	165	561633.5	1.3				ug/L	521140	Standard
	Pb	208	772228.9	2.0	19.8469	0.176	0.9	ug/L	518	Standard
	Bi	209	321102.4	2.1				ug/L	295516	Standard
	Th	232	409989.1	0.6				ug/L	378918	Standard
	Cr -2	52	47377.1	1.4	19.7464	0.389	2.0	ug/L	283	KED
	Cr -3	53	5853.2	1.7	19.2636	0.086	0.4	ug/L	38	KED
	Ni -3	58	55400.2	0.7	19.5907	0.257	1.3	ug/L	148	KED
	Ni -4	60	24213.2	0.5	19.8376	0.252	1.3	ug/L	58	KED
	Ni -5	62	3583.4	2.0	19.2629	0.176	0.9	ug/L	12	KED
	Cu -2	63	61399.0	0.4	19.5935	0.225	1.1	ug/L	287	KED
	Cu -3	65	28878.2	1.3	19.5831	0.071	0.4	ug/L	136	KED
	Zn -3	66	6603.5	1.3	20.9549	0.058	0.3	ug/L	93	KED
	Zn -4	67	1079.4	0.4	20.3707	0.346	1.7	ug/L	15	KED
	Zn -5	68	4987.5	2.0	20.4018	0.093	0.5	ug/L	68	KED
	As-2	75	4434.7	1.0	19.6942	0.242	1.2	ug/L	3	KED
	Y-1	89	67695.4	1.4				ug/L	64897	KED
	Rh-1	103	46534.7	1.0				ug/L	44712	KED
	Cd -2	111	12601.2	1.0	19.6641	0.400	2.0	ug/L	4	KED
	Cd -3	114	33513.9	0.7	19.9028	0.212	1.1	ug/L	8	KED
>	Sc	45	789764.5	1.9				ug/L	772316	Standard
>	Ge	72	449825.8	2.4				ug/L	431846	Standard
>	In	115	440589.3	1.8				ug/L	412957	Standard
>	Tb	159	592488.6	1.5				ug/L	554761	Standard
>	Ge-1	72	31773.0	1.6				ug/L	30473	KED
>	In-1	115	43903.6	1.8				ug/L	42431	KED

### QC Calculated Values

Sample ID: Standard 5

Report Date/Time: Friday, May 31, 2024 13:17:51

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 6**

Sample Date/Time: Friday, May 31, 2024 13:19:22

Report Date/Time: Friday, May 31, 2024 13:22:42

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\Standard 6.009

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	973098.8	0.8	<b>40.5190</b>	0.611	1.5	ug/L	23728	Standard
	Cr -1	53	112682.1	2.2	<b>40.0739</b>	0.205	0.5	ug/L	4227	Standard
	Ni	58	474679.5	0.9	<b>40.7642</b>	0.462	1.1	ug/L	-9347	Standard
	Ni -1	60	190969.1	1.4	<b>39.8813</b>	0.104	0.3	ug/L	242	Standard
	Ni -2	62	29292.7	0.7	<b>39.0048</b>	0.392	1.0	ug/L	1958	Standard
	Cu	63	420358.0	2.3	<b>39.8794</b>	0.289	0.7	ug/L	2502	Standard
	Cu -1	65	194628.3	2.4	<b>39.9284</b>	0.389	1.0	ug/L	483	Standard
	Zn	66	104696.3	1.6	<b>40.9462</b>	0.275	0.7	ug/L	770	Standard
	Zn -1	67	17368.2	2.8	<b>40.9369</b>	0.496	1.2	ug/L	161	Standard
	Zn -2	68	73664.4	0.8	<b>40.7296</b>	0.373	0.9	ug/L	754	Standard
	As	75	107682.3	2.3	<b>42.2803</b>	0.360	0.9	ug/L	12256	Standard
	As-1	75	97841.7	2.0	<b>41.0977</b>	0.148	0.4	ug/L	25	Standard
	Se	77	6374.8	2.3	<b>41.2811</b>	0.423	1.0	ug/L	145	Standard
	Se -1	78	31771.3	3.3	<b>41.9137</b>	1.132	2.7	ug/L	12291	Standard
	Br	79	334.7	9.6				ug/L	304	Standard
	Se -2	82	8652.3	3.0	<b>40.0248</b>	0.730	1.8	ug/L	42	Standard
	Kr	83	35.0	10.3				ug/L	36	Standard
	Y	89	609247.9	2.5				ug/L	618386	Standard
	Rh	103	109912.3	1.9				ug/L	111544	Standard
	Cd	111	123866.9	1.2	<b>40.8123</b>	0.225	0.6	ug/L	192	Standard
	Cd -1	114	314861.7	2.3	<b>40.8029</b>	0.477	1.2	ug/L	23	Standard
	Ho	165	543368.2	1.6				ug/L	521140	Standard
	Pb	208	1538455.5	1.4	<b>40.6310</b>	0.141	0.3	ug/L	518	Standard
	Bi	209	310064.7	1.1				ug/L	295516	Standard
	Th	232	387640.9	1.4				ug/L	378918	Standard
	Cr -2	52	91194.8	0.3	<b>40.1071</b>	0.957	2.4	ug/L	283	KED
	Cr -3	53	11477.3	1.1	<b>39.9503</b>	0.739	1.9	ug/L	38	KED
	Ni -3	58	107779.0	0.9	<b>40.1167</b>	0.619	1.5	ug/L	148	KED
	Ni -4	60	46844.0	0.5	<b>40.3212</b>	0.644	1.6	ug/L	58	KED
	Ni -5	62	6940.0	1.5	<b>39.5123</b>	0.695	1.8	ug/L	12	KED
	Cu -2	63	117233.5	1.7	<b>39.6030</b>	0.305	0.8	ug/L	287	KED
	Cu -3	65	55061.6	2.7	<b>39.5361</b>	0.718	1.8	ug/L	136	KED
	Zn -3	66	12584.2	2.2	<b>41.3368</b>	0.180	0.4	ug/L	93	KED
	Zn -4	67	2113.8	4.8	<b>41.3011</b>	1.400	3.4	ug/L	15	KED
	Zn -5	68	9391.8	1.4	<b>40.4173</b>	0.295	0.7	ug/L	68	KED
	As -2	75	8528.2	1.7	<b>39.9274</b>	1.094	2.7	ug/L	3	KED
	Y-1	89	64526.4	0.9				ug/L	64897	KED
	Rh-1	103	43718.5	1.2				ug/L	44712	KED
	Cd -2	111	24881.3	0.5	<b>40.2917</b>	0.621	1.5	ug/L	4	KED
	Cd -3	114	65823.3	1.2	<b>40.5029</b>	0.840	2.1	ug/L	8	KED
>	Sc	45	758254.2	2.1				ug/L	772316	Standard
>	Ge	72	436543.7	1.6				ug/L	431846	Standard
>	In	115	429524.0	1.5				ug/L	412957	Standard
>	Tb	159	574108.1	1.7				ug/L	554761	Standard
>	Ge-1	72	30172.5	2.1				ug/L	30473	KED
>	In-1	115	42236.7	1.3				ug/L	42431	KED

## QC Calculated Values

Sample ID: Standard 6

Report Date/Time: Friday, May 31, 2024 13:22:42

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: Standard 7**

Sample Date/Time: Friday, May 31, 2024 13:24:12

Report Date/Time: Friday, May 31, 2024 13:27:32

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\Standard 7.010

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	2170122.5	0.9	<b>103.0943</b>	2.388	2.3	ug/L	23728	Standard
	Cr -1	53	234016.4	2.7	<b>97.1851</b>	0.705	0.7	ug/L	4227	Standard
	Ni	58	1027503.6	1.5	<b>96.4903</b>	1.802	1.9	ug/L	-9347	Standard
	Ni -1	60	408125.1	3.4	<b>94.1465</b>	1.917	2.0	ug/L	242	Standard
	Ni -2	62	60411.8	0.9	<b>92.4780</b>	2.463	2.7	ug/L	1958	Standard
	Cu	63	890063.0	2.4	<b>93.6304</b>	1.263	1.3	ug/L	2502	Standard
	Cu -1	65	412809.8	1.3	<b>93.7208</b>	1.970	2.1	ug/L	483	Standard
	Zn	66	219679.5	2.4	<b>95.5899</b>	1.651	1.7	ug/L	770	Standard
	Zn -1	67	37386.2	3.9	<b>97.3935</b>	1.173	1.2	ug/L	161	Standard
	Zn -2	68	159741.3	1.8	<b>97.5183</b>	1.493	1.5	ug/L	754	Standard
	As	75	226327.4	2.4	<b>102.8721</b>	0.785	0.8	ug/L	12256	Standard
	As-1	75	219442.3	2.9	<b>100.0248</b>	0.183	0.2	ug/L	25	Standard
	Se	77	14036.6	3.7	<b>100.0331</b>	1.103	1.1	ug/L	145	Standard
	Se -1	78	55660.9	2.1	<b>102.5762</b>	1.568	1.5	ug/L	12291	Standard
	Br	79	329.3	6.4				ug/L	304	Standard
	Se -2	82	19221.3	4.0	<b>97.4041</b>	1.137	1.2	ug/L	42	Standard
	Kr	83	26.7	2.2				ug/L	36	Standard
	Y	89	564096.8	5.0				ug/L	618386	Standard
	Rh	103	100882.8	3.0				ug/L	111544	Standard
	Cd	111	265131.8	2.1	<b>97.0118</b>	0.583	0.6	ug/L	192	Standard
	Cd -1	114	679955.3	3.7	<b>97.6156</b>	2.412	2.5	ug/L	23	Standard
	Ho	165	490616.6	1.2				ug/L	521140	Standard
	Pb	208	3351959.0	2.0	<b>97.3246</b>	1.121	1.2	ug/L	518	Standard
	Bi	209	284006.9	2.2				ug/L	295516	Standard
	Th	232	346071.2	2.7				ug/L	378918	Standard
	Cr -2	52	187346.1	0.5	<b>96.1111</b>	0.421	0.4	ug/L	283	KED
	Cr -3	53	23289.0	0.3	<b>94.9348</b>	0.877	0.9	ug/L	38	KED
	Ni -3	58	220282.7	0.5	<b>95.6634</b>	0.696	0.7	ug/L	148	KED
	Ni -4	60	96559.6	0.8	<b>96.6856</b>	0.917	0.9	ug/L	58	KED
	Ni -5	62	14273.5	1.0	<b>94.9951</b>	1.423	1.5	ug/L	12	KED
	Cu -2	63	241456.8	0.3	<b>95.3045</b>	0.655	0.7	ug/L	287	KED
	Cu -3	65	113798.1	0.7	<b>95.4174</b>	0.750	0.8	ug/L	136	KED
	Zn -3	66	26015.7	0.3	<b>99.2403</b>	0.866	0.9	ug/L	93	KED
	Zn -4	67	4312.0	2.0	<b>98.2719</b>	1.868	1.9	ug/L	15	KED
	Zn -5	68	19750.0	1.3	<b>98.8017</b>	0.751	0.8	ug/L	68	KED
	As-2	75	17953.3	0.9	<b>97.4856</b>	0.830	0.9	ug/L	3	KED
	Y-1	89	57187.6	1.4				ug/L	64897	KED
	Rh-1	103	38448.0	1.3				ug/L	44712	KED
	Cd -2	111	52538.5	1.6	<b>95.8885</b>	1.924	2.0	ug/L	4	KED
	Cd -3	114	138227.6	1.1	<b>95.8696</b>	1.428	1.5	ug/L	8	KED
>	Sc	45	667919.2	3.1				ug/L	772316	Standard
>	Ge	72	402390.5	3.1				ug/L	431846	Standard
>	In	115	390145.1	1.5				ug/L	412957	Standard
>	Tb	159	526075.5	2.8				ug/L	554761	Standard
>	Ge-1	72	26211.7	0.7				ug/L	30473	KED
>	In-1	115	37878.6	0.4				ug/L	42431	KED

**QC Calculated Values**

Sample ID: Standard 7

Report Date/Time: Friday, May 31, 2024 13:27:32

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

# Quantitative Analysis - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Friday, May 31, 2024 13:29:53

Report Date/Time: Friday, May 31, 2024 13:33:13

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\QC Std 1.011

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	1111789.8	1.6	49.3350	0.098	0.2	ug/L	23728	Standard
	Cr -1	53	129098.0	2.9	49.9221	0.621	1.2	ug/L	4227	Standard
	Ni	58	549047.3	3.6	49.3625	1.291	2.6	ug/L	-9347	Standard
	Ni -1	60	220656.7	2.9	48.4386	0.987	2.0	ug/L	242	Standard
	Ni -2	62	33167.8	2.2	47.0841	0.654	1.4	ug/L	1958	Standard
	Cu	63	481105.5	2.8	48.0836	0.907	1.9	ug/L	2502	Standard
	Cu -1	65	221956.6	1.7	47.9344	0.158	0.3	ug/L	483	Standard
	Zn	66	119700.6	2.4	49.4022	0.600	1.2	ug/L	770	Standard
	Zn -1	67	20137.2	2.8	49.7093	0.737	1.5	ug/L	161	Standard
	Zn -2	68	86427.3	1.0	50.0105	0.230	0.5	ug/L	754	Standard
	As	75	127855.0	0.5	52.6879	0.596	1.1	ug/L	12256	Standard
	As-1	75	117556.7	0.8	51.0028	0.447	0.9	ug/L	25	Standard
	Se	77	7789.8	2.9	52.3608	1.046	2.0	ug/L	145	Standard
	Se -1	78	36686.0	0.6	54.4927	0.649	1.2	ug/L	12291	Standard
	Br	79	340.0	3.0				ug/L	304	Standard
	Se -2	82	10408.5	1.7	50.1559	0.342	0.7	ug/L	42	Standard
	Kr	83	33.3	22.7				ug/L	36	Standard
	Y	89	604477.6	2.3				ug/L	618386	Standard
	Rh	103	107111.5	2.0				ug/L	111544	Standard
	Cd	111	145809.7	3.5	50.1031	0.923	1.8	ug/L	192	Standard
	Cd -1	114	376144.7	3.3	50.7552	1.136	2.2	ug/L	23	Standard
	Ho	165	525870.2	2.9				ug/L	521140	Standard
	Pb	208	1824641.2	1.9	50.0348	0.219	0.4	ug/L	518	Standard
	Bi	209	296693.4	1.5				ug/L	295516	Standard
	Th	232	375923.0	2.6				ug/L	378918	Standard
	Cr -2	52	102945.6	0.1	49.0663	0.205	0.4	ug/L	283	KED
	Cr -3	53	12770.7	1.3	48.3526	0.571	1.2	ug/L	38	KED
	Ni -3	58	120217.9	1.2	48.5474	0.694	1.4	ug/L	148	KED
	Ni -4	60	52093.1	1.0	48.4984	0.541	1.1	ug/L	58	KED
	Ni -5	62	7774.1	2.1	48.1147	0.971	2.0	ug/L	12	KED
	Cu -2	63	132551.2	1.8	48.6430	0.961	2.0	ug/L	287	KED
	Cu -3	65	62473.7	1.3	48.7130	0.763	1.6	ug/L	136	KED
	Zn -3	66	14244.4	0.8	50.3617	0.414	0.8	ug/L	93	KED
	Zn -4	67	2417.2	0.9	51.0751	0.477	0.9	ug/L	15	KED
	Zn -5	68	10938.2	1.2	50.7560	0.407	0.8	ug/L	68	KED
	As-2	75	9822.7	1.0	49.6119	0.714	1.4	ug/L	3	KED
	Y-1	89	61167.0	1.0				ug/L	64897	KED
	Rh-1	103	41267.2	0.7				ug/L	44712	KED
	Cd -2	111	28797.7	0.8	49.6713	0.344	0.7	ug/L	4	KED
	Cd -3	114	75731.5	0.9	49.6381	0.585	1.2	ug/L	8	KED
>	Sc	45	707717.2	1.7				ug/L	772316	Standard
>	Ge	72	422696.5	1.4				ug/L	431846	Standard
>	In	115	415026.2	1.9				ug/L	412957	Standard
>	Tb	159	556716.8	1.6				ug/L	554761	Standard
>	Ge-1	72	28177.4	0.4				ug/L	30473	KED
>	In-1	115	40065.2	0.4				ug/L	42431	KED

### QC Calculated Values

Sample ID: QC Std 1

Report Date/Time: Friday, May 31, 2024 13:33:13

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52	98.670	
	Cr -1	53	99.844	
	Ni	58	98.725	
	Ni -1	60	96.877	
	Ni -2	62	94.168	
	Cu	63	96.167	
	Cu -1	65	95.869	
	Zn	66	98.804	
	Zn -1	67	99.419	
	Zn -2	68	100.021	
	As	75	105.376	
	As-1	75	102.006	
	Se	77	104.722	
	Se -1	78	108.985	
	Br	79		
	Se -2	82	100.312	
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111	100.206	
	Cd -1	114	101.510	
	Ho	165		
	Pb	208	100.070	
	Bi	209		
	Th	232		
	Cr -2	52	98.133	
	Cr -3	53	96.705	
	Ni -3	58	97.095	
	Ni -4	60	96.997	
	Ni -5	62	96.229	
	Cu -2	63	97.286	
	Cu -3	65	97.426	
	Zn -3	66	100.723	
	Zn -4	67	102.150	
	Zn -5	68	101.512	
	As-2	75	99.224	
	Y-1	89		
	Rh-1	103		
	Cd -2	111	99.343	
	Cd -3	114	99.276	
>	Sc	45		91.636
>	Ge	72		97.881
>	In	115		100.501
>	Tb	159		100.353
>	Ge-1	72		92.465
>	In-1	115		94.425

# Quantitative Analysis - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Friday, May 31, 2024 13:35:34

Report Date/Time: Friday, May 31, 2024 13:38:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\QC Std 2.012

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	18836.1	0.5	-0.1230	0.011	9.0	ug/L	23728	Standard
	Cr -1	53	3251.0	1.9	-0.1355	0.041	30.6	ug/L	4227	Standard
	Ni	58	-6088.5	3.5	0.0803	0.014	17.8	ug/L	-9347	Standard
	Ni -1	60	234.7	4.9	0.0308	0.004	12.2	ug/L	242	Standard
	Ni -2	62	2553.9	0.3	1.2415	0.079	6.3	ug/L	1958	Standard
	Cu	63	2892.3	1.4	0.1188	0.007	5.7	ug/L	2502	Standard
	Cu -1	65	511.7	5.0	0.0786	0.004	4.7	ug/L	483	Standard
	Zn	66	763.0	4.4	-0.0303	0.007	22.3	ug/L	770	Standard
	Zn -1	67	155.3	8.5	-0.0874	0.037	42.4	ug/L	161	Standard
	Zn -2	68	788.4	3.3	0.0358	0.013	36.0	ug/L	754	Standard
	As	75	12429.4	2.4	-0.0494	0.023	47.4	ug/L	12256	Standard
	As-1	75	23.9	176.5	-0.0071	0.019	260.4	ug/L	25	Standard
	Se	77	134.7	2.6	-0.1163	0.016	13.5	ug/L	145	Standard
	Se -1	78	12477.4	2.8	0.9229	0.193	20.9	ug/L	12291	Standard
	Br	79	337.0	3.1				ug/L	304	Standard
	Se -2	82	46.7	16.1	0.0923	0.035	37.8	ug/L	42	Standard
	Kr	83	33.3	13.9				ug/L	36	Standard
	Y	89	602295.5	2.4				ug/L	618386	Standard
	Rh	103	106851.9	2.0				ug/L	111544	Standard
	Cd	111	215.4	7.0	-0.0170	0.005	27.4	ug/L	192	Standard
	Cd -1	114	49.0	16.0	-0.0199	0.001	5.7	ug/L	23	Standard
	Ho	165	515302.2	2.8				ug/L	521140	Standard
	Pb	208	752.3	10.1	-0.0157	0.003	16.3	ug/L	518	Standard
	Bi	209	299269.2	0.5				ug/L	295516	Standard
	Th	232	373872.0	1.3				ug/L	378918	Standard
	Cr -2	52	271.3	6.2	-0.0014	0.009	608.4	ug/L	283	KED
	Cr -3	53	33.7	22.3	-0.0238	0.029	121.0	ug/L	38	KED
	Ni -3	58	135.4	6.4	0.0158	0.003	17.0	ug/L	148	KED
	Ni -4	60	52.3	14.5	0.0002	0.007	3493.1	ug/L	58	KED
	Ni -5	62	7.7	49.4	0.0205	0.023	112.1	ug/L	12	KED
	Cu -2	63	296.0	6.4	0.0523	0.008	15.3	ug/L	287	KED
	Cu -3	65	140.0	6.3	0.0723	0.005	7.3	ug/L	136	KED
	Zn -3	66	92.3	8.1	-0.0580	0.022	37.4	ug/L	93	KED
	Zn -4	67	16.0	38.0	-0.0313	0.119	380.6	ug/L	15	KED
	Zn -5	68	63.3	22.4	-0.0176	0.060	342.3	ug/L	68	KED
	As-2	75	6.0	44.1	0.0177	0.013	72.6	ug/L	3	KED
	Y-1	89	63229.3	1.2				ug/L	64897	KED
	Rh-1	103	42842.5	1.4				ug/L	44712	KED
	Cd -2	111	5.3	10.8	-0.0258	0.001	4.1	ug/L	4	KED
	Cd -3	114	8.7	52.0	-0.0346	0.003	8.2	ug/L	8	KED
>	Sc	45	731492.5	1.6				ug/L	772316	Standard
>	Ge	72	425041.3	2.3				ug/L	431846	Standard
>	In	115	415848.9	1.2				ug/L	412957	Standard
>	Tb	159	546517.6	2.0				ug/L	554761	Standard
>	Ge-1	72	29365.5	1.3				ug/L	30473	KED
>	In-1	115	41144.9	0.8				ug/L	42431	KED

### QC Calculated Values

Sample ID: QC Std 2

Report Date/Time: Friday, May 31, 2024 13:38:54

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		94.714
>	Ge	72		98.424
>	In	115		100.700
>	Tb	159		98.514
>	Ge-1	72		96.364
>	In-1	115		96.969

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Friday, May 31, 2024 13:40:27

Report Date/Time: Friday, May 31, 2024 13:43:47

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\QC Std 6.013

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	946056.6	2.6	<b>40.0659</b>	0.614	1.5	ug/L	23728	Standard
	Cr -1	53	110268.1	2.5	<b>40.6275</b>	0.423	1.0	ug/L	4227	Standard
	Ni	58	464453.9	3.3	<b>41.4926</b>	0.699	1.7	ug/L	-9347	Standard
	Ni -1	60	186019.0	2.2	<b>40.4789</b>	0.333	0.8	ug/L	242	Standard
	Ni -2	62	28800.4	3.1	<b>40.1681</b>	0.586	1.5	ug/L	1958	Standard
	Cu	63	411146.3	2.5	<b>40.7120</b>	0.703	1.7	ug/L	2502	Standard
	Cu -1	65	186640.4	2.3	<b>39.9573</b>	0.924	2.3	ug/L	483	Standard
	Zn	66	103165.0	2.9	<b>42.1608</b>	0.921	2.2	ug/L	770	Standard
	Zn -1	67	17072.2	2.1	<b>41.7091</b>	0.696	1.7	ug/L	161	Standard
	Zn -2	68	71991.7	2.1	<b>41.2220</b>	0.615	1.5	ug/L	754	Standard
	As	75	104748.9	2.0	<b>41.7185</b>	0.563	1.3	ug/L	12256	Standard
	As-1	75	95002.8	1.6	<b>40.8561</b>	0.450	1.1	ug/L	25	Standard
	Se	77	6390.1	2.2	<b>42.3898</b>	0.476	1.1	ug/L	145	Standard
	Se -1	78	31051.4	2.2	<b>41.4591</b>	0.648	1.6	ug/L	12291	Standard
	Br	79	331.3	6.4				ug/L	304	Standard
	Se -2	82	8405.8	0.2	<b>40.1357</b>	0.600	1.5	ug/L	42	Standard
	Kr	83	29.3	19.4				ug/L	36	Standard
	Y	89	596860.2	1.0				ug/L	618386	Standard
	Rh	103	106334.7	2.1				ug/L	111544	Standard
	Cd	111	121452.4	3.2	<b>41.1581</b>	0.451	1.1	ug/L	192	Standard
	Cd -1	114	308755.1	1.4	<b>41.1097</b>	0.855	2.1	ug/L	23	Standard
	Ho	165	525425.8	3.0				ug/L	521140	Standard
	Pb	208	1477194.8	2.1	<b>40.5950</b>	0.457	1.1	ug/L	518	Standard
	Bi	209	292148.5	1.5				ug/L	295516	Standard
	Th	232	372933.9	2.0				ug/L	378918	Standard
	Cr -2	52	91380.7	1.7	<b>41.1413</b>	0.223	0.5	ug/L	283	KED
	Cr -3	53	11441.2	0.3	<b>40.9217</b>	0.378	0.9	ug/L	38	KED
	Ni -3	58	106953.8	0.2	<b>40.8173</b>	0.498	1.2	ug/L	148	KED
	Ni -4	60	46670.4	1.1	<b>41.0575</b>	0.065	0.2	ug/L	58	KED
	Ni -5	62	6904.0	1.5	<b>40.3792</b>	0.171	0.4	ug/L	12	KED
	Cu -2	63	116092.2	1.0	<b>40.2566</b>	0.454	1.1	ug/L	287	KED
	Cu -3	65	54865.5	0.7	<b>40.4275</b>	0.250	0.6	ug/L	136	KED
	Zn -3	66	12545.5	0.4	<b>41.8604</b>	0.344	0.8	ug/L	93	KED
	Zn -4	67	2087.5	0.8	<b>41.6270</b>	0.782	1.9	ug/L	15	KED
	Zn -5	68	9410.1	0.9	<b>41.2147</b>	0.268	0.7	ug/L	68	KED
	As-2	75	8559.9	2.2	<b>40.8546</b>	0.513	1.3	ug/L	3	KED
	Y-1	89	63704.1	1.3				ug/L	64897	KED
	Rh-1	103	43545.6	1.0				ug/L	44712	KED
	Cd -2	111	24861.0	1.5	<b>41.3327</b>	0.090	0.2	ug/L	4	KED
	Cd -3	114	65331.0	0.5	<b>41.2771</b>	0.440	1.1	ug/L	8	KED
>	Sc	45	738249.6	1.5				ug/L	772316	Standard
>	Ge	72	426394.7	1.7				ug/L	431846	Standard
>	In	115	420790.5	3.6				ug/L	412957	Standard
>	Tb	159	555490.1	2.6				ug/L	554761	Standard
>	Ge-1	72	29813.7	1.1				ug/L	30473	KED
>	In-1	115	41559.8	1.4				ug/L	42431	KED

### QC Calculated Values

Sample ID: QC Std 6

Report Date/Time: Friday, May 31, 2024 13:43:47

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52	100.165	
	Cr -1	53	101.569	
	Ni	58	103.731	
	Ni -1	60	101.197	
	Ni -2	62	100.420	
	Cu	63	101.780	
	Cu -1	65	99.893	
	Zn	66	105.402	
	Zn -1	67	104.273	
	Zn -2	68	103.055	
	As	75	104.296	
	As-1	75	102.140	
	Se	77	105.975	
	Se -1	78	103.648	
	Br	79		
	Se -2	82	100.339	
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111	102.895	
	Cd -1	114	102.774	
	Ho	165		
	Pb	208	101.487	
	Bi	209		
	Th	232		
	Cr -2	52	102.853	
	Cr -3	53	102.304	
	Ni -3	58	102.043	
	Ni -4	60	102.644	
	Ni -5	62	100.948	
	Cu -2	63	100.642	
	Cu -3	65	101.069	
	Zn -3	66	104.651	
	Zn -4	67	104.067	
	Zn -5	68	103.037	
	As-2	75	102.137	
	Y-1	89		
	Rh-1	103		
	Cd -2	111	103.332	
	Cd -3	114	103.193	
>	Sc	45		95.589
>	Ge	72		98.738
>	In	115		101.897
>	Tb	159		100.131
>	Ge-1	72		97.835
>	In-1	115		97.947

# Quantitative Analysis - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, May 31, 2024 13:46:08

Report Date/Time: Friday, May 31, 2024 13:49:27

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240531C\QC Std 7.014

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	478473.9	1.2	19.4865	0.317	1.6	ug/L	23728	Standard
	Cr -1	53	55724.1	1.3	19.5291	0.284	1.5	ug/L	4227	Standard
	Ni	58	227138.6	1.4	20.2012	0.130	0.6	ug/L	-9347	Standard
	Ni -1	60	93060.9	2.1	19.8240	0.033	0.2	ug/L	242	Standard
	Ni -2	62	15845.8	2.8	20.4660	0.272	1.3	ug/L	1958	Standard
	Cu	63	203386.3	2.7	19.6360	0.154	0.8	ug/L	2502	Standard
	Cu -1	65	94616.5	2.8	19.8202	0.249	1.3	ug/L	483	Standard
	Zn	66	51519.7	1.4	20.4471	0.170	0.8	ug/L	770	Standard
	Zn -1	67	8776.7	2.2	20.7656	0.209	1.0	ug/L	161	Standard
	Zn -2	68	37222.8	0.5	20.6704	0.311	1.5	ug/L	754	Standard
	As	75	57608.8	2.2	19.8446	0.124	0.6	ug/L	12256	Standard
	As-1	75	47004.9	2.5	19.7871	0.098	0.5	ug/L	25	Standard
	Se	77	3142.0	2.5	19.8772	0.173	0.9	ug/L	145	Standard
	Se -1	78	21386.7	1.6	19.3645	0.511	2.6	ug/L	12291	Standard
	Br	79	353.0	6.7				ug/L	304	Standard
	Se -2	82	4262.6	1.9	19.8646	0.009	0.0	ug/L	42	Standard
	Kr	83	36.7	20.1				ug/L	36	Standard
	Y	89	610158.5	3.0				ug/L	618386	Standard
	Rh	103	109790.7	2.0				ug/L	111544	Standard
	Cd	111	59851.3	2.4	19.5872	0.279	1.4	ug/L	192	Standard
	Cd -1	114	152420.0	2.8	19.6228	0.210	1.1	ug/L	23	Standard
	Ho	165	533311.7	1.8				ug/L	521140	Standard
	Pb	208	729252.6	1.2	19.6559	0.330	1.7	ug/L	518	Standard
	Bi	209	299658.6	0.6				ug/L	295516	Standard
	Th	232	379332.1	1.2				ug/L	378918	Standard
	Cr -2	52	45446.5	1.0	20.0925	0.100	0.5	ug/L	283	KED
	Cr -3	53	5568.1	0.9	19.5411	0.159	0.8	ug/L	38	KED
	Ni -3	58	52720.5	2.1	19.7987	0.315	1.6	ug/L	148	KED
	Ni -4	60	23040.6	1.3	19.9433	0.153	0.8	ug/L	58	KED
	Ni -5	62	3380.4	1.6	19.4632	0.214	1.1	ug/L	12	KED
	Cu -2	63	57914.8	1.8	19.7557	0.265	1.3	ug/L	287	KED
	Cu -3	65	27032.2	1.1	19.6043	0.114	0.6	ug/L	136	KED
	Zn -3	66	6279.4	2.8	20.4487	0.516	2.5	ug/L	93	KED
	Zn -4	67	1076.0	4.9	20.9563	0.930	4.4	ug/L	15	KED
	Zn -5	68	4729.1	2.3	20.2511	0.416	2.1	ug/L	68	KED
	As-2	75	4137.9	3.4	19.4491	0.579	3.0	ug/L	3	KED
	Y-1	89	65109.1	1.7				ug/L	64897	KED
	Rh-1	103	44475.5	0.4				ug/L	44712	KED
	Cd -2	111	12272.3	2.5	19.7778	0.183	0.9	ug/L	4	KED
	Cd -3	114	32582.8	1.8	19.9523	0.116	0.6	ug/L	8	KED
>	Sc	45	749672.0	2.7				ug/L	772316	Standard
>	Ge	72	435353.7	2.0				ug/L	431846	Standard
>	In	115	434614.2	1.8				ug/L	412957	Standard
>	Tb	159	565940.9	2.9				ug/L	554761	Standard
>	Ge-1	72	30264.4	0.5				ug/L	30473	KED
>	In-1	115	42831.5	1.6				ug/L	42431	KED

## QC Calculated Values

Sample ID: QC Std 7

Report Date/Time: Friday, May 31, 2024 13:49:27

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52	97.433	
	Cr -1	53	97.645	
	Ni	58	101.006	
	Ni -1	60	99.120	
	Ni -2	62	102.330	
	Cu	63	98.180	
	Cu -1	65	99.101	
	Zn	66	102.235	
	Zn -1	67	103.828	
	Zn -2	68	103.352	
	As	75	99.223	
	As-1	75	98.936	
	Se	77	99.386	
	Se -1	78	96.822	
	Br	79		
	Se -2	82	99.323	
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111	97.936	
	Cd -1	114	98.114	
	Ho	165		
	Pb	208	98.279	
	Bi	209		
	Th	232		
	Cr -2	52	100.463	
	Cr -3	53	97.706	
	Ni -3	58	98.994	
	Ni -4	60	99.717	
	Ni -5	62	97.316	
	Cu -2	63	98.778	
	Cu -3	65	98.022	
	Zn -3	66	102.244	
	Zn -4	67	104.782	
	Zn -5	68	101.255	
	As-2	75	97.246	
	Y-1	89		
	Rh-1	103		
	Cd -2	111	98.889	
	Cd -3	114	99.762	
>	Sc	45		97.068
>	Ge	72		100.812
>	In	115		105.245
>	Tb	159		102.015
>	Ge-1	72		99.314
>	In-1	115		100.944

# Quantitative Analysis - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Friday, May 31, 2024 13:51:49

Report Date/Time: Friday, May 31, 2024 13:55:09

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\QC Std 8.015

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	18439.2	0.6	-0.1252	0.006	5.1	ug/L	23728	Standard
	Cr -1	53	2829.3	2.1	-0.2774	0.030	10.9	ug/L	4227	Standard
	Ni	58	-5946.3	0.8	0.0885	0.019	21.0	ug/L	-9347	Standard
	Ni -1	60	229.3	4.4	0.0299	0.002	6.4	ug/L	242	Standard
	Ni -2	62	2275.5	1.3	0.8528	0.067	7.9	ug/L	1958	Standard
	Cu	63	2674.3	1.8	0.0991	0.003	3.1	ug/L	2502	Standard
	Cu -1	65	458.3	6.1	0.0678	0.004	6.1	ug/L	483	Standard
	Zn	66	714.0	3.3	-0.0481	0.010	19.8	ug/L	770	Standard
	Zn -1	67	136.7	3.0	-0.1311	0.020	15.1	ug/L	161	Standard
	Zn -2	68	751.4	0.3	0.0179	0.014	80.4	ug/L	754	Standard
	As	75	12470.2	1.5	0.0136	0.081	596.3	ug/L	12256	Standard
	As-1	75	5.5	1186.4	-0.0159	0.029	181.0	ug/L	25	Standard
	Se	77	128.3	12.2	-0.1504	0.135	89.6	ug/L	145	Standard
	Se -1	78	12519.5	1.3	1.2337	0.454	36.8	ug/L	12291	Standard
	Br	79	327.3	0.8				ug/L	304	Standard
	Se -2	82	40.0	39.1	0.0604	0.071	117.9	ug/L	42	Standard
	Kr	83	30.3	21.2				ug/L	36	Standard
	Y	89	597709.9	3.3				ug/L	618386	Standard
	Rh	103	106793.7	1.5				ug/L	111544	Standard
	Cd	111	217.7	5.9	-0.0155	0.004	25.7	ug/L	192	Standard
	Cd -1	114	24.5	73.7	-0.0232	0.002	10.5	ug/L	23	Standard
	Ho	165	511457.1	2.5				ug/L	521140	Standard
	Pb	208	638.7	3.0	-0.0190	0.001	5.1	ug/L	518	Standard
	Bi	209	293502.1	1.5				ug/L	295516	Standard
	Th	232	361471.1	1.6				ug/L	378918	Standard
	Cr -2	52	272.7	2.2	0.0035	0.002	52.7	ug/L	283	KED
	Cr -3	53	35.7	26.5	-0.0120	0.036	298.3	ug/L	38	KED
	Ni -3	58	116.1	6.4	0.0100	0.003	25.7	ug/L	148	KED
	Ni -4	60	53.0	10.5	0.0025	0.005	205.6	ug/L	58	KED
	Ni -5	62	8.0	33.1	0.0240	0.016	66.6	ug/L	12	KED
	Cu -2	63	270.3	7.2	0.0466	0.007	15.4	ug/L	287	KED
	Cu -3	65	124.3	11.0	0.0639	0.010	15.8	ug/L	136	KED
	Zn -3	66	98.3	12.9	-0.0254	0.043	171.0	ug/L	93	KED
	Zn -4	67	16.0	31.3	-0.0192	0.103	539.1	ug/L	15	KED
	Zn -5	68	66.0	16.7	0.0053	0.051	958.3	ug/L	68	KED
	As-2	75	4.0	75.0	0.0088	0.015	173.7	ug/L	3	KED
	Y-1	89	61941.7	0.7				ug/L	64897	KED
	Rh-1	103	41827.5	0.8				ug/L	44712	KED
	Cd -2	111	6.0	44.1	-0.0246	0.004	17.9	ug/L	4	KED
	Cd -3	114	9.0	48.4	-0.0343	0.003	8.3	ug/L	8	KED
>	Sc	45	717923.4	1.1				ug/L	772316	Standard
>	Ge	72	421841.7	2.9				ug/L	431846	Standard
>	In	115	412205.5	0.6				ug/L	412957	Standard
>	Tb	159	549084.3	2.5				ug/L	554761	Standard
>	Ge-1	72	28356.1	0.9				ug/L	30473	KED
>	In-1	115	40793.6	0.8				ug/L	42431	KED

### QC Calculated Values

Sample ID: QC Std 8

Report Date/Time: Friday, May 31, 2024 13:55:09

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		92.957
>	Ge	72		97.683
>	In	115		99.818
>	Tb	159		98.977
>	Ge-1	72		93.052
>	In-1	115		96.141

## Quantitative Analysis - Summary Report

Sample ID: MB0529WM1 2X

Sample Date/Time: Friday, May 31, 2024 13:56:40

Report Date/Time: Friday, May 31, 2024 14:00:00

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\MB0529WM1 2X.016

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	18059.4	2.7	-0.1119	0.019	16.7	ug/L	23728	Standard
	Cr -1	53	2677.9	1.5	-0.2973	0.022	7.4	ug/L	4227	Standard
	Ni	58	-5645.0	2.3	0.1176	0.022	18.3	ug/L	-9347	Standard
	Ni -1	60	164.7	9.9	0.0156	0.005	29.2	ug/L	242	Standard
	Ni -2	62	2074.5	1.5	0.5382	0.116	21.6	ug/L	1958	Standard
	Cu	63	2782.6	1.0	0.1088	0.005	4.2	ug/L	2502	Standard
	Cu -1	65	596.0	6.3	0.0971	0.007	6.9	ug/L	483	Standard
	Zn	66	615.7	4.9	-0.0900	0.018	20.4	ug/L	770	Standard
	Zn -1	67	126.3	7.8	-0.1582	0.031	19.9	ug/L	161	Standard
	Zn -2	68	658.3	4.4	-0.0384	0.017	44.1	ug/L	754	Standard
	As	75	12852.7	1.8	0.1618	0.062	38.3	ug/L	12256	Standard
	As-1	75	-43.8	65.3	-0.0367	0.012	34.0	ug/L	25	Standard
	Se	77	109.3	9.3	-0.2865	0.071	24.6	ug/L	145	Standard
	Se -1	78	12952.2	1.8	2.0596	0.360	17.5	ug/L	12291	Standard
	Br	79	366.3	3.4				ug/L	304	Standard
	Se -2	82	41.0	10.6	0.0662	0.025	38.3	ug/L	42	Standard
	Kr	83	27.7	5.5				ug/L	36	Standard
	Y	89	583225.8	1.1				ug/L	618386	Standard
	Rh	103	103273.4	2.2				ug/L	111544	Standard
	Cd	111	207.9	10.0	-0.0176	0.005	30.9	ug/L	192	Standard
	Cd -1	114	29.9	39.6	-0.0223	0.002	7.9	ug/L	23	Standard
	Ho	165	513299.8	2.8				ug/L	521140	Standard
	Pb	208	1090.0	1.9	-0.0059	0.001	13.6	ug/L	518	Standard
	Bi	209	288780.3	0.7				ug/L	295516	Standard
	Th	232	355178.3	2.6				ug/L	378918	Standard
	Cr -2	52	287.7	3.9	0.0131	0.006	42.4	ug/L	283	KED
	Cr -3	53	40.0	13.9	0.0069	0.021	305.5	ug/L	38	KED
	Ni -3	58	99.2	14.0	0.0039	0.006	145.4	ug/L	148	KED
	Ni -4	60	41.3	22.0	-0.0076	0.009	115.7	ug/L	58	KED
	Ni -5	62	6.7	56.8	0.0165	0.024	142.8	ug/L	12	KED
	Cu -2	63	342.3	4.3	0.0750	0.005	7.0	ug/L	287	KED
	Cu -3	65	159.3	8.4	0.0933	0.010	10.7	ug/L	136	KED
	Zn -3	66	75.0	7.1	-0.1031	0.021	20.8	ug/L	93	KED
	Zn -4	67	16.0	12.5	-0.0127	0.042	330.2	ug/L	15	KED
	Zn -5	68	45.3	2.5	-0.0868	0.006	7.1	ug/L	68	KED
	As-2	75	2.3	65.5	0.0005	0.008	1478.7	ug/L	3	KED
	Y-1	89	61066.6	0.8				ug/L	64897	KED
	Rh-1	103	40816.2	1.1				ug/L	44712	KED
	Cd -2	111	4.0	43.3	-0.0278	0.003	10.9	ug/L	4	KED
	Cd -3	114	11.7	9.9	-0.0325	0.001	2.6	ug/L	8	KED
>	Sc	45	691877.3	0.7				ug/L	772316	Standard
>	Ge	72	423724.2	2.6				ug/L	431846	Standard
>	In	115	404307.8	2.8				ug/L	412957	Standard
>	Tb	159	539757.3	0.9				ug/L	554761	Standard
>	Ge-1	72	27863.1	0.9				ug/L	30473	KED
>	In-1	115	40042.3	1.2				ug/L	42431	KED

### QC Calculated Values

Sample ID: MB0529WM1 2X

Report Date/Time: Friday, May 31, 2024 14:00:00

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		89.585
>	Ge	72		98.119
>	In	115		97.906
>	Tb	159		97.296
>	Ge-1	72		91.434
>	In-1	115		94.371

## Quantitative Analysis - Summary Report

Sample ID: SB0529WM1 2X

Sample Date/Time: Friday, May 31, 2024 14:02:20

Report Date/Time: Friday, May 31, 2024 14:05:40

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\SB0529WM1 2X.017

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	1047146.2	1.4	46.0167	0.198	0.4	ug/L	23728	Standard
	Cr -1	53	120342.6	2.0	46.0483	0.329	0.7	ug/L	4227	Standard
	Ni	58	506534.3	1.8	46.8187	0.504	1.1	ug/L	-9347	Standard
	Ni -1	60	204996.8	1.2	46.2348	0.803	1.7	ug/L	242	Standard
	Ni -2	62	31022.0	1.4	45.1416	0.694	1.5	ug/L	1958	Standard
	Cu	63	451408.1	2.3	46.3367	0.229	0.5	ug/L	2502	Standard
	Cu -1	65	208764.7	2.7	46.3053	0.262	0.6	ug/L	483	Standard
	Zn	66	112690.9	4.0	47.7489	0.727	1.5	ug/L	770	Standard
	Zn -1	67	18949.9	4.4	48.0207	0.950	2.0	ug/L	161	Standard
	Zn -2	68	80440.9	2.4	47.7880	0.215	0.4	ug/L	754	Standard
	As	75	117550.9	2.9	49.4273	0.068	0.1	ug/L	12256	Standard
	As-1	75	107784.1	2.9	48.0215	0.219	0.5	ug/L	25	Standard
	Se	77	6979.0	1.5	48.1141	0.728	1.5	ug/L	145	Standard
	Se -1	78	34019.8	3.5	50.6269	1.158	2.3	ug/L	12291	Standard
	Br	79	421.3	9.0				ug/L	304	Standard
	Se -2	82	9566.9	3.2	47.3362	0.206	0.4	ug/L	42	Standard
	Kr	83	30.0	12.0				ug/L	36	Standard
	Y	89	583130.0	3.9				ug/L	618386	Standard
	Rh	103	102133.2	1.7				ug/L	111544	Standard
	Cd	111	132951.0	1.5	47.0016	0.109	0.2	ug/L	192	Standard
	Cd -1	114	344037.4	2.4	47.7570	0.590	1.2	ug/L	23	Standard
	Ho	165	503758.3	0.5				ug/L	521140	Standard
	Pb	208	1633115.1	1.2	46.5376	0.501	1.1	ug/L	518	Standard
	Bi	209	284938.4	2.1				ug/L	295516	Standard
	Th	232	360544.0	0.3				ug/L	378918	Standard
	Cr -2	52	101559.4	0.6	47.9307	0.460	1.0	ug/L	283	KED
	Cr -3	53	12632.6	0.7	47.3609	0.494	1.0	ug/L	38	KED
	Ni -3	58	118305.7	1.2	47.3074	0.650	1.4	ug/L	148	KED
	Ni -4	60	51290.3	1.3	47.2845	0.741	1.6	ug/L	58	KED
	Ni -5	62	7560.7	2.5	46.3366	1.209	2.6	ug/L	12	KED
	Cu -2	63	129615.7	0.8	47.0990	0.428	0.9	ug/L	287	KED
	Cu -3	65	60548.7	1.6	46.7485	0.721	1.5	ug/L	136	KED
	Zn -3	66	13888.7	1.8	48.6126	0.942	1.9	ug/L	93	KED
	Zn -4	67	2258.8	2.0	47.2392	1.161	2.5	ug/L	15	KED
	Zn -5	68	10439.1	1.4	47.9505	0.488	1.0	ug/L	68	KED
	As-2	75	9488.2	1.0	47.4537	0.697	1.5	ug/L	3	KED
	Y-1	89	61228.3	0.8				ug/L	64897	KED
	Rh-1	103	41546.3	1.6				ug/L	44712	KED
	Cd -2	111	27450.0	1.1	47.0848	0.685	1.5	ug/L	4	KED
	Cd -3	114	71707.2	0.8	46.7371	0.317	0.7	ug/L	8	KED
>	Sc	45	713691.4	1.8				ug/L	772316	Standard
>	Ge	72	411573.5	2.8				ug/L	431846	Standard
>	In	115	403416.0	1.3				ug/L	412957	Standard
>	Tb	159	535708.1	0.6				ug/L	554761	Standard
>	Ge-1	72	28455.3	0.5				ug/L	30473	KED
>	In-1	115	40287.9	0.4				ug/L	42431	KED

### QC Calculated Values

Sample ID: SB0529WM1 2X

Report Date/Time: Friday, May 31, 2024 14:05:40

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		92.409
>	Ge	72		95.306
>	In	115		97.690
>	Tb	159		96.566
>	Ge-1	72		93.377
>	In-1	115		94.950

## Quantitative Analysis - Summary Report

Sample ID: 05-300-07b 2X

Sample Date/Time: Friday, May 31, 2024 14:08:00

Report Date/Time: Friday, May 31, 2024 14:11:19

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240531C\05-300-07b 2X.018

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	29176.1	2.2	0.4275	0.019	4.5	ug/L	23728	Standard
	Cr -1	53	7412.6	2.4	1.6857	0.144	8.5	ug/L	4227	Standard
	Ni	58	-2265.9	17.7	0.3955	0.045	11.5	ug/L	-9347	Standard
	Ni -1	60	2545.6	3.0	0.5954	0.009	1.6	ug/L	242	Standard
	Ni -2	62	2549.2	4.3	1.6475	0.280	17.0	ug/L	1958	Standard
	Cu	63	15761.4	2.3	1.5723	0.013	0.8	ug/L	2502	Standard
	Cu -1	65	6473.8	2.4	1.5102	0.020	1.4	ug/L	483	Standard
	Zn	66	7602.4	1.8	3.1375	0.113	3.6	ug/L	770	Standard
	Zn -1	67	1366.7	2.1	3.2807	0.023	0.7	ug/L	161	Standard
	Zn -2	68	6071.3	2.3	3.4822	0.067	1.9	ug/L	754	Standard
	As	75	12724.1	2.3	0.7083	0.052	7.3	ug/L	12256	Standard
	As-1	75	1043.6	15.7	0.4808	0.072	15.0	ug/L	25	Standard
	Se	77	216.3	11.1	0.6033	0.225	37.3	ug/L	145	Standard
	Se -1	78	11802.5	1.8	2.2424	0.271	12.1	ug/L	12291	Standard
	Br	79	14559.7	1.3				ug/L	304	Standard
	Se -2	82	65.3	12.3	0.2154	0.034	15.7	ug/L	42	Standard
	Kr	83	29.7	17.3				ug/L	36	Standard
	Y	89	537021.7	2.6				ug/L	618386	Standard
	Rh	103	94283.9	2.0				ug/L	111544	Standard
	Cd	111	227.9	14.8	-0.0048	0.015	308.9	ug/L	192	Standard
	Cd -1	114	67.5	18.1	-0.0165	0.002	12.3	ug/L	23	Standard
	Ho	165	471497.1	1.6				ug/L	521140	Standard
	Pb	208	3330.1	2.3	0.0658	0.005	7.2	ug/L	518	Standard
	Bi	209	260619.8	1.5				ug/L	295516	Standard
	Th	232	340027.3	1.9				ug/L	378918	Standard
	Cr -2	52	1055.0	4.4	0.4009	0.026	6.6	ug/L	283	KED
	Cr -3	53	177.7	47.7	0.5592	0.341	60.9	ug/L	38	KED
	Ni -3	58	1458.9	6.1	0.5796	0.042	7.3	ug/L	148	KED
	Ni -4	60	496.3	10.8	0.4364	0.050	11.4	ug/L	58	KED
	Ni -5	62	75.0	16.7	0.4598	0.078	17.1	ug/L	12	KED
	Cu -2	63	3977.9	1.1	1.4745	0.005	0.3	ug/L	287	KED
	Cu -3	65	1856.8	5.8	1.4816	0.099	6.7	ug/L	136	KED
	Zn -3	66	890.4	2.6	2.9403	0.108	3.7	ug/L	93	KED
	Zn -4	67	171.3	7.5	3.4503	0.254	7.4	ug/L	15	KED
	Zn -5	68	773.4	5.2	3.4703	0.185	5.3	ug/L	68	KED
	As-2	75	96.7	12.9	0.4990	0.069	13.7	ug/L	3	KED
	Y-1	89	58536.4	0.4				ug/L	64897	KED
	Rh-1	103	38917.9	0.3				ug/L	44712	KED
	Cd -2	111	5.0	34.6	-0.0256	0.003	12.4	ug/L	4	KED
	Cd -3	114	11.3	10.2	-0.0322	0.001	2.8	ug/L	8	KED
>	Sc	45	679312.8	2.4				ug/L	772316	Standard
>	Ge	72	383639.9	2.6				ug/L	431846	Standard
>	In	115	378773.5	2.3				ug/L	412957	Standard
>	Tb	159	496425.7	2.4				ug/L	554761	Standard
>	Ge-1	72	26970.8	0.8				ug/L	30473	KED
>	In-1	115	37621.7	1.8				ug/L	42431	KED

### QC Calculated Values

Sample ID: 05-300-07b 2X

Report Date/Time: Friday, May 31, 2024 14:11:19

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		87.958
>	Ge	72		88.837
>	In	115		91.722
>	Tb	159		89.485
>	Ge-1	72		88.506
>	In-1	115		88.666

## Quantitative Analysis - Summary Report

**Sample ID: 05-300-07bD 2X**

Sample Date/Time: Friday, May 31, 2024 14:13:39

Report Date/Time: Friday, May 31, 2024 14:16:59

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\05-300-07bD 2X.019

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	28665.1	1.3	0.3509	0.018	5.1	ug/L	23728	Standard
	Cr -1	53	6153.3	0.8	1.0632	0.022	2.1	ug/L	4227	Standard
	Ni	58	-1884.8	23.7	0.4408	0.047	10.6	ug/L	-9347	Standard
	Ni -1	60	2683.3	0.4	0.6009	0.017	2.9	ug/L	242	Standard
	Ni -2	62	2136.2	1.6	0.8107	0.119	14.7	ug/L	1958	Standard
	Cu	63	15951.9	0.5	1.5174	0.040	2.7	ug/L	2502	Standard
	Cu -1	65	6553.2	1.5	1.4618	0.030	2.0	ug/L	483	Standard
	Zn	66	7594.7	3.0	2.9817	0.062	2.1	ug/L	770	Standard
	Zn -1	67	1350.1	2.8	3.0738	0.030	1.0	ug/L	161	Standard
	Zn -2	68	6105.3	4.4	3.3323	0.084	2.5	ug/L	754	Standard
	As	75	12747.5	2.2	0.4424	0.093	21.1	ug/L	12256	Standard
	As-1	75	984.4	6.2	0.4323	0.018	4.1	ug/L	25	Standard
	Se	77	176.3	3.6	0.2407	0.072	29.9	ug/L	145	Standard
	Se -1	78	11860.3	1.8	1.1340	0.443	39.1	ug/L	12291	Standard
	Br	79	15540.5	2.5				ug/L	304	Standard
	Se -2	82	55.7	8.9	0.1519	0.029	18.9	ug/L	42	Standard
	Kr	83	34.0	19.3				ug/L	36	Standard
	Y	89	554561.7	0.8				ug/L	618386	Standard
	Rh	103	96493.8	1.2				ug/L	111544	Standard
	Cd	111	208.3	2.8	-0.0139	0.003	19.7	ug/L	192	Standard
	Cd -1	114	33.3	15.4	-0.0217	0.001	2.8	ug/L	23	Standard
	Ho	165	471440.4	2.5				ug/L	521140	Standard
	Pb	208	3244.8	2.8	0.0630	0.001	1.9	ug/L	518	Standard
	Bi	209	259831.4	1.8				ug/L	295516	Standard
	Th	232	338218.4	0.8				ug/L	378918	Standard
	Cr -2	52	996.7	4.2	0.3530	0.021	5.8	ug/L	283	KED
	Cr -3	53	137.7	3.4	0.3790	0.019	4.9	ug/L	38	KED
	Ni -3	58	1533.5	2.9	0.5865	0.017	2.9	ug/L	148	KED
	Ni -4	60	497.0	3.7	0.4191	0.018	4.2	ug/L	58	KED
	Ni -5	62	75.7	6.7	0.4459	0.031	6.9	ug/L	12	KED
	Cu -2	63	4030.9	1.9	1.4368	0.027	1.9	ug/L	287	KED
	Cu -3	65	1905.1	0.8	1.4622	0.012	0.8	ug/L	136	KED
	Zn -3	66	937.0	1.0	2.9825	0.037	1.3	ug/L	93	KED
	Zn -4	67	181.3	12.5	3.5223	0.482	13.7	ug/L	15	KED
	Zn -5	68	751.4	1.2	3.2257	0.048	1.5	ug/L	68	KED
	As-2	75	98.3	30.8	0.4880	0.153	31.4	ug/L	3	KED
	Y-1	89	60022.2	0.6				ug/L	64897	KED
	Rh-1	103	40164.0	0.8				ug/L	44712	KED
	Cd -2	111	5.7	20.4	-0.0247	0.002	7.7	ug/L	4	KED
	Cd -3	114	12.7	12.1	-0.0315	0.001	3.1	ug/L	8	KED
>	Sc	45	706734.4	0.3				ug/L	772316	Standard
>	Ge	72	401024.1	2.5				ug/L	431846	Standard
>	In	115	386635.8	2.9				ug/L	412957	Standard
>	Tb	159	496870.3	1.8				ug/L	554761	Standard
>	Ge-1	72	28023.5	0.1				ug/L	30473	KED
>	In-1	115	38748.3	1.4				ug/L	42431	KED

### QC Calculated Values

Sample ID: 05-300-07bD 2X

Report Date/Time: Friday, May 31, 2024 14:16:59

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		91.508
>	Ge	72		92.863
>	In	115		93.626
>	Tb	159		89.565
>	Ge-1	72		91.960
>	In-1	115		91.321

# Quantitative Analysis - Summary Report

**Sample ID: 05-300-07bL 10X**

Sample Date/Time: Friday, May 31, 2024 14:19:56

Report Date/Time: Friday, May 31, 2024 14:23:15

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\05-300-07bL 10X.020

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Cr	52	23516.3	0.7	<b>0.0855</b>	0.011	12.7	ug/L	23728		Standard
	Cr -1	53	3509.8	1.2	<b>-0.0313</b>	0.022	68.9	ug/L	4227		Standard
	Ni	58	-6609.0	6.8	<b>0.0126</b>	0.055	435.9	ug/L	-9347		Standard
	Ni -1	60	684.3	4.7	<b>0.1342</b>	0.004	2.8	ug/L	242		Standard
	Ni -2	62	1582.1	2.7	<b>-0.1200</b>	0.127	105.6	ug/L	1958		Standard
	Cu	63	4483.4	2.6	<b>0.2935</b>	0.008	2.7	ug/L	2502		Standard
	Cu -1	65	1504.7	2.4	<b>0.3038</b>	0.014	4.5	ug/L	483		Standard
	Zn	66	2216.5	4.6	<b>0.6030</b>	0.018	3.0	ug/L	770		Standard
	Zn -1	67	402.0	8.6	<b>0.5582</b>	0.062	11.2	ug/L	161		Standard
	Zn -2	68	1807.4	3.1	<b>0.6646</b>	0.019	2.9	ug/L	754		Standard
	As	75	12064.2	1.2	<b>-0.0179</b>	0.097	545.4	ug/L	12256		Standard
	As-1	75	150.6	6.0	<b>0.0496</b>	0.002	4.4	ug/L	25		Standard
	Se	77	111.7	16.6	<b>-0.2480</b>	0.109	44.0	ug/L	145		Standard
	Se -1	78	11957.7	1.1	<b>0.7301</b>	0.510	69.9	ug/L	12291		Standard
	Br	79	3770.8	4.0				ug/L	304		Standard
	Se -2	82	35.0	13.1	<b>0.0428</b>	0.027	64.0	ug/L	42		Standard
	Kr	83	29.7	12.8				ug/L	36		Standard
	Y	89	587395.7	0.8				ug/L	618386		Standard
	Rh	103	101979.7	0.7				ug/L	111544		Standard
	Cd	111	212.9	5.4	<b>-0.0145</b>	0.005	33.2	ug/L	192		Standard
	Cd -1	114	36.9	16.1	<b>-0.0213</b>	0.001	4.1	ug/L	23		Standard
	Ho	165	483745.6	3.0				ug/L	521140		Standard
	Pb	208	1041.7	2.4	<b>-0.0061</b>	0.000	7.3	ug/L	518		Standard
	Bi	209	266995.0	0.9				ug/L	295516		Standard
	Th	232	319100.4	3.1				ug/L	378918		Standard
	Cr -2	52	401.7	2.4	<b>0.0589</b>	0.007	11.8	ug/L	283		KED
	Cr -3	53	48.7	6.6	<b>0.0312</b>	0.011	34.7	ug/L	38		KED
	Ni -3	58	372.4	11.3	<b>0.1083</b>	0.018	16.2	ug/L	148		KED
	Ni -4	60	133.0	8.7	<b>0.0728</b>	0.012	16.8	ug/L	58		KED
	Ni -5	62	21.0	4.8	<b>0.0999</b>	0.004	4.4	ug/L	12		KED
	Cu -2	63	920.7	2.5	<b>0.2733</b>	0.003	0.9	ug/L	287		KED
	Cu -3	65	464.3	3.6	<b>0.3162</b>	0.007	2.2	ug/L	136		KED
	Zn -3	66	273.7	8.4	<b>0.5658</b>	0.094	16.7	ug/L	93		KED
	Zn -4	67	53.7	7.8	<b>0.7432</b>	0.103	13.9	ug/L	15		KED
	Zn -5	68	229.0	1.5	<b>0.7282</b>	0.029	4.0	ug/L	68		KED
	As-2	75	19.0	36.8	<b>0.0809</b>	0.034	41.9	ug/L	3		KED
	Y-1	89	61644.4	0.6				ug/L	64897		KED
	Rh-1	103	42047.1	1.3				ug/L	44712		KED
	Cd -2	111	5.0	52.9	<b>-0.0261</b>	0.005	17.4	ug/L	4		KED
	Cd -3	114	10.0	17.3	<b>-0.0336</b>	0.001	3.5	ug/L	8		KED
>	Sc	45	728772.9	1.0				ug/L	772316		Standard
>	Ge	72	410381.8	2.7				ug/L	431846		Standard
>	In	115	398105.1	1.3				ug/L	412957		Standard
>	Tb	159	517937.9	1.1				ug/L	554761		Standard
>	Ge-1	72	29277.6	1.7				ug/L	30473		KED
>	In-1	115	40033.2	0.4				ug/L	42431		KED

### QC Calculated Values

Sample ID: 05-300-07bL 10X

Report Date/Time: Friday, May 31, 2024 14:23:15

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		94.362
>	Ge	72		95.030
>	In	115		96.404
>	Tb	159		93.362
>	Ge-1	72		96.076
>	In-1	115		94.349

## Quantitative Analysis - Summary Report

**Sample ID: 05-300-07bMS 2X**

Sample Date/Time: Friday, May 31, 2024 14:25:35

Report Date/Time: Friday, May 31, 2024 14:28:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\05-300-07bMS 2X.021

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	1120275.3	2.2	<b>48.5435</b>	0.694	1.4	ug/L	23728	Standard
	Cr -1	53	128962.4	2.6	<b>48.6833</b>	0.654	1.3	ug/L	4227	Standard
	Ni	58	537029.5	1.7	<b>50.2066</b>	0.334	0.7	ug/L	-9347	Standard
	Ni -1	60	215776.4	2.6	<b>49.2572</b>	0.313	0.6	ug/L	242	Standard
	Ni -2	62	32007.2	3.1	<b>47.2515</b>	0.452	1.0	ug/L	1958	Standard
	Cu	63	477229.8	2.5	<b>49.6047</b>	0.241	0.5	ug/L	2502	Standard
	Cu -1	65	223067.5	2.0	<b>50.0986</b>	0.137	0.3	ug/L	483	Standard
	Zn	66	123607.5	0.3	<b>53.0947</b>	1.166	2.2	ug/L	770	Standard
	Zn -1	67	21156.3	2.8	<b>54.3536</b>	0.551	1.0	ug/L	161	Standard
	Zn -2	68	88598.6	0.6	<b>53.3515</b>	1.091	2.0	ug/L	754	Standard
	As	75	123085.7	1.6	<b>52.7522</b>	0.702	1.3	ug/L	12256	Standard
	As-1	75	113495.1	1.3	<b>51.2083</b>	0.676	1.3	ug/L	25	Standard
	Se	77	7345.2	4.1	<b>51.3206</b>	1.561	3.0	ug/L	145	Standard
	Se -1	78	35273.8	2.7	<b>54.4686</b>	0.777	1.4	ug/L	12291	Standard
	Br	79	14055.2	2.0				ug/L	304	Standard
	Se -2	82	10129.9	1.7	<b>50.7655</b>	0.256	0.5	ug/L	42	Standard
	Kr	83	32.3	7.8				ug/L	36	Standard
	Y	89	584829.2	3.2				ug/L	618386	Standard
	Rh	103	102714.4	2.3				ug/L	111544	Standard
	Cd	111	139250.2	2.2	<b>49.1877</b>	0.490	1.0	ug/L	192	Standard
	Cd -1	114	358808.6	2.5	<b>49.7648</b>	0.628	1.3	ug/L	23	Standard
	Ho	165	499850.4	2.8				ug/L	521140	Standard
	Pb	208	1667733.8	2.4	<b>47.9587</b>	0.487	1.0	ug/L	518	Standard
	Bi	209	275584.5	2.5				ug/L	295516	Standard
	Th	232	360718.7	1.2				ug/L	378918	Standard
	Cr -2	52	101978.4	1.3	<b>48.8699</b>	1.100	2.3	ug/L	283	KED
	Cr -3	53	12834.1	0.7	<b>48.8559</b>	0.574	1.2	ug/L	38	KED
	Ni -3	58	119964.5	0.5	<b>48.7063</b>	0.703	1.4	ug/L	148	KED
	Ni -4	60	51870.0	0.6	<b>48.5517</b>	0.715	1.5	ug/L	58	KED
	Ni -5	62	7784.5	0.5	<b>48.4389</b>	0.588	1.2	ug/L	12	KED
	Cu -2	63	134613.3	1.3	<b>49.6674</b>	0.945	1.9	ug/L	287	KED
	Cu -3	65	62682.6	1.7	<b>49.1410</b>	1.168	2.4	ug/L	136	KED
	Zn -3	66	14730.6	2.0	<b>52.3792</b>	1.382	2.6	ug/L	93	KED
	Zn -4	67	2460.2	1.7	<b>52.2770</b>	1.398	2.7	ug/L	15	KED
	Zn -5	68	11061.6	0.8	<b>51.6123</b>	0.761	1.5	ug/L	68	KED
	As-2	75	9726.6	0.5	<b>49.3875</b>	0.208	0.4	ug/L	3	KED
	Y-1	89	60681.6	1.1				ug/L	64897	KED
	Rh-1	103	40409.1	0.8				ug/L	44712	KED
	Cd -2	111	27877.2	1.6	<b>49.1340</b>	0.222	0.5	ug/L	4	KED
	Cd -3	114	72796.0	0.7	<b>48.7589</b>	0.386	0.8	ug/L	8	KED
>	Sc	45	724754.5	3.6				ug/L	772316	Standard
>	Ge	72	406496.4	2.2				ug/L	431846	Standard
>	In	115	403762.7	1.3				ug/L	412957	Standard
>	Tb	159	530985.9	3.4				ug/L	554761	Standard
>	Ge-1	72	28028.1	0.9				ug/L	30473	KED
>	In-1	115	39207.4	1.3				ug/L	42431	KED

### QC Calculated Values

Sample ID: 05-300-07bMS 2X

Report Date/Time: Friday, May 31, 2024 14:28:54

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		93.842
>	Ge	72		94.130
>	In	115		97.774
>	Tb	159		95.714
>	Ge-1	72		91.976
>	In-1	115		92.403

## Quantitative Analysis - Summary Report

Sample ID: 05-300-07bMSD 2X

Sample Date/Time: Friday, May 31, 2024 14:31:15

Report Date/Time: Friday, May 31, 2024 14:34:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\05-300-07bMSD 2X.022

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	1098174.0	1.7	48.9921	0.673	1.4	ug/L	23728	Standard
	Cr -1	53	128204.7	0.8	49.8557	0.207	0.4	ug/L	4227	Standard
	Ni	58	537722.5	2.6	50.8164	0.685	1.3	ug/L	-9347	Standard
	Ni -1	60	213537.6	1.4	49.2950	0.504	1.0	ug/L	242	Standard
	Ni -2	62	32147.1	2.4	48.0295	0.321	0.7	ug/L	1958	Standard
	Cu	63	482348.0	2.3	50.6980	0.406	0.8	ug/L	2502	Standard
	Cu -1	65	220336.7	2.1	50.0327	0.187	0.4	ug/L	483	Standard
	Zn	66	124869.9	2.2	54.2222	0.383	0.7	ug/L	770	Standard
	Zn -1	67	21211.7	1.5	55.1144	0.160	0.3	ug/L	161	Standard
	Zn -2	68	88404.1	1.6	53.8168	0.311	0.6	ug/L	754	Standard
	As	75	122521.2	2.1	53.1227	0.412	0.8	ug/L	12256	Standard
	As-1	75	112780.8	2.4	51.4426	0.680	1.3	ug/L	25	Standard
	Se	77	7389.6	2.5	52.2240	0.499	1.0	ug/L	145	Standard
	Se -1	78	35065.7	1.6	54.8937	0.568	1.0	ug/L	12291	Standard
	Br	79	13694.6	2.2				ug/L	304	Standard
	Se -2	82	9989.2	2.1	50.6172	0.955	1.9	ug/L	42	Standard
	Kr	83	35.3	41.4				ug/L	36	Standard
	Y	89	570299.6	1.6				ug/L	618386	Standard
	Rh	103	99856.8	1.0				ug/L	111544	Standard
	Cd	111	140497.8	1.2	50.3164	0.374	0.7	ug/L	192	Standard
	Cd -1	114	356098.2	0.6	50.0749	0.429	0.9	ug/L	23	Standard
	Ho	165	492572.4	1.1				ug/L	521140	Standard
	Pb	208	1648258.2	1.4	48.3525	0.406	0.8	ug/L	518	Standard
	Bi	209	266519.2	2.0				ug/L	295516	Standard
	Th	232	342039.4	1.8				ug/L	378918	Standard
	Cr -2	52	104380.3	0.5	49.7521	0.479	1.0	ug/L	283	KED
	Cr -3	53	13073.6	0.8	49.5019	0.036	0.1	ug/L	38	KED
	Ni -3	58	121681.6	1.2	49.1402	0.871	1.8	ug/L	148	KED
	Ni -4	60	53066.7	0.9	49.4036	0.074	0.1	ug/L	58	KED
	Ni -5	62	7825.5	1.7	48.4335	0.899	1.9	ug/L	12	KED
	Cu -2	63	135984.6	1.3	49.9006	0.279	0.6	ug/L	287	KED
	Cu -3	65	63932.8	1.9	49.8466	0.667	1.3	ug/L	136	KED
	Zn -3	66	15211.1	0.7	53.8044	0.453	0.8	ug/L	93	KED
	Zn -4	67	2498.6	2.0	52.8035	0.955	1.8	ug/L	15	KED
	Zn -5	68	11496.0	2.8	53.3541	1.105	2.1	ug/L	68	KED
	As-2	75	10029.2	0.6	50.6521	0.088	0.2	ug/L	3	KED
	Y-1	89	60605.0	1.2				ug/L	64897	KED
	Rh-1	103	40321.8	1.0				ug/L	44712	KED
	Cd -2	111	28329.4	0.7	50.1585	0.954	1.9	ug/L	4	KED
	Cd -3	114	73697.3	0.5	49.5793	0.501	1.0	ug/L	8	KED
>	Sc	45	703818.3	0.4				ug/L	772316	Standard
>	Ge	72	402019.0	1.8				ug/L	431846	Standard
>	In	115	398305.5	1.4				ug/L	412957	Standard
>	Tb	159	520387.0	0.9				ug/L	554761	Standard
>	Ge-1	72	28178.1	0.7				ug/L	30473	KED
>	In-1	115	39038.2	1.5				ug/L	42431	KED

### QC Calculated Values

Sample ID: 05-300-07bMSD 2X

Report Date/Time: Friday, May 31, 2024 14:34:35

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		91.131
>	Ge	72		93.093
>	In	115		96.452
>	Tb	159		93.804
>	Ge-1	72		92.468
>	In-1	115		92.004

## Quantitative Analysis - Summary Report

**Sample ID: 05-300-07bPS 2X**

Sample Date/Time: Friday, May 31, 2024 14:36:55

Report Date/Time: Friday, May 31, 2024 14:40:16

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\05-300-07bPS 2X.023

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	826203.5	2.1	<b>38.1796</b>	0.281	0.7	ug/L	23728	Standard
	Cr -1	53	98208.5	1.8	<b>39.4922</b>	0.329	0.8	ug/L	4227	Standard
	Ni	58	397624.5	1.4	<b>40.3478</b>	0.398	1.0	ug/L	-9347	Standard
	Ni -1	60	161245.4	1.5	<b>39.8311</b>	0.344	0.9	ug/L	242	Standard
	Ni -2	62	24333.0	1.3	<b>38.4270</b>	0.505	1.3	ug/L	1958	Standard
	Cu	63	362967.7	2.5	<b>40.7931</b>	0.051	0.1	ug/L	2502	Standard
	Cu -1	65	166427.8	2.1	<b>40.4377</b>	0.115	0.3	ug/L	483	Standard
	Zn	66	94985.6	3.4	<b>44.0669</b>	0.484	1.1	ug/L	770	Standard
	Zn -1	67	16515.2	3.8	<b>45.8308</b>	0.915	2.0	ug/L	161	Standard
	Zn -2	68	68204.8	2.3	<b>44.3564</b>	0.205	0.5	ug/L	754	Standard
	As	75	94181.6	2.1	<b>42.6915</b>	0.270	0.6	ug/L	12256	Standard
	As-1	75	84428.6	2.1	<b>41.2101</b>	0.335	0.8	ug/L	25	Standard
	Se	77	5570.1	1.2	<b>41.9390</b>	0.823	2.0	ug/L	145	Standard
	Se -1	78	29056.5	2.5	<b>45.6748</b>	0.370	0.8	ug/L	12291	Standard
	Br	79	15262.8	1.5				ug/L	304	Standard
	Se -2	82	7617.4	2.7	<b>41.2780</b>	0.643	1.6	ug/L	42	Standard
	Kr	83	23.3	17.8				ug/L	36	Standard
	Y	89	539000.0	3.1				ug/L	618386	Standard
	Rh	103	93508.8	2.4				ug/L	111544	Standard
	Cd	111	104334.4	2.7	<b>40.4093</b>	0.649	1.6	ug/L	192	Standard
	Cd -1	114	269706.5	1.2	<b>41.0338</b>	0.356	0.9	ug/L	23	Standard
	Ho	165	453070.6	0.7				ug/L	521140	Standard
	Pb	208	1223087.1	0.6	<b>38.9009</b>	0.057	0.1	ug/L	518	Standard
	Bi	209	248177.2	0.3				ug/L	295516	Standard
	Th	232	315432.1	1.8				ug/L	378918	Standard
	Cr -2	52	79967.9	0.6	<b>40.6324</b>	0.211	0.5	ug/L	283	KED
	Cr -3	53	10068.9	0.7	<b>40.6412</b>	0.445	1.1	ug/L	38	KED
	Ni -3	58	93726.3	0.4	<b>40.3652</b>	0.314	0.8	ug/L	148	KED
	Ni -4	60	40773.8	0.9	<b>40.4827</b>	0.495	1.2	ug/L	58	KED
	Ni -5	62	6153.0	1.9	<b>40.6161</b>	0.807	2.0	ug/L	12	KED
	Cu -2	63	105330.9	0.1	<b>41.2213</b>	0.227	0.6	ug/L	287	KED
	Cu -3	65	49129.7	1.1	<b>40.8556</b>	0.546	1.3	ug/L	136	KED
	Zn -3	66	11754.5	1.5	<b>44.2820</b>	0.533	1.2	ug/L	93	KED
	Zn -4	67	1969.5	1.7	<b>44.3411</b>	0.785	1.8	ug/L	15	KED
	Zn -5	68	8998.8	1.2	<b>44.5044</b>	0.585	1.3	ug/L	68	KED
	As-2	75	7617.0	2.1	<b>41.0330</b>	0.949	2.3	ug/L	3	KED
	Y-1	89	57161.1	0.8				ug/L	64897	KED
	Rh-1	103	38195.0	0.5				ug/L	44712	KED
	Cd -2	111	21353.6	0.8	<b>40.1052</b>	0.077	0.2	ug/L	4	KED
	Cd -3	114	56463.0	0.7	<b>40.2965</b>	0.095	0.2	ug/L	8	KED
>	Sc	45	675922.9	2.6				ug/L	772316	Standard
>	Ge	72	375685.6	2.4				ug/L	431846	Standard
>	In	115	368095.1	1.7				ug/L	412957	Standard
>	Tb	159	479891.3	0.5				ug/L	554761	Standard
>	Ge-1	72	26417.1	0.4				ug/L	30473	KED
>	In-1	115	36788.7	0.8				ug/L	42431	KED

### QC Calculated Values

Sample ID: 05-300-07bPS 2X

Report Date/Time: Friday, May 31, 2024 14:40:16

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		87.519
>	Ge	72		86.995
>	In	115		89.136
>	Tb	159		86.504
>	Ge-1	72		86.689
>	In-1	115		86.703

## Quantitative Analysis - Summary Report

**Sample ID: 05-353-02k 2X**

Sample Date/Time: Friday, May 31, 2024 14:42:36

Report Date/Time: Friday, May 31, 2024 14:45:56

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\05-353-02k 2X.024

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	43061.5	1.5	0.8404	0.014	1.7	ug/L	23728	Standard
	Cr -1	53	13713.9	3.4	3.6201	0.241	6.7	ug/L	4227	Standard
	Ni	58	9640.5	14.6	1.4671	0.116	7.9	ug/L	-9347	Standard
	Ni -1	60	6585.5	2.6	1.4158	0.062	4.4	ug/L	242	Standard
	Ni -2	62	2182.8	1.6	0.6820	0.049	7.2	ug/L	1958	Standard
	Cu	63	6587.5	2.5	0.4860	0.006	1.2	ug/L	2502	Standard
	Cu -1	65	1226.4	2.1	0.2317	0.007	3.0	ug/L	483	Standard
	Zn	66	2725.9	2.6	0.7789	0.007	1.0	ug/L	770	Standard
	Zn -1	67	589.3	3.6	0.9849	0.029	3.0	ug/L	161	Standard
	Zn -2	68	2710.9	3.6	1.1483	0.046	4.0	ug/L	754	Standard
	As	75	13185.8	1.0	0.2844	0.155	54.4	ug/L	12256	Standard
	As-1	75	736.2	2.9	0.2995	0.011	3.6	ug/L	25	Standard
	Se	77	627.7	2.6	3.2367	0.094	2.9	ug/L	145	Standard
	Se -1	78	12564.5	0.9	1.0704	0.662	61.8	ug/L	12291	Standard
	Br	79	12387.4	3.0				ug/L	304	Standard
	Se -2	82	63.7	13.7	0.1730	0.036	21.0	ug/L	42	Standard
	Kr	83	29.0	22.6				ug/L	36	Standard
	Y	89	601046.2	3.3				ug/L	618386	Standard
	Rh	103	103404.2	3.8				ug/L	111544	Standard
	Cd	111	268.9	3.6	0.0018	0.006	318.8	ug/L	192	Standard
	Cd -1	114	69.8	13.8	-0.0171	0.002	9.5	ug/L	23	Standard
	Ho	165	525490.2	2.9				ug/L	521140	Standard
	Pb	208	4818.6	1.6	0.0964	0.003	3.3	ug/L	518	Standard
	Bi	209	280449.5	2.9				ug/L	295516	Standard
	Th	232	367508.1	1.4				ug/L	378918	Standard
	Cr -2	52	693.0	2.9	0.2067	0.004	1.8	ug/L	283	KED
	Cr -3	53	96.3	6.0	0.2211	0.029	13.1	ug/L	38	KED
	Ni -3	58	3738.9	5.5	1.4822	0.109	7.3	ug/L	148	KED
	Ni -4	60	884.0	3.9	0.7813	0.046	5.8	ug/L	58	KED
	Ni -5	62	130.0	9.5	0.7832	0.071	9.1	ug/L	12	KED
	Cu -2	63	539.0	1.4	0.1468	0.007	4.5	ug/L	287	KED
	Cu -3	65	252.3	6.2	0.1652	0.009	5.4	ug/L	136	KED
	Zn -3	66	299.3	5.2	0.6984	0.076	10.9	ug/L	93	KED
	Zn -4	67	55.0	15.9	0.8177	0.176	21.5	ug/L	15	KED
	Zn -5	68	265.3	7.1	0.9443	0.108	11.4	ug/L	68	KED
	As-2	75	56.0	16.4	0.2724	0.042	15.6	ug/L	3	KED
	Y-1	89	61784.0	0.7				ug/L	64897	KED
	Rh-1	103	39741.9	1.3				ug/L	44712	KED
	Cd -2	111	5.7	71.3	-0.0249	0.007	28.2	ug/L	4	KED
	Cd -3	114	14.0	18.9	-0.0309	0.002	5.8	ug/L	8	KED
>	Sc	45	770968.2	1.5				ug/L	772316	Standard
>	Ge	72	425862.2	1.9				ug/L	431846	Standard
>	In	115	414489.4	3.1				ug/L	412957	Standard
>	Tb	159	553095.7	3.5				ug/L	554761	Standard
>	Ge-1	72	28053.5	1.8				ug/L	30473	KED
>	In-1	115	39702.8	0.4				ug/L	42431	KED

### QC Calculated Values

Sample ID: 05-353-02k 2X

Report Date/Time: Friday, May 31, 2024 14:45:56

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		99.826
>	Ge	72		98.614
>	In	115		100.371
>	Tb	159		99.700
>	Ge-1	72		92.059
>	In-1	115		93.571

# Quantitative Analysis - Summary Report

**Sample ID: 05-353-07k 2X**

Sample Date/Time: Friday, May 31, 2024 14:48:16

Report Date/Time: Friday, May 31, 2024 14:51:36

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\05-353-07k 2X.025

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	42009.0	1.1	<b>0.8342</b>	0.045	5.4	ug/L	23728	Standard
	Cr -1	53	8240.4	1.6	<b>1.6871</b>	0.156	9.2	ug/L	4227	Standard
	Ni	58	513.9	162.1	<b>0.6643</b>	0.075	11.3	ug/L	-9347	Standard
	Ni -1	60	4534.4	1.4	<b>0.9793</b>	0.012	1.2	ug/L	242	Standard
	Ni -2	62	1382.7	5.7	<b>-0.4824</b>	0.146	30.2	ug/L	1958	Standard
	Cu	63	4425.7	1.2	<b>0.2759</b>	0.004	1.5	ug/L	2502	Standard
	Cu -1	65	587.3	3.1	<b>0.0961</b>	0.004	4.1	ug/L	483	Standard
	Zn	66	968.0	1.0	<b>0.0584</b>	0.009	15.1	ug/L	770	Standard
	Zn -1	67	234.0	10.5	<b>0.1126</b>	0.059	52.4	ug/L	161	Standard
	Zn -2	68	1368.4	1.1	<b>0.3801</b>	0.019	5.0	ug/L	754	Standard
	As	75	13232.7	1.5	<b>0.3721</b>	0.019	5.0	ug/L	12256	Standard
	As-1	75	177.5	19.9	<b>0.0598</b>	0.016	27.5	ug/L	25	Standard
	Se	77	415.7	2.2	<b>1.8260</b>	0.034	1.9	ug/L	145	Standard
	Se -1	78	13181.4	1.7	<b>2.7417</b>	0.160	5.8	ug/L	12291	Standard
	Br	79	23958.1	2.9				ug/L	304	Standard
	Se -2	82	69.0	3.8	<b>0.2029</b>	0.016	8.0	ug/L	42	Standard
	Kr	83	29.7	11.8				ug/L	36	Standard
	Y	89	607641.8	2.5				ug/L	618386	Standard
	Rh	103	104143.9	1.1				ug/L	111544	Standard
	Cd	111	228.0	9.3	<b>-0.0118</b>	0.007	55.2	ug/L	192	Standard
	Cd -1	114	19.1	12.4	<b>-0.0239</b>	0.000	1.4	ug/L	23	Standard
	Ho	165	526805.9	2.5				ug/L	521140	Standard
	Pb	208	4424.3	1.2	<b>0.0846</b>	0.001	1.6	ug/L	518	Standard
	Bi	209	288463.7	1.9				ug/L	295516	Standard
	Th	232	367366.9	1.4				ug/L	378918	Standard
	Cr -2	52	536.0	3.5	<b>0.1360</b>	0.012	8.6	ug/L	283	KED
	Cr -3	53	73.3	22.5	<b>0.1379</b>	0.064	46.4	ug/L	38	KED
	Ni -3	58	1364.8	4.7	<b>0.5273</b>	0.031	5.9	ug/L	148	KED
	Ni -4	60	439.7	6.7	<b>0.3721</b>	0.026	7.1	ug/L	58	KED
	Ni -5	62	75.0	5.8	<b>0.4497</b>	0.032	7.1	ug/L	12	KED
	Cu -2	63	160.3	16.2	<b>0.0081</b>	0.010	123.5	ug/L	287	KED
	Cu -3	65	83.3	9.8	<b>0.0341</b>	0.007	20.7	ug/L	136	KED
	Zn -3	66	87.7	17.8	<b>-0.0542</b>	0.057	104.6	ug/L	93	KED
	Zn -4	67	23.0	15.7	<b>0.1429</b>	0.075	52.2	ug/L	15	KED
	Zn -5	68	83.3	12.8	<b>0.0966</b>	0.049	50.7	ug/L	68	KED
	As-2	75	16.3	3.5	<b>0.0730</b>	0.002	3.0	ug/L	3	KED
	Y-1	89	61155.0	0.1				ug/L	64897	KED
	Rh-1	103	39087.7	0.4				ug/L	44712	KED
	Cd -2	111	4.0	50.0	<b>-0.0278</b>	0.003	12.6	ug/L	4	KED
	Cd -3	114	7.0	37.8	<b>-0.0355</b>	0.002	5.0	ug/L	8	KED
>	Sc	45	755174.7	3.5				ug/L	772316	Standard
>	Ge	72	421057.0	1.3				ug/L	431846	Standard
>	In	115	411299.6	1.4				ug/L	412957	Standard
>	Tb	159	556775.9	2.3				ug/L	554761	Standard
>	Ge-1	72	27567.2	1.0				ug/L	30473	KED
>	In-1	115	39910.2	0.5				ug/L	42431	KED

## QC Calculated Values

Sample ID: 05-353-07k 2X

Report Date/Time: Friday, May 31, 2024 14:51:36

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		97.781
>	Ge	72		97.502
>	In	115		99.599
>	Tb	159		100.363
>	Ge-1	72		90.463
>	In-1	115		94.060

## Quantitative Analysis - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, May 31, 2024 14:53:57

Report Date/Time: Friday, May 31, 2024 14:57:17

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\QC Std 6.026

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	973011.4	0.6	41.1915	0.781	1.9	ug/L	23728	Standard
	Cr -1	53	114799.4	0.8	42.3063	0.448	1.1	ug/L	4227	Standard
	Ni	58	484837.1	0.7	40.2743	0.681	1.7	ug/L	-9347	Standard
	Ni -1	60	194915.1	0.7	39.4148	0.665	1.7	ug/L	242	Standard
	Ni -2	62	28767.6	1.4	37.1029	0.629	1.7	ug/L	1958	Standard
	Cu	63	426461.7	1.5	39.2296	0.294	0.7	ug/L	2502	Standard
	Cu -1	65	196303.7	1.3	39.0433	0.278	0.7	ug/L	483	Standard
	Zn	66	106563.7	1.3	40.4538	0.740	1.8	ug/L	770	Standard
	Zn -1	67	18471.6	0.3	41.9391	0.957	2.3	ug/L	161	Standard
	Zn -2	68	76485.2	1.0	40.6863	0.411	1.0	ug/L	754	Standard
	As	75	115087.0	1.5	42.7048	0.405	0.9	ug/L	12256	Standard
	As-1	75	104508.5	1.7	41.7550	0.271	0.6	ug/L	25	Standard
	Se	77	7025.1	1.3	43.3224	0.287	0.7	ug/L	145	Standard
	Se -1	78	34505.0	0.9	43.6697	0.782	1.8	ug/L	12291	Standard
	Br	79	1044.7	7.8				ug/L	304	Standard
	Se -2	82	9439.5	1.8	41.8739	0.437	1.0	ug/L	42	Standard
	Kr	83	31.7	4.8				ug/L	36	Standard
	Y	89	658236.3	1.6				ug/L	618386	Standard
	Rh	103	116700.4	1.0				ug/L	111544	Standard
	Cd	111	126857.8	1.0	41.9152	0.587	1.4	ug/L	192	Standard
	Cd -1	114	320081.5	1.1	41.5327	0.163	0.4	ug/L	23	Standard
	Ho	165	554160.5	1.0				ug/L	521140	Standard
	Pb	208	1532902.0	1.2	39.9319	0.219	0.5	ug/L	518	Standard
	Bi	209	305780.0	1.9				ug/L	295516	Standard
	Th	232	371043.6	2.4				ug/L	378918	Standard
	Cr -2	52	89348.9	0.9	39.9424	0.567	1.4	ug/L	283	KED
	Cr -3	53	11196.1	0.3	39.7565	0.362	0.9	ug/L	38	KED
	Ni -3	58	104668.8	0.3	39.6598	0.323	0.8	ug/L	148	KED
	Ni -4	60	45559.9	0.4	39.7965	0.134	0.3	ug/L	58	KED
	Ni -5	62	6795.9	0.3	39.4677	0.198	0.5	ug/L	12	KED
	Cu -2	63	114021.6	0.6	39.2567	0.225	0.6	ug/L	287	KED
	Cu -3	65	53990.2	1.6	39.4979	0.397	1.0	ug/L	136	KED
	Zn -3	66	12671.0	1.0	41.9782	0.181	0.4	ug/L	93	KED
	Zn -4	67	2014.5	0.7	39.8686	0.479	1.2	ug/L	15	KED
	Zn -5	68	9418.4	1.7	40.9549	0.438	1.1	ug/L	68	KED
	As-2	75	8496.9	1.4	40.2691	0.406	1.0	ug/L	3	KED
	Y-1	89	65711.8	0.2				ug/L	64897	KED
	Rh-1	103	43000.6	0.7				ug/L	44712	KED
	Cd -2	111	24946.8	1.7	40.4643	0.869	2.1	ug/L	4	KED
	Cd -3	114	66222.5	0.6	40.8152	0.397	1.0	ug/L	8	KED
>	Sc	45	739217.3	1.8				ug/L	772316	Standard
>	Ge	72	458960.1	2.0				ug/L	431846	Standard
>	In	115	431566.5	0.7				ug/L	412957	Standard
>	Tb	159	585935.5	1.0				ug/L	554761	Standard
>	Ge-1	72	30025.9	0.6				ug/L	30473	KED
>	In-1	115	42600.6	0.4				ug/L	42431	KED

### QC Calculated Values

Sample ID: QC Std 6

Report Date/Time: Friday, May 31, 2024 14:57:17

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52	102.979	
	Cr -1	53	105.766	
	Ni	58	100.686	
	Ni -1	60	98.537	
	Ni -2	62	92.757	
	Cu	63	98.074	
	Cu -1	65	97.608	
	Zn	66	101.135	
	Zn -1	67	104.848	
	Zn -2	68	101.716	
	As	75	106.762	
	As-1	75	104.387	
	Se	77	108.306	
	Se -1	78	109.174	
	Br	79		
	Se -2	82	104.685	
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111	104.788	
	Cd -1	114	103.832	
	Ho	165		
	Pb	208	99.830	
	Bi	209		
	Th	232		
	Cr -2	52	99.856	
	Cr -3	53	99.391	
	Ni -3	58	99.149	
	Ni -4	60	99.491	
	Ni -5	62	98.669	
	Cu -2	63	98.142	
	Cu -3	65	98.745	
	Zn -3	66	104.946	
	Zn -4	67	99.672	
	Zn -5	68	102.387	
	As-2	75	100.673	
	Y-1	89		
	Rh-1	103		
	Cd -2	111	101.161	
	Cd -3	114	102.038	
>	Sc	45		95.714
>	Ge	72		106.279
>	In	115		104.506
>	Tb	159		105.620
>	Ge-1	72		98.531
>	In-1	115		100.400

## Quantitative Analysis - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, May 31, 2024 14:59:38

Report Date/Time: Friday, May 31, 2024 15:02:58

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\QC Std 7.027

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	483658.0	1.1	19.4906	0.171	0.9	ug/L	23728	Standard
	Cr -1	53	57264.2	1.0	19.8822	0.247	1.2	ug/L	4227	Standard
	Ni	58	234364.8	1.5	19.7185	0.130	0.7	ug/L	-9347	Standard
	Ni -1	60	94691.2	1.2	19.0689	0.033	0.2	ug/L	242	Standard
	Ni -2	62	14920.1	1.6	17.9378	0.216	1.2	ug/L	1958	Standard
	Cu	63	209281.6	0.9	19.0990	0.072	0.4	ug/L	2502	Standard
	Cu -1	65	95213.9	0.2	18.8571	0.186	1.0	ug/L	483	Standard
	Zn	66	53145.4	2.3	19.9281	0.249	1.3	ug/L	770	Standard
	Zn -1	67	9144.9	2.0	20.4486	0.419	2.1	ug/L	161	Standard
	Zn -2	68	37847.1	2.5	19.8465	0.271	1.4	ug/L	754	Standard
	As	75	62079.7	0.9	20.3242	0.097	0.5	ug/L	12256	Standard
	As-1	75	50728.4	1.5	20.1890	0.069	0.3	ug/L	25	Standard
	Se	77	3469.1	2.2	20.7924	0.240	1.2	ug/L	145	Standard
	Se -1	78	23023.5	1.0	20.1748	0.482	2.4	ug/L	12291	Standard
	Br	79	707.0	3.6				ug/L	304	Standard
	Se -2	82	4614.1	3.0	20.3279	0.379	1.9	ug/L	42	Standard
	Kr	83	26.0	10.2				ug/L	36	Standard
	Y	89	654727.3	1.5				ug/L	618386	Standard
	Rh	103	115914.4	1.2				ug/L	111544	Standard
	Cd	111	62333.4	1.1	20.4232	0.034	0.2	ug/L	192	Standard
	Cd -1	114	156414.1	1.2	20.1598	0.172	0.9	ug/L	23	Standard
	Ho	165	544550.0	1.0				ug/L	521140	Standard
	Pb	208	736216.3	1.3	19.6486	0.235	1.2	ug/L	518	Standard
	Bi	209	303443.9	0.4				ug/L	295516	Standard
	Th	232	377456.9	1.0				ug/L	378918	Standard
	Cr -2	52	45025.2	1.3	19.8759	0.328	1.7	ug/L	283	KED
	Cr -3	53	5674.1	0.8	19.8856	0.103	0.5	ug/L	38	KED
	Ni -3	58	52723.8	0.8	19.7708	0.027	0.1	ug/L	148	KED
	Ni -4	60	23347.1	0.4	20.1792	0.065	0.3	ug/L	58	KED
	Ni -5	62	3465.8	1.7	19.9248	0.226	1.1	ug/L	12	KED
	Cu -2	63	57972.1	0.6	19.7468	0.249	1.3	ug/L	287	KED
	Cu -3	65	27105.7	1.3	19.6294	0.348	1.8	ug/L	136	KED
	Zn -3	66	6436.4	1.3	20.9399	0.398	1.9	ug/L	93	KED
	Zn -4	67	1065.0	6.5	20.7055	1.279	6.2	ug/L	15	KED
	Zn -5	68	4720.8	2.0	20.1867	0.537	2.7	ug/L	68	KED
	As-2	75	4248.3	2.3	19.9412	0.553	2.8	ug/L	3	KED
	Y-1	89	66263.7	0.6				ug/L	64897	KED
	Rh-1	103	44239.7	0.1				ug/L	44712	KED
	Cd -2	111	12262.6	1.4	19.7287	0.301	1.5	ug/L	4	KED
	Cd -3	114	32564.4	0.9	19.9052	0.110	0.6	ug/L	8	KED
>	Sc	45	757437.6	0.7				ug/L	772316	Standard
>	Ge	72	460512.1	1.2				ug/L	431846	Standard
>	In	115	434196.1	1.0				ug/L	412957	Standard
>	Tb	159	571371.4	0.5				ug/L	554761	Standard
>	Ge-1	72	30310.5	0.6				ug/L	30473	KED
>	In-1	115	42910.6	1.3				ug/L	42431	KED

### QC Calculated Values

Sample ID: QC Std 7

Report Date/Time: Friday, May 31, 2024 15:02:58

Page 1

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52	97.453	
	Cr -1	53	99.411	
	Ni	58	98.593	
	Ni -1	60	95.344	
	Ni -2	62	89.689	
	Cu	63	95.495	
	Cu -1	65	94.285	
	Zn	66	99.640	
	Zn -1	67	102.243	
	Zn -2	68	99.232	
	As	75	101.621	
	As-1	75	100.945	
	Se	77	103.962	
	Se -1	78	100.874	
	Br	79		
	Se -2	82	101.639	
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111	102.116	
	Cd -1	114	100.799	
	Ho	165		
	Pb	208	98.243	
	Bi	209		
	Th	232		
	Cr -2	52	99.380	
	Cr -3	53	99.428	
	Ni -3	58	98.854	
	Ni -4	60	100.896	
	Ni -5	62	99.624	
	Cu -2	63	98.734	
	Cu -3	65	98.147	
	Zn -3	66	104.699	
	Zn -4	67	103.527	
	Zn -5	68	100.933	
	As-2	75	99.706	
	Y-1	89		
	Rh-1	103		
	Cd -2	111	98.644	
	Cd -3	114	99.526	
>	Sc	45		98.074
>	Ge	72		106.638
>	In	115		105.143
>	Tb	159		102.994
>	Ge-1	72		99.465
>	In-1	115		101.131

# Quantitative Analysis - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Friday, May 31, 2024 15:05:20

Report Date/Time: Friday, May 31, 2024 15:08:40

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\QC Std 8.028

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	20323.8	0.5	-0.0397	0.016	41.4	ug/L	23728	Standard
	Cr -1	53	2960.6	2.5	-0.2238	0.047	21.0	ug/L	4227	Standard
	Ni	58	-5841.1	3.8	0.1155	0.015	13.4	ug/L	-9347	Standard
	Ni -1	60	238.0	6.0	0.0301	0.004	12.9	ug/L	242	Standard
	Ni -2	62	1529.7	3.1	-0.3416	0.105	30.8	ug/L	1958	Standard
	Cu	63	2018.8	1.9	0.0265	0.007	27.1	ug/L	2502	Standard
	Cu -1	65	478.3	2.4	0.0688	0.003	4.5	ug/L	483	Standard
	Zn	66	792.4	6.7	-0.0264	0.024	91.7	ug/L	770	Standard
	Zn -1	67	154.7	7.8	-0.0994	0.027	27.5	ug/L	161	Standard
	Zn -2	68	743.0	8.4	-0.0016	0.035	2200.5	ug/L	754	Standard
	As	75	12438.4	1.7	-0.1905	0.012	6.4	ug/L	12256	Standard
	As-1	75	10.5	511.1	-0.0135	0.022	165.6	ug/L	25	Standard
	Se	77	116.3	8.1	-0.2624	0.049	18.5	ug/L	145	Standard
	Se -1	78	12482.8	1.3	0.2334	0.175	75.0	ug/L	12291	Standard
	Br	79	558.0	2.5				ug/L	304	Standard
	Se -2	82	40.0	7.5	0.0555	0.015	27.0	ug/L	42	Standard
	Kr	83	29.3	9.8				ug/L	36	Standard
	Y	89	623759.3	0.6				ug/L	618386	Standard
	Rh	103	111868.3	0.4				ug/L	111544	Standard
	Cd	111	250.0	2.1	-0.0046	0.002	54.1	ug/L	192	Standard
	Cd -1	114	27.7	17.0	-0.0228	0.001	2.9	ug/L	23	Standard
	Ho	165	520812.9	1.0				ug/L	521140	Standard
	Pb	208	606.0	1.4	-0.0202	0.000	2.4	ug/L	518	Standard
	Bi	209	288666.7	2.4				ug/L	295516	Standard
	Th	232	358074.2	2.0				ug/L	378918	Standard
	Cr -2	52	271.0	2.2	0.0006	0.003	501.4	ug/L	283	KED
	Cr -3	53	34.0	25.6	-0.0206	0.032	156.3	ug/L	38	KED
	Ni -3	58	115.1	6.2	0.0088	0.003	31.2	ug/L	148	KED
	Ni -4	60	47.3	17.1	-0.0035	0.007	212.4	ug/L	58	KED
	Ni -5	62	7.0	37.8	0.0171	0.016	91.6	ug/L	12	KED
	Cu -2	63	279.3	5.2	0.0481	0.006	11.9	ug/L	287	KED
	Cu -3	65	131.0	5.5	0.0674	0.006	8.4	ug/L	136	KED
	Zn -3	66	94.0	1.1	-0.0463	0.003	6.1	ug/L	93	KED
	Zn -4	67	15.0	60.0	-0.0461	0.186	403.3	ug/L	15	KED
	Zn -5	68	71.7	11.2	0.0259	0.035	136.1	ug/L	68	KED
	As-2	75	4.7	44.6	0.0117	0.010	87.8	ug/L	3	KED
	Y-1	89	62569.1	0.4				ug/L	64897	KED
	Rh-1	103	41605.5	0.3				ug/L	44712	KED
	Cd -2	111	3.7	56.8	-0.0285	0.003	12.2	ug/L	4	KED
	Cd -3	114	10.3	29.6	-0.0334	0.002	5.9	ug/L	8	KED
>	Sc	45	716852.0	1.6				ug/L	772316	Standard
>	Ge	72	436262.9	1.8				ug/L	431846	Standard
>	In	115	413554.0	0.8				ug/L	412957	Standard
>	Tb	159	557686.5	1.6				ug/L	554761	Standard
>	Ge-1	72	28845.4	1.1				ug/L	30473	KED
>	In-1	115	40651.4	1.5				ug/L	42431	KED

## QC Calculated Values

Sample ID: QC Std 8

Report Date/Time: Friday, May 31, 2024 15:08:40

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		92.819
>	Ge	72		101.023
>	In	115		100.145
>	Tb	159		100.527
>	Ge-1	72		94.658
>	In-1	115		95.806

# Dataset Report

6-1-24  
10:00m

User Name: kmckinney  
Computer Name: DESKTOP-RIRVUDN  
Dataset File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\  
Report Date/Time: Saturday, June 01, 2024 15:36:21

## The Dataset

Batch ID	Sample ID	Date and Time	Read Type	Samp. File Name	Description
	Blank	12:10:25 Sat 01-Ju	Blank	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	Standard 1	12:14:16 Sat 01-Ju	Standard #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	Standard 2	12:18:06 Sat 01-Ju	Standard #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	Blank	12:21:32 Sat 01-Ju	Blank	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	Standard 1	12:25:22 Sat 01-Ju	Standard #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	Standard 2	12:29:12 Sat 01-Ju	Standard #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	Standard 3	12:33:02 Sat 01-Ju	Standard #3	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	Standard 4	12:36:52 Sat 01-Ju	Standard #4	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	Standard 5	12:40:42 Sat 01-Ju	Standard #5	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	Standard 6	12:44:33 Sat 01-Ju	Standard #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	Standard 7	12:48:23 Sat 01-Ju	Standard #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	QC Std 1	12:53:03 Sat 01-Ju	QC Std #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	QC Std 2	12:57:44 Sat 01-Ju	QC Std #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	QC Std 6	13:01:35 Sat 01-Ju	QC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	QC Std 7	13:06:16 Sat 01-Ju	QC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	QC Std 8	13:10:56 Sat 01-Ju	QC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	MB0601WH1 2X	13:20:40 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	SB0601WH1 2X	13:25:20 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	05-300-05b 2X	13:30:44 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	05-300-05bD 2X	13:44:29 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	05-300-05bL 10X	13:49:07 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	05-300-05bMS 2X	13:53:47 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	05-300-05bMSD 2X	14:03:54 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	05-300-05bPS 2X	14:08:34 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	05-426-01 5X	14:13:14 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	05-410-01a 5X	14:17:54 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	QC Std 6	14:32:01 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	QC Std 7	14:36:41 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	QC Std 8	14:41:21 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	05-442-01c 5X	14:46:57 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	05-442-02c 5X	14:51:37 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	05-311-01b 10X 29WM	14:56:16 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	05-311-02b 10X	15:00:56 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	05-311-03b 10X	15:05:35 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	05-311-04c 10X	15:10:14 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	05-311-05c 10X	15:14:53 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	05-311-03c 10X FFD	15:19:32 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	QC Std 6	15:24:12 Sat 01-Ju	QC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	QC Std 7	15:28:53 Sat 01-Ju	QC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	
	QC Std 8	15:33:34 Sat 01-Ju	QC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\	

## Performance Check Report

### Sample ID: [STD] Performance Check

Sample Date/Time: Friday, May 31, 2024 07:00:46

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Optimizations\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\05MAY24\Y240531A\[STD] Performance Check.003

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

### Summary

IS	Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode
	Li	7.0	60966.2	60966.226	60966.226	664.149				1.1	Standard
	In	114.9	372756.9	372756.943	372756.943	307.370				0.1	Standard
	U	238.1	395564.4	395564.394	395564.394	3631.895				0.9	Standard
Ce	CeO	155.9	11058.3	11058.3	0.024	0.000				2.0	Standard
Ce	Ce++	70.0	12977.2	12977.2	0.029	0.000				0.5	Standard
	Bkgd	220.5	0.4	0.4	0.400	0.253				63.2	Standard
	Ce	139.9	452141.0	452141.0	452140.981	1713.129				0.4	Standard

### Current Conditions File Data

Current Value	Description
-100.00	Standard - OmniRing Park Voltage
4.00	Standard - Hyperskimmer Park Voltage
1.00	Standard - Nebulizer Gas Flow STD/KED [NEB]
1.20	Standard - Auxiliary Gas Flow
15.00	Standard - Plasma Gas Flow
0.00	Standard - Oxygen Gas Flow
-10.00	Standard - QID Fixed Voltage
1600.00	Standard - ICP RF Power
-1675.00	Standard - Analog Stage
1050.00	Standard - Pulse Stage
0.00	Standard - Q1 Rod Offset STD [QRO]
-12.00	Standard - Cell Rod Offset STD [CRO]
-3.00	Standard - Cell Entrance/Exit Voltage STD
0.00	Standard - Axial Field Voltage
5.00	Ammonia DRC - OmniRing Park Voltage
1.00	Ammonia DRC - DRC Mode NEB
2.00	Ammonia DRC - Hyperskimmer Park Voltage
-9.50	Ammonia DRC - DRC Mode QRO
-2.50	Ammonia DRC - DRC Mode CRO
-7.00	Ammonia DRC - DRC Mode Cell Entrance/Exit Voltage
250.00	Ammonia DRC - Axial Field Voltage
0.60	Ammonia DRC - Cell Gas A
2.00	Helium KED - Hyperskimmer Park Voltage
5.00	Helium KED - OmniRing Park Voltage
-12.00	Helium KED - KED Mode QRO
-15.00	Helium KED - KED Mode CRO
-4.00	Helium KED - KED Mode Cell Entrance Voltage
-32.00	Helium KED - KED Mode Cell Exit Voltage
475.00	Helium KED - KED Mode Axial Field Voltage

2.00 Helium KED - Cell Gas B

## Instrument Mass Calibration Report

File Name:

File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\

Acq. Date/Time: 07:00:04 Fri 31-May-24

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Peak Width	Custom Res.
Li	7.016	6.975	1222	2062	0.696	
Mg	23.985	23.975	4579	2063	0.715	
In	114.904	114.875	22592	2066	0.719	
Pb	207.977	207.975	41052	2066	0.719	
U	238.050	238.075	47019	2067	0.724	

## Quantitative Analysis Calibration Report

File Name:

File Path:

Calibration Type: External Calibration

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Cr	51.941	Weighted Linear	0.03	-0.00	0.999593
Cr -1	52.941	Weighted Linear	0.00	-0.00	0.998856
Ni	57.935	Weighted Linear	0.03	0.01	0.999330
Ni -1	59.933	Weighted Linear	0.01	-0.00	0.998532
Ni -2	61.928	Weighted Linear	0.00	-0.00	0.997156
Cu	62.930	Weighted Linear	0.02	-0.00	0.998239
Cu -1	64.928	Weighted Linear	0.01	-0.00	0.998509
Zn	65.926	Weighted Linear	0.01	0.00	0.998793
Zn -1	66.927	Weighted Linear	0.00	0.00	0.998483
Zn -2	67.925	Weighted Linear	0.00	-0.00	0.999251
As	74.922	Weighted Linear	0.01	0.00	0.999172
As-1	74.922	Weighted Linear	0.01	0.00	0.998848
Se	76.920	Weighted Linear	0.00	0.00	0.999796
Se -1	77.917	Weighted Linear	0.00	-0.00	0.999029
Br	78.918	Weighted Linear	0.00	0.00	0.000000
Se -2	81.917	Weighted Linear	0.00	-0.00	0.999418
Kr	82.914	Weighted Linear	0.00	0.00	0.000000
Y	88.905	Weighted Linear	0.00	0.00	0.000000
Rh	102.905	Weighted Linear	0.00	0.00	0.000000
Cd	110.904	Weighted Linear	0.01	0.00	0.998556
Cd -1	113.904	Weighted Linear	0.02	0.00	0.998819
Ho	164.930	Weighted Linear	0.00	0.00	0.000000
Pb	207.977	Weighted Linear	0.07	0.00	0.998870
Bi	208.980	Weighted Linear	0.00	0.00	0.000000
Th	232.038	Weighted Linear	0.00	0.00	0.000000
Cr -2	51.941	Weighted Linear	0.07	0.00	0.999112
Cr -3	52.941	Weighted Linear	0.01	0.00	0.997333
Ni -3	57.935	Weighted Linear	0.09	-0.00	0.998625
Ni -4	59.933	Weighted Linear	0.04	-0.00	0.999076
Ni -5	61.928	Weighted Linear	0.01	-0.00	0.997681
Cu -2	62.930	Weighted Linear	0.10	-0.00	0.998337
Cu -3	64.928	Weighted Linear	0.05	-0.00	0.998050
Zn -3	65.926	Weighted Linear	0.01	0.00	0.998330
Zn -4	66.927	Weighted Linear	0.00	0.00	0.999388
Zn -5	67.925	Weighted Linear	0.01	0.00	0.999687
As-2	74.922	Weighted Linear	0.01	-0.00	0.998560
Y-1	88.905	Weighted Linear	0.00	0.00	0.000000
Rh-1	102.905	Weighted Linear	0.00	0.00	0.000000
Cd -2	110.904	Weighted Linear	0.01	0.00	0.998664
Cd -3	113.904	Weighted Linear	0.04	0.00	0.998593
Sc	44.956	Linear Thru Zero	0.00	0.00	0.000000
Ge	71.922	Linear Thru Zero	0.00	0.00	0.000000
In	114.904	Linear Thru Zero	0.00	0.00	0.000000
Tb	158.925	Linear Thru Zero	0.00	0.00	0.000000
Ge-1	71.922	Linear Thru Zero	0.00	0.00	0.000000
In-1	114.904	Linear Thru Zero	0.00	0.00	0.000000

# Quantitative Analysis - Summary Report

**Sample ID: Blank**

Sample Date/Time: Saturday, June 01, 2024 12:21:32

Report Date/Time: Saturday, June 01, 2024 12:23:51

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\Blank.004

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-4072.8	1.8				ug/L		Standard
	Ni -1	60	154.7	3.3				ug/L		Standard
	Ni -2	62	26155.3	0.8				ug/L		Standard
	Cu	63	25401.9	0.4				ug/L		Standard
	Cu -1	65	478.7	4.6				ug/L		Standard
	Zn	66	604.0	2.7				ug/L		Standard
	Zn -1	67	114.7	22.4				ug/L		Standard
	Zn -2	68	604.7	3.9				ug/L		Standard
	As	75	12853.4	1.4				ug/L		Standard
	As-1	75	-4.3	1646.4				ug/L		Standard
	Se	77	98.0	6.2				ug/L		Standard
	Se -1	78	12897.5	1.4				ug/L		Standard
	Br	79	2837.6	0.4				ug/L		Standard
	Se -2	82	34.7	8.8				ug/L		Standard
	Kr	83	29.0	21.0				ug/L		Standard
	Y	89	601935.1	3.1				ug/L		Standard
	Rh	103	108501.6	2.2				ug/L		Standard
	Ni -3	58	68.2	32.3				ug/L		KED
	Ni -4	60	29.7	19.8				ug/L		KED
	Ni -5	62	8.7	24.0				ug/L		KED
	Cu -2	63	172.0	8.0				ug/L		KED
	Cu -3	65	88.7	7.3				ug/L		KED
	Zn -3	66	64.7	12.0				ug/L		KED
	Zn -4	67	10.3	29.6				ug/L		KED
	Zn -5	68	39.3	11.5				ug/L		KED
	As-2	75	0.7	86.6				ug/L		KED
	Y-1	89	50921.3	0.5				ug/L		KED
	Rh-1	103	32421.1	0.7				ug/L		KED
>	Ge	72	400119.8	1.2				ug/L		Standard
>	In	115	376660.2	1.8				ug/L		Standard
>	Ge-1	72	21869.7	2.1				ug/L		KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Se -2	82
Kr	83
Y	89
Rh	103
Ni -3	58
Ni -4	60
Ni -5	62
Cu -2	63
Cu -3	65
Zn -3	66
Zn -4	67
Zn -5	68
As-2	75
Y-1	89
Rh-1	103
Ge	72
In	115
Ge-1	72

# Quantitative Analysis - Summary Report

**Sample ID: Standard 1**

Sample Date/Time: Saturday, June 01, 2024 12:25:22

Report Date/Time: Saturday, June 01, 2024 12:27:42

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\Standard 1.005

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-1891.2	5.7				ug/L	-4073	Standard
	Ni -1	60	911.0	5.0				ug/L	155	Standard
	Ni -2	62	22479.7	1.6				ug/L	26155	Standard
	Cu	63	22631.9	0.7				ug/L	25402	Standard
	Cu -1	65	1021.0	4.9				ug/L	479	Standard
	Zn	66	683.7	3.3				ug/L	604	Standard
	Zn -1	67	138.0	1.3				ug/L	115	Standard
	Zn -2	68	660.0	1.4				ug/L	605	Standard
	As	75	13367.7	2.0				ug/L	12853	Standard
	As-1	75	465.9	26.8				ug/L	-4	Standard
	Se	77	122.0	6.7				ug/L	98	Standard
	Se -1	78	13041.3	1.2				ug/L	12897	Standard
	Br	79	2420.9	1.3				ug/L	2838	Standard
	Se -2	82	74.0	12.2				ug/L	35	Standard
	Kr	83	37.3	1.5				ug/L	29	Standard
	Y	89	593135.5	2.2				ug/L	601935	Standard
	Rh	103	105591.5	1.3				ug/L	108502	Standard
	Ni -3	58	382.7	5.4				ug/L	68	KED
	Ni -4	60	166.7	8.1				ug/L	30	KED
	Ni -5	62	34.7	10.1				ug/L	9	KED
	Cu -2	63	472.0	7.9				ug/L	172	KED
	Cu -3	65	209.3	5.2				ug/L	89	KED
	Zn -3	66	64.3	15.9				ug/L	65	KED
	Zn -4	67	8.3	30.2				ug/L	10	KED
	Zn -5	68	53.7	13.1				ug/L	39	KED
	As-2	75	31.3	19.2				ug/L	1	KED
	Y-1	89	50095.0	1.0				ug/L	50921	KED
	Rh-1	103	31722.9	0.9				ug/L	32421	KED
>	Ge	72	392265.2	2.4				ug/L	400120	Standard
>	In	115	362245.3	1.3				ug/L	376660	Standard
>	Ge-1	72	21426.4	0.5				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Se -2	82
Kr	83
Y	89
Rh	103
Ni -3	58
Ni -4	60
Ni -5	62
Cu -2	63
Cu -3	65
Zn -3	66
Zn -4	67
Zn -5	68
As-2	75
Y-1	89
Rh-1	103
Ge	72
In	115
Ge-1	72

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# Quantitative Analysis - Summary Report

## Sample ID: Standard 2

Sample Date/Time: Saturday, June 01, 2024 12:29:12

Report Date/Time: Saturday, June 01, 2024 12:31:32

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\Standard 2.006

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	649.0	11.8				ug/L	-4073	Standard
	Ni -1	60	1949.1	1.6				ug/L	155	Standard
	Ni -2	62	21086.9	0.1				ug/L	26155	Standard
	Cu	63	23373.1	1.7				ug/L	25402	Standard
	Cu -1	65	2086.2	3.7				ug/L	479	Standard
	Zn	66	1313.7	0.9				ug/L	604	Standard
	Zn -1	67	233.3	2.2				ug/L	115	Standard
	Zn -2	68	1066.7	3.8				ug/L	605	Standard
	As	75	13801.9	1.6				ug/L	12853	Standard
	As-1	75	1028.6	6.0	0.5000	0.025	5.0	ug/L	-4	Standard
	Se	77	165.3	4.0				ug/L	98	Standard
	Se -1	78	13053.0	1.5				ug/L	12897	Standard
	Br	79	2311.5	1.3				ug/L	2838	Standard
	Se -2	82	129.0	9.9				ug/L	35	Standard
	Kr	83	32.3	17.9				ug/L	29	Standard
	Y	89	606163.9	2.1				ug/L	601935	Standard
	Rh	103	109003.4	2.2				ug/L	108502	Standard
	Ni -3	58	844.8	2.7				ug/L	68	KED
	Ni -4	60	365.0	1.7				ug/L	30	KED
	Ni -5	62	53.3	7.1				ug/L	9	KED
	Cu -2	63	968.4	1.0				ug/L	172	KED
	Cu -3	65	459.3	2.3				ug/L	89	KED
	Zn -3	66	116.7	7.1				ug/L	65	KED
	Zn -4	67	21.7	29.7				ug/L	10	KED
	Zn -5	68	100.7	5.0				ug/L	39	KED
	As-2	75	75.3	10.1				ug/L	1	KED
	Y-1	89	51179.9	1.3				ug/L	50921	KED
	Rh-1	103	32490.2	1.1				ug/L	32421	KED
>	Ge	72	396759.0	1.8				ug/L	400120	Standard
>	In	115	370336.1	1.7				ug/L	376660	Standard
>	Ge-1	72	21702.8	2.2				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Se -2	82
Kr	83
Y	89
Rh	103
Ni -3	58
Ni -4	60
Ni -5	62
Cu -2	63
Cu -3	65
Zn -3	66
Zn -4	67
Zn -5	68
As-2	75
Y-1	89
Rh-1	103
Ge	72
In	115
Ge-1	72

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## Quantitative Analysis - Summary Report

### Sample ID: Standard 3

Sample Date/Time: Saturday, June 01, 2024 12:33:02

Report Date/Time: Saturday, June 01, 2024 12:35:22

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\Standard 3.007

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	16350.4	4.0				ug/L	-4073	Standard
	Ni -1	60	8442.2	1.4	2.0000	0.024	1.2	ug/L	155	Standard
	Ni -2	62	23232.9	0.8	2.0000	0.266	13.3	ug/L	26155	Standard
	Cu	63	39178.3	1.5	2.0000	0.062	3.1	ug/L	25402	Standard
	Cu -1	65	8770.7	0.9	2.0000	0.036	1.8	ug/L	479	Standard
	Zn	66	5127.6	1.6				ug/L	604	Standard
	Zn -1	67	857.4	1.5				ug/L	115	Standard
	Zn -2	68	3862.5	1.8				ug/L	605	Standard
	As	75	17765.6	1.1	2.0000	0.123	6.2	ug/L	12853	Standard
	As-1	75	4966.4	2.5	2.1255	0.036	1.7	ug/L	-4	Standard
	Se	77	406.3	4.5	2.0000	0.137	6.9	ug/L	98	Standard
	Se -1	78	13944.5	0.9				ug/L	12897	Standard
	Br	79	2346.9	1.4				ug/L	2838	Standard
	Se -2	82	470.0	8.1	2.0000	0.133	6.7	ug/L	35	Standard
	Kr	83	31.3	12.1				ug/L	29	Standard
	Y	89	618871.3	2.4				ug/L	601935	Standard
	Rh	103	110548.3	2.7				ug/L	108502	Standard
	Ni -3	58	3758.9	3.0	2.0000	0.060	3.0	ug/L	68	KED
	Ni -4	60	1699.8	1.8	2.0000	0.055	2.8	ug/L	30	KED
	Ni -5	62	255.0	7.6	2.0000	0.129	6.5	ug/L	9	KED
	Cu -2	63	4311.3	0.8	2.0000	0.035	1.8	ug/L	172	KED
	Cu -3	65	2018.5	1.6	2.0000	0.031	1.6	ug/L	89	KED
	Zn -3	66	497.3	1.7				ug/L	65	KED
	Zn -4	67	84.7	3.0				ug/L	10	KED
	Zn -5	68	388.3	6.6				ug/L	39	KED
	As-2	75	342.0	4.1	2.0000	0.060	3.0	ug/L	1	KED
	Y-1	89	52806.8	1.0				ug/L	50921	KED
	Rh-1	103	33753.5	0.6				ug/L	32421	KED
>	Ge	72	409168.0	1.7				ug/L	400120	Standard
>	In	115	377709.0	2.3				ug/L	376660	Standard
>	Ge-1	72	22511.4	1.0				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Se -2	82
Kr	83
Y	89
Rh	103
Ni -3	58
Ni -4	60
Ni -5	62
Cu -2	63
Cu -3	65
Zn -3	66
Zn -4	67
Zn -5	68
As-2	75
Y-1	89
Rh-1	103
Ge	72
In	115
Ge-1	72

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## Quantitative Analysis - Summary Report

**Sample ID: Standard 4**

Sample Date/Time: Saturday, June 01, 2024 12:36:52

Report Date/Time: Saturday, June 01, 2024 12:39:12

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\Standard 4.008

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	41433.7	1.3	5.0000	0.056	1.1	ug/L	-4073	Standard
	Ni -1	60	18427.2	2.3	4.7528	0.016	0.3	ug/L	155	Standard
	Ni -2	62	25155.1	1.1	4.8168	0.658	13.7	ug/L	26155	Standard
	Cu	63	62256.4	0.9	4.7601	0.099	2.1	ug/L	25402	Standard
	Cu -1	65	19255.6	1.9	4.7758	0.045	0.9	ug/L	479	Standard
	Zn	66	11003.6	2.8	5.0000	0.033	0.7	ug/L	604	Standard
	Zn -1	67	1811.4	3.4	5.0000	0.224	4.5	ug/L	115	Standard
	Zn -2	68	7974.6	3.1	5.0000	0.082	1.6	ug/L	605	Standard
	As	75	23458.3	2.1	4.8563	0.064	1.3	ug/L	12853	Standard
	As-1	75	10620.7	1.7	4.8079	0.030	0.6	ug/L	-4	Standard
	Se	77	759.0	2.1	4.7180	0.160	3.4	ug/L	98	Standard
	Se -1	78	15198.1	2.0	5.0000	0.335	6.7	ug/L	12897	Standard
	Br	79	2323.5	1.0				ug/L	2838	Standard
	Se -2	82	948.7	1.0	4.6586	0.155	3.3	ug/L	35	Standard
	Kr	83	30.7	34.6				ug/L	29	Standard
	Y	89	590427.1	1.3				ug/L	601935	Standard
	Rh	103	106754.6	3.0				ug/L	108502	Standard
	Ni -3	58	8363.9	1.2	4.7774	0.061	1.3	ug/L	68	KED
	Ni -4	60	3589.5	1.6	4.6531	0.085	1.8	ug/L	30	KED
	Ni -5	62	537.0	9.8	4.6407	0.455	9.8	ug/L	9	KED
	Cu -2	63	9195.6	1.2	4.6890	0.042	0.9	ug/L	172	KED
	Cu -3	65	4429.7	0.5	4.7531	0.013	0.3	ug/L	89	KED
	Zn -3	66	1073.0	4.5	5.0000	0.236	4.7	ug/L	65	KED
	Zn -4	67	186.0	12.9	5.0000	0.703	14.1	ug/L	10	KED
	Zn -5	68	818.4	2.3	5.0000	0.146	2.9	ug/L	39	KED
	As-2	75	751.0	3.7	4.7444	0.187	3.9	ug/L	1	KED
	Y-1	89	51637.2	0.9				ug/L	50921	KED
	Rh-1	103	32882.5	1.0				ug/L	32421	KED
>	Ge	72	399362.0	2.3				ug/L	400120	Standard
>	In	115	370851.8	1.8				ug/L	376660	Standard
>	Ge-1	72	22056.3	0.3				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: Standard 4

Report Date/Time: Saturday, June 01, 2024 12:39:12

Se -2	82
Kr	83
Y	89
Rh	103
Ni -3	58
Ni -4	60
Ni -5	62
Cu -2	63
Cu -3	65
Zn -3	66
Zn -4	67
Zn -5	68
As-2	75
Y-1	89
Rh-1	103
Ge	72
In	115
Ge-1	72

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## Quantitative Analysis - Summary Report

**Sample ID: Standard 5**

Sample Date/Time: Saturday, June 01, 2024 12:40:42

Report Date/Time: Saturday, June 01, 2024 12:43:02

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\Standard 5.009

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	205007.3	1.9	<b>20.8134</b>	0.449	2.2	ug/L	-4073	Standard
	Ni -1	60	83765.3	2.5	<b>20.4075</b>	0.311	1.5	ug/L	155	Standard
	Ni -2	62	35368.1	1.7	<b>16.2652</b>	0.968	6.0	ug/L	26155	Standard
	Cu	63	208841.5	2.1	<b>19.9439</b>	0.378	1.9	ug/L	25402	Standard
	Cu -1	65	86946.5	2.3	<b>20.4149</b>	0.318	1.6	ug/L	479	Standard
	Zn	66	48891.2	3.3	<b>20.7403</b>	0.262	1.3	ug/L	604	Standard
	Zn -1	67	8140.7	3.5	<b>20.8497</b>	0.058	0.3	ug/L	115	Standard
	Zn -2	68	35072.4	4.3	<b>20.8195</b>	0.246	1.2	ug/L	605	Standard
	As	75	60836.7	3.0	<b>20.3924</b>	0.187	0.9	ug/L	12853	Standard
	As-1	75	48534.0	2.9	<b>20.6906</b>	0.216	1.0	ug/L	-4	Standard
	Se	77	3323.1	3.4	<b>21.0891</b>	0.145	0.7	ug/L	98	Standard
	Se -1	78	23102.0	2.9	<b>19.3937</b>	0.462	2.4	ug/L	12897	Standard
	Br	79	2345.9	3.5				ug/L	2838	Standard
	Se -2	82	4271.6	2.8	<b>20.3515</b>	0.591	2.9	ug/L	35	Standard
	Kr	83	28.3	27.0				ug/L	29	Standard
	Y	89	617573.7	2.3				ug/L	601935	Standard
	Rh	103	112569.2	1.9				ug/L	108502	Standard
	Ni -3	58	37768.8	2.6	<b>20.0312</b>	0.447	2.2	ug/L	68	KED
	Ni -4	60	16507.9	1.8	<b>19.9218</b>	0.310	1.6	ug/L	30	KED
	Ni -5	62	2498.2	1.4	<b>19.9998</b>	0.321	1.6	ug/L	9	KED
	Cu -2	63	42190.6	2.0	<b>20.0277</b>	0.359	1.8	ug/L	172	KED
	Cu -3	65	20019.7	0.9	<b>20.0047</b>	0.097	0.5	ug/L	89	KED
	Zn -3	66	5030.9	2.7	<b>20.8720</b>	0.469	2.2	ug/L	65	KED
	Zn -4	67	836.0	5.5	<b>20.5852</b>	1.187	5.8	ug/L	10	KED
	Zn -5	68	3712.8	1.6	<b>20.7765</b>	0.233	1.1	ug/L	39	KED
	As-2	75	3362.1	2.7	<b>19.8398</b>	0.620	3.1	ug/L	1	KED
	Y-1	89	54210.7	0.2				ug/L	50921	KED
	Rh-1	103	34742.5	1.0				ug/L	32421	KED
>	Ge	72	417498.6	3.3				ug/L	400120	Standard
>	In	115	387879.7	1.3				ug/L	376660	Standard
>	Ge-1	72	23705.0	0.5				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Se -2	82
Kr	83
Y	89
Rh	103
Ni -3	58
Ni -4	60
Ni -5	62
Cu -2	63
Cu -3	65
Zn -3	66
Zn -4	67
Zn -5	68
As-2	75
Y-1	89
Rh-1	103
Ge	72
In	115
Ge-1	72

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# Quantitative Analysis - Summary Report

**Sample ID: Standard 6**

Sample Date/Time: Saturday, June 01, 2024 12:44:33

Report Date/Time: Saturday, June 01, 2024 12:46:53

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\Standard 6.010

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	394222.8	2.3	40.4541	0.270	0.7	ug/L	-4073	Standard
	Ni -1	60	160972.3	2.7	40.2641	0.143	0.4	ug/L	155	Standard
	Ni -2	62	46922.6	1.2	33.8621	0.764	2.3	ug/L	26155	Standard
	Cu	63	380134.3	2.1	39.4468	0.359	0.9	ug/L	25402	Standard
	Cu -1	65	164751.8	3.1	39.8900	0.567	1.4	ug/L	479	Standard
	Zn	66	92960.3	2.7	40.4399	0.420	1.0	ug/L	604	Standard
	Zn -1	67	15425.7	1.9	40.4926	0.206	0.5	ug/L	115	Standard
	Zn -2	68	66165.6	2.8	40.4222	0.233	0.6	ug/L	605	Standard
	As	75	106560.2	1.8	40.9667	0.260	0.6	ug/L	12853	Standard
	As-1	75	94218.9	1.6	41.0187	0.329	0.8	ug/L	-4	Standard
	Se	77	6399.1	5.8	41.6648	1.551	3.7	ug/L	98	Standard
	Se -1	78	33236.3	2.0	40.6736	0.759	1.9	ug/L	12897	Standard
	Br	79	2363.5	4.3				ug/L	2838	Standard
	Se -2	82	8248.0	1.6	40.4307	0.953	2.4	ug/L	35	Standard
	Kr	83	32.3	15.6				ug/L	29	Standard
	Y	89	602648.0	2.2				ug/L	601935	Standard
	Rh	103	108959.1	2.5				ug/L	108502	Standard
	Ni -3	58	70983.1	1.6	39.8496	0.306	0.8	ug/L	68	KED
	Ni -4	60	31156.3	2.3	39.8074	0.306	0.8	ug/L	30	KED
	Ni -5	62	4730.8	1.6	40.0013	0.500	1.2	ug/L	9	KED
	Cu -2	63	78884.9	0.2	39.7146	0.647	1.6	ug/L	172	KED
	Cu -3	65	37473.8	0.5	39.7149	0.929	2.3	ug/L	89	KED
	Zn -3	66	9196.6	0.6	40.2579	0.792	2.0	ug/L	65	KED
	Zn -4	67	1543.8	2.8	40.2021	1.865	4.6	ug/L	10	KED
	Zn -5	68	6969.4	1.3	40.8111	0.636	1.6	ug/L	39	KED
	As-2	75	6379.1	1.8	39.8406	0.189	0.5	ug/L	1	KED
	Y-1	89	52238.0	1.5				ug/L	50921	KED
	Rh-1	103	33559.7	2.3				ug/L	32421	KED
>	Ge	72	405397.4	2.4				ug/L	400120	Standard
>	In	115	378010.8	2.9				ug/L	376660	Standard
>	Ge-1	72	22429.9	1.9				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Se -2	82
Kr	83
Y	89
Rh	103
Ni -3	58
Ni -4	60
Ni -5	62
Cu -2	63
Cu -3	65
Zn -3	66
Zn -4	67
Zn -5	68
As-2	75
Y-1	89
Rh-1	103
Ge	72
In	115
Ge-1	72

# Quantitative Analysis - Summary Report

**Sample ID: Standard 7**

Sample Date/Time: Saturday, June 01, 2024 12:48:23

Report Date/Time: Saturday, June 01, 2024 12:50:43

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\Standard 7.011

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	872263.4	1.6	<b>97.1071</b>	1.576	1.6	ug/L	-4073	Standard
	Ni -1	60	348527.0	1.7	<b>95.1976</b>	1.449	1.5	ug/L	155	Standard
	Ni -2	62	75218.5	1.6	<b>82.7645</b>	1.535	1.9	ug/L	26155	Standard
	Cu	63	795837.2	1.7	<b>93.3736</b>	1.280	1.4	ug/L	25402	Standard
	Cu -1	65	352339.4	1.0	<b>93.6258</b>	0.561	0.6	ug/L	479	Standard
	Zn	66	199103.2	1.9	<b>95.4824</b>	1.495	1.6	ug/L	604	Standard
	Zn -1	67	33548.0	0.7	<b>96.5870</b>	0.690	0.7	ug/L	115	Standard
	Zn -2	68	143553.3	2.4	<b>96.4309</b>	2.232	2.3	ug/L	605	Standard
	As	75	217079.2	1.7	<b>97.3403</b>	1.393	1.4	ug/L	12853	Standard
	As-1	75	206602.2	1.9	<b>97.4061</b>	1.498	1.5	ug/L	-4	Standard
	Se	77	13584.8	2.3	<b>96.9197</b>	1.794	1.9	ug/L	98	Standard
	Se -1	78	56731.8	1.9	<b>97.3209</b>	1.950	2.0	ug/L	12897	Standard
	Br	79	2341.9	1.1				ug/L	2838	Standard
	Se -2	82	18233.6	2.8	<b>97.1856</b>	2.382	2.5	ug/L	35	Standard
	Kr	83	35.3	36.1				ug/L	29	Standard
	Y	89	562417.5	1.3				ug/L	601935	Standard
	Rh	103	101112.7	2.2				ug/L	108502	Standard
	Ni -3	58	156586.8	1.3	<b>95.0426</b>	2.025	2.1	ug/L	68	KED
	Ni -4	60	67808.6	1.5	<b>93.9785</b>	2.521	2.7	ug/L	30	KED
	Ni -5	62	10291.7	2.0	<b>94.2804</b>	2.981	3.2	ug/L	9	KED
	Cu -2	63	171015.0	1.5	<b>93.5266</b>	2.458	2.6	ug/L	172	KED
	Cu -3	65	80810.9	0.9	<b>93.1304</b>	1.995	2.1	ug/L	89	KED
	Zn -3	66	20084.8	1.2	<b>95.7338</b>	2.011	2.1	ug/L	65	KED
	Zn -4	67	3263.7	1.6	<b>93.5364</b>	2.384	2.5	ug/L	10	KED
	Zn -5	68	15116.0	0.7	<b>96.2705</b>	1.186	1.2	ug/L	39	KED
	As-2	75	13993.2	0.5	<b>94.6081</b>	1.042	1.1	ug/L	1	KED
	Y-1	89	48435.0	0.3				ug/L	50921	KED
	Rh-1	103	31417.5	0.5				ug/L	32421	KED
>	Ge	72	376753.1	0.5				ug/L	400120	Standard
>	In	115	354342.9	1.6				ug/L	376660	Standard
>	Ge-1	72	21062.9	1.2				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: Standard 7

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Se -2	82
Kr	83
Y	89
Rh	103
Ni -3	58
Ni -4	60
Ni -5	62
Cu -2	63
Cu -3	65
Zn -3	66
Zn -4	67
Zn -5	68
As-2	75
Y-1	89
Rh-1	103
Ge	72
In	115
Ge-1	72

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 1**

Sample Date/Time: Saturday, June 01, 2024 12:53:03

Report Date/Time: Saturday, June 01, 2024 12:55:23

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 1.012

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	451674.1	2.1	49.2633	0.776	1.6	ug/L	-4073	Standard
	Ni -1	60	183605.9	1.6	48.9471	0.399	0.8	ug/L	155	Standard
	Ni -2	62	49239.4	1.0	42.2734	0.737	1.7	ug/L	26155	Standard
	Cu	63	426238.6	1.5	47.7774	0.100	0.2	ug/L	25402	Standard
	Cu -1	65	185561.4	2.0	48.1122	0.296	0.6	ug/L	479	Standard
	Zn	66	106007.3	1.9	49.5045	0.230	0.5	ug/L	604	Standard
	Zn -1	67	17722.7	2.1	49.6847	0.306	0.6	ug/L	115	Standard
	Zn -2	68	75890.4	1.5	49.5846	0.066	0.1	ug/L	605	Standard
	As	75	120812.9	1.8	50.2635	0.205	0.4	ug/L	12853	Standard
	As-1	75	109568.2	1.8	50.4207	0.173	0.3	ug/L	-4	Standard
	Se	77	7495.6	1.3	51.9128	0.108	0.2	ug/L	98	Standard
	Se -1	78	36000.3	1.5	50.4130	0.226	0.4	ug/L	12897	Standard
	Br	79	2079.2	1.4				ug/L	2838	Standard
	Se -2	82	9767.0	1.3	50.7418	0.192	0.4	ug/L	35	Standard
	Kr	83	32.3	23.6				ug/L	29	Standard
	Y	89	583853.4	2.7				ug/L	601935	Standard
	Rh	103	104101.8	3.0				ug/L	108502	Standard
	Ni -3	58	79822.7	0.6	48.5963	0.219	0.5	ug/L	68	KED
	Ni -4	60	34937.7	1.0	48.5663	0.402	0.8	ug/L	30	KED
	Ni -5	62	5280.3	0.4	48.5243	0.368	0.8	ug/L	9	KED
	Cu -2	63	88845.5	1.4	48.7225	0.464	1.0	ug/L	172	KED
	Cu -3	65	41598.8	1.3	48.0760	0.604	1.3	ug/L	89	KED
	Zn -3	66	10405.8	1.2	49.6595	0.311	0.6	ug/L	65	KED
	Zn -4	67	1765.4	2.0	50.6271	0.777	1.5	ug/L	10	KED
	Zn -5	68	7852.5	1.1	50.0347	0.821	1.6	ug/L	39	KED
	As-2	75	7337.9	2.6	49.7704	1.537	3.1	ug/L	1	KED
	Y-1	89	49328.7	0.8				ug/L	50921	KED
	Rh-1	103	31633.7	1.3				ug/L	32421	KED
>	Ge	72	385981.6	1.5				ug/L	400120	Standard
>	In	115	363968.6	1.5				ug/L	376660	Standard
>	Ge-1	72	20995.4	0.6				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	98.527	
	Ni -1	60	97.894	
	Ni -2	62	84.547	
	Cu	63	95.555	
	Cu -1	65	96.224	
	Zn	66	99.009	
	Zn -1	67	99.369	
	Zn -2	68	99.169	
	As	75	100.527	
	As-1	75	100.841	
	Se	77	103.826	
	Se -1	78	100.826	
	Br	79		

Sample ID: QC Std 1

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	Se -2	82	101.484	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	97.193	
	Ni -4	60	97.133	
	Ni -5	62	97.049	
	Cu -2	63	97.445	
	Cu -3	65	96.152	
	Zn -3	66	99.319	
	Zn -4	67	101.254	
	Zn -5	68	100.069	
	As-2	75	99.541	
	Y-1	89		
	Rh-1	103		
>	Ge	72		96.467
>	In	115		96.630
>	Ge-1	72		96.002

## Quantitative Analysis - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Saturday, June 01, 2024 12:57:44

Report Date/Time: Saturday, June 01, 2024 13:00:04

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 2.013

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-3501.8	2.4	-0.0051	0.009	183.6	ug/L	-4073	Standard
	Ni -1	60	168.3	11.7	0.0336	0.005	15.8	ug/L	155	Standard
	Ni -2	62	19513.7	1.2	-1.4875	0.632	42.5	ug/L	26155	Standard
	Cu	63	18006.3	0.8	-0.0997	0.036	35.9	ug/L	25402	Standard
	Cu -1	65	458.3	3.4	0.0846	0.003	3.1	ug/L	479	Standard
	Zn	66	643.3	6.0	0.0550	0.019	34.9	ug/L	604	Standard
	Zn -1	67	107.3	1.4	0.0565	0.007	11.7	ug/L	115	Standard
	Zn -2	68	645.0	1.2	0.0546	0.003	4.6	ug/L	605	Standard
	As	75	12693.1	1.5	0.0570	0.038	66.3	ug/L	12853	Standard
	As-1	75	52.3	20.4	0.0193	0.005	26.1	ug/L	-4	Standard
	Se	77	87.0	10.0	-0.0277	0.061	220.3	ug/L	98	Standard
	Se -1	78	12722.0	1.9	0.5812	0.217	37.3	ug/L	12897	Standard
	Br	79	1872.5	2.0				ug/L	2838	Standard
	Se -2	82	50.7	33.4	0.0995	0.084	84.6	ug/L	35	Standard
	Kr	83	28.3	16.7				ug/L	29	Standard
	Y	89	599543.2	3.3				ug/L	601935	Standard
	Rh	103	107622.2	3.7				ug/L	108502	Standard
	Ni -3	58	71.4	10.8	0.0379	0.004	10.7	ug/L	68	KED
	Ni -4	60	32.0	18.8	0.0422	0.008	18.0	ug/L	30	KED
	Ni -5	62	6.0	57.7	0.0692	0.031	44.4	ug/L	9	KED
	Cu -2	63	190.0	6.7	0.0781	0.006	7.9	ug/L	172	KED
	Cu -3	65	88.7	21.5	0.0781	0.023	29.1	ug/L	89	KED
	Zn -3	66	71.0	18.4	0.1441	0.059	40.6	ug/L	65	KED
	Zn -4	67	9.7	57.0	0.0089	0.155	1741.6	ug/L	10	KED
	Zn -5	68	51.0	7.1	0.0359	0.025	70.9	ug/L	39	KED
	As-2	75	3.0	33.3	0.0162	0.006	39.4	ug/L	1	KED
	Y-1	89	51022.3	1.3				ug/L	50921	KED
	Rh-1	103	32139.4	0.9				ug/L	32421	KED
>	Ge	72	392763.8	1.1				ug/L	400120	Standard
>	In	115	366837.7	2.9				ug/L	376660	Standard
>	Ge-1	72	21500.2	1.2				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: QC Std 2

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	98.162
In	115	97.392
Ge-1	72	98.310

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Saturday, June 01, 2024 13:01:35

Report Date/Time: Saturday, June 01, 2024 13:03:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 6.014

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	365531.7	1.3	38.8806	0.279	0.7	ug/L	-4073	Standard
	Ni -1	60	150006.9	1.7	38.9171	0.112	0.3	ug/L	155	Standard
	Ni -2	62	41066.6	0.9	28.7778	0.658	2.3	ug/L	26155	Standard
	Cu	63	351572.7	2.0	37.9229	0.095	0.3	ug/L	25402	Standard
	Cu -1	65	154798.6	0.9	39.0614	0.401	1.0	ug/L	479	Standard
	Zn	66	87507.6	1.9	39.7248	0.042	0.1	ug/L	604	Standard
	Zn -1	67	14543.7	2.5	39.6310	0.278	0.7	ug/L	115	Standard
	Zn -2	68	62673.9	1.5	39.7843	0.434	1.1	ug/L	605	Standard
	As	75	101250.3	0.7	39.9514	0.793	2.0	ug/L	12853	Standard
	As-1	75	89280.3	0.8	39.9924	0.725	1.8	ug/L	-4	Standard
	Se	77	6068.0	3.6	40.7567	0.714	1.8	ug/L	98	Standard
	Se -1	78	32012.8	1.4	40.1423	0.369	0.9	ug/L	12897	Standard
	Br	79	1875.5	1.1				ug/L	2838	Standard
	Se -2	82	7911.9	2.0	39.9675	0.178	0.4	ug/L	35	Standard
	Kr	83	30.0	6.7				ug/L	29	Standard
	Y	89	606595.3	1.4				ug/L	601935	Standard
	Rh	103	107870.9	2.1				ug/L	108502	Standard
	Ni -3	58	67599.8	0.5	39.8508	0.441	1.1	ug/L	68	KED
	Ni -4	60	29128.0	0.5	39.2083	0.460	1.2	ug/L	30	KED
	Ni -5	62	4295.3	0.7	38.2300	0.876	2.3	ug/L	9	KED
	Cu -2	63	74122.5	0.8	39.3583	0.575	1.5	ug/L	172	KED
	Cu -3	65	35185.9	0.7	39.3777	0.903	2.3	ug/L	89	KED
	Zn -3	66	8808.0	1.9	40.6660	0.409	1.0	ug/L	65	KED
	Zn -4	67	1414.7	0.4	39.2302	0.606	1.5	ug/L	10	KED
	Zn -5	68	6517.5	0.4	40.1594	0.822	2.0	ug/L	39	KED
	As-2	75	6049.9	0.9	39.7325	0.710	1.8	ug/L	1	KED
	Y-1	89	51319.0	0.8				ug/L	50921	KED
	Rh-1	103	32542.7	0.9				ug/L	32421	KED
>	Ge	72	396611.5	2.0				ug/L	400120	Standard
>	In	115	372370.0	1.9				ug/L	376660	Standard
>	Ge-1	72	21684.4	1.6				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	97.201	
	Ni -1	60	97.293	
	Ni -2	62	71.944	
	Cu	63	94.807	
	Cu -1	65	97.653	
	Zn	66	99.312	
	Zn -1	67	99.077	
	Zn -2	68	99.461	
	As	75	99.878	
	As-1	75	99.981	
	Se	77	101.892	
	Se -1	78	100.356	
	Br	79		

Sample ID: QC Std 6

Report Date/Time: Saturday, June 01, 2024 13:03:54

	Se -2	82	99.919	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	99.627	
	Ni -4	60	98.021	
	Ni -5	62	95.575	
	Cu -2	63	98.396	
	Cu -3	65	98.444	
	Zn -3	66	101.665	
	Zn -4	67	98.075	
	Zn -5	68	100.398	
	As-2	75	99.331	
	Y-1	89		
	Rh-1	103		
>	Ge	72		99.123
>	In	115		98.861
>	Ge-1	72		99.153

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Saturday, June 01, 2024 13:06:16

Report Date/Time: Saturday, June 01, 2024 13:08:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 7.015

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	200828.6	1.4	<b>20.5640</b>	0.503	2.4	ug/L	-4073	Standard
	Ni -1	60	82228.0	1.6	<b>20.3564</b>	0.423	2.1	ug/L	155	Standard
	Ni -2	62	32288.8	1.0	<b>14.2593</b>	1.162	8.1	ug/L	26155	Standard
	Cu	63	200814.3	0.9	<b>19.6904</b>	0.596	3.0	ug/L	25402	Standard
	Cu -1	65	83569.1	1.4	<b>20.1104</b>	0.450	2.2	ug/L	479	Standard
	Zn	66	47589.8	2.0	<b>20.5027</b>	0.406	2.0	ug/L	604	Standard
	Zn -1	67	7950.2	2.1	<b>20.5645</b>	0.528	2.6	ug/L	115	Standard
	Zn -2	68	33892.9	3.2	<b>20.3506</b>	0.221	1.1	ug/L	605	Standard
	As	75	59971.8	2.1	<b>20.0902</b>	0.395	2.0	ug/L	12853	Standard
	As-1	75	47745.8	2.6	<b>20.4031</b>	0.278	1.4	ug/L	-4	Standard
	Se	77	3273.7	2.0	<b>20.6879</b>	0.509	2.5	ug/L	98	Standard
	Se -1	78	23115.4	2.2	<b>19.6098</b>	1.462	7.5	ug/L	12897	Standard
	Br	79	1881.1	1.3				ug/L	2838	Standard
	Se -2	82	4307.0	1.5	<b>20.6912</b>	0.469	2.3	ug/L	35	Standard
	Kr	83	31.0	11.6				ug/L	29	Standard
	Y	89	622960.1	1.8				ug/L	601935	Standard
	Rh	103	112496.6	1.7				ug/L	108502	Standard
	Ni -3	58	36619.1	0.6	<b>20.3036</b>	0.062	0.3	ug/L	68	KED
	Ni -4	60	16040.7	1.1	<b>20.3109</b>	0.364	1.8	ug/L	30	KED
	Ni -5	62	2424.9	1.8	<b>20.3075</b>	0.481	2.4	ug/L	9	KED
	Cu -2	63	40421.1	1.6	<b>20.1792</b>	0.457	2.3	ug/L	172	KED
	Cu -3	65	19266.7	0.7	<b>20.2689</b>	0.181	0.9	ug/L	89	KED
	Zn -3	66	4761.1	0.5	<b>20.5873</b>	0.154	0.7	ug/L	65	KED
	Zn -4	67	767.4	1.2	<b>19.8868</b>	0.354	1.8	ug/L	10	KED
	Zn -5	68	3592.5	0.5	<b>20.6834</b>	0.095	0.5	ug/L	39	KED
	As-2	75	3216.4	1.5	<b>19.8654</b>	0.153	0.8	ug/L	1	KED
	Y-1	89	53651.6	0.5				ug/L	50921	KED
	Rh-1	103	34478.6	1.1				ug/L	32421	KED
>	Ge	72	415731.2	3.7				ug/L	400120	Standard
>	In	115	392312.1	1.6				ug/L	376660	Standard
>	Ge-1	72	23050.6	0.8				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	102.820	
	Ni -1	60	101.782	
	Ni -2	62	71.296	
	Cu	63	98.452	
	Cu -1	65	100.552	
	Zn	66	102.513	
	Zn -1	67	102.823	
	Zn -2	68	101.753	
	As	75	100.451	
	As-1	75	102.016	
	Se	77	103.439	
	Se -1	78	98.049	
	Br	79		

Sample ID: QC Std 7

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	Se -2	82	103.456	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	101.518	
	Ni -4	60	101.554	
	Ni -5	62	101.537	
	Cu -2	63	100.896	
	Cu -3	65	101.344	
	Zn -3	66	102.937	
	Zn -4	67	99.434	
	Zn -5	68	103.417	
	As-2	75	99.327	
	Y-1	89		
	Rh-1	103		
>	Ge	72		103.902
>	In	115		104.155
>	Ge-1	72		105.399

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Saturday, June 01, 2024 13:10:56

Report Date/Time: Saturday, June 01, 2024 13:13:16

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 8.016

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-3938.1	4.0	-0.0384	0.008	20.1	ug/L	-4073	Standard
	Ni -1	60	168.3	10.2	0.0323	0.005	16.1	ug/L	155	Standard
	Ni -2	62	19730.6	1.0	-2.0515	0.473	23.1	ug/L	26155	Standard
	Cu	63	18496.0	0.5	-0.1090	0.049	45.4	ug/L	25402	Standard
	Cu -1	65	475.3	6.4	0.0853	0.009	10.8	ug/L	479	Standard
	Zn	66	712.0	5.4	0.0763	0.011	14.3	ug/L	604	Standard
	Zn -1	67	121.3	10.5	0.0845	0.030	35.3	ug/L	115	Standard
	Zn -2	68	675.3	1.0	0.0608	0.011	18.3	ug/L	605	Standard
	As	75	12664.6	0.4	-0.1335	0.094	70.2	ug/L	12853	Standard
	As-1	75	10.5	673.3	0.0005	0.031	6461.2	ug/L	-4	Standard
	Se	77	80.3	18.7	-0.0905	0.103	113.6	ug/L	98	Standard
	Se -1	78	12705.6	0.8	-0.2680	0.366	136.7	ug/L	12897	Standard
	Br	79	1808.4	4.2				ug/L	2838	Standard
	Se -2	82	39.0	18.5	0.0341	0.036	104.4	ug/L	35	Standard
	Kr	83	30.0	26.0				ug/L	29	Standard
	Y	89	611161.6	1.1				ug/L	601935	Standard
	Rh	103	110678.8	1.5				ug/L	108502	Standard
	Ni -3	58	80.5	7.3	0.0403	0.003	6.4	ug/L	68	KED
	Ni -4	60	37.3	10.1	0.0464	0.006	11.9	ug/L	30	KED
	Ni -5	62	7.3	61.5	0.0774	0.038	49.7	ug/L	9	KED
	Cu -2	63	192.3	12.5	0.0731	0.013	18.0	ug/L	172	KED
	Cu -3	65	91.7	7.9	0.0748	0.006	8.2	ug/L	89	KED
	Zn -3	66	61.0	7.5	0.0797	0.016	20.4	ug/L	65	KED
	Zn -4	67	11.3	48.6	0.0356	0.145	407.2	ug/L	10	KED
	Zn -5	68	45.3	15.5	-0.0174	0.041	234.9	ug/L	39	KED
	As-2	75	2.0	50.0	0.0088	0.006	71.2	ug/L	1	KED
	Y-1	89	53297.9	0.6				ug/L	50921	KED
	Rh-1	103	34427.4	0.7				ug/L	32421	KED
>	Ge	72	405337.9	2.1				ug/L	400120	Standard
>	In	115	388937.2	1.4				ug/L	376660	Standard
>	Ge-1	72	22927.4	1.6				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

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	Se -2	82	
	Kr	83	
	Y	89	
	Rh	103	
	Ni -3	58	
	Ni -4	60	
	Ni -5	62	
	Cu -2	63	
	Cu -3	65	
	Zn -3	66	
	Zn -4	67	
	Zn -5	68	
	As-2	75	
	Y-1	89	
	Rh-1	103	
>	Ge	72	101.304
>	In	115	103.259
>	Ge-1	72	104.836

# Quantitative Analysis - Summary Report

**Sample ID: MB0601WH1 2X**

Sample Date/Time: Saturday, June 01, 2024 13:20:40

Report Date/Time: Saturday, June 01, 2024 13:23:00

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\MB0601WH1 2X.018

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-5520.9	1.2	-0.3534	0.008	2.2	ug/L	-4073	Standard
	Ni -1	60	139.3	4.0	0.0343	0.002	5.1	ug/L	155	Standard
	Ni -2	62	22491.4	0.4	10.0796	0.219	2.2	ug/L	26155	Standard
	Cu	63	19519.0	0.5	0.5851	0.011	1.8	ug/L	25402	Standard
	Cu -1	65	290.7	5.0	0.0587	0.005	7.7	ug/L	479	Standard
	Zn	66	634.7	1.8	0.1175	0.007	6.1	ug/L	604	Standard
	Zn -1	67	2978.6	1.7	9.8800	0.172	1.7	ug/L	115	Standard
	Zn -2	68	890.7	1.1	0.3444	0.008	2.2	ug/L	605	Standard
	As	75	11807.7	1.9	0.8759	0.115	13.2	ug/L	12853	Standard
	As-1	75	140.6	142.0	0.0736	0.111	150.4	ug/L	-4	Standard
	Se	77	6223.4	1.1	51.9839	0.643	1.2	ug/L	98	Standard
	Se -1	78	11723.1	2.4	4.0531	0.695	17.1	ug/L	12897	Standard
	Br	79	1794.1	4.1				ug/L	2838	Standard
	Se -2	82	39.3	25.6	0.0877	0.063	71.8	ug/L	35	Standard
	Kr	83	45.7	18.6				ug/L	29	Standard
	Y	89	469983.7	2.5				ug/L	601935	Standard
	Rh	103	82032.5	1.1				ug/L	108502	Standard
	Ni -3	58	81.4	9.2	0.0378	0.004	10.7	ug/L	68	KED
	Ni -4	60	33.0	10.5	0.0380	0.004	10.5	ug/L	30	KED
	Ni -5	62	10.7	27.1	0.0993	0.022	22.5	ug/L	9	KED
	Cu -2	63	142.3	9.6	0.0431	0.007	16.4	ug/L	172	KED
	Cu -3	65	69.3	11.0	0.0463	0.008	17.4	ug/L	89	KED
	Zn -3	66	70.7	16.3	0.1011	0.044	43.8	ug/L	65	KED
	Zn -4	67	11.0	41.7	0.0081	0.115	1410.6	ug/L	10	KED
	Zn -5	68	54.7	14.2	0.0158	0.043	270.3	ug/L	39	KED
	As-2	75	10.3	24.4	0.0562	0.014	25.5	ug/L	1	KED
	Y-1	89	51483.9	0.8				ug/L	50921	KED
	Rh-1	103	36539.7	1.3				ug/L	32421	KED
>	Ge	72	320032.0	0.2				ug/L	400120	Standard
>	In	115	328843.6	1.3				ug/L	376660	Standard
>	Ge-1	72	24583.5	1.1				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: MB0601WH1 2X

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	Se -2	82	
	Kr	83	
	Y	89	
	Rh	103	
	Ni -3	58	
	Ni -4	60	
	Ni -5	62	
	Cu -2	63	
	Cu -3	65	
	Zn -3	66	
	Zn -4	67	
	Zn -5	68	
	As-2	75	
	Y-1	89	
	Rh-1	103	
>	Ge	72	79.984
>	In	115	87.305
>	Ge-1	72	112.409

# Quantitative Analysis - Summary Report

**Sample ID: SB0601WH1 2X**

Sample Date/Time: Saturday, June 01, 2024 13:25:20

Report Date/Time: Saturday, June 01, 2024 13:27:39

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\SB0601WH1 2X.019

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	426250.9	1.6	55.1953	0.434	0.8	ug/L	-4073	Standard
	Ni -1	60	170659.0	1.1	54.0637	0.712	1.3	ug/L	155	Standard
	Ni -2	62	45394.7	0.7	49.1240	1.701	3.5	ug/L	26155	Standard
	Cu	63	382139.2	1.3	51.0462	1.107	2.2	ug/L	25402	Standard
	Cu -1	65	165136.6	2.1	50.8753	0.180	0.4	ug/L	479	Standard
	Zn	66	90338.8	1.6	50.1330	0.421	0.8	ug/L	604	Standard
	Zn -1	67	17596.8	1.1	58.6714	1.074	1.8	ug/L	115	Standard
	Zn -2	68	63039.9	3.2	48.9246	0.606	1.2	ug/L	605	Standard
	As	75	90982.4	1.9	44.3753	0.500	1.1	ug/L	12853	Standard
	As-1	75	81253.0	2.2	44.4256	0.392	0.9	ug/L	-4	Standard
	Se	77	11855.3	2.5	98.0958	0.185	0.2	ug/L	98	Standard
	Se -1	78	28489.4	0.0	45.8743	1.727	3.8	ug/L	12897	Standard
	Br	79	1763.1	2.4				ug/L	2838	Standard
	Se -2	82	7403.3	0.5	45.6926	0.951	2.1	ug/L	35	Standard
	Kr	83	52.7	12.6				ug/L	29	Standard
	Y	89	484677.5	0.9				ug/L	601935	Standard
	Rh	103	83394.4	1.5				ug/L	108502	Standard
	Ni -3	58	103123.3	0.5	53.7017	0.457	0.9	ug/L	68	KED
	Ni -4	60	44531.3	0.9	52.9478	0.324	0.6	ug/L	30	KED
	Ni -5	62	6687.2	1.2	52.5668	1.090	2.1	ug/L	9	KED
	Cu -2	63	111528.1	1.7	52.3151	0.599	1.1	ug/L	172	KED
	Cu -3	65	51833.5	1.7	51.2377	0.605	1.2	ug/L	89	KED
	Zn -3	66	11609.0	1.4	47.3796	0.504	1.1	ug/L	65	KED
	Zn -4	67	1908.1	3.8	46.7977	2.196	4.7	ug/L	10	KED
	Zn -5	68	8695.3	1.5	47.3779	1.084	2.3	ug/L	39	KED
	As-2	75	7905.9	0.7	45.8642	0.716	1.6	ug/L	1	KED
	Y-1	89	51664.3	1.3				ug/L	50921	KED
	Rh-1	103	36711.5	1.8				ug/L	32421	KED
>	Ge	72	324882.7	2.4				ug/L	400120	Standard
>	In	115	338583.0	0.7				ug/L	376660	Standard
>	Ge-1	72	24546.4	0.8				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: SB0601WH1 2X

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	81.196
In	115	89.891
Ge-1	72	112.239

## Quantitative Analysis - Summary Report

**Sample ID: 05-300-05b 2X**

Sample Date/Time: Saturday, June 01, 2024 13:30:44

Report Date/Time: Saturday, June 01, 2024 13:33:03

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-300-05b 2X.020

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	32236.3	6.1	<b>4.3945</b>	0.256	5.8	ug/L	-4073	Standard
	Ni -1	60	12868.5	1.1	<b>3.9486</b>	0.012	0.3	ug/L	155	Standard
	Ni -2	62	25439.3	0.5	<b>13.3219</b>	0.271	2.0	ug/L	26155	Standard
	Cu	63	48101.5	1.7	<b>4.3304</b>	0.084	2.0	ug/L	25402	Standard
	Cu -1	65	12652.3	0.8	<b>3.7558</b>	0.037	1.0	ug/L	479	Standard
	Zn	66	72739.7	1.6	<b>39.1484</b>	0.753	1.9	ug/L	604	Standard
	Zn -1	67	14662.5	0.9	<b>47.4214</b>	0.141	0.3	ug/L	115	Standard
	Zn -2	68	50487.1	1.8	<b>37.9748</b>	0.271	0.7	ug/L	605	Standard
	As	75	16599.9	1.5	<b>3.1523</b>	0.050	1.6	ug/L	12853	Standard
	As-1	75	3534.6	4.5	<b>1.8722</b>	0.065	3.5	ug/L	-4	Standard
	Se	77	7761.4	2.4	<b>62.1399</b>	1.127	1.8	ug/L	98	Standard
	Se -1	78	13171.1	0.7	<b>6.2981</b>	0.135	2.1	ug/L	12897	Standard
	Br	79	5938.2	0.4				ug/L	2838	Standard
	Se -2	82	61.0	5.7	<b>0.2075</b>	0.025	11.8	ug/L	35	Standard
	Kr	83	60.7	1.0				ug/L	29	Standard
	Y	89	512771.1	1.1				ug/L	601935	Standard
	Rh	103	85463.6	2.2				ug/L	108502	Standard
	Ni -3	58	10019.9	2.5	<b>5.2737</b>	0.052	1.0	ug/L	68	KED
	Ni -4	60	3286.0	3.2	<b>3.9507</b>	0.066	1.7	ug/L	30	KED
	Ni -5	62	511.0	5.5	<b>4.0764</b>	0.176	4.3	ug/L	9	KED
	Cu -2	63	8358.1	2.4	<b>3.9449</b>	0.107	2.7	ug/L	172	KED
	Cu -3	65	3880.5	0.9	<b>3.8605</b>	0.047	1.2	ug/L	89	KED
	Zn -3	66	9059.2	1.4	<b>37.3638</b>	0.082	0.2	ug/L	65	KED
	Zn -4	67	1481.1	4.4	<b>36.6769</b>	1.399	3.8	ug/L	10	KED
	Zn -5	68	6627.9	2.3	<b>36.4647</b>	0.736	2.0	ug/L	39	KED
	As-2	75	364.0	1.9	<b>2.1333</b>	0.075	3.5	ug/L	1	KED
	Y-1	89	51953.7	2.0				ug/L	50921	KED
	Rh-1	103	35739.0	1.8				ug/L	32421	KED
>	Ge	72	334524.4	1.1				ug/L	400120	Standard
>	In	115	338429.3	1.0				ug/L	376660	Standard
>	Ge-1	72	24264.6	1.6				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

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	Se -2	82	
	Kr	83	
	Y	89	
	Rh	103	
	Ni -3	58	
	Ni -4	60	
	Ni -5	62	
	Cu -2	63	
	Cu -3	65	
	Zn -3	66	
	Zn -4	67	
	Zn -5	68	
	As-2	75	
	Y-1	89	
	Rh-1	103	
>	Ge	72	83.606
>	In	115	89.850
>	Ge-1	72	110.951

# Quantitative Analysis - Summary Report

**Sample ID: 05-300-05bD 2X**

Sample Date/Time: Saturday, June 01, 2024 13:44:29

Report Date/Time: Saturday, June 01, 2024 13:46:48

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-300-05bD 2X.023

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	32171.8	5.9	<b>4.6704</b>	0.211	4.5	ug/L	-4073	Standard
	Ni -1	60	13880.1	2.2	<b>4.5634</b>	0.060	1.3	ug/L	155	Standard
	Ni -2	62	23826.2	1.0	<b>13.4642</b>	0.874	6.5	ug/L	26155	Standard
	Cu	63	44973.3	0.8	<b>4.3403</b>	0.015	0.3	ug/L	25402	Standard
	Cu -1	65	12045.7	1.3	<b>3.8308</b>	0.055	1.4	ug/L	479	Standard
	Zn	66	66147.8	1.4	<b>38.1244</b>	0.304	0.8	ug/L	604	Standard
	Zn -1	67	13872.7	3.4	<b>48.0548</b>	1.144	2.4	ug/L	115	Standard
	Zn -2	68	45200.7	1.6	<b>36.4049</b>	0.470	1.3	ug/L	605	Standard
	As	75	15371.7	0.9	<b>3.0819</b>	0.169	5.5	ug/L	12853	Standard
	As-1	75	3295.5	6.7	<b>1.8712</b>	0.144	7.7	ug/L	-4	Standard
	Se	77	6868.0	1.5	<b>58.8737</b>	1.032	1.8	ug/L	98	Standard
	Se -1	78	12164.5	0.7	<b>5.9529</b>	0.098	1.6	ug/L	12897	Standard
	Br	79	4716.4	2.3				ug/L	2838	Standard
	Se -2	82	52.7	8.6	<b>0.1797</b>	0.027	15.2	ug/L	35	Standard
	Kr	83	51.7	4.0				ug/L	29	Standard
	Y	89	482063.5	1.1				ug/L	601935	Standard
	Rh	103	79861.6	1.4				ug/L	108502	Standard
	Ni -3	58	10966.7	1.5	<b>5.6510</b>	0.126	2.2	ug/L	68	KED
	Ni -4	60	3655.5	1.8	<b>4.3021</b>	0.044	1.0	ug/L	30	KED
	Ni -5	62	540.0	2.4	<b>4.2189</b>	0.189	4.5	ug/L	9	KED
	Cu -2	63	8291.1	3.0	<b>3.8285</b>	0.084	2.2	ug/L	172	KED
	Cu -3	65	3869.2	1.2	<b>3.7668</b>	0.065	1.7	ug/L	89	KED
	Zn -3	66	8863.4	3.1	<b>35.7624</b>	0.417	1.2	ug/L	65	KED
	Zn -4	67	1423.4	1.5	<b>34.4979</b>	1.150	3.3	ug/L	10	KED
	Zn -5	68	6579.8	1.9	<b>35.4206</b>	0.440	1.2	ug/L	39	KED
	As-2	75	367.0	7.6	<b>2.1028</b>	0.124	5.9	ug/L	1	KED
	Y-1	89	52783.0	2.2				ug/L	50921	KED
	Rh-1	103	36396.0	1.6				ug/L	32421	KED
>	Ge	72	312301.3	1.0				ug/L	400120	Standard
>	In	115	329419.0	1.4				ug/L	376660	Standard
>	Ge-1	72	24796.2	2.6				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

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	Se -2	82	
	Kr	83	
	Y	89	
	Rh	103	
	Ni -3	58	
	Ni -4	60	
	Ni -5	62	
	Cu -2	63	
	Cu -3	65	
	Zn -3	66	
	Zn -4	67	
	Zn -5	68	
	As-2	75	
	Y-1	89	
	Rh-1	103	
>	Ge	72	78.052
>	In	115	87.458
>	Ge-1	72	113.381

# Quantitative Analysis - Summary Report

**Sample ID: 05-300-05bL 10X**

Sample Date/Time: Saturday, June 01, 2024 13:49:07

Report Date/Time: Saturday, June 01, 2024 13:51:27

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-300-05bL 10X.024

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-1214.4	44.3	<b>0.2019</b>	0.073	36.3	ug/L	-4073	Standard
	Ni -1	60	2937.0	2.0	<b>0.9758</b>	0.007	0.7	ug/L	155	Standard
	Ni -2	62	20080.4	1.3	<b>7.4137</b>	0.739	10.0	ug/L	26155	Standard
	Cu	63	22999.5	0.6	<b>1.2216</b>	0.057	4.7	ug/L	25402	Standard
	Cu -1	65	2986.0	1.6	<b>0.9436</b>	0.008	0.9	ug/L	479	Standard
	Zn	66	15618.9	0.9	<b>8.9905</b>	0.037	0.4	ug/L	604	Standard
	Zn -1	67	3380.1	0.3	<b>11.7537</b>	0.121	1.0	ug/L	115	Standard
	Zn -2	68	11003.6	2.6	<b>8.7577</b>	0.122	1.4	ug/L	605	Standard
	As	75	12652.7	1.0	<b>1.6619</b>	0.036	2.2	ug/L	12853	Standard
	As-1	75	816.5	6.3	<b>0.4692</b>	0.036	7.6	ug/L	-4	Standard
	Se	77	1800.1	3.7	<b>15.2620</b>	0.417	2.7	ug/L	98	Standard
	Se -1	78	11889.9	1.3	<b>5.8273</b>	0.172	2.9	ug/L	12897	Standard
	Br	79	2323.2	1.0				ug/L	2838	Standard
	Se -2	82	38.7	14.2	<b>0.0947</b>	0.039	41.6	ug/L	35	Standard
	Kr	83	39.0	16.8				ug/L	29	Standard
	Y	89	452141.2	2.0				ug/L	601935	Standard
	Rh	103	79909.2	1.1				ug/L	108502	Standard
	Ni -3	58	2027.0	2.3	<b>1.1281</b>	0.018	1.6	ug/L	68	KED
	Ni -4	60	722.7	4.0	<b>0.9207</b>	0.029	3.2	ug/L	30	KED
	Ni -5	62	108.3	11.4	<b>0.9293</b>	0.107	11.5	ug/L	9	KED
	Cu -2	63	1911.8	2.5	<b>0.9393</b>	0.033	3.5	ug/L	172	KED
	Cu -3	65	900.7	1.8	<b>0.9336</b>	0.013	1.4	ug/L	89	KED
	Zn -3	66	1994.1	1.4	<b>8.5812</b>	0.202	2.4	ug/L	65	KED
	Zn -4	67	323.3	6.1	<b>8.2887</b>	0.439	5.3	ug/L	10	KED
	Zn -5	68	1424.1	0.4	<b>8.0918</b>	0.066	0.8	ug/L	39	KED
	As-2	75	73.7	5.5	<b>0.4549</b>	0.023	5.1	ug/L	1	KED
	Y-1	89	48273.1	1.4				ug/L	50921	KED
	Rh-1	103	33484.2	0.9				ug/L	32421	KED
>	Ge	72	306454.8	1.3				ug/L	400120	Standard
>	In	115	314277.2	0.5				ug/L	376660	Standard
>	Ge-1	72	22875.6	1.0				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	76.591
In	115	83.438
Ge-1	72	104.600

## Quantitative Analysis - Summary Report

**Sample ID: 05-300-05bMS 2X**

Sample Date/Time: Saturday, June 01, 2024 13:53:47

Report Date/Time: Saturday, June 01, 2024 13:56:06

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-300-05bMS 2X.025

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	444621.4	2.4	<b>64.1856</b>	0.577	0.9	ug/L	-4073	Standard
	Ni -1	60	174981.0	1.6	<b>61.8575</b>	0.119	0.2	ug/L	155	Standard
	Ni -2	62	45750.8	1.0	<b>58.9054</b>	0.426	0.7	ug/L	26155	Standard
	Cu	63	391426.6	2.1	<b>58.6490</b>	0.440	0.7	ug/L	25402	Standard
	Cu -1	65	166917.0	1.8	<b>57.3947</b>	0.213	0.4	ug/L	479	Standard
	Zn	66	149659.1	2.3	<b>92.8839</b>	1.137	1.2	ug/L	604	Standard
	Zn -1	67	27362.9	1.8	<b>101.9749</b>	0.417	0.4	ug/L	115	Standard
	Zn -2	68	100585.2	1.4	<b>87.4219</b>	0.686	0.8	ug/L	605	Standard
	As	75	89949.9	1.1	<b>49.5570</b>	0.638	1.3	ug/L	12853	Standard
	As-1	75	80366.3	1.2	<b>49.0458</b>	0.718	1.5	ug/L	-4	Standard
	Se	77	11696.5	0.6	<b>108.0960</b>	1.263	1.2	ug/L	98	Standard
	Se -1	78	28086.6	1.3	<b>53.0500</b>	0.185	0.3	ug/L	12897	Standard
	Br	79	4848.5	1.2				ug/L	2838	Standard
	Se -2	82	7301.9	0.9	<b>50.3028</b>	0.370	0.7	ug/L	35	Standard
	Kr	83	53.3	7.6				ug/L	29	Standard
	Y	89	451231.6	2.1				ug/L	601935	Standard
	Rh	103	73851.8	1.8				ug/L	108502	Standard
	Ni -3	58	110844.3	1.2	<b>60.2405</b>	0.642	1.1	ug/L	68	KED
	Ni -4	60	47351.4	0.9	<b>58.7631</b>	1.023	1.7	ug/L	30	KED
	Ni -5	62	6979.4	1.8	<b>57.2453</b>	0.367	0.6	ug/L	9	KED
	Cu -2	63	119433.9	1.1	<b>58.4752</b>	0.762	1.3	ug/L	172	KED
	Cu -3	65	55424.6	0.8	<b>57.1867</b>	0.809	1.4	ug/L	89	KED
	Zn -3	66	20062.4	1.8	<b>85.5982</b>	0.412	0.5	ug/L	65	KED
	Zn -4	67	3293.4	3.6	<b>84.4560</b>	1.193	1.4	ug/L	10	KED
	Zn -5	68	15053.6	2.3	<b>85.8070</b>	0.247	0.3	ug/L	39	KED
	As-2	75	8414.1	1.7	<b>50.9366</b>	0.312	0.6	ug/L	1	KED
	Y-1	89	49217.3	1.6				ug/L	50921	KED
	Rh-1	103	34500.6	1.6				ug/L	32421	KED
>	Ge	72	291083.7	1.5				ug/L	400120	Standard
>	In	115	307919.3	1.9				ug/L	376660	Standard
>	Ge-1	72	23523.4	2.3				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	72.749
In	115	81.750
Ge-1	72	107.561

## Quantitative Analysis - Summary Report

**Sample ID: 05-300-05bMSD 2X**

Sample Date/Time: Saturday, June 01, 2024 14:03:54

Report Date/Time: Saturday, June 01, 2024 14:06:14

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-300-05bMSD 2X.027

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	445268.6	1.7	<b>63.5714</b>	1.147	1.8	ug/L	-4073	Standard
	Ni -1	60	175052.7	1.0	<b>61.1930</b>	0.672	1.1	ug/L	155	Standard
	Ni -2	62	44875.0	0.8	<b>56.2441</b>	0.720	1.3	ug/L	26155	Standard
	Cu	63	390392.9	0.8	<b>57.8152</b>	0.465	0.8	ug/L	25402	Standard
	Cu -1	65	166855.6	1.6	<b>56.7353</b>	0.962	1.7	ug/L	479	Standard
	Zn	66	149294.8	0.8	<b>91.6263</b>	0.763	0.8	ug/L	604	Standard
	Zn -1	67	27589.6	0.9	<b>101.6751</b>	1.070	1.1	ug/L	115	Standard
	Zn -2	68	102634.7	0.1	<b>88.2088</b>	0.174	0.2	ug/L	605	Standard
	As	75	90187.9	1.2	<b>49.0806</b>	0.690	1.4	ug/L	12853	Standard
	As-1	75	80037.0	1.3	<b>48.2951</b>	0.644	1.3	ug/L	-4	Standard
	Se	77	11819.2	1.5	<b>107.9996</b>	1.600	1.5	ug/L	98	Standard
	Se -1	78	28532.5	1.0	<b>53.4077</b>	0.872	1.6	ug/L	12897	Standard
	Br	79	4882.2	1.6				ug/L	2838	Standard
	Se -2	82	7254.8	0.9	<b>49.4154</b>	0.492	1.0	ug/L	35	Standard
	Kr	83	55.3	10.0				ug/L	29	Standard
	Y	89	452745.5	2.0				ug/L	601935	Standard
	Rh	103	74093.0	1.3				ug/L	108502	Standard
	Ni -3	58	110211.6	1.8	<b>61.3557</b>	0.573	0.9	ug/L	68	KED
	Ni -4	60	46185.2	1.3	<b>58.7090</b>	0.230	0.4	ug/L	30	KED
	Ni -5	62	6858.3	1.9	<b>57.6290</b>	0.773	1.3	ug/L	9	KED
	Cu -2	63	116411.0	0.4	<b>58.3869</b>	0.320	0.5	ug/L	172	KED
	Cu -3	65	54257.8	1.0	<b>57.3462</b>	0.152	0.3	ug/L	89	KED
	Zn -3	66	19719.6	0.5	<b>86.2051</b>	1.154	1.3	ug/L	65	KED
	Zn -4	67	3212.4	0.5	<b>84.4237</b>	0.742	0.9	ug/L	10	KED
	Zn -5	68	14641.5	1.2	<b>85.5077</b>	0.558	0.7	ug/L	39	KED
	As-2	75	8318.4	0.3	<b>51.5927</b>	0.467	0.9	ug/L	1	KED
	Y-1	89	48848.7	0.3				ug/L	50921	KED
	Rh-1	103	33632.2	1.6				ug/L	32421	KED
>	Ge	72	294369.3	0.1				ug/L	400120	Standard
>	In	115	308460.6	1.3				ug/L	376660	Standard
>	Ge-1	72	22959.1	0.9				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	73.570
In	115	81.894
Ge-1	72	104.981

# Quantitative Analysis - Summary Report

**Sample ID: 05-300-05bPS 2X**

Sample Date/Time: Saturday, June 01, 2024 14:08:34

Report Date/Time: Saturday, June 01, 2024 14:10:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-300-05bPS 2X.028

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	402906.7	0.9	<b>53.0145</b>	0.148	0.3	ug/L	-4073	Standard
	Ni -1	60	156095.2	1.1	<b>50.2290</b>	0.366	0.7	ug/L	155	Standard
	Ni -2	62	42637.5	0.9	<b>45.5145</b>	1.179	2.6	ug/L	26155	Standard
	Cu	63	351556.4	0.9	<b>47.5577</b>	0.556	1.2	ug/L	25402	Standard
	Cu -1	65	148026.7	1.1	<b>46.3314</b>	0.780	1.7	ug/L	479	Standard
	Zn	66	140406.3	0.6	<b>79.2951</b>	0.599	0.8	ug/L	604	Standard
	Zn -1	67	26435.8	1.4	<b>89.6533</b>	0.787	0.9	ug/L	115	Standard
	Zn -2	68	95689.1	1.0	<b>75.6549</b>	0.429	0.6	ug/L	605	Standard
	As	75	80985.4	1.0	<b>39.5797</b>	0.408	1.0	ug/L	12853	Standard
	As-1	75	70342.7	1.1	<b>39.0736</b>	0.442	1.1	ug/L	-4	Standard
	Se	77	11834.9	0.8	<b>99.5086</b>	1.342	1.3	ug/L	98	Standard
	Se -1	78	26451.8	0.9	<b>41.7801</b>	0.578	1.4	ug/L	12897	Standard
	Br	79	5307.0	1.7				ug/L	2838	Standard
	Se -2	82	6242.4	1.6	<b>39.1098</b>	0.733	1.9	ug/L	35	Standard
	Kr	83	52.3	12.7				ug/L	29	Standard
	Y	89	492853.9	0.4				ug/L	601935	Standard
	Rh	103	80542.1	1.1				ug/L	108502	Standard
	Ni -3	58	96624.2	1.5	<b>50.3176</b>	0.485	1.0	ug/L	68	KED
	Ni -4	60	40911.2	1.0	<b>48.6483</b>	0.595	1.2	ug/L	30	KED
	Ni -5	62	6145.7	1.0	<b>48.3178</b>	1.174	2.4	ug/L	9	KED
	Cu -2	63	101404.0	0.9	<b>47.5710</b>	0.584	1.2	ug/L	172	KED
	Cu -3	65	47320.9	1.1	<b>46.7797</b>	0.323	0.7	ug/L	89	KED
	Zn -3	66	18401.5	2.6	<b>75.2069</b>	1.114	1.5	ug/L	65	KED
	Zn -4	67	2956.0	3.5	<b>72.6091</b>	1.409	1.9	ug/L	10	KED
	Zn -5	68	13662.2	2.6	<b>74.5873</b>	0.866	1.2	ug/L	39	KED
	As-2	75	7116.4	1.9	<b>41.2798</b>	0.182	0.4	ug/L	1	KED
	Y-1	89	52187.2	1.8				ug/L	50921	KED
	Rh-1	103	36408.0	1.0				ug/L	32421	KED
>	Ge	72	319770.7	0.7				ug/L	400120	Standard
>	In	115	335819.1	1.0				ug/L	376660	Standard
>	Ge-1	72	24546.1	1.6				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	79.919
In	115	89.157
Ge-1	72	112.238

# Quantitative Analysis - Summary Report

**Sample ID: 05-426-01 5X**

Sample Date/Time: Saturday, June 01, 2024 14:13:14

Report Date/Time: Saturday, June 01, 2024 14:15:34

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-426-01 5X.029

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	1165.5	28.7	<b>0.5149</b>	0.043	8.4	ug/L	-4073	Standard
	Ni -1	60	3371.1	2.3	<b>1.0389</b>	0.024	2.3	ug/L	155	Standard
	Ni -2	62	21052.5	0.2	<b>6.3736</b>	0.565	8.9	ug/L	26155	Standard
	Cu	63	89209.0	0.4	<b>10.0328</b>	0.204	2.0	ug/L	25402	Standard
	Cu -1	65	32189.9	1.7	<b>9.7201</b>	0.259	2.7	ug/L	479	Standard
	Zn	66	117119.9	2.0	<b>63.9204</b>	0.661	1.0	ug/L	604	Standard
	Zn -1	67	19633.5	3.1	<b>64.3207</b>	1.148	1.8	ug/L	115	Standard
	Zn -2	68	78240.4	2.1	<b>59.7485</b>	0.628	1.1	ug/L	605	Standard
	As	75	12201.8	1.7	<b>0.8775</b>	0.012	1.3	ug/L	12853	Standard
	As-1	75	471.1	43.4	<b>0.2480</b>	0.107	43.0	ug/L	-4	Standard
	Se	77	3770.2	0.9	<b>30.2249</b>	0.286	0.9	ug/L	98	Standard
	Se -1	78	11817.9	1.6	<b>3.3290</b>	0.511	15.3	ug/L	12897	Standard
	Br	79	3341.4	2.4				ug/L	2838	Standard
	Se -2	82	51.7	7.3	<b>0.1550</b>	0.026	16.5	ug/L	35	Standard
	Kr	83	42.7	7.2				ug/L	29	Standard
	Y	89	503192.3	0.7				ug/L	601935	Standard
	Rh	103	85020.3	1.4				ug/L	108502	Standard
	Ni -3	58	2233.5	5.7	<b>1.1124</b>	0.068	6.2	ug/L	68	KED
	Ni -4	60	860.7	4.3	<b>0.9809</b>	0.023	2.4	ug/L	30	KED
	Ni -5	62	129.0	6.2	<b>0.9897</b>	0.078	7.9	ug/L	9	KED
	Cu -2	63	22627.9	1.4	<b>10.1747</b>	0.324	3.2	ug/L	172	KED
	Cu -3	65	10439.1	0.9	<b>9.8902</b>	0.140	1.4	ug/L	89	KED
	Zn -3	66	15379.3	0.6	<b>60.3183</b>	0.980	1.6	ug/L	65	KED
	Zn -4	67	2376.2	0.2	<b>55.9960</b>	1.092	2.0	ug/L	10	KED
	Zn -5	68	11002.6	1.2	<b>57.6129</b>	0.902	1.6	ug/L	39	KED
	As-2	75	65.0	27.3	<b>0.3587</b>	0.102	28.3	ug/L	1	KED
	Y-1	89	53085.8	0.1				ug/L	50921	KED
	Rh-1	103	37612.8	0.6				ug/L	32421	KED
>	Ge	72	330638.1	1.6				ug/L	400120	Standard
>	In	115	349831.6	0.8				ug/L	376660	Standard
>	Ge-1	72	25569.9	2.0				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

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	Se -2	82	
	Kr	83	
	Y	89	
	Rh	103	
	Ni -3	58	
	Ni -4	60	
	Ni -5	62	
	Cu -2	63	
	Cu -3	65	
	Zn -3	66	
	Zn -4	67	
	Zn -5	68	
	As-2	75	
	Y-1	89	
	Rh-1	103	
>	Ge	72	82.635
>	In	115	92.877
>	Ge-1	72	116.919

# Quantitative Analysis - Summary Report

**Sample ID: 05-410-01a 5X**

Sample Date/Time: Saturday, June 01, 2024 14:17:54

Report Date/Time: Saturday, June 01, 2024 14:20:14

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-410-01a 5X.030

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	39954.9	2.1	<b>5.6124</b>	0.077	1.4	ug/L	-4073	Standard
	Ni -1	60	17868.5	2.2	<b>5.7670</b>	0.093	1.6	ug/L	155	Standard
	Ni -2	62	77380.0	0.7	<b>107.1870</b>	0.120	0.1	ug/L	26155	Standard
	Cu	63	81153.9	0.9	<b>9.3595</b>	0.052	0.6	ug/L	25402	Standard
	Cu -1	65	3385.7	1.6	<b>1.0331</b>	0.012	1.2	ug/L	479	Standard
	Zn	66	41000.8	0.9	<b>23.0920</b>	0.090	0.4	ug/L	604	Standard
	Zn -1	67	7970.9	0.7	<b>26.9919</b>	0.273	1.0	ug/L	115	Standard
	Zn -2	68	27485.8	0.7	<b>21.5747</b>	0.066	0.3	ug/L	605	Standard
	As	75	12664.4	2.4	<b>1.3932</b>	0.122	8.7	ug/L	12853	Standard
	As-1	75	708.5	2.9	<b>0.3911</b>	0.014	3.5	ug/L	-4	Standard
	Se	77	4745.8	1.7	<b>39.7167</b>	0.944	2.4	ug/L	98	Standard
	Se -1	78	12423.1	2.5	<b>6.0150</b>	0.592	9.8	ug/L	12897	Standard
	Br	79	129292.1	2.8				ug/L	2838	Standard
	Se -2	82	201.7	2.2	<b>1.1151</b>	0.030	2.7	ug/L	35	Standard
	Kr	83	74.7	16.0				ug/L	29	Standard
	Y	89	490331.4	1.9				ug/L	601935	Standard
	Rh	103	79573.7	2.2				ug/L	108502	Standard
	Ni -3	58	11549.4	1.6	<b>5.6770</b>	0.068	1.2	ug/L	68	KED
	Ni -4	60	4922.2	1.7	<b>5.5271</b>	0.069	1.3	ug/L	30	KED
	Ni -5	62	760.0	2.5	<b>5.6572</b>	0.161	2.8	ug/L	9	KED
	Cu -2	63	2123.2	1.5	<b>0.9176</b>	0.012	1.3	ug/L	172	KED
	Cu -3	65	946.0	2.7	<b>0.8617</b>	0.028	3.2	ug/L	89	KED
	Zn -3	66	5674.8	0.8	<b>21.7779</b>	0.274	1.3	ug/L	65	KED
	Zn -4	67	885.4	4.7	<b>20.3601</b>	1.028	5.1	ug/L	10	KED
	Zn -5	68	4104.9	1.9	<b>20.9701</b>	0.517	2.5	ug/L	39	KED
	As-2	75	61.3	6.8	<b>0.3325</b>	0.024	7.1	ug/L	1	KED
	Y-1	89	53319.3	1.3				ug/L	50921	KED
	Rh-1	103	36667.0	1.1				ug/L	32421	KED
>	Ge	72	318285.4	0.7				ug/L	400120	Standard
>	In	115	335339.2	1.2				ug/L	376660	Standard
>	Ge-1	72	25985.3	0.6				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-410-01a 5X

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	79.548
In	115	89.030
Ge-1	72	118.818

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Saturday, June 01, 2024 14:32:01

Report Date/Time: Saturday, June 01, 2024 14:34:21

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 6.033

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	319844.7	2.9	<b>41.7771</b>	0.268	0.6	ug/L	-4073	Standard
	Ni -1	60	128232.3	2.9	<b>40.8822</b>	0.121	0.3	ug/L	155	Standard
	Ni -2	62	39636.9	0.5	<b>39.6266</b>	1.511	3.8	ug/L	26155	Standard
	Cu	63	303524.1	1.1	<b>40.3810</b>	0.698	1.7	ug/L	25402	Standard
	Cu -1	65	129995.9	1.7	<b>40.3189</b>	0.720	1.8	ug/L	479	Standard
	Zn	66	73507.7	1.6	<b>41.0246</b>	0.435	1.1	ug/L	604	Standard
	Zn -1	67	12123.1	0.7	<b>40.6223</b>	0.864	2.1	ug/L	115	Standard
	Zn -2	68	51345.8	2.0	<b>40.0614</b>	0.561	1.4	ug/L	605	Standard
	As	75	79336.2	2.0	<b>38.2558</b>	0.284	0.7	ug/L	12853	Standard
	As-1	75	67973.3	2.8	<b>37.4104</b>	0.078	0.2	ug/L	-4	Standard
	Se	77	4644.4	1.1	<b>38.3184</b>	0.581	1.5	ug/L	98	Standard
	Se -1	78	27062.6	0.5	<b>42.7380</b>	1.674	3.9	ug/L	12897	Standard
	Br	79	2301.5	2.0				ug/L	2838	Standard
	Se -2	82	6200.3	2.9	<b>38.4890</b>	0.661	1.7	ug/L	35	Standard
	Kr	83	35.7	14.4				ug/L	29	Standard
	Y	89	456774.8	3.0				ug/L	601935	Standard
	Rh	103	83518.6	3.0				ug/L	108502	Standard
	Ni -3	58	70142.0	0.5	<b>41.8917</b>	0.271	0.6	ug/L	68	KED
	Ni -4	60	30301.8	0.4	<b>41.3237</b>	0.420	1.0	ug/L	30	KED
	Ni -5	62	4454.4	0.1	<b>40.1604</b>	0.412	1.0	ug/L	9	KED
	Cu -2	63	76685.6	1.1	<b>41.2527</b>	0.360	0.9	ug/L	172	KED
	Cu -3	65	35589.6	0.9	<b>40.3454</b>	0.058	0.1	ug/L	89	KED
	Zn -3	66	8514.2	1.4	<b>39.8228</b>	0.126	0.3	ug/L	65	KED
	Zn -4	67	1408.4	3.0	<b>39.5597</b>	0.796	2.0	ug/L	10	KED
	Zn -5	68	6323.7	1.5	<b>39.4652</b>	0.332	0.8	ug/L	39	KED
	As-2	75	5782.2	1.1	<b>38.4719</b>	0.686	1.8	ug/L	1	KED
	Y-1	89	45464.2	0.2				ug/L	50921	KED
	Rh-1	103	30594.4	1.1				ug/L	32421	KED
>	Ge	72	322720.4	2.6				ug/L	400120	Standard
>	In	115	316150.9	2.0				ug/L	376660	Standard
>	Ge-1	72	21402.4	1.1				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: QC Std 6

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	80.656
In	115	83.935
Ge-1	72	97.863

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Saturday, June 01, 2024 14:36:41

Report Date/Time: Saturday, June 01, 2024 14:39:01

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\QC Std 7.034

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	190440.2	2.0	21.8547	0.124	0.6	ug/L	-4073	Standard
	Ni -1	60	76346.9	2.5	21.2055	0.080	0.4	ug/L	155	Standard
	Ni -2	62	30604.1	0.9	17.0386	1.146	6.7	ug/L	26155	Standard
	Cu	63	184110.6	2.5	20.3122	0.071	0.3	ug/L	25402	Standard
	Cu -1	65	77216.2	2.4	20.8482	0.093	0.4	ug/L	479	Standard
	Zn	66	43431.3	2.1	21.0013	0.091	0.4	ug/L	604	Standard
	Zn -1	67	7372.9	2.5	21.4072	0.251	1.2	ug/L	115	Standard
	Zn -2	68	30944.8	3.1	20.8609	0.215	1.0	ug/L	605	Standard
	As	75	52125.2	2.6	19.4520	0.203	1.0	ug/L	12853	Standard
	As-1	75	40300.5	3.5	19.3222	0.218	1.1	ug/L	-4	Standard
	Se	77	2835.3	2.2	20.0885	0.446	2.2	ug/L	98	Standard
	Se -1	78	21310.2	1.3	21.1767	0.653	3.1	ug/L	12897	Standard
	Br	79	2022.5	2.1				ug/L	2838	Standard
	Se -2	82	3753.5	4.3	20.2207	0.419	2.1	ug/L	35	Standard
	Kr	83	34.0	29.0				ug/L	29	Standard
	Y	89	512286.2	0.8				ug/L	601935	Standard
	Rh	103	93717.8	1.2				ug/L	108502	Standard
	Ni -3	58	41121.5	0.5	21.8473	0.266	1.2	ug/L	68	KED
	Ni -4	60	17776.7	1.5	21.5650	0.239	1.1	ug/L	30	KED
	Ni -5	62	2696.6	0.5	21.6353	0.093	0.4	ug/L	9	KED
	Cu -2	63	44700.5	1.3	21.3813	0.290	1.4	ug/L	172	KED
	Cu -3	65	20716.7	1.3	20.8819	0.130	0.6	ug/L	89	KED
	Zn -3	66	5016.2	1.3	20.7840	0.251	1.2	ug/L	65	KED
	Zn -4	67	805.4	3.4	19.9972	0.625	3.1	ug/L	10	KED
	Zn -5	68	3678.5	3.5	20.2840	0.574	2.8	ug/L	39	KED
	As-2	75	3390.1	1.7	20.0636	0.373	1.9	ug/L	1	KED
	Y-1	89	51831.5	0.1				ug/L	50921	KED
	Rh-1	103	34659.0	0.4				ug/L	32421	KED
>	Ge	72	370362.0	2.5				ug/L	400120	Standard
>	In	115	355624.7	1.0				ug/L	376660	Standard
>	Ge-1	72	24057.2	0.7				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: QC Std 7

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	92.563
In	115	94.415
Ge-1	72	110.002

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Saturday, June 01, 2024 14:41:21

Report Date/Time: Saturday, June 01, 2024 14:43:41

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 8.035

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-5603.2	2.0	-0.2758	0.015	5.5	ug/L	-4073	Standard
	Ni -1	60	164.3	10.3	0.0360	0.006	15.3	ug/L	155	Standard
	Ni -2	62	18778.0	0.5	-0.4180	0.552	132.2	ug/L	26155	Standard
	Cu	63	15932.2	0.7	-0.1935	0.043	22.2	ug/L	25402	Standard
	Cu -1	65	447.7	4.9	0.0910	0.008	8.9	ug/L	479	Standard
	Zn	66	663.7	2.5	0.0885	0.004	4.0	ug/L	604	Standard
	Zn -1	67	142.7	13.1	0.1861	0.063	33.9	ug/L	115	Standard
	Zn -2	68	661.3	3.4	0.0990	0.018	18.4	ug/L	605	Standard
	As	75	12616.1	2.7	0.0751	0.080	16.9	ug/L	12853	Standard
	As-1	75	-23.9	329.1	-0.0163	0.038	235.2	ug/L	-4	Standard
	Se	77	156.0	7.4	0.5316	0.069	13.0	ug/L	98	Standard
	Se -1	78	12696.6	2.3	2.6170	0.243	9.3	ug/L	12897	Standard
	Br	79	1796.8	2.2				ug/L	2838	Standard
	Se -2	82	41.0	23.5	0.0668	0.051	76.4	ug/L	35	Standard
	Kr	83	34.7	9.3				ug/L	29	Standard
	Y	89	506172.5	2.8				ug/L	601935	Standard
	Rh	103	93249.7	1.5				ug/L	108502	Standard
	Ni -3	58	84.4	9.2	0.0408	0.003	8.4	ug/L	68	KED
	Ni -4	60	37.3	20.1	0.0447	0.010	22.9	ug/L	30	KED
	Ni -5	62	13.7	11.2	0.1265	0.013	10.2	ug/L	9	KED
	Cu -2	63	226.7	4.3	0.0862	0.007	8.1	ug/L	172	KED
	Cu -3	65	113.0	3.2	0.0931	0.005	5.1	ug/L	89	KED
	Zn -3	66	72.0	6.1	0.1169	0.022	19.2	ug/L	65	KED
	Zn -4	67	12.7	36.5	0.0607	0.125	206.5	ug/L	10	KED
	Zn -5	68	48.0	19.9	-0.0125	0.050	395.3	ug/L	39	KED
	As-2	75	3.7	63.0	0.0181	0.014	74.7	ug/L	1	KED
	Y-1	89	50920.3	1.0				ug/L	50921	KED
	Rh-1	103	34400.7	1.9				ug/L	32421	KED
>	Ge	72	364025.4	1.6				ug/L	400120	Standard
>	In	115	349102.7	1.3				ug/L	376660	Standard
>	Ge-1	72	23790.8	2.0				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: QC Std 8

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Se -2 82  
Kr 83  
Y 89  
Rh 103  
Ni -3 58  
Ni -4 60  
Ni -5 62  
Cu -2 63  
Cu -3 65  
Zn -3 66  
Zn -4 67  
Zn -5 68  
As-2 75  
Y-1 89  
Rh-1 103

|> Ge 72 90.979  
|> In 115 92.684  
|> Ge-1 72 108.784

## Quantitative Analysis - Summary Report

**Sample ID: 05-442-01c 5X**

Sample Date/Time: Saturday, June 01, 2024 14:46:57

Report Date/Time: Saturday, June 01, 2024 14:49:17

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-442-01c 5X.036

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	74445.3	8.2	<b>9.2406</b>	0.731	7.9	ug/L	-4073	Standard
	Ni -1	60	14397.3	1.5	<b>4.2164</b>	0.093	2.2	ug/L	155	Standard
	Ni -2	62	68003.9	6.6	<b>79.5710</b>	7.055	8.9	ug/L	26155	Standard
	Cu	63	67823.6	5.5	<b>6.5765</b>	0.464	7.1	ug/L	25402	Standard
	Cu -1	65	2276.5	4.2	<b>0.6181</b>	0.029	4.6	ug/L	479	Standard
	Zn	66	2543.6	0.7	<b>1.0725</b>	0.017	1.6	ug/L	604	Standard
	Zn -1	67	1799.4	1.8	<b>5.3403</b>	0.079	1.5	ug/L	115	Standard
	Zn -2	68	4702.8	0.7	<b>3.0450</b>	0.020	0.6	ug/L	605	Standard
	As	75	18323.7	0.2	<b>3.6258</b>	0.089	2.4	ug/L	12853	Standard
	As-1	75	6086.2	1.7	<b>3.0798</b>	0.076	2.5	ug/L	-4	Standard
	Se	77	2619.2	4.0	<b>19.5851</b>	0.791	4.0	ug/L	98	Standard
	Se -1	78	13279.2	0.8	<b>5.0741</b>	0.367	7.2	ug/L	12897	Standard
	Br	79	329698.2	1.3				ug/L	2838	Standard
	Se -2	82	428.3	5.8	<b>2.2993</b>	0.170	7.4	ug/L	35	Standard
	Kr	83	71.7	26.2				ug/L	29	Standard
	Y	89	518159.6	0.6				ug/L	601935	Standard
	Rh	103	86873.4	0.8				ug/L	108502	Standard
	Ni -3	58	21730.1	1.7	<b>11.1822</b>	0.269	2.4	ug/L	68	KED
	Ni -4	60	3438.1	3.3	<b>4.0386</b>	0.091	2.2	ug/L	30	KED
	Ni -5	62	498.0	3.6	<b>3.8823</b>	0.077	2.0	ug/L	9	KED
	Cu -2	63	1215.7	2.7	<b>0.5404</b>	0.022	4.1	ug/L	172	KED
	Cu -3	65	591.0	3.0	<b>0.5555</b>	0.016	2.9	ug/L	89	KED
	Zn -3	66	297.0	2.4	<b>1.0156</b>	0.048	4.7	ug/L	65	KED
	Zn -4	67	241.7	5.5	<b>5.6269</b>	0.328	5.8	ug/L	10	KED
	Zn -5	68	859.7	6.4	<b>4.3769</b>	0.370	8.4	ug/L	39	KED
	As-2	75	497.0	1.8	<b>2.8461</b>	0.032	1.1	ug/L	1	KED
	Y-1	89	52194.2	2.5				ug/L	50921	KED
	Rh-1	103	35147.2	2.1				ug/L	32421	KED
>	Ge	72	350598.0	1.1				ug/L	400120	Standard
>	In	115	338694.0	0.6				ug/L	376660	Standard
>	Ge-1	72	24835.9	1.6				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-442-01c 5X

Report Date/Time: Saturday, June 01, 2024 14:49:17

Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	87.623
In	115	89.920
Ge-1	72	113.563

## Quantitative Analysis - Summary Report

**Sample ID: 05-442-02c 5X**

Sample Date/Time: Saturday, June 01, 2024 14:51:37

Report Date/Time: Saturday, June 01, 2024 14:53:56

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-442-02c 5X.037

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	74346.9	4.6	9.5922	0.697	7.3	ug/L	-4073	Standard
	Ni -1	60	13477.0	2.2	4.1027	0.045	1.1	ug/L	155	Standard
	Ni -2	62	115822.3	5.6	163.4288	4.643	2.8	ug/L	26155	Standard
	Cu	63	116663.8	5.8	13.4635	0.407	3.0	ug/L	25402	Standard
	Cu -1	65	3920.2	2.0	1.1321	0.016	1.4	ug/L	479	Standard
	Zn	66	7248.8	1.3	3.6531	0.100	2.7	ug/L	604	Standard
	Zn -1	67	2063.8	0.8	6.4177	0.234	3.6	ug/L	115	Standard
	Zn -2	68	6749.3	4.0	4.7202	0.098	2.1	ug/L	605	Standard
	As	75	18958.7	4.4	4.3286	0.145	3.4	ug/L	12853	Standard
	As-1	75	5477.6	7.8	2.8778	0.137	4.8	ug/L	-4	Standard
	Se	77	2586.6	2.5	20.1277	0.557	2.8	ug/L	98	Standard
	Se -1	78	14413.9	3.4	9.0479	0.279	3.1	ug/L	12897	Standard
	Br	79	351941.9	3.0				ug/L	2838	Standard
	Se -2	82	387.3	9.9	2.1473	0.157	7.3	ug/L	35	Standard
	Kr	83	110.7	20.2				ug/L	29	Standard
	Y	89	504873.2	1.4				ug/L	601935	Standard
	Rh	103	83581.2	2.3				ug/L	108502	Standard
	Ni -3	58	20123.0	2.9	10.1910	0.303	3.0	ug/L	68	KED
	Ni -4	60	3281.7	3.6	3.7953	0.148	3.9	ug/L	30	KED
	Ni -5	62	505.3	3.2	3.8778	0.069	1.8	ug/L	9	KED
	Cu -2	63	2332.9	3.7	1.0412	0.029	2.8	ug/L	172	KED
	Cu -3	65	1073.4	2.9	1.0105	0.031	3.0	ug/L	89	KED
	Zn -3	66	904.0	1.6	3.4161	0.067	2.0	ug/L	65	KED
	Zn -4	67	264.0	4.7	6.0675	0.217	3.6	ug/L	10	KED
	Zn -5	68	1017.4	3.4	5.1426	0.242	4.7	ug/L	39	KED
	As-2	75	462.7	2.8	2.6073	0.048	1.8	ug/L	1	KED
	Y-1	89	53144.7	0.7				ug/L	50921	KED
	Rh-1	103	35677.8	1.5				ug/L	32421	KED
>	Ge	72	337289.6	3.2				ug/L	400120	Standard
>	In	115	348512.9	1.8				ug/L	376660	Standard
>	Ge-1	72	25232.3	1.4				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	84.297
In	115	92.527
Ge-1	72	115.375

## Quantitative Analysis - Summary Report

**Sample ID: 05-311-01b 10X 29WM1**

Sample Date/Time: Saturday, June 01, 2024 14:56:16

Report Date/Time: Saturday, June 01, 2024 14:58:36

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-311-01b 10X 29WM1.038

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	4328.3	4.4	0.8574	0.028	3.2	ug/L	-4073	Standard
	Ni -1	60	5172.9	0.6	1.4311	0.019	1.3	ug/L	155	Standard
	Ni -2	62	158983.1	2.5	212.4137	2.815	1.3	ug/L	26155	Standard
	Cu	63	751762.0	1.9	89.8908	0.646	0.7	ug/L	25402	Standard
	Cu -1	65	255568.6	1.9	69.2627	0.345	0.5	ug/L	479	Standard
	Zn	66	152776.9	2.3	74.6803	1.016	1.4	ug/L	604	Standard
	Zn -1	67	23512.3	1.8	68.9796	0.289	0.4	ug/L	115	Standard
	Zn -2	68	100878.1	2.5	69.0138	0.792	1.1	ug/L	605	Standard
	As	75	16401.7	2.8	2.2190	0.130	5.9	ug/L	12853	Standard
	As-1	75	1682.4	11.4	0.8049	0.093	11.5	ug/L	-4	Standard
	Se	77	4026.6	8.0	28.8493	1.954	6.8	ug/L	98	Standard
	Se -1	78	15873.5	2.4	9.2444	0.362	3.9	ug/L	12897	Standard
	Br	79	411440.0	2.4				ug/L	2838	Standard
	Se -2	82	476.3	3.5	2.4357	0.119	4.9	ug/L	35	Standard
	Kr	83	137.0	3.9				ug/L	29	Standard
	Y	89	550279.3	2.2				ug/L	601935	Standard
	Rh	103	92855.7	3.3				ug/L	108502	Standard
	Ni -3	58	2737.6	2.1	1.2884	0.021	1.6	ug/L	68	KED
	Ni -4	60	1051.0	0.7	1.1321	0.004	0.4	ug/L	30	KED
	Ni -5	62	189.3	5.3	1.3648	0.072	5.2	ug/L	9	KED
	Cu -2	63	168669.3	0.8	71.7627	0.237	0.3	ug/L	172	KED
	Cu -3	65	78083.8	1.0	70.0098	0.496	0.7	ug/L	89	KED
	Zn -3	66	19018.7	1.3	70.4847	0.788	1.1	ug/L	65	KED
	Zn -4	67	2863.3	0.3	63.7656	0.507	0.8	ug/L	10	KED
	Zn -5	68	13521.1	1.0	66.9198	0.299	0.4	ug/L	39	KED
	As-2	75	79.7	3.2	0.4155	0.012	2.9	ug/L	1	KED
	Y-1	89	57977.1	0.9				ug/L	50921	KED
	Rh-1	103	38187.6	0.7				ug/L	32421	KED
>	Ge	72	369345.9	1.4				ug/L	400120	Standard
>	In	115	377959.4	1.8				ug/L	376660	Standard
>	Ge-1	72	27066.3	0.5				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-311-01b 10X 29WM1

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	92.309
In	115	100.345
Ge-1	72	123.761

## Quantitative Analysis - Summary Report

**Sample ID: 05-311-02b 10X**

Sample Date/Time: Saturday, June 01, 2024 15:00:56

Report Date/Time: Saturday, June 01, 2024 15:03:15

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-311-02b 10X.039

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-878.8	13.5	0.2537	0.014	5.5	ug/L	-4073	Standard
	Ni -1	60	4819.8	0.8	1.5281	0.017	1.1	ug/L	155	Standard
	Ni -2	62	268384.8	2.3	438.2181	3.635	0.8	ug/L	26155	Standard
	Cu	63	435725.8	2.9	58.9444	0.849	1.4	ug/L	25402	Standard
	Cu -1	65	5358.0	3.2	1.6317	0.032	2.0	ug/L	479	Standard
	Zn	66	6172.3	3.4	3.2252	0.071	2.2	ug/L	604	Standard
	Zn -1	67	4127.9	1.9	13.6800	0.103	0.8	ug/L	115	Standard
	Zn -2	68	3816.5	3.5	2.6437	0.064	2.4	ug/L	605	Standard
	As	75	21323.1	2.7	6.1043	0.143	2.3	ug/L	12853	Standard
	As-1	75	5638.1	2.1	3.1021	0.069	2.2	ug/L	-4	Standard
	Se	77	21344.9	2.9	178.4497	2.648	1.5	ug/L	98	Standard
	Se -1	78	20035.7	2.9	24.9245	0.702	2.8	ug/L	12897	Standard
	Br	79	1707279.7	2.8				ug/L	2838	Standard
	Se -2	82	1736.8	1.5	10.6760	0.140	1.3	ug/L	35	Standard
	Kr	83	806.4	7.9				ug/L	29	Standard
	Y	89	477406.4	0.3				ug/L	601935	Standard
	Rh	103	80060.1	1.4				ug/L	108502	Standard
	Ni -3	58	1180.3	3.5	0.6301	0.028	4.5	ug/L	68	KED
	Ni -4	60	507.7	9.1	0.6222	0.062	10.0	ug/L	30	KED
	Ni -5	62	145.3	6.2	1.1944	0.074	6.2	ug/L	9	KED
	Cu -2	63	2282.5	3.3	1.0818	0.026	2.4	ug/L	172	KED
	Cu -3	65	1054.0	4.9	1.0535	0.042	4.0	ug/L	89	KED
	Zn -3	66	618.3	1.9	2.4279	0.075	3.1	ug/L	65	KED
	Zn -4	67	104.0	23.0	2.3844	0.616	25.8	ug/L	10	KED
	Zn -5	68	485.7	2.7	2.4637	0.048	1.9	ug/L	39	KED
	As-2	75	62.7	8.8	0.3717	0.035	9.3	ug/L	1	KED
	Y-1	89	50708.8	1.0				ug/L	50921	KED
	Rh-1	103	32304.2	0.2				ug/L	32421	KED
>	Ge	72	322435.4	1.6				ug/L	400120	Standard
>	In	115	329362.6	1.4				ug/L	376660	Standard
>	Ge-1	72	23781.4	1.0				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-311-02b 10X

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
> Ge	72	80.585
> In	115	87.443
> Ge-1	72	108.741

## Quantitative Analysis - Summary Report

**Sample ID: 05-311-03b 10X**

Sample Date/Time: Saturday, June 01, 2024 15:05:35

Report Date/Time: Saturday, June 01, 2024 15:07:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-311-03b 10X.040

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-29.8	1370.4	0.3648	0.041	11.2	ug/L	-4073	Standard
	Ni -1	60	1946.5	2.6	0.4696	0.006	1.3	ug/L	155	Standard
	Ni -2	62	391223.7	1.5	497.4556	1.334	0.3	ug/L	26155	Standard
	Cu	63	414522.9	2.0	42.7675	0.286	0.7	ug/L	25402	Standard
	Cu -1	65	6267.4	1.1	1.4723	0.004	0.3	ug/L	479	Standard
	Zn	66	5188.9	2.4	2.0110	0.030	1.5	ug/L	604	Standard
	Zn -1	67	1707.4	7.0	4.2127	0.371	8.8	ug/L	115	Standard
	Zn -2	68	3801.8	1.1	1.9525	0.023	1.2	ug/L	605	Standard
	As	75	24529.6	1.5	4.7962	0.289	6.0	ug/L	12853	Standard
	As-1	75	4125.1	5.3	1.7517	0.076	4.4	ug/L	-4	Standard
	Se	77	2485.9	9.7	15.5083	1.771	11.4	ug/L	98	Standard
	Se -1	78	20798.5	2.2	14.8890	1.453	9.8	ug/L	12897	Standard
	Br	79	94325.4	0.4				ug/L	2838	Standard
	Se -2	82	185.3	7.2	0.7337	0.054	7.3	ug/L	35	Standard
	Kr	83	254.7	8.9				ug/L	29	Standard
	Y	89	583625.9	1.5				ug/L	601935	Standard
	Rh	103	105488.4	1.6				ug/L	108502	Standard
	Ni -3	58	1519.2	2.7	0.7150	0.024	3.3	ug/L	68	KED
	Ni -4	60	417.0	3.1	0.4498	0.018	4.1	ug/L	30	KED
	Ni -5	62	127.0	6.9	0.9231	0.062	6.7	ug/L	9	KED
	Cu -2	63	2986.6	2.9	1.2507	0.021	1.7	ug/L	172	KED
	Cu -3	65	1399.1	1.3	1.2362	0.032	2.6	ug/L	89	KED
	Zn -3	66	545.3	1.7	1.8440	0.004	0.2	ug/L	65	KED
	Zn -4	67	103.0	10.3	2.0486	0.271	13.2	ug/L	10	KED
	Zn -5	68	434.0	4.4	1.8791	0.077	4.1	ug/L	39	KED
	As-2	75	331.0	3.9	1.7432	0.092	5.3	ug/L	1	KED
	Y-1	89	58331.5	1.4				ug/L	50921	KED
	Rh-1	103	37739.8	1.8				ug/L	32421	KED
>	Ge	72	417195.9	1.4				ug/L	400120	Standard
>	In	115	397560.3	1.7				ug/L	376660	Standard
>	Ge-1	72	26995.5	1.5				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-311-03b 10X

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	104.268
In	115	105.549
Ge-1	72	123.438

## Quantitative Analysis - Summary Report

**Sample ID: 05-311-04c 10X**

Sample Date/Time: Saturday, June 01, 2024 15:10:14

Report Date/Time: Saturday, June 01, 2024 15:12:33

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-311-04c 10X.041

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-5021.7	3.0	-0.3558	0.018	5.0	ug/L	-4073	Standard
	Ni -1	60	3619.5	5.3	1.2733	0.059	4.6	ug/L	155	Standard
	Ni -2	62	414607.9	1.1	773.6459	12.823	1.7	ug/L	26155	Standard
	Cu	63	627925.6	0.8	95.7425	1.293	1.4	ug/L	25402	Standard
	Cu -1	65	6710.9	0.6	2.2848	0.036	1.6	ug/L	479	Standard
	Zn	66	6310.7	2.4	3.6990	0.108	2.9	ug/L	604	Standard
	Zn -1	67	3896.9	4.2	14.3693	0.702	4.9	ug/L	115	Standard
	Zn -2	68	3757.8	2.4	2.9283	0.089	3.0	ug/L	605	Standard
	As	75	22066.8	1.9	7.8832	0.245	3.1	ug/L	12853	Standard
	As-1	75	5916.1	2.7	3.6181	0.075	2.1	ug/L	-4	Standard
	Se	77	19142.8	1.3	177.9033	2.290	1.3	ug/L	98	Standard
	Se -1	78	20284.7	2.3	31.3051	1.285	4.1	ug/L	12897	Standard
	Br	79	1476022.9	3.0				ug/L	2838	Standard
	Se -2	82	1652.1	4.4	11.2952	0.458	4.1	ug/L	35	Standard
	Kr	83	900.7	1.2				ug/L	29	Standard
	Y	89	415991.4	1.3				ug/L	601935	Standard
	Rh	103	72744.5	2.2				ug/L	108502	Standard
	Ni -3	58	371.4	5.6	0.2275	0.012	5.1	ug/L	68	KED
	Ni -4	60	163.3	9.6	0.2317	0.022	9.4	ug/L	30	KED
	Ni -5	62	103.7	11.3	0.9931	0.115	11.5	ug/L	9	KED
	Cu -2	63	3024.3	0.4	1.6790	0.021	1.2	ug/L	172	KED
	Cu -3	65	1319.4	2.9	1.5428	0.032	2.1	ug/L	89	KED
	Zn -3	66	627.3	5.8	2.8953	0.165	5.7	ug/L	65	KED
	Zn -4	67	110.3	14.9	2.9964	0.444	14.8	ug/L	10	KED
	Zn -5	68	455.0	2.5	2.7084	0.097	3.6	ug/L	39	KED
	As-2	75	37.7	18.1	0.2588	0.050	19.2	ug/L	1	KED
	Y-1	89	44224.7	1.2				ug/L	50921	KED
	Rh-1	103	28216.8	1.4				ug/L	32421	KED
>	Ge	72	290097.0	0.9				ug/L	400120	Standard
>	In	115	292772.9	1.2				ug/L	376660	Standard
>	Ge-1	72	20463.6	1.3				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-311-04c 10X

Report Date/Time: Saturday, June 01, 2024 15:12:33

Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	72.503
In	115	77.729
Ge-1	72	93.571

## Quantitative Analysis - Summary Report

**Sample ID: 05-311-05c 10X**

Sample Date/Time: Saturday, June 01, 2024 15:14:53

Report Date/Time: Saturday, June 01, 2024 15:17:12

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-311-05c 10X.042

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-4429.8	1.3	-0.1270	0.008	6.3	ug/L	-4073	Standard
	Ni -1	60	3880.2	2.2	1.0561	0.003	0.3	ug/L	155	Standard
	Ni -2	62	347385.2	2.4	492.1690	22.299	4.5	ug/L	26155	Standard
	Cu	63	548135.9	1.6	64.0780	2.311	3.6	ug/L	25402	Standard
	Cu -1	65	7048.7	2.1	1.8532	0.010	0.5	ug/L	479	Standard
	Zn	66	7326.9	2.8	3.3026	0.037	1.1	ug/L	604	Standard
	Zn -1	67	4392.0	0.7	12.5173	0.193	1.5	ug/L	115	Standard
	Zn -2	68	4187.9	2.4	2.4787	0.022	0.9	ug/L	605	Standard
	As	75	22693.4	1.5	5.1189	0.048	0.9	ug/L	12853	Standard
	As-1	75	6323.7	11.3	2.9931	0.293	9.8	ug/L	-4	Standard
	Se	77	22738.8	1.8	163.6885	1.208	0.7	ug/L	98	Standard
	Se -1	78	21123.3	0.4	20.2620	1.016	5.0	ug/L	12897	Standard
	Br	79	1667226.9	2.2				ug/L	2838	Standard
	Se -2	82	1896.5	7.5	10.0264	0.665	6.6	ug/L	35	Standard
	Kr	83	1189.4	3.5				ug/L	29	Standard
	Y	89	525627.0	0.8				ug/L	601935	Standard
	Rh	103	92285.5	1.4				ug/L	108502	Standard
	Ni -3	58	418.0	3.6	0.1959	0.006	3.0	ug/L	68	KED
	Ni -4	60	170.3	8.4	0.1853	0.016	8.6	ug/L	30	KED
	Ni -5	62	88.0	6.9	0.6526	0.048	7.4	ug/L	9	KED
	Cu -2	63	3101.0	1.4	1.3165	0.019	1.4	ug/L	172	KED
	Cu -3	65	1410.4	1.2	1.2622	0.008	0.6	ug/L	89	KED
	Zn -3	66	701.7	3.7	2.4595	0.082	3.3	ug/L	65	KED
	Zn -4	67	121.0	15.8	2.4854	0.443	17.8	ug/L	10	KED
	Zn -5	68	504.7	1.3	2.2636	0.031	1.4	ug/L	39	KED
	As-2	75	41.3	7.8	0.2171	0.017	7.6	ug/L	1	KED
	Y-1	89	57049.4	1.1				ug/L	50921	KED
	Rh-1	103	35836.9	0.3				ug/L	32421	KED
>	Ge	72	374406.7	1.9				ug/L	400120	Standard
>	In	115	376243.7	1.5				ug/L	376660	Standard
>	Ge-1	72	26656.5	0.7				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-311-05c 10X

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	Se -2	82	
	Kr	83	
	Y	89	
	Rh	103	
	Ni -3	58	
	Ni -4	60	
	Ni -5	62	
	Cu -2	63	
	Cu -3	65	
	Zn -3	66	
	Zn -4	67	
	Zn -5	68	
	As-2	75	
	Y-1	89	
	Rh-1	103	
>	Ge	72	93.574
>	In	115	99.889
>	Ge-1	72	121.888

## Quantitative Analysis - Summary Report

Sample ID: 05-311-03c 10X FFD

Sample Date/Time: Saturday, June 01, 2024 15:19:32

Report Date/Time: Saturday, June 01, 2024 15:21:51

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-311-03c 10X FFD.043

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	452.0	166.1	0.4145	0.078	18.9	ug/L	-4073	Standard
	Ni -1	60	1836.5	4.1	0.4583	0.019	4.1	ug/L	155	Standard
	Ni -2	62	322568.8	7.1	419.9498	27.512	6.6	ug/L	26155	Standard
	Cu	63	345815.1	8.0	36.6085	2.743	7.5	ug/L	25402	Standard
	Cu -1	65	3898.9	3.4	0.9362	0.029	3.1	ug/L	479	Standard
	Zn	66	1909.5	2.6	0.6163	0.027	4.3	ug/L	604	Standard
	Zn -1	67	1296.1	2.2	3.2551	0.085	2.6	ug/L	115	Standard
	Zn -2	68	1421.7	2.6	0.5332	0.020	3.7	ug/L	605	Standard
	As	75	26035.3	0.7	5.8281	0.088	1.5	ug/L	12853	Standard
	As-1	75	3671.3	2.2	1.6132	0.027	1.7	ug/L	-4	Standard
	Se	77	3349.1	6.2	21.8566	1.590	7.3	ug/L	98	Standard
	Se -1	78	22820.9	0.3	20.4041	0.440	2.2	ug/L	12897	Standard
	Br	79	111414.1	1.2				ug/L	2838	Standard
	Se -2	82	213.0	7.4	0.9038	0.088	9.7	ug/L	35	Standard
	Kr	83	535.0	5.4				ug/L	29	Standard
	Y	89	574764.5	1.7				ug/L	601935	Standard
	Rh	103	103782.7	2.3				ug/L	108502	Standard
	Ni -3	58	1153.7	10.5	0.5987	0.054	9.0	ug/L	68	KED
	Ni -4	60	319.0	3.4	0.3800	0.013	3.5	ug/L	30	KED
	Ni -5	62	124.7	3.0	1.0004	0.041	4.1	ug/L	9	KED
	Cu -2	63	1537.4	5.1	0.7019	0.048	6.8	ug/L	172	KED
	Cu -3	65	686.3	2.8	0.6602	0.028	4.2	ug/L	89	KED
	Zn -3	66	148.7	6.2	0.4248	0.045	10.6	ug/L	65	KED
	Zn -4	67	32.0	8.3	0.5295	0.061	11.5	ug/L	10	KED
	Zn -5	68	132.7	6.1	0.4476	0.051	11.5	ug/L	39	KED
	As-2	75	285.3	4.7	1.6601	0.083	5.0	ug/L	1	KED
	Y-1	89	53702.4	1.5				ug/L	50921	KED
	Rh-1	103	33756.8	1.6				ug/L	32421	KED
>	Ge	72	403166.5	0.9				ug/L	400120	Standard
>	In	115	374372.2	1.8				ug/L	376660	Standard
>	Ge-1	72	24427.2	2.0				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-311-03c 10X FFD

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	100.761
In	115	99.393
Ge-1	72	111.694

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Saturday, June 01, 2024 15:24:12

Report Date/Time: Saturday, June 01, 2024 15:26:32

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 6.044

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	308971.0	1.4	40.1423	0.509	1.3	ug/L	-4073	Standard
	Ni -1	60	124163.0	1.7	39.3602	0.661	1.7	ug/L	155	Standard
	Ni -2	62	338495.1	5.7	556.9901	43.741	7.9	ug/L	26155	Standard
	Cu	63	609195.7	3.5	82.7702	4.485	5.4	ug/L	25402	Standard
	Cu -1	65	126100.2	2.0	38.8721	0.251	0.6	ug/L	479	Standard
	Zn	66	71406.1	2.0	39.6039	0.246	0.6	ug/L	604	Standard
	Zn -1	67	12076.1	1.5	40.2160	0.516	1.3	ug/L	115	Standard
	Zn -2	68	50679.4	2.0	39.2982	0.332	0.8	ug/L	605	Standard
	As	75	86108.9	0.6	41.7363	0.797	1.9	ug/L	12853	Standard
	As-1	75	69480.4	0.4	38.0254	0.578	1.5	ug/L	-4	Standard
	Se	77	5965.2	1.6	49.1110	1.708	3.5	ug/L	98	Standard
	Se -1	78	32413.4	0.8	55.8142	1.083	1.9	ug/L	12897	Standard
	Br	79	22747.4	4.1				ug/L	2838	Standard
	Se -2	82	6241.7	3.0	38.5208	1.054	2.7	ug/L	35	Standard
	Kr	83	225.3	16.2				ug/L	29	Standard
	Y	89	462703.8	2.2				ug/L	601935	Standard
	Rh	103	86425.7	1.5				ug/L	108502	Standard
	Ni -3	58	59888.4	0.8	39.6749	1.035	2.6	ug/L	68	KED
	Ni -4	60	26236.7	1.1	39.6800	0.484	1.2	ug/L	30	KED
	Ni -5	62	3903.2	0.3	39.0309	0.699	1.8	ug/L	9	KED
	Cu -2	63	64578.3	0.1	38.5303	0.710	1.8	ug/L	172	KED
	Cu -3	65	30472.1	0.7	38.3117	0.488	1.3	ug/L	89	KED
	Zn -3	66	7513.6	1.2	38.9758	0.751	1.9	ug/L	65	KED
	Zn -4	67	1231.4	2.2	38.3560	0.754	2.0	ug/L	10	KED
	Zn -5	68	5646.1	1.5	39.0747	0.268	0.7	ug/L	39	KED
	As-2	75	5140.6	1.6	37.9267	0.183	0.5	ug/L	1	KED
	Y-1	89	43242.7	0.7				ug/L	50921	KED
	Rh-1	103	27724.5	1.8				ug/L	32421	KED
>	Ge	72	324610.1	1.8				ug/L	400120	Standard
>	In	115	298631.8	0.9				ug/L	376660	Standard
>	Ge-1	72	19300.0	1.9				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	100.356	
	Ni -1	60	98.400	
	Ni -2	62	1392.475	
	Cu	63	206.926	
	Cu -1	65	97.180	
	Zn	66	99.010	
	Zn -1	67	100.540	
	Zn -2	68	98.245	
	As	75	104.341	
	As-1	75	95.063	
	Se	77	122.777	
	Se -1	78	139.535	
	Br	79		

Sample ID: QC Std 6

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Se -2	82	96.302	
Kr	83		
Y	89		
Rh	103		
Ni -3	58	99.187	
Ni -4	60	99.200	
Ni -5	62	97.577	
Cu -2	63	96.326	
Cu -3	65	95.779	
Zn -3	66	97.439	
Zn -4	67	95.890	
Zn -5	68	97.687	
As-2	75	94.817	
Y-1	89		
Rh-1	103		
Ge	72		81.128
In	115		79.284
Ge-1	72		88.250

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Saturday, June 01, 2024 15:28:53

Report Date/Time: Saturday, June 01, 2024 15:31:13

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 7.045

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	172435.7	0.9	20.1093	0.178	0.9	ug/L	-4073	Standard
	Ni -1	60	71725.3	0.9	20.2155	0.107	0.5	ug/L	155	Standard
	Ni -2	62	175904.5	1.4	241.4276	6.835	2.8	ug/L	26155	Standard
	Cu	63	326766.1	0.8	38.3288	0.722	1.9	ug/L	25402	Standard
	Cu -1	65	72500.5	1.8	19.8621	0.335	1.7	ug/L	479	Standard
	Zn	66	41119.4	0.4	20.1670	0.201	1.0	ug/L	604	Standard
	Zn -1	67	6875.3	2.1	20.2441	0.451	2.2	ug/L	115	Standard
	Zn -2	68	29163.1	0.4	19.9368	0.196	1.0	ug/L	605	Standard
	As	75	55265.1	1.5	21.3616	0.232	1.1	ug/L	12853	Standard
	As-1	75	39976.4	2.0	19.4513	0.170	0.9	ug/L	-4	Standard
	Se	77	3425.7	1.2	24.7690	0.446	1.8	ug/L	98	Standard
	Se -1	78	24537.7	0.5	29.1035	0.643	2.2	ug/L	12897	Standard
	Br	79	14113.6	0.7				ug/L	2838	Standard
	Se -2	82	3665.5	1.8	20.0412	0.162	0.8	ug/L	35	Standard
	Kr	83	100.0	13.2				ug/L	29	Standard
	Y	89	531729.4	0.8				ug/L	601935	Standard
	Rh	103	97557.0	0.8				ug/L	108502	Standard
	Ni -3	58	33387.4	1.1	19.9609	0.092	0.5	ug/L	68	KED
	Ni -4	60	14445.3	2.3	19.7202	0.322	1.6	ug/L	30	KED
	Ni -5	62	2175.2	2.6	19.6401	0.393	2.0	ug/L	9	KED
	Cu -2	63	36886.9	2.7	19.8537	0.463	2.3	ug/L	172	KED
	Cu -3	65	17214.0	0.8	19.5270	0.210	1.1	ug/L	89	KED
	Zn -3	66	4381.7	1.1	20.4287	0.221	1.1	ug/L	65	KED
	Zn -4	67	714.0	7.2	19.9518	1.409	7.1	ug/L	10	KED
	Zn -5	68	3128.0	1.5	19.4015	0.168	0.9	ug/L	39	KED
	As-2	75	2797.6	4.0	18.6358	0.840	4.5	ug/L	1	KED
	Y-1	89	47181.8	1.2				ug/L	50921	KED
	Rh-1	103	30327.2	0.8				ug/L	32421	KED
>	Ge	72	364989.4	1.4				ug/L	400120	Standard
>	In	115	333450.0	1.5				ug/L	376660	Standard
>	Ge-1	72	21376.3	0.7				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	100.546	
	Ni -1	60	101.077	
	Ni -2	62	1207.138	
	Cu	63	191.644	
	Cu -1	65	99.311	
	Zn	66	100.835	
	Zn -1	67	101.221	
	Zn -2	68	99.684	
	As	75	106.808	
	As-1	75	97.256	
	Se	77	123.845	
	Se -1	78	145.518	
	Br	79		

Sample ID: QC Std 7

Report Date/Time: Saturday, June 01, 2024 15:31:13

# Quantitative Analysis - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Saturday, June 01, 2024 15:33:34

Report Date/Time: Saturday, June 01, 2024 15:35:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 8.046

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-5502.6	0.7	-0.2719	0.010	3.8	ug/L	-4073	Standard
	Ni -1	60	163.3	5.7	0.0362	0.003	7.2	ug/L	155	Standard
	Ni -2	62	127145.6	0.2	169.2425	1.735	1.0	ug/L	26155	Standard
	Cu	63	129432.7	0.1	14.1070	0.134	1.0	ug/L	25402	Standard
	Cu -1	65	735.7	4.3	0.1726	0.007	4.0	ug/L	479	Standard
	Zn	66	717.0	1.9	0.1195	0.010	8.4	ug/L	604	Standard
	Zn -1	67	242.3	9.0	0.4921	0.066	13.5	ug/L	115	Standard
	Zn -2	68	657.3	0.1	0.1017	0.004	3.8	ug/L	605	Standard
	As	75	15063.8	0.9	1.7690	0.026	1.5	ug/L	12853	Standard
	As-1	75	-47.6	272.5	-0.0282	0.064	227.3	ug/L	-4	Standard
	Se	77	515.3	6.7	3.2515	0.294	9.0	ug/L	98	Standard
	Se -1	78	15201.1	0.2	8.6695	0.282	3.2	ug/L	12897	Standard
	Br	79	11603.4	0.6				ug/L	2838	Standard
	Se -2	82	57.7	9.6	0.1629	0.028	17.3	ug/L	35	Standard
	Kr	83	63.0	17.5				ug/L	29	Standard
	Y	89	522005.8	1.1				ug/L	601935	Standard
	Rh	103	96265.9	0.8				ug/L	108502	Standard
	Ni -3	58	75.0	3.4	0.0409	0.002	4.5	ug/L	68	KED
	Ni -4	60	35.0	10.3	0.0472	0.005	11.1	ug/L	30	KED
	Ni -5	62	28.3	19.4	0.2743	0.050	18.1	ug/L	9	KED
	Cu -2	63	212.3	8.3	0.0922	0.010	11.3	ug/L	172	KED
	Cu -3	65	82.0	11.8	0.0721	0.012	16.3	ug/L	89	KED
	Zn -3	66	68.3	5.9	0.1378	0.022	15.8	ug/L	65	KED
	Zn -4	67	8.0	25.0	-0.0341	0.057	166.4	ug/L	10	KED
	Zn -5	68	47.3	31.7	0.0179	0.095	530.4	ug/L	39	KED
	As-2	75	2.7	21.7	0.0143	0.004	27.1	ug/L	1	KED
	Y-1	89	46932.6	0.8				ug/L	50921	KED
	Rh-1	103	29947.4	1.2				ug/L	32421	KED
>	Ge	72	359629.0	0.9				ug/L	400120	Standard
>	In	115	329065.3	0.8				ug/L	376660	Standard
>	Ge-1	72	21119.3	0.8				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: QC Std 8

Report Date/Time: Saturday, June 01, 2024 15:35:54

Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	89.880
In	115	87.364
Ge-1	72	96.568

Work continued from Page

Stn Name	Lab ID	Source	Source ID	Exp	Intend Conc ppm	Intend Vol ml	Final Conc ppm	Final Vol ml	Comments	Est	Date
602010x	TM12-014-01	IV60206A-1	T2MEB726406	2-9-25	20	1.0	2	30	84% H <sub>2</sub> O <sub>2</sub>	Kom	5-28-24
6020100x	TM12-014-02	↓	↓	↓	1	0.1	.2	↓	↓	↓	↓
5 Sta 1	TM12-014-03	6020100x	T12-014-02	6-11-24	.2	.65	.0002	50	5% H <sub>2</sub> O <sub>2</sub>	Kom	5-28-24
2	04	↓	↓	↓	↓	.175	.0005	↓	↓	↓	↓
3	05	602010x	T12-014-01	↓	2	.05	.002	↓	↓	↓	↓
4	06	IV60206A-1	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	07	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
6	08	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	09	↓	↓	↓	↓	.75	.10	↓	↓	↓	↓
IW *	10	IVPECHK	T2MEB724233	5-28-25	10	.25	.05	↓	↓	↓	↓
15 Sta 1	TM12-014-11	6020100x	T12-014-02	6-11-24	.2	.65	.0002	50	5% H <sub>2</sub> O <sub>2</sub>	Kom	5-28-24
2	12	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
3	13	602010x	T12-014-01	↓	2	.05	.002	↓	↓	↓	↓
4	14	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	15	IW 60206A-1	T2MEB726406	2-9-25	20	.05	.02	↓	↓	↓	↓
6	16	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	17	↓	↓	↓	↓	.25	.10	↓	↓	↓	↓
20 IW	18	IVPECHK	T2MEB724233	5-28-25	10	.25	.05	↓	↓	↓	↓
25 Sta 1	TM12-014-14	6020100x	T12-014-02	6-11-24	.2	.65	.0002	50	5% H <sub>2</sub> O <sub>2</sub>	Kom	6-3-24
2	20	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
3	21	602010x	T12-014-01	↓	2	.05	.002	↓	↓	↓	↓
4	22	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	23	IV60206A-1	T2MEB726406	2-9-25	20	.05	.02	↓	↓	↓	↓
6	24	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	25	↓	↓	↓	↓	.25	.10	↓	↓	↓	↓
IW	26	IVPECHK	T2MEB724233	5-28-25	10	.25	.05	↓	↓	↓	↓

SIGNATURE

Work continued to Page

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE



## Dissolved Metals EPA 200.8

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration Data
- Administrative Forms

# Dataset Report

User Name: kmckinney  
Computer Name: DESKTOP-RIRVUDN  
Dataset File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\  
Report Date/Time: Friday, May 31, 2024 16:11:30

5-31-24  
km

## The Dataset

Batch ID	Sample ID	Date and Time	Read Type	Samp. File Name	Description
	Sample	12:37:38 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	Sample	12:43:19 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	Blank	12:50:17 Fri 31-Ma	Blank	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	Standard 1	12:55:07 Fri 31-Ma	Standard #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	Standard 2	12:59:58 Fri 31-Ma	Standard #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	Standard 3	13:04:49 Fri 31-Ma	Standard #3	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	Standard 4	13:09:40 Fri 31-Ma	Standard #4	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	Standard 5	13:14:31 Fri 31-Ma	Standard #5	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	Standard 6	13:19:22 Fri 31-Ma	Standard #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	Standard 7	13:24:12 Fri 31-Ma	Standard #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	QC Std 1	13:29:53 Fri 31-Ma	QC Std #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	QC Std 2	13:35:34 Fri 31-Ma	QC Std #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	QC Std 6	13:40:27 Fri 31-Ma	QC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	QC Std 7	13:46:08 Fri 31-Ma	QC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	QC Std 8	13:51:49 Fri 31-Ma	QC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	MB0529WM1 2X	13:56:40 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	SB0529WM1 2X	14:02:20 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	05-300-07b 2X	14:08:00 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	05-300-07bD 2X	14:13:39 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	05-300-07bL 10X	14:19:56 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	05-300-07bMS 2X	14:25:35 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	05-300-07bMSD 2X	14:31:15 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	05-300-07bPS 2X	14:36:55 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	05-353-02k 2X	14:42:36 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	05-353-07k 2X	14:48:16 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	QC Std 6	14:53:57 Fri 31-Ma	QC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	QC Std 7	14:59:38 Fri 31-Ma	QC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	QC Std 8	15:05:20 Fri 31-Ma	QC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	05-353-10k 2X	15:11:02 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	05-353-15k 2X	15:16:42 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	05-330-02c 2X 29WH	15:22:22 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	05-335-01 10X	15:28:02 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	05-335-02 10X	15:33:42 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	05-335-03 10X	15:39:21 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	05-335-04 10X	15:45:01 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	05-335-05 10X	15:50:40 Fri 31-Ma	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	QC Std 6	15:56:21 Fri 31-Ma	QC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	QC Std 7	16:02:02 Fri 31-Ma	QC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	
	QC Std 8	16:07:42 Fri 31-Ma	QC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\	

## Performance Check Report

**Sample ID: [STD] Performance Check**

Sample Date/Time: Friday, May 31, 2024 07:00:46

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Optimizations\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\05MAY24\Y240531A\[STD] Performance Check.003

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

### Summary

IS	Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode
	Li	7.0		60966.2		60966.226		664.149		1.1	Standard
	In	114.9		372756.9		372756.943		307.370		0.1	Standard
	U	238.1		395564.4		395564.394		3631.895		0.9	Standard
Ce	CeO	155.9		11058.3		0.024		0.000		2.0	Standard
Ce	Ce++	70.0		12977.2		0.029		0.000		0.5	Standard
	Bkgd	220.5		0.4		0.400		0.253		63.2	Standard
	Ce	139.9		452141.0		452140.981		1713.129		0.4	Standard

### Current Conditions File Data

Current Value	Description
-100.00	Standard - OmniRing Park Voltage
4.00	Standard - Hyperskimmer Park Voltage
1.00	Standard - Nebulizer Gas Flow STD/KED [NEB]
1.20	Standard - Auxiliary Gas Flow
15.00	Standard - Plasma Gas Flow
0.00	Standard - Oxygen Gas Flow
-10.00	Standard - QID Fixed Voltage
1600.00	Standard - ICP RF Power
-1675.00	Standard - Analog Stage
1050.00	Standard - Pulse Stage
0.00	Standard - Q1 Rod Offset STD [QRO]
-12.00	Standard - Cell Rod Offset STD [CRO]
-3.00	Standard - Cell Entrance/Exit Voltage STD
0.00	Standard - Axial Field Voltage
5.00	Ammonia DRC - OmniRing Park Voltage
1.00	Ammonia DRC - DRC Mode NEB
2.00	Ammonia DRC - Hyperskimmer Park Voltage
-9.50	Ammonia DRC - DRC Mode QRO
-2.50	Ammonia DRC - DRC Mode CRO
-7.00	Ammonia DRC - DRC Mode Cell Entrance/Exit Voltage
250.00	Ammonia DRC - Axial Field Voltage
0.60	Ammonia DRC - Cell Gas A
2.00	Helium KED - Hyperskimmer Park Voltage
5.00	Helium KED - OmniRing Park Voltage
-12.00	Helium KED - KED Mode QRO
-15.00	Helium KED - KED Mode CRO
-4.00	Helium KED - KED Mode Cell Entrance Voltage
-32.00	Helium KED - KED Mode Cell Exit Voltage
475.00	Helium KED - KED Mode Axial Field Voltage

2.00 Helium KED - Cell Gas B

## Instrument Mass Calibration Report

File Name:

File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\

Acq. Date/Time: 07:00:04 Fri 31-May-24

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Peak Width	Custom Res.
Li	7.016	6.975	1222	2062	0.696	
Mg	23.985	23.975	4579	2063	0.715	
In	114.904	114.875	22592	2066	0.719	
Pb	207.977	207.975	41052	2066	0.719	
U	238.050	238.075	47019	2067	0.724	

## Quantitative Analysis Calibration Report

File Name:

File Path:

Calibration Type: External Calibration

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Cr	51.941	Weighted Linear	0.03	-0.00	0.999593
Cr -1	52.941	Weighted Linear	0.00	-0.00	0.998856
Ni	57.935	Weighted Linear	0.03	0.01	0.999330
Ni -1	59.933	Weighted Linear	0.01	-0.00	0.998532
Ni -2	61.928	Weighted Linear	0.00	-0.00	0.997156
Cu	62.930	Weighted Linear	0.02	-0.00	0.998239
Cu -1	64.928	Weighted Linear	0.01	-0.00	0.998509
Zn	65.926	Weighted Linear	0.01	0.00	0.998793
Zn -1	66.927	Weighted Linear	0.00	0.00	0.998483
Zn -2	67.925	Weighted Linear	0.00	-0.00	0.999251
As	74.922	Weighted Linear	0.01	0.00	0.999172
As-1	74.922	Weighted Linear	0.01	0.00	0.998848
Se	76.920	Weighted Linear	0.00	0.00	0.999796
Se -1	77.917	Weighted Linear	0.00	-0.00	0.999029
Br	78.918	Weighted Linear	0.00	0.00	0.000000
Se -2	81.917	Weighted Linear	0.00	-0.00	0.999418
Kr	82.914	Weighted Linear	0.00	0.00	0.000000
Y	88.905	Weighted Linear	0.00	0.00	0.000000
Rh	102.905	Weighted Linear	0.00	0.00	0.000000
Cd	110.904	Weighted Linear	0.01	0.00	0.998556
Cd -1	113.904	Weighted Linear	0.02	0.00	0.998819
Ho	164.930	Weighted Linear	0.00	0.00	0.000000
Pb	207.977	Weighted Linear	0.07	0.00	0.998870
Bi	208.980	Weighted Linear	0.00	0.00	0.000000
Th	232.038	Weighted Linear	0.00	0.00	0.000000
Cr -2	51.941	Weighted Linear	0.07	0.00	0.999112
Cr -3	52.941	Weighted Linear	0.01	0.00	0.997333
Ni -3	57.935	Weighted Linear	0.09	-0.00	0.998625
Ni -4	59.933	Weighted Linear	0.04	-0.00	0.999076
Ni -5	61.928	Weighted Linear	0.01	-0.00	0.997681
Cu -2	62.930	Weighted Linear	0.10	-0.00	0.998337
Cu -3	64.928	Weighted Linear	0.05	-0.00	0.998050
Zn -3	65.926	Weighted Linear	0.01	0.00	0.998330
Zn -4	66.927	Weighted Linear	0.00	0.00	0.999388
Zn -5	67.925	Weighted Linear	0.01	0.00	0.999687
As-2	74.922	Weighted Linear	0.01	-0.00	0.998560
Y-1	88.905	Weighted Linear	0.00	0.00	0.000000
Rh-1	102.905	Weighted Linear	0.00	0.00	0.000000
Cd -2	110.904	Weighted Linear	0.01	0.00	0.998664
Cd -3	113.904	Weighted Linear	0.04	0.00	0.998593
Sc	44.956	Linear Thru Zero	0.00	0.00	0.000000
Ge	71.922	Linear Thru Zero	0.00	0.00	0.000000
In	114.904	Linear Thru Zero	0.00	0.00	0.000000
Tb	158.925	Linear Thru Zero	0.00	0.00	0.000000
Ge-1	71.922	Linear Thru Zero	0.00	0.00	0.000000
In-1	114.904	Linear Thru Zero	0.00	0.00	0.000000

# Quantitative Analysis - Summary Report

**Sample ID: Blank**

Sample Date/Time: Friday, May 31, 2024 12:50:17

Report Date/Time: Friday, May 31, 2024 12:53:37

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531\Blank.003

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	23727.7	1.5				ug/L		Standard
	Cr -1	53	4227.3	2.3				ug/L		Standard
	Ni	58	-9346.7	2.1				ug/L		Standard
	Ni -1	60	242.0	8.3				ug/L		Standard
	Ni -2	62	1958.5	3.7				ug/L		Standard
	Cu	63	2501.9	2.0				ug/L		Standard
	Cu -1	65	483.3	3.5				ug/L		Standard
	Zn	66	770.4	2.3				ug/L		Standard
	Zn -1	67	161.3	4.7				ug/L		Standard
	Zn -2	68	753.7	1.8				ug/L		Standard
	As	75	12256.1	1.2				ug/L		Standard
	As-1	75	25.3	89.5				ug/L		Standard
	Se	77	145.0	8.5				ug/L		Standard
	Se -1	78	12290.6	1.1				ug/L		Standard
	Br	79	304.0	2.0				ug/L		Standard
	Se -2	82	41.7	9.7				ug/L		Standard
	Kr	83	35.7	16.2				ug/L		Standard
	Y	89	618385.9	1.1				ug/L		Standard
	Rh	103	111544.1	0.2				ug/L		Standard
	Cd	111	192.5	2.8				ug/L		Standard
	Cd -1	114	22.9	1.6				ug/L		Standard
	Ho	165	521140.0	0.2				ug/L		Standard
	Pb	208	518.0	6.4				ug/L		Standard
	Bi	209	295515.6	2.9				ug/L		Standard
	Th	232	378918.0	1.9				ug/L		Standard
	Cr -2	52	283.0	3.9				ug/L		KED
	Cr -3	53	38.0	9.5				ug/L		KED
	Ni -3	58	148.2	13.2				ug/L		KED
	Ni -4	60	58.0	12.1				ug/L		KED
	Ni -5	62	12.3	24.8				ug/L		KED
	Cu -2	63	286.7	5.5				ug/L		KED
	Cu -3	65	136.0	8.9				ug/L		KED
	Zn -3	66	93.3	8.2				ug/L		KED
	Zn -4	67	15.3	27.2				ug/L		KED
	Zn -5	68	67.7	6.2				ug/L		KED
	As-2	75	3.0	33.3				ug/L		KED
	Y-1	89	64897.4	0.5				ug/L		KED
	Rh-1	103	44712.2	0.5				ug/L		KED
	Cd -2	111	3.7	15.7				ug/L		KED
	Cd -3	114	8.0	33.1				ug/L		KED
>	Sc	45	772315.6	3.0				ug/L		Standard
>	Ge	72	431845.8	1.6				ug/L		Standard
>	In	115	412956.7	0.9				ug/L		Standard
>	Tb	159	554760.7	0.7				ug/L		Standard
>	Ge-1	72	30473.5	1.5				ug/L		KED
>	In-1	115	42430.8	1.3				ug/L		KED

## QC Calculated Values

Sample ID: Blank

Report Date/Time: Friday, May 31, 2024 12:53:37

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

# Quantitative Analysis - Summary Report

## Sample ID: Standard 1

Sample Date/Time: Friday, May 31, 2024 12:55:07

Report Date/Time: Friday, May 31, 2024 12:58:28

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\Standard 1.004

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	27698.5	1.0				ug/L	23728	Standard
	Cr -1	53	4540.1	2.0				ug/L	4227	Standard
	Ni	58	-6658.6	3.0				ug/L	-9347	Standard
	Ni -1	60	1165.0	1.7				ug/L	242	Standard
	Ni -2	62	1881.5	4.3				ug/L	1958	Standard
	Cu	63	3910.9	2.9				ug/L	2502	Standard
	Cu -1	65	1175.7	2.5				ug/L	483	Standard
	Zn	66	791.7	6.0				ug/L	770	Standard
	Zn -1	67	187.0	8.3				ug/L	161	Standard
	Zn -2	68	756.7	4.2				ug/L	754	Standard
	As	75	13422.1	2.6				ug/L	12256	Standard
	As-1	75	533.6	3.0				ug/L	25	Standard
	Se	77	178.7	3.9				ug/L	145	Standard
	Se -1	78	13043.3	2.6				ug/L	12291	Standard
	Br	79	269.7	2.2				ug/L	304	Standard
	Se -2	82	80.0	10.0				ug/L	42	Standard
	Kr	83	28.7	2.0				ug/L	36	Standard
	Y	89	596057.4	1.7				ug/L	618386	Standard
	Rh	103	107228.7	1.6				ug/L	111544	Standard
	Cd	111	855.3	3.7				ug/L	192	Standard
	Cd -1	114	1690.1	3.5				ug/L	23	Standard
	Ho	165	537713.3	1.6				ug/L	521140	Standard
	Pb	208	8841.7	1.8				ug/L	518	Standard
	Bi	209	303803.3	1.0				ug/L	295516	Standard
	Th	232	382000.4	0.6				ug/L	378918	Standard
	Cr -2	52	759.0	3.8				ug/L	283	KED
	Cr -3	53	97.3	2.1				ug/L	38	KED
	Ni -3	58	594.7	4.7				ug/L	148	KED
	Ni -4	60	265.7	7.0				ug/L	58	KED
	Ni -5	62	41.7	3.7				ug/L	12	KED
	Cu -2	63	735.4	2.5				ug/L	287	KED
	Cu -3	65	346.7	1.0				ug/L	136	KED
	Zn -3	66	101.7	9.1				ug/L	93	KED
	Zn -4	67	15.7	35.2				ug/L	15	KED
	Zn -5	68	72.0	13.2				ug/L	68	KED
	As-2	75	49.3	3.1				ug/L	3	KED
	Y-1	89	63670.6	0.6				ug/L	64897	KED
	Rh-1	103	43501.5	0.4				ug/L	44712	KED
	Cd -2	111	141.7	18.7				ug/L	4	KED
	Cd -3	114	384.0	5.9				ug/L	8	KED
>	Sc	45	738798.4	1.1				ug/L	772316	Standard
>	Ge	72	437471.8	1.9				ug/L	431846	Standard
>	In	115	414720.4	2.1				ug/L	412957	Standard
>	Tb	159	564376.7	1.6				ug/L	554761	Standard
>	Ge-1	72	29881.9	1.0				ug/L	30473	KED
>	In-1	115	41503.7	1.4				ug/L	42431	KED

### QC Calculated Values

Sample ID: Standard 1

Report Date/Time: Friday, May 31, 2024 12:58:28

Page 1

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 2**

Sample Date/Time: Friday, May 31, 2024 12:59:58

Report Date/Time: Friday, May 31, 2024 13:03:18

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\Standard 2.005

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	34092.7	3.0				ug/L	23728	Standard
	Cr -1	53	5035.9	0.7				ug/L	4227	Standard
	Ni	58	-3305.3	6.8				ug/L	-9347	Standard
	Ni -1	60	2431.9	2.4				ug/L	242	Standard
	Ni -2	62	2126.5	1.9				ug/L	1958	Standard
	Cu	63	6867.7	0.7				ug/L	2502	Standard
	Cu -1	65	2523.9	0.4				ug/L	483	Standard
	Zn	66	1512.7	2.5				ug/L	770	Standard
	Zn -1	67	290.0	2.5				ug/L	161	Standard
	Zn -2	68	1281.4	4.1				ug/L	754	Standard
	As	75	14195.1	0.3				ug/L	12256	Standard
	As-1	75	1143.1	2.8	0.5000	0.021	4.2	ug/L	25	Standard
	Se	77	234.3	6.5				ug/L	145	Standard
	Se -1	78	13346.6	0.5				ug/L	12291	Standard
	Br	79	273.3	8.4				ug/L	304	Standard
	Se -2	82	135.3	1.1				ug/L	42	Standard
	Kr	83	35.0	4.9				ug/L	36	Standard
	Y	89	604232.2	1.0				ug/L	618386	Standard
	Rh	103	109399.8	2.5				ug/L	111544	Standard
	Cd	111	1643.0	6.1	0.5000	0.036	7.1	ug/L	192	Standard
	Cd -1	114	3797.1	1.4	0.5000	0.011	2.2	ug/L	23	Standard
	Ho	165	545863.9	0.6				ug/L	521140	Standard
	Pb	208	19238.7	1.1	0.5000	0.008	1.6	ug/L	518	Standard
	Bi	209	309635.5	0.9				ug/L	295516	Standard
	Th	232	392961.9	1.3				ug/L	378918	Standard
	Cr -2	52	1384.7	0.9				ug/L	283	KED
	Cr -3	53	178.3	12.2				ug/L	38	KED
	Ni -3	58	1395.7	4.7				ug/L	148	KED
	Ni -4	60	619.7	1.7				ug/L	58	KED
	Ni -5	62	88.3	22.0				ug/L	12	KED
	Cu -2	63	1576.1	1.0				ug/L	287	KED
	Cu -3	65	714.0	3.9				ug/L	136	KED
	Zn -3	66	180.0	3.3				ug/L	93	KED
	Zn -4	67	30.3	16.6				ug/L	15	KED
	Zn -5	68	136.7	7.3				ug/L	68	KED
	As-2	75	106.3	12.2				ug/L	3	KED
	Y-1	89	64599.4	0.5				ug/L	64897	KED
	Rh-1	103	44311.3	0.5				ug/L	44712	KED
	Cd -2	111	314.7	5.6	0.5000	0.031	6.2	ug/L	4	KED
	Cd -3	114	825.4	4.6	0.5000	0.026	5.1	ug/L	8	KED
>	Sc	45	754739.0	0.5				ug/L	772316	Standard
>	Ge	72	441905.8	1.8				ug/L	431846	Standard
>	In	115	419935.3	1.4				ug/L	412957	Standard
>	Tb	159	573679.5	1.0				ug/L	554761	Standard
>	Ge-1	72	30135.1	0.6				ug/L	30473	KED
>	In-1	115	42337.4	0.3				ug/L	42431	KED

**QC Calculated Values**

Sample ID: Standard 2

Report Date/Time: Friday, May 31, 2024 13:03:18

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 3**

Sample Date/Time: Friday, May 31, 2024 13:04:49

Report Date/Time: Friday, May 31, 2024 13:08:09

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\Standard 3.006

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	72780.3	1.7	2.0000	0.053	2.6	ug/L	23728	Standard
	Cr -1	53	9809.7	2.8	2.0000	0.072	3.6	ug/L	4227	Standard
	Ni	58	16361.1	3.1				ug/L	-9347	Standard
	Ni -1	60	10378.4	2.2	2.0000	0.033	1.7	ug/L	242	Standard
	Ni -2	62	3343.4	0.6	2.0000	0.086	4.3	ug/L	1958	Standard
	Cu	63	24459.9	3.3	2.0000	0.038	1.9	ug/L	2502	Standard
	Cu -1	65	10581.6	2.4	2.0000	0.031	1.5	ug/L	483	Standard
	Zn	66	5926.6	4.4				ug/L	770	Standard
	Zn -1	67	1050.0	8.2				ug/L	161	Standard
	Zn -2	68	4360.0	4.7				ug/L	754	Standard
	As	75	17259.4	2.5	2.0000	0.037	1.8	ug/L	12256	Standard
	As-1	75	5045.9	1.9	2.1099	0.067	3.2	ug/L	25	Standard
	Se	77	456.3	3.9	2.0000	0.097	4.9	ug/L	145	Standard
	Se -1	78	13393.9	3.1				ug/L	12291	Standard
	Br	79	284.3	3.2				ug/L	304	Standard
	Se -2	82	483.0	4.7	2.0000	0.131	6.6	ug/L	42	Standard
	Kr	83	32.3	36.6				ug/L	36	Standard
	Y	89	605029.1	1.3				ug/L	618386	Standard
	Rh	103	108391.4	1.5				ug/L	111544	Standard
	Cd	111	6657.3	2.6	2.1046	0.030	1.4	ug/L	192	Standard
	Cd -1	114	16468.5	2.5	2.0800	0.018	0.9	ug/L	23	Standard
	Ho	165	538083.0	1.8				ug/L	521140	Standard
	Pb	208	81940.4	1.4	2.0874	0.035	1.7	ug/L	518	Standard
	Bi	209	311676.8	0.9				ug/L	295516	Standard
	Th	232	388499.8	0.5				ug/L	378918	Standard
	Cr -2	52	5215.6	2.9	2.0000	0.068	3.4	ug/L	283	KED
	Cr -3	53	697.0	3.9	2.0000	0.086	4.3	ug/L	38	KED
	Ni -3	58	6031.3	2.7	2.0000	0.056	2.8	ug/L	148	KED
	Ni -4	60	2579.6	3.4	2.0000	0.071	3.5	ug/L	58	KED
	Ni -5	62	403.7	3.7	2.0000	0.070	3.5	ug/L	12	KED
	Cu -2	63	6753.9	0.5	2.0000	0.017	0.8	ug/L	287	KED
	Cu -3	65	3178.7	3.0	2.0000	0.054	2.7	ug/L	136	KED
	Zn -3	66	751.7	5.1				ug/L	93	KED
	Zn -4	67	123.3	9.0				ug/L	15	KED
	Zn -5	68	547.7	5.5				ug/L	68	KED
	As-2	75	479.0	4.8	2.0000	0.096	4.8	ug/L	3	KED
	Y-1	89	65555.7	1.1				ug/L	64897	KED
	Rh-1	103	45475.6	1.2				ug/L	44712	KED
	Cd -2	111	1361.7	3.1	2.0863	0.055	2.6	ug/L	4	KED
	Cd -3	114	3572.8	2.1	2.0974	0.033	1.5	ug/L	8	KED
>	Sc	45	776062.7	0.6				ug/L	772316	Standard
>	Ge	72	438778.7	2.6				ug/L	431846	Standard
>	In	115	421081.7	2.5				ug/L	412957	Standard
>	Tb	159	570426.3	2.5				ug/L	554761	Standard
>	Ge-1	72	31025.0	0.4				ug/L	30473	KED
>	In-1	115	42414.7	0.5				ug/L	42431	KED

### QC Calculated Values

Sample ID: Standard 3

Report Date/Time: Friday, May 31, 2024 13:08:09

Page 1

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 4**

Sample Date/Time: Friday, May 31, 2024 13:09:40

Report Date/Time: Friday, May 31, 2024 13:13:00

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\Standard 4.007

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	132548.8	1.6	<b>4.8716</b>	0.117	2.4	ug/L	23728	Standard
	Cr -1	53	16329.0	2.3	<b>4.7518</b>	0.158	3.3	ug/L	4227	Standard
	Ni	58	47564.4	2.8	<b>5.0000</b>	0.074	1.5	ug/L	-9347	Standard
	Ni -1	60	22247.0	3.3	<b>4.7389</b>	0.101	2.1	ug/L	242	Standard
	Ni -2	62	5004.5	2.6	<b>4.6723</b>	0.058	1.2	ug/L	1958	Standard
	Cu	63	50152.2	1.0	<b>4.7170</b>	0.073	1.6	ug/L	2502	Standard
	Cu -1	65	22688.7	1.6	<b>4.7462</b>	0.049	1.0	ug/L	483	Standard
	Zn	66	12296.6	1.4	<b>5.0000</b>	0.072	1.4	ug/L	770	Standard
	Zn -1	67	2049.1	1.7	<b>5.0000</b>	0.213	4.3	ug/L	161	Standard
	Zn -2	68	8886.4	1.0	<b>5.0000</b>	0.061	1.2	ug/L	754	Standard
	As	75	23028.4	1.4	<b>5.0711</b>	0.091	1.8	ug/L	12256	Standard
	As-1	75	11415.6	1.0	<b>4.9967</b>	0.131	2.6	ug/L	25	Standard
	Se	77	861.0	5.1	<b>4.9790</b>	0.291	5.8	ug/L	145	Standard
	Se -1	78	14204.7	2.2	<b>5.0000</b>	0.327	6.5	ug/L	12291	Standard
	Br	79	267.3	11.0				ug/L	304	Standard
	Se -2	82	1038.0	3.2	<b>4.8150</b>	0.250	5.2	ug/L	42	Standard
	Kr	83	36.3	23.4				ug/L	36	Standard
	Y	89	579986.9	0.7				ug/L	618386	Standard
	Rh	103	104714.4	0.9				ug/L	111544	Standard
	Cd	111	14145.7	1.8	<b>4.8226</b>	0.109	2.3	ug/L	192	Standard
	Cd -1	114	35254.5	2.8	<b>4.7654</b>	0.005	0.1	ug/L	23	Standard
	Ho	165	517135.1	2.4				ug/L	521140	Standard
	Pb	208	174786.8	1.7	<b>4.8116</b>	0.133	2.8	ug/L	518	Standard
	Bi	209	298747.3	2.5				ug/L	295516	Standard
	Th	232	377487.8	1.2				ug/L	378918	Standard
	Cr -2	52	11094.6	1.5	<b>4.7759</b>	0.022	0.5	ug/L	283	KED
	Cr -3	53	1379.7	1.6	<b>4.6071</b>	0.128	2.8	ug/L	38	KED
	Ni -3	58	12804.7	2.2	<b>4.7178</b>	0.081	1.7	ug/L	148	KED
	Ni -4	60	5537.4	0.8	<b>4.7549</b>	0.083	1.7	ug/L	58	KED
	Ni -5	62	836.0	1.0	<b>4.6473</b>	0.012	0.3	ug/L	12	KED
	Cu -2	63	14125.6	0.7	<b>4.6897</b>	0.087	1.9	ug/L	287	KED
	Cu -3	65	6578.8	1.3	<b>4.6547</b>	0.102	2.2	ug/L	136	KED
	Zn -3	66	1480.1	2.0	<b>5.0000</b>	0.182	3.6	ug/L	93	KED
	Zn -4	67	258.3	3.7	<b>5.0000</b>	0.149	3.0	ug/L	15	KED
	Zn -5	68	1171.4	4.1	<b>5.0000</b>	0.167	3.3	ug/L	68	KED
	As-2	75	1003.4	1.0	<b>4.6757</b>	0.098	2.1	ug/L	3	KED
	Y-1	89	63371.9	0.3				ug/L	64897	KED
	Rh-1	103	43730.8	1.8				ug/L	44712	KED
	Cd -2	111	2884.3	1.1	<b>4.7902</b>	0.115	2.4	ug/L	4	KED
	Cd -3	114	7585.7	1.0	<b>4.8164</b>	0.022	0.5	ug/L	8	KED
>	Sc	45	732066.9	2.8				ug/L	772316	Standard
>	Ge	72	421674.8	2.0				ug/L	431846	Standard
>	In	115	410368.2	2.9				ug/L	412957	Standard
>	Tb	159	548311.9	2.9				ug/L	554761	Standard
>	Ge-1	72	29956.7	1.1				ug/L	30473	KED
>	In-1	115	40721.5	1.3				ug/L	42431	KED

## QC Calculated Values

Sample ID: Standard 4

Report Date/Time: Friday, May 31, 2024 13:13:00

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 5**

Sample Date/Time: Friday, May 31, 2024 13:14:31

Report Date/Time: Friday, May 31, 2024 13:17:51

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\Standard 5.008

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	502835.9	1.1	19.7265	0.414	2.1	ug/L	23728	Standard
	Cr -1	53	58530.0	1.6	19.3162	0.251	1.3	ug/L	4227	Standard
	Ni	58	237061.4	0.5	20.3952	0.439	2.2	ug/L	-9347	Standard
	Ni -1	60	96979.1	1.6	19.6274	0.173	0.9	ug/L	242	Standard
	Ni -2	62	15871.5	0.8	19.1320	0.457	2.4	ug/L	1958	Standard
	Cu	63	213341.0	1.0	19.5459	0.393	2.0	ug/L	2502	Standard
	Cu -1	65	98809.6	1.8	19.6512	0.131	0.7	ug/L	483	Standard
	Zn	66	53635.8	1.4	20.5907	0.238	1.2	ug/L	770	Standard
	Zn -1	67	9060.9	4.3	20.8872	0.687	3.3	ug/L	161	Standard
	Zn -2	68	38156.6	2.4	20.5687	0.282	1.4	ug/L	754	Standard
	As	75	59394.4	2.2	20.4592	0.074	0.4	ug/L	12256	Standard
	As-1	75	48683.3	1.5	20.0220	0.168	0.8	ug/L	25	Standard
	Se	77	3256.4	3.5	20.2168	0.311	1.5	ug/L	145	Standard
	Se -1	78	21825.3	3.0	19.7225	0.646	3.3	ug/L	12291	Standard
	Br	79	346.7	1.2				ug/L	304	Standard
	Se -2	82	4393.3	1.1	19.6735	0.475	2.4	ug/L	42	Standard
	Kr	83	26.3	12.2				ug/L	36	Standard
	Y	89	626919.7	2.9				ug/L	618386	Standard
	Rh	103	113287.4	0.6				ug/L	111544	Standard
	Cd	111	61695.3	1.7	19.9056	0.061	0.3	ug/L	192	Standard
	Cd -1	114	155568.7	2.5	19.7723	0.165	0.8	ug/L	23	Standard
	Ho	165	561633.5	1.3				ug/L	521140	Standard
	Pb	208	772228.9	2.0	19.8469	0.176	0.9	ug/L	518	Standard
	Bi	209	321102.4	2.1				ug/L	295516	Standard
	Th	232	409989.1	0.6				ug/L	378918	Standard
	Cr -2	52	47377.1	1.4	19.7464	0.389	2.0	ug/L	283	KED
	Cr -3	53	5853.2	1.7	19.2636	0.086	0.4	ug/L	38	KED
	Ni -3	58	55400.2	0.7	19.5907	0.257	1.3	ug/L	148	KED
	Ni -4	60	24213.2	0.5	19.8376	0.252	1.3	ug/L	58	KED
	Ni -5	62	3583.4	2.0	19.2629	0.176	0.9	ug/L	12	KED
	Cu -2	63	61399.0	0.4	19.5935	0.225	1.1	ug/L	287	KED
	Cu -3	65	28878.2	1.3	19.5831	0.071	0.4	ug/L	136	KED
	Zn -3	66	6603.5	1.3	20.9549	0.058	0.3	ug/L	93	KED
	Zn -4	67	1079.4	0.4	20.3707	0.346	1.7	ug/L	15	KED
	Zn -5	68	4987.5	2.0	20.4018	0.093	0.5	ug/L	68	KED
	As-2	75	4434.7	1.0	19.6942	0.242	1.2	ug/L	3	KED
	Y-1	89	67695.4	1.4				ug/L	64897	KED
	Rh-1	103	46534.7	1.0				ug/L	44712	KED
	Cd -2	111	12601.2	1.0	19.6641	0.400	2.0	ug/L	4	KED
	Cd -3	114	33513.9	0.7	19.9028	0.212	1.1	ug/L	8	KED
>	Sc	45	789764.5	1.9				ug/L	772316	Standard
>	Ge	72	449825.8	2.4				ug/L	431846	Standard
>	In	115	440589.3	1.8				ug/L	412957	Standard
>	Tb	159	592488.6	1.5				ug/L	554761	Standard
>	Ge-1	72	31773.0	1.6				ug/L	30473	KED
>	In-1	115	43903.6	1.8				ug/L	42431	KED

**QC Calculated Values**

Sample ID: Standard 5

Report Date/Time: Friday, May 31, 2024 13:17:51

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: Standard 6**

Sample Date/Time: Friday, May 31, 2024 13:19:22

Report Date/Time: Friday, May 31, 2024 13:22:42

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\Standard 6.009

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	973098.8	0.8	<b>40.5190</b>	0.611	1.5	ug/L	23728	Standard
	Cr -1	53	112682.1	2.2	<b>40.0739</b>	0.205	0.5	ug/L	4227	Standard
	Ni	58	474679.5	0.9	<b>40.7642</b>	0.462	1.1	ug/L	-9347	Standard
	Ni -1	60	190969.1	1.4	<b>39.8813</b>	0.104	0.3	ug/L	242	Standard
	Ni -2	62	29292.7	0.7	<b>39.0048</b>	0.392	1.0	ug/L	1958	Standard
	Cu	63	420358.0	2.3	<b>39.8794</b>	0.289	0.7	ug/L	2502	Standard
	Cu -1	65	194628.3	2.4	<b>39.9284</b>	0.389	1.0	ug/L	483	Standard
	Zn	66	104696.3	1.6	<b>40.9462</b>	0.275	0.7	ug/L	770	Standard
	Zn -1	67	17368.2	2.8	<b>40.9369</b>	0.496	1.2	ug/L	161	Standard
	Zn -2	68	73664.4	0.8	<b>40.7296</b>	0.373	0.9	ug/L	754	Standard
	As	75	107682.3	2.3	<b>42.2803</b>	0.360	0.9	ug/L	12256	Standard
	As-1	75	97841.7	2.0	<b>41.0977</b>	0.148	0.4	ug/L	25	Standard
	Se	77	6374.8	2.3	<b>41.2811</b>	0.423	1.0	ug/L	145	Standard
	Se -1	78	31771.3	3.3	<b>41.9137</b>	1.132	2.7	ug/L	12291	Standard
	Br	79	334.7	9.6				ug/L	304	Standard
	Se -2	82	8652.3	3.0	<b>40.0248</b>	0.730	1.8	ug/L	42	Standard
	Kr	83	35.0	10.3				ug/L	36	Standard
	Y	89	609247.9	2.5				ug/L	618386	Standard
	Rh	103	109912.3	1.9				ug/L	111544	Standard
	Cd	111	123866.9	1.2	<b>40.8123</b>	0.225	0.6	ug/L	192	Standard
	Cd -1	114	314861.7	2.3	<b>40.8029</b>	0.477	1.2	ug/L	23	Standard
	Ho	165	543368.2	1.6				ug/L	521140	Standard
	Pb	208	1538455.5	1.4	<b>40.6310</b>	0.141	0.3	ug/L	518	Standard
	Bi	209	310064.7	1.1				ug/L	295516	Standard
	Th	232	387640.9	1.4				ug/L	378918	Standard
	Cr -2	52	91194.8	0.3	<b>40.1071</b>	0.957	2.4	ug/L	283	KED
	Cr -3	53	11477.3	1.1	<b>39.9503</b>	0.739	1.9	ug/L	38	KED
	Ni -3	58	107779.0	0.9	<b>40.1167</b>	0.619	1.5	ug/L	148	KED
	Ni -4	60	46844.0	0.5	<b>40.3212</b>	0.644	1.6	ug/L	58	KED
	Ni -5	62	6940.0	1.5	<b>39.5123</b>	0.695	1.8	ug/L	12	KED
	Cu -2	63	117233.5	1.7	<b>39.6030</b>	0.305	0.8	ug/L	287	KED
	Cu -3	65	55061.6	2.7	<b>39.5361</b>	0.718	1.8	ug/L	136	KED
	Zn -3	66	12584.2	2.2	<b>41.3368</b>	0.180	0.4	ug/L	93	KED
	Zn -4	67	2113.8	4.8	<b>41.3011</b>	1.400	3.4	ug/L	15	KED
	Zn -5	68	9391.8	1.4	<b>40.4173</b>	0.295	0.7	ug/L	68	KED
	As-2	75	8528.2	1.7	<b>39.9274</b>	1.094	2.7	ug/L	3	KED
	Y-1	89	64526.4	0.9				ug/L	64897	KED
	Rh-1	103	43718.5	1.2				ug/L	44712	KED
	Cd -2	111	24881.3	0.5	<b>40.2917</b>	0.621	1.5	ug/L	4	KED
	Cd -3	114	65823.3	1.2	<b>40.5029</b>	0.840	2.1	ug/L	8	KED
>	Sc	45	758254.2	2.1				ug/L	772316	Standard
>	Ge	72	436543.7	1.6				ug/L	431846	Standard
>	In	115	429524.0	1.5				ug/L	412957	Standard
>	Tb	159	574108.1	1.7				ug/L	554761	Standard
>	Ge-1	72	30172.5	2.1				ug/L	30473	KED
>	In-1	115	42236.7	1.3				ug/L	42431	KED

### QC Calculated Values

Sample ID: Standard 6

Report Date/Time: Friday, May 31, 2024 13:22:42

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 7**

Sample Date/Time: Friday, May 31, 2024 13:24:12

Report Date/Time: Friday, May 31, 2024 13:27:32

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\Standard 7.010

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Cr	52	2170122.5	0.9	<b>103.0943</b>	2.388	2.3	ug/L	23728		Standard
	Cr -1	53	234016.4	2.7	<b>97.1851</b>	0.705	0.7	ug/L	4227		Standard
	Ni	58	1027503.6	1.5	<b>96.4903</b>	1.802	1.9	ug/L	-9347		Standard
	Ni -1	60	408125.1	3.4	<b>94.1465</b>	1.917	2.0	ug/L	242		Standard
	Ni -2	62	60411.8	0.9	<b>92.4780</b>	2.463	2.7	ug/L	1958		Standard
	Cu	63	890063.0	2.4	<b>93.6304</b>	1.263	1.3	ug/L	2502		Standard
	Cu -1	65	412809.8	1.3	<b>93.7208</b>	1.970	2.1	ug/L	483		Standard
	Zn	66	219679.5	2.4	<b>95.5899</b>	1.651	1.7	ug/L	770		Standard
	Zn -1	67	37386.2	3.9	<b>97.3935</b>	1.173	1.2	ug/L	161		Standard
	Zn -2	68	159741.3	1.8	<b>97.5183</b>	1.493	1.5	ug/L	754		Standard
	As	75	226327.4	2.4	<b>102.8721</b>	0.785	0.8	ug/L	12256		Standard
	As-1	75	219442.3	2.9	<b>100.0248</b>	0.183	0.2	ug/L	25		Standard
	Se	77	14036.6	3.7	<b>100.0331</b>	1.103	1.1	ug/L	145		Standard
	Se -1	78	55660.9	2.1	<b>102.5762</b>	1.568	1.5	ug/L	12291		Standard
	Br	79	329.3	6.4				ug/L	304		Standard
	Se -2	82	19221.3	4.0	<b>97.4041</b>	1.137	1.2	ug/L	42		Standard
	Kr	83	26.7	2.2				ug/L	36		Standard
	Y	89	564096.8	5.0				ug/L	618386		Standard
	Rh	103	100882.8	3.0				ug/L	111544		Standard
	Cd	111	265131.8	2.1	<b>97.0118</b>	0.583	0.6	ug/L	192		Standard
	Cd -1	114	679955.3	3.7	<b>97.6156</b>	2.412	2.5	ug/L	23		Standard
	Ho	165	490616.6	1.2				ug/L	521140		Standard
	Pb	208	3351959.0	2.0	<b>97.3246</b>	1.121	1.2	ug/L	518		Standard
	Bi	209	284006.9	2.2				ug/L	295516		Standard
	Th	232	346071.2	2.7				ug/L	378918		Standard
	Cr -2	52	187346.1	0.5	<b>96.1111</b>	0.421	0.4	ug/L	283		KED
	Cr -3	53	23289.0	0.3	<b>94.9348</b>	0.877	0.9	ug/L	38		KED
	Ni -3	58	220282.7	0.5	<b>95.6634</b>	0.696	0.7	ug/L	148		KED
	Ni -4	60	96559.6	0.8	<b>96.6856</b>	0.917	0.9	ug/L	58		KED
	Ni -5	62	14273.5	1.0	<b>94.9951</b>	1.423	1.5	ug/L	12		KED
	Cu -2	63	241456.8	0.3	<b>95.3045</b>	0.655	0.7	ug/L	287		KED
	Cu -3	65	113798.1	0.7	<b>95.4174</b>	0.750	0.8	ug/L	136		KED
	Zn -3	66	26015.7	0.3	<b>99.2403</b>	0.866	0.9	ug/L	93		KED
	Zn -4	67	4312.0	2.0	<b>98.2719</b>	1.868	1.9	ug/L	15		KED
	Zn -5	68	19750.0	1.3	<b>98.8017</b>	0.751	0.8	ug/L	68		KED
	As-2	75	17953.3	0.9	<b>97.4856</b>	0.830	0.9	ug/L	3		KED
	Y-1	89	57187.6	1.4				ug/L	64897		KED
	Rh-1	103	38448.0	1.3				ug/L	44712		KED
	Cd -2	111	52538.5	1.6	<b>95.8885</b>	1.924	2.0	ug/L	4		KED
	Cd -3	114	138227.6	1.1	<b>95.8696</b>	1.428	1.5	ug/L	8		KED
>	Sc	45	667919.2	3.1				ug/L	772316		Standard
>	Ge	72	402390.5	3.1				ug/L	431846		Standard
>	In	115	390145.1	1.5				ug/L	412957		Standard
>	Tb	159	526075.5	2.8				ug/L	554761		Standard
>	Ge-1	72	26211.7	0.7				ug/L	30473		KED
>	In-1	115	37878.6	0.4				ug/L	42431		KED

**QC Calculated Values**

Sample ID: Standard 7

Report Date/Time: Friday, May 31, 2024 13:27:32

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

## Quantitative Analysis - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Friday, May 31, 2024 13:29:53

Report Date/Time: Friday, May 31, 2024 13:33:13

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\QC Std 1.011

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	1111789.8	1.6	49.3350	0.098	0.2	ug/L	23728	Standard
	Cr -1	53	129098.0	2.9	49.9221	0.621	1.2	ug/L	4227	Standard
	Ni	58	549047.3	3.6	49.3625	1.291	2.6	ug/L	-9347	Standard
	Ni -1	60	220656.7	2.9	48.4386	0.987	2.0	ug/L	242	Standard
	Ni -2	62	33167.8	2.2	47.0841	0.654	1.4	ug/L	1958	Standard
	Cu	63	481105.5	2.8	48.0836	0.907	1.9	ug/L	2502	Standard
	Cu -1	65	221956.6	1.7	47.9344	0.158	0.3	ug/L	483	Standard
	Zn	66	119700.6	2.4	49.4022	0.600	1.2	ug/L	770	Standard
	Zn -1	67	20137.2	2.8	49.7093	0.737	1.5	ug/L	161	Standard
	Zn -2	68	86427.3	1.0	50.0105	0.230	0.5	ug/L	754	Standard
	As	75	127855.0	0.5	52.6879	0.596	1.1	ug/L	12256	Standard
	As-1	75	117556.7	0.8	51.0028	0.447	0.9	ug/L	25	Standard
	Se	77	7789.8	2.9	52.3608	1.046	2.0	ug/L	145	Standard
	Se -1	78	36686.0	0.6	54.4927	0.649	1.2	ug/L	12291	Standard
	Br	79	340.0	3.0				ug/L	304	Standard
	Se -2	82	10408.5	1.7	50.1559	0.342	0.7	ug/L	42	Standard
	Kr	83	33.3	22.7				ug/L	36	Standard
	Y	89	604477.6	2.3				ug/L	618386	Standard
	Rh	103	107111.5	2.0				ug/L	111544	Standard
	Cd	111	145809.7	3.5	50.1031	0.923	1.8	ug/L	192	Standard
	Cd -1	114	376144.7	3.3	50.7552	1.136	2.2	ug/L	23	Standard
	Ho	165	525870.2	2.9				ug/L	521140	Standard
	Pb	208	1824641.2	1.9	50.0348	0.219	0.4	ug/L	518	Standard
	Bi	209	296693.4	1.5				ug/L	295516	Standard
	Th	232	375923.0	2.6				ug/L	378918	Standard
	Cr -2	52	102945.6	0.1	49.0663	0.205	0.4	ug/L	283	KED
	Cr -3	53	12770.7	1.3	48.3526	0.571	1.2	ug/L	38	KED
	Ni -3	58	120217.9	1.2	48.5474	0.694	1.4	ug/L	148	KED
	Ni -4	60	52093.1	1.0	48.4984	0.541	1.1	ug/L	58	KED
	Ni -5	62	7774.1	2.1	48.1147	0.971	2.0	ug/L	12	KED
	Cu -2	63	132551.2	1.8	48.6430	0.961	2.0	ug/L	287	KED
	Cu -3	65	62473.7	1.3	48.7130	0.763	1.6	ug/L	136	KED
	Zn -3	66	14244.4	0.8	50.3617	0.414	0.8	ug/L	93	KED
	Zn -4	67	2417.2	0.9	51.0751	0.477	0.9	ug/L	15	KED
	Zn -5	68	10938.2	1.2	50.7560	0.407	0.8	ug/L	68	KED
	As-2	75	9822.7	1.0	49.6119	0.714	1.4	ug/L	3	KED
	Y-1	89	61167.0	1.0				ug/L	64897	KED
	Rh-1	103	41267.2	0.7				ug/L	44712	KED
	Cd -2	111	28797.7	0.8	49.6713	0.344	0.7	ug/L	4	KED
	Cd -3	114	75731.5	0.9	49.6381	0.585	1.2	ug/L	8	KED
>	Sc	45	707717.2	1.7				ug/L	772316	Standard
>	Ge	72	422696.5	1.4				ug/L	431846	Standard
>	In	115	415026.2	1.9				ug/L	412957	Standard
>	Tb	159	556716.8	1.6				ug/L	554761	Standard
>	Ge-1	72	28177.4	0.4				ug/L	30473	KED
>	In-1	115	40065.2	0.4				ug/L	42431	KED

### QC Calculated Values

Sample ID: QC Std 1

Report Date/Time: Friday, May 31, 2024 13:33:13

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52	98.670	
	Cr -1	53	99.844	
	Ni	58	98.725	
	Ni -1	60	96.877	
	Ni -2	62	94.168	
	Cu	63	96.167	
	Cu -1	65	95.869	
	Zn	66	98.804	
	Zn -1	67	99.419	
	Zn -2	68	100.021	
	As	75	105.376	
	As-1	75	102.006	
	Se	77	104.722	
	Se -1	78	108.985	
	Br	79		
	Se -2	82	100.312	
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111	100.206	
	Cd -1	114	101.510	
	Ho	165		
	Pb	208	100.070	
	Bi	209		
	Th	232		
	Cr -2	52	98.133	
	Cr -3	53	96.705	
	Ni -3	58	97.095	
	Ni -4	60	96.997	
	Ni -5	62	96.229	
	Cu -2	63	97.286	
	Cu -3	65	97.426	
	Zn -3	66	100.723	
	Zn -4	67	102.150	
	Zn -5	68	101.512	
	As-2	75	99.224	
	Y-1	89		
	Rh-1	103		
	Cd -2	111	99.343	
	Cd -3	114	99.276	
>	Sc	45		91.636
>	Ge	72		97.881
>	In	115		100.501
>	Tb	159		100.353
>	Ge-1	72		92.465
>	In-1	115		94.425

## Quantitative Analysis - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Friday, May 31, 2024 13:35:34

Report Date/Time: Friday, May 31, 2024 13:38:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\QC Std 2.012

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	18836.1	0.5	-0.1230	0.011	9.0	ug/L	23728	Standard
	Cr -1	53	3251.0	1.9	-0.1355	0.041	30.6	ug/L	4227	Standard
	Ni	58	-6088.5	3.5	0.0803	0.014	17.8	ug/L	-9347	Standard
	Ni -1	60	234.7	4.9	0.0308	0.004	12.2	ug/L	242	Standard
	Ni -2	62	2553.9	0.3	1.2415	0.079	6.3	ug/L	1958	Standard
	Cu	63	2892.3	1.4	0.1188	0.007	5.7	ug/L	2502	Standard
	Cu -1	65	511.7	5.0	0.0786	0.004	4.7	ug/L	483	Standard
	Zn	66	763.0	4.4	-0.0303	0.007	22.3	ug/L	770	Standard
	Zn -1	67	155.3	8.5	-0.0874	0.037	42.4	ug/L	161	Standard
	Zn -2	68	788.4	3.3	0.0358	0.013	36.0	ug/L	754	Standard
	As	75	12429.4	2.4	-0.0494	0.023	47.4	ug/L	12256	Standard
	As-1	75	23.9	176.5	-0.0071	0.019	260.4	ug/L	25	Standard
	Se	77	134.7	2.6	-0.1163	0.016	13.5	ug/L	145	Standard
	Se -1	78	12477.4	2.8	0.9229	0.193	20.9	ug/L	12291	Standard
	Br	79	337.0	3.1				ug/L	304	Standard
	Se -2	82	46.7	16.1	0.0923	0.035	37.8	ug/L	42	Standard
	Kr	83	33.3	13.9				ug/L	36	Standard
	Y	89	602295.5	2.4				ug/L	618386	Standard
	Rh	103	106851.9	2.0				ug/L	111544	Standard
	Cd	111	215.4	7.0	-0.0170	0.005	27.4	ug/L	192	Standard
	Cd -1	114	49.0	16.0	-0.0199	0.001	5.7	ug/L	23	Standard
	Ho	165	515302.2	2.8				ug/L	521140	Standard
	Pb	208	752.3	10.1	-0.0157	0.003	16.3	ug/L	518	Standard
	Bi	209	299269.2	0.5				ug/L	295516	Standard
	Th	232	373872.0	1.3				ug/L	378918	Standard
	Cr -2	52	271.3	6.2	-0.0014	0.009	608.4	ug/L	283	KED
	Cr -3	53	33.7	22.3	-0.0238	0.029	121.0	ug/L	38	KED
	Ni -3	58	135.4	6.4	0.0158	0.003	17.0	ug/L	148	KED
	Ni -4	60	52.3	14.5	0.0002	0.007	3493.1	ug/L	58	KED
	Ni -5	62	7.7	49.4	0.0205	0.023	112.1	ug/L	12	KED
	Cu -2	63	296.0	6.4	0.0523	0.008	15.3	ug/L	287	KED
	Cu -3	65	140.0	6.3	0.0723	0.005	7.3	ug/L	136	KED
	Zn -3	66	92.3	8.1	-0.0580	0.022	37.4	ug/L	93	KED
	Zn -4	67	16.0	38.0	-0.0313	0.119	380.6	ug/L	15	KED
	Zn -5	68	63.3	22.4	-0.0176	0.060	342.3	ug/L	68	KED
	As-2	75	6.0	44.1	0.0177	0.013	72.6	ug/L	3	KED
	Y-1	89	63229.3	1.2				ug/L	64897	KED
	Rh-1	103	42842.5	1.4				ug/L	44712	KED
	Cd -2	111	5.3	10.8	-0.0258	0.001	4.1	ug/L	4	KED
	Cd -3	114	8.7	52.0	-0.0346	0.003	8.2	ug/L	8	KED
>	Sc	45	731492.5	1.6				ug/L	772316	Standard
>	Ge	72	425041.3	2.3				ug/L	431846	Standard
>	In	115	415848.9	1.2				ug/L	412957	Standard
>	Tb	159	546517.6	2.0				ug/L	554761	Standard
>	Ge-1	72	29365.5	1.3				ug/L	30473	KED
>	In-1	115	41144.9	0.8				ug/L	42431	KED

### QC Calculated Values

Sample ID: QC Std 2

Report Date/Time: Friday, May 31, 2024 13:38:54

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		94.714
>	Ge	72		98.424
>	In	115		100.700
>	Tb	159		98.514
>	Ge-1	72		96.364
>	In-1	115		96.969

## Quantitative Analysis - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, May 31, 2024 13:40:27

Report Date/Time: Friday, May 31, 2024 13:43:47

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\QC Std 6.013

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	946056.6	2.6	40.0659	0.614	1.5	ug/L	23728	Standard
	Cr -1	53	110268.1	2.5	40.6275	0.423	1.0	ug/L	4227	Standard
	Ni	58	464453.9	3.3	41.4926	0.699	1.7	ug/L	-9347	Standard
	Ni -1	60	186019.0	2.2	40.4789	0.333	0.8	ug/L	242	Standard
	Ni -2	62	28800.4	3.1	40.1681	0.586	1.5	ug/L	1958	Standard
	Cu	63	411146.3	2.5	40.7120	0.703	1.7	ug/L	2502	Standard
	Cu -1	65	186640.4	2.3	39.9573	0.924	2.3	ug/L	483	Standard
	Zn	66	103165.0	2.9	42.1608	0.921	2.2	ug/L	770	Standard
	Zn -1	67	17072.2	2.1	41.7091	0.696	1.7	ug/L	161	Standard
	Zn -2	68	71991.7	2.1	41.2220	0.615	1.5	ug/L	754	Standard
	As	75	104748.9	2.0	41.7185	0.563	1.3	ug/L	12256	Standard
	As-1	75	95002.8	1.6	40.8561	0.450	1.1	ug/L	25	Standard
	Se	77	6390.1	2.2	42.3898	0.476	1.1	ug/L	145	Standard
	Se -1	78	31051.4	2.2	41.4591	0.648	1.6	ug/L	12291	Standard
	Br	79	331.3	6.4				ug/L	304	Standard
	Se -2	82	8405.8	0.2	40.1357	0.600	1.5	ug/L	42	Standard
	Kr	83	29.3	19.4				ug/L	36	Standard
	Y	89	596860.2	1.0				ug/L	618386	Standard
	Rh	103	106334.7	2.1				ug/L	111544	Standard
	Cd	111	121452.4	3.2	41.1581	0.451	1.1	ug/L	192	Standard
	Cd -1	114	308755.1	1.4	41.1097	0.855	2.1	ug/L	23	Standard
	Ho	165	525425.8	3.0				ug/L	521140	Standard
	Pb	208	1477194.8	2.1	40.5950	0.457	1.1	ug/L	518	Standard
	Bi	209	292148.5	1.5				ug/L	295516	Standard
	Th	232	372933.9	2.0				ug/L	378918	Standard
	Cr -2	52	91380.7	1.7	41.1413	0.223	0.5	ug/L	283	KED
	Cr -3	53	11441.2	0.3	40.9217	0.378	0.9	ug/L	38	KED
	Ni -3	58	106953.8	0.2	40.8173	0.498	1.2	ug/L	148	KED
	Ni -4	60	46670.4	1.1	41.0575	0.065	0.2	ug/L	58	KED
	Ni -5	62	6904.0	1.5	40.3792	0.171	0.4	ug/L	12	KED
	Cu -2	63	116092.2	1.0	40.2566	0.454	1.1	ug/L	287	KED
	Cu -3	65	54865.5	0.7	40.4275	0.250	0.6	ug/L	136	KED
	Zn -3	66	12545.5	0.4	41.8604	0.344	0.8	ug/L	93	KED
	Zn -4	67	2087.5	0.8	41.6270	0.782	1.9	ug/L	15	KED
	Zn -5	68	9410.1	0.9	41.2147	0.268	0.7	ug/L	68	KED
	As-2	75	8559.9	2.2	40.8546	0.513	1.3	ug/L	3	KED
	Y-1	89	63704.1	1.3				ug/L	64897	KED
	Rh-1	103	43545.6	1.0				ug/L	44712	KED
	Cd -2	111	24861.0	1.5	41.3327	0.090	0.2	ug/L	4	KED
	Cd -3	114	65331.0	0.5	41.2771	0.440	1.1	ug/L	8	KED
>	Sc	45	738249.6	1.5				ug/L	772316	Standard
>	Ge	72	426394.7	1.7				ug/L	431846	Standard
>	In	115	420790.5	3.6				ug/L	412957	Standard
>	Tb	159	555490.1	2.6				ug/L	554761	Standard
>	Ge-1	72	29813.7	1.1				ug/L	30473	KED
>	In-1	115	41559.8	1.4				ug/L	42431	KED

### QC Calculated Values

Sample ID: QC Std 6

Report Date/Time: Friday, May 31, 2024 13:43:47

Page 1

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52	100.165	
	Cr -1	53	101.569	
	Ni	58	103.731	
	Ni -1	60	101.197	
	Ni -2	62	100.420	
	Cu	63	101.780	
	Cu -1	65	99.893	
	Zn	66	105.402	
	Zn -1	67	104.273	
	Zn -2	68	103.055	
	As	75	104.296	
	As-1	75	102.140	
	Se	77	105.975	
	Se -1	78	103.648	
	Br	79		
	Se -2	82	100.339	
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111	102.895	
	Cd -1	114	102.774	
	Ho	165		
	Pb	208	101.487	
	Bi	209		
	Th	232		
	Cr -2	52	102.853	
	Cr -3	53	102.304	
	Ni -3	58	102.043	
	Ni -4	60	102.644	
	Ni -5	62	100.948	
	Cu -2	63	100.642	
	Cu -3	65	101.069	
	Zn -3	66	104.651	
	Zn -4	67	104.067	
	Zn -5	68	103.037	
	As-2	75	102.137	
	Y-1	89		
	Rh-1	103		
	Cd -2	111	103.332	
	Cd -3	114	103.193	
>	Sc	45		95.589
>	Ge	72		98.738
>	In	115		101.897
>	Tb	159		100.131
>	Ge-1	72		97.835
>	In-1	115		97.947

## Quantitative Analysis - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, May 31, 2024 13:46:08

Report Date/Time: Friday, May 31, 2024 13:49:27

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\QC Std 7.014

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Cr	52	478473.9	1.2	19.4865	0.317	1.6	ug/L	23728		Standard
	Cr -1	53	55724.1	1.3	19.5291	0.284	1.5	ug/L	4227		Standard
	Ni	58	227138.6	1.4	20.2012	0.130	0.6	ug/L	-9347		Standard
	Ni -1	60	93060.9	2.1	19.8240	0.033	0.2	ug/L	242		Standard
	Ni -2	62	15845.8	2.8	20.4660	0.272	1.3	ug/L	1958		Standard
	Cu	63	203386.3	2.7	19.6360	0.154	0.8	ug/L	2502		Standard
	Cu -1	65	94616.5	2.8	19.8202	0.249	1.3	ug/L	483		Standard
	Zn	66	51519.7	1.4	20.4471	0.170	0.8	ug/L	770		Standard
	Zn -1	67	8776.7	2.2	20.7656	0.209	1.0	ug/L	161		Standard
	Zn -2	68	37222.8	0.5	20.6704	0.311	1.5	ug/L	754		Standard
	As	75	57608.8	2.2	19.8446	0.124	0.6	ug/L	12256		Standard
	As-1	75	47004.9	2.5	19.7871	0.098	0.5	ug/L	25		Standard
	Se	77	3142.0	2.5	19.8772	0.173	0.9	ug/L	145		Standard
	Se -1	78	21386.7	1.6	19.3645	0.511	2.6	ug/L	12291		Standard
	Br	79	353.0	6.7				ug/L	304		Standard
	Se -2	82	4262.6	1.9	19.8646	0.009	0.0	ug/L	42		Standard
	Kr	83	36.7	20.1				ug/L	36		Standard
	Y	89	610158.5	3.0				ug/L	618386		Standard
	Rh	103	109790.7	2.0				ug/L	111544		Standard
	Cd	111	59851.3	2.4	19.5872	0.279	1.4	ug/L	192		Standard
	Cd -1	114	152420.0	2.8	19.6228	0.210	1.1	ug/L	23		Standard
	Ho	165	533311.7	1.8				ug/L	521140		Standard
	Pb	208	729252.6	1.2	19.6559	0.330	1.7	ug/L	518		Standard
	Bi	209	299658.6	0.6				ug/L	295516		Standard
	Th	232	379332.1	1.2				ug/L	378918		Standard
	Cr -2	52	45446.5	1.0	20.0925	0.100	0.5	ug/L	283		KED
	Cr -3	53	5568.1	0.9	19.5411	0.159	0.8	ug/L	38		KED
	Ni -3	58	52720.5	2.1	19.7987	0.315	1.6	ug/L	148		KED
	Ni -4	60	23040.6	1.3	19.9433	0.153	0.8	ug/L	58		KED
	Ni -5	62	3380.4	1.6	19.4632	0.214	1.1	ug/L	12		KED
	Cu -2	63	57914.8	1.8	19.7557	0.265	1.3	ug/L	287		KED
	Cu -3	65	27032.2	1.1	19.6043	0.114	0.6	ug/L	136		KED
	Zn -3	66	6279.4	2.8	20.4487	0.516	2.5	ug/L	93		KED
	Zn -4	67	1076.0	4.9	20.9563	0.930	4.4	ug/L	15		KED
	Zn -5	68	4729.1	2.3	20.2511	0.416	2.1	ug/L	68		KED
	As-2	75	4137.9	3.4	19.4491	0.579	3.0	ug/L	3		KED
	Y-1	89	65109.1	1.7				ug/L	64897		KED
	Rh-1	103	44475.5	0.4				ug/L	44712		KED
	Cd -2	111	12272.3	2.5	19.7778	0.183	0.9	ug/L	4		KED
	Cd -3	114	32582.8	1.8	19.9523	0.116	0.6	ug/L	8		KED
>	Sc	45	749672.0	2.7				ug/L	772316		Standard
>	Ge	72	435353.7	2.0				ug/L	431846		Standard
>	In	115	434614.2	1.8				ug/L	412957		Standard
>	Tb	159	565940.9	2.9				ug/L	554761		Standard
>	Ge-1	72	30264.4	0.5				ug/L	30473		KED
>	In-1	115	42831.5	1.6				ug/L	42431		KED

### QC Calculated Values

Sample ID: QC Std 7

Report Date/Time: Friday, May 31, 2024 13:49:27

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52	97.433	
	Cr -1	53	97.645	
	Ni	58	101.006	
	Ni -1	60	99.120	
	Ni -2	62	102.330	
	Cu	63	98.180	
	Cu -1	65	99.101	
	Zn	66	102.235	
	Zn -1	67	103.828	
	Zn -2	68	103.352	
	As	75	99.223	
	As-1	75	98.936	
	Se	77	99.386	
	Se -1	78	96.822	
	Br	79		
	Se -2	82	99.323	
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111	97.936	
	Cd -1	114	98.114	
	Ho	165		
	Pb	208	98.279	
	Bi	209		
	Th	232		
	Cr -2	52	100.463	
	Cr -3	53	97.706	
	Ni -3	58	98.994	
	Ni -4	60	99.717	
	Ni -5	62	97.316	
	Cu -2	63	98.778	
	Cu -3	65	98.022	
	Zn -3	66	102.244	
	Zn -4	67	104.782	
	Zn -5	68	101.255	
	As-2	75	97.246	
	Y-1	89		
	Rh-1	103		
	Cd -2	111	98.889	
	Cd -3	114	99.762	
>	Sc	45		97.068
>	Ge	72		100.812
>	In	115		105.245
>	Tb	159		102.015
>	Ge-1	72		99.314
>	In-1	115		100.944

## Quantitative Analysis - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Friday, May 31, 2024 13:51:49

Report Date/Time: Friday, May 31, 2024 13:55:09

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240531C\QC Std 8.015

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	18439.2	0.6	-0.1252	0.006	5.1	ug/L	23728	Standard
	Cr -1	53	2829.3	2.1	-0.2774	0.030	10.9	ug/L	4227	Standard
	Ni	58	-5946.3	0.8	0.0885	0.019	21.0	ug/L	-9347	Standard
	Ni -1	60	229.3	4.4	0.0299	0.002	6.4	ug/L	242	Standard
	Ni -2	62	2275.5	1.3	0.8528	0.067	7.9	ug/L	1958	Standard
	Cu	63	2674.3	1.8	0.0991	0.003	3.1	ug/L	2502	Standard
	Cu -1	65	458.3	6.1	0.0678	0.004	6.1	ug/L	483	Standard
	Zn	66	714.0	3.3	-0.0481	0.010	19.8	ug/L	770	Standard
	Zn -1	67	136.7	3.0	-0.1311	0.020	15.1	ug/L	161	Standard
	Zn -2	68	751.4	0.3	0.0179	0.014	80.4	ug/L	754	Standard
	As	75	12470.2	1.5	0.0136	0.081	596.3	ug/L	12256	Standard
	As-1	75	5.5	1186.4	-0.0159	0.029	181.0	ug/L	25	Standard
	Se	77	128.3	12.2	-0.1504	0.135	89.6	ug/L	145	Standard
	Se -1	78	12519.5	1.3	1.2337	0.454	36.8	ug/L	12291	Standard
	Br	79	327.3	0.8				ug/L	304	Standard
	Se -2	82	40.0	39.1	0.0604	0.071	117.9	ug/L	42	Standard
	Kr	83	30.3	21.2				ug/L	36	Standard
	Y	89	597709.9	3.3				ug/L	618386	Standard
	Rh	103	106793.7	1.5				ug/L	111544	Standard
	Cd	111	217.7	5.9	-0.0155	0.004	25.7	ug/L	192	Standard
	Cd -1	114	24.5	73.7	-0.0232	0.002	10.5	ug/L	23	Standard
	Ho	165	511457.1	2.5				ug/L	521140	Standard
	Pb	208	638.7	3.0	-0.0190	0.001	5.1	ug/L	518	Standard
	Bi	209	293502.1	1.5				ug/L	295516	Standard
	Th	232	361471.1	1.6				ug/L	378918	Standard
	Cr -2	52	272.7	2.2	0.0035	0.002	52.7	ug/L	283	KED
	Cr -3	53	35.7	26.5	-0.0120	0.036	298.3	ug/L	38	KED
	Ni -3	58	116.1	6.4	0.0100	0.003	25.7	ug/L	148	KED
	Ni -4	60	53.0	10.5	0.0025	0.005	205.6	ug/L	58	KED
	Ni -5	62	8.0	33.1	0.0240	0.016	66.6	ug/L	12	KED
	Cu -2	63	270.3	7.2	0.0466	0.007	15.4	ug/L	287	KED
	Cu -3	65	124.3	11.0	0.0639	0.010	15.8	ug/L	136	KED
	Zn -3	66	98.3	12.9	-0.0254	0.043	171.0	ug/L	93	KED
	Zn -4	67	16.0	31.3	-0.0192	0.103	539.1	ug/L	15	KED
	Zn -5	68	66.0	16.7	0.0053	0.051	958.3	ug/L	68	KED
	As-2	75	4.0	75.0	0.0088	0.015	173.7	ug/L	3	KED
	Y-1	89	61941.7	0.7				ug/L	64897	KED
	Rh-1	103	41827.5	0.8				ug/L	44712	KED
	Cd -2	111	6.0	44.1	-0.0246	0.004	17.9	ug/L	4	KED
	Cd -3	114	9.0	48.4	-0.0343	0.003	8.3	ug/L	8	KED
>	Sc	45	717923.4	1.1				ug/L	772316	Standard
>	Ge	72	421841.7	2.9				ug/L	431846	Standard
>	In	115	412205.5	0.6				ug/L	412957	Standard
>	Tb	159	549084.3	2.5				ug/L	554761	Standard
>	Ge-1	72	28356.1	0.9				ug/L	30473	KED
>	In-1	115	40793.6	0.8				ug/L	42431	KED

### QC Calculated Values

Sample ID: QC Std 8

Report Date/Time: Friday, May 31, 2024 13:55:09

Page 1

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		92.957
>	Ge	72		97.683
>	In	115		99.818
>	Tb	159		98.977
>	Ge-1	72		93.052
>	In-1	115		96.141

## Quantitative Analysis - Summary Report

Sample ID: MB0529WM1 2X

Sample Date/Time: Friday, May 31, 2024 13:56:40

Report Date/Time: Friday, May 31, 2024 14:00:00

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\MB0529WM1 2X.016

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	18059.4	2.7	-0.1119	0.019	16.7	ug/L	23728	Standard
	Cr -1	53	2677.9	1.5	-0.2973	0.022	7.4	ug/L	4227	Standard
	Ni	58	-5645.0	2.3	0.1176	0.022	18.3	ug/L	-9347	Standard
	Ni -1	60	164.7	9.9	0.0156	0.005	29.2	ug/L	242	Standard
	Ni -2	62	2074.5	1.5	0.5382	0.116	21.6	ug/L	1958	Standard
	Cu	63	2782.6	1.0	0.1088	0.005	4.2	ug/L	2502	Standard
	Cu -1	65	596.0	6.3	0.0971	0.007	6.9	ug/L	483	Standard
	Zn	66	615.7	4.9	-0.0900	0.018	20.4	ug/L	770	Standard
	Zn -1	67	126.3	7.8	-0.1582	0.031	19.9	ug/L	161	Standard
	Zn -2	68	658.3	4.4	-0.0384	0.017	44.1	ug/L	754	Standard
	As	75	12852.7	1.8	0.1618	0.062	38.3	ug/L	12256	Standard
	As-1	75	-43.8	65.3	-0.0367	0.012	34.0	ug/L	25	Standard
	Se	77	109.3	9.3	-0.2865	0.071	24.6	ug/L	145	Standard
	Se -1	78	12952.2	1.8	2.0596	0.360	17.5	ug/L	12291	Standard
	Br	79	366.3	3.4				ug/L	304	Standard
	Se -2	82	41.0	10.6	0.0662	0.025	38.3	ug/L	42	Standard
	Kr	83	27.7	5.5				ug/L	36	Standard
	Y	89	583225.8	1.1				ug/L	618386	Standard
	Rh	103	103273.4	2.2				ug/L	111544	Standard
	Cd	111	207.9	10.0	-0.0176	0.005	30.9	ug/L	192	Standard
	Cd -1	114	29.9	39.6	-0.0223	0.002	7.9	ug/L	23	Standard
	Ho	165	513299.8	2.8				ug/L	521140	Standard
	Pb	208	1090.0	1.9	-0.0059	0.001	13.6	ug/L	518	Standard
	Bi	209	288780.3	0.7				ug/L	295516	Standard
	Th	232	355178.3	2.6				ug/L	378918	Standard
	Cr -2	52	287.7	3.9	0.0131	0.006	42.4	ug/L	283	KED
	Cr -3	53	40.0	13.9	0.0069	0.021	305.5	ug/L	38	KED
	Ni -3	58	99.2	14.0	0.0039	0.006	145.4	ug/L	148	KED
	Ni -4	60	41.3	22.0	-0.0076	0.009	115.7	ug/L	58	KED
	Ni -5	62	6.7	56.8	0.0165	0.024	142.8	ug/L	12	KED
	Cu -2	63	342.3	4.3	0.0750	0.005	7.0	ug/L	287	KED
	Cu -3	65	159.3	8.4	0.0933	0.010	10.7	ug/L	136	KED
	Zn -3	66	75.0	7.1	-0.1031	0.021	20.8	ug/L	93	KED
	Zn -4	67	16.0	12.5	-0.0127	0.042	330.2	ug/L	15	KED
	Zn -5	68	45.3	2.5	-0.0868	0.006	7.1	ug/L	68	KED
	As-2	75	2.3	65.5	0.0005	0.008	1478.7	ug/L	3	KED
	Y-1	89	61066.6	0.8				ug/L	64897	KED
	Rh-1	103	40816.2	1.1				ug/L	44712	KED
	Cd -2	111	4.0	43.3	-0.0278	0.003	10.9	ug/L	4	KED
	Cd -3	114	11.7	9.9	-0.0325	0.001	2.6	ug/L	8	KED
>	Sc	45	691877.3	0.7				ug/L	772316	Standard
>	Ge	72	423724.2	2.6				ug/L	431846	Standard
>	In	115	404307.8	2.8				ug/L	412957	Standard
>	Tb	159	539757.3	0.9				ug/L	554761	Standard
>	Ge-1	72	27863.1	0.9				ug/L	30473	KED
>	In-1	115	40042.3	1.2				ug/L	42431	KED

### QC Calculated Values

Sample ID: MB0529WM1 2X

Report Date/Time: Friday, May 31, 2024 14:00:00

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		89.585
>	Ge	72		98.119
>	In	115		97.906
>	Tb	159		97.296
>	Ge-1	72		91.434
>	In-1	115		94.371

## Quantitative Analysis - Summary Report

Sample ID: SB0529WM1 2X

Sample Date/Time: Friday, May 31, 2024 14:02:20

Report Date/Time: Friday, May 31, 2024 14:05:40

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\SB0529WM1 2X.017

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	1047146.2	1.4	<b>46.0167</b>	0.198	0.4	ug/L	23728	Standard
	Cr -1	53	120342.6	2.0	<b>46.0483</b>	0.329	0.7	ug/L	4227	Standard
	Ni	58	506534.3	1.8	<b>46.8187</b>	0.504	1.1	ug/L	-9347	Standard
	Ni -1	60	204996.8	1.2	<b>46.2348</b>	0.803	1.7	ug/L	242	Standard
	Ni -2	62	31022.0	1.4	<b>45.1416</b>	0.694	1.5	ug/L	1958	Standard
	Cu	63	451408.1	2.3	<b>46.3367</b>	0.229	0.5	ug/L	2502	Standard
	Cu -1	65	208764.7	2.7	<b>46.3053</b>	0.262	0.6	ug/L	483	Standard
	Zn	66	112690.9	4.0	<b>47.7489</b>	0.727	1.5	ug/L	770	Standard
	Zn -1	67	18949.9	4.4	<b>48.0207</b>	0.950	2.0	ug/L	161	Standard
	Zn -2	68	80440.9	2.4	<b>47.7880</b>	0.215	0.4	ug/L	754	Standard
	As	75	117550.9	2.9	<b>49.4273</b>	0.068	0.1	ug/L	12256	Standard
	As-1	75	107784.1	2.9	<b>48.0215</b>	0.219	0.5	ug/L	25	Standard
	Se	77	6979.0	1.5	<b>48.1141</b>	0.728	1.5	ug/L	145	Standard
	Se -1	78	34019.8	3.5	<b>50.6269</b>	1.158	2.3	ug/L	12291	Standard
	Br	79	421.3	9.0				ug/L	304	Standard
	Se -2	82	9566.9	3.2	<b>47.3362</b>	0.206	0.4	ug/L	42	Standard
	Kr	83	30.0	12.0				ug/L	36	Standard
	Y	89	583130.0	3.9				ug/L	618386	Standard
	Rh	103	102133.2	1.7				ug/L	111544	Standard
	Cd	111	132951.0	1.5	<b>47.0016</b>	0.109	0.2	ug/L	192	Standard
	Cd -1	114	344037.4	2.4	<b>47.7570</b>	0.590	1.2	ug/L	23	Standard
	Ho	165	503758.3	0.5				ug/L	521140	Standard
	Pb	208	1633115.1	1.2	<b>46.5376</b>	0.501	1.1	ug/L	518	Standard
	Bi	209	284938.4	2.1				ug/L	295516	Standard
	Th	232	360544.0	0.3				ug/L	378918	Standard
	Cr -2	52	101559.4	0.6	<b>47.9307</b>	0.460	1.0	ug/L	283	KED
	Cr -3	53	12632.6	0.7	<b>47.3609</b>	0.494	1.0	ug/L	38	KED
	Ni -3	58	118305.7	1.2	<b>47.3074</b>	0.650	1.4	ug/L	148	KED
	Ni -4	60	51290.3	1.3	<b>47.2845</b>	0.741	1.6	ug/L	58	KED
	Ni -5	62	7560.7	2.5	<b>46.3366</b>	1.209	2.6	ug/L	12	KED
	Cu -2	63	129615.7	0.8	<b>47.0990</b>	0.428	0.9	ug/L	287	KED
	Cu -3	65	60548.7	1.6	<b>46.7485</b>	0.721	1.5	ug/L	136	KED
	Zn -3	66	13888.7	1.8	<b>48.6126</b>	0.942	1.9	ug/L	93	KED
	Zn -4	67	2258.8	2.0	<b>47.2392</b>	1.161	2.5	ug/L	15	KED
	Zn -5	68	10439.1	1.4	<b>47.9505</b>	0.488	1.0	ug/L	68	KED
	As-2	75	9488.2	1.0	<b>47.4537</b>	0.697	1.5	ug/L	3	KED
	Y-1	89	61228.3	0.8				ug/L	64897	KED
	Rh-1	103	41546.3	1.6				ug/L	44712	KED
	Cd -2	111	27450.0	1.1	<b>47.0848</b>	0.685	1.5	ug/L	4	KED
	Cd -3	114	71707.2	0.8	<b>46.7371</b>	0.317	0.7	ug/L	8	KED
>	Sc	45	713691.4	1.8				ug/L	772316	Standard
>	Ge	72	411573.5	2.8				ug/L	431846	Standard
>	In	115	403416.0	1.3				ug/L	412957	Standard
>	Tb	159	535708.1	0.6				ug/L	554761	Standard
>	Ge-1	72	28455.3	0.5				ug/L	30473	KED
>	In-1	115	40287.9	0.4				ug/L	42431	KED

### QC Calculated Values

Sample ID: SB0529WM1 2X

Report Date/Time: Friday, May 31, 2024 14:05:40

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		92.409
>	Ge	72		95.306
>	In	115		97.690
>	Tb	159		96.566
>	Ge-1	72		93.377
>	In-1	115		94.950

## Quantitative Analysis - Summary Report

Sample ID: 05-300-07b 2X

Sample Date/Time: Friday, May 31, 2024 14:08:00

Report Date/Time: Friday, May 31, 2024 14:11:19

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\05-300-07b 2X.018

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Cr	52	29176.1	2.2	0.4275	0.019	4.5	ug/L	23728		Standard
	Cr -1	53	7412.6	2.4	1.6857	0.144	8.5	ug/L	4227		Standard
	Ni	58	-2265.9	17.7	0.3955	0.045	11.5	ug/L	-9347		Standard
	Ni -1	60	2545.6	3.0	0.5954	0.009	1.6	ug/L	242		Standard
	Ni -2	62	2549.2	4.3	1.6475	0.280	17.0	ug/L	1958		Standard
	Cu	63	15761.4	2.3	1.5723	0.013	0.8	ug/L	2502		Standard
	Cu -1	65	6473.8	2.4	1.5102	0.020	1.4	ug/L	483		Standard
	Zn	66	7602.4	1.8	3.1375	0.113	3.6	ug/L	770		Standard
	Zn -1	67	1366.7	2.1	3.2807	0.023	0.7	ug/L	161		Standard
	Zn -2	68	6071.3	2.3	3.4822	0.067	1.9	ug/L	754		Standard
	As	75	12724.1	2.3	0.7083	0.052	7.3	ug/L	12256		Standard
	As-1	75	1043.6	15.7	0.4808	0.072	15.0	ug/L	25		Standard
	Se	77	216.3	11.1	0.6033	0.225	37.3	ug/L	145		Standard
	Se -1	78	11802.5	1.8	2.2424	0.271	12.1	ug/L	12291		Standard
	Br	79	14559.7	1.3				ug/L	304		Standard
	Se -2	82	65.3	12.3	0.2154	0.034	15.7	ug/L	42		Standard
	Kr	83	29.7	17.3				ug/L	36		Standard
	Y	89	537021.7	2.6				ug/L	618386		Standard
	Rh	103	94283.9	2.0				ug/L	111544		Standard
	Cd	111	227.9	14.8	-0.0048	0.015	308.9	ug/L	192		Standard
	Cd -1	114	67.5	18.1	-0.0165	0.002	12.3	ug/L	23		Standard
	Ho	165	471497.1	1.6				ug/L	521140		Standard
	Pb	208	3330.1	2.3	0.0658	0.005	7.2	ug/L	518		Standard
	Bi	209	260619.8	1.5				ug/L	295516		Standard
	Th	232	340027.3	1.9				ug/L	378918		Standard
	Cr -2	52	1055.0	4.4	0.4009	0.026	6.6	ug/L	283		KED
	Cr -3	53	177.7	47.7	0.5592	0.341	60.9	ug/L	38		KED
	Ni -3	58	1458.9	6.1	0.5796	0.042	7.3	ug/L	148		KED
	Ni -4	60	496.3	10.8	0.4364	0.050	11.4	ug/L	58		KED
	Ni -5	62	75.0	16.7	0.4598	0.078	17.1	ug/L	12		KED
	Cu -2	63	3977.9	1.1	1.4745	0.005	0.3	ug/L	287		KED
	Cu -3	65	1856.8	5.8	1.4816	0.099	6.7	ug/L	136		KED
	Zn -3	66	890.4	2.6	2.9403	0.108	3.7	ug/L	93		KED
	Zn -4	67	171.3	7.5	3.4503	0.254	7.4	ug/L	15		KED
	Zn -5	68	773.4	5.2	3.4703	0.185	5.3	ug/L	68		KED
	As-2	75	96.7	12.9	0.4990	0.069	13.7	ug/L	3		KED
	Y-1	89	58536.4	0.4				ug/L	64897		KED
	Rh-1	103	38917.9	0.3				ug/L	44712		KED
	Cd -2	111	5.0	34.6	-0.0256	0.003	12.4	ug/L	4		KED
	Cd -3	114	11.3	10.2	-0.0322	0.001	2.8	ug/L	8		KED
>	Sc	45	679312.8	2.4				ug/L	772316		Standard
>	Ge	72	383639.9	2.6				ug/L	431846		Standard
>	In	115	378773.5	2.3				ug/L	412957		Standard
>	Tb	159	496425.7	2.4				ug/L	554761		Standard
>	Ge-1	72	26970.8	0.8				ug/L	30473		KED
>	In-1	115	37621.7	1.8				ug/L	42431		KED

### QC Calculated Values

Sample ID: 05-300-07b 2X

Report Date/Time: Friday, May 31, 2024 14:11:19

Page 1

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		87.958
>	Ge	72		88.837
>	In	115		91.722
>	Tb	159		89.485
>	Ge-1	72		88.506
>	In-1	115		88.666

## Quantitative Analysis - Summary Report

Sample ID: 05-300-07bD 2X

Sample Date/Time: Friday, May 31, 2024 14:13:39

Report Date/Time: Friday, May 31, 2024 14:16:59

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\05-300-07bD 2X.019

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	28665.1	1.3	0.3509	0.018	5.1	ug/L	23728	Standard
	Cr -1	53	6153.3	0.8	1.0632	0.022	2.1	ug/L	4227	Standard
	Ni	58	-1884.8	23.7	0.4408	0.047	10.6	ug/L	-9347	Standard
	Ni -1	60	2683.3	0.4	0.6009	0.017	2.9	ug/L	242	Standard
	Ni -2	62	2136.2	1.6	0.8107	0.119	14.7	ug/L	1958	Standard
	Cu	63	15951.9	0.5	1.5174	0.040	2.7	ug/L	2502	Standard
	Cu -1	65	6553.2	1.5	1.4618	0.030	2.0	ug/L	483	Standard
	Zn	66	7594.7	3.0	2.9817	0.062	2.1	ug/L	770	Standard
	Zn -1	67	1350.1	2.8	3.0738	0.030	1.0	ug/L	161	Standard
	Zn -2	68	6105.3	4.4	3.3323	0.084	2.5	ug/L	754	Standard
	As	75	12747.5	2.2	0.4424	0.093	21.1	ug/L	12256	Standard
	As-1	75	984.4	6.2	0.4323	0.018	4.1	ug/L	25	Standard
	Se	77	176.3	3.6	0.2407	0.072	29.9	ug/L	145	Standard
	Se -1	78	11860.3	1.8	1.1340	0.443	39.1	ug/L	12291	Standard
	Br	79	15540.5	2.5				ug/L	304	Standard
	Se -2	82	55.7	8.9	0.1519	0.029	18.9	ug/L	42	Standard
	Kr	83	34.0	19.3				ug/L	36	Standard
	Y	89	554561.7	0.8				ug/L	618386	Standard
	Rh	103	96493.8	1.2				ug/L	111544	Standard
	Cd	111	208.3	2.8	-0.0139	0.003	19.7	ug/L	192	Standard
	Cd -1	114	33.3	15.4	-0.0217	0.001	2.8	ug/L	23	Standard
	Ho	165	471440.4	2.5				ug/L	521140	Standard
	Pb	208	3244.8	2.8	0.0630	0.001	1.9	ug/L	518	Standard
	Bi	209	259831.4	1.8				ug/L	295516	Standard
	Th	232	338218.4	0.8				ug/L	378918	Standard
	Cr -2	52	996.7	4.2	0.3530	0.021	5.8	ug/L	283	KED
	Cr -3	53	137.7	3.4	0.3790	0.019	4.9	ug/L	38	KED
	Ni -3	58	1533.5	2.9	0.5865	0.017	2.9	ug/L	148	KED
	Ni -4	60	497.0	3.7	0.4191	0.018	4.2	ug/L	58	KED
	Ni -5	62	75.7	6.7	0.4459	0.031	6.9	ug/L	12	KED
	Cu -2	63	4030.9	1.9	1.4368	0.027	1.9	ug/L	287	KED
	Cu -3	65	1905.1	0.8	1.4622	0.012	0.8	ug/L	136	KED
	Zn -3	66	937.0	1.0	2.9825	0.037	1.3	ug/L	93	KED
	Zn -4	67	181.3	12.5	3.5223	0.482	13.7	ug/L	15	KED
	Zn -5	68	751.4	1.2	3.2257	0.048	1.5	ug/L	68	KED
	As-2	75	98.3	30.8	0.4880	0.153	31.4	ug/L	3	KED
	Y-1	89	60022.2	0.6				ug/L	64897	KED
	Rh-1	103	40164.0	0.8				ug/L	44712	KED
	Cd -2	111	5.7	20.4	-0.0247	0.002	7.7	ug/L	4	KED
	Cd -3	114	12.7	12.1	-0.0315	0.001	3.1	ug/L	8	KED
>	Sc	45	706734.4	0.3				ug/L	772316	Standard
>	Ge	72	401024.1	2.5				ug/L	431846	Standard
>	In	115	386635.8	2.9				ug/L	412957	Standard
>	Tb	159	496870.3	1.8				ug/L	554761	Standard
>	Ge-1	72	28023.5	0.1				ug/L	30473	KED
>	In-1	115	38748.3	1.4				ug/L	42431	KED

### QC Calculated Values

Sample ID: 05-300-07bD 2X

Report Date/Time: Friday, May 31, 2024 14:16:59

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		91.508
>	Ge	72		92.863
>	In	115		93.626
>	Tb	159		89.565
>	Ge-1	72		91.960
>	In-1	115		91.321

## Quantitative Analysis - Summary Report

**Sample ID: 05-300-07bL 10X**

Sample Date/Time: Friday, May 31, 2024 14:19:56

Report Date/Time: Friday, May 31, 2024 14:23:15

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\05-300-07bL 10X.020

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	23516.3	0.7	<b>0.0855</b>	0.011	12.7	ug/L	23728	Standard
	Cr -1	53	3509.8	1.2	<b>-0.0313</b>	0.022	68.9	ug/L	4227	Standard
	Ni	58	-6609.0	6.8	<b>0.0126</b>	0.055	435.9	ug/L	-9347	Standard
	Ni -1	60	684.3	4.7	<b>0.1342</b>	0.004	2.8	ug/L	242	Standard
	Ni -2	62	1582.1	2.7	<b>-0.1200</b>	0.127	105.6	ug/L	1958	Standard
	Cu	63	4483.4	2.6	<b>0.2935</b>	0.008	2.7	ug/L	2502	Standard
	Cu -1	65	1504.7	2.4	<b>0.3038</b>	0.014	4.5	ug/L	483	Standard
	Zn	66	2216.5	4.6	<b>0.6030</b>	0.018	3.0	ug/L	770	Standard
	Zn -1	67	402.0	8.6	<b>0.5582</b>	0.062	11.2	ug/L	161	Standard
	Zn -2	68	1807.4	3.1	<b>0.6646</b>	0.019	2.9	ug/L	754	Standard
	As	75	12064.2	1.2	<b>-0.0179</b>	0.097	545.4	ug/L	12256	Standard
	As-1	75	150.6	6.0	<b>0.0496</b>	0.002	4.4	ug/L	25	Standard
	Se	77	111.7	16.6	<b>-0.2480</b>	0.109	44.0	ug/L	145	Standard
	Se -1	78	11957.7	1.1	<b>0.7301</b>	0.510	69.9	ug/L	12291	Standard
	Br	79	3770.8	4.0				ug/L	304	Standard
	Se -2	82	35.0	13.1	<b>0.0428</b>	0.027	64.0	ug/L	42	Standard
	Kr	83	29.7	12.8				ug/L	36	Standard
	Y	89	587395.7	0.8				ug/L	618386	Standard
	Rh	103	101979.7	0.7				ug/L	111544	Standard
	Cd	111	212.9	5.4	<b>-0.0145</b>	0.005	33.2	ug/L	192	Standard
	Cd -1	114	36.9	16.1	<b>-0.0213</b>	0.001	4.1	ug/L	23	Standard
	Ho	165	483745.6	3.0				ug/L	521140	Standard
	Pb	208	1041.7	2.4	<b>-0.0061</b>	0.000	7.3	ug/L	518	Standard
	Bi	209	266995.0	0.9				ug/L	295516	Standard
	Th	232	319100.4	3.1				ug/L	378918	Standard
	Cr -2	52	401.7	2.4	<b>0.0589</b>	0.007	11.8	ug/L	283	KED
	Cr -3	53	48.7	6.6	<b>0.0312</b>	0.011	34.7	ug/L	38	KED
	Ni -3	58	372.4	11.3	<b>0.1083</b>	0.018	16.2	ug/L	148	KED
	Ni -4	60	133.0	8.7	<b>0.0728</b>	0.012	16.8	ug/L	58	KED
	Ni -5	62	21.0	4.8	<b>0.0999</b>	0.004	4.4	ug/L	12	KED
	Cu -2	63	920.7	2.5	<b>0.2733</b>	0.003	0.9	ug/L	287	KED
	Cu -3	65	464.3	3.6	<b>0.3162</b>	0.007	2.2	ug/L	136	KED
	Zn -3	66	273.7	8.4	<b>0.5658</b>	0.094	16.7	ug/L	93	KED
	Zn -4	67	53.7	7.8	<b>0.7432</b>	0.103	13.9	ug/L	15	KED
	Zn -5	68	229.0	1.5	<b>0.7282</b>	0.029	4.0	ug/L	68	KED
	As-2	75	19.0	36.8	<b>0.0809</b>	0.034	41.9	ug/L	3	KED
	Y-1	89	61644.4	0.6				ug/L	64897	KED
	Rh-1	103	42047.1	1.3				ug/L	44712	KED
	Cd -2	111	5.0	52.9	<b>-0.0261</b>	0.005	17.4	ug/L	4	KED
	Cd -3	114	10.0	17.3	<b>-0.0336</b>	0.001	3.5	ug/L	8	KED
>	Sc	45	728772.9	1.0				ug/L	772316	Standard
>	Ge	72	410381.8	2.7				ug/L	431846	Standard
>	In	115	398105.1	1.3				ug/L	412957	Standard
>	Tb	159	517937.9	1.1				ug/L	554761	Standard
>	Ge-1	72	29277.6	1.7				ug/L	30473	KED
>	In-1	115	40033.2	0.4				ug/L	42431	KED

### QC Calculated Values

Sample ID: 05-300-07bL 10X

Report Date/Time: Friday, May 31, 2024 14:23:15

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		94.362
>	Ge	72		95.030
>	In	115		96.404
>	Tb	159		93.362
>	Ge-1	72		96.076
>	In-1	115		94.349

# Quantitative Analysis - Summary Report

**Sample ID: 05-300-07bMS 2X**

Sample Date/Time: Friday, May 31, 2024 14:25:35

Report Date/Time: Friday, May 31, 2024 14:28:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\05-300-07bMS 2X.021

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	1120275.3	2.2	<b>48.5435</b>	0.694	1.4	ug/L	23728	Standard
	Cr -1	53	128962.4	2.6	<b>48.6833</b>	0.654	1.3	ug/L	4227	Standard
	Ni	58	537029.5	1.7	<b>50.2066</b>	0.334	0.7	ug/L	-9347	Standard
	Ni -1	60	215776.4	2.6	<b>49.2572</b>	0.313	0.6	ug/L	242	Standard
	Ni -2	62	32007.2	3.1	<b>47.2515</b>	0.452	1.0	ug/L	1958	Standard
	Cu	63	477229.8	2.5	<b>49.6047</b>	0.241	0.5	ug/L	2502	Standard
	Cu -1	65	223067.5	2.0	<b>50.0986</b>	0.137	0.3	ug/L	483	Standard
	Zn	66	123607.5	0.3	<b>53.0947</b>	1.166	2.2	ug/L	770	Standard
	Zn -1	67	21156.3	2.8	<b>54.3536</b>	0.551	1.0	ug/L	161	Standard
	Zn -2	68	88598.6	0.6	<b>53.3515</b>	1.091	2.0	ug/L	754	Standard
	As	75	123085.7	1.6	<b>52.7522</b>	0.702	1.3	ug/L	12256	Standard
	As-1	75	113495.1	1.3	<b>51.2083</b>	0.676	1.3	ug/L	25	Standard
	Se	77	7345.2	4.1	<b>51.3206</b>	1.561	3.0	ug/L	145	Standard
	Se -1	78	35273.8	2.7	<b>54.4686</b>	0.777	1.4	ug/L	12291	Standard
	Br	79	14055.2	2.0				ug/L	304	Standard
	Se -2	82	10129.9	1.7	<b>50.7655</b>	0.256	0.5	ug/L	42	Standard
	Kr	83	32.3	7.8				ug/L	36	Standard
	Y	89	584829.2	3.2				ug/L	618386	Standard
	Rh	103	102714.4	2.3				ug/L	111544	Standard
	Cd	111	139250.2	2.2	<b>49.1877</b>	0.490	1.0	ug/L	192	Standard
	Cd -1	114	358808.6	2.5	<b>49.7648</b>	0.628	1.3	ug/L	23	Standard
	Ho	165	499850.4	2.8				ug/L	521140	Standard
	Pb	208	1667733.8	2.4	<b>47.9587</b>	0.487	1.0	ug/L	518	Standard
	Bi	209	275584.5	2.5				ug/L	295516	Standard
	Th	232	360718.7	1.2				ug/L	378918	Standard
	Cr -2	52	101978.4	1.3	<b>48.8699</b>	1.100	2.3	ug/L	283	KED
	Cr -3	53	12834.1	0.7	<b>48.8559</b>	0.574	1.2	ug/L	38	KED
	Ni -3	58	119964.5	0.5	<b>48.7063</b>	0.703	1.4	ug/L	148	KED
	Ni -4	60	51870.0	0.6	<b>48.5517</b>	0.715	1.5	ug/L	58	KED
	Ni -5	62	7784.5	0.5	<b>48.4389</b>	0.588	1.2	ug/L	12	KED
	Cu -2	63	134613.3	1.3	<b>49.6674</b>	0.945	1.9	ug/L	287	KED
	Cu -3	65	62682.6	1.7	<b>49.1410</b>	1.168	2.4	ug/L	136	KED
	Zn -3	66	14730.6	2.0	<b>52.3792</b>	1.382	2.6	ug/L	93	KED
	Zn -4	67	2460.2	1.7	<b>52.2770</b>	1.398	2.7	ug/L	15	KED
	Zn -5	68	11061.6	0.8	<b>51.6123</b>	0.761	1.5	ug/L	68	KED
	As-2	75	9726.6	0.5	<b>49.3875</b>	0.208	0.4	ug/L	3	KED
	Y-1	89	60681.6	1.1				ug/L	64897	KED
	Rh-1	103	40409.1	0.8				ug/L	44712	KED
	Cd -2	111	27877.2	1.6	<b>49.1340</b>	0.222	0.5	ug/L	4	KED
	Cd -3	114	72796.0	0.7	<b>48.7589</b>	0.386	0.8	ug/L	8	KED
>	Sc	45	724754.5	3.6				ug/L	772316	Standard
>	Ge	72	406496.4	2.2				ug/L	431846	Standard
>	In	115	403762.7	1.3				ug/L	412957	Standard
>	Tb	159	530985.9	3.4				ug/L	554761	Standard
>	Ge-1	72	28028.1	0.9				ug/L	30473	KED
>	In-1	115	39207.4	1.3				ug/L	42431	KED

## QC Calculated Values

Sample ID: 05-300-07bMS 2X

Report Date/Time: Friday, May 31, 2024 14:28:54

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		93.842
>	Ge	72		94.130
>	In	115		97.774
>	Tb	159		95.714
>	Ge-1	72		91.976
>	In-1	115		92.403

## Quantitative Analysis - Summary Report

**Sample ID: 05-300-07bMSD 2X**

Sample Date/Time: Friday, May 31, 2024 14:31:15

Report Date/Time: Friday, May 31, 2024 14:34:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\05-300-07bMSD 2X.022

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	1098174.0	1.7	<b>48.9921</b>	0.673	1.4	ug/L	23728	Standard
	Cr -1	53	128204.7	0.8	<b>49.8557</b>	0.207	0.4	ug/L	4227	Standard
	Ni	58	537722.5	2.6	<b>50.8164</b>	0.685	1.3	ug/L	-9347	Standard
	Ni -1	60	213537.6	1.4	<b>49.2950</b>	0.504	1.0	ug/L	242	Standard
	Ni -2	62	32147.1	2.4	<b>48.0295</b>	0.321	0.7	ug/L	1958	Standard
	Cu	63	482348.0	2.3	<b>50.6980</b>	0.406	0.8	ug/L	2502	Standard
	Cu -1	65	220336.7	2.1	<b>50.0327</b>	0.187	0.4	ug/L	483	Standard
	Zn	66	124869.9	2.2	<b>54.2222</b>	0.383	0.7	ug/L	770	Standard
	Zn -1	67	21211.7	1.5	<b>55.1144</b>	0.160	0.3	ug/L	161	Standard
	Zn -2	68	88404.1	1.6	<b>53.8168</b>	0.311	0.6	ug/L	754	Standard
	As	75	122521.2	2.1	<b>53.1227</b>	0.412	0.8	ug/L	12256	Standard
	As-1	75	112780.8	2.4	<b>51.4426</b>	0.680	1.3	ug/L	25	Standard
	Se	77	7389.6	2.5	<b>52.2240</b>	0.499	1.0	ug/L	145	Standard
	Se -1	78	35065.7	1.6	<b>54.8937</b>	0.568	1.0	ug/L	12291	Standard
	Br	79	13694.6	2.2				ug/L	304	Standard
	Se -2	82	9989.2	2.1	<b>50.6172</b>	0.955	1.9	ug/L	42	Standard
	Kr	83	35.3	41.4				ug/L	36	Standard
	Y	89	570299.6	1.6				ug/L	618386	Standard
	Rh	103	99856.8	1.0				ug/L	111544	Standard
	Cd	111	140497.8	1.2	<b>50.3164</b>	0.374	0.7	ug/L	192	Standard
	Cd -1	114	356098.2	0.6	<b>50.0749</b>	0.429	0.9	ug/L	23	Standard
	Ho	165	492572.4	1.1				ug/L	521140	Standard
	Pb	208	1648258.2	1.4	<b>48.3525</b>	0.406	0.8	ug/L	518	Standard
	Bi	209	266519.2	2.0				ug/L	295516	Standard
	Th	232	342039.4	1.8				ug/L	378918	Standard
	Cr -2	52	104380.3	0.5	<b>49.7521</b>	0.479	1.0	ug/L	283	KED
	Cr -3	53	13073.6	0.8	<b>49.5019</b>	0.036	0.1	ug/L	38	KED
	Ni -3	58	121681.6	1.2	<b>49.1402</b>	0.871	1.8	ug/L	148	KED
	Ni -4	60	53066.7	0.9	<b>49.4036</b>	0.074	0.1	ug/L	58	KED
	Ni -5	62	7825.5	1.7	<b>48.4335</b>	0.899	1.9	ug/L	12	KED
	Cu -2	63	135984.6	1.3	<b>49.9006</b>	0.279	0.6	ug/L	287	KED
	Cu -3	65	63932.8	1.9	<b>49.8466</b>	0.667	1.3	ug/L	136	KED
	Zn -3	66	15211.1	0.7	<b>53.8044</b>	0.453	0.8	ug/L	93	KED
	Zn -4	67	2498.6	2.0	<b>52.8035</b>	0.955	1.8	ug/L	15	KED
	Zn -5	68	11496.0	2.8	<b>53.3541</b>	1.105	2.1	ug/L	68	KED
	As-2	75	10029.2	0.6	<b>50.6521</b>	0.088	0.2	ug/L	3	KED
	Y-1	89	60605.0	1.2				ug/L	64897	KED
	Rh-1	103	40321.8	1.0				ug/L	44712	KED
	Cd -2	111	28329.4	0.7	<b>50.1585</b>	0.954	1.9	ug/L	4	KED
	Cd -3	114	73697.3	0.5	<b>49.5793</b>	0.501	1.0	ug/L	8	KED
>	Sc	45	703818.3	0.4				ug/L	772316	Standard
>	Ge	72	402019.0	1.8				ug/L	431846	Standard
>	In	115	398305.5	1.4				ug/L	412957	Standard
>	Tb	159	520387.0	0.9				ug/L	554761	Standard
>	Ge-1	72	28178.1	0.7				ug/L	30473	KED
>	In-1	115	39038.2	1.5				ug/L	42431	KED

### QC Calculated Values

Sample ID: 05-300-07bMSD 2X

Report Date/Time: Friday, May 31, 2024 14:34:35

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		91.131
>	Ge	72		93.093
>	In	115		96.452
>	Tb	159		93.804
>	Ge-1	72		92.468
>	In-1	115		92.004

## Quantitative Analysis - Summary Report

Sample ID: 05-300-07bPS 2X

Sample Date/Time: Friday, May 31, 2024 14:36:55

Report Date/Time: Friday, May 31, 2024 14:40:16

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\05-300-07bPS 2X.023

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	826203.5	2.1	38.1796	0.281	0.7	ug/L	23728	Standard
	Cr -1	53	98208.5	1.8	39.4922	0.329	0.8	ug/L	4227	Standard
	Ni	58	397624.5	1.4	40.3478	0.398	1.0	ug/L	-9347	Standard
	Ni -1	60	161245.4	1.5	39.8311	0.344	0.9	ug/L	242	Standard
	Ni -2	62	24333.0	1.3	38.4270	0.505	1.3	ug/L	1958	Standard
	Cu	63	362967.7	2.5	40.7931	0.051	0.1	ug/L	2502	Standard
	Cu -1	65	166427.8	2.1	40.4377	0.115	0.3	ug/L	483	Standard
	Zn	66	94985.6	3.4	44.0669	0.484	1.1	ug/L	770	Standard
	Zn -1	67	16515.2	3.8	45.8308	0.915	2.0	ug/L	161	Standard
	Zn -2	68	68204.8	2.3	44.3564	0.205	0.5	ug/L	754	Standard
	As	75	94181.6	2.1	42.6915	0.270	0.6	ug/L	12256	Standard
	As-1	75	84428.6	2.1	41.2101	0.335	0.8	ug/L	25	Standard
	Se	77	5570.1	1.2	41.9390	0.823	2.0	ug/L	145	Standard
	Se -1	78	29056.5	2.5	45.6748	0.370	0.8	ug/L	12291	Standard
	Br	79	15262.8	1.5				ug/L	304	Standard
	Se -2	82	7617.4	2.7	41.2780	0.643	1.6	ug/L	42	Standard
	Kr	83	23.3	17.8				ug/L	36	Standard
	Y	89	539000.0	3.1				ug/L	618386	Standard
	Rh	103	93508.8	2.4				ug/L	111544	Standard
	Cd	111	104334.4	2.7	40.4093	0.649	1.6	ug/L	192	Standard
	Cd -1	114	269706.5	1.2	41.0338	0.356	0.9	ug/L	23	Standard
	Ho	165	453070.6	0.7				ug/L	521140	Standard
	Pb	208	1223087.1	0.6	38.9009	0.057	0.1	ug/L	518	Standard
	Bi	209	248177.2	0.3				ug/L	295516	Standard
	Th	232	315432.1	1.8				ug/L	378918	Standard
	Cr -2	52	79967.9	0.6	40.6324	0.211	0.5	ug/L	283	KED
	Cr -3	53	10068.9	0.7	40.6412	0.445	1.1	ug/L	38	KED
	Ni -3	58	93726.3	0.4	40.3652	0.314	0.8	ug/L	148	KED
	Ni -4	60	40773.8	0.9	40.4827	0.495	1.2	ug/L	58	KED
	Ni -5	62	6153.0	1.9	40.6161	0.807	2.0	ug/L	12	KED
	Cu -2	63	105330.9	0.1	41.2213	0.227	0.6	ug/L	287	KED
	Cu -3	65	49129.7	1.1	40.8556	0.546	1.3	ug/L	136	KED
	Zn -3	66	11754.5	1.5	44.2820	0.533	1.2	ug/L	93	KED
	Zn -4	67	1969.5	1.7	44.3411	0.785	1.8	ug/L	15	KED
	Zn -5	68	8998.8	1.2	44.5044	0.585	1.3	ug/L	68	KED
	As-2	75	7617.0	2.1	41.0330	0.949	2.3	ug/L	3	KED
	Y-1	89	57161.1	0.8				ug/L	64897	KED
	Rh-1	103	38195.0	0.5				ug/L	44712	KED
	Cd -2	111	21353.6	0.8	40.1052	0.077	0.2	ug/L	4	KED
	Cd -3	114	56463.0	0.7	40.2965	0.095	0.2	ug/L	8	KED
>	Sc	45	675922.9	2.6				ug/L	772316	Standard
>	Ge	72	375685.6	2.4				ug/L	431846	Standard
>	In	115	368095.1	1.7				ug/L	412957	Standard
>	Tb	159	479891.3	0.5				ug/L	554761	Standard
>	Ge-1	72	26417.1	0.4				ug/L	30473	KED
>	In-1	115	36788.7	0.8				ug/L	42431	KED

### QC Calculated Values

Sample ID: 05-300-07bPS 2X

Report Date/Time: Friday, May 31, 2024 14:40:16

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		87.519
>	Ge	72		86.995
>	In	115		89.136
>	Tb	159		86.504
>	Ge-1	72		86.689
>	In-1	115		86.703

## Quantitative Analysis - Summary Report

Sample ID: 05-353-02k 2X

Sample Date/Time: Friday, May 31, 2024 14:42:36

Report Date/Time: Friday, May 31, 2024 14:45:56

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\05-353-02k 2X.024

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	43061.5	1.5	0.8404	0.014	1.7	ug/L	23728	Standard
	Cr -1	53	13713.9	3.4	3.6201	0.241	6.7	ug/L	4227	Standard
	Ni	58	9640.5	14.6	1.4671	0.116	7.9	ug/L	-9347	Standard
	Ni -1	60	6585.5	2.6	1.4158	0.062	4.4	ug/L	242	Standard
	Ni -2	62	2182.8	1.6	0.6820	0.049	7.2	ug/L	1958	Standard
	Cu	63	6587.5	2.5	0.4860	0.006	1.2	ug/L	2502	Standard
	Cu -1	65	1226.4	2.1	0.2317	0.007	3.0	ug/L	483	Standard
	Zn	66	2725.9	2.6	0.7789	0.007	1.0	ug/L	770	Standard
	Zn -1	67	589.3	3.6	0.9849	0.029	3.0	ug/L	161	Standard
	Zn -2	68	2710.9	3.6	1.1483	0.046	4.0	ug/L	754	Standard
	As	75	13185.8	1.0	0.2844	0.155	54.4	ug/L	12256	Standard
	As-1	75	736.2	2.9	0.2995	0.011	3.6	ug/L	25	Standard
	Se	77	627.7	2.6	3.2367	0.094	2.9	ug/L	145	Standard
	Se -1	78	12564.5	0.9	1.0704	0.662	61.8	ug/L	12291	Standard
	Br	79	12387.4	3.0				ug/L	304	Standard
	Se -2	82	63.7	13.7	0.1730	0.036	21.0	ug/L	42	Standard
	Kr	83	29.0	22.6				ug/L	36	Standard
	Y	89	601046.2	3.3				ug/L	618386	Standard
	Rh	103	103404.2	3.8				ug/L	111544	Standard
	Cd	111	268.9	3.6	0.0018	0.006	318.8	ug/L	192	Standard
	Cd -1	114	69.8	13.8	-0.0171	0.002	9.5	ug/L	23	Standard
	Ho	165	525490.2	2.9				ug/L	521140	Standard
	Pb	208	4818.6	1.6	0.0964	0.003	3.3	ug/L	518	Standard
	Bi	209	280449.5	2.9				ug/L	295516	Standard
	Th	232	367508.1	1.4				ug/L	378918	Standard
	Cr -2	52	693.0	2.9	0.2067	0.004	1.8	ug/L	283	KED
	Cr -3	53	96.3	6.0	0.2211	0.029	13.1	ug/L	38	KED
	Ni -3	58	3738.9	5.5	1.4822	0.109	7.3	ug/L	148	KED
	Ni -4	60	884.0	3.9	0.7813	0.046	5.8	ug/L	58	KED
	Ni -5	62	130.0	9.5	0.7832	0.071	9.1	ug/L	12	KED
	Cu -2	63	539.0	1.4	0.1468	0.007	4.5	ug/L	287	KED
	Cu -3	65	252.3	6.2	0.1652	0.009	5.4	ug/L	136	KED
	Zn -3	66	299.3	5.2	0.6984	0.076	10.9	ug/L	93	KED
	Zn -4	67	55.0	15.9	0.8177	0.176	21.5	ug/L	15	KED
	Zn -5	68	265.3	7.1	0.9443	0.108	11.4	ug/L	68	KED
	As-2	75	56.0	16.4	0.2724	0.042	15.6	ug/L	3	KED
	Y-1	89	61784.0	0.7				ug/L	64897	KED
	Rh-1	103	39741.9	1.3				ug/L	44712	KED
	Cd -2	111	5.7	71.3	-0.0249	0.007	28.2	ug/L	4	KED
	Cd -3	114	14.0	18.9	-0.0309	0.002	5.8	ug/L	8	KED
>	Sc	45	770968.2	1.5				ug/L	772316	Standard
>	Ge	72	425862.2	1.9				ug/L	431846	Standard
>	In	115	414489.4	3.1				ug/L	412957	Standard
>	Tb	159	553095.7	3.5				ug/L	554761	Standard
>	Ge-1	72	28053.5	1.8				ug/L	30473	KED
>	In-1	115	39702.8	0.4				ug/L	42431	KED

### QC Calculated Values

Sample ID: 05-353-02k 2X

Report Date/Time: Friday, May 31, 2024 14:45:56

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		99.826
>	Ge	72		98.614
>	In	115		100.371
>	Tb	159		99.700
>	Ge-1	72		92.059
>	In-1	115		93.571

## Quantitative Analysis - Summary Report

Sample ID: 05-353-07k 2X

Sample Date/Time: Friday, May 31, 2024 14:48:16

Report Date/Time: Friday, May 31, 2024 14:51:36

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\05-353-07k 2X.025

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	42009.0	1.1	0.8342	0.045	5.4	ug/L	23728	Standard
	Cr -1	53	8240.4	1.6	1.6871	0.156	9.2	ug/L	4227	Standard
	Ni	58	513.9	162.1	0.6643	0.075	11.3	ug/L	-9347	Standard
	Ni -1	60	4534.4	1.4	0.9793	0.012	1.2	ug/L	242	Standard
	Ni -2	62	1382.7	5.7	-0.4824	0.146	30.2	ug/L	1958	Standard
	Cu	63	4425.7	1.2	0.2759	0.004	1.5	ug/L	2502	Standard
	Cu -1	65	587.3	3.1	0.0961	0.004	4.1	ug/L	483	Standard
	Zn	66	968.0	1.0	0.0584	0.009	15.1	ug/L	770	Standard
	Zn -1	67	234.0	10.5	0.1126	0.059	52.4	ug/L	161	Standard
	Zn -2	68	1368.4	1.1	0.3801	0.019	5.0	ug/L	754	Standard
	As	75	13232.7	1.5	0.3721	0.019	5.0	ug/L	12256	Standard
	As-1	75	177.5	19.9	0.0598	0.016	27.5	ug/L	25	Standard
	Se	77	415.7	2.2	1.8260	0.034	1.9	ug/L	145	Standard
	Se -1	78	13181.4	1.7	2.7417	0.160	5.8	ug/L	12291	Standard
	Br	79	23958.1	2.9				ug/L	304	Standard
	Se -2	82	69.0	3.8	0.2029	0.016	8.0	ug/L	42	Standard
	Kr	83	29.7	11.8				ug/L	36	Standard
	Y	89	607641.8	2.5				ug/L	618386	Standard
	Rh	103	104143.9	1.1				ug/L	111544	Standard
	Cd	111	228.0	9.3	-0.0118	0.007	55.2	ug/L	192	Standard
	Cd -1	114	19.1	12.4	-0.0239	0.000	1.4	ug/L	23	Standard
	Ho	165	526805.9	2.5				ug/L	521140	Standard
	Pb	208	4424.3	1.2	0.0846	0.001	1.6	ug/L	518	Standard
	Bi	209	288463.7	1.9				ug/L	295516	Standard
	Th	232	367366.9	1.4				ug/L	378918	Standard
	Cr -2	52	536.0	3.5	0.1360	0.012	8.6	ug/L	283	KED
	Cr -3	53	73.3	22.5	0.1379	0.064	46.4	ug/L	38	KED
	Ni -3	58	1364.8	4.7	0.5273	0.031	5.9	ug/L	148	KED
	Ni -4	60	439.7	6.7	0.3721	0.026	7.1	ug/L	58	KED
	Ni -5	62	75.0	5.8	0.4497	0.032	7.1	ug/L	12	KED
	Cu -2	63	160.3	16.2	0.0081	0.010	123.5	ug/L	287	KED
	Cu -3	65	83.3	9.8	0.0341	0.007	20.7	ug/L	136	KED
	Zn -3	66	87.7	17.8	-0.0542	0.057	104.6	ug/L	93	KED
	Zn -4	67	23.0	15.7	0.1429	0.075	52.2	ug/L	15	KED
	Zn -5	68	83.3	12.8	0.0966	0.049	50.7	ug/L	68	KED
	As-2	75	16.3	3.5	0.0730	0.002	3.0	ug/L	3	KED
	Y-1	89	61155.0	0.1				ug/L	64897	KED
	Rh-1	103	39087.7	0.4				ug/L	44712	KED
	Cd -2	111	4.0	50.0	-0.0278	0.003	12.6	ug/L	4	KED
	Cd -3	114	7.0	37.8	-0.0355	0.002	5.0	ug/L	8	KED
>	Sc	45	755174.7	3.5				ug/L	772316	Standard
>	Ge	72	421057.0	1.3				ug/L	431846	Standard
>	In	115	411299.6	1.4				ug/L	412957	Standard
>	Tb	159	556775.9	2.3				ug/L	554761	Standard
>	Ge-1	72	27567.2	1.0				ug/L	30473	KED
>	In-1	115	39910.2	0.5				ug/L	42431	KED

### QC Calculated Values

Sample ID: 05-353-07k 2X

Report Date/Time: Friday, May 31, 2024 14:51:36

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		97.781
>	Ge	72		97.502
>	In	115		99.599
>	Tb	159		100.363
>	Ge-1	72		90.463
>	In-1	115		94.060

# Quantitative Analysis - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, May 31, 2024 14:53:57

Report Date/Time: Friday, May 31, 2024 14:57:17

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\QC Std 6.026

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	973011.4	0.6	41.1915	0.781	1.9	ug/L	23728	Standard
	Cr -1	53	114799.4	0.8	42.3063	0.448	1.1	ug/L	4227	Standard
	Ni	58	484837.1	0.7	40.2743	0.681	1.7	ug/L	-9347	Standard
	Ni -1	60	194915.1	0.7	39.4148	0.665	1.7	ug/L	242	Standard
	Ni -2	62	28767.6	1.4	37.1029	0.629	1.7	ug/L	1958	Standard
	Cu	63	426461.7	1.5	39.2296	0.294	0.7	ug/L	2502	Standard
	Cu -1	65	196303.7	1.3	39.0433	0.278	0.7	ug/L	483	Standard
	Zn	66	106563.7	1.3	40.4538	0.740	1.8	ug/L	770	Standard
	Zn -1	67	18471.6	0.3	41.9391	0.957	2.3	ug/L	161	Standard
	Zn -2	68	76485.2	1.0	40.6863	0.411	1.0	ug/L	754	Standard
	As	75	115087.0	1.5	42.7048	0.405	0.9	ug/L	12256	Standard
	As-1	75	104508.5	1.7	41.7550	0.271	0.6	ug/L	25	Standard
	Se	77	7025.1	1.3	43.3224	0.287	0.7	ug/L	145	Standard
	Se -1	78	34505.0	0.9	43.6697	0.782	1.8	ug/L	12291	Standard
	Br	79	1044.7	7.8				ug/L	304	Standard
	Se -2	82	9439.5	1.8	41.8739	0.437	1.0	ug/L	42	Standard
	Kr	83	31.7	4.8				ug/L	36	Standard
	Y	89	658236.3	1.6				ug/L	618386	Standard
	Rh	103	116700.4	1.0				ug/L	111544	Standard
	Cd	111	126857.8	1.0	41.9152	0.587	1.4	ug/L	192	Standard
	Cd -1	114	320081.5	1.1	41.5327	0.163	0.4	ug/L	23	Standard
	Ho	165	554160.5	1.0				ug/L	521140	Standard
	Pb	208	1532902.0	1.2	39.9319	0.219	0.5	ug/L	518	Standard
	Bi	209	305780.0	1.9				ug/L	295516	Standard
	Th	232	371043.6	2.4				ug/L	378918	Standard
	Cr -2	52	89348.9	0.9	39.9424	0.567	1.4	ug/L	283	KED
	Cr -3	53	11196.1	0.3	39.7565	0.362	0.9	ug/L	38	KED
	Ni -3	58	104668.8	0.3	39.6598	0.323	0.8	ug/L	148	KED
	Ni -4	60	45559.9	0.4	39.7965	0.134	0.3	ug/L	58	KED
	Ni -5	62	6795.9	0.3	39.4677	0.198	0.5	ug/L	12	KED
	Cu -2	63	114021.6	0.6	39.2567	0.225	0.6	ug/L	287	KED
	Cu -3	65	53990.2	1.6	39.4979	0.397	1.0	ug/L	136	KED
	Zn -3	66	12671.0	1.0	41.9782	0.181	0.4	ug/L	93	KED
	Zn -4	67	2014.5	0.7	39.8686	0.479	1.2	ug/L	15	KED
	Zn -5	68	9418.4	1.7	40.9549	0.438	1.1	ug/L	68	KED
	As-2	75	8496.9	1.4	40.2691	0.406	1.0	ug/L	3	KED
	Y-1	89	65711.8	0.2				ug/L	64897	KED
	Rh-1	103	43000.6	0.7				ug/L	44712	KED
	Cd -2	111	24946.8	1.7	40.4643	0.869	2.1	ug/L	4	KED
	Cd -3	114	66222.5	0.6	40.8152	0.397	1.0	ug/L	8	KED
>	Sc	45	739217.3	1.8				ug/L	772316	Standard
>	Ge	72	458960.1	2.0				ug/L	431846	Standard
>	In	115	431566.5	0.7				ug/L	412957	Standard
>	Tb	159	585935.5	1.0				ug/L	554761	Standard
>	Ge-1	72	30025.9	0.6				ug/L	30473	KED
>	In-1	115	42600.6	0.4				ug/L	42431	KED

### QC Calculated Values

Sample ID: QC Std 6

Report Date/Time: Friday, May 31, 2024 14:57:17

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52	102.979	
	Cr -1	53	105.766	
	Ni	58	100.686	
	Ni -1	60	98.537	
	Ni -2	62	92.757	
	Cu	63	98.074	
	Cu -1	65	97.608	
	Zn	66	101.135	
	Zn -1	67	104.848	
	Zn -2	68	101.716	
	As	75	106.762	
	As-1	75	104.387	
	Se	77	108.306	
	Se -1	78	109.174	
	Br	79		
	Se -2	82	104.685	
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111	104.788	
	Cd -1	114	103.832	
	Ho	165		
	Pb	208	99.830	
	Bi	209		
	Th	232		
	Cr -2	52	99.856	
	Cr -3	53	99.391	
	Ni -3	58	99.149	
	Ni -4	60	99.491	
	Ni -5	62	98.669	
	Cu -2	63	98.142	
	Cu -3	65	98.745	
	Zn -3	66	104.946	
	Zn -4	67	99.672	
	Zn -5	68	102.387	
	As-2	75	100.673	
	Y-1	89		
	Rh-1	103		
	Cd -2	111	101.161	
	Cd -3	114	102.038	
>	Sc	45		95.714
>	Ge	72		106.279
>	In	115		104.506
>	Tb	159		105.620
>	Ge-1	72		98.531
>	In-1	115		100.400

# Quantitative Analysis - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, May 31, 2024 14:59:38

Report Date/Time: Friday, May 31, 2024 15:02:58

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\QC Std 7.027

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	483658.0	1.1	19.4906	0.171	0.9	ug/L	23728	Standard
	Cr -1	53	57264.2	1.0	19.8822	0.247	1.2	ug/L	4227	Standard
	Ni	58	234364.8	1.5	19.7185	0.130	0.7	ug/L	-9347	Standard
	Ni -1	60	94691.2	1.2	19.0689	0.033	0.2	ug/L	242	Standard
	Ni -2	62	14920.1	1.6	17.9378	0.216	1.2	ug/L	1958	Standard
	Cu	63	209281.6	0.9	19.0990	0.072	0.4	ug/L	2502	Standard
	Cu -1	65	95213.9	0.2	18.8571	0.186	1.0	ug/L	483	Standard
	Zn	66	53145.4	2.3	19.9281	0.249	1.3	ug/L	770	Standard
	Zn -1	67	9144.9	2.0	20.4486	0.419	2.1	ug/L	161	Standard
	Zn -2	68	37847.1	2.5	19.8465	0.271	1.4	ug/L	754	Standard
	As	75	62079.7	0.9	20.3242	0.097	0.5	ug/L	12256	Standard
	As-1	75	50728.4	1.5	20.1890	0.069	0.3	ug/L	25	Standard
	Se	77	3469.1	2.2	20.7924	0.240	1.2	ug/L	145	Standard
	Se -1	78	23023.5	1.0	20.1748	0.482	2.4	ug/L	12291	Standard
	Br	79	707.0	3.6				ug/L	304	Standard
	Se -2	82	4614.1	3.0	20.3279	0.379	1.9	ug/L	42	Standard
	Kr	83	26.0	10.2				ug/L	36	Standard
	Y	89	654727.3	1.5				ug/L	618386	Standard
	Rh	103	115914.4	1.2				ug/L	111544	Standard
	Cd	111	62333.4	1.1	20.4232	0.034	0.2	ug/L	192	Standard
	Cd -1	114	156414.1	1.2	20.1598	0.172	0.9	ug/L	23	Standard
	Ho	165	544550.0	1.0				ug/L	521140	Standard
	Pb	208	736216.3	1.3	19.6486	0.235	1.2	ug/L	518	Standard
	Bi	209	303443.9	0.4				ug/L	295516	Standard
	Th	232	377456.9	1.0				ug/L	378918	Standard
	Cr -2	52	45025.2	1.3	19.8759	0.328	1.7	ug/L	283	KED
	Cr -3	53	5674.1	0.8	19.8856	0.103	0.5	ug/L	38	KED
	Ni -3	58	52723.8	0.8	19.7708	0.027	0.1	ug/L	148	KED
	Ni -4	60	23347.1	0.4	20.1792	0.065	0.3	ug/L	58	KED
	Ni -5	62	3465.8	1.7	19.9248	0.226	1.1	ug/L	12	KED
	Cu -2	63	57972.1	0.6	19.7468	0.249	1.3	ug/L	287	KED
	Cu -3	65	27105.7	1.3	19.6294	0.348	1.8	ug/L	136	KED
	Zn -3	66	6436.4	1.3	20.9399	0.398	1.9	ug/L	93	KED
	Zn -4	67	1065.0	6.5	20.7055	1.279	6.2	ug/L	15	KED
	Zn -5	68	4720.8	2.0	20.1867	0.537	2.7	ug/L	68	KED
	As-2	75	4248.3	2.3	19.9412	0.553	2.8	ug/L	3	KED
	Y-1	89	66263.7	0.6				ug/L	64897	KED
	Rh-1	103	44239.7	0.1				ug/L	44712	KED
	Cd -2	111	12262.6	1.4	19.7287	0.301	1.5	ug/L	4	KED
	Cd -3	114	32564.4	0.9	19.9052	0.110	0.6	ug/L	8	KED
>	Sc	45	757437.6	0.7				ug/L	772316	Standard
>	Ge	72	460512.1	1.2				ug/L	431846	Standard
>	In	115	434196.1	1.0				ug/L	412957	Standard
>	Tb	159	571371.4	0.5				ug/L	554761	Standard
>	Ge-1	72	30310.5	0.6				ug/L	30473	KED
>	In-1	115	42910.6	1.3				ug/L	42431	KED

## QC Calculated Values

Sample ID: QC Std 7

Report Date/Time: Friday, May 31, 2024 15:02:58

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52	97.453	
	Cr -1	53	99.411	
	Ni	58	98.593	
	Ni -1	60	95.344	
	Ni -2	62	89.689	
	Cu	63	95.495	
	Cu -1	65	94.285	
	Zn	66	99.640	
	Zn -1	67	102.243	
	Zn -2	68	99.232	
	As	75	101.621	
	As-1	75	100.945	
	Se	77	103.962	
	Se -1	78	100.874	
	Br	79		
	Se -2	82	101.639	
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111	102.116	
	Cd -1	114	100.799	
	Ho	165		
	Pb	208	98.243	
	Bi	209		
	Th	232		
	Cr -2	52	99.380	
	Cr -3	53	99.428	
	Ni -3	58	98.854	
	Ni -4	60	100.896	
	Ni -5	62	99.624	
	Cu -2	63	98.734	
	Cu -3	65	98.147	
	Zn -3	66	104.699	
	Zn -4	67	103.527	
	Zn -5	68	100.933	
	As-2	75	99.706	
	Y-1	89		
	Rh-1	103		
	Cd -2	111	98.644	
	Cd -3	114	99.526	
>	Sc	45		98.074
>	Ge	72		106.638
>	In	115		105.143
>	Tb	159		102.994
>	Ge-1	72		99.465
>	In-1	115		101.131

# Quantitative Analysis - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Friday, May 31, 2024 15:05:20

Report Date/Time: Friday, May 31, 2024 15:08:40

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240530B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240531C\QC Std 8.028

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	20323.8	0.5	-0.0397	0.016	41.4	ug/L	23728	Standard
	Cr -1	53	2960.6	2.5	-0.2238	0.047	21.0	ug/L	4227	Standard
	Ni	58	-5841.1	3.8	0.1155	0.015	13.4	ug/L	-9347	Standard
	Ni -1	60	238.0	6.0	0.0301	0.004	12.9	ug/L	242	Standard
	Ni -2	62	1529.7	3.1	-0.3416	0.105	30.8	ug/L	1958	Standard
	Cu	63	2018.8	1.9	0.0265	0.007	27.1	ug/L	2502	Standard
	Cu -1	65	478.3	2.4	0.0688	0.003	4.5	ug/L	483	Standard
	Zn	66	792.4	6.7	-0.0264	0.024	91.7	ug/L	770	Standard
	Zn -1	67	154.7	7.8	-0.0994	0.027	27.5	ug/L	161	Standard
	Zn -2	68	743.0	8.4	-0.0016	0.035	2200.5	ug/L	754	Standard
	As	75	12438.4	1.7	-0.1905	0.012	6.4	ug/L	12256	Standard
	As-1	75	10.5	511.1	-0.0135	0.022	165.6	ug/L	25	Standard
	Se	77	116.3	8.1	-0.2624	0.049	18.5	ug/L	145	Standard
	Se -1	78	12482.8	1.3	0.2334	0.175	75.0	ug/L	12291	Standard
	Br	79	558.0	2.5				ug/L	304	Standard
	Se -2	82	40.0	7.5	0.0555	0.015	27.0	ug/L	42	Standard
	Kr	83	29.3	9.8				ug/L	36	Standard
	Y	89	623759.3	0.6				ug/L	618386	Standard
	Rh	103	111868.3	0.4				ug/L	111544	Standard
	Cd	111	250.0	2.1	-0.0046	0.002	54.1	ug/L	192	Standard
	Cd -1	114	27.7	17.0	-0.0228	0.001	2.9	ug/L	23	Standard
	Ho	165	520812.9	1.0				ug/L	521140	Standard
	Pb	208	606.0	1.4	-0.0202	0.000	2.4	ug/L	518	Standard
	Bi	209	288666.7	2.4				ug/L	295516	Standard
	Th	232	358074.2	2.0				ug/L	378918	Standard
	Cr -2	52	271.0	2.2	0.0006	0.003	501.4	ug/L	283	KED
	Cr -3	53	34.0	25.6	-0.0206	0.032	156.3	ug/L	38	KED
	Ni -3	58	115.1	6.2	0.0088	0.003	31.2	ug/L	148	KED
	Ni -4	60	47.3	17.1	-0.0035	0.007	212.4	ug/L	58	KED
	Ni -5	62	7.0	37.8	0.0171	0.016	91.6	ug/L	12	KED
	Cu -2	63	279.3	5.2	0.0481	0.006	11.9	ug/L	287	KED
	Cu -3	65	131.0	5.5	0.0674	0.006	8.4	ug/L	136	KED
	Zn -3	66	94.0	1.1	-0.0463	0.003	6.1	ug/L	93	KED
	Zn -4	67	15.0	60.0	-0.0461	0.186	403.3	ug/L	15	KED
	Zn -5	68	71.7	11.2	0.0259	0.035	136.1	ug/L	68	KED
	As-2	75	4.7	44.6	0.0117	0.010	87.8	ug/L	3	KED
	Y-1	89	62569.1	0.4				ug/L	64897	KED
	Rh-1	103	41605.5	0.3				ug/L	44712	KED
	Cd -2	111	3.7	56.8	-0.0285	0.003	12.2	ug/L	4	KED
	Cd -3	114	10.3	29.6	-0.0334	0.002	5.9	ug/L	8	KED
>	Sc	45	716852.0	1.6				ug/L	772316	Standard
>	Ge	72	436262.9	1.8				ug/L	431846	Standard
>	In	115	413554.0	0.8				ug/L	412957	Standard
>	Tb	159	557686.5	1.6				ug/L	554761	Standard
>	Ge-1	72	28845.4	1.1				ug/L	30473	KED
>	In-1	115	40651.4	1.5				ug/L	42431	KED

## QC Calculated Values

Sample ID: QC Std 8

Report Date/Time: Friday, May 31, 2024 15:08:40

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		92.819
>	Ge	72		101.023
>	In	115		100.145
>	Tb	159		100.527
>	Ge-1	72		94.658
>	In-1	115		95.806

# Dataset Report

6-1-24  
len r

User Name: kmckinney

Computer Name: DESKTOP-RIRVUDN

Dataset File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\

Report Date/Time: Saturday, June 01, 2024 12:05:12

## The Dataset

Batch ID	Sample ID	Date and Time	Read Type	Samp. File Name	Description
SmartTune - [STD/KED] Nebulizer		07:45:45 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
SmartTune - Mass Calibration and		07:48:17 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
SmartTune - [STD] Performance Ct		07:48:57 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	Blank	08:11:46 Sat 01-Ju	Blank	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	Standard 1	08:16:37 Sat 01-Ju	Standard #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	Standard 2	08:21:27 Sat 01-Ju	Standard #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	Standard 3	08:26:18 Sat 01-Ju	Standard #3	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	Standard 4	08:31:09 Sat 01-Ju	Standard #4	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	Standard 5	08:36:00 Sat 01-Ju	Standard #5	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	Standard 6	08:40:51 Sat 01-Ju	Standard #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	Standard 7	08:45:42 Sat 01-Ju	Standard #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	QC Std 1	08:51:23 Sat 01-Ju	QC Std #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	QC Std 2	08:57:03 Sat 01-Ju	QC Std #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	QC Std 6	09:01:54 Sat 01-Ju	QC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	QC Std 7	09:07:34 Sat 01-Ju	QC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	QC Std 8	09:13:15 Sat 01-Ju	QC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	MB0529F1 2X	09:22:40 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	SB0529F1 2X	09:28:20 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	05-353-02l 2X	09:34:01 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	05-353-07l 2X	09:39:41 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	05-353-10l 2X	09:45:21 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	05-353-15l 2X	09:51:00 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	05-353-02ID 2X	09:56:42 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	05-353-02IL 10X	10:02:22 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	05-353-02IMS 2X	10:08:04 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	05-353-02IMSD 2X	10:13:44 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	QC Std 6	10:19:25 Sat 01-Ju	QC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	QC Std 7	10:25:06 Sat 01-Ju	QC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	QC Std 8	10:30:46 Sat 01-Ju	QC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	05-410-01b 5X	10:36:37 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	05-311-01c 10X	10:42:17 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	05-311-02c 10X	10:47:57 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	05-311-04d 10X	10:53:37 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	05-311-05d 10X	10:59:17 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	05-442-01d 5X	11:04:58 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	05-442-02d 5X	11:10:37 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	BL	11:16:44 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	QC Std 6	11:34:57 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	QC Std 7	11:46:46 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	
	QC Std 8	11:58:28 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\	

## Performance Check Report

### Sample ID: [STD] Performance Check

Sample Date/Time: Saturday, June 01, 2024 07:48:57

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Optimizations\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\06JUN24\Y240601A\[STD] Performance Check.003

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

### Summary

IS	Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode
	Li	7.0		58356.9		58356.920		1144.654		2.0	Standard
	In	114.9		367644.0		367644.003		2448.152		0.7	Standard
	U	238.1		382365.7		382365.737		3088.839		0.8	Standard
Ce	CeO	155.9		10376.7		0.023		0.000		1.8	Standard
Ce	Ce++	70.0		10531.5		0.024		0.000		1.5	Standard
	Bkgd	220.5		0.2		0.200		0.183		91.3	Standard
	Ce	139.9		446537.2		446537.178		3138.159		0.7	Standard

### Current Conditions File Data

Current Value	Description
-100.00	Standard - OmniRing Park Voltage
4.00	Standard - Hyperskimmer Park Voltage
0.99	Standard - Nebulizer Gas Flow STD/KED [NEB]
1.20	Standard - Auxiliary Gas Flow
15.00	Standard - Plasma Gas Flow
0.00	Standard - Oxygen Gas Flow
-10.00	Standard - QID Fixed Voltage
1600.00	Standard - ICP RF Power
-1675.00	Standard - Analog Stage
1050.00	Standard - Pulse Stage
0.00	Standard - Q1 Rod Offset STD [QRO]
-12.00	Standard - Cell Rod Offset STD [CRO]
-3.00	Standard - Cell Entrance/Exit Voltage STD
0.00	Standard - Axial Field Voltage
5.00	Ammonia DRC - OmniRing Park Voltage
0.99	Ammonia DRC - DRC Mode NEB
2.00	Ammonia DRC - Hyperskimmer Park Voltage
-9.50	Ammonia DRC - DRC Mode QRO
-2.50	Ammonia DRC - DRC Mode CRO
-7.00	Ammonia DRC - DRC Mode Cell Entrance/Exit Voltage
250.00	Ammonia DRC - Axial Field Voltage
0.60	Ammonia DRC - Cell Gas A
2.00	Helium KED - Hyperskimmer Park Voltage
5.00	Helium KED - OmniRing Park Voltage
-12.00	Helium KED - KED Mode QRO
-15.00	Helium KED - KED Mode CRO
-4.00	Helium KED - KED Mode Cell Entrance Voltage
-32.00	Helium KED - KED Mode Cell Exit Voltage
475.00	Helium KED - KED Mode Axial Field Voltage

## Instrument Mass Calibration Report

File Name:

File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\

Acq. Date/Time: 07:48:17 Sat 01-Jun-24

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Peak Width	Custom Res.
Li	7.016	7.025	1223	2062	0.688	
Mg	23.985	24.025	4586	2063	0.706	
In	114.904	114.925	22596	2066	0.716	
Pb	207.977	208.025	41061	2066	0.716	
U	238.050	238.075	47023	2067	0.716	

## Quantitative Analysis Calibration Report

File Name:

File Path:

Calibration Type: External Calibration

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Cr	51.941	Weighted Linear	0.03	-0.00	0.998915
Cr -1	52.941	Weighted Linear	0.00	-0.00	0.999137
Ni	57.935	Weighted Linear	0.03	0.00	0.999283
Ni -1	59.933	Weighted Linear	0.01	-0.00	0.999154
Ni -2	61.928	Weighted Linear	0.00	0.00	0.998259
Cu	62.930	Weighted Linear	0.02	-0.00	0.998923
Cu -1	64.928	Weighted Linear	0.01	-0.00	0.998229
Zn	65.926	Weighted Linear	0.01	0.00	0.999183
Zn -1	66.927	Weighted Linear	0.00	0.00	0.999352
Zn -2	67.925	Weighted Linear	0.00	0.00	0.999238
As	74.922	Weighted Linear	0.01	0.00	0.999706
As-1	74.922	Weighted Linear	0.01	0.00	0.999278
Se	76.920	Weighted Linear	0.00	-0.00	0.999070
Se -1	77.917	Weighted Linear	0.00	-0.00	0.998539
Br	78.918	Weighted Linear	0.00	0.00	0.000000
Se -2	81.917	Weighted Linear	0.00	0.00	0.999396
Kr	82.914	Weighted Linear	0.00	0.00	0.000000
Y	88.905	Weighted Linear	0.00	0.00	0.000000
Rh	102.905	Weighted Linear	0.00	0.00	0.000000
Cd	110.904	Weighted Linear	0.01	0.00	0.999057
Cd -1	113.904	Weighted Linear	0.02	0.00	0.999289
Ho	164.930	Weighted Linear	0.00	0.00	0.000000
Pb	207.977	Weighted Linear	0.07	0.00	0.999145
Bi	208.980	Weighted Linear	0.00	0.00	0.000000
Th	232.038	Weighted Linear	0.00	0.00	0.000000
Cr -2	51.941	Weighted Linear	0.08	0.00	0.998562
Cr -3	52.941	Weighted Linear	0.01	0.00	0.998906
Ni -3	57.935	Weighted Linear	0.09	0.00	0.998667
Ni -4	59.933	Weighted Linear	0.04	-0.00	0.999029
Ni -5	61.928	Weighted Linear	0.01	0.00	0.997233
Cu -2	62.930	Weighted Linear	0.10	-0.01	0.997865
Cu -3	64.928	Weighted Linear	0.05	-0.00	0.998221
Zn -3	65.926	Weighted Linear	0.01	0.00	0.999592
Zn -4	66.927	Weighted Linear	0.00	0.00	0.999345
Zn -5	67.925	Weighted Linear	0.01	0.00	0.999355
As-2	74.922	Weighted Linear	0.01	-0.00	0.997247
Y-1	88.905	Weighted Linear	0.00	0.00	0.000000
Rh-1	102.905	Weighted Linear	0.00	0.00	0.000000
Cd -2	110.904	Weighted Linear	0.01	0.00	0.999175
Cd -3	113.904	Weighted Linear	0.04	0.00	0.998256
Sc	44.956	Linear Thru Zero	0.00	0.00	0.000000
Ge	71.922	Linear Thru Zero	0.00	0.00	0.000000
In	114.904	Linear Thru Zero	0.00	0.00	0.000000
Tb	158.925	Linear Thru Zero	0.00	0.00	0.000000
Ge-1	71.922	Linear Thru Zero	0.00	0.00	0.000000
In-1	114.904	Linear Thru Zero	0.00	0.00	0.000000

## Quantitative Analysis - Summary Report

**Sample ID: Blank**

Sample Date/Time: Saturday, June 01, 2024 08:11:46

Report Date/Time: Saturday, June 01, 2024 08:15:07

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\Blank.358

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	20847.5	1.6				ug/L		Standard
	Cr -1	53	2435.5	3.3				ug/L		Standard
	Ni	58	-7460.9	1.9				ug/L		Standard
	Ni -1	60	208.7	3.9				ug/L		Standard
	Ni -2	62	2413.5	1.0				ug/L		Standard
	Cu	63	3083.0	3.6				ug/L		Standard
	Cu -1	65	471.0	1.7				ug/L		Standard
	Zn	66	741.4	1.8				ug/L		Standard
	Zn -1	67	144.3	6.4				ug/L		Standard
	Zn -2	68	764.0	3.6				ug/L		Standard
	As	75	12792.3	0.7				ug/L		Standard
	As-1	75	-68.2	83.3				ug/L		Standard
	Se	77	102.7	12.2				ug/L		Standard
	Se -1	78	12880.8	1.0				ug/L		Standard
	Br	79	373.3	4.1				ug/L		Standard
	Se -2	82	27.0	25.9				ug/L		Standard
	Kr	83	21.3	5.4				ug/L		Standard
	Y	89	602615.1	1.8				ug/L		Standard
	Rh	103	112596.1	1.7				ug/L		Standard
	Cd	111	208.8	5.3				ug/L		Standard
	Cd -1	114	17.2	9.3				ug/L		Standard
	Ho	165	645072.6	1.5				ug/L		Standard
	Pb	208	648.3	3.1				ug/L		Standard
	Bi	209	378642.7	2.7				ug/L		Standard
	Th	232	482278.1	1.5				ug/L		Standard
	Cr -2	52	241.7	2.4				ug/L		KED
	Cr -3	53	35.0	10.3				ug/L		KED
	Ni -3	58	101.9	15.4				ug/L		KED
	Ni -4	60	46.3	2.5				ug/L		KED
	Ni -5	62	7.3	47.9				ug/L		KED
	Cu -2	63	278.3	7.5				ug/L		KED
	Cu -3	65	116.3	8.1				ug/L		KED
	Zn -3	66	73.7	23.1				ug/L		KED
	Zn -4	67	11.0	39.6				ug/L		KED
	Zn -5	68	47.7	9.9				ug/L		KED
	As-2	75	1.7	124.9				ug/L		KED
	Y-1	89	56057.1	2.2				ug/L		KED
	Rh-1	103	42835.8	1.2				ug/L		KED
	Cd -2	111	4.3	53.3				ug/L		KED
	Cd -3	114	7.0	28.6				ug/L		KED
>	Sc	45	749257.7	2.0				ug/L		Standard
>	Ge	72	446706.6	1.5				ug/L		Standard
>	In	115	446509.1	1.8				ug/L		Standard
>	Tb	159	663613.5	1.6				ug/L		Standard
>	Ge-1	72	26773.7	2.3				ug/L		KED
>	In-1	115	40879.4	0.4				ug/L		KED

### QC Calculated Values

Sample ID: Blank

Report Date/Time: Saturday, June 01, 2024 08:15:07

Page 1

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 1**

Sample Date/Time: Saturday, June 01, 2024 08:16:37

Report Date/Time: Saturday, June 01, 2024 08:19:57

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\Standard 1.359

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	25320.1	1.6				ug/L	20848	Standard
	Cr -1	53	3025.3	1.0				ug/L	2436	Standard
	Ni	58	-5131.8	4.8				ug/L	-7461	Standard
	Ni -1	60	1134.0	3.9				ug/L	209	Standard
	Ni -2	62	2653.6	4.8				ug/L	2414	Standard
	Cu	63	4772.8	1.9				ug/L	3083	Standard
	Cu -1	65	1177.7	2.3				ug/L	471	Standard
	Zn	66	793.0	2.3				ug/L	741	Standard
	Zn -1	67	161.0	16.5				ug/L	144	Standard
	Zn -2	68	813.4	2.1				ug/L	764	Standard
	As	75	12936.2	2.1				ug/L	12792	Standard
	As-1	75	447.4	14.3				ug/L	-68	Standard
	Se	77	121.0	15.8				ug/L	103	Standard
	Se -1	78	12625.6	1.5				ug/L	12881	Standard
	Br	79	379.7	5.0				ug/L	373	Standard
	Se -2	82	72.3	13.1				ug/L	27	Standard
	Kr	83	23.0	30.4				ug/L	21	Standard
	Y	89	561809.8	1.2				ug/L	602615	Standard
	Rh	103	107005.5	2.8				ug/L	112596	Standard
	Cd	111	903.3	2.5				ug/L	209	Standard
	Cd -1	114	1772.3	1.0				ug/L	17	Standard
	Ho	165	638082.1	0.8				ug/L	645073	Standard
	Pb	208	10786.9	1.5				ug/L	648	Standard
	Bi	209	382768.5	0.2				ug/L	378643	Standard
	Th	232	483967.8	1.2				ug/L	482278	Standard
	Cr -2	52	699.7	3.5				ug/L	242	KED
	Cr -3	53	90.3	9.4				ug/L	35	KED
	Ni -3	58	599.7	9.2				ug/L	102	KED
	Ni -4	60	251.7	10.7				ug/L	46	KED
	Ni -5	62	33.3	11.4				ug/L	7	KED
	Cu -2	63	656.7	3.0				ug/L	278	KED
	Cu -3	65	307.7	3.7				ug/L	116	KED
	Zn -3	66	84.7	7.9				ug/L	74	KED
	Zn -4	67	17.0	15.6				ug/L	11	KED
	Zn -5	68	68.3	10.0				ug/L	48	KED
	As-2	75	41.7	13.2				ug/L	2	KED
	Y-1	89	55549.5	1.0				ug/L	56057	KED
	Rh-1	103	42302.5	1.1				ug/L	42836	KED
	Cd -2	111	142.0	12.2				ug/L	4	KED
	Cd -3	114	405.7	2.6				ug/L	7	KED
>	Sc	45	746772.7	1.8				ug/L	749258	Standard
>	Ge	72	435903.9	2.2				ug/L	446707	Standard
>	In	115	434988.9	1.0				ug/L	446509	Standard
>	Tb	159	655454.7	0.7				ug/L	663614	Standard
>	Ge-1	72	26691.6	1.4				ug/L	26774	KED
>	In-1	115	40531.7	0.8				ug/L	40879	KED

**QC Calculated Values**

Sample ID: Standard 1

Report Date/Time: Saturday, June 01, 2024 08:19:57

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 2**

Sample Date/Time: Saturday, June 01, 2024 08:21:27

Report Date/Time: Saturday, June 01, 2024 08:24:48

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\Standard 2.360

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	31272.2	1.4				ug/L	20848	Standard
	Cr -1	53	3598.1	2.8				ug/L	2436	Standard
	Ni	58	-1655.0	10.0				ug/L	-7461	Standard
	Ni -1	60	2391.9	3.1				ug/L	209	Standard
	Ni -2	62	2778.6	1.0				ug/L	2414	Standard
	Cu	63	7693.1	1.4				ug/L	3083	Standard
	Cu -1	65	2528.9	2.2				ug/L	471	Standard
	Zn	66	1544.4	3.1				ug/L	741	Standard
	Zn -1	67	282.3	6.3				ug/L	144	Standard
	Zn -2	68	1390.7	0.6				ug/L	764	Standard
	As	75	13722.1	0.5				ug/L	12792	Standard
	As-1	75	1126.0	1.4	<b>0.5000</b>	0.013	2.5	ug/L	-68	Standard
	Se	77	169.0	11.8				ug/L	103	Standard
	Se -1	78	12873.8	0.3				ug/L	12881	Standard
	Br	79	379.0	1.7				ug/L	373	Standard
	Se -2	82	128.0	5.5				ug/L	27	Standard
	Kr	83	29.7	22.4				ug/L	21	Standard
	Y	89	575495.6	2.5				ug/L	602615	Standard
	Rh	103	108210.2	3.2				ug/L	112596	Standard
	Cd	111	1749.8	1.7	<b>0.5000</b>	0.001	0.2	ug/L	209	Standard
	Cd -1	114	3933.8	2.6	<b>0.5000</b>	0.007	1.4	ug/L	17	Standard
	Ho	165	646700.3	1.8				ug/L	645073	Standard
	Pb	208	23413.8	2.5	<b>0.5000</b>	0.013	2.6	ug/L	648	Standard
	Bi	209	384289.5	0.4				ug/L	378643	Standard
	Th	232	493439.9	0.8				ug/L	482278	Standard
	Cr -2	52	1306.1	2.1				ug/L	242	KED
	Cr -3	53	172.3	2.4				ug/L	35	KED
	Ni -3	58	1316.0	3.3				ug/L	102	KED
	Ni -4	60	563.0	4.3				ug/L	46	KED
	Ni -5	62	88.3	18.4				ug/L	7	KED
	Cu -2	63	1429.7	2.6				ug/L	278	KED
	Cu -3	65	683.0	0.1				ug/L	116	KED
	Zn -3	66	154.7	13.6				ug/L	74	KED
	Zn -4	67	25.3	6.0				ug/L	11	KED
	Zn -5	68	127.0	2.1				ug/L	48	KED
	As-2	75	86.3	0.7				ug/L	2	KED
	Y-1	89	56909.5	0.7				ug/L	56057	KED
	Rh-1	103	43463.0	2.0				ug/L	42836	KED
	Cd -2	111	307.7	5.9	<b>0.5000</b>	0.031	6.1	ug/L	4	KED
	Cd -3	114	789.0	4.4	<b>0.5000</b>	0.025	4.9	ug/L	7	KED
>	Sc	45	754765.6	0.5				ug/L	749258	Standard
>	Ge	72	439159.0	1.3				ug/L	446707	Standard
>	In	115	443778.3	1.8				ug/L	446509	Standard
>	Tb	159	663045.2	0.7				ug/L	663614	Standard
>	Ge-1	72	27274.7	0.3				ug/L	26774	KED
>	In-1	115	41173.0	0.5				ug/L	40879	KED

## QC Calculated Values

Sample ID: Standard 2

Report Date/Time: Saturday, June 01, 2024 08:24:48

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 3**

Sample Date/Time: Saturday, June 01, 2024 08:26:18

Report Date/Time: Saturday, June 01, 2024 08:29:39

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\Standard 3.361

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	69108.1	1.2	2.0000	0.017	0.9	ug/L	20848	Standard
	Cr -1	53	7812.5	0.9	2.0000	0.041	2.1	ug/L	2436	Standard
	Ni	58	17523.0	2.5				ug/L	-7461	Standard
	Ni -1	60	9969.5	1.1	2.0000	0.020	1.0	ug/L	209	Standard
	Ni -2	62	3951.9	0.8	2.0000	0.072	3.6	ug/L	2414	Standard
	Cu	63	24824.9	1.4	2.0000	0.014	0.7	ug/L	3083	Standard
	Cu -1	65	10658.3	2.4	2.0000	0.033	1.6	ug/L	471	Standard
	Zn	66	5873.5	2.2				ug/L	741	Standard
	Zn -1	67	1017.4	2.2				ug/L	144	Standard
	Zn -2	68	4366.7	1.5				ug/L	764	Standard
	As	75	17128.1	2.2	2.0000	0.106	5.3	ug/L	12792	Standard
	As-1	75	4912.0	2.6	2.0533	0.042	2.1	ug/L	-68	Standard
	Se	77	399.0	4.3	2.0000	0.105	5.3	ug/L	103	Standard
	Se -1	78	13317.9	1.9				ug/L	12881	Standard
	Br	79	367.0	5.6				ug/L	373	Standard
	Se -2	82	452.0	9.6	2.0000	0.203	10.1	ug/L	27	Standard
	Kr	83	28.7	14.5				ug/L	21	Standard
	Y	89	570470.5	1.6				ug/L	602615	Standard
	Rh	103	109770.2	1.5				ug/L	112596	Standard
	Cd	111	6816.0	1.7	2.0826	0.028	1.4	ug/L	209	Standard
	Cd -1	114	16744.2	1.4	2.0766	0.012	0.6	ug/L	17	Standard
	Ho	165	652422.7	1.2				ug/L	645073	Standard
	Pb	208	100848.0	0.7	2.0871	0.027	1.3	ug/L	648	Standard
	Bi	209	386196.4	0.7				ug/L	378643	Standard
	Th	232	499864.3	0.9				ug/L	482278	Standard
	Cr -2	52	4815.8	0.6	2.0000	0.019	0.9	ug/L	242	KED
	Cr -3	53	602.0	1.9	2.0000	0.047	2.3	ug/L	35	KED
	Ni -3	58	5499.3	0.8	2.0000	0.011	0.6	ug/L	102	KED
	Ni -4	60	2315.5	2.0	2.0000	0.044	2.2	ug/L	46	KED
	Ni -5	62	373.7	5.0	2.0000	0.098	4.9	ug/L	7	KED
	Cu -2	63	6120.3	1.0	2.0000	0.024	1.2	ug/L	278	KED
	Cu -3	65	2843.6	1.9	2.0000	0.034	1.7	ug/L	116	KED
	Zn -3	66	651.3	5.0				ug/L	74	KED
	Zn -4	67	103.0	4.9				ug/L	11	KED
	Zn -5	68	488.0	5.1				ug/L	48	KED
	As-2	75	440.3	5.0	2.0000	0.099	5.0	ug/L	2	KED
	Y-1	89	57993.5	1.2				ug/L	56057	KED
	Rh-1	103	44208.6	0.9				ug/L	42836	KED
	Cd -2	111	1307.7	5.4	2.0709	0.121	5.8	ug/L	4	KED
	Cd -3	114	3506.1	2.0	2.1366	0.037	1.7	ug/L	7	KED
>	Sc	45	760215.7	0.6				ug/L	749258	Standard
>	Ge	72	434726.7	0.7				ug/L	446707	Standard
>	In	115	445146.0	0.9				ug/L	446509	Standard
>	Tb	159	665909.7	0.5				ug/L	663614	Standard
>	Ge-1	72	27455.7	0.3				ug/L	26774	KED
>	In-1	115	42234.3	0.3				ug/L	40879	KED

**QC Calculated Values**

Sample ID: Standard 3

Report Date/Time: Saturday, June 01, 2024 08:29:39

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: Standard 4**

Sample Date/Time: Saturday, June 01, 2024 08:31:09

Report Date/Time: Saturday, June 01, 2024 08:34:29

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\Standard 4.362

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	127406.4	1.5	<b>4.7414</b>	0.050	1.1	ug/L	20848	Standard
	Cr -1	53	14276.8	3.8	<b>4.7358</b>	0.111	2.3	ug/L	2436	Standard
	Ni	58	47215.3	2.7	<b>5.0000</b>	0.081	1.6	ug/L	-7461	Standard
	Ni -1	60	22089.1	1.5	<b>4.7813</b>	0.039	0.8	ug/L	209	Standard
	Ni -2	62	5781.5	3.3	<b>4.7622</b>	0.124	2.6	ug/L	2414	Standard
	Cu	63	51826.5	2.4	<b>4.7654</b>	0.070	1.5	ug/L	3083	Standard
	Cu -1	65	22757.4	1.5	<b>4.7007</b>	0.037	0.8	ug/L	471	Standard
	Zn	66	12087.4	3.2	<b>5.0000</b>	0.122	2.4	ug/L	741	Standard
	Zn -1	67	2083.5	3.0	<b>5.0000</b>	0.076	1.5	ug/L	144	Standard
	Zn -2	68	8781.7	1.1	<b>5.0000</b>	0.143	2.9	ug/L	764	Standard
	As	75	22811.8	1.4	<b>4.8458</b>	0.030	0.6	ug/L	12792	Standard
	As-1	75	10757.2	1.1	<b>4.7626</b>	0.032	0.7	ug/L	-68	Standard
	Se	77	749.4	3.2	<b>4.7289</b>	0.181	3.8	ug/L	103	Standard
	Se -1	78	14523.0	1.3	<b>5.0000</b>	0.127	2.5	ug/L	12881	Standard
	Br	79	349.7	6.4				ug/L	373	Standard
	Se -2	82	990.0	1.0	<b>4.8250</b>	0.133	2.8	ug/L	27	Standard
	Kr	83	26.0	23.1				ug/L	21	Standard
	Y	89	558010.5	1.8				ug/L	602615	Standard
	Rh	103	105003.0	2.5				ug/L	112596	Standard
	Cd	111	14556.9	1.5	<b>4.8232</b>	0.104	2.2	ug/L	209	Standard
	Cd -1	114	37244.4	1.2	<b>4.8795</b>	0.089	1.8	ug/L	17	Standard
	Ho	165	615946.7	1.5				ug/L	645073	Standard
	Pb	208	218735.6	0.9	<b>4.8659</b>	0.070	1.4	ug/L	648	Standard
	Bi	209	374341.6	0.4				ug/L	378643	Standard
	Th	232	478269.6	1.9				ug/L	482278	Standard
	Cr -2	52	10372.4	2.3	<b>4.7603</b>	0.096	2.0	ug/L	242	KED
	Cr -3	53	1301.1	3.5	<b>4.7919</b>	0.168	3.5	ug/L	35	KED
	Ni -3	58	12273.4	0.3	<b>4.7852</b>	0.031	0.6	ug/L	102	KED
	Ni -4	60	5186.6	2.0	<b>4.7985</b>	0.079	1.7	ug/L	46	KED
	Ni -5	62	771.7	4.0	<b>4.6182</b>	0.191	4.1	ug/L	7	KED
	Cu -2	63	13185.1	0.9	<b>4.7029</b>	0.050	1.1	ug/L	278	KED
	Cu -3	65	6171.7	1.9	<b>4.7285</b>	0.106	2.2	ug/L	116	KED
	Zn -3	66	1363.4	1.0	<b>5.0000</b>	0.064	1.3	ug/L	74	KED
	Zn -4	67	232.0	0.4	<b>5.0000</b>	0.004	0.1	ug/L	11	KED
	Zn -5	68	1022.7	4.6	<b>5.0000</b>	0.249	5.0	ug/L	48	KED
	As-2	75	927.7	2.1	<b>4.6023</b>	0.094	2.0	ug/L	2	KED
	Y-1	89	56777.6	0.8				ug/L	56057	KED
	Rh-1	103	42948.5	0.3				ug/L	42836	KED
	Cd -2	111	2853.3	2.6	<b>4.8059</b>	0.066	1.4	ug/L	4	KED
	Cd -3	114	7754.1	0.8	<b>4.9442</b>	0.054	1.1	ug/L	7	KED
>	Sc	45	747905.8	2.4				ug/L	749258	Standard
>	Ge	72	424692.1	1.7				ug/L	446707	Standard
>	In	115	432682.5	1.0				ug/L	446509	Standard
>	Tb	159	637667.3	0.6				ug/L	663614	Standard
>	Ge-1	72	27034.2	0.4				ug/L	26774	KED
>	In-1	115	41360.5	1.5				ug/L	40879	KED

### QC Calculated Values

Sample ID: Standard 4

Report Date/Time: Saturday, June 01, 2024 08:34:29

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

## Quantitative Analysis - Summary Report

**Sample ID: Standard 5**

Sample Date/Time: Saturday, June 01, 2024 08:36:00

Report Date/Time: Saturday, June 01, 2024 08:39:20

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\Standard 5.363

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	490730.0	1.4	<b>19.7168</b>	0.306	1.6	ug/L	20848	Standard
	Cr -1	53	55593.3	2.4	<b>19.9126</b>	0.106	0.5	ug/L	2436	Standard
	Ni	58	231171.3	2.6	<b>20.5230</b>	0.365	1.8	ug/L	-7461	Standard
	Ni -1	60	96024.8	2.8	<b>19.7493</b>	0.223	1.1	ug/L	209	Standard
	Ni -2	62	16841.3	1.0	<b>19.1950</b>	0.515	2.7	ug/L	2414	Standard
	Cu	63	216161.1	3.0	<b>19.6152</b>	0.396	2.0	ug/L	3083	Standard
	Cu -1	65	98652.2	2.3	<b>19.5343</b>	0.234	1.2	ug/L	471	Standard
	Zn	66	52463.2	1.3	<b>20.6769</b>	0.387	1.9	ug/L	741	Standard
	Zn -1	67	8908.8	2.1	<b>20.6127</b>	0.207	1.0	ug/L	144	Standard
	Zn -2	68	37366.2	2.6	<b>20.6515</b>	0.316	1.5	ug/L	764	Standard
	As	75	59587.8	3.9	<b>19.9976</b>	0.287	1.4	ug/L	12792	Standard
	As-1	75	48158.5	3.6	<b>20.0193</b>	0.243	1.2	ug/L	-68	Standard
	Se	77	3107.0	2.3	<b>20.2524</b>	0.351	1.7	ug/L	103	Standard
	Se -1	78	21872.1	3.4	<b>19.0208</b>	0.204	1.1	ug/L	12881	Standard
	Br	79	444.3	8.2				ug/L	373	Standard
	Se -2	82	4129.9	1.8	<b>19.5824</b>	0.332	1.7	ug/L	27	Standard
	Kr	83	27.3	4.2				ug/L	21	Standard
	Y	89	600195.6	2.5				ug/L	602615	Standard
	Rh	103	111786.7	1.6				ug/L	112596	Standard
	Cd	111	62664.1	1.1	<b>19.7250</b>	0.107	0.5	ug/L	209	Standard
	Cd -1	114	160912.1	1.6	<b>19.7799</b>	0.101	0.5	ug/L	17	Standard
	Ho	165	668851.5	0.6				ug/L	645073	Standard
	Pb	208	958502.2	0.9	<b>19.8870</b>	0.167	0.8	ug/L	648	Standard
	Bi	209	398640.9	1.4				ug/L	378643	Standard
	Th	232	518846.7	0.2				ug/L	482278	Standard
	Cr -2	52	43773.3	1.3	<b>19.5283</b>	0.360	1.8	ug/L	242	KED
	Cr -3	53	5436.7	2.0	<b>19.5613</b>	0.634	3.2	ug/L	35	KED
	Ni -3	58	52483.2	2.4	<b>19.5653</b>	0.720	3.7	ug/L	102	KED
	Ni -4	60	22410.2	1.4	<b>19.7323</b>	0.531	2.7	ug/L	46	KED
	Ni -5	62	3342.4	1.2	<b>19.3407</b>	0.258	1.3	ug/L	7	KED
	Cu -2	63	57083.8	1.5	<b>19.5039</b>	0.478	2.4	ug/L	278	KED
	Cu -3	65	26528.3	0.8	<b>19.5087</b>	0.356	1.8	ug/L	116	KED
	Zn -3	66	5790.2	3.6	<b>20.5121</b>	1.021	5.0	ug/L	74	KED
	Zn -4	67	1004.4	6.2	<b>20.3659</b>	1.508	7.4	ug/L	11	KED
	Zn -5	68	4412.0	1.1	<b>20.5932</b>	0.322	1.6	ug/L	48	KED
	As-2	75	4119.3	2.2	<b>19.3782</b>	0.338	1.7	ug/L	2	KED
	Y-1	89	61457.3	2.1				ug/L	56057	KED
	Rh-1	103	46153.4	0.4				ug/L	42836	KED
	Cd -2	111	12532.5	1.3	<b>19.7696</b>	0.276	1.4	ug/L	4	KED
	Cd -3	114	34209.2	0.9	<b>20.2373</b>	0.176	0.9	ug/L	7	KED
>	Sc	45	792951.7	2.8				ug/L	749258	Standard
>	Ge	72	451428.1	3.0				ug/L	446707	Standard
>	In	115	465718.8	1.6				ug/L	446509	Standard
>	Tb	159	688942.7	1.2				ug/L	663614	Standard
>	Ge-1	72	28790.3	1.3				ug/L	26774	KED
>	In-1	115	44726.5	0.6				ug/L	40879	KED

### QC Calculated Values

Sample ID: Standard 5

Report Date/Time: Saturday, June 01, 2024 08:39:20

Page 1

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 6**

Sample Date/Time: Saturday, June 01, 2024 08:40:51

Report Date/Time: Saturday, June 01, 2024 08:44:12

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\Standard 6.364

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	916815.9	0.6	40.0784	0.278	0.7	ug/L	20848	Standard
	Cr -1	53	104721.8	1.0	40.6158	0.281	0.7	ug/L	2436	Standard
	Ni	58	463673.3	1.4	41.2896	0.180	0.4	ug/L	-7461	Standard
	Ni -1	60	184065.6	1.0	39.6255	0.228	0.6	ug/L	209	Standard
	Ni -2	62	29791.4	2.4	38.7078	0.472	1.2	ug/L	2414	Standard
	Cu	63	410657.5	1.4	39.3402	0.189	0.5	ug/L	3083	Standard
	Cu -1	65	187546.5	1.0	39.1004	0.214	0.5	ug/L	471	Standard
	Zn	66	100117.0	2.2	40.8224	0.267	0.7	ug/L	741	Standard
	Zn -1	67	16700.1	1.2	40.3894	0.159	0.4	ug/L	144	Standard
	Zn -2	68	70911.6	2.0	40.7397	0.222	0.5	ug/L	764	Standard
	As	75	102992.5	0.6	40.3381	0.434	1.1	ug/L	12792	Standard
	As-1	75	92137.7	0.1	39.9406	0.608	1.5	ug/L	-68	Standard
	Se	77	5812.2	2.2	40.0795	0.291	0.7	ug/L	103	Standard
	Se -1	78	30656.2	1.8	40.2305	0.701	1.7	ug/L	12881	Standard
	Br	79	449.3	8.2				ug/L	373	Standard
	Se -2	82	7815.1	0.9	39.1186	0.946	2.4	ug/L	27	Standard
	Kr	83	24.0	29.2				ug/L	21	Standard
	Y	89	576263.3	1.6				ug/L	602615	Standard
	Rh	103	108616.9	2.6				ug/L	112596	Standard
	Cd	111	122601.6	2.2	40.2075	0.159	0.4	ug/L	209	Standard
	Cd -1	114	313831.8	0.9	40.1471	0.557	1.4	ug/L	17	Standard
	Ho	165	640495.8	2.3				ug/L	645073	Standard
	Pb	208	1848089.5	1.3	40.2625	0.374	0.9	ug/L	648	Standard
	Bi	209	382247.5	0.2				ug/L	378643	Standard
	Th	232	492567.6	0.8				ug/L	482278	Standard
	Cr -2	52	83131.5	0.4	38.9539	0.325	0.8	ug/L	242	KED
	Cr -3	53	10512.9	0.7	39.5252	0.658	1.7	ug/L	35	KED
	Ni -3	58	99077.0	1.2	38.7636	0.124	0.3	ug/L	102	KED
	Ni -4	60	42808.4	1.1	39.3290	0.163	0.4	ug/L	46	KED
	Ni -5	62	6393.4	0.9	38.8361	0.344	0.9	ug/L	7	KED
	Cu -2	63	108322.8	1.3	38.8235	0.076	0.2	ug/L	278	KED
	Cu -3	65	50592.8	1.1	38.9792	0.030	0.1	ug/L	116	KED
	Zn -3	66	10909.2	0.3	40.2313	0.343	0.9	ug/L	74	KED
	Zn -4	67	1851.8	4.0	39.4552	1.248	3.2	ug/L	11	KED
	Zn -5	68	8429.8	2.2	40.6133	0.568	1.4	ug/L	48	KED
	As -2	75	7968.2	0.5	39.1196	0.261	0.7	ug/L	2	KED
	Y-1	89	58724.8	1.1				ug/L	56057	KED
	Rh-1	103	43900.4	1.5				ug/L	42836	KED
	Cd -2	111	24568.1	1.2	40.6568	0.516	1.3	ug/L	4	KED
	Cd -3	114	65447.6	1.1	40.6350	0.473	1.2	ug/L	7	KED
>	Sc	45	744257.1	0.4				ug/L	749258	Standard
>	Ge	72	433127.2	1.5				ug/L	446707	Standard
>	In	115	447392.0	2.1				ug/L	446509	Standard
>	Tb	159	655195.2	0.9				ug/L	663614	Standard
>	Ge-1	72	27806.7	1.1				ug/L	26774	KED
>	In-1	115	42450.9	0.1				ug/L	40879	KED

## QC Calculated Values

Sample ID: Standard 6

Report Date/Time: Saturday, June 01, 2024 08:44:12

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

## Quantitative Analysis - Summary Report

Sample ID: Standard 7

Sample Date/Time: Saturday, June 01, 2024 08:45:42

Report Date/Time: Saturday, June 01, 2024 08:49:03

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\Standard 7.365

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	2143662.4	0.3	104.0806	0.851	0.8	ug/L	20848	Standard
	Cr -1	53	230031.3	0.8	100.2435	0.542	0.5	ug/L	2436	Standard
	Ni	58	1031088.2	2.0	99.8358	2.432	2.4	ug/L	-7461	Standard
	Ni -1	60	404546.7	2.3	96.3788	2.371	2.5	ug/L	209	Standard
	Ni -2	62	62384.0	2.9	94.6094	2.493	2.6	ug/L	2414	Standard
	Cu	63	900692.4	2.0	95.9541	3.275	3.4	ug/L	3083	Standard
	Cu -1	65	409090.0	3.1	94.8383	2.444	2.6	ug/L	471	Standard
	Zn	66	220603.3	3.1	99.2813	2.142	2.2	ug/L	741	Standard
	Zn -1	67	36762.3	3.7	98.5579	1.066	1.1	ug/L	144	Standard
	Zn -2	68	155588.5	3.8	98.9614	1.349	1.4	ug/L	764	Standard
	As	75	215737.5	3.1	99.6709	1.542	1.5	ug/L	12792	Standard
	As-1	75	207356.7	3.0	98.6469	1.613	1.6	ug/L	-68	Standard
	Se	77	13454.3	3.7	101.9148	1.021	1.0	ug/L	103	Standard
	Se -1	78	53605.4	2.9	101.2358	2.274	2.2	ug/L	12881	Standard
	Br	79	446.0	9.3				ug/L	373	Standard
	Se -2	82	17824.8	2.8	98.3221	2.647	2.7	ug/L	27	Standard
	Kr	83	30.3	16.9				ug/L	21	Standard
	Y	89	535593.3	2.7				ug/L	602615	Standard
	Rh	103	100459.1	2.0				ug/L	112596	Standard
	Cd	111	274635.6	2.6	98.7182	0.275	0.3	ug/L	209	Standard
	Cd -1	114	702898.9	2.5	98.4900	0.608	0.6	ug/L	17	Standard
	Ho	165	589047.4	1.5				ug/L	645073	Standard
	Pb	208	4264241.7	1.1	100.7855	2.372	2.4	ug/L	648	Standard
	Bi	209	349463.4	2.7				ug/L	378643	Standard
	Th	232	442545.5	1.8				ug/L	482278	Standard
	Cr -2	52	181150.4	1.2	94.5949	1.694	1.8	ug/L	242	KED
	Cr -3	53	22641.9	0.5	94.8338	0.986	1.0	ug/L	35	KED
	Ni -3	58	217111.5	0.5	94.5382	0.705	0.7	ug/L	102	KED
	Ni -4	60	93195.0	0.8	95.1196	0.493	0.5	ug/L	46	KED
	Ni -5	62	13972.5	1.2	94.5008	0.776	0.8	ug/L	7	KED
	Cu -2	63	233095.6	0.3	93.3209	0.768	0.8	ug/L	278	KED
	Cu -3	65	109303.9	0.7	93.9161	0.430	0.5	ug/L	116	KED
	Zn -3	66	24493.3	2.2	99.6127	1.126	1.1	ug/L	74	KED
	Zn -4	67	4035.6	1.9	96.1461	0.990	1.0	ug/L	11	KED
	Zn -5	68	18497.3	0.8	98.6521	0.339	0.3	ug/L	48	KED
	As-2	75	17406.3	1.9	94.8692	0.864	0.9	ug/L	2	KED
	Y-1	89	53728.2	1.8				ug/L	56057	KED
	Rh-1	103	39590.5	1.4				ug/L	42836	KED
	Cd -2	111	53921.9	0.9	99.1840	0.243	0.2	ug/L	4	KED
	Cd -3	114	143443.2	0.4	99.0486	0.624	0.6	ug/L	7	KED
>	Sc	45	670665.6	0.8				ug/L	749258	Standard
>	Ge	72	396076.4	4.4				ug/L	446707	Standard
>	In	115	410119.0	2.3				ug/L	446509	Standard
>	Tb	159	603274.7	2.9				ug/L	663614	Standard
>	Ge-1	72	25418.9	1.1				ug/L	26774	KED
>	In-1	115	38294.7	0.8				ug/L	40879	KED

### QC Calculated Values

Sample ID: Standard 7

Report Date/Time: Saturday, June 01, 2024 08:49:03

Page 1

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		
>	Ge	72		
>	In	115		
>	Tb	159		
>	Ge-1	72		
>	In-1	115		

## Quantitative Analysis - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Saturday, June 01, 2024 08:51:23

Report Date/Time: Saturday, June 01, 2024 08:54:43

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\QC Std 1.366

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	1088844.3	1.8	50.4415	0.597	1.2	ug/L	20848	Standard
	Cr -1	53	123401.1	2.0	51.3187	0.477	0.9	ug/L	2436	Standard
	Ni	58	538937.1	1.8	49.9711	0.587	1.2	ug/L	-7461	Standard
	Ni -1	60	215458.1	2.8	48.8951	0.940	1.9	ug/L	209	Standard
	Ni -2	62	35058.0	2.7	49.0581	0.956	1.9	ug/L	2414	Standard
	Cu	63	479566.0	2.8	48.5420	0.949	2.0	ug/L	3083	Standard
	Cu -1	65	218012.8	4.1	48.1356	1.554	3.2	ug/L	471	Standard
	Zn	66	118770.9	2.4	50.7540	0.784	1.5	ug/L	741	Standard
	Zn -1	67	19851.5	2.8	50.5023	0.996	2.0	ug/L	144	Standard
	Zn -2	68	84529.5	2.7	51.0032	0.937	1.8	ug/L	764	Standard
	As	75	122538.4	2.2	51.4156	0.823	1.6	ug/L	12792	Standard
	As-1	75	112528.2	2.2	51.0228	0.741	1.5	ug/L	-68	Standard
	Se	77	7248.2	2.5	52.0131	1.111	2.1	ug/L	103	Standard
	Se -1	78	34769.6	2.6	52.2381	1.440	2.8	ug/L	12881	Standard
	Br	79	456.0	6.3				ug/L	373	Standard
	Se -2	82	9766.7	2.7	51.2642	1.196	2.3	ug/L	27	Standard
	Kr	83	33.0	21.9				ug/L	21	Standard
	Y	89	550923.4	2.6				ug/L	602615	Standard
	Rh	103	103281.8	2.3				ug/L	112596	Standard
	Cd	111	148584.3	2.7	51.3000	0.505	1.0	ug/L	209	Standard
	Cd -1	114	377181.8	2.7	50.7977	0.537	1.1	ug/L	17	Standard
	Ho	165	610507.7	1.3				ug/L	645073	Standard
	Pb	208	2194712.9	1.3	49.8960	0.612	1.2	ug/L	648	Standard
	Bi	209	361037.6	1.1				ug/L	378643	Standard
	Th	232	469911.7	1.0				ug/L	482278	Standard
	Cr -2	52	96977.4	1.0	48.9505	0.630	1.3	ug/L	242	KED
	Cr -3	53	12249.2	0.4	49.5778	0.214	0.4	ug/L	35	KED
	Ni -3	58	115384.2	1.2	48.6142	0.399	0.8	ug/L	102	KED
	Ni -4	60	50039.8	1.3	49.4199	0.428	0.9	ug/L	46	KED
	Ni -5	62	7481.6	1.5	48.9492	0.481	1.0	ug/L	7	KED
	Cu -2	63	124858.7	1.3	48.3661	0.395	0.8	ug/L	278	KED
	Cu -3	65	58175.2	1.9	48.3577	0.687	1.4	ug/L	116	KED
	Zn -3	66	13033.6	2.2	51.1050	0.848	1.7	ug/L	74	KED
	Zn -4	67	2182.8	1.5	50.2150	0.515	1.0	ug/L	11	KED
	Zn -5	68	9899.1	1.5	50.9230	0.754	1.5	ug/L	48	KED
	As-2	75	9305.7	0.5	49.1275	0.479	1.0	ug/L	2	KED
	Y-1	89	55540.8	0.9				ug/L	56057	KED
	Rh-1	103	41275.2	0.4				ug/L	42836	KED
	Cd -2	111	29396.2	0.4	50.7732	0.601	1.2	ug/L	4	KED
	Cd -3	114	77871.7	0.4	50.4813	0.377	0.7	ug/L	7	KED
>	Sc	45	696752.2	1.0				ug/L	749258	Standard
>	Ge	72	415390.0	0.9				ug/L	446707	Standard
>	In	115	426528.4	1.7				ug/L	446509	Standard
>	Tb	159	626777.4	1.9				ug/L	663614	Standard
>	Ge-1	72	26256.8	0.5				ug/L	26774	KED
>	In-1	115	40767.7	0.9				ug/L	40879	KED

### QC Calculated Values

Sample ID: QC Std 1

Report Date/Time: Saturday, June 01, 2024 08:54:43

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52	100.883	
	Cr -1	53	102.637	
	Ni	58	99.942	
	Ni -1	60	97.790	
	Ni -2	62	98.116	
	Cu	63	97.084	
	Cu -1	65	96.271	
	Zn	66	101.508	
	Zn -1	67	101.005	
	Zn -2	68	102.006	
	As	75	102.831	
	As-1	75	102.046	
	Se	77	104.026	
	Se -1	78	104.476	
	Br	79		
	Se -2	82	102.528	
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111	102.600	
	Cd -1	114	101.595	
	Ho	165		
	Pb	208	99.792	
	Bi	209		
	Th	232		
	Cr -2	52	97.901	
	Cr -3	53	99.156	
	Ni -3	58	97.228	
	Ni -4	60	98.840	
	Ni -5	62	97.898	
	Cu -2	63	96.732	
	Cu -3	65	96.715	
	Zn -3	66	102.210	
	Zn -4	67	100.430	
	Zn -5	68	101.846	
	As-2	75	98.255	
	Y-1	89		
	Rh-1	103		
	Cd -2	111	101.546	
	Cd -3	114	100.963	
>	Sc	45		92.992
>	Ge	72		92.989
>	In	115		95.525
>	Tb	159		94.449
>	Ge-1	72		98.069
>	In-1	115		99.727

# Quantitative Analysis - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Saturday, June 01, 2024 08:57:03

Report Date/Time: Saturday, June 01, 2024 09:00:23

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\QC Std 2.367

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Cr	52	17678.6	0.4	-0.0375	0.020	52.5	ug/L	20848		Standard
	Cr -1	53	1594.4	2.4	-0.2401	0.029	12.2	ug/L	2436		Standard
	Ni	58	-5813.7	1.1	-0.0304	0.021	69.0	ug/L	-7461		Standard
	Ni -1	60	210.7	7.4	0.0264	0.004	16.7	ug/L	209		Standard
	Ni -2	62	3825.5	0.9	2.2553	0.110	4.9	ug/L	2414		Standard
	Cu	63	4245.0	2.6	0.1806	0.020	11.3	ug/L	3083		Standard
	Cu -1	65	460.7	1.7	0.0608	0.002	3.6	ug/L	471		Standard
	Zn	66	722.7	1.8	-0.0668	0.004	5.8	ug/L	741		Standard
	Zn -1	67	128.7	8.3	-0.1367	0.026	19.0	ug/L	144		Standard
	Zn -2	68	749.4	3.3	-0.0514	0.006	11.1	ug/L	764		Standard
	As	75	12154.8	1.9	0.0883	0.112	127.3	ug/L	12792		Standard
	As-1	75	-5.7	1371.9	0.0048	0.035	734.5	ug/L	-68		Standard
	Se	77	81.3	14.3	-0.0766	0.082	107.1	ug/L	103		Standard
	Se -1	78	12202.9	1.4	0.6444	0.488	75.7	ug/L	12881		Standard
	Br	79	434.7	2.2				ug/L	373		Standard
	Se -2	82	34.7	1.7	0.0370	0.007	18.1	ug/L	27		Standard
	Kr	83	29.3	7.9				ug/L	21		Standard
	Y	89	560494.3	3.2				ug/L	602615		Standard
	Rh	103	103850.5	1.5				ug/L	112596		Standard
	Cd	111	223.8	8.4	-0.0265	0.007	24.5	ug/L	209		Standard
	Cd -1	114	57.6	14.7	-0.0240	0.001	4.7	ug/L	17		Standard
	Ho	165	609543.9	1.0				ug/L	645073		Standard
	Pb	208	859.3	5.2	-0.0118	0.001	9.2	ug/L	648		Standard
	Bi	209	365897.5	1.7				ug/L	378643		Standard
	Th	232	468212.2	1.3				ug/L	482278		Standard
	Cr -2	52	236.3	4.5	-0.0296	0.005	16.4	ug/L	242		KED
	Cr -3	53	34.0	26.1	-0.0472	0.035	73.6	ug/L	35		KED
	Ni -3	58	106.4	11.6	-0.0006	0.005	899.7	ug/L	102		KED
	Ni -4	60	42.7	14.3	-0.0026	0.006	225.3	ug/L	46		KED
	Ni -5	62	10.7	19.5	-0.0032	0.013	406.2	ug/L	7		KED
	Cu -2	63	245.0	6.3	0.0469	0.005	11.7	ug/L	278		KED
	Cu -3	65	123.0	9.9	0.0417	0.011	26.1	ug/L	116		KED
	Zn -3	66	75.7	15.7	-0.1417	0.047	32.9	ug/L	74		KED
	Zn -4	67	11.0	24.1	-0.0258	0.062	240.7	ug/L	11		KED
	Zn -5	68	56.3	18.2	-0.0993	0.053	53.8	ug/L	48		KED
	As-2	75	4.7	12.4	0.0714	0.003	3.9	ug/L	2		KED
	Y-1	89	57246.5	0.7				ug/L	56057		KED
	Rh-1	103	42229.3	1.6				ug/L	42836		KED
	Cd -2	111	4.0	90.1	-0.0381	0.006	16.1	ug/L	4		KED
	Cd -3	114	11.7	26.2	-0.0504	0.002	3.9	ug/L	7		KED
>	Sc	45	701856.4	2.3				ug/L	749258		Standard
>	Ge	72	417356.6	2.9				ug/L	446707		Standard
>	In	115	425350.7	0.5				ug/L	446509		Standard
>	Tb	159	629367.6	0.7				ug/L	663614		Standard
>	Ge-1	72	26667.5	0.9				ug/L	26774		KED
>	In-1	115	41285.1	0.5				ug/L	40879		KED

## QC Calculated Values

Sample ID: QC Std 2

Report Date/Time: Saturday, June 01, 2024 09:00:23

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		93.674
>	Ge	72		93.430
>	In	115		95.261
>	Tb	159		94.839
>	Ge-1	72		99.603
>	In-1	115		100.992

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Saturday, June 01, 2024 09:01:54

Report Date/Time: Saturday, June 01, 2024 09:05:14

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\QC Std 6.368

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	899386.4	2.6	<b>40.2178</b>	0.055	0.1	ug/L	20848	Standard
	Cr -1	53	102221.2	2.1	<b>41.0359</b>	0.306	0.7	ug/L	2436	Standard
	Ni	58	442057.3	1.4	<b>40.1025</b>	0.610	1.5	ug/L	-7461	Standard
	Ni -1	60	178343.7	3.1	<b>39.4846</b>	0.083	0.2	ug/L	209	Standard
	Ni -2	62	29597.0	1.7	<b>39.8130</b>	0.520	1.3	ug/L	2414	Standard
	Cu	63	394764.9	2.1	<b>38.9466</b>	0.375	1.0	ug/L	3083	Standard
	Cu -1	65	182060.0	3.4	<b>39.2142</b>	0.277	0.7	ug/L	471	Standard
	Zn	66	97220.6	3.0	<b>40.4614</b>	0.510	1.3	ug/L	741	Standard
	Zn -1	67	16289.3	2.7	<b>40.3453</b>	0.494	1.2	ug/L	144	Standard
	Zn -2	68	69614.9	1.6	<b>40.8987</b>	0.806	2.0	ug/L	764	Standard
	As	75	101808.0	3.1	<b>40.6297</b>	0.205	0.5	ug/L	12792	Standard
	As-1	75	91745.2	2.7	<b>40.5914</b>	0.214	0.5	ug/L	-68	Standard
	Se	77	5790.8	3.6	<b>40.3950</b>	0.705	1.7	ug/L	103	Standard
	Se -1	78	30240.6	2.1	<b>40.2484</b>	1.171	2.9	ug/L	12881	Standard
	Br	79	466.7	3.5				ug/L	373	Standard
	Se -2	82	7962.2	1.9	<b>40.7750</b>	1.631	4.0	ug/L	27	Standard
	Kr	83	27.3	14.8				ug/L	21	Standard
	Y	89	567250.6	2.0				ug/L	602615	Standard
	Rh	103	106000.5	1.3				ug/L	112596	Standard
	Cd	111	122119.5	1.7	<b>40.6671</b>	0.077	0.2	ug/L	209	Standard
	Cd -1	114	308381.7	2.0	<b>40.0718</b>	0.251	0.6	ug/L	17	Standard
	Ho	165	622973.8	1.9				ug/L	645073	Standard
	Pb	208	1780256.8	1.2	<b>39.6381</b>	0.384	1.0	ug/L	648	Standard
	Bi	209	366702.4	1.4				ug/L	378643	Standard
	Th	232	470617.3	1.3				ug/L	482278	Standard
	Cr -2	52	80890.4	0.6	<b>39.1669</b>	0.292	0.7	ug/L	242	KED
	Cr -3	53	10079.9	0.7	<b>39.1264</b>	0.203	0.5	ug/L	35	KED
	Ni -3	58	96985.0	1.0	<b>39.2209</b>	0.528	1.3	ug/L	102	KED
	Ni -4	60	41819.1	0.7	<b>39.6408</b>	0.230	0.6	ug/L	46	KED
	Ni -5	62	6169.3	2.1	<b>38.7344</b>	0.745	1.9	ug/L	7	KED
	Cu -2	63	104314.2	1.0	<b>38.7829</b>	0.344	0.9	ug/L	278	KED
	Cu -3	65	49250.1	1.0	<b>39.2911</b>	0.225	0.6	ug/L	116	KED
	Zn -3	66	10989.6	1.7	<b>41.2871</b>	0.802	1.9	ug/L	74	KED
	Zn -4	67	1805.8	2.2	<b>39.8217</b>	0.750	1.9	ug/L	11	KED
	Zn -5	68	8309.4	0.9	<b>40.9603</b>	0.377	0.9	ug/L	48	KED
	As-2	75	7785.8	1.6	<b>39.4642</b>	0.169	0.4	ug/L	2	KED
	Y-1	89	58381.4	1.5				ug/L	56057	KED
	Rh-1	103	42843.1	0.6				ug/L	42836	KED
	Cd -2	111	24122.4	2.0	<b>40.4966</b>	0.938	2.3	ug/L	4	KED
	Cd -3	114	64651.0	1.1	<b>40.7333</b>	0.371	0.9	ug/L	7	KED
>	Sc	45	718777.1	2.7				ug/L	749258	Standard
>	Ge	72	425766.7	2.9				ug/L	446707	Standard
>	In	115	442039.5	1.8				ug/L	446509	Standard
>	Tb	159	639892.4	2.1				ug/L	663614	Standard
>	Ge-1	72	27352.2	1.2				ug/L	26774	KED
>	In-1	115	41937.4	1.9				ug/L	40879	KED

## QC Calculated Values

Sample ID: QC Std 6

Report Date/Time: Saturday, June 01, 2024 09:05:14

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52	100.544	
	Cr -1	53	102.590	
	Ni	58	100.256	
	Ni -1	60	98.712	
	Ni -2	62	99.533	
	Cu	63	97.366	
	Cu -1	65	98.036	
	Zn	66	101.153	
	Zn -1	67	100.863	
	Zn -2	68	102.247	
	As	75	101.574	
	As-1	75	101.479	
	Se	77	100.987	
	Se -1	78	100.621	
	Br	79		
	Se -2	82	101.938	
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111	101.668	
	Cd -1	114	100.180	
	Ho	165		
	Pb	208	99.095	
	Bi	209		
	Th	232		
	Cr -2	52	97.917	
	Cr -3	53	97.816	
	Ni -3	58	98.052	
	Ni -4	60	99.102	
	Ni -5	62	96.836	
	Cu -2	63	96.957	
	Cu -3	65	98.228	
	Zn -3	66	103.218	
	Zn -4	67	99.554	
	Zn -5	68	102.401	
	As-2	75	98.660	
	Y-1	89		
	Rh-1	103		
	Cd -2	111	101.241	
	Cd -3	114	101.833	
>	Sc	45		95.932
>	Ge	72		95.312
>	In	115		98.999
>	Tb	159		96.425
>	Ge-1	72		102.160
>	In-1	115		102.588

## Quantitative Analysis - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, June 01, 2024 09:07:34

Report Date/Time: Saturday, June 01, 2024 09:10:55

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\QC Std 7.369

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	464957.3	2.5	<b>19.5450</b>	0.281	1.4	ug/L	20848	Standard
	Cr -1	53	53670.7	2.1	<b>20.2522</b>	0.159	0.8	ug/L	2436	Standard
	Ni	58	223625.1	3.4	<b>19.7173</b>	0.405	2.1	ug/L	-7461	Standard
	Ni -1	60	91909.5	2.2	<b>19.5166</b>	0.224	1.1	ug/L	209	Standard
	Ni -2	62	16882.3	2.1	<b>20.2257</b>	0.295	1.5	ug/L	2414	Standard
	Cu	63	208534.4	2.7	<b>19.6157</b>	0.355	1.8	ug/L	3083	Standard
	Cu -1	65	94378.1	1.7	<b>19.4893</b>	0.136	0.7	ug/L	471	Standard
	Zn	66	50854.4	2.0	<b>20.1220</b>	0.167	0.8	ug/L	741	Standard
	Zn -1	67	8591.6	2.1	<b>20.1933</b>	0.575	2.8	ug/L	144	Standard
	Zn -2	68	36265.0	1.3	<b>20.1889</b>	0.379	1.9	ug/L	764	Standard
	As	75	58614.4	2.2	<b>19.9692</b>	0.101	0.5	ug/L	12792	Standard
	As-1	75	46946.6	2.4	<b>19.9335</b>	0.121	0.6	ug/L	-68	Standard
	Se	77	3028.3	0.9	<b>19.9461</b>	0.424	2.1	ug/L	103	Standard
	Se -1	78	21819.3	1.1	<b>19.5343</b>	0.504	2.6	ug/L	12881	Standard
	Br	79	488.3	6.3				ug/L	373	Standard
	Se -2	82	4015.6	1.3	<b>19.6483</b>	0.358	1.8	ug/L	27	Standard
	Kr	83	31.3	26.8				ug/L	21	Standard
	Y	89	594491.5	1.5				ug/L	602615	Standard
	Rh	103	110693.9	0.4				ug/L	112596	Standard
	Cd	111	61593.7	2.0	<b>20.2937</b>	0.375	1.8	ug/L	209	Standard
	Cd -1	114	155274.4	1.9	<b>19.9978</b>	0.301	1.5	ug/L	17	Standard
	Ho	165	633876.6	1.8				ug/L	645073	Standard
	Pb	208	905559.0	1.8	<b>19.7366</b>	0.159	0.8	ug/L	648	Standard
	Bi	209	375133.0	0.6				ug/L	378643	Standard
	Th	232	485130.3	1.0				ug/L	482278	Standard
	Cr -2	52	41487.8	1.0	<b>19.2513</b>	0.207	1.1	ug/L	242	KED
	Cr -3	53	5252.0	0.5	<b>19.5217</b>	0.135	0.7	ug/L	35	KED
	Ni -3	58	49788.9	0.1	<b>19.3476</b>	0.094	0.5	ug/L	102	KED
	Ni -4	60	21587.6	1.3	<b>19.6640</b>	0.166	0.8	ug/L	46	KED
	Ni -5	62	3200.7	1.9	<b>19.2962</b>	0.250	1.3	ug/L	7	KED
	Cu -2	63	54594.1	0.4	<b>19.5043</b>	0.055	0.3	ug/L	278	KED
	Cu -3	65	25619.6	0.5	<b>19.6345</b>	0.146	0.7	ug/L	116	KED
	Zn -3	66	5721.5	2.5	<b>20.4597</b>	0.414	2.0	ug/L	74	KED
	Zn -4	67	944.7	6.6	<b>19.9011</b>	1.215	6.1	ug/L	11	KED
	Zn -5	68	4306.0	1.3	<b>20.2255</b>	0.163	0.8	ug/L	48	KED
	As-2	75	4016.2	1.5	<b>19.6091</b>	0.173	0.9	ug/L	2	KED
	Y-1	89	60606.6	0.8				ug/L	56057	KED
	Rh-1	103	43935.5	0.9				ug/L	42836	KED
	Cd -2	111	12182.9	0.8	<b>19.9942</b>	0.380	1.9	ug/L	4	KED
	Cd -3	114	32878.8	0.8	<b>20.2451</b>	0.298	1.5	ug/L	7	KED
>	Sc	45	747887.9	1.3				ug/L	749258	Standard
>	Ge	72	443697.5	2.1				ug/L	446707	Standard
>	In	115	445790.8	3.4				ug/L	446509	Standard
>	Tb	159	653077.1	1.1				ug/L	663614	Standard
>	Ge-1	72	28429.9	0.6				ug/L	26774	KED
>	In-1	115	42849.3	1.1				ug/L	40879	KED

### QC Calculated Values

Sample ID: QC Std 7

Report Date/Time: Saturday, June 01, 2024 09:10:55

Page 1

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52	97.725	
	Cr -1	53	101.261	
	Ni	58	98.586	
	Ni -1	60	97.583	
	Ni -2	62	101.128	
	Cu	63	98.079	
	Cu -1	65	97.446	
	Zn	66	100.610	
	Zn -1	67	100.967	
	Zn -2	68	100.945	
	As	75	99.846	
	As-1	75	99.667	
	Se	77	99.730	
	Se -1	78	97.672	
	Br	79		
	Se -2	82	98.241	
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111	101.468	
	Cd -1	114	99.989	
	Ho	165		
	Pb	208	98.683	
	Bi	209		
	Th	232		
	Cr -2	52	96.256	
	Cr -3	53	97.608	
	Ni -3	58	96.738	
	Ni -4	60	98.320	
	Ni -5	62	96.481	
	Cu -2	63	97.521	
	Cu -3	65	98.173	
	Zn -3	66	102.298	
	Zn -4	67	99.506	
	Zn -5	68	101.128	
	As-2	75	98.046	
	Y-1	89		
	Rh-1	103		
	Cd -2	111	99.971	
	Cd -3	114	101.226	
>	Sc	45		99.817
>	Ge	72		99.326
>	In	115		99.839
>	Tb	159		98.412
>	Ge-1	72		106.186
>	In-1	115		104.819

## Quantitative Analysis - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Saturday, June 01, 2024 09:13:15

Report Date/Time: Saturday, June 01, 2024 09:16:36

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\QC Std 8.370

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Cr	52	17880.9	1.5	-0.0347	0.007	19.1	ug/L	20848		Standard
	Cr -1	53	1492.1	1.8	-0.2883	0.012	4.0	ug/L	2436		Standard
	Ni	58	-5713.6	5.1	-0.0213	0.015	69.3	ug/L	-7461		Standard
	Ni -1	60	200.3	3.7	0.0241	0.002	6.6	ug/L	209		Standard
	Ni -2	62	3694.1	0.8	2.0684	0.229	11.1	ug/L	2414		Standard
	Cu	63	4118.6	1.2	0.1682	0.015	9.1	ug/L	3083		Standard
	Cu -1	65	449.3	1.1	0.0585	0.004	6.4	ug/L	471		Standard
	Zn	66	685.7	1.8	-0.0822	0.012	14.2	ug/L	741		Standard
	Zn -1	67	116.3	6.3	-0.1681	0.010	6.0	ug/L	144		Standard
	Zn -2	68	729.7	4.5	-0.0630	0.007	11.0	ug/L	764		Standard
	As	75	11936.5	0.8	-0.0049	0.160	3253.7	ug/L	12792		Standard
	As-1	75	12.6	103.5	0.0133	0.006	46.4	ug/L	-68		Standard
	Se	77	78.7	13.6	-0.0965	0.060	62.1	ug/L	103		Standard
	Se -1	78	11979.0	1.0	0.1722	0.718	417.0	ug/L	12881		Standard
	Br	79	449.3	2.6				ug/L	373		Standard
	Se -2	82	39.3	23.5	0.0607	0.042	68.8	ug/L	27		Standard
	Kr	83	29.3	39.5				ug/L	21		Standard
	Y	89	562678.7	2.2				ug/L	602615		Standard
	Rh	103	104226.2	1.8				ug/L	112596		Standard
	Cd	111	243.2	3.3	-0.0198	0.005	23.4	ug/L	209		Standard
	Cd -1	114	25.6	76.7	-0.0283	0.003	9.7	ug/L	17		Standard
	Ho	165	599217.3	0.9				ug/L	645073		Standard
	Pb	208	654.0	5.2	-0.0161	0.001	6.3	ug/L	648		Standard
	Bi	209	360815.4	1.5				ug/L	378643		Standard
	Th	232	452027.8	2.1				ug/L	482278		Standard
	Cr -2	52	263.0	5.2	-0.0202	0.006	27.6	ug/L	242		KED
	Cr -3	53	32.7	23.0	-0.0561	0.030	53.8	ug/L	35		KED
	Ni -3	58	93.6	9.0	-0.0071	0.003	47.1	ug/L	102		KED
	Ni -4	60	46.3	26.6	-0.0004	0.011	2608.3	ug/L	46		KED
	Ni -5	62	7.3	15.7	-0.0260	0.008	28.9	ug/L	7		KED
	Cu -2	63	256.3	8.1	0.0483	0.008	17.2	ug/L	278		KED
	Cu -3	65	131.7	5.2	0.0455	0.006	13.7	ug/L	116		KED
	Zn -3	66	72.0	5.0	-0.1644	0.013	8.0	ug/L	74		KED
	Zn -4	67	10.0	60.0	-0.0549	0.134	244.9	ug/L	11		KED
	Zn -5	68	52.7	9.6	-0.1262	0.024	19.2	ug/L	48		KED
	As-2	75	7.7	49.4	0.0858	0.019	22.2	ug/L	2		KED
	Y-1	89	58255.2	0.6				ug/L	56057		KED
	Rh-1	103	42127.7	0.3				ug/L	42836		KED
	Cd -2	111	1.7	91.7	-0.0421	0.003	6.2	ug/L	4		KED
	Cd -3	114	11.0	15.7	-0.0508	0.001	2.3	ug/L	7		KED
>	Sc	45	707345.1	2.2				ug/L	749258		Standard
>	Ge	72	416911.8	3.4				ug/L	446707		Standard
>	In	115	425607.3	2.1				ug/L	446509		Standard
>	Tb	159	617331.1	1.6				ug/L	663614		Standard
>	Ge-1	72	27486.1	0.8				ug/L	26774		KED
>	In-1	115	41116.4	2.0				ug/L	40879		KED

### QC Calculated Values

Sample ID: QC Std 8

Report Date/Time: Saturday, June 01, 2024 09:16:36

Page 1

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		94.406
>	Ge	72		93.330
>	In	115		95.319
>	Tb	159		93.026
>	Ge-1	72		102.661
>	In-1	115		100.580

# Quantitative Analysis - Summary Report

Sample ID: MB0529F1 2X

Sample Date/Time: Saturday, June 01, 2024 09:22:40

Report Date/Time: Saturday, June 01, 2024 09:26:00

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\MB0529F1 2X.372

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	18394.8	0.9	-0.0648	0.010	16.0	ug/L	20848	Standard
	Cr -1	53	1529.1	2.0	-0.3131	0.016	5.2	ug/L	2436	Standard
	Ni	58	-1928.7	9.7	0.3273	0.015	4.5	ug/L	-7461	Standard
	Ni -1	60	1733.8	4.1	0.3656	0.011	2.9	ug/L	209	Standard
	Ni -2	62	4099.3	1.5	2.5881	0.180	7.0	ug/L	2414	Standard
	Cu	63	4243.0	4.1	0.1750	0.023	13.3	ug/L	3083	Standard
	Cu -1	65	451.3	5.2	0.0575	0.004	7.6	ug/L	471	Standard
	Zn	66	1847.1	1.4	0.4053	0.006	1.4	ug/L	741	Standard
	Zn -1	67	279.3	3.4	0.2395	0.015	6.1	ug/L	144	Standard
	Zn -2	68	1501.4	3.6	0.3937	0.036	9.1	ug/L	764	Standard
	As	75	11552.3	1.9	-0.2577	0.038	14.7	ug/L	12792	Standard
	As-1	75	-14.3	346.9	0.0009	0.022	2587.7	ug/L	-68	Standard
	Se	77	67.0	5.4	-0.1865	0.019	10.1	ug/L	103	Standard
	Se -1	78	11621.4	1.6	-1.0080	0.137	13.6	ug/L	12881	Standard
	Br	79	434.7	0.4				ug/L	373	Standard
	Se -2	82	38.7	14.9	0.0550	0.027	48.9	ug/L	27	Standard
	Kr	83	27.7	11.0				ug/L	21	Standard
	Y	89	593343.4	2.7				ug/L	602615	Standard
	Rh	103	108675.5	0.6				ug/L	112596	Standard
	Cd	111	230.1	5.7	-0.0281	0.005	16.2	ug/L	209	Standard
	Cd -1	114	25.4	70.4	-0.0285	0.002	8.0	ug/L	17	Standard
	Ho	165	618933.0	0.5				ug/L	645073	Standard
	Pb	208	781.0	0.9	-0.0139	0.000	2.6	ug/L	648	Standard
	Bi	209	369423.6	0.9				ug/L	378643	Standard
	Th	232	469286.5	0.8				ug/L	482278	Standard
	Cr -2	52	269.7	6.1	-0.0195	0.008	43.3	ug/L	242	KED
	Cr -3	53	41.0	14.8	-0.0271	0.022	82.1	ug/L	35	KED
	Ni -3	58	1001.3	3.3	0.3506	0.011	3.1	ug/L	102	KED
	Ni -4	60	437.0	6.5	0.3605	0.028	7.8	ug/L	46	KED
	Ni -5	62	55.3	14.6	0.2674	0.048	17.9	ug/L	7	KED
	Cu -2	63	241.3	8.6	0.0410	0.007	18.0	ug/L	278	KED
	Cu -3	65	118.7	1.8	0.0333	0.002	6.1	ug/L	116	KED
	Zn -3	66	212.3	0.3	0.3500	0.006	1.6	ug/L	74	KED
	Zn -4	67	29.3	25.1	0.3585	0.158	44.2	ug/L	11	KED
	Zn -5	68	131.0	1.3	0.2489	0.005	2.1	ug/L	48	KED
	As -2	75	2.0	86.6	0.0570	0.009	15.0	ug/L	2	KED
	Y -1	89	61835.2	0.8				ug/L	56057	KED
	Rh -1	103	44520.6	1.8				ug/L	42836	KED
	Cd -2	111	6.3	32.9	-0.0346	0.003	9.8	ug/L	4	KED
	Cd -3	114	10.3	48.7	-0.0516	0.003	5.9	ug/L	7	KED
>	Sc	45	754955.2	0.7				ug/L	749258	Standard
>	Ge	72	422546.4	1.6				ug/L	446707	Standard
>	In	115	446537.9	1.3				ug/L	446509	Standard
>	Tb	159	641661.5	1.5				ug/L	663614	Standard
>	Ge -1	72	28038.5	0.5				ug/L	26774	KED
>	In -1	115	43446.4	1.2				ug/L	40879	KED

## QC Calculated Values

Sample ID: MB0529F1 2X

Report Date/Time: Saturday, June 01, 2024 09:26:00

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		100.760
>	Ge	72		94.591
>	In	115		100.006
>	Tb	159		96.692
>	Ge-1	72		104.724
>	In-1	115		106.279

# Quantitative Analysis - Summary Report

**Sample ID: SB0529F1 2X**

Sample Date/Time: Saturday, June 01, 2024 09:28:20

Report Date/Time: Saturday, June 01, 2024 09:31:40

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\SB0529F1 2X.373

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	844081.8	2.2	<b>36.5838</b>	0.384	1.1	ug/L	20848	Standard
	Cr -1	53	96056.9	1.5	<b>37.3727</b>	0.240	0.6	ug/L	2436	Standard
	Ni	58	417382.8	1.7	<b>37.8831</b>	0.479	1.3	ug/L	-7461	Standard
	Ni -1	60	170123.8	1.5	<b>37.6667</b>	0.100	0.3	ug/L	209	Standard
	Ni -2	62	28035.2	1.4	<b>37.5224</b>	0.167	0.4	ug/L	2414	Standard
	Cu	63	373603.2	2.0	<b>36.8382</b>	0.221	0.6	ug/L	3083	Standard
	Cu -1	65	170227.2	0.6	<b>36.6709</b>	0.393	1.1	ug/L	471	Standard
	Zn	66	91501.8	1.2	<b>38.0607</b>	0.174	0.5	ug/L	741	Standard
	Zn -1	67	15771.0	0.8	<b>39.0489</b>	0.501	1.3	ug/L	144	Standard
	Zn -2	68	65544.7	0.8	<b>38.4700</b>	0.443	1.2	ug/L	764	Standard
	As	75	95709.1	2.3	<b>37.8626</b>	0.325	0.9	ug/L	12792	Standard
	As-1	75	85198.6	2.2	<b>37.6923</b>	0.244	0.6	ug/L	-68	Standard
	Se	77	5421.4	3.5	<b>37.7788</b>	1.230	3.3	ug/L	103	Standard
	Se -1	78	29053.2	1.8	<b>37.5899</b>	0.313	0.8	ug/L	12881	Standard
	Br	79	403.7	6.9				ug/L	373	Standard
	Se -2	82	7318.9	1.6	<b>37.4477</b>	0.706	1.9	ug/L	27	Standard
	Kr	83	30.7	5.0				ug/L	21	Standard
	Y	89	584475.1	1.0				ug/L	602615	Standard
	Rh	103	106777.9	1.3				ug/L	112596	Standard
	Cd	111	111568.1	1.9	<b>37.7514</b>	0.992	2.6	ug/L	209	Standard
	Cd -1	114	286440.3	1.9	<b>37.8187</b>	0.387	1.0	ug/L	17	Standard
	Ho	165	602080.0	1.6				ug/L	645073	Standard
	Pb	208	1621515.2	0.9	<b>36.9869</b>	0.158	0.4	ug/L	648	Standard
	Bi	209	357904.3	0.4				ug/L	378643	Standard
	Th	232	458645.4	0.7				ug/L	482278	Standard
	Cr -2	52	77832.8	1.3	<b>36.2112</b>	0.593	1.6	ug/L	242	KED
	Cr -3	53	9800.7	1.0	<b>36.5523</b>	0.367	1.0	ug/L	35	KED
	Ni -3	58	93212.1	0.8	<b>36.2266</b>	0.454	1.3	ug/L	102	KED
	Ni -4	60	40441.8	1.4	<b>36.8435</b>	0.634	1.7	ug/L	46	KED
	Ni -5	62	5959.9	1.2	<b>35.9608</b>	0.474	1.3	ug/L	7	KED
	Cu -2	63	100665.1	0.4	<b>35.9694</b>	0.356	1.0	ug/L	278	KED
	Cu -3	65	47398.8	0.3	<b>36.3414</b>	0.285	0.8	ug/L	116	KED
	Zn -3	66	10714.3	0.9	<b>38.6589</b>	0.108	0.3	ug/L	74	KED
	Zn -4	67	1717.4	2.1	<b>36.3824</b>	0.957	2.6	ug/L	11	KED
	Zn -5	68	7986.9	0.8	<b>37.8121</b>	0.520	1.4	ug/L	48	KED
	As -2	75	7479.0	1.4	<b>36.4417</b>	0.503	1.4	ug/L	2	KED
	Y -1	89	60333.1	0.7				ug/L	56057	KED
	Rh -1	103	43719.5	0.8				ug/L	42836	KED
	Cd -2	111	22980.1	1.1	<b>38.0337</b>	0.125	0.3	ug/L	4	KED
	Cd -3	114	60461.7	1.7	<b>37.5543</b>	0.280	0.7	ug/L	7	KED
>	Sc	45	739985.1	1.4				ug/L	749258	Standard
>	Ge	72	425758.3	1.6				ug/L	446707	Standard
>	In	115	435085.8	2.6				ug/L	446509	Standard
>	Tb	159	624512.7	1.1				ug/L	663614	Standard
>	Ge -1	72	28457.3	0.6				ug/L	26774	KED
>	In -1	115	42530.2	1.4				ug/L	40879	KED

## QC Calculated Values

Sample ID: SB0529F1 2X

Report Date/Time: Saturday, June 01, 2024 09:31:40

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		98.762
>	Ge	72		95.310
>	In	115		97.442
>	Tb	159		94.108
>	Ge-1	72		106.288
>	In-1	115		104.038

## Quantitative Analysis - Summary Report

Sample ID: 05-353-02I 2X

Sample Date/Time: Saturday, June 01, 2024 09:34:01

Report Date/Time: Saturday, June 01, 2024 09:37:21

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\05-353-02I 2X.374

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	56278.7	1.5	1.7622	0.038	2.2	ug/L	20848	Standard
	Cr -1	53	6958.0	3.5	2.0067	0.095	4.7	ug/L	2436	Standard
	Ni	58	-1075.5	227.7	0.3915	0.245	62.7	ug/L	-7461	Standard
	Ni -1	60	3941.9	2.7	0.9329	0.055	5.9	ug/L	209	Standard
	Ni -2	62	3716.5	11.9	2.4959	0.901	36.1	ug/L	2414	Standard
	Cu	63	7340.6	4.7	0.5468	0.060	10.9	ug/L	3083	Standard
	Cu -1	65	634.0	0.9	0.1087	0.006	5.2	ug/L	471	Standard
	Zn	66	793.4	4.7	-0.0126	0.021	169.1	ug/L	741	Standard
	Zn -1	67	244.0	4.2	0.2019	0.031	15.3	ug/L	144	Standard
	Zn -2	68	1485.1	5.2	0.4577	0.038	8.2	ug/L	764	Standard
	As	75	13048.1	2.5	0.9224	0.037	4.0	ug/L	12792	Standard
	As-1	75	430.4	2.9	0.2152	0.001	0.5	ug/L	-68	Standard
	Se	77	349.0	5.2	2.0405	0.227	11.1	ug/L	103	Standard
	Se -1	78	12755.7	2.5	3.9179	0.178	4.6	ug/L	12881	Standard
	Br	79	13296.2	3.9				ug/L	373	Standard
	Se -2	82	73.0	3.6	0.2644	0.003	1.3	ug/L	27	Standard
	Kr	83	29.7	20.6				ug/L	21	Standard
	Y	89	537112.5	1.8				ug/L	602615	Standard
	Rh	103	94416.3	1.3				ug/L	112596	Standard
	Cd	111	262.9	5.5	-0.0004	0.008	1704.2	ug/L	209	Standard
	Cd -1	114	55.3	10.3	-0.0233	0.001	3.9	ug/L	17	Standard
	Ho	165	543303.8	2.0				ug/L	645073	Standard
	Pb	208	844.7	5.3	-0.0095	0.001	13.4	ug/L	648	Standard
	Bi	209	307684.6	3.4				ug/L	378643	Standard
	Th	232	414085.7	3.3				ug/L	482278	Standard
	Cr -2	52	580.7	3.2	0.1698	0.008	4.9	ug/L	242	KED
	Cr -3	53	83.7	1.8	0.1837	0.004	2.1	ug/L	35	KED
	Ni -3	58	1688.8	7.6	0.7239	0.060	8.3	ug/L	102	KED
	Ni -4	60	181.7	2.5	0.1496	0.003	2.2	ug/L	46	KED
	Ni -5	62	26.3	20.9	0.1144	0.040	35.3	ug/L	7	KED
	Cu -2	63	188.3	8.6	0.0322	0.007	21.6	ug/L	278	KED
	Cu -3	65	85.7	9.5	0.0177	0.007	38.1	ug/L	116	KED
	Zn -3	66	71.3	2.1	-0.1320	0.008	5.9	ug/L	74	KED
	Zn -4	67	27.7	7.5	0.4140	0.052	12.5	ug/L	11	KED
	Zn -5	68	91.0	9.6	0.1220	0.048	39.4	ug/L	48	KED
	As-2	75	26.3	5.8	0.1970	0.009	4.3	ug/L	2	KED
	Y-1	89	52408.0	0.3				ug/L	56057	KED
	Rh-1	103	35678.8	2.2				ug/L	42836	KED
	Cd -2	111	5.7	20.4	-0.0340	0.002	7.0	ug/L	4	KED
	Cd -3	114	10.0	36.1	-0.0507	0.003	4.9	ug/L	7	KED
>	Sc	45	703378.4	0.4				ug/L	749258	Standard
>	Ge	72	390098.6	3.0				ug/L	446707	Standard
>	In	115	374308.5	2.2				ug/L	446509	Standard
>	Tb	159	555743.5	0.6				ug/L	663614	Standard
>	Ge-1	72	24332.0	0.8				ug/L	26774	KED
>	In-1	115	36701.0	1.5				ug/L	40879	KED

### QC Calculated Values

Sample ID: 05-353-02I 2X

Report Date/Time: Saturday, June 01, 2024 09:37:21

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		93.877
>	Ge	72		87.328
>	In	115		83.830
>	Tb	159		83.745
>	Ge-1	72		90.880
>	In-1	115		89.779

## Quantitative Analysis - Summary Report

Sample ID: 05-353-071 2X

Sample Date/Time: Saturday, June 01, 2024 09:39:41

Report Date/Time: Saturday, June 01, 2024 09:43:01

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\05-353-071 2X.375

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Cr	52	54403.1	1.2	1.4965	0.043	2.9	ug/L	20848		Standard
	Cr -1	53	6975.0	1.6	1.8092	0.077	4.2	ug/L	2436		Standard
	Ni	58	-668.2	46.9	0.4431	0.027	6.1	ug/L	-7461		Standard
	Ni -1	60	4381.7	2.2	0.9255	0.014	1.5	ug/L	209		Standard
	Ni -2	62	1975.5	5.3	-0.6297	0.237	37.7	ug/L	2414		Standard
	Cu	63	5516.4	2.8	0.2844	0.002	0.7	ug/L	3083		Standard
	Cu -1	65	838.7	6.1	0.1357	0.006	4.6	ug/L	471		Standard
	Zn	66	777.7	3.8	-0.0575	0.022	38.1	ug/L	741		Standard
	Zn -1	67	195.0	11.2	0.0103	0.042	409.6	ug/L	144		Standard
	Zn -2	68	1277.7	1.8	0.2352	0.012	4.9	ug/L	764		Standard
	As	75	13513.1	1.6	0.4421	0.133	30.2	ug/L	12792		Standard
	As-1	75	247.7	27.5	0.1144	0.030	25.9	ug/L	-68		Standard
	Se	77	342.0	2.5	1.7016	0.100	5.9	ug/L	103		Standard
	Se -1	78	13399.3	1.2	2.0243	0.615	30.4	ug/L	12881		Standard
	Br	79	24733.1	2.8				ug/L	373		Standard
	Se -2	82	72.3	6.2	0.2182	0.034	15.6	ug/L	27		Standard
	Kr	83	33.7	17.9				ug/L	21		Standard
	Y	89	602064.8	3.1				ug/L	602615		Standard
	Rh	103	106456.2	1.5				ug/L	112596		Standard
	Cd	111	229.5	1.9	-0.0247	0.000	0.8	ug/L	209		Standard
	Cd -1	114	21.1	26.6	-0.0290	0.001	2.7	ug/L	17		Standard
	Ho	165	632863.7	2.2				ug/L	645073		Standard
	Pb	208	765.0	5.1	-0.0144	0.001	5.9	ug/L	648		Standard
	Bi	209	358746.0	2.0				ug/L	378643		Standard
	Th	232	479142.5	1.3				ug/L	482278		Standard
	Cr -2	52	493.0	3.4	0.0984	0.008	7.8	ug/L	242		KED
	Cr -3	53	78.7	4.5	0.1316	0.014	10.8	ug/L	35		KED
	Ni -3	58	1208.6	3.1	0.4572	0.017	3.7	ug/L	102		KED
	Ni -4	60	419.7	2.3	0.3643	0.007	2.0	ug/L	46		KED
	Ni -5	62	57.3	19.1	0.2981	0.072	24.2	ug/L	7		KED
	Cu -2	63	312.3	5.3	0.0726	0.006	8.9	ug/L	278		KED
	Cu -3	65	149.0	5.5	0.0629	0.006	10.0	ug/L	116		KED
	Zn -3	66	55.3	7.3	-0.2209	0.017	7.6	ug/L	74		KED
	Zn -4	67	13.7	22.4	0.0344	0.068	196.9	ug/L	11		KED
	Zn -5	68	63.3	26.9	-0.0637	0.087	135.9	ug/L	48		KED
	As-2	75	17.3	17.6	0.1372	0.016	11.9	ug/L	2		KED
	Y-1	89	58277.0	1.1				ug/L	56057		KED
	Rh-1	103	39113.8	1.1				ug/L	42836		KED
	Cd -2	111	5.3	21.7	-0.0358	0.002	5.5	ug/L	4		KED
	Cd -3	114	9.7	23.9	-0.0517	0.001	2.8	ug/L	7		KED
>	Sc	45	756534.9	1.4				ug/L	749258		Standard
>	Ge	72	436588.4	3.1				ug/L	446707		Standard
>	In	115	426167.8	1.8				ug/L	446509		Standard
>	Tb	159	648502.0	1.8				ug/L	663614		Standard
>	Ge-1	72	26664.9	0.5				ug/L	26774		KED
>	In-1	115	41070.6	1.6				ug/L	40879		KED

### QC Calculated Values

Sample ID: 05-353-071 2X

Report Date/Time: Saturday, June 01, 2024 09:43:01

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		100.971
>	Ge	72		97.735
>	In	115		95.444
>	Tb	159		97.723
>	Ge-1	72		99.593
>	In-1	115		100.468

## Quantitative Analysis - Summary Report

Sample ID: 05-353-101 2X

Sample Date/Time: Saturday, June 01, 2024 09:45:21

Report Date/Time: Saturday, June 01, 2024 09:48:40

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Default\05-353-101 2X.376

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	73330.7	1.0	2.6662	0.027	1.0	ug/L	20848	Standard
	Cr -1	53	17100.2	1.0	6.4857	0.019	0.3	ug/L	2436	Standard
	Ni	58	1961.1	71.8	0.6828	0.128	18.7	ug/L	-7461	Standard
	Ni -1	60	2831.9	5.7	0.6324	0.025	3.9	ug/L	209	Standard
	Ni -2	62	8568.5	36.6	9.5655	4.644	48.6	ug/L	2414	Standard
	Cu	63	20124.4	14.6	1.8308	0.280	15.3	ug/L	3083	Standard
	Cu -1	65	777.7	5.2	0.1342	0.006	4.7	ug/L	471	Standard
	Zn	66	714.4	5.0	-0.0638	0.014	21.5	ug/L	741	Standard
	Zn -1	67	560.0	5.1	0.9966	0.056	5.7	ug/L	144	Standard
	Zn -2	68	2045.5	1.3	0.7621	0.014	1.9	ug/L	764	Standard
	As	75	16392.6	3.7	2.2113	0.141	6.4	ug/L	12792	Standard
	As-1	75	2438.8	6.7	1.1313	0.053	4.7	ug/L	-68	Standard
	Se	77	750.4	5.2	4.8793	0.180	3.7	ug/L	103	Standard
	Se -1	78	14113.0	3.1	5.6692	0.436	7.7	ug/L	12881	Standard
	Br	79	36975.2	4.4				ug/L	373	Standard
	Se -2	82	83.3	4.2	0.3018	0.028	9.2	ug/L	27	Standard
	Kr	83	37.0	20.4				ug/L	21	Standard
	Y	89	584400.8	4.1				ug/L	602615	Standard
	Rh	103	101725.9	3.7				ug/L	112596	Standard
	Cd	111	256.6	4.4	-0.0095	0.003	31.9	ug/L	209	Standard
	Cd -1	114	26.9	34.8	-0.0279	0.001	5.2	ug/L	17	Standard
	Ho	165	624377.2	1.8				ug/L	645073	Standard
	Pb	208	692.0	4.0	-0.0154	0.001	3.5	ug/L	648	Standard
	Bi	209	347179.5	2.3				ug/L	378643	Standard
	Th	232	476034.3	1.1				ug/L	482278	Standard
	Cr -2	52	977.7	2.7	0.3944	0.022	5.7	ug/L	242	KED
	Cr -3	53	161.0	3.3	0.5325	0.020	3.8	ug/L	35	KED
	Ni -3	58	2442.3	6.6	1.0830	0.091	8.4	ug/L	102	KED
	Ni -4	60	344.0	3.4	0.3279	0.008	2.5	ug/L	46	KED
	Ni -5	62	48.3	15.5	0.2745	0.053	19.5	ug/L	7	KED
	Cu -2	63	254.0	4.6	0.0611	0.003	5.3	ug/L	278	KED
	Cu -3	65	107.0	14.7	0.0381	0.013	33.4	ug/L	116	KED
	Zn -3	66	55.7	8.1	-0.1957	0.016	8.1	ug/L	74	KED
	Zn -4	67	58.3	9.4	1.1997	0.138	11.5	ug/L	11	KED
	Zn -5	68	189.0	8.5	0.6841	0.074	10.8	ug/L	48	KED
	As-2	75	187.7	9.4	1.1311	0.115	10.2	ug/L	2	KED
	Y-1	89	53611.1	0.7				ug/L	56057	KED
	Rh-1	103	34629.3	0.8				ug/L	42836	KED
	Cd -2	111	4.7	65.5	-0.0363	0.006	15.5	ug/L	4	KED
	Cd -3	114	8.3	36.7	-0.0522	0.002	4.0	ug/L	7	KED
>	Sc	45	681871.2	1.3				ug/L	749258	Standard
>	Ge	72	408419.4	2.0				ug/L	446707	Standard
>	In	115	399873.7	2.7				ug/L	446509	Standard
>	Tb	159	622286.9	2.0				ug/L	663614	Standard
>	Ge-1	72	23998.1	1.6				ug/L	26774	KED
>	In-1	115	38267.1	0.2				ug/L	40879	KED

### QC Calculated Values

Sample ID: 05-353-101 2X

Report Date/Time: Saturday, June 01, 2024 09:48:40

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		91.006
>	Ge	72		91.429
>	In	115		89.556
>	Tb	159		93.772
>	Ge-1	72		89.633
>	In-1	115		93.610

## Quantitative Analysis - Summary Report

**Sample ID: 05-353-15I 2X**

Sample Date/Time: Saturday, June 01, 2024 09:51:00

Report Date/Time: Saturday, June 01, 2024 09:54:19

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\05-353-15I 2X.377

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Cr	52	47181.5	1.8	1.4166	0.022	1.5	ug/L	20848		Standard
	Cr -1	53	8503.2	0.8	2.7839	0.100	3.6	ug/L	2436		Standard
	Ni	58	-3389.9	23.2	0.1812	0.080	44.0	ug/L	-7461		Standard
	Ni -1	60	1831.5	4.9	0.4045	0.008	2.1	ug/L	209		Standard
	Ni -2	62	8745.0	2.5	9.9865	0.822	8.2	ug/L	2414		Standard
	Cu	63	11812.9	1.2	0.9829	0.058	5.9	ug/L	3083		Standard
	Cu -1	65	661.0	6.7	0.1090	0.006	5.9	ug/L	471		Standard
	Zn	66	676.7	0.6	-0.0779	0.011	13.9	ug/L	741		Standard
	Zn -1	67	288.7	9.8	0.2926	0.051	17.4	ug/L	144		Standard
	Zn -2	68	1398.1	1.9	0.3672	0.019	5.1	ug/L	764		Standard
	As	75	14867.1	1.8	1.5446	0.127	8.2	ug/L	12792		Standard
	As-1	75	981.7	5.0	0.4640	0.034	7.4	ug/L	-68		Standard
	Se	77	256.7	8.2	1.2464	0.154	12.4	ug/L	103		Standard
	Se -1	78	13955.1	2.1	5.5481	0.486	8.8	ug/L	12881		Standard
	Br	79	15180.4	2.2				ug/L	373		Standard
	Se -2	82	48.0	5.5	0.1143	0.017	14.9	ug/L	27		Standard
	Kr	83	34.0	10.6				ug/L	21		Standard
	Y	89	558810.4	0.7				ug/L	602615		Standard
	Rh	103	100059.5	0.8				ug/L	112596		Standard
	Cd	111	213.5	4.8	-0.0239	0.005	20.8	ug/L	209		Standard
	Cd -1	114	23.0	17.4	-0.0284	0.001	2.2	ug/L	17		Standard
	Ho	165	585782.3	1.2				ug/L	645073		Standard
	Pb	208	472.3	6.9	-0.0199	0.001	3.4	ug/L	648		Standard
	Bi	209	338181.8	0.8				ug/L	378643		Standard
	Th	232	451026.2	0.9				ug/L	482278		Standard
	Cr -2	52	615.7	4.3	0.1842	0.011	6.0	ug/L	242		KED
	Cr -3	53	87.3	14.9	0.1944	0.056	28.8	ug/L	35		KED
	Ni -3	58	1085.5	4.4	0.4425	0.023	5.2	ug/L	102		KED
	Ni -4	60	141.7	6.1	0.1049	0.010	9.3	ug/L	46		KED
	Ni -5	62	28.0	28.6	0.1229	0.054	43.9	ug/L	7		KED
	Cu -2	63	255.3	8.5	0.0587	0.009	16.1	ug/L	278		KED
	Cu -3	65	117.3	4.7	0.0448	0.006	12.9	ug/L	116		KED
	Zn -3	66	51.0	5.2	-0.2218	0.010	4.3	ug/L	74		KED
	Zn -4	67	25.0	31.2	0.3399	0.196	57.8	ug/L	11		KED
	Zn -5	68	102.3	3.0	0.1777	0.022	12.3	ug/L	48		KED
	As-2	75	76.7	12.3	0.4774	0.052	10.8	ug/L	2		KED
	Y-1	89	54134.0	0.3				ug/L	56057		KED
	Rh-1	103	36150.0	0.4				ug/L	42836		KED
	Cd -2	111	4.3	48.0	-0.0369	0.004	10.5	ug/L	4		KED
	Cd -3	114	7.7	27.2	-0.0526	0.001	2.6	ug/L	7		KED
>	Sc	45	679040.5	2.0				ug/L	749258		Standard
>	Ge	72	405550.3	3.6				ug/L	446707		Standard
>	In	115	392490.6	1.5				ug/L	446509		Standard
>	Tb	159	595261.9	2.7				ug/L	663614		Standard
>	Ge-1	72	24673.0	0.9				ug/L	26774		KED
>	In-1	115	38331.2	0.9				ug/L	40879		KED

### QC Calculated Values

Sample ID: 05-353-15I 2X

Report Date/Time: Saturday, June 01, 2024 09:54:19

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		90.628
>	Ge	72		90.787
>	In	115		87.902
>	Tb	159		89.700
>	Ge-1	72		92.154
>	In-1	115		93.766

# Quantitative Analysis - Summary Report

**Sample ID: 05-353-02ID 2X**

Sample Date/Time: Saturday, June 01, 2024 09:56:42

Report Date/Time: Saturday, June 01, 2024 10:00:02

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\05-353-02ID 2X.378

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Cr	52	55242.9	1.1	1.8950	0.034	1.8	ug/L	20848		Standard
	Cr -1	53	6741.6	5.7	2.1173	0.231	10.9	ug/L	2436		Standard
	Ni	58	-1793.3	73.1	0.3284	0.125	38.0	ug/L	-7461		Standard
	Ni -1	60	3820.5	1.7	0.8952	0.004	0.4	ug/L	209		Standard
	Ni -2	62	6230.4	3.0	6.4139	0.445	6.9	ug/L	2414		Standard
	Cu	63	9142.3	1.5	0.7334	0.029	4.0	ug/L	3083		Standard
	Cu -1	65	607.7	7.2	0.1014	0.012	12.2	ug/L	471		Standard
	Zn	66	814.7	5.6	-0.0059	0.023	399.7	ug/L	741		Standard
	Zn -1	67	229.7	4.4	0.1575	0.026	16.7	ug/L	144		Standard
	Zn -2	68	1471.1	3.1	0.4414	0.036	8.2	ug/L	764		Standard
	As	75	13539.2	0.9	1.1126	0.054	4.9	ug/L	12792		Standard
	As-1	75	239.7	36.1	0.1221	0.041	33.8	ug/L	-68		Standard
	Se	77	302.7	5.6	1.6582	0.102	6.2	ug/L	103		Standard
	Se -1	78	13411.3	1.0	5.2546	0.493	9.4	ug/L	12881		Standard
	Br	79	14998.2	1.4				ug/L	373		Standard
	Se -2	82	63.7	21.1	0.2100	0.079	37.8	ug/L	27		Standard
	Kr	83	36.0	15.5				ug/L	21		Standard
	Y	89	558168.3	2.2				ug/L	602615		Standard
	Rh	103	99478.8	1.0				ug/L	112596		Standard
	Cd	111	226.4	3.1	-0.0151	0.001	5.5	ug/L	209		Standard
	Cd -1	114	30.2	24.1	-0.0272	0.001	4.4	ug/L	17		Standard
	Ho	165	566502.4	1.0				ug/L	645073		Standard
	Pb	208	695.0	5.2	-0.0140	0.001	5.9	ug/L	648		Standard
	Bi	209	317967.0	2.9				ug/L	378643		Standard
	Th	232	427701.5	2.7				ug/L	482278		Standard
	Cr -2	52	587.0	10.0	0.1875	0.034	18.2	ug/L	242		KED
	Cr -3	53	77.7	13.5	0.1725	0.048	27.6	ug/L	35		KED
	Ni -3	58	1571.9	2.7	0.7023	0.019	2.8	ug/L	102		KED
	Ni -4	60	167.7	5.4	0.1426	0.010	6.8	ug/L	46		KED
	Ni -5	62	22.0	7.9	0.0905	0.012	13.7	ug/L	7		KED
	Cu -2	63	164.7	5.5	0.0253	0.004	15.3	ug/L	278		KED
	Cu -3	65	84.3	10.4	0.0199	0.008	42.0	ug/L	116		KED
	Zn -3	66	79.3	3.9	-0.0828	0.014	17.5	ug/L	74		KED
	Zn -4	67	19.0	22.9	0.2185	0.113	51.6	ug/L	11		KED
	Zn -5	68	86.3	19.5	0.1174	0.099	84.0	ug/L	48		KED
	As-2	75	27.0	28.9	0.2076	0.046	22.4	ug/L	2		KED
	Y-1	89	51674.0	0.8				ug/L	56057		KED
	Rh-1	103	34420.1	1.3				ug/L	42836		KED
	Cd -2	111	3.7	56.8	-0.0378	0.004	10.7	ug/L	4		KED
	Cd -3	114	9.7	15.8	-0.0509	0.001	2.3	ug/L	7		KED
>	Sc	45	657294.8	1.9				ug/L	749258		Standard
>	Ge	72	393197.0	1.7				ug/L	446707		Standard
>	In	115	375072.0	2.3				ug/L	446509		Standard
>	Tb	159	575529.2	1.6				ug/L	663614		Standard
>	Ge-1	72	23298.7	0.2				ug/L	26774		KED
>	In-1	115	36519.1	1.0				ug/L	40879		KED

## QC Calculated Values

Sample ID: 05-353-02ID 2X

Report Date/Time: Saturday, June 01, 2024 10:00:02

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		87.726
>	Ge	72		88.021
>	In	115		84.001
>	Tb	159		86.727
>	Ge-1	72		87.021
>	In-1	115		89.334

# Quantitative Analysis - Summary Report

Sample ID: 05-353-02IL 10X

Sample Date/Time: Saturday, June 01, 2024 10:02:22

Report Date/Time: Saturday, June 01, 2024 10:05:43

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\05-353-02IL 10X.379

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Cr	52	30451.8	1.2	<b>0.5740</b>	0.012	2.0	ug/L	20848		Standard
	Cr -1	53	3459.8	1.3	<b>0.5580</b>	0.029	5.2	ug/L	2436		Standard
	Ni	58	-4189.9	10.9	<b>0.1389</b>	0.039	28.2	ug/L	-7461		Standard
	Ni -1	60	1472.7	2.5	<b>0.2937</b>	0.003	1.0	ug/L	209		Standard
	Ni -2	62	5002.5	2.1	<b>3.6116</b>	0.263	7.3	ug/L	2414		Standard
	Cu	63	5994.9	1.1	<b>0.3251</b>	0.015	4.6	ug/L	3083		Standard
	Cu -1	65	660.3	0.9	<b>0.0969</b>	0.003	3.5	ug/L	471		Standard
	Zn	66	668.3	7.3	<b>-0.1056</b>	0.017	15.8	ug/L	741		Standard
	Zn -1	67	163.0	2.8	<b>-0.0712</b>	0.014	19.4	ug/L	144		Standard
	Zn -2	68	887.0	5.4	<b>0.0031</b>	0.020	653.2	ug/L	764		Standard
	As	75	13603.3	1.6	<b>0.4201</b>	0.061	14.6	ug/L	12792		Standard
	As-1	75	265.3	26.5	<b>0.1208</b>	0.030	24.7	ug/L	-68		Standard
	Se	77	162.7	4.7	<b>0.4494</b>	0.070	15.6	ug/L	103		Standard
	Se -1	78	13440.3	2.0	<b>1.8122</b>	0.389	21.5	ug/L	12881		Standard
	Br	79	4308.7	3.9				ug/L	373		Standard
	Se -2	82	60.0	19.6	<b>0.1523</b>	0.055	36.1	ug/L	27		Standard
	Kr	83	31.0	22.6				ug/L	21		Standard
	Y	89	610445.1	0.7				ug/L	602615		Standard
	Rh	103	110852.1	0.4				ug/L	112596		Standard
	Cd	111	535.6	4.1	<b>0.0826</b>	0.007	9.0	ug/L	209		Standard
	Cd -1	114	778.2	1.2	<b>0.0739</b>	0.002	2.5	ug/L	17		Standard
	Ho	165	642946.0	0.9				ug/L	645073		Standard
	Pb	208	4805.6	3.0	<b>0.0736</b>	0.004	5.0	ug/L	648		Standard
	Bi	209	375913.2	1.3				ug/L	378643		Standard
	Th	232	469115.4	1.5				ug/L	482278		Standard
	Cr -2	52	475.0	6.6	<b>0.0975</b>	0.015	15.8	ug/L	242		KED
	Cr -3	53	61.7	11.0	<b>0.0723</b>	0.030	41.7	ug/L	35		KED
	Ni -3	58	637.4	11.5	<b>0.2290</b>	0.031	13.6	ug/L	102		KED
	Ni -4	60	151.3	5.4	<b>0.1082</b>	0.007	6.7	ug/L	46		KED
	Ni -5	62	16.0	22.5	<b>0.0347</b>	0.024	68.2	ug/L	7		KED
	Cu -2	63	340.3	1.7	<b>0.0878</b>	0.003	3.8	ug/L	278		KED
	Cu -3	65	160.3	7.8	<b>0.0768</b>	0.011	14.7	ug/L	116		KED
	Zn -3	66	85.7	15.2	<b>-0.0914</b>	0.051	56.0	ug/L	74		KED
	Zn -4	67	13.7	29.6	<b>0.0453</b>	0.095	209.8	ug/L	11		KED
	Zn -5	68	55.0	11.4	<b>-0.0966</b>	0.032	32.9	ug/L	48		KED
	As-2	75	29.0	11.9	<b>0.2031</b>	0.020	9.7	ug/L	2		KED
	Y-1	89	55846.0	1.4				ug/L	56057		KED
	Rh-1	103	37856.1	1.0				ug/L	42836		KED
	Cd -2	111	67.7	14.0	<b>0.0738</b>	0.019	25.3	ug/L	4		KED
	Cd -3	114	158.7	10.2	<b>0.0463</b>	0.009	19.7	ug/L	7		KED
>	Sc	45	694892.2	0.7				ug/L	749258		Standard
>	Ge	72	440963.1	1.6				ug/L	446707		Standard
>	In	115	423286.7	1.8				ug/L	446509		Standard
>	Tb	159	653777.7	1.1				ug/L	663614		Standard
>	Ge-1	72	25775.2	0.8				ug/L	26774		KED
>	In-1	115	40239.4	1.7				ug/L	40879		KED

### QC Calculated Values

Sample ID: 05-353-02IL 10X

Report Date/Time: Saturday, June 01, 2024 10:05:43

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		92.744
>	Ge	72		98.714
>	In	115		94.799
>	Tb	159		98.518
>	Ge-1	72		96.271
>	In-1	115		98.434

## Quantitative Analysis - Summary Report

Sample ID: 05-353-02IMS 2X

Sample Date/Time: Saturday, June 01, 2024 10:08:04

Report Date/Time: Saturday, June 01, 2024 10:11:24

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\05-353-02IMS 2X.380

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	821512.0	1.6	36.6679	0.445	1.2	ug/L	20848	Standard
	Cr -1	53	94257.9	0.3	37.7762	0.554	1.5	ug/L	2436	Standard
	Ni	58	396302.8	1.8	34.3748	0.263	0.8	ug/L	-7461	Standard
	Ni -1	60	159234.9	0.8	33.6494	0.469	1.4	ug/L	209	Standard
	Ni -2	62	26603.1	2.0	33.6540	0.195	0.6	ug/L	2414	Standard
	Cu	63	351080.1	2.5	33.0106	0.266	0.8	ug/L	3083	Standard
	Cu -1	65	158476.5	2.3	32.5730	0.408	1.3	ug/L	471	Standard
	Zn	66	88873.0	2.0	35.2511	0.312	0.9	ug/L	741	Standard
	Zn -1	67	15077.6	1.6	35.5861	0.403	1.1	ug/L	144	Standard
	Zn -2	68	64249.5	2.5	35.9501	0.350	1.0	ug/L	764	Standard
	As	75	109385.2	1.9	41.8060	0.565	1.4	ug/L	12792	Standard
	As-1	75	97586.9	2.3	41.2049	0.626	1.5	ug/L	-68	Standard
	Se	77	6952.7	1.2	46.3919	0.474	1.0	ug/L	103	Standard
	Se -1	78	34083.3	1.0	45.3329	0.802	1.8	ug/L	12881	Standard
	Br	79	14091.3	3.4				ug/L	373	Standard
	Se -2	82	8794.7	2.2	42.9640	0.784	1.8	ug/L	27	Standard
	Kr	83	32.7	11.6				ug/L	21	Standard
	Y	89	624368.0	1.9				ug/L	602615	Standard
	Rh	103	109396.6	3.3				ug/L	112596	Standard
	Cd	111	114078.5	2.2	39.9440	0.430	1.1	ug/L	209	Standard
	Cd -1	114	280925.4	2.5	38.3806	0.258	0.7	ug/L	17	Standard
	Ho	165	648670.6	3.0				ug/L	645073	Standard
	Pb	208	1680655.5	1.7	36.4671	0.255	0.7	ug/L	648	Standard
	Bi	209	369400.1	2.4				ug/L	378643	Standard
	Th	232	500141.7	0.4				ug/L	482278	Standard
	Cr -2	52	68576.9	1.5	34.3751	0.156	0.5	ug/L	242	KED
	Cr -3	53	8704.7	1.8	34.9824	0.743	2.1	ug/L	35	KED
	Ni -3	58	78470.5	1.4	32.8650	0.608	1.8	ug/L	102	KED
	Ni -4	60	33824.3	1.4	33.2036	0.260	0.8	ug/L	46	KED
	Ni -5	62	5035.6	2.2	32.7353	0.351	1.1	ug/L	7	KED
	Cu -2	63	83488.0	2.8	32.1406	0.569	1.8	ug/L	278	KED
	Cu -3	65	39474.1	1.7	32.6101	0.314	1.0	ug/L	116	KED
	Zn -3	66	9522.8	2.4	37.0097	0.558	1.5	ug/L	74	KED
	Zn -4	67	1585.1	1.3	36.1874	0.689	1.9	ug/L	11	KED
	Zn -5	68	7129.4	0.2	36.3623	0.393	1.1	ug/L	48	KED
	As-2	75	7259.8	1.1	38.1242	0.622	1.6	ug/L	2	KED
	Y-1	89	57782.6	1.0				ug/L	56057	KED
	Rh-1	103	37681.0	1.2				ug/L	42836	KED
	Cd -2	111	21209.7	1.4	36.5454	0.330	0.9	ug/L	4	KED
	Cd -3	114	55656.5	0.6	35.9914	0.219	0.6	ug/L	7	KED
>	Sc	45	718647.1	1.5				ug/L	749258	Standard
>	Ge	72	446110.4	1.7				ug/L	446707	Standard
>	In	115	420459.4	3.0				ug/L	446509	Standard
>	Tb	159	656554.4	2.2				ug/L	663614	Standard
>	Ge-1	72	26405.0	1.1				ug/L	26774	KED
>	In-1	115	40848.1	0.5				ug/L	40879	KED

### QC Calculated Values

Sample ID: 05-353-02IMS 2X

Report Date/Time: Saturday, June 01, 2024 10:11:24

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		95.915
>	Ge	72		99.867
>	In	115		94.166
>	Tb	159		98.936
>	Ge-1	72		98.623
>	In-1	115		99.923

# Quantitative Analysis - Summary Report

Sample ID: 05-353-02IMSD 2X

Sample Date/Time: Saturday, June 01, 2024 10:13:44

Report Date/Time: Saturday, June 01, 2024 10:17:04

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\05-353-02IMSD 2X.381

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	786245.9	2.1	36.6578	0.408	1.1	ug/L	20848	Standard
	Cr -1	53	90983.2	2.2	38.0915	0.395	1.0	ug/L	2436	Standard
	Ni	58	374831.7	2.9	34.2348	0.635	1.9	ug/L	-7461	Standard
	Ni -1	60	153149.8	2.1	34.0738	0.424	1.2	ug/L	209	Standard
	Ni -2	62	25013.2	1.4	33.2937	0.853	2.6	ug/L	2414	Standard
	Cu	63	335233.3	2.9	33.1889	0.061	0.2	ug/L	3083	Standard
	Cu -1	65	153870.9	2.5	33.3014	0.345	1.0	ug/L	471	Standard
	Zn	66	85529.5	3.6	35.7166	0.303	0.8	ug/L	741	Standard
	Zn -1	67	14793.3	2.5	36.7744	0.167	0.5	ug/L	144	Standard
	Zn -2	68	61060.9	2.4	35.9773	0.293	0.8	ug/L	764	Standard
	As	75	106073.0	1.4	42.8130	1.026	2.4	ug/L	12792	Standard
	As-1	75	93649.4	1.6	41.6450	0.918	2.2	ug/L	-68	Standard
	Se	77	6616.5	3.4	46.4728	0.383	0.8	ug/L	103	Standard
	Se -1	78	33582.4	1.6	48.0476	1.083	2.3	ug/L	12881	Standard
	Br	79	14394.9	3.6				ug/L	373	Standard
	Se -2	82	8352.1	2.3	42.9613	0.556	1.3	ug/L	27	Standard
	Kr	83	29.7	8.5				ug/L	21	Standard
	Y	89	608570.4	2.0				ug/L	602615	Standard
	Rh	103	106460.7	2.5				ug/L	112596	Standard
	Cd	111	108611.8	3.5	39.8954	0.685	1.7	ug/L	209	Standard
	Cd -1	114	271930.5	1.8	38.9865	0.117	0.3	ug/L	17	Standard
	Ho	165	629027.1	3.5				ug/L	645073	Standard
	Pb	208	1621113.4	2.1	36.5049	0.296	0.8	ug/L	648	Standard
	Bi	209	357313.3	1.9				ug/L	378643	Standard
	Th	232	477210.1	1.7				ug/L	482278	Standard
	Cr -2	52	65965.6	0.8	34.9607	0.880	2.5	ug/L	242	KED
	Cr -3	53	8139.0	1.2	34.5733	0.834	2.4	ug/L	35	KED
	Ni -3	58	75246.2	1.2	33.3076	0.279	0.8	ug/L	102	KED
	Ni -4	60	32245.0	1.5	33.4556	0.155	0.5	ug/L	46	KED
	Ni -5	62	4803.8	3.4	33.0036	0.654	2.0	ug/L	7	KED
	Cu -2	63	80274.0	2.4	32.6640	0.366	1.1	ug/L	278	KED
	Cu -3	65	37831.7	1.5	33.0344	0.308	0.9	ug/L	116	KED
	Zn -3	66	9029.9	1.0	37.0979	0.409	1.1	ug/L	74	KED
	Zn -4	67	1476.7	1.4	35.6354	1.043	2.9	ug/L	11	KED
	Zn -5	68	6752.3	0.9	36.4001	0.485	1.3	ug/L	48	KED
	As-2	75	7000.7	1.9	38.8499	0.060	0.2	ug/L	2	KED
	Y-1	89	55699.1	1.4				ug/L	56057	KED
	Rh-1	103	36331.1	0.7				ug/L	42836	KED
	Cd -2	111	20212.0	0.4	35.8008	0.204	0.6	ug/L	4	KED
	Cd -3	114	54214.7	1.6	36.0370	0.242	0.7	ug/L	7	KED
>	Sc	45	687951.4	1.7				ug/L	749258	Standard
>	Ge	72	423745.3	3.0				ug/L	446707	Standard
>	In	115	400645.3	2.0				ug/L	446509	Standard
>	Tb	159	632667.6	2.8				ug/L	663614	Standard
>	Ge-1	72	24984.5	2.0				ug/L	26774	KED
>	In-1	115	39737.5	1.0				ug/L	40879	KED

## QC Calculated Values

Sample ID: 05-353-02IMSD 2X

Report Date/Time: Saturday, June 01, 2024 10:17:04

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		91.818
>	Ge	72		94.860
>	In	115		89.728
>	Tb	159		95.337
>	Ge-1	72		93.317
>	In-1	115		97.207

# Quantitative Analysis - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Saturday, June 01, 2024 10:19:25

Report Date/Time: Saturday, June 01, 2024 10:22:44

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\QC Std 6.382

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	816144.2	0.7	<b>41.2479</b>	0.517	1.3	ug/L	20848	Standard
	Cr -1	53	96303.5	0.7	<b>43.7242</b>	0.207	0.5	ug/L	2436	Standard
	Ni	58	423020.3	1.5	<b>37.9444</b>	0.478	1.3	ug/L	-7461	Standard
	Ni -1	60	171796.2	1.0	<b>37.5948</b>	0.559	1.5	ug/L	209	Standard
	Ni -2	62	30352.9	3.4	<b>40.3764</b>	0.366	0.9	ug/L	2414	Standard
	Cu	63	383432.3	2.5	<b>37.3651</b>	0.240	0.6	ug/L	3083	Standard
	Cu -1	65	170515.9	0.1	<b>36.3078</b>	0.860	2.4	ug/L	471	Standard
	Zn	66	93960.1	2.1	<b>38.6277</b>	0.385	1.0	ug/L	741	Standard
	Zn -1	67	16139.8	1.4	<b>39.4980</b>	0.633	1.6	ug/L	144	Standard
	Zn -2	68	66727.5	1.2	<b>38.7075</b>	0.517	1.3	ug/L	764	Standard
	As	75	106793.2	3.0	<b>42.3158</b>	0.527	1.2	ug/L	12792	Standard
	As-1	75	95286.6	2.7	<b>41.6579</b>	0.494	1.2	ug/L	-68	Standard
	Se	77	6311.1	4.7	<b>43.5406</b>	0.959	2.2	ug/L	103	Standard
	Se -1	78	32759.5	2.5	<b>44.9753</b>	0.067	0.1	ug/L	12881	Standard
	Br	79	1244.7	2.0				ug/L	373	Standard
	Se -2	82	8387.8	0.5	<b>42.4373</b>	0.883	2.1	ug/L	27	Standard
	Kr	83	29.3	14.2				ug/L	21	Standard
	Y	89	606777.8	1.0				ug/L	602615	Standard
	Rh	103	111090.4	2.0				ug/L	112596	Standard
	Cd	111	119974.9	3.2	<b>43.4263</b>	0.494	1.1	ug/L	209	Standard
	Cd -1	114	297130.7	1.8	<b>41.9706</b>	0.339	0.8	ug/L	17	Standard
	Ho	165	623002.5	2.5				ug/L	645073	Standard
	Pb	208	1790424.3	1.6	<b>40.4296</b>	0.231	0.6	ug/L	648	Standard
	Bi	209	363542.8	1.3				ug/L	378643	Standard
	Th	232	455453.7	1.2				ug/L	482278	Standard
	Cr -2	52	73130.4	0.5	<b>37.1061</b>	0.570	1.5	ug/L	242	KED
	Cr -3	53	9244.0	1.9	<b>37.6045</b>	1.043	2.8	ug/L	35	KED
	Ni -3	58	85589.7	0.7	<b>36.2731</b>	0.439	1.2	ug/L	102	KED
	Ni -4	60	36931.3	1.0	<b>36.6884</b>	0.512	1.4	ug/L	46	KED
	Ni -5	62	5476.0	2.1	<b>36.0291</b>	0.682	1.9	ug/L	7	KED
	Cu -2	63	93055.1	1.0	<b>36.2561</b>	0.113	0.3	ug/L	278	KED
	Cu -3	65	43969.2	0.9	<b>36.7632</b>	0.582	1.6	ug/L	116	KED
	Zn -3	66	10353.1	1.2	<b>40.7584</b>	0.472	1.2	ug/L	74	KED
	Zn -4	67	1693.4	2.3	<b>39.1363</b>	0.902	2.3	ug/L	11	KED
	Zn -5	68	7686.4	2.3	<b>39.6933</b>	0.491	1.2	ug/L	48	KED
	As-2	75	7237.8	1.3	<b>38.4526</b>	0.213	0.6	ug/L	2	KED
	Y-1	89	56875.7	0.5				ug/L	56057	KED
	Rh-1	103	38786.6	0.8				ug/L	42836	KED
	Cd -2	111	23082.0	1.1	<b>39.3529</b>	0.633	1.6	ug/L	4	KED
	Cd -3	114	61727.1	0.6	<b>39.4960</b>	0.247	0.6	ug/L	7	KED
>	Sc	45	636327.9	1.1				ug/L	749258	Standard
>	Ge	72	430866.1	2.5				ug/L	446707	Standard
>	In	115	406702.1	2.4				ug/L	446509	Standard
>	Tb	159	630853.2	1.1				ug/L	663614	Standard
>	Ge-1	72	26097.5	1.1				ug/L	26774	KED
>	In-1	115	41289.5	0.6				ug/L	40879	KED

## QC Calculated Values

Sample ID: QC Std 6

Report Date/Time: Saturday, June 01, 2024 10:22:44

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52	103.120	
	Cr -1	53	109.311	
	Ni	58	94.861	
	Ni -1	60	93.987	
	Ni -2	62	100.941	
	Cu	63	93.413	
	Cu -1	65	90.769	
	Zn	66	96.569	
	Zn -1	67	98.745	
	Zn -2	68	96.769	
	As	75	105.790	
	As-1	75	104.145	
	Se	77	108.852	
	Se -1	78	112.438	
	Br	79		
	Se -2	82	106.093	
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111	108.566	
	Cd -1	114	104.926	
	Ho	165		
	Pb	208	101.074	
	Bi	209		
	Th	232		
	Cr -2	52	92.765	
	Cr -3	53	94.011	
	Ni -3	58	90.683	
	Ni -4	60	91.721	
	Ni -5	62	90.073	
	Cu -2	63	90.640	
	Cu -3	65	91.908	
	Zn -3	66	101.896	
	Zn -4	67	97.841	
	Zn -5	68	99.233	
	As-2	75	96.132	
	Y-1	89		
	Rh-1	103		
	Cd -2	111	98.382	
	Cd -3	114	98.740	
>	Sc	45		84.928
>	Ge	72		96.454
>	In	115		91.085
>	Tb	159		95.063
>	Ge-1	72		97.474
>	In-1	115		101.003

# Quantitative Analysis - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, June 01, 2024 10:25:06

Report Date/Time: Saturday, June 01, 2024 10:28:25

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\QC Std 7.383

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	428234.4	1.0	20.3573	0.316	1.6	ug/L	20848	Standard
	Cr -1	53	48687.2	3.3	20.7548	0.204	1.0	ug/L	2436	Standard
	Ni	58	208891.0	1.6	18.7527	0.166	0.9	ug/L	-7461	Standard
	Ni -1	60	86731.3	3.1	18.7188	0.122	0.7	ug/L	209	Standard
	Ni -2	62	19721.3	0.3	24.6736	0.597	2.4	ug/L	2414	Standard
	Cu	63	198299.4	3.7	18.9501	0.320	1.7	ug/L	3083	Standard
	Cu -1	65	89904.8	2.7	18.8701	0.169	0.9	ug/L	471	Standard
	Zn	66	49418.7	2.2	19.8737	0.130	0.7	ug/L	741	Standard
	Zn -1	67	8473.2	1.8	20.2435	0.245	1.2	ug/L	144	Standard
	Zn -2	68	35344.3	1.5	19.9979	0.315	1.6	ug/L	764	Standard
	As	75	60632.1	1.9	21.2881	0.350	1.6	ug/L	12792	Standard
	As-1	75	48790.7	2.3	21.0617	0.276	1.3	ug/L	-68	Standard
	Se	77	3214.4	1.8	21.5752	0.525	2.4	ug/L	103	Standard
	Se -1	78	22954.8	0.9	22.7797	0.980	4.3	ug/L	12881	Standard
	Br	79	1039.7	4.5				ug/L	373	Standard
	Se -2	82	4394.7	1.5	21.8769	0.417	1.9	ug/L	27	Standard
	Kr	83	27.3	16.5				ug/L	21	Standard
	Y	89	633478.5	1.6				ug/L	602615	Standard
	Rh	103	115497.4	1.3				ug/L	112596	Standard
	Cd	111	60682.2	1.0	21.2822	0.289	1.4	ug/L	209	Standard
	Cd -1	114	151461.6	2.5	20.7568	0.195	0.9	ug/L	17	Standard
	Ho	165	637743.1	2.5				ug/L	645073	Standard
	Pb	208	901528.5	2.9	19.7215	0.410	2.1	ug/L	648	Standard
	Bi	209	373882.9	1.6				ug/L	378643	Standard
	Th	232	476224.5	1.6				ug/L	482278	Standard
	Cr -2	52	37309.3	0.6	18.5148	0.025	0.1	ug/L	242	KED
	Cr -3	53	4630.4	1.1	18.4017	0.149	0.8	ug/L	35	KED
	Ni -3	58	43559.8	1.2	18.1049	0.119	0.7	ug/L	102	KED
	Ni -4	60	18805.4	1.0	18.3233	0.254	1.4	ug/L	46	KED
	Ni -5	62	2816.3	2.9	18.1625	0.618	3.4	ug/L	7	KED
	Cu -2	63	47171.8	0.9	18.0259	0.251	1.4	ug/L	278	KED
	Cu -3	65	22293.4	0.4	18.2739	0.156	0.9	ug/L	116	KED
	Zn -3	66	5285.3	1.3	20.2157	0.305	1.5	ug/L	74	KED
	Zn -4	67	900.4	5.9	20.2999	1.182	5.8	ug/L	11	KED
	Zn -5	68	3931.2	1.3	19.7451	0.173	0.9	ug/L	48	KED
	As -2	75	3773.8	0.8	19.7123	0.165	0.8	ug/L	2	KED
	Y -1	89	58605.6	0.6				ug/L	56057	KED
	Rh -1	103	40159.4	0.6				ug/L	42836	KED
	Cd -2	111	11579.0	1.5	19.3112	0.329	1.7	ug/L	4	KED
	Cd -3	114	30887.0	0.8	19.3259	0.063	0.3	ug/L	7	KED
>	Sc	45	662659.9	2.4				ug/L	749258	Standard
>	Ge	72	436466.8	2.4				ug/L	446707	Standard
>	In	115	418806.3	2.0				ug/L	446509	Standard
>	Tb	159	650623.9	0.8				ug/L	663614	Standard
>	Ge -1	72	26575.0	0.5				ug/L	26774	KED
>	In -1	115	42159.0	0.9				ug/L	40879	KED

## QC Calculated Values

Sample ID: QC Std 7

Report Date/Time: Saturday, June 01, 2024 10:28:25

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52	101.787	
	Cr -1	53	103.774	
	Ni	58	93.764	
	Ni -1	60	93.594	
	Ni -2	62	123.368	
	Cu	63	94.750	
	Cu -1	65	94.351	
	Zn	66	99.368	
	Zn -1	67	101.217	
	Zn -2	68	99.989	
	As	75	106.441	
	As-1	75	105.309	
	Se	77	107.876	
	Se -1	78	113.899	
	Br	79		
	Se -2	82	109.385	
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111	106.411	
	Cd -1	114	103.784	
	Ho	165		
	Pb	208	98.608	
	Bi	209		
	Th	232		
	Cr -2	52	92.574	
	Cr -3	53	92.008	
	Ni -3	58	90.525	
	Ni -4	60	91.616	
	Ni -5	62	90.812	
	Cu -2	63	90.130	
	Cu -3	65	91.370	
	Zn -3	66	101.079	
	Zn -4	67	101.500	
	Zn -5	68	98.725	
	As-2	75	98.562	
	Y-1	89		
	Rh-1	103		
	Cd -2	111	96.556	
	Cd -3	114	96.629	
>	Sc	45		88.442
>	Ge	72		97.708
>	In	115		93.796
>	Tb	159		98.043
>	Ge-1	72		99.258
>	In-1	115		103.130

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Saturday, June 01, 2024 10:30:46

Report Date/Time: Saturday, June 01, 2024 10:34:07

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\QC Std 8.384

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Cr	52	16766.2	1.3	0.0382	0.003	8.3	ug/L	20848		Standard
	Cr -1	53	1396.1	0.7	-0.2351	0.005	2.1	ug/L	2436		Standard
	Ni	58	-5053.4	2.5	0.0410	0.023	56.4	ug/L	-7461		Standard
	Ni -1	60	187.7	2.9	0.0210	0.000	0.6	ug/L	209		Standard
	Ni -2	62	6185.3	2.6	5.7419	0.473	8.2	ug/L	2414		Standard
	Cu	63	5483.4	0.6	0.3037	0.018	5.8	ug/L	3083		Standard
	Cu -1	65	418.3	7.9	0.0511	0.007	14.6	ug/L	471		Standard
	Zn	66	659.7	1.9	-0.0948	0.012	12.8	ug/L	741		Standard
	Zn -1	67	115.0	10.0	-0.1727	0.031	17.8	ug/L	144		Standard
	Zn -2	68	646.0	5.5	-0.1156	0.021	17.9	ug/L	764		Standard
	As	75	12980.9	1.0	0.4462	0.113	25.3	ug/L	12792		Standard
	As-1	75	-25.8	126.5	-0.0043	0.015	348.6	ug/L	-68		Standard
	Se	77	69.0	7.5	-0.1684	0.026	15.5	ug/L	103		Standard
	Se -1	78	13057.0	0.8	2.4644	0.614	24.9	ug/L	12881		Standard
	Br	79	850.4	1.4				ug/L	373		Standard
	Se -2	82	39.0	32.0	0.0589	0.065	110.9	ug/L	27		Standard
	Kr	83	32.0	8.3				ug/L	21		Standard
	Y	89	596114.8	1.1				ug/L	602615		Standard
	Rh	103	107829.9	2.6				ug/L	112596		Standard
	Cd	111	248.3	4.2	-0.0115	0.002	14.5	ug/L	209		Standard
	Cd -1	114	25.4	53.7	-0.0281	0.002	6.9	ug/L	17		Standard
	Ho	165	605170.2	3.1				ug/L	645073		Standard
	Pb	208	653.3	3.8	-0.0158	0.001	4.4	ug/L	648		Standard
	Bi	209	353374.2	1.9				ug/L	378643		Standard
	Th	232	441156.1	2.8				ug/L	482278		Standard
	Cr -2	52	203.0	10.4	-0.0387	0.011	28.4	ug/L	242		KED
	Cr -3	53	33.0	21.2	-0.0412	0.030	72.5	ug/L	35		KED
	Ni -3	58	96.2	1.5	-0.0019	0.000	22.3	ug/L	102		KED
	Ni -4	60	35.0	18.7	-0.0075	0.007	91.9	ug/L	46		KED
	Ni -5	62	9.7	36.3	-0.0050	0.024	480.2	ug/L	7		KED
	Cu -2	63	211.7	3.4	0.0402	0.002	6.2	ug/L	278		KED
	Cu -3	65	97.7	3.3	0.0268	0.003	10.2	ug/L	116		KED
	Zn -3	66	70.3	21.3	-0.1424	0.061	43.1	ug/L	74		KED
	Zn -4	67	10.7	35.5	-0.0159	0.091	573.4	ug/L	11		KED
	Zn -5	68	53.3	20.2	-0.0945	0.059	62.2	ug/L	48		KED
	As-2	75	4.0	66.1	0.0694	0.015	21.1	ug/L	2		KED
	Y-1	89	55435.7	0.4				ug/L	56057		KED
	Rh-1	103	36962.4	0.9				ug/L	42836		KED
	Cd -2	111	3.0	100.0	-0.0396	0.005	13.5	ug/L	4		KED
	Cd -3	114	10.3	20.1	-0.0510	0.001	2.7	ug/L	7		KED
>	Sc	45	609590.7	1.3				ug/L	749258		Standard
>	Ge	72	419072.4	2.7				ug/L	446707		Standard
>	In	115	395164.8	2.5				ug/L	446509		Standard
>	Tb	159	606066.5	2.0				ug/L	663614		Standard
>	Ge-1	72	24819.5	0.5				ug/L	26774		KED
>	In-1	115	39782.6	0.4				ug/L	40879		KED

### QC Calculated Values

Sample ID: QC Std 8

Report Date/Time: Saturday, June 01, 2024 10:34:07

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		81.359
>	Ge	72		93.814
>	In	115		88.501
>	Tb	159		91.328
>	Ge-1	72		92.701
>	In-1	115		97.317

## Quantitative Analysis - Summary Report

Sample ID: 05-410-01b 5X

Sample Date/Time: Saturday, June 01, 2024 10:36:37

Report Date/Time: Saturday, June 01, 2024 10:39:57

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\05-410-01b 5X.385

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	45920.8	3.6	1.5811	0.035	2.2	ug/L	20848	Standard
	Cr -1	53	35888.7	0.8	16.2676	0.243	1.5	ug/L	2436	Standard
	Ni	58	36980.8	4.4	4.0580	0.149	3.7	ug/L	-7461	Standard
	Ni -1	60	16625.0	1.6	3.9341	0.054	1.4	ug/L	209	Standard
	Ni -2	62	21154.0	6.9	29.7492	2.207	7.4	ug/L	2414	Standard
	Cu	63	29880.9	4.4	2.9361	0.132	4.5	ug/L	3083	Standard
	Cu -1	65	910.0	3.6	0.1702	0.007	4.3	ug/L	471	Standard
	Zn	66	6914.7	4.1	2.7428	0.121	4.4	ug/L	741	Standard
	Zn -1	67	1434.1	3.3	3.3931	0.133	3.9	ug/L	144	Standard
	Zn -2	68	5138.6	2.8	2.7755	0.091	3.3	ug/L	764	Standard
	As	75	14232.7	0.9	1.3957	0.061	4.4	ug/L	12792	Standard
	As-1	75	731.5	13.0	0.3550	0.046	12.9	ug/L	-68	Standard
	Se	77	897.0	7.9	6.1660	0.527	8.5	ug/L	103	Standard
	Se -1	78	13992.2	1.2	6.3760	0.392	6.1	ug/L	12881	Standard
	Br	79	149421.9	1.7				ug/L	373	Standard
	Se -2	82	213.3	7.6	1.0320	0.090	8.8	ug/L	27	Standard
	Kr	83	32.3	6.4				ug/L	21	Standard
	Y	89	569738.9	1.1				ug/L	602615	Standard
	Rh	103	99791.7	1.2				ug/L	112596	Standard
	Cd	111	347.9	9.3	0.0331	0.017	52.4	ug/L	209	Standard
	Cd -1	114	285.6	5.0	0.0120	0.001	8.0	ug/L	17	Standard
	Ho	165	578189.1	0.9				ug/L	645073	Standard
	Pb	208	4425.3	1.0	0.0781	0.001	1.8	ug/L	648	Standard
	Bi	209	283916.8	1.8				ug/L	378643	Standard
	Th	232	441340.7	0.1				ug/L	482278	Standard
	Cr -2	52	2442.9	0.9	1.1577	0.009	0.8	ug/L	242	KED
	Cr -3	53	359.7	2.6	1.3590	0.048	3.6	ug/L	35	KED
	Ni -3	58	8845.8	1.6	3.8917	0.050	1.3	ug/L	102	KED
	Ni -4	60	3860.5	1.7	3.9828	0.066	1.7	ug/L	46	KED
	Ni -5	62	605.0	5.6	4.1114	0.236	5.8	ug/L	7	KED
	Cu -2	63	383.3	9.5	0.1102	0.016	14.2	ug/L	278	KED
	Cu -3	65	171.0	3.8	0.0910	0.007	7.3	ug/L	116	KED
	Zn -3	66	768.7	2.1	2.7717	0.078	2.8	ug/L	74	KED
	Zn -4	67	129.7	14.6	2.8887	0.464	16.1	ug/L	11	KED
	Zn -5	68	603.3	4.6	2.9136	0.165	5.7	ug/L	48	KED
	As-2	75	35.0	5.7	0.2420	0.012	4.8	ug/L	2	KED
	Y-1	89	54421.8	1.4				ug/L	56057	KED
	Rh-1	103	35515.8	0.6				ug/L	42836	KED
	Cd -2	111	18.3	28.0	-0.0100	0.010	98.9	ug/L	4	KED
	Cd -3	114	68.0	11.1	-0.0093	0.005	54.5	ug/L	7	KED
>	Sc	45	616273.1	2.2				ug/L	749258	Standard
>	Ge	72	396419.6	0.4				ug/L	446707	Standard
>	In	115	374850.3	3.2				ug/L	446509	Standard
>	Tb	159	577422.8	2.1				ug/L	663614	Standard
>	Ge-1	72	24882.3	0.6				ug/L	26774	KED
>	In-1	115	37001.7	0.9				ug/L	40879	KED

### QC Calculated Values

Sample ID: 05-410-01b 5X

Report Date/Time: Saturday, June 01, 2024 10:39:57

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		82.251
>	Ge	72		88.743
>	In	115		83.951
>	Tb	159		87.012
>	Ge-1	72		92.936
>	In-1	115		90.514

# Quantitative Analysis - Summary Report

**Sample ID: 05-311-01c 10X**

Sample Date/Time: Saturday, June 01, 2024 10:42:17

Report Date/Time: Saturday, June 01, 2024 10:45:37

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\05-311-01c 10X.386

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	28628.0	1.7	0.6561	0.015	2.2	ug/L	20848	Standard
	Cr -1	53	135888.6	2.7	63.9323	1.307	2.0	ug/L	2436	Standard
	Ni	58	-1208.3	13.2	0.3837	0.015	3.9	ug/L	-7461	Standard
	Ni -1	60	2993.6	1.8	0.6988	0.017	2.4	ug/L	209	Standard
	Ni -2	62	31231.5	3.3	46.1068	1.647	3.6	ug/L	2414	Standard
	Cu	63	101680.7	2.4	10.7107	0.277	2.6	ug/L	3083	Standard
	Cu -1	65	23697.6	1.2	5.5080	0.096	1.7	ug/L	471	Standard
	Zn	66	47912.2	2.1	21.4759	0.508	2.4	ug/L	741	Standard
	Zn -1	67	8392.5	2.4	22.3629	0.562	2.5	ug/L	144	Standard
	Zn -2	68	33300.1	2.3	20.9915	0.468	2.2	ug/L	764	Standard
	As	75	14208.2	2.2	1.4595	0.154	10.6	ug/L	12792	Standard
	As-1	75	1366.0	10.6	0.6638	0.073	11.0	ug/L	-68	Standard
	Se	77	6629.2	5.3	50.3788	2.822	5.6	ug/L	103	Standard
	Se -1	78	14037.2	2.2	6.8504	0.727	10.6	ug/L	12881	Standard
	Br	79	444647.3	3.8				ug/L	373	Standard
	Se -2	82	489.7	6.5	2.5864	0.192	7.4	ug/L	27	Standard
	Kr	83	77.0	4.7				ug/L	21	Standard
	Y	89	546013.4	0.5				ug/L	602615	Standard
	Rh	103	94289.5	0.3				ug/L	112596	Standard
	Cd	111	292.7	10.6	0.0126	0.012	97.0	ug/L	209	Standard
	Cd -1	114	296.9	4.8	0.0144	0.002	13.8	ug/L	17	Standard
	Ho	165	553458.4	1.0				ug/L	645073	Standard
	Pb	208	1148.4	0.7	-0.0024	0.000	16.9	ug/L	648	Standard
	Bi	209	304394.7	1.1				ug/L	378643	Standard
	Th	232	333189.2	6.9				ug/L	482278	Standard
	Cr -2	52	330.0	2.2	0.0383	0.003	8.1	ug/L	242	KED
	Cr -3	53	230.3	7.0	0.8573	0.071	8.3	ug/L	35	KED
	Ni -3	58	1174.8	1.6	0.5062	0.012	2.3	ug/L	102	KED
	Ni -4	60	508.7	2.1	0.5149	0.011	2.1	ug/L	46	KED
	Ni -5	62	81.3	7.0	0.5206	0.042	8.0	ug/L	7	KED
	Cu -2	63	13035.9	1.6	5.5733	0.059	1.1	ug/L	278	KED
	Cu -3	65	6133.3	1.5	5.6164	0.056	1.0	ug/L	116	KED
	Zn -3	66	5420.0	1.6	23.3964	0.381	1.6	ug/L	74	KED
	Zn -4	67	817.4	3.4	20.7432	0.595	2.9	ug/L	11	KED
	Zn -5	68	3911.9	1.1	22.1580	0.273	1.2	ug/L	48	KED
	As-2	75	65.7	10.7	0.4324	0.043	10.0	ug/L	2	KED
	Y-1	89	51507.7	0.4				ug/L	56057	KED
	Rh-1	103	33333.8	1.1				ug/L	42836	KED
	Cd -2	111	24.3	28.0	0.0026	0.013	489.8	ug/L	4	KED
	Cd -3	114	66.3	11.7	-0.0091	0.006	67.3	ug/L	7	KED
>	Sc	45	617987.7	0.8				ug/L	749258	Standard
>	Ge	72	392133.5	0.5				ug/L	446707	Standard
>	In	115	369737.3	0.5				ug/L	446509	Standard
>	Tb	159	568278.2	0.7				ug/L	663614	Standard
>	Ge-1	72	23615.2	0.6				ug/L	26774	KED
>	In-1	115	36018.8	0.9				ug/L	40879	KED

## QC Calculated Values

Sample ID: 05-311-01c 10X

Report Date/Time: Saturday, June 01, 2024 10:45:37

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		82.480
>	Ge	72		87.783
>	In	115		82.806
>	Tb	159		85.634
>	Ge-1	72		88.203
>	In-1	115		88.110

## Quantitative Analysis - Summary Report

Sample ID: 05-311-02c 10X

Sample Date/Time: Saturday, June 01, 2024 10:47:57

Report Date/Time: Saturday, June 01, 2024 10:51:17

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\05-311-02c 10X.387

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	44472.8	2.3	1.5562	0.029	1.9	ug/L	20848	Standard
	Cr -1	53	421614.1	2.5	205.2451	2.459	1.2	ug/L	2436	Standard
	Ni	58	-4016.3	7.4	0.0596	0.034	56.9	ug/L	-7461	Standard
	Ni -1	60	3780.5	4.2	1.0066	0.038	3.8	ug/L	209	Standard
	Ni -2	62	133529.7	7.4	236.0103	16.216	6.9	ug/L	2414	Standard
	Cu	63	235870.2	5.8	28.4867	1.502	5.3	ug/L	3083	Standard
	Cu -1	65	2693.3	2.9	0.6722	0.016	2.4	ug/L	471	Standard
	Zn	66	3941.2	5.5	1.6553	0.103	6.2	ug/L	741	Standard
	Zn -1	67	4202.0	3.1	12.4553	0.384	3.1	ug/L	144	Standard
	Zn -2	68	2426.9	2.0	1.2652	0.034	2.7	ug/L	764	Standard
	As	75	17560.8	5.3	4.2365	0.447	10.6	ug/L	12792	Standard
	As-1	75	5532.3	11.1	3.0100	0.314	10.4	ug/L	-68	Standard
	Se	77	28771.6	1.9	249.7508	3.571	1.4	ug/L	103	Standard
	Se -1	78	16805.3	2.8	18.2884	0.948	5.2	ug/L	12881	Standard
	Br	79	1760089.5	2.6				ug/L	373	Standard
	Se -2	82	1820.4	2.9	11.3305	0.287	2.5	ug/L	27	Standard
	Kr	83	944.4	11.2				ug/L	21	Standard
	Y	89	460111.1	1.9				ug/L	602615	Standard
	Rh	103	78637.5	1.2				ug/L	112596	Standard
	Cd	111	223.0	14.4	-0.0045	0.015	342.0	ug/L	209	Standard
	Cd -1	114	166.9	2.2	-0.0027	0.001	30.8	ug/L	17	Standard
	Ho	165	473175.0	1.7				ug/L	645073	Standard
	Pb	208	975.3	0.3	-0.0027	0.000	12.9	ug/L	648	Standard
	Bi	209	256900.4	0.7				ug/L	378643	Standard
	Th	232	355618.9	0.6				ug/L	482278	Standard
	Cr -2	52	357.3	0.7	0.0710	0.002	2.4	ug/L	242	KED
	Cr -3	53	623.7	1.1	2.8752	0.042	1.5	ug/L	35	KED
	Ni -3	58	449.9	2.3	0.1843	0.005	2.5	ug/L	102	KED
	Ni -4	60	212.3	1.2	0.2092	0.001	0.6	ug/L	46	KED
	Ni -5	62	49.7	7.6	0.3208	0.029	9.1	ug/L	7	KED
	Cu -2	63	734.7	6.9	0.2971	0.021	7.2	ug/L	278	KED
	Cu -3	65	344.3	6.6	0.2867	0.022	7.7	ug/L	116	KED
	Zn -3	66	309.0	3.4	1.0388	0.058	5.5	ug/L	74	KED
	Zn -4	67	56.3	10.8	1.2958	0.164	12.7	ug/L	11	KED
	Zn -5	68	237.0	6.5	1.0954	0.086	7.8	ug/L	48	KED
	As-2	75	47.3	13.6	0.3485	0.042	12.0	ug/L	2	KED
	Y-1	89	48699.2	1.3				ug/L	56057	KED
	Rh-1	103	31040.4	1.5				ug/L	42836	KED
	Cd -2	111	13.0	20.4	-0.0165	0.006	33.8	ug/L	4	KED
	Cd -3	114	38.3	18.9	-0.0264	0.006	23.8	ug/L	7	KED
>	Sc	45	603085.9	1.3				ug/L	749258	Standard
>	Ge	72	346865.7	0.7				ug/L	446707	Standard
>	In	115	330309.5	1.0				ug/L	446509	Standard
>	Tb	159	487657.1	1.2				ug/L	663614	Standard
>	Ge-1	72	21753.6	0.8				ug/L	26774	KED
>	In-1	115	32211.4	1.2				ug/L	40879	KED

### QC Calculated Values

Sample ID: 05-311-02c 10X

Report Date/Time: Saturday, June 01, 2024 10:51:17

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		80.491
>	Ge	72		77.650
>	In	115		73.976
>	Tb	159		73.485
>	Ge-1	72		81.250
>	In-1	115		78.796

## Quantitative Analysis - Summary Report

Sample ID: 05-311-04d 10X

Sample Date/Time: Saturday, June 01, 2024 10:53:37

Report Date/Time: Saturday, June 01, 2024 10:56:57

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\05-311-04d 10X.388

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	44825.9	0.5	1.6347	0.019	1.1	ug/L	20848	Standard
	Cr -1	53	411331.8	1.6	205.0916	1.500	0.7	ug/L	2436	Standard
	Ni	58	-5158.5	3.4	-0.0917	0.008	8.2	ug/L	-7461	Standard
	Ni -1	60	3591.8	1.5	1.0002	0.010	1.0	ug/L	209	Standard
	Ni -2	62	94846.0	6.4	174.6808	15.005	8.6	ug/L	2414	Standard
	Cu	63	198506.7	0.2	25.0550	0.607	2.4	ug/L	3083	Standard
	Cu -1	65	4056.9	0.6	1.0827	0.026	2.4	ug/L	471	Standard
	Zn	66	5740.2	0.1	2.7194	0.068	2.5	ug/L	741	Standard
	Zn -1	67	4351.7	2.3	13.5282	0.077	0.6	ug/L	144	Standard
	Zn -2	68	3264.4	2.5	1.9856	0.042	2.1	ug/L	764	Standard
	As	75	18258.2	5.9	5.0858	0.384	7.5	ug/L	12792	Standard
	As-1	75	6022.4	17.4	3.4193	0.514	15.0	ug/L	-68	Standard
	Se	77	27695.2	2.4	251.4235	2.508	1.0	ug/L	103	Standard
	Se -1	78	17168.3	0.7	21.9910	1.046	4.8	ug/L	12881	Standard
	Br	79	1809755.1	3.7				ug/L	373	Standard
	Se -2	82	1960.8	0.2	12.7861	0.313	2.4	ug/L	27	Standard
	Kr	83	700.7	5.3				ug/L	21	Standard
	Y	89	444862.9	1.1				ug/L	602615	Standard
	Rh	103	77108.5	0.7				ug/L	112596	Standard
	Cd	111	195.9	5.3	-0.0141	0.004	27.3	ug/L	209	Standard
	Cd -1	114	154.9	7.0	-0.0040	0.002	46.1	ug/L	17	Standard
	Ho	165	454150.8	0.6				ug/L	645073	Standard
	Pb	208	1038.0	2.4	0.0002	0.000	245.5	ug/L	648	Standard
	Bi	209	248763.9	0.4				ug/L	378643	Standard
	Th	232	334575.2	1.6				ug/L	482278	Standard
	Cr -2	52	334.0	3.2	0.0568	0.010	17.1	ug/L	242	KED
	Cr -3	53	616.7	2.9	2.8414	0.095	3.4	ug/L	35	KED
	Ni -3	58	297.8	9.3	0.1068	0.013	11.8	ug/L	102	KED
	Ni -4	60	149.3	11.8	0.1341	0.022	16.1	ug/L	46	KED
	Ni -5	62	35.3	26.3	0.2080	0.077	36.8	ug/L	7	KED
	Cu -2	63	1385.7	0.6	0.6021	0.010	1.7	ug/L	278	KED
	Cu -3	65	661.3	3.6	0.6055	0.028	4.7	ug/L	116	KED
	Zn -3	66	458.3	2.2	1.7517	0.033	1.9	ug/L	74	KED
	Zn -4	67	81.0	6.9	1.9842	0.126	6.3	ug/L	11	KED
	Zn -5	68	375.0	2.9	1.9602	0.094	4.8	ug/L	48	KED
	As-2	75	47.3	10.8	0.3488	0.036	10.2	ug/L	2	KED
	Y-1	89	47984.1	0.8				ug/L	56057	KED
	Rh-1	103	30494.5	1.2				ug/L	42836	KED
	Cd -2	111	12.0	8.3	-0.0182	0.002	13.1	ug/L	4	KED
	Cd -3	114	31.3	9.8	-0.0317	0.002	7.6	ug/L	7	KED
>	Sc	45	588857.8	1.2				ug/L	749258	Standard
>	Ge	72	331692.8	2.3				ug/L	446707	Standard
>	In	115	320761.8	1.2				ug/L	446509	Standard
>	Tb	159	471212.1	1.0				ug/L	663614	Standard
>	Ge-1	72	21751.2	1.6				ug/L	26774	KED
>	In-1	115	31640.8	0.6				ug/L	40879	KED

### QC Calculated Values

Sample ID: 05-311-04d 10X

Report Date/Time: Saturday, June 01, 2024 10:56:57

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		78.592
>	Ge	72		74.253
>	In	115		71.838
>	Tb	159		71.007
>	Ge-1	72		81.241
>	In-1	115		77.400

# Quantitative Analysis - Summary Report

**Sample ID: 05-311-05d 10X**

Sample Date/Time: Saturday, June 01, 2024 10:59:17

Report Date/Time: Saturday, June 01, 2024 11:02:38

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\05-311-05d 10X.389

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	43793.7	0.6	1.4885	0.007	0.5	ug/L	20848	Standard
	Cr -1	53	394217.1	0.8	189.3719	1.798	0.9	ug/L	2436	Standard
	Ni	58	-3357.2	6.5	0.1154	0.035	30.7	ug/L	-7461	Standard
	Ni -1	60	4001.9	3.1	1.1151	0.050	4.5	ug/L	209	Standard
	Ni -2	62	123358.9	7.9	227.3168	12.900	5.7	ug/L	2414	Standard
	Cu	63	242124.9	6.3	30.5259	1.175	3.9	ug/L	3083	Standard
	Cu -1	65	4475.4	2.7	1.1969	0.064	5.3	ug/L	471	Standard
	Zn	66	6733.3	4.5	3.2514	0.261	8.0	ug/L	741	Standard
	Zn -1	67	4258.3	1.8	13.2115	0.593	4.5	ug/L	144	Standard
	Zn -2	68	3515.1	1.3	2.1724	0.048	2.2	ug/L	764	Standard
	As	75	22652.6	2.1	7.6300	0.431	5.6	ug/L	12792	Standard
	As-1	75	6855.9	13.1	3.9029	0.616	15.8	ug/L	-68	Standard
	Se	77	26462.2	0.5	239.8236	5.227	2.2	ug/L	103	Standard
	Se -1	78	21224.4	3.5	33.4384	0.663	2.0	ug/L	12881	Standard
	Br	79	1828135.7	3.3				ug/L	373	Standard
	Se -2	82	2161.2	2.6	14.0878	0.752	5.3	ug/L	27	Standard
	Kr	83	709.7	7.4				ug/L	21	Standard
	Y	89	447010.2	1.9				ug/L	602615	Standard
	Rh	103	77910.0	3.3				ug/L	112596	Standard
	Cd	111	197.7	5.0	-0.0138	0.006	43.5	ug/L	209	Standard
	Cd -1	114	149.4	9.5	-0.0052	0.003	51.9	ug/L	17	Standard
	Ho	165	450189.1	1.2				ug/L	645073	Standard
	Pb	208	754.0	4.9	-0.0076	0.001	13.0	ug/L	648	Standard
	Bi	209	241588.2	1.3				ug/L	378643	Standard
	Th	232	328515.0	0.2				ug/L	482278	Standard
	Cr -2	52	311.7	5.5	0.0356	0.012	34.6	ug/L	242	KED
	Cr -3	53	540.3	7.5	2.3626	0.213	9.0	ug/L	35	KED
	Ni -3	58	684.7	4.4	0.2899	0.013	4.4	ug/L	102	KED
	Ni -4	60	297.7	4.6	0.2970	0.017	5.7	ug/L	46	KED
	Ni -5	62	70.0	12.2	0.4602	0.071	15.4	ug/L	7	KED
	Cu -2	63	1499.1	2.4	0.6271	0.013	2.0	ug/L	278	KED
	Cu -3	65	701.7	2.9	0.6178	0.022	3.5	ug/L	116	KED
	Zn -3	66	497.0	5.3	1.8412	0.094	5.1	ug/L	74	KED
	Zn -4	67	82.0	5.6	1.9232	0.149	7.8	ug/L	11	KED
	Zn -5	68	392.7	1.9	1.9725	0.057	2.9	ug/L	48	KED
	As-2	75	44.0	9.1	0.3163	0.027	8.6	ug/L	2	KED
	Y-1	89	49554.1	0.8				ug/L	56057	KED
	Rh-1	103	31685.1	1.2				ug/L	42836	KED
	Cd -2	111	13.0	35.3	-0.0165	0.010	59.7	ug/L	4	KED
	Cd -3	114	30.3	10.6	-0.0330	0.003	8.4	ug/L	7	KED
>	Sc	45	610999.0	0.3				ug/L	749258	Standard
>	Ge	72	332330.1	2.6				ug/L	446707	Standard
>	In	115	323011.1	2.0				ug/L	446509	Standard
>	Tb	159	455003.0	0.8				ug/L	663614	Standard
>	Ge-1	72	22652.6	1.3				ug/L	26774	KED
>	In-1	115	32214.0	0.7				ug/L	40879	KED

## QC Calculated Values

Sample ID: 05-311-05d 10X

Report Date/Time: Saturday, June 01, 2024 11:02:38

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		81.547
>	Ge	72		74.396
>	In	115		72.341
>	Tb	159		68.564
>	Ge-1	72		84.608
>	In-1	115		78.802

## Quantitative Analysis - Summary Report

Sample ID: 05-442-01d 5X

Sample Date/Time: Saturday, June 01, 2024 11:04:58

Report Date/Time: Saturday, June 01, 2024 11:08:17

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\05-442-01d 5X.390

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	61595.5	1.2	2.1878	0.052	2.4	ug/L	20848	Standard
	Cr -1	53	74541.1	9.5	32.3074	3.706	11.5	ug/L	2436	Standard
	Ni	58	54247.4	23.3	5.4529	0.968	17.8	ug/L	-7461	Standard
	Ni -1	60	15419.3	2.7	3.4782	0.065	1.9	ug/L	209	Standard
	Ni -2	62	134329.6	7.6	198.2441	23.832	12.0	ug/L	2414	Standard
	Cu	63	126829.4	4.9	12.6772	1.192	9.4	ug/L	3083	Standard
	Cu -1	65	1733.8	14.7	0.3444	0.074	21.5	ug/L	471	Standard
	Zn	66	3347.7	12.8	1.0706	0.250	23.3	ug/L	741	Standard
	Zn -1	67	2004.5	4.0	4.6886	0.427	9.1	ug/L	144	Standard
	Zn -2	68	5250.3	1.0	2.6940	0.119	4.4	ug/L	764	Standard
	As	75	32910.6	2.6	9.7764	1.066	10.9	ug/L	12792	Standard
	As-1	75	6733.0	1.7	3.0626	0.190	6.2	ug/L	-68	Standard
	Se	77	3643.5	10.7	25.9085	4.066	15.7	ug/L	103	Standard
	Se -1	78	27743.3	3.3	36.2934	4.825	13.3	ug/L	12881	Standard
	Br	79	459638.8	2.4				ug/L	373	Standard
	Se -2	82	655.3	10.4	3.3160	0.508	15.3	ug/L	27	Standard
	Kr	83	237.7	15.6				ug/L	21	Standard
	Y	89	583267.8	2.6				ug/L	602615	Standard
	Rh	103	102588.1	1.7				ug/L	112596	Standard
	Cd	111	217.6	11.3	-0.0221	0.010	45.5	ug/L	209	Standard
	Cd -1	114	81.2	5.1	-0.0199	0.001	4.0	ug/L	17	Standard
	Ho	165	577972.4	3.1				ug/L	645073	Standard
	Pb	208	1657.0	5.5	0.0089	0.003	34.2	ug/L	648	Standard
	Bi	209	322035.3	2.1				ug/L	378643	Standard
	Th	232	418022.4	2.4				ug/L	482278	Standard
	Cr -2	52	654.3	4.1	0.2059	0.013	6.5	ug/L	242	KED
	Cr -3	53	189.3	5.3	0.6369	0.033	5.2	ug/L	35	KED
	Ni -3	58	16263.8	2.8	7.2724	0.308	4.2	ug/L	102	KED
	Ni -4	60	2978.3	1.5	3.0960	0.072	2.3	ug/L	46	KED
	Ni -5	62	453.0	9.0	3.0963	0.329	10.6	ug/L	7	KED
	Cu -2	63	338.3	13.4	0.0934	0.021	22.4	ug/L	278	KED
	Cu -3	65	168.0	5.5	0.0900	0.010	11.5	ug/L	116	KED
	Zn -3	66	256.3	2.6	0.6450	0.043	6.7	ug/L	74	KED
	Zn -4	67	186.7	11.5	4.3285	0.528	12.2	ug/L	11	KED
	Zn -5	68	663.3	2.6	3.2811	0.147	4.5	ug/L	48	KED
	As-2	75	426.0	3.4	2.4432	0.077	3.2	ug/L	2	KED
	Y-1	89	55177.0	0.9				ug/L	56057	KED
	Rh-1	103	34867.5	0.2				ug/L	42836	KED
	Cd -2	111	9.0	0.0	-0.0281	0.000	1.0	ug/L	4	KED
	Cd -3	114	18.3	11.4	-0.0451	0.001	2.8	ug/L	7	KED
>	Sc	45	662602.2	1.8				ug/L	749258	Standard
>	Ge	72	415800.8	4.4				ug/L	446707	Standard
>	In	115	391512.4	1.8				ug/L	446509	Standard
>	Tb	159	588855.8	2.3				ug/L	663614	Standard
>	Ge-1	72	24621.9	1.4				ug/L	26774	KED
>	In-1	115	37818.4	1.7				ug/L	40879	KED

### QC Calculated Values

Sample ID: 05-442-01d 5X

Report Date/Time: Saturday, June 01, 2024 11:08:17

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		88.434
>	Ge	72		93.081
>	In	115		87.683
>	Tb	159		88.735
>	Ge-1	72		91.963
>	In-1	115		92.512

# Quantitative Analysis - Summary Report

Sample ID: 05-442-02d 5X

Sample Date/Time: Saturday, June 01, 2024 11:10:37

Report Date/Time: Saturday, June 01, 2024 11:13:57

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\05-442-02d 5X.391

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	65496.2	1.6	2.7055	0.043	1.6	ug/L	20848	Standard
	Cr -1	53	50043.0	4.5	23.6081	1.513	6.4	ug/L	2436	Standard
	Ni	58	63292.6	16.6	6.4460	0.795	12.3	ug/L	-7461	Standard
	Ni -1	60	13725.3	1.9	3.1776	0.047	1.5	ug/L	209	Standard
	Ni -2	62	108828.0	0.2	163.9447	5.443	3.3	ug/L	2414	Standard
	Cu	63	119542.8	1.0	12.2387	0.298	2.4	ug/L	3083	Standard
	Cu -1	65	1052.4	4.6	0.1984	0.017	8.8	ug/L	471	Standard
	Zn	66	7443.6	2.8	2.9124	0.022	0.8	ug/L	741	Standard
	Zn -1	67	2024.5	4.2	4.8743	0.333	6.8	ug/L	144	Standard
	Zn -2	68	7100.1	3.7	3.9338	0.041	1.0	ug/L	764	Standard
	As	75	27714.3	1.0	7.6905	0.404	5.3	ug/L	12792	Standard
	As-1	75	6055.9	3.9	2.8259	0.109	3.9	ug/L	-68	Standard
	Se	77	2460.2	2.2	17.7053	1.009	5.7	ug/L	103	Standard
	Se -1	78	23131.0	0.4	27.1134	1.765	6.5	ug/L	12881	Standard
	Br	79	567998.5	3.1				ug/L	373	Standard
	Se -2	82	612.0	3.3	3.1632	0.147	4.7	ug/L	27	Standard
	Kr	83	129.7	5.8				ug/L	21	Standard
	Y	89	577388.2	2.2				ug/L	602615	Standard
	Rh	103	98962.7	2.4				ug/L	112596	Standard
	Cd	111	233.0	5.6	-0.0108	0.005	50.0	ug/L	209	Standard
	Cd -1	114	75.7	4.4	-0.0200	0.000	1.5	ug/L	17	Standard
	Ho	165	577538.0	2.3				ug/L	645073	Standard
	Pb	208	3165.8	5.1	0.0465	0.003	6.4	ug/L	648	Standard
	Bi	209	318901.2	1.3				ug/L	378643	Standard
	Th	232	433301.5	1.3				ug/L	482278	Standard
	Cr -2	52	569.3	7.4	0.1776	0.023	13.0	ug/L	242	KED
	Cr -3	53	169.0	8.0	0.5910	0.058	9.8	ug/L	35	KED
	Ni -3	58	15222.3	1.1	7.1946	0.099	1.4	ug/L	102	KED
	Ni -4	60	2655.6	0.2	2.9162	0.032	1.1	ug/L	46	KED
	Ni -5	62	436.7	3.8	3.1558	0.162	5.1	ug/L	7	KED
	Cu -2	63	207.7	6.4	0.0441	0.006	12.9	ug/L	278	KED
	Cu -3	65	97.3	9.5	0.0323	0.010	30.5	ug/L	116	KED
	Zn -3	66	756.7	3.3	2.9391	0.148	5.0	ug/L	74	KED
	Zn -4	67	174.7	7.5	4.2784	0.314	7.3	ug/L	11	KED
	Zn -5	68	796.0	3.6	4.2660	0.169	4.0	ug/L	48	KED
	As-2	75	372.3	5.8	2.2609	0.110	4.9	ug/L	2	KED
	Y-1	89	52641.8	1.2				ug/L	56057	KED
	Rh-1	103	32543.0	1.0				ug/L	42836	KED
	Cd -2	111	6.7	56.8	-0.0320	0.007	22.8	ug/L	4	KED
	Cd -3	114	16.3	31.4	-0.0460	0.004	8.5	ug/L	7	KED
>	Sc	45	602332.5	1.6				ug/L	749258	Standard
>	Ge	72	404804.8	3.3				ug/L	446707	Standard
>	In	115	368223.5	1.9				ug/L	446509	Standard
>	Tb	159	580482.3	1.3				ug/L	663614	Standard
>	Ge-1	72	23285.0	1.2				ug/L	26774	KED
>	In-1	115	36505.7	1.7				ug/L	40879	KED

## QC Calculated Values

Sample ID: 05-442-02d 5X

Report Date/Time: Saturday, June 01, 2024 11:13:57

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		80.391
>	Ge	72		90.620
>	In	115		82.467
>	Tb	159		87.473
>	Ge-1	72		86.969
>	In-1	115		89.301

# Quantitative Analysis - Summary Report

Sample ID: BL

Sample Date/Time: Saturday, June 01, 2024 11:16:44

Report Date/Time: Saturday, June 01, 2024 11:20:04

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\BL.392

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	14676.2	1.5	0.1473	0.015	10.2	ug/L	20848	Standard
	Cr -1	53	15925.6	5.8	8.9515	0.481	5.4	ug/L	2436	Standard
	Ni	58	-3129.8	1.6	0.1944	0.003	1.5	ug/L	-7461	Standard
	Ni -1	60	164.0	1.6	0.0185	0.001	5.6	ug/L	209	Standard
	Ni -2	62	76302.7	2.6	118.6243	4.374	3.7	ug/L	2414	Standard
	Cu	63	72304.2	2.3	7.6082	0.254	3.3	ug/L	3083	Standard
	Cu -1	65	628.7	4.4	0.1078	0.008	7.0	ug/L	471	Standard
	Zn	66	700.4	1.7	-0.0545	0.009	15.7	ug/L	741	Standard
	Zn -1	67	280.3	6.3	0.3031	0.047	15.5	ug/L	144	Standard
	Zn -2	68	648.3	6.5	-0.0841	0.026	31.2	ug/L	764	Standard
	As	75	19732.4	0.2	4.2581	0.091	2.1	ug/L	12792	Standard
	As-1	75	-161.8	20.1	-0.0710	0.017	23.4	ug/L	-68	Standard
	Se	77	765.4	4.5	5.2740	0.228	4.3	ug/L	103	Standard
	Se -1	78	19999.0	0.1	21.6489	0.539	2.5	ug/L	12881	Standard
	Br	79	21284.2	1.7				ug/L	373	Standard
	Se -2	82	70.7	3.6	0.2526	0.018	7.0	ug/L	27	Standard
	Kr	83	68.0	12.6				ug/L	21	Standard
	Y	89	605636.4	2.4				ug/L	602615	Standard
	Rh	103	109609.1	2.7				ug/L	112596	Standard
	Cd	111	192.1	8.5	-0.0272	0.006	22.8	ug/L	209	Standard
	Cd -1	114	19.3	12.9	-0.0288	0.000	1.2	ug/L	17	Standard
	Ho	165	596857.0	0.8				ug/L	645073	Standard
	Pb	208	789.0	2.5	-0.0118	0.001	5.0	ug/L	648	Standard
	Bi	209	355225.3	1.6				ug/L	378643	Standard
	Th	232	440766.4	1.0				ug/L	482278	Standard
	Cr -2	52	164.3	7.4	-0.0418	0.008	19.0	ug/L	242	KED
	Cr -3	53	42.3	23.9	0.0355	0.054	152.0	ug/L	35	KED
	Ni -3	58	66.1	23.6	-0.0094	0.008	86.3	ug/L	102	KED
	Ni -4	60	37.0	4.7	0.0023	0.002	81.3	ug/L	46	KED
	Ni -5	62	18.3	20.7	0.0803	0.030	37.8	ug/L	7	KED
	Cu -2	63	184.3	1.3	0.0441	0.001	1.4	ug/L	278	KED
	Cu -3	65	83.0	15.8	0.0285	0.013	47.3	ug/L	116	KED
	Zn -3	66	62.7	6.4	-0.1219	0.018	14.5	ug/L	74	KED
	Zn -4	67	9.0	29.4	-0.0127	0.076	601.7	ug/L	11	KED
	Zn -5	68	35.7	18.7	-0.1520	0.046	30.2	ug/L	48	KED
	As-2	75	1.3	43.3	0.0561	0.004	7.0	ug/L	2	KED
	Y-1	89	48532.0	0.7				ug/L	56057	KED
	Rh-1	103	31259.2	1.6				ug/L	42836	KED
	Cd -2	111	1.7	124.9	-0.0417	0.004	9.6	ug/L	4	KED
	Cd -3	114	8.0	21.7	-0.0521	0.001	2.3	ug/L	7	KED
>	Sc	45	476107.4	0.9				ug/L	749258	Standard
>	Ge	72	389004.2	1.0				ug/L	446707	Standard
>	In	115	368145.6	1.3				ug/L	446509	Standard
>	Tb	159	578515.8	1.8				ug/L	663614	Standard
>	Ge-1	72	20685.0	0.8				ug/L	26774	KED
>	In-1	115	36295.4	1.3				ug/L	40879	KED

## QC Calculated Values

Sample ID: BL

Report Date/Time: Saturday, June 01, 2024 11:20:04

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		63.544
>	Ge	72		87.083
>	In	115		82.450
>	Tb	159		87.177
>	Ge-1	72		77.258
>	In-1	115		88.786

# Quantitative Analysis - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Saturday, June 01, 2024 11:34:57

Report Date/Time: Saturday, June 01, 2024 11:38:17

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\QC Std 6.395

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	699237.1	2.8	<b>47.4694</b>	0.480	1.0	ug/L	20848	Standard
	Cr -1	53	85460.9	1.2	<b>52.1692</b>	0.942	1.8	ug/L	2436	Standard
	Ni	58	372344.4	2.6	<b>38.2537</b>	0.428	1.1	ug/L	-7461	Standard
	Ni -1	60	148557.6	2.0	<b>37.2390</b>	0.150	0.4	ug/L	209	Standard
	Ni -2	62	134368.0	1.2	<b>218.9700</b>	7.158	3.3	ug/L	2414	Standard
	Cu	63	453198.1	0.4	<b>50.6999</b>	0.839	1.7	ug/L	3083	Standard
	Cu -1	65	154796.3	3.8	<b>37.7432</b>	0.701	1.9	ug/L	471	Standard
	Zn	66	88509.4	2.3	<b>41.7149</b>	0.204	0.5	ug/L	741	Standard
	Zn -1	67	14746.9	2.0	<b>41.3628</b>	0.251	0.6	ug/L	144	Standard
	Zn -2	68	63080.7	3.1	<b>41.9528</b>	0.499	1.2	ug/L	764	Standard
	As	75	105657.7	2.5	<b>48.7093</b>	0.645	1.3	ug/L	12792	Standard
	As-1	75	91765.3	3.3	<b>45.9591</b>	0.787	1.7	ug/L	-68	Standard
	Se	77	6427.8	1.4	<b>50.9446</b>	0.466	0.9	ug/L	103	Standard
	Se -1	78	34523.3	0.9	<b>59.9377</b>	1.329	2.2	ug/L	12881	Standard
	Br	79	10721.4	3.6				ug/L	373	Standard
	Se -2	82	8146.3	2.9	<b>47.2197</b>	0.714	1.5	ug/L	27	Standard
	Kr	83	39.0	2.6				ug/L	21	Standard
	Y	89	571485.1	2.4				ug/L	602615	Standard
	Rh	103	104574.9	2.9				ug/L	112596	Standard
	Cd	111	113043.6	1.7	<b>46.7598</b>	0.784	1.7	ug/L	209	Standard
	Cd -1	114	276157.9	1.1	<b>44.5652</b>	0.700	1.6	ug/L	17	Standard
	Ho	165	582094.9	1.0				ug/L	645073	Standard
	Pb	208	1808445.4	1.4	<b>45.9136</b>	0.599	1.3	ug/L	648	Standard
	Bi	209	350298.7	2.4				ug/L	378643	Standard
	Th	232	443379.1	1.8				ug/L	482278	Standard
	Cr -2	52	59399.2	0.6	<b>37.7480</b>	0.127	0.3	ug/L	242	KED
	Cr -3	53	7343.9	1.2	<b>37.4105</b>	0.223	0.6	ug/L	35	KED
	Ni -3	58	67355.3	1.4	<b>35.7510</b>	0.552	1.5	ug/L	102	KED
	Ni -4	60	29320.4	0.9	<b>36.4815</b>	0.493	1.4	ug/L	46	KED
	Ni -5	62	4467.7	1.3	<b>36.8192</b>	0.532	1.4	ug/L	7	KED
	Cu -2	63	74862.3	0.5	<b>36.5345</b>	0.377	1.0	ug/L	278	KED
	Cu -3	65	35562.5	0.4	<b>37.2410</b>	0.311	0.8	ug/L	116	KED
	Zn -3	66	8865.8	2.1	<b>43.7439</b>	0.628	1.4	ug/L	74	KED
	Zn -4	67	1395.1	1.1	<b>40.3927</b>	0.718	1.8	ug/L	11	KED
	Zn -5	68	6570.2	0.7	<b>42.5278</b>	0.188	0.4	ug/L	48	KED
	As-2	75	6172.3	0.7	<b>41.0695</b>	0.233	0.6	ug/L	2	KED
	Y-1	89	49406.6	0.7				ug/L	56057	KED
	Rh-1	103	31613.6	0.6				ug/L	42836	KED
	Cd -2	111	20737.4	0.4	<b>40.5203</b>	0.012	0.0	ug/L	4	KED
	Cd -3	114	55741.5	0.6	<b>40.8792</b>	0.270	0.7	ug/L	7	KED
>	Sc	45	474923.0	2.0				ug/L	749258	Standard
>	Ge	72	376048.7	2.0				ug/L	446707	Standard
>	In	115	356059.8	2.6				ug/L	446509	Standard
>	Tb	159	561239.1	2.0				ug/L	663614	Standard
>	Ge-1	72	20836.2	0.7				ug/L	26774	KED
>	In-1	115	36025.8	0.4				ug/L	40879	KED

### QC Calculated Values

Sample ID: QC Std 6

Report Date/Time: Saturday, June 01, 2024 11:38:17

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		63.386
>	Ge	72		84.182
>	In	115		79.743
>	Tb	159		84.573
>	Ge-1	72		77.823
>	In-1	115		88.127

# Quantitative Analysis - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, June 01, 2024 11:46:46

Report Date/Time: Saturday, June 01, 2024 11:50:06

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\QC Std 7.397

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	353408.5	2.5	<b>23.1912</b>	0.585	2.5	ug/L	20848	Standard
	Cr -1	53	44449.7	0.7	<b>26.2678</b>	0.161	0.6	ug/L	2436	Standard
	Ni	58	184752.2	2.8	<b>18.9147</b>	0.398	2.1	ug/L	-7461	Standard
	Ni -1	60	77233.9	0.2	<b>19.0235</b>	0.365	1.9	ug/L	209	Standard
	Ni -2	62	62000.6	1.7	<b>97.4260</b>	3.510	3.6	ug/L	2414	Standard
	Cu	63	225417.3	0.7	<b>24.6584</b>	0.391	1.6	ug/L	3083	Standard
	Cu -1	65	78856.7	0.6	<b>18.8859</b>	0.251	1.3	ug/L	471	Standard
	Zn	66	45214.8	2.7	<b>20.7575</b>	0.258	1.2	ug/L	741	Standard
	Zn -1	67	7547.7	1.6	<b>20.5779</b>	0.164	0.8	ug/L	144	Standard
	Zn -2	68	32536.7	3.1	<b>21.0218</b>	0.441	2.1	ug/L	764	Standard
	As	75	58636.7	1.6	<b>24.0563</b>	0.213	0.9	ug/L	12792	Standard
	As-1	75	45553.7	1.7	<b>22.4329</b>	0.219	1.0	ug/L	-68	Standard
	Se	77	3322.7	3.9	<b>25.5536</b>	0.822	3.2	ug/L	103	Standard
	Se -1	78	23291.0	2.4	<b>30.6130</b>	0.515	1.7	ug/L	12881	Standard
	Br	79	5564.4	1.8				ug/L	373	Standard
	Se -2	82	4039.9	3.4	<b>22.9418</b>	0.475	2.1	ug/L	27	Standard
	Kr	83	29.0	12.4				ug/L	21	Standard
	Y	89	586511.9	1.1				ug/L	602615	Standard
	Rh	103	103637.7	2.5				ug/L	112596	Standard
	Cd	111	56890.2	3.9	<b>23.2824</b>	0.122	0.5	ug/L	209	Standard
	Cd -1	114	140676.0	2.1	<b>22.5046</b>	0.423	1.9	ug/L	17	Standard
	Ho	165	593842.5	3.7				ug/L	645073	Standard
	Pb	208	941726.1	2.1	<b>23.7052</b>	0.111	0.5	ug/L	648	Standard
	Bi	209	355520.2	1.3				ug/L	378643	Standard
	Th	232	448943.3	2.2				ug/L	482278	Standard
	Cr -2	52	29714.9	1.9	<b>19.0440</b>	0.410	2.2	ug/L	242	KED
	Cr -3	53	3698.8	2.0	<b>18.9838</b>	0.290	1.5	ug/L	35	KED
	Ni -3	58	33467.7	0.8	<b>17.9604</b>	0.192	1.1	ug/L	102	KED
	Ni -4	60	14688.5	1.5	<b>18.4779</b>	0.211	1.1	ug/L	46	KED
	Ni -5	62	2174.5	3.4	<b>18.1021</b>	0.522	2.9	ug/L	7	KED
	Cu -2	63	37798.6	0.8	<b>18.6502</b>	0.134	0.7	ug/L	278	KED
	Cu -3	65	17963.6	1.5	<b>19.0147</b>	0.375	2.0	ug/L	116	KED
	Zn -3	66	4508.0	1.2	<b>22.3060</b>	0.211	0.9	ug/L	74	KED
	Zn -4	67	757.4	3.9	<b>22.0750</b>	0.976	4.4	ug/L	11	KED
	Zn -5	68	3403.7	1.7	<b>22.1200</b>	0.457	2.1	ug/L	48	KED
	As-2	75	3030.3	0.4	<b>20.4354</b>	0.159	0.8	ug/L	2	KED
	Y-1	89	48916.3	0.7				ug/L	56057	KED
	Rh-1	103	31287.9	0.8				ug/L	42836	KED
	Cd -2	111	10542.6	1.7	<b>20.3147</b>	0.598	2.9	ug/L	4	KED
	Cd -3	114	28064.5	0.3	<b>20.2875</b>	0.320	1.6	ug/L	7	KED
>	Sc	45	482333.9	0.5				ug/L	749258	Standard
>	Ge	72	382579.5	1.7				ug/L	446707	Standard
>	In	115	358972.1	3.5				ug/L	446509	Standard
>	Tb	159	565618.1	1.9				ug/L	663614	Standard
>	Ge-1	72	20582.8	0.5				ug/L	26774	KED
>	In-1	115	36500.3	1.3				ug/L	40879	KED

## QC Calculated Values

Sample ID: QC Std 7

Report Date/Time: Saturday, June 01, 2024 11:50:06

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		64.375
>	Ge	72		85.644
>	In	115		80.395
>	Tb	159		85.233
>	Ge-1	72		76.877
>	In-1	115		89.288

# Quantitative Analysis - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Saturday, June 01, 2024 11:58:28

Report Date/Time: Saturday, June 01, 2024 12:01:48

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601A\QC Std 8.399

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Cr	52	12395.4	2.1	-0.0138	0.007	49.9	ug/L	20848	Standard
	Cr -1	53	2562.6	1.7	0.6703	0.049	7.3	ug/L	2436	Standard
	Ni	58	-3424.4	2.4	0.1594	0.007	4.3	ug/L	-7461	Standard
	Ni -1	60	153.3	3.7	0.0166	0.002	12.0	ug/L	209	Standard
	Ni -2	62	35321.3	0.5	54.0785	0.747	1.4	ug/L	2414	Standard
	Cu	63	34577.5	1.4	3.5766	0.112	3.1	ug/L	3083	Standard
	Cu -1	65	490.7	5.2	0.0773	0.004	5.4	ug/L	471	Standard
	Zn	66	585.3	1.4	-0.1025	0.002	2.2	ug/L	741	Standard
	Zn -1	67	117.0	6.2	-0.1387	0.025	17.9	ug/L	144	Standard
	Zn -2	68	588.7	3.3	-0.1158	0.017	15.0	ug/L	764	Standard
	As	75	13002.8	0.4	1.0353	0.081	7.9	ug/L	12792	Standard
	As-1	75	-19.0	138.6	-0.0019	0.013	703.4	ug/L	-68	Standard
	Se	77	146.3	0.8	0.4914	0.015	3.0	ug/L	103	Standard
	Se -1	78	13073.6	0.6	5.3572	0.350	6.5	ug/L	12881	Standard
	Br	79	3872.2	1.8				ug/L	373	Standard
	Se -2	82	39.7	14.3	0.0819	0.029	35.0	ug/L	27	Standard
	Kr	83	34.0	39.6				ug/L	21	Standard
	Y	89	583806.0	0.8				ug/L	602615	Standard
	Rh	103	104710.8	2.5				ug/L	112596	Standard
	Cd	111	209.1	2.4	-0.0191	0.004	20.8	ug/L	209	Standard
	Cd -1	114	23.9	4.1	-0.0280	0.000	0.5	ug/L	17	Standard
	Ho	165	590305.2	2.6				ug/L	645073	Standard
	Pb	208	613.7	6.0	-0.0157	0.001	6.5	ug/L	648	Standard
	Bi	209	349130.7	2.2				ug/L	378643	Standard
	Th	232	433149.0	1.0				ug/L	482278	Standard
	Cr -2	52	176.7	5.7	-0.0383	0.005	13.2	ug/L	242	KED
	Cr -3	53	24.7	12.4	-0.0607	0.016	27.0	ug/L	35	KED
	Ni -3	58	66.7	11.3	-0.0104	0.004	39.2	ug/L	102	KED
	Ni -4	60	29.0	28.2	-0.0091	0.010	111.3	ug/L	46	KED
	Ni -5	62	9.3	32.7	0.0027	0.025	927.6	ug/L	7	KED
	Cu -2	63	178.7	0.9	0.0379	0.001	1.9	ug/L	278	KED
	Cu -3	65	87.0	6.0	0.0291	0.005	15.7	ug/L	116	KED
	Zn -3	66	57.3	21.0	-0.1594	0.061	38.1	ug/L	74	KED
	Zn -4	67	11.7	55.1	0.0538	0.185	344.5	ug/L	11	KED
	Zn -5	68	44.0	25.6	-0.1091	0.069	63.4	ug/L	48	KED
	As-2	75	3.3	96.4	0.0686	0.021	30.2	ug/L	2	KED
	Y-1	89	50125.8	1.3				ug/L	56057	KED
	Rh-1	103	32200.3	1.5				ug/L	42836	KED
	Cd -2	111	2.0	50.0	-0.0411	0.002	4.6	ug/L	4	KED
	Cd -3	114	7.0	24.7	-0.0529	0.001	2.3	ug/L	7	KED
>	Sc	45	478213.6	1.3				ug/L	749258	Standard
>	Ge	72	382077.2	1.6				ug/L	446707	Standard
>	In	115	363046.7	2.3				ug/L	446509	Standard
>	Tb	159	564871.6	1.5				ug/L	663614	Standard
>	Ge-1	72	21523.5	1.0				ug/L	26774	KED
>	In-1	115	37023.0	0.5				ug/L	40879	KED

## QC Calculated Values

Sample ID: QC Std 8

Report Date/Time: Saturday, June 01, 2024 12:01:48

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Cr	52		
	Cr -1	53		
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Cd	111		
	Cd -1	114		
	Ho	165		
	Pb	208		
	Bi	209		
	Th	232		
	Cr -2	52		
	Cr -3	53		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	Cu -2	63		
	Cu -3	65		
	Zn -3	66		
	Zn -4	67		
	Zn -5	68		
	As-2	75		
	Y-1	89		
	Rh-1	103		
	Cd -2	111		
	Cd -3	114		
>	Sc	45		63.825
>	Ge	72		85.532
>	In	115		81.308
>	Tb	159		85.121
>	Ge-1	72		80.390
>	In-1	115		90.566

# Dataset Report

6-1-24  
10:00

User Name: kmckinney

Computer Name: DESKTOP-RIRVUDN

Dataset File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\

Report Date/Time: Saturday, June 01, 2024 15:36:21

## The Dataset

Batch ID	Sample ID	Date and Time	Read Type	Samp. File Name	Description
	Blank	12:10:25 Sat 01-Ju	Blank	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	Standard 1	12:14:16 Sat 01-Ju	Standard #1	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	Standard 2	12:18:06 Sat 01-Ju	Standard #2	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	Blank	12:21:32 Sat 01-Ju	Blank	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	Standard 1	12:25:22 Sat 01-Ju	Standard #1	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	Standard 2	12:29:12 Sat 01-Ju	Standard #2	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	Standard 3	12:33:02 Sat 01-Ju	Standard #3	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	Standard 4	12:36:52 Sat 01-Ju	Standard #4	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	Standard 5	12:40:42 Sat 01-Ju	Standard #5	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	Standard 6	12:44:33 Sat 01-Ju	Standard #6	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	Standard 7	12:48:23 Sat 01-Ju	Standard #7	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	QC Std 1	12:53:03 Sat 01-Ju	QC Std #1	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	QC Std 2	12:57:44 Sat 01-Ju	QC Std #2	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	QC Std 6	13:01:35 Sat 01-Ju	QC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	QC Std 7	13:06:16 Sat 01-Ju	QC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	QC Std 8	13:10:56 Sat 01-Ju	QC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	MB0601WH1 2X	13:20:40 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	SB0601WH1 2X	13:25:20 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	05-300-05b 2X	13:30:44 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	05-300-05bD 2X	13:44:29 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	05-300-05bL 10X	13:49:07 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	05-300-05bMS 2X	13:53:47 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	05-300-05bMSD 2X	14:03:54 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	05-300-05bPS 2X	14:08:34 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	05-426-01 5X	14:13:14 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	05-410-01a 5X	14:17:54 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	QC Std 6	14:32:01 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	QC Std 7	14:36:41 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	QC Std 8	14:41:21 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	05-442-01c 5X	14:46:57 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	05-442-02c 5X	14:51:37 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	05-311-01b 10X 29WM	14:56:16 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	05-311-02b 10X	15:00:56 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	05-311-03b 10X	15:05:35 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	05-311-04c 10X	15:10:14 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	05-311-05c 10X	15:14:53 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	05-311-03c 10X FFD	15:19:32 Sat 01-Ju	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	QC Std 6	15:24:12 Sat 01-Ju	QC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	QC Std 7	15:28:53 Sat 01-Ju	QC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	
	QC Std 8	15:33:34 Sat 01-Ju	QC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240601B\	

## Performance Check Report

### Sample ID: [STD] Performance Check

Sample Date/Time: Friday, May 31, 2024 07:00:46

Sample Description:

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Optimizations\STD Performance Check.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\05MAY24\Y240531A\([STD] Performance Check.003

MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Dual Detector Mode: Pulse

Acq. Dead Time (ns): 35

Current Dead Time (ns): 35

Torch Z position (mm): 0.00

### Summary

IS	Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD	Mode
	Li	7.0		60966.2		60966.226		664.149		1.1	Standard
	In	114.9		372756.9		372756.943		307.370		0.1	Standard
	U	238.1		395564.4		395564.394		3631.895		0.9	Standard
Ce	CeO	155.9		11058.3		0.024		0.000		2.0	Standard
Ce	Ce++	70.0		12977.2		0.029		0.000		0.5	Standard
	Bkgd	220.5		0.4		0.400		0.253		63.2	Standard
	Ce	139.9		452141.0		452140.981		1713.129		0.4	Standard

### Current Conditions File Data

Current Value	Description
-100.00	Standard - OmniRing Park Voltage
4.00	Standard - Hyperskimmer Park Voltage
1.00	Standard - Nebulizer Gas Flow STD/KED [NEB]
1.20	Standard - Auxiliary Gas Flow
15.00	Standard - Plasma Gas Flow
0.00	Standard - Oxygen Gas Flow
-10.00	Standard - QID Fixed Voltage
1600.00	Standard - ICP RF Power
-1675.00	Standard - Analog Stage
1050.00	Standard - Pulse Stage
0.00	Standard - Q1 Rod Offset STD [QRO]
-12.00	Standard - Cell Rod Offset STD [CRO]
-3.00	Standard - Cell Entrance/Exit Voltage STD
0.00	Standard - Axial Field Voltage
5.00	Ammonia DRC - OmniRing Park Voltage
1.00	Ammonia DRC - DRC Mode NEB
2.00	Ammonia DRC - Hyperskimmer Park Voltage
-9.50	Ammonia DRC - DRC Mode QRO
-2.50	Ammonia DRC - DRC Mode CRO
-7.00	Ammonia DRC - DRC Mode Cell Entrance/Exit Voltage
250.00	Ammonia DRC - Axial Field Voltage
0.60	Ammonia DRC - Cell Gas A
2.00	Helium KED - Hyperskimmer Park Voltage
5.00	Helium KED - OmniRing Park Voltage
-12.00	Helium KED - KED Mode QRO
-15.00	Helium KED - KED Mode CRO
-4.00	Helium KED - KED Mode Cell Entrance Voltage
-32.00	Helium KED - KED Mode Cell Exit Voltage
475.00	Helium KED - KED Mode Axial Field Voltage

2.00 Helium KED - Cell Gas B

## Instrument Mass Calibration Report

File Name:

File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\

Acq. Date/Time: 07:00:04 Fri 31-May-24

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Peak Width	Custom Res.
Li	7.016	6.975	1222	2062	0.696	
Mg	23.985	23.975	4579	2063	0.715	
In	114.904	114.875	22592	2066	0.719	
Pb	207.977	207.975	41052	2066	0.719	
U	238.050	238.075	47019	2067	0.724	

## Quantitative Analysis Calibration Report

File Name:

File Path:

Calibration Type: External Calibration

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Cr	51.941	Weighted Linear	0.03	-0.00	0.999593
Cr -1	52.941	Weighted Linear	0.00	-0.00	0.998856
Ni	57.935	Weighted Linear	0.03	0.01	0.999330
Ni -1	59.933	Weighted Linear	0.01	-0.00	0.998532
Ni -2	61.928	Weighted Linear	0.00	-0.00	0.997156
Cu	62.930	Weighted Linear	0.02	-0.00	0.998239
Cu -1	64.928	Weighted Linear	0.01	-0.00	0.998509
Zn	65.926	Weighted Linear	0.01	0.00	0.998793
Zn -1	66.927	Weighted Linear	0.00	0.00	0.998483
Zn -2	67.925	Weighted Linear	0.00	-0.00	0.999251
As	74.922	Weighted Linear	0.01	0.00	0.999172
As-1	74.922	Weighted Linear	0.01	0.00	0.998848
Se	76.920	Weighted Linear	0.00	0.00	0.999796
Se -1	77.917	Weighted Linear	0.00	-0.00	0.999029
Br	78.918	Weighted Linear	0.00	0.00	0.000000
Se -2	81.917	Weighted Linear	0.00	-0.00	0.999418
Kr	82.914	Weighted Linear	0.00	0.00	0.000000
Y	88.905	Weighted Linear	0.00	0.00	0.000000
Rh	102.905	Weighted Linear	0.00	0.00	0.000000
Cd	110.904	Weighted Linear	0.01	0.00	0.998556
Cd -1	113.904	Weighted Linear	0.02	0.00	0.998819
Ho	164.930	Weighted Linear	0.00	0.00	0.000000
Pb	207.977	Weighted Linear	0.07	0.00	0.998870
Bi	208.980	Weighted Linear	0.00	0.00	0.000000
Th	232.038	Weighted Linear	0.00	0.00	0.000000
Cr -2	51.941	Weighted Linear	0.07	0.00	0.999112
Cr -3	52.941	Weighted Linear	0.01	0.00	0.997333
Ni -3	57.935	Weighted Linear	0.09	-0.00	0.998625
Ni -4	59.933	Weighted Linear	0.04	-0.00	0.999076
Ni -5	61.928	Weighted Linear	0.01	-0.00	0.997681
Cu -2	62.930	Weighted Linear	0.10	-0.00	0.998337
Cu -3	64.928	Weighted Linear	0.05	-0.00	0.998050
Zn -3	65.926	Weighted Linear	0.01	0.00	0.998330
Zn -4	66.927	Weighted Linear	0.00	0.00	0.999388
Zn -5	67.925	Weighted Linear	0.01	0.00	0.999687
As-2	74.922	Weighted Linear	0.01	-0.00	0.998560
Y-1	88.905	Weighted Linear	0.00	0.00	0.000000
Rh-1	102.905	Weighted Linear	0.00	0.00	0.000000
Cd -2	110.904	Weighted Linear	0.01	0.00	0.998664
Cd -3	113.904	Weighted Linear	0.04	0.00	0.998593
Sc	44.956	Linear Thru Zero	0.00	0.00	0.000000
Ge	71.922	Linear Thru Zero	0.00	0.00	0.000000
In	114.904	Linear Thru Zero	0.00	0.00	0.000000
Tb	158.925	Linear Thru Zero	0.00	0.00	0.000000
Ge-1	71.922	Linear Thru Zero	0.00	0.00	0.000000
In-1	114.904	Linear Thru Zero	0.00	0.00	0.000000

## Quantitative Analysis - Summary Report

**Sample ID: Blank**

Sample Date/Time: Saturday, June 01, 2024 12:21:32

Report Date/Time: Saturday, June 01, 2024 12:23:51

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\Blank.004

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-4072.8	1.8				ug/L		Standard
	Ni -1	60	154.7	3.3				ug/L		Standard
	Ni -2	62	26155.3	0.8				ug/L		Standard
	Cu	63	25401.9	0.4				ug/L		Standard
	Cu -1	65	478.7	4.6				ug/L		Standard
	Zn	66	604.0	2.7				ug/L		Standard
	Zn -1	67	114.7	22.4				ug/L		Standard
	Zn -2	68	604.7	3.9				ug/L		Standard
	As	75	12853.4	1.4				ug/L		Standard
	As-1	75	-4.3	1646.4				ug/L		Standard
	Se	77	98.0	6.2				ug/L		Standard
	Se -1	78	12897.5	1.4				ug/L		Standard
	Br	79	2837.6	0.4				ug/L		Standard
	Se -2	82	34.7	8.8				ug/L		Standard
	Kr	83	29.0	21.0				ug/L		Standard
	Y	89	601935.1	3.1				ug/L		Standard
	Rh	103	108501.6	2.2				ug/L		Standard
	Ni -3	58	68.2	32.3				ug/L		KED
	Ni -4	60	29.7	19.8				ug/L		KED
	Ni -5	62	8.7	24.0				ug/L		KED
	Cu -2	63	172.0	8.0				ug/L		KED
	Cu -3	65	88.7	7.3				ug/L		KED
	Zn -3	66	64.7	12.0				ug/L		KED
	Zn -4	67	10.3	29.6				ug/L		KED
	Zn -5	68	39.3	11.5				ug/L		KED
	As-2	75	0.7	86.6				ug/L		KED
	Y-1	89	50921.3	0.5				ug/L		KED
	Rh-1	103	32421.1	0.7				ug/L		KED
>	Ge	72	400119.8	1.2				ug/L		Standard
>	In	115	376660.2	1.8				ug/L		Standard
>	Ge-1	72	21869.7	2.1				ug/L		KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Se -2	82
Kr	83
Y	89
Rh	103
Ni -3	58
Ni -4	60
Ni -5	62
Cu -2	63
Cu -3	65
Zn -3	66
Zn -4	67
Zn -5	68
As-2	75
Y-1	89
Rh-1	103
Ge	72
In	115
Ge-1	72

# Quantitative Analysis - Summary Report

**Sample ID: Standard 1**

Sample Date/Time: Saturday, June 01, 2024 12:25:22

Report Date/Time: Saturday, June 01, 2024 12:27:42

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\Standard 1.005

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-1891.2	5.7				ug/L	-4073	Standard
	Ni -1	60	911.0	5.0				ug/L	155	Standard
	Ni -2	62	22479.7	1.6				ug/L	26155	Standard
	Cu	63	22631.9	0.7				ug/L	25402	Standard
	Cu -1	65	1021.0	4.9				ug/L	479	Standard
	Zn	66	683.7	3.3				ug/L	604	Standard
	Zn -1	67	138.0	1.3				ug/L	115	Standard
	Zn -2	68	660.0	1.4				ug/L	605	Standard
	As	75	13367.7	2.0				ug/L	12853	Standard
	As-1	75	465.9	26.8				ug/L	-4	Standard
	Se	77	122.0	6.7				ug/L	98	Standard
	Se -1	78	13041.3	1.2				ug/L	12897	Standard
	Br	79	2420.9	1.3				ug/L	2838	Standard
	Se -2	82	74.0	12.2				ug/L	35	Standard
	Kr	83	37.3	1.5				ug/L	29	Standard
	Y	89	593135.5	2.2				ug/L	601935	Standard
	Rh	103	105591.5	1.3				ug/L	108502	Standard
	Ni -3	58	382.7	5.4				ug/L	68	KED
	Ni -4	60	166.7	8.1				ug/L	30	KED
	Ni -5	62	34.7	10.1				ug/L	9	KED
	Cu -2	63	472.0	7.9				ug/L	172	KED
	Cu -3	65	209.3	5.2				ug/L	89	KED
	Zn -3	66	64.3	15.9				ug/L	65	KED
	Zn -4	67	8.3	30.2				ug/L	10	KED
	Zn -5	68	53.7	13.1				ug/L	39	KED
	As-2	75	31.3	19.2				ug/L	1	KED
	Y-1	89	50095.0	1.0				ug/L	50921	KED
	Rh-1	103	31722.9	0.9				ug/L	32421	KED
>	Ge	72	392265.2	2.4				ug/L	400120	Standard
>	In	115	362245.3	1.3				ug/L	376660	Standard
>	Ge-1	72	21426.4	0.5				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Se -2	82
Kr	83
Y	89
Rh	103
Ni -3	58
Ni -4	60
Ni -5	62
Cu -2	63
Cu -3	65
Zn -3	66
Zn -4	67
Zn -5	68
As-2	75
Y-1	89
Rh-1	103
Ge	72
In	115
Ge-1	72

>  
>  
>

## Quantitative Analysis - Summary Report

### Sample ID: Standard 2

Sample Date/Time: Saturday, June 01, 2024 12:29:12

Report Date/Time: Saturday, June 01, 2024 12:31:32

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\Standard 2.006

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	649.0	11.8				ug/L	-4073	Standard
	Ni -1	60	1949.1	1.6				ug/L	155	Standard
	Ni -2	62	21086.9	0.1				ug/L	26155	Standard
	Cu	63	23373.1	1.7				ug/L	25402	Standard
	Cu -1	65	2086.2	3.7				ug/L	479	Standard
	Zn	66	1313.7	0.9				ug/L	604	Standard
	Zn -1	67	233.3	2.2				ug/L	115	Standard
	Zn -2	68	1066.7	3.8				ug/L	605	Standard
	As	75	13801.9	1.6				ug/L	12853	Standard
	As-1	75	1028.6	6.0	0.5000	0.025	5.0	ug/L	-4	Standard
	Se	77	165.3	4.0				ug/L	98	Standard
	Se -1	78	13053.0	1.5				ug/L	12897	Standard
	Br	79	2311.5	1.3				ug/L	2838	Standard
	Se -2	82	129.0	9.9				ug/L	35	Standard
	Kr	83	32.3	17.9				ug/L	29	Standard
	Y	89	606163.9	2.1				ug/L	601935	Standard
	Rh	103	109003.4	2.2				ug/L	108502	Standard
	Ni -3	58	844.8	2.7				ug/L	68	KED
	Ni -4	60	365.0	1.7				ug/L	30	KED
	Ni -5	62	53.3	7.1				ug/L	9	KED
	Cu -2	63	968.4	1.0				ug/L	172	KED
	Cu -3	65	459.3	2.3				ug/L	89	KED
	Zn -3	66	116.7	7.1				ug/L	65	KED
	Zn -4	67	21.7	29.7				ug/L	10	KED
	Zn -5	68	100.7	5.0				ug/L	39	KED
	As-2	75	75.3	10.1				ug/L	1	KED
	Y-1	89	51179.9	1.3				ug/L	50921	KED
	Rh-1	103	32490.2	1.1				ug/L	32421	KED
>	Ge	72	396759.0	1.8				ug/L	400120	Standard
>	In	115	370336.1	1.7				ug/L	376660	Standard
>	Ge-1	72	21702.8	2.2				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Se -2	82
Kr	83
Y	89
Rh	103
Ni -3	58
Ni -4	60
Ni -5	62
Cu -2	63
Cu -3	65
Zn -3	66
Zn -4	67
Zn -5	68
As-2	75
Y-1	89
Rh-1	103
Ge	72
In	115
Ge-1	72

# Quantitative Analysis - Summary Report

**Sample ID: Standard 3**

Sample Date/Time: Saturday, June 01, 2024 12:33:02

Report Date/Time: Saturday, June 01, 2024 12:35:22

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\Standard 3.007

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	16350.4	4.0				ug/L	-4073	Standard
	Ni -1	60	8442.2	1.4	2.0000	0.024	1.2	ug/L	155	Standard
	Ni -2	62	23232.9	0.8	2.0000	0.266	13.3	ug/L	26155	Standard
	Cu	63	39178.3	1.5	2.0000	0.062	3.1	ug/L	25402	Standard
	Cu -1	65	8770.7	0.9	2.0000	0.036	1.8	ug/L	479	Standard
	Zn	66	5127.6	1.6				ug/L	604	Standard
	Zn -1	67	857.4	1.5				ug/L	115	Standard
	Zn -2	68	3862.5	1.8				ug/L	605	Standard
	As	75	17765.6	1.1	2.0000	0.123	6.2	ug/L	12853	Standard
	As-1	75	4966.4	2.5	2.1255	0.036	1.7	ug/L	-4	Standard
	Se	77	406.3	4.5	2.0000	0.137	6.9	ug/L	98	Standard
	Se -1	78	13944.5	0.9				ug/L	12897	Standard
	Br	79	2346.9	1.4				ug/L	2838	Standard
	Se -2	82	470.0	8.1	2.0000	0.133	6.7	ug/L	35	Standard
	Kr	83	31.3	12.1				ug/L	29	Standard
	Y	89	618871.3	2.4				ug/L	601935	Standard
	Rh	103	110548.3	2.7				ug/L	108502	Standard
	Ni -3	58	3758.9	3.0	2.0000	0.060	3.0	ug/L	68	KED
	Ni -4	60	1699.8	1.8	2.0000	0.055	2.8	ug/L	30	KED
	Ni -5	62	255.0	7.6	2.0000	0.129	6.5	ug/L	9	KED
	Cu -2	63	4311.3	0.8	2.0000	0.035	1.8	ug/L	172	KED
	Cu -3	65	2018.5	1.6	2.0000	0.031	1.6	ug/L	89	KED
	Zn -3	66	497.3	1.7				ug/L	65	KED
	Zn -4	67	84.7	3.0				ug/L	10	KED
	Zn -5	68	388.3	6.6				ug/L	39	KED
	As-2	75	342.0	4.1	2.0000	0.060	3.0	ug/L	1	KED
	Y-1	89	52806.8	1.0				ug/L	50921	KED
	Rh-1	103	33753.5	0.6				ug/L	32421	KED
>	Ge	72	409168.0	1.7				ug/L	400120	Standard
>	In	115	377709.0	2.3				ug/L	376660	Standard
>	Ge-1	72	22511.4	1.0				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Se -2	82
Kr	83
Y	89
Rh	103
Ni -3	58
Ni -4	60
Ni -5	62
Cu -2	63
Cu -3	65
Zn -3	66
Zn -4	67
Zn -5	68
As-2	75
Y-1	89
Rh-1	103
Ge	72
In	115
Ge-1	72

# Quantitative Analysis - Summary Report

**Sample ID: Standard 4**

Sample Date/Time: Saturday, June 01, 2024 12:36:52

Report Date/Time: Saturday, June 01, 2024 12:39:12

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\Standard 4.008

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	41433.7	1.3	5.0000	0.056	1.1	ug/L	-4073	Standard
	Ni -1	60	18427.2	2.3	4.7528	0.016	0.3	ug/L	155	Standard
	Ni -2	62	25155.1	1.1	4.8168	0.658	13.7	ug/L	26155	Standard
	Cu	63	62256.4	0.9	4.7601	0.099	2.1	ug/L	25402	Standard
	Cu -1	65	19255.6	1.9	4.7758	0.045	0.9	ug/L	479	Standard
	Zn	66	11003.6	2.8	5.0000	0.033	0.7	ug/L	604	Standard
	Zn -1	67	1811.4	3.4	5.0000	0.224	4.5	ug/L	115	Standard
	Zn -2	68	7974.6	3.1	5.0000	0.082	1.6	ug/L	605	Standard
	As	75	23458.3	2.1	4.8563	0.064	1.3	ug/L	12853	Standard
	As-1	75	10620.7	1.7	4.8079	0.030	0.6	ug/L	-4	Standard
	Se	77	759.0	2.1	4.7180	0.160	3.4	ug/L	98	Standard
	Se -1	78	15198.1	2.0	5.0000	0.335	6.7	ug/L	12897	Standard
	Br	79	2323.5	1.0				ug/L	2838	Standard
	Se -2	82	948.7	1.0	4.6586	0.155	3.3	ug/L	35	Standard
	Kr	83	30.7	34.6				ug/L	29	Standard
	Y	89	590427.1	1.3				ug/L	601935	Standard
	Rh	103	106754.6	3.0				ug/L	108502	Standard
	Ni -3	58	8363.9	1.2	4.7774	0.061	1.3	ug/L	68	KED
	Ni -4	60	3589.5	1.6	4.6531	0.085	1.8	ug/L	30	KED
	Ni -5	62	537.0	9.8	4.6407	0.455	9.8	ug/L	9	KED
	Cu -2	63	9195.6	1.2	4.6890	0.042	0.9	ug/L	172	KED
	Cu -3	65	4429.7	0.5	4.7531	0.013	0.3	ug/L	89	KED
	Zn -3	66	1073.0	4.5	5.0000	0.236	4.7	ug/L	65	KED
	Zn -4	67	186.0	12.9	5.0000	0.703	14.1	ug/L	10	KED
	Zn -5	68	818.4	2.3	5.0000	0.146	2.9	ug/L	39	KED
	As-2	75	751.0	3.7	4.7444	0.187	3.9	ug/L	1	KED
	Y-1	89	51637.2	0.9				ug/L	50921	KED
	Rh-1	103	32882.5	1.0				ug/L	32421	KED
>	Ge	72	399362.0	2.3				ug/L	400120	Standard
>	In	115	370851.8	1.8				ug/L	376660	Standard
>	Ge-1	72	22056.3	0.3				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Se -2	82
Kr	83
Y	89
Rh	103
Ni -3	58
Ni -4	60
Ni -5	62
Cu -2	63
Cu -3	65
Zn -3	66
Zn -4	67
Zn -5	68
As-2	75
Y-1	89
Rh-1	103
Ge	72
In	115
Ge-1	72

## Quantitative Analysis - Summary Report

**Sample ID: Standard 5**

Sample Date/Time: Saturday, June 01, 2024 12:40:42

Report Date/Time: Saturday, June 01, 2024 12:43:02

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\Standard 5.009

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	205007.3	1.9	20.8134	0.449	2.2	ug/L	-4073	Standard
	Ni -1	60	83765.3	2.5	20.4075	0.311	1.5	ug/L	155	Standard
	Ni -2	62	35368.1	1.7	16.2652	0.968	6.0	ug/L	26155	Standard
	Cu	63	208841.5	2.1	19.9439	0.378	1.9	ug/L	25402	Standard
	Cu -1	65	86946.5	2.3	20.4149	0.318	1.6	ug/L	479	Standard
	Zn	66	48891.2	3.3	20.7403	0.262	1.3	ug/L	604	Standard
	Zn -1	67	8140.7	3.5	20.8497	0.058	0.3	ug/L	115	Standard
	Zn -2	68	35072.4	4.3	20.8195	0.246	1.2	ug/L	605	Standard
	As	75	60836.7	3.0	20.3924	0.187	0.9	ug/L	12853	Standard
	As-1	75	48534.0	2.9	20.6906	0.216	1.0	ug/L	-4	Standard
	Se	77	3323.1	3.4	21.0891	0.145	0.7	ug/L	98	Standard
	Se -1	78	23102.0	2.9	19.3937	0.462	2.4	ug/L	12897	Standard
	Br	79	2345.9	3.5				ug/L	2838	Standard
	Se -2	82	4271.6	2.8	20.3515	0.591	2.9	ug/L	35	Standard
	Kr	83	28.3	27.0				ug/L	29	Standard
	Y	89	617573.7	2.3				ug/L	601935	Standard
	Rh	103	112569.2	1.9				ug/L	108502	Standard
	Ni -3	58	37768.8	2.6	20.0312	0.447	2.2	ug/L	68	KED
	Ni -4	60	16507.9	1.8	19.9218	0.310	1.6	ug/L	30	KED
	Ni -5	62	2498.2	1.4	19.9998	0.321	1.6	ug/L	9	KED
	Cu -2	63	42190.6	2.0	20.0277	0.359	1.8	ug/L	172	KED
	Cu -3	65	20019.7	0.9	20.0047	0.097	0.5	ug/L	89	KED
	Zn -3	66	5030.9	2.7	20.8720	0.469	2.2	ug/L	65	KED
	Zn -4	67	836.0	5.5	20.5852	1.187	5.8	ug/L	10	KED
	Zn -5	68	3712.8	1.6	20.7765	0.233	1.1	ug/L	39	KED
	As-2	75	3362.1	2.7	19.8398	0.620	3.1	ug/L	1	KED
	Y-1	89	54210.7	0.2				ug/L	50921	KED
	Rh-1	103	34742.5	1.0				ug/L	32421	KED
>	Ge	72	417498.6	3.3				ug/L	400120	Standard
>	In	115	387879.7	1.3				ug/L	376660	Standard
>	Ge-1	72	23705.0	0.5				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: Standard 5

Report Date/Time: Saturday, June 01, 2024 12:43:02

Se -2	82
Kr	83
Y	89
Rh	103
Ni -3	58
Ni -4	60
Ni -5	62
Cu -2	63
Cu -3	65
Zn -3	66
Zn -4	67
Zn -5	68
As-2	75
Y-1	89
Rh-1	103
Ge	72
In	115
Ge-1	72

# Quantitative Analysis - Summary Report

**Sample ID: Standard 6**

Sample Date/Time: Saturday, June 01, 2024 12:44:33

Report Date/Time: Saturday, June 01, 2024 12:46:53

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\Standard 6.010

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	394222.8	2.3	<b>40.4541</b>	0.270	0.7	ug/L	-4073	Standard
	Ni -1	60	160972.3	2.7	<b>40.2641</b>	0.143	0.4	ug/L	155	Standard
	Ni -2	62	46922.6	1.2	<b>33.8621</b>	0.764	2.3	ug/L	26155	Standard
	Cu	63	380134.3	2.1	<b>39.4468</b>	0.359	0.9	ug/L	25402	Standard
	Cu -1	65	164751.8	3.1	<b>39.8900</b>	0.567	1.4	ug/L	479	Standard
	Zn	66	92960.3	2.7	<b>40.4399</b>	0.420	1.0	ug/L	604	Standard
	Zn -1	67	15425.7	1.9	<b>40.4926</b>	0.206	0.5	ug/L	115	Standard
	Zn -2	68	66165.6	2.8	<b>40.4222</b>	0.233	0.6	ug/L	605	Standard
	As	75	106560.2	1.8	<b>40.9667</b>	0.260	0.6	ug/L	12853	Standard
	As-1	75	94218.9	1.6	<b>41.0187</b>	0.329	0.8	ug/L	-4	Standard
	Se	77	6399.1	5.8	<b>41.6648</b>	1.551	3.7	ug/L	98	Standard
	Se -1	78	33236.3	2.0	<b>40.6736</b>	0.759	1.9	ug/L	12897	Standard
	Br	79	2363.5	4.3				ug/L	2838	Standard
	Se -2	82	8248.0	1.6	<b>40.4307</b>	0.953	2.4	ug/L	35	Standard
	Kr	83	32.3	15.6				ug/L	29	Standard
	Y	89	602648.0	2.2				ug/L	601935	Standard
	Rh	103	108959.1	2.5				ug/L	108502	Standard
	Ni -3	58	70983.1	1.6	<b>39.8496</b>	0.306	0.8	ug/L	68	KED
	Ni -4	60	31156.3	2.3	<b>39.8074</b>	0.306	0.8	ug/L	30	KED
	Ni -5	62	4730.8	1.6	<b>40.0013</b>	0.500	1.2	ug/L	9	KED
	Cu -2	63	78884.9	0.2	<b>39.7146</b>	0.647	1.6	ug/L	172	KED
	Cu -3	65	37473.8	0.5	<b>39.7149</b>	0.929	2.3	ug/L	89	KED
	Zn -3	66	9196.6	0.6	<b>40.2579</b>	0.792	2.0	ug/L	65	KED
	Zn -4	67	1543.8	2.8	<b>40.2021</b>	1.865	4.6	ug/L	10	KED
	Zn -5	68	6969.4	1.3	<b>40.8111</b>	0.636	1.6	ug/L	39	KED
	As-2	75	6379.1	1.8	<b>39.8406</b>	0.189	0.5	ug/L	1	KED
	Y-1	89	52238.0	1.5				ug/L	50921	KED
	Rh-1	103	33559.7	2.3				ug/L	32421	KED
>	Ge	72	405397.4	2.4				ug/L	400120	Standard
>	In	115	378010.8	2.9				ug/L	376660	Standard
>	Ge-1	72	22429.9	1.9				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Se -2	82
Kr	83
Y	89
Rh	103
Ni -3	58
Ni -4	60
Ni -5	62
Cu -2	63
Cu -3	65
Zn -3	66
Zn -4	67
Zn -5	68
As-2	75
Y-1	89
Rh-1	103
Ge	72
In	115
Ge-1	72

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>  
>

# Quantitative Analysis - Summary Report

**Sample ID: Standard 7**

Sample Date/Time: Saturday, June 01, 2024 12:48:23

Report Date/Time: Saturday, June 01, 2024 12:50:43

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\Standard 7.011

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	872263.4	1.6	<b>97.1071</b>	1.576	1.6	ug/L	-4073	Standard
	Ni -1	60	348527.0	1.7	<b>95.1976</b>	1.449	1.5	ug/L	155	Standard
	Ni -2	62	75218.5	1.6	<b>82.7645</b>	1.535	1.9	ug/L	26155	Standard
	Cu	63	795837.2	1.7	<b>93.3736</b>	1.280	1.4	ug/L	25402	Standard
	Cu -1	65	352339.4	1.0	<b>93.6258</b>	0.561	0.6	ug/L	479	Standard
	Zn	66	199103.2	1.9	<b>95.4824</b>	1.495	1.6	ug/L	604	Standard
	Zn -1	67	33548.0	0.7	<b>96.5870</b>	0.690	0.7	ug/L	115	Standard
	Zn -2	68	143553.3	2.4	<b>96.4309</b>	2.232	2.3	ug/L	605	Standard
	As	75	217079.2	1.7	<b>97.3403</b>	1.393	1.4	ug/L	12853	Standard
	As-1	75	206602.2	1.9	<b>97.4061</b>	1.498	1.5	ug/L	-4	Standard
	Se	77	13584.8	2.3	<b>96.9197</b>	1.794	1.9	ug/L	98	Standard
	Se -1	78	56731.8	1.9	<b>97.3209</b>	1.950	2.0	ug/L	12897	Standard
	Br	79	2341.9	1.1				ug/L	2838	Standard
	Se -2	82	18233.6	2.8	<b>97.1856</b>	2.382	2.5	ug/L	35	Standard
	Kr	83	35.3	36.1				ug/L	29	Standard
	Y	89	562417.5	1.3				ug/L	601935	Standard
	Rh	103	101112.7	2.2				ug/L	108502	Standard
	Ni -3	58	156586.8	1.3	<b>95.0426</b>	2.025	2.1	ug/L	68	KED
	Ni -4	60	67808.6	1.5	<b>93.9785</b>	2.521	2.7	ug/L	30	KED
	Ni -5	62	10291.7	2.0	<b>94.2804</b>	2.981	3.2	ug/L	9	KED
	Cu -2	63	171015.0	1.5	<b>93.5266</b>	2.458	2.6	ug/L	172	KED
	Cu -3	65	80810.9	0.9	<b>93.1304</b>	1.995	2.1	ug/L	89	KED
	Zn -3	66	20084.8	1.2	<b>95.7338</b>	2.011	2.1	ug/L	65	KED
	Zn -4	67	3263.7	1.6	<b>93.5364</b>	2.384	2.5	ug/L	10	KED
	Zn -5	68	15116.0	0.7	<b>96.2705</b>	1.186	1.2	ug/L	39	KED
	As-2	75	13993.2	0.5	<b>94.6081</b>	1.042	1.1	ug/L	1	KED
	Y-1	89	48435.0	0.3				ug/L	50921	KED
	Rh-1	103	31417.5	0.5				ug/L	32421	KED
>	Ge	72	376753.1	0.5				ug/L	400120	Standard
>	In	115	354342.9	1.6				ug/L	376660	Standard
>	Ge-1	72	21062.9	1.2				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Se -2	82
Kr	83
Y	89
Rh	103
Ni -3	58
Ni -4	60
Ni -5	62
Cu -2	63
Cu -3	65
Zn -3	66
Zn -4	67
Zn -5	68
As-2	75
Y-1	89
Rh-1	103
Ge	72
In	115
Ge-1	72

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 1**

Sample Date/Time: Saturday, June 01, 2024 12:53:03

Report Date/Time: Saturday, June 01, 2024 12:55:23

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 1.012

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	451674.1	2.1	<b>49.2633</b>	0.776	1.6	ug/L	-4073	Standard
	Ni -1	60	183605.9	1.6	<b>48.9471</b>	0.399	0.8	ug/L	155	Standard
	Ni -2	62	49239.4	1.0	<b>42.2734</b>	0.737	1.7	ug/L	26155	Standard
	Cu	63	426238.6	1.5	<b>47.7774</b>	0.100	0.2	ug/L	25402	Standard
	Cu -1	65	185561.4	2.0	<b>48.1122</b>	0.296	0.6	ug/L	479	Standard
	Zn	66	106007.3	1.9	<b>49.5045</b>	0.230	0.5	ug/L	604	Standard
	Zn -1	67	17722.7	2.1	<b>49.6847</b>	0.306	0.6	ug/L	115	Standard
	Zn -2	68	75890.4	1.5	<b>49.5846</b>	0.066	0.1	ug/L	605	Standard
	As	75	120812.9	1.8	<b>50.2635</b>	0.205	0.4	ug/L	12853	Standard
	As-1	75	109568.2	1.8	<b>50.4207</b>	0.173	0.3	ug/L	-4	Standard
	Se	77	7495.6	1.3	<b>51.9128</b>	0.108	0.2	ug/L	98	Standard
	Se -1	78	36000.3	1.5	<b>50.4130</b>	0.226	0.4	ug/L	12897	Standard
	Br	79	2079.2	1.4				ug/L	2838	Standard
	Se -2	82	9767.0	1.3	<b>50.7418</b>	0.192	0.4	ug/L	35	Standard
	Kr	83	32.3	23.6				ug/L	29	Standard
	Y	89	583853.4	2.7				ug/L	601935	Standard
	Rh	103	104101.8	3.0				ug/L	108502	Standard
	Ni -3	58	79822.7	0.6	<b>48.5963</b>	0.219	0.5	ug/L	68	KED
	Ni -4	60	34937.7	1.0	<b>48.5663</b>	0.402	0.8	ug/L	30	KED
	Ni -5	62	5280.3	0.4	<b>48.5243</b>	0.368	0.8	ug/L	9	KED
	Cu -2	63	88845.5	1.4	<b>48.7225</b>	0.464	1.0	ug/L	172	KED
	Cu -3	65	41598.8	1.3	<b>48.0760</b>	0.604	1.3	ug/L	89	KED
	Zn -3	66	10405.8	1.2	<b>49.6595</b>	0.311	0.6	ug/L	65	KED
	Zn -4	67	1765.4	2.0	<b>50.6271</b>	0.777	1.5	ug/L	10	KED
	Zn -5	68	7852.5	1.1	<b>50.0347</b>	0.821	1.6	ug/L	39	KED
	As-2	75	7337.9	2.6	<b>49.7704</b>	1.537	3.1	ug/L	1	KED
	Y-1	89	49328.7	0.8				ug/L	50921	KED
	Rh-1	103	31633.7	1.3				ug/L	32421	KED
>	Ge	72	385981.6	1.5				ug/L	400120	Standard
>	In	115	363968.6	1.5				ug/L	376660	Standard
>	Ge-1	72	20995.4	0.6				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	98.527	
	Ni -1	60	97.894	
	Ni -2	62	84.547	
	Cu	63	95.555	
	Cu -1	65	96.224	
	Zn	66	99.009	
	Zn -1	67	99.369	
	Zn -2	68	99.169	
	As	75	100.527	
	As-1	75	100.841	
	Se	77	103.826	
	Se -1	78	100.826	
	Br	79		

Sample ID: QC Std 1

Report Date/Time: Saturday, June 01, 2024 12:55:23

Se -2	82	101.484	
Kr	83		
Y	89		
Rh	103		
Ni -3	58	97.193	
Ni -4	60	97.133	
Ni -5	62	97.049	
Cu -2	63	97.445	
Cu -3	65	96.152	
Zn -3	66	99.319	
Zn -4	67	101.254	
Zn -5	68	100.069	
As-2	75	99.541	
Y-1	89		
Rh-1	103		
Ge	72		96.467
In	115		96.630
Ge-1	72		96.002

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 2**

Sample Date/Time: Saturday, June 01, 2024 12:57:44

Report Date/Time: Saturday, June 01, 2024 13:00:04

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 2.013

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-3501.8	2.4	-0.0051	0.009	183.6	ug/L	-4073	Standard
	Ni -1	60	168.3	11.7	0.0336	0.005	15.8	ug/L	155	Standard
	Ni -2	62	19513.7	1.2	-1.4875	0.632	42.5	ug/L	26155	Standard
	Cu	63	18006.3	0.8	-0.0997	0.036	35.9	ug/L	25402	Standard
	Cu -1	65	458.3	3.4	0.0846	0.003	3.1	ug/L	479	Standard
	Zn	66	643.3	6.0	0.0550	0.019	34.9	ug/L	604	Standard
	Zn -1	67	107.3	1.4	0.0565	0.007	11.7	ug/L	115	Standard
	Zn -2	68	645.0	1.2	0.0546	0.003	4.6	ug/L	605	Standard
	As	75	12693.1	1.5	0.0570	0.038	66.3	ug/L	12853	Standard
	As-1	75	52.3	20.4	0.0193	0.005	26.1	ug/L	-4	Standard
	Se	77	87.0	10.0	-0.0277	0.061	220.3	ug/L	98	Standard
	Se -1	78	12722.0	1.9	0.5812	0.217	37.3	ug/L	12897	Standard
	Br	79	1872.5	2.0				ug/L	2838	Standard
	Se -2	82	50.7	33.4	0.0995	0.084	84.6	ug/L	35	Standard
	Kr	83	28.3	16.7				ug/L	29	Standard
	Y	89	599543.2	3.3				ug/L	601935	Standard
	Rh	103	107622.2	3.7				ug/L	108502	Standard
	Ni -3	58	71.4	10.8	0.0379	0.004	10.7	ug/L	68	KED
	Ni -4	60	32.0	18.8	0.0422	0.008	18.0	ug/L	30	KED
	Ni -5	62	6.0	57.7	0.0692	0.031	44.4	ug/L	9	KED
	Cu -2	63	190.0	6.7	0.0781	0.006	7.9	ug/L	172	KED
	Cu -3	65	88.7	21.5	0.0781	0.023	29.1	ug/L	89	KED
	Zn -3	66	71.0	18.4	0.1441	0.059	40.6	ug/L	65	KED
	Zn -4	67	9.7	57.0	0.0089	0.155	1741.6	ug/L	10	KED
	Zn -5	68	51.0	7.1	0.0359	0.025	70.9	ug/L	39	KED
	As-2	75	3.0	33.3	0.0162	0.006	39.4	ug/L	1	KED
	Y-1	89	51022.3	1.3				ug/L	50921	KED
	Rh-1	103	32139.4	0.9				ug/L	32421	KED
>	Ge	72	392763.8	1.1				ug/L	400120	Standard
>	In	115	366837.7	2.9				ug/L	376660	Standard
>	Ge-1	72	21500.2	1.2				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: QC Std 2

Report Date/Time: Saturday, June 01, 2024 13:00:04

Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	98.162
In	115	97.392
Ge-1	72	98.310

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Saturday, June 01, 2024 13:01:35

Report Date/Time: Saturday, June 01, 2024 13:03:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 6.014

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	365531.7	1.3	<b>38.8806</b>	0.279	0.7	ug/L	-4073	Standard
	Ni -1	60	150006.9	1.7	<b>38.9171</b>	0.112	0.3	ug/L	155	Standard
	Ni -2	62	41066.6	0.9	<b>28.7778</b>	0.658	2.3	ug/L	26155	Standard
	Cu	63	351572.7	2.0	<b>37.9229</b>	0.095	0.3	ug/L	25402	Standard
	Cu -1	65	154798.6	0.9	<b>39.0614</b>	0.401	1.0	ug/L	479	Standard
	Zn	66	87507.6	1.9	<b>39.7248</b>	0.042	0.1	ug/L	604	Standard
	Zn -1	67	14543.7	2.5	<b>39.6310</b>	0.278	0.7	ug/L	115	Standard
	Zn -2	68	62673.9	1.5	<b>39.7843</b>	0.434	1.1	ug/L	605	Standard
	As	75	101250.3	0.7	<b>39.9514</b>	0.793	2.0	ug/L	12853	Standard
	As-1	75	89280.3	0.8	<b>39.9924</b>	0.725	1.8	ug/L	-4	Standard
	Se	77	6068.0	3.6	<b>40.7567</b>	0.714	1.8	ug/L	98	Standard
	Se -1	78	32012.8	1.4	<b>40.1423</b>	0.369	0.9	ug/L	12897	Standard
	Br	79	1875.5	1.1				ug/L	2838	Standard
	Se -2	82	7911.9	2.0	<b>39.9675</b>	0.178	0.4	ug/L	35	Standard
	Kr	83	30.0	6.7				ug/L	29	Standard
	Y	89	606595.3	1.4				ug/L	601935	Standard
	Rh	103	107870.9	2.1				ug/L	108502	Standard
	Ni -3	58	67599.8	0.5	<b>39.8508</b>	0.441	1.1	ug/L	68	KED
	Ni -4	60	29128.0	0.5	<b>39.2083</b>	0.460	1.2	ug/L	30	KED
	Ni -5	62	4295.3	0.7	<b>38.2300</b>	0.876	2.3	ug/L	9	KED
	Cu -2	63	74122.5	0.8	<b>39.3583</b>	0.575	1.5	ug/L	172	KED
	Cu -3	65	35185.9	0.7	<b>39.3777</b>	0.903	2.3	ug/L	89	KED
	Zn -3	66	8808.0	1.9	<b>40.6660</b>	0.409	1.0	ug/L	65	KED
	Zn -4	67	1414.7	0.4	<b>39.2302</b>	0.606	1.5	ug/L	10	KED
	Zn -5	68	6517.5	0.4	<b>40.1594</b>	0.822	2.0	ug/L	39	KED
	As-2	75	6049.9	0.9	<b>39.7325</b>	0.710	1.8	ug/L	1	KED
	Y-1	89	51319.0	0.8				ug/L	50921	KED
	Rh-1	103	32542.7	0.9				ug/L	32421	KED
>	Ge	72	396611.5	2.0				ug/L	400120	Standard
>	In	115	372370.0	1.9				ug/L	376660	Standard
>	Ge-1	72	21684.4	1.6				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	97.201	
	Ni -1	60	97.293	
	Ni -2	62	71.944	
	Cu	63	94.807	
	Cu -1	65	97.653	
	Zn	66	99.312	
	Zn -1	67	99.077	
	Zn -2	68	99.461	
	As	75	99.878	
	As-1	75	99.981	
	Se	77	101.892	
	Se -1	78	100.356	
	Br	79		

Sample ID: QC Std 6

Report Date/Time: Saturday, June 01, 2024 13:03:54

	Se -2	82	99.919	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	99.627	
	Ni -4	60	98.021	
	Ni -5	62	95.575	
	Cu -2	63	98.396	
	Cu -3	65	98.444	
	Zn -3	66	101.665	
	Zn -4	67	98.075	
	Zn -5	68	100.398	
	As-2	75	99.331	
	Y-1	89		
	Rh-1	103		
>	Ge	72		99.123
>	In	115		98.861
>	Ge-1	72		99.153

## Quantitative Analysis - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, June 01, 2024 13:06:16

Report Date/Time: Saturday, June 01, 2024 13:08:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 7.015

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	200828.6	1.4	20.5640	0.503	2.4	ug/L	-4073	Standard
	Ni -1	60	82228.0	1.6	20.3564	0.423	2.1	ug/L	155	Standard
	Ni -2	62	32288.8	1.0	14.2593	1.162	8.1	ug/L	26155	Standard
	Cu	63	200814.3	0.9	19.6904	0.596	3.0	ug/L	25402	Standard
	Cu -1	65	83569.1	1.4	20.1104	0.450	2.2	ug/L	479	Standard
	Zn	66	47589.8	2.0	20.5027	0.406	2.0	ug/L	604	Standard
	Zn -1	67	7950.2	2.1	20.5645	0.528	2.6	ug/L	115	Standard
	Zn -2	68	33892.9	3.2	20.3506	0.221	1.1	ug/L	605	Standard
	As	75	59971.8	2.1	20.0902	0.395	2.0	ug/L	12853	Standard
	As-1	75	47745.8	2.6	20.4031	0.278	1.4	ug/L	-4	Standard
	Se	77	3273.7	2.0	20.6879	0.509	2.5	ug/L	98	Standard
	Se -1	78	23115.4	2.2	19.6098	1.462	7.5	ug/L	12897	Standard
	Br	79	1881.1	1.3				ug/L	2838	Standard
	Se -2	82	4307.0	1.5	20.6912	0.469	2.3	ug/L	35	Standard
	Kr	83	31.0	11.6				ug/L	29	Standard
	Y	89	622960.1	1.8				ug/L	601935	Standard
	Rh	103	112496.6	1.7				ug/L	108502	Standard
	Ni -3	58	36619.1	0.6	20.3036	0.062	0.3	ug/L	68	KED
	Ni -4	60	16040.7	1.1	20.3109	0.364	1.8	ug/L	30	KED
	Ni -5	62	2424.9	1.8	20.3075	0.481	2.4	ug/L	9	KED
	Cu -2	63	40421.1	1.6	20.1792	0.457	2.3	ug/L	172	KED
	Cu -3	65	19266.7	0.7	20.2689	0.181	0.9	ug/L	89	KED
	Zn -3	66	4761.1	0.5	20.5873	0.154	0.7	ug/L	65	KED
	Zn -4	67	767.4	1.2	19.8868	0.354	1.8	ug/L	10	KED
	Zn -5	68	3592.5	0.5	20.6834	0.095	0.5	ug/L	39	KED
	As-2	75	3216.4	1.5	19.8654	0.153	0.8	ug/L	1	KED
	Y-1	89	53651.6	0.5				ug/L	50921	KED
	Rh-1	103	34478.6	1.1				ug/L	32421	KED
>	Ge	72	415731.2	3.7				ug/L	400120	Standard
>	In	115	392312.1	1.6				ug/L	376660	Standard
>	Ge-1	72	23050.6	0.8				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	102.820	
	Ni -1	60	101.782	
	Ni -2	62	71.296	
	Cu	63	98.452	
	Cu -1	65	100.552	
	Zn	66	102.513	
	Zn -1	67	102.823	
	Zn -2	68	101.753	
	As	75	100.451	
	As-1	75	102.016	
	Se	77	103.439	
	Se -1	78	98.049	
	Br	79		

Sample ID: QC Std 7

Report Date/Time: Saturday, June 01, 2024 13:08:35

Se -2	82	103.456	
Kr	83		
Y	89		
Rh	103		
Ni -3	58	101.518	
Ni -4	60	101.554	
Ni -5	62	101.537	
Cu -2	63	100.896	
Cu -3	65	101.344	
Zn -3	66	102.937	
Zn -4	67	99.434	
Zn -5	68	103.417	
As-2	75	99.327	
Y-1	89		
Rh-1	103		
Ge	72		103.902
In	115		104.155
Ge-1	72		105.399

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Saturday, June 01, 2024 13:10:56

Report Date/Time: Saturday, June 01, 2024 13:13:16

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 8.016

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-3938.1	4.0	-0.0384	0.008	20.1	ug/L	-4073	Standard
	Ni -1	60	168.3	10.2	0.0323	0.005	16.1	ug/L	155	Standard
	Ni -2	62	19730.6	1.0	-2.0515	0.473	23.1	ug/L	26155	Standard
	Cu	63	18496.0	0.5	-0.1090	0.049	45.4	ug/L	25402	Standard
	Cu -1	65	475.3	6.4	0.0853	0.009	10.8	ug/L	479	Standard
	Zn	66	712.0	5.4	0.0763	0.011	14.3	ug/L	604	Standard
	Zn -1	67	121.3	10.5	0.0845	0.030	35.3	ug/L	115	Standard
	Zn -2	68	675.3	1.0	0.0608	0.011	18.3	ug/L	605	Standard
	As	75	12664.6	0.4	-0.1335	0.094	70.2	ug/L	12853	Standard
	As-1	75	10.5	673.3	0.0005	0.031	6461.2	ug/L	-4	Standard
	Se	77	80.3	18.7	-0.0905	0.103	113.6	ug/L	98	Standard
	Se -1	78	12705.6	0.8	-0.2680	0.366	136.7	ug/L	12897	Standard
	Br	79	1808.4	4.2				ug/L	2838	Standard
	Se -2	82	39.0	18.5	0.0341	0.036	104.4	ug/L	35	Standard
	Kr	83	30.0	26.0				ug/L	29	Standard
	Y	89	611161.6	1.1				ug/L	601935	Standard
	Rh	103	110678.8	1.5				ug/L	108502	Standard
	Ni -3	58	80.5	7.3	0.0403	0.003	6.4	ug/L	68	KED
	Ni -4	60	37.3	10.1	0.0464	0.006	11.9	ug/L	30	KED
	Ni -5	62	7.3	61.5	0.0774	0.038	49.7	ug/L	9	KED
	Cu -2	63	192.3	12.5	0.0731	0.013	18.0	ug/L	172	KED
	Cu -3	65	91.7	7.9	0.0748	0.006	8.2	ug/L	89	KED
	Zn -3	66	61.0	7.5	0.0797	0.016	20.4	ug/L	65	KED
	Zn -4	67	11.3	48.6	0.0356	0.145	407.2	ug/L	10	KED
	Zn -5	68	45.3	15.5	-0.0174	0.041	234.9	ug/L	39	KED
	As-2	75	2.0	50.0	0.0088	0.006	71.2	ug/L	1	KED
	Y-1	89	53297.9	0.6				ug/L	50921	KED
	Rh-1	103	34427.4	0.7				ug/L	32421	KED
>	Ge	72	405337.9	2.1				ug/L	400120	Standard
>	In	115	388937.2	1.4				ug/L	376660	Standard
>	Ge-1	72	22927.4	1.6				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: QC Std 8

Report Date/Time: Saturday, June 01, 2024 13:13:16

Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	101.304
In	115	103.259
Ge-1	72	104.836

## Quantitative Analysis - Summary Report

Sample ID: MB0601WH1 2X

Sample Date/Time: Saturday, June 01, 2024 13:20:40

Report Date/Time: Saturday, June 01, 2024 13:23:00

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\MB0601WH1 2X.018

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-5520.9	1.2	-0.3534	0.008	2.2	ug/L	-4073	Standard
	Ni -1	60	139.3	4.0	0.0343	0.002	5.1	ug/L	155	Standard
	Ni -2	62	22491.4	0.4	10.0796	0.219	2.2	ug/L	26155	Standard
	Cu	63	19519.0	0.5	0.5851	0.011	1.8	ug/L	25402	Standard
	Cu -1	65	290.7	5.0	0.0587	0.005	7.7	ug/L	479	Standard
	Zn	66	634.7	1.8	0.1175	0.007	6.1	ug/L	604	Standard
	Zn -1	67	2978.6	1.7	9.8800	0.172	1.7	ug/L	115	Standard
	Zn -2	68	890.7	1.1	0.3444	0.008	2.2	ug/L	605	Standard
	As	75	11807.7	1.9	0.8759	0.115	13.2	ug/L	12853	Standard
	As-1	75	140.6	142.0	0.0736	0.111	150.4	ug/L	-4	Standard
	Se	77	6223.4	1.1	51.9839	0.643	1.2	ug/L	98	Standard
	Se -1	78	11723.1	2.4	4.0531	0.695	17.1	ug/L	12897	Standard
	Br	79	1794.1	4.1				ug/L	2838	Standard
	Se -2	82	39.3	25.6	0.0877	0.063	71.8	ug/L	35	Standard
	Kr	83	45.7	18.6				ug/L	29	Standard
	Y	89	469983.7	2.5				ug/L	601935	Standard
	Rh	103	82032.5	1.1				ug/L	108502	Standard
	Ni -3	58	81.4	9.2	0.0378	0.004	10.7	ug/L	68	KED
	Ni -4	60	33.0	10.5	0.0380	0.004	10.5	ug/L	30	KED
	Ni -5	62	10.7	27.1	0.0993	0.022	22.5	ug/L	9	KED
	Cu -2	63	142.3	9.6	0.0431	0.007	16.4	ug/L	172	KED
	Cu -3	65	69.3	11.0	0.0463	0.008	17.4	ug/L	89	KED
	Zn -3	66	70.7	16.3	0.1011	0.044	43.8	ug/L	65	KED
	Zn -4	67	11.0	41.7	0.0081	0.115	1410.6	ug/L	10	KED
	Zn -5	68	54.7	14.2	0.0158	0.043	270.3	ug/L	39	KED
	As-2	75	10.3	24.4	0.0562	0.014	25.5	ug/L	1	KED
	Y-1	89	51483.9	0.8				ug/L	50921	KED
	Rh-1	103	36539.7	1.3				ug/L	32421	KED
>	Ge	72	320032.0	0.2				ug/L	400120	Standard
>	In	115	328843.6	1.3				ug/L	376660	Standard
>	Ge-1	72	24583.5	1.1				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: MB0601WH1 2X

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	79.984
In	115	87.305
Ge-1	72	112.409

## Quantitative Analysis - Summary Report

**Sample ID: SB0601WH1 2X**

Sample Date/Time: Saturday, June 01, 2024 13:25:20

Report Date/Time: Saturday, June 01, 2024 13:27:39

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\SB0601WH1 2X.019

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	426250.9	1.6	<b>55.1953</b>	0.434	0.8	ug/L	-4073	Standard
	Ni -1	60	170659.0	1.1	<b>54.0637</b>	0.712	1.3	ug/L	155	Standard
	Ni -2	62	45394.7	0.7	<b>49.1240</b>	1.701	3.5	ug/L	26155	Standard
	Cu	63	382139.2	1.3	<b>51.0462</b>	1.107	2.2	ug/L	25402	Standard
	Cu -1	65	165136.6	2.1	<b>50.8753</b>	0.180	0.4	ug/L	479	Standard
	Zn	66	90338.8	1.6	<b>50.1330</b>	0.421	0.8	ug/L	604	Standard
	Zn -1	67	17596.8	1.1	<b>58.6714</b>	1.074	1.8	ug/L	115	Standard
	Zn -2	68	63039.9	3.2	<b>48.9246</b>	0.606	1.2	ug/L	605	Standard
	As	75	90982.4	1.9	<b>44.3753</b>	0.500	1.1	ug/L	12853	Standard
	As-1	75	81253.0	2.2	<b>44.4256</b>	0.392	0.9	ug/L	-4	Standard
	Se	77	11855.3	2.5	<b>98.0958</b>	0.185	0.2	ug/L	98	Standard
	Se -1	78	28489.4	0.0	<b>45.8743</b>	1.727	3.8	ug/L	12897	Standard
	Br	79	1763.1	2.4				ug/L	2838	Standard
	Se -2	82	7403.3	0.5	<b>45.6926</b>	0.951	2.1	ug/L	35	Standard
	Kr	83	52.7	12.6				ug/L	29	Standard
	Y	89	484677.5	0.9				ug/L	601935	Standard
	Rh	103	83394.4	1.5				ug/L	108502	Standard
	Ni -3	58	103123.3	0.5	<b>53.7017</b>	0.457	0.9	ug/L	68	KED
	Ni -4	60	44531.3	0.9	<b>52.9478</b>	0.324	0.6	ug/L	30	KED
	Ni -5	62	6687.2	1.2	<b>52.5668</b>	1.090	2.1	ug/L	9	KED
	Cu -2	63	111528.1	1.7	<b>52.3151</b>	0.599	1.1	ug/L	172	KED
	Cu -3	65	51833.5	1.7	<b>51.2377</b>	0.605	1.2	ug/L	89	KED
	Zn -3	66	11609.0	1.4	<b>47.3796</b>	0.504	1.1	ug/L	65	KED
	Zn -4	67	1908.1	3.8	<b>46.7977</b>	2.196	4.7	ug/L	10	KED
	Zn -5	68	8695.3	1.5	<b>47.3779</b>	1.084	2.3	ug/L	39	KED
	As-2	75	7905.9	0.7	<b>45.8642</b>	0.716	1.6	ug/L	1	KED
	Y-1	89	51664.3	1.3				ug/L	50921	KED
	Rh-1	103	36711.5	1.8				ug/L	32421	KED
>	Ge	72	324882.7	2.4				ug/L	400120	Standard
>	In	115	338583.0	0.7				ug/L	376660	Standard
>	Ge-1	72	24546.4	0.8				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: SB0601WH1 2X

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	81.196
In	115	89.891
Ge-1	72	112.239

## Quantitative Analysis - Summary Report

**Sample ID: 05-300-05b 2X**

Sample Date/Time: Saturday, June 01, 2024 13:30:44

Report Date/Time: Saturday, June 01, 2024 13:33:03

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-300-05b 2X.020

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	32236.3	6.1	4.3945	0.256	5.8	ug/L	-4073	Standard
	Ni -1	60	12868.5	1.1	3.9486	0.012	0.3	ug/L	155	Standard
	Ni -2	62	25439.3	0.5	13.3219	0.271	2.0	ug/L	26155	Standard
	Cu	63	48101.5	1.7	4.3304	0.084	2.0	ug/L	25402	Standard
	Cu -1	65	12652.3	0.8	3.7558	0.037	1.0	ug/L	479	Standard
	Zn	66	72739.7	1.6	39.1484	0.753	1.9	ug/L	604	Standard
	Zn -1	67	14662.5	0.9	47.4214	0.141	0.3	ug/L	115	Standard
	Zn -2	68	50487.1	1.8	37.9748	0.271	0.7	ug/L	605	Standard
	As	75	16599.9	1.5	3.1523	0.050	1.6	ug/L	12853	Standard
	As-1	75	3534.6	4.5	1.8722	0.065	3.5	ug/L	-4	Standard
	Se	77	7761.4	2.4	62.1399	1.127	1.8	ug/L	98	Standard
	Se -1	78	13171.1	0.7	6.2981	0.135	2.1	ug/L	12897	Standard
	Br	79	5938.2	0.4				ug/L	2838	Standard
	Se -2	82	61.0	5.7	0.2075	0.025	11.8	ug/L	35	Standard
	Kr	83	60.7	1.0				ug/L	29	Standard
	Y	89	512771.1	1.1				ug/L	601935	Standard
	Rh	103	85463.6	2.2				ug/L	108502	Standard
	Ni -3	58	10019.9	2.5	5.2737	0.052	1.0	ug/L	68	KED
	Ni -4	60	3286.0	3.2	3.9507	0.066	1.7	ug/L	30	KED
	Ni -5	62	511.0	5.5	4.0764	0.176	4.3	ug/L	9	KED
	Cu -2	63	8358.1	2.4	3.9449	0.107	2.7	ug/L	172	KED
	Cu -3	65	3880.5	0.9	3.8605	0.047	1.2	ug/L	89	KED
	Zn -3	66	9059.2	1.4	37.3638	0.082	0.2	ug/L	65	KED
	Zn -4	67	1481.1	4.4	36.6769	1.399	3.8	ug/L	10	KED
	Zn -5	68	6627.9	2.3	36.4647	0.736	2.0	ug/L	39	KED
	As-2	75	364.0	1.9	2.1333	0.075	3.5	ug/L	1	KED
	Y-1	89	51953.7	2.0				ug/L	50921	KED
	Rh-1	103	35739.0	1.8				ug/L	32421	KED
>	Ge	72	334524.4	1.1				ug/L	400120	Standard
>	In	115	338429.3	1.0				ug/L	376660	Standard
>	Ge-1	72	24264.6	1.6				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-300-05b 2X

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	83.606
In	115	89.850
Ge-1	72	110.951

## Quantitative Analysis - Summary Report

Sample ID: 05-300-05bD 2X

Sample Date/Time: Saturday, June 01, 2024 13:44:29

Report Date/Time: Saturday, June 01, 2024 13:46:48

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-300-05bD 2X.023

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	32171.8	5.9	4.6704	0.211	4.5	ug/L	-4073	Standard
	Ni -1	60	13880.1	2.2	4.5634	0.060	1.3	ug/L	155	Standard
	Ni -2	62	23826.2	1.0	13.4642	0.874	6.5	ug/L	26155	Standard
	Cu	63	44973.3	0.8	4.3403	0.015	0.3	ug/L	25402	Standard
	Cu -1	65	12045.7	1.3	3.8308	0.055	1.4	ug/L	479	Standard
	Zn	66	66147.8	1.4	38.1244	0.304	0.8	ug/L	604	Standard
	Zn -1	67	13872.7	3.4	48.0548	1.144	2.4	ug/L	115	Standard
	Zn -2	68	45200.7	1.6	36.4049	0.470	1.3	ug/L	605	Standard
	As	75	15371.7	0.9	3.0819	0.169	5.5	ug/L	12853	Standard
	As-1	75	3295.5	6.7	1.8712	0.144	7.7	ug/L	-4	Standard
	Se	77	6868.0	1.5	58.8737	1.032	1.8	ug/L	98	Standard
	Se -1	78	12164.5	0.7	5.9529	0.098	1.6	ug/L	12897	Standard
	Br	79	4716.4	2.3				ug/L	2838	Standard
	Se -2	82	52.7	8.6	0.1797	0.027	15.2	ug/L	35	Standard
	Kr	83	51.7	4.0				ug/L	29	Standard
	Y	89	482063.5	1.1				ug/L	601935	Standard
	Rh	103	79861.6	1.4				ug/L	108502	Standard
	Ni -3	58	10966.7	1.5	5.6510	0.126	2.2	ug/L	68	KED
	Ni -4	60	3655.5	1.8	4.3021	0.044	1.0	ug/L	30	KED
	Ni -5	62	540.0	2.4	4.2189	0.189	4.5	ug/L	9	KED
	Cu -2	63	8291.1	3.0	3.8285	0.084	2.2	ug/L	172	KED
	Cu -3	65	3869.2	1.2	3.7668	0.065	1.7	ug/L	89	KED
	Zn -3	66	8863.4	3.1	35.7624	0.417	1.2	ug/L	65	KED
	Zn -4	67	1423.4	1.5	34.4979	1.150	3.3	ug/L	10	KED
	Zn -5	68	6579.8	1.9	35.4206	0.440	1.2	ug/L	39	KED
	As-2	75	367.0	7.6	2.1028	0.124	5.9	ug/L	1	KED
	Y-1	89	52783.0	2.2				ug/L	50921	KED
	Rh-1	103	36396.0	1.6				ug/L	32421	KED
>	Ge	72	312301.3	1.0				ug/L	400120	Standard
>	In	115	329419.0	1.4				ug/L	376660	Standard
>	Ge-1	72	24796.2	2.6				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-300-05bD 2X

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	78.052
In	115	87.458
Ge-1	72	113.381

# Quantitative Analysis - Summary Report

**Sample ID: 05-300-05bL 10X**

Sample Date/Time: Saturday, June 01, 2024 13:49:07

Report Date/Time: Saturday, June 01, 2024 13:51:27

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-300-05bL 10X.024

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-1214.4	44.3	<b>0.2019</b>	0.073	36.3	ug/L	-4073	Standard
	Ni -1	60	2937.0	2.0	<b>0.9758</b>	0.007	0.7	ug/L	155	Standard
	Ni -2	62	20080.4	1.3	<b>7.4137</b>	0.739	10.0	ug/L	26155	Standard
	Cu	63	22999.5	0.6	<b>1.2216</b>	0.057	4.7	ug/L	25402	Standard
	Cu -1	65	2986.0	1.6	<b>0.9436</b>	0.008	0.9	ug/L	479	Standard
	Zn	66	15618.9	0.9	<b>8.9905</b>	0.037	0.4	ug/L	604	Standard
	Zn -1	67	3380.1	0.3	<b>11.7537</b>	0.121	1.0	ug/L	115	Standard
	Zn -2	68	11003.6	2.6	<b>8.7577</b>	0.122	1.4	ug/L	605	Standard
	As	75	12652.7	1.0	<b>1.6619</b>	0.036	2.2	ug/L	12853	Standard
	As-1	75	816.5	6.3	<b>0.4692</b>	0.036	7.6	ug/L	-4	Standard
	Se	77	1800.1	3.7	<b>15.2620</b>	0.417	2.7	ug/L	98	Standard
	Se -1	78	11889.9	1.3	<b>5.8273</b>	0.172	2.9	ug/L	12897	Standard
	Br	79	2323.2	1.0				ug/L	2838	Standard
	Se -2	82	38.7	14.2	<b>0.0947</b>	0.039	41.6	ug/L	35	Standard
	Kr	83	39.0	16.8				ug/L	29	Standard
	Y	89	452141.2	2.0				ug/L	601935	Standard
	Rh	103	79909.2	1.1				ug/L	108502	Standard
	Ni -3	58	2027.0	2.3	<b>1.1281</b>	0.018	1.6	ug/L	68	KED
	Ni -4	60	722.7	4.0	<b>0.9207</b>	0.029	3.2	ug/L	30	KED
	Ni -5	62	108.3	11.4	<b>0.9293</b>	0.107	11.5	ug/L	9	KED
	Cu -2	63	1911.8	2.5	<b>0.9393</b>	0.033	3.5	ug/L	172	KED
	Cu -3	65	900.7	1.8	<b>0.9336</b>	0.013	1.4	ug/L	89	KED
	Zn -3	66	1994.1	1.4	<b>8.5812</b>	0.202	2.4	ug/L	65	KED
	Zn -4	67	323.3	6.1	<b>8.2887</b>	0.439	5.3	ug/L	10	KED
	Zn -5	68	1424.1	0.4	<b>8.0918</b>	0.066	0.8	ug/L	39	KED
	As-2	75	73.7	5.5	<b>0.4549</b>	0.023	5.1	ug/L	1	KED
	Y-1	89	48273.1	1.4				ug/L	50921	KED
	Rh-1	103	33484.2	0.9				ug/L	32421	KED
>	Ge	72	306454.8	1.3				ug/L	400120	Standard
>	In	115	314277.2	0.5				ug/L	376660	Standard
>	Ge-1	72	22875.6	1.0				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-300-05bL 10X

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	76.591
In	115	83.438
Ge-1	72	104.600

# Quantitative Analysis - Summary Report

**Sample ID: 05-300-05bMS 2X**

Sample Date/Time: Saturday, June 01, 2024 13:53:47

Report Date/Time: Saturday, June 01, 2024 13:56:06

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-300-05bMS 2X.025

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	444621.4	2.4	<b>64.1856</b>	0.577	0.9	ug/L	-4073	Standard
	Ni -1	60	174981.0	1.6	<b>61.8575</b>	0.119	0.2	ug/L	155	Standard
	Ni -2	62	45750.8	1.0	<b>58.9054</b>	0.426	0.7	ug/L	26155	Standard
	Cu	63	391426.6	2.1	<b>58.6490</b>	0.440	0.7	ug/L	25402	Standard
	Cu -1	65	166917.0	1.8	<b>57.3947</b>	0.213	0.4	ug/L	479	Standard
	Zn	66	149659.1	2.3	<b>92.8839</b>	1.137	1.2	ug/L	604	Standard
	Zn -1	67	27362.9	1.8	<b>101.9749</b>	0.417	0.4	ug/L	115	Standard
	Zn -2	68	100585.2	1.4	<b>87.4219</b>	0.686	0.8	ug/L	605	Standard
	As	75	89949.9	1.1	<b>49.5570</b>	0.638	1.3	ug/L	12853	Standard
	As-1	75	80366.3	1.2	<b>49.0458</b>	0.718	1.5	ug/L	-4	Standard
	Se	77	11696.5	0.6	<b>108.0960</b>	1.263	1.2	ug/L	98	Standard
	Se -1	78	28086.6	1.3	<b>53.0500</b>	0.185	0.3	ug/L	12897	Standard
	Br	79	4848.5	1.2				ug/L	2838	Standard
	Se -2	82	7301.9	0.9	<b>50.3028</b>	0.370	0.7	ug/L	35	Standard
	Kr	83	53.3	7.6				ug/L	29	Standard
	Y	89	451231.6	2.1				ug/L	601935	Standard
	Rh	103	73851.8	1.8				ug/L	108502	Standard
	Ni -3	58	110844.3	1.2	<b>60.2405</b>	0.642	1.1	ug/L	68	KED
	Ni -4	60	47351.4	0.9	<b>58.7631</b>	1.023	1.7	ug/L	30	KED
	Ni -5	62	6979.4	1.8	<b>57.2453</b>	0.367	0.6	ug/L	9	KED
	Cu -2	63	119433.9	1.1	<b>58.4752</b>	0.762	1.3	ug/L	172	KED
	Cu -3	65	55424.6	0.8	<b>57.1867</b>	0.809	1.4	ug/L	89	KED
	Zn -3	66	20062.4	1.8	<b>85.5982</b>	0.412	0.5	ug/L	65	KED
	Zn -4	67	3293.4	3.6	<b>84.4560</b>	1.193	1.4	ug/L	10	KED
	Zn -5	68	15053.6	2.3	<b>85.8070</b>	0.247	0.3	ug/L	39	KED
	As-2	75	8414.1	1.7	<b>50.9366</b>	0.312	0.6	ug/L	1	KED
	Y-1	89	49217.3	1.6				ug/L	50921	KED
	Rh-1	103	34500.6	1.6				ug/L	32421	KED
>	Ge	72	291083.7	1.5				ug/L	400120	Standard
>	In	115	307919.3	1.9				ug/L	376660	Standard
>	Ge-1	72	23523.4	2.3				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-300-05bMS 2X

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	72.749
In	115	81.750
Ge-1	72	107.561

## Quantitative Analysis - Summary Report

**Sample ID: 05-300-05bMSD 2X**

Sample Date/Time: Saturday, June 01, 2024 14:03:54

Report Date/Time: Saturday, June 01, 2024 14:06:14

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-300-05bMSD 2X.027

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	445268.6	1.7	<b>63.5714</b>	1.147	1.8	ug/L	-4073	Standard
	Ni -1	60	175052.7	1.0	<b>61.1930</b>	0.672	1.1	ug/L	155	Standard
	Ni -2	62	44875.0	0.8	<b>56.2441</b>	0.720	1.3	ug/L	26155	Standard
	Cu	63	390392.9	0.8	<b>57.8152</b>	0.465	0.8	ug/L	25402	Standard
	Cu -1	65	166855.6	1.6	<b>56.7353</b>	0.962	1.7	ug/L	479	Standard
	Zn	66	149294.8	0.8	<b>91.6263</b>	0.763	0.8	ug/L	604	Standard
	Zn -1	67	27589.6	0.9	<b>101.6751</b>	1.070	1.1	ug/L	115	Standard
	Zn -2	68	102634.7	0.1	<b>88.2088</b>	0.174	0.2	ug/L	605	Standard
	As	75	90187.9	1.2	<b>49.0806</b>	0.690	1.4	ug/L	12853	Standard
	As-1	75	80037.0	1.3	<b>48.2951</b>	0.644	1.3	ug/L	-4	Standard
	Se	77	11819.2	1.5	<b>107.9996</b>	1.600	1.5	ug/L	98	Standard
	Se -1	78	28532.5	1.0	<b>53.4077</b>	0.872	1.6	ug/L	12897	Standard
	Br	79	4882.2	1.6				ug/L	2838	Standard
	Se -2	82	7254.8	0.9	<b>49.4154</b>	0.492	1.0	ug/L	35	Standard
	Kr	83	55.3	10.0				ug/L	29	Standard
	Y	89	452745.5	2.0				ug/L	601935	Standard
	Rh	103	74093.0	1.3				ug/L	108502	Standard
	Ni -3	58	110211.6	1.8	<b>61.3557</b>	0.573	0.9	ug/L	68	KED
	Ni -4	60	46185.2	1.3	<b>58.7090</b>	0.230	0.4	ug/L	30	KED
	Ni -5	62	6858.3	1.9	<b>57.6290</b>	0.773	1.3	ug/L	9	KED
	Cu -2	63	116411.0	0.4	<b>58.3869</b>	0.320	0.5	ug/L	172	KED
	Cu -3	65	54257.8	1.0	<b>57.3462</b>	0.152	0.3	ug/L	89	KED
	Zn -3	66	19719.6	0.5	<b>86.2051</b>	1.154	1.3	ug/L	65	KED
	Zn -4	67	3212.4	0.5	<b>84.4237</b>	0.742	0.9	ug/L	10	KED
	Zn -5	68	14641.5	1.2	<b>85.5077</b>	0.558	0.7	ug/L	39	KED
	As-2	75	8318.4	0.3	<b>51.5927</b>	0.467	0.9	ug/L	1	KED
	Y-1	89	48848.7	0.3				ug/L	50921	KED
	Rh-1	103	33632.2	1.6				ug/L	32421	KED
>	Ge	72	294369.3	0.1				ug/L	400120	Standard
>	In	115	308460.6	1.3				ug/L	376660	Standard
>	Ge-1	72	22959.1	0.9				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-300-05bMSD 2X

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	Se -2	82	
	Kr	83	
	Y	89	
	Rh	103	
	Ni -3	58	
	Ni -4	60	
	Ni -5	62	
	Cu -2	63	
	Cu -3	65	
	Zn -3	66	
	Zn -4	67	
	Zn -5	68	
	As-2	75	
	Y-1	89	
	Rh-1	103	
>	Ge	72	73.570
>	In	115	81.894
>	Ge-1	72	104.981

# Quantitative Analysis - Summary Report

**Sample ID: 05-300-05bPS 2X**

Sample Date/Time: Saturday, June 01, 2024 14:08:34

Report Date/Time: Saturday, June 01, 2024 14:10:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-300-05bPS 2X.028

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	402906.7	0.9	53.0145	0.148	0.3	ug/L	-4073	Standard
	Ni -1	60	156095.2	1.1	50.2290	0.366	0.7	ug/L	155	Standard
	Ni -2	62	42637.5	0.9	45.5145	1.179	2.6	ug/L	26155	Standard
	Cu	63	351556.4	0.9	47.5577	0.556	1.2	ug/L	25402	Standard
	Cu -1	65	148026.7	1.1	46.3314	0.780	1.7	ug/L	479	Standard
	Zn	66	140406.3	0.6	79.2951	0.599	0.8	ug/L	604	Standard
	Zn -1	67	26435.8	1.4	89.6533	0.787	0.9	ug/L	115	Standard
	Zn -2	68	95689.1	1.0	75.6549	0.429	0.6	ug/L	605	Standard
	As	75	80985.4	1.0	39.5797	0.408	1.0	ug/L	12853	Standard
	As-1	75	70342.7	1.1	39.0736	0.442	1.1	ug/L	-4	Standard
	Se	77	11834.9	0.8	99.5086	1.342	1.3	ug/L	98	Standard
	Se -1	78	26451.8	0.9	41.7801	0.578	1.4	ug/L	12897	Standard
	Br	79	5307.0	1.7				ug/L	2838	Standard
	Se -2	82	6242.4	1.6	39.1098	0.733	1.9	ug/L	35	Standard
	Kr	83	52.3	12.7				ug/L	29	Standard
	Y	89	492853.9	0.4				ug/L	601935	Standard
	Rh	103	80542.1	1.1				ug/L	108502	Standard
	Ni -3	58	96624.2	1.5	50.3176	0.485	1.0	ug/L	68	KED
	Ni -4	60	40911.2	1.0	48.6483	0.595	1.2	ug/L	30	KED
	Ni -5	62	6145.7	1.0	48.3178	1.174	2.4	ug/L	9	KED
	Cu -2	63	101404.0	0.9	47.5710	0.584	1.2	ug/L	172	KED
	Cu -3	65	47320.9	1.1	46.7797	0.323	0.7	ug/L	89	KED
	Zn -3	66	18401.5	2.6	75.2069	1.114	1.5	ug/L	65	KED
	Zn -4	67	2956.0	3.5	72.6091	1.409	1.9	ug/L	10	KED
	Zn -5	68	13662.2	2.6	74.5873	0.866	1.2	ug/L	39	KED
	As-2	75	7116.4	1.9	41.2798	0.182	0.4	ug/L	1	KED
	Y-1	89	52187.2	1.8				ug/L	50921	KED
	Rh-1	103	36408.0	1.0				ug/L	32421	KED
>	Ge	72	319770.7	0.7				ug/L	400120	Standard
>	In	115	335819.1	1.0				ug/L	376660	Standard
>	Ge-1	72	24546.1	1.6				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-300-05bPS 2X

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	79.919
In	115	89.157
Ge-1	72	112.238

## Quantitative Analysis - Summary Report

**Sample ID: 05-426-01 5X**

Sample Date/Time: Saturday, June 01, 2024 14:13:14

Report Date/Time: Saturday, June 01, 2024 14:15:34

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-426-01 5X.029

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	1165.5	28.7	<b>0.5149</b>	0.043	8.4	ug/L	-4073	Standard
	Ni -1	60	3371.1	2.3	<b>1.0389</b>	0.024	2.3	ug/L	155	Standard
	Ni -2	62	21052.5	0.2	<b>6.3736</b>	0.565	8.9	ug/L	26155	Standard
	Cu	63	89209.0	0.4	<b>10.0328</b>	0.204	2.0	ug/L	25402	Standard
	Cu -1	65	32189.9	1.7	<b>9.7201</b>	0.259	2.7	ug/L	479	Standard
	Zn	66	117119.9	2.0	<b>63.9204</b>	0.661	1.0	ug/L	604	Standard
	Zn -1	67	19633.5	3.1	<b>64.3207</b>	1.148	1.8	ug/L	115	Standard
	Zn -2	68	78240.4	2.1	<b>59.7485</b>	0.628	1.1	ug/L	605	Standard
	As	75	12201.8	1.7	<b>0.8775</b>	0.012	1.3	ug/L	12853	Standard
	As-1	75	471.1	43.4	<b>0.2480</b>	0.107	43.0	ug/L	-4	Standard
	Se	77	3770.2	0.9	<b>30.2249</b>	0.286	0.9	ug/L	98	Standard
	Se -1	78	11817.9	1.6	<b>3.3290</b>	0.511	15.3	ug/L	12897	Standard
	Br	79	3341.4	2.4				ug/L	2838	Standard
	Se -2	82	51.7	7.3	<b>0.1550</b>	0.026	16.5	ug/L	35	Standard
	Kr	83	42.7	7.2				ug/L	29	Standard
	Y	89	503192.3	0.7				ug/L	601935	Standard
	Rh	103	85020.3	1.4				ug/L	108502	Standard
	Ni -3	58	2233.5	5.7	<b>1.1124</b>	0.068	6.2	ug/L	68	KED
	Ni -4	60	860.7	4.3	<b>0.9809</b>	0.023	2.4	ug/L	30	KED
	Ni -5	62	129.0	6.2	<b>0.9897</b>	0.078	7.9	ug/L	9	KED
	Cu -2	63	22627.9	1.4	<b>10.1747</b>	0.324	3.2	ug/L	172	KED
	Cu -3	65	10439.1	0.9	<b>9.8902</b>	0.140	1.4	ug/L	89	KED
	Zn -3	66	15379.3	0.6	<b>60.3183</b>	0.980	1.6	ug/L	65	KED
	Zn -4	67	2376.2	0.2	<b>55.9960</b>	1.092	2.0	ug/L	10	KED
	Zn -5	68	11002.6	1.2	<b>57.6129</b>	0.902	1.6	ug/L	39	KED
	As-2	75	65.0	27.3	<b>0.3587</b>	0.102	28.3	ug/L	1	KED
	Y-1	89	53085.8	0.1				ug/L	50921	KED
	Rh-1	103	37612.8	0.6				ug/L	32421	KED
>	Ge	72	330638.1	1.6				ug/L	400120	Standard
>	In	115	349831.6	0.8				ug/L	376660	Standard
>	Ge-1	72	25569.9	2.0				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-426-01 5X

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	82.635
In	115	92.877
Ge-1	72	116.919

## Quantitative Analysis - Summary Report

**Sample ID: 05-410-01a 5X**

Sample Date/Time: Saturday, June 01, 2024 14:17:54

Report Date/Time: Saturday, June 01, 2024 14:20:14

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-410-01a 5X.030

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Ni	58	39954.9	2.1	<b>5.6124</b>	0.077	1.4	ug/L	-4073		Standard
	Ni -1	60	17868.5	2.2	<b>5.7670</b>	0.093	1.6	ug/L	155		Standard
	Ni -2	62	77380.0	0.7	<b>107.1870</b>	0.120	0.1	ug/L	26155		Standard
	Cu	63	81153.9	0.9	<b>9.3595</b>	0.052	0.6	ug/L	25402		Standard
	Cu -1	65	3385.7	1.6	<b>1.0331</b>	0.012	1.2	ug/L	479		Standard
	Zn	66	41000.8	0.9	<b>23.0920</b>	0.090	0.4	ug/L	604		Standard
	Zn -1	67	7970.9	0.7	<b>26.9919</b>	0.273	1.0	ug/L	115		Standard
	Zn -2	68	27485.8	0.7	<b>21.5747</b>	0.066	0.3	ug/L	605		Standard
	As	75	12664.4	2.4	<b>1.3932</b>	0.122	8.7	ug/L	12853		Standard
	As-1	75	708.5	2.9	<b>0.3911</b>	0.014	3.5	ug/L	-4		Standard
	Se	77	4745.8	1.7	<b>39.7167</b>	0.944	2.4	ug/L	98		Standard
	Se -1	78	12423.1	2.5	<b>6.0150</b>	0.592	9.8	ug/L	12897		Standard
	Br	79	129292.1	2.8				ug/L	2838		Standard
	Se -2	82	201.7	2.2	<b>1.1151</b>	0.030	2.7	ug/L	35		Standard
	Kr	83	74.7	16.0				ug/L	29		Standard
	Y	89	490331.4	1.9				ug/L	601935		Standard
	Rh	103	79573.7	2.2				ug/L	108502		Standard
	Ni -3	58	11549.4	1.6	<b>5.6770</b>	0.068	1.2	ug/L	68		KED
	Ni -4	60	4922.2	1.7	<b>5.5271</b>	0.069	1.3	ug/L	30		KED
	Ni -5	62	760.0	2.5	<b>5.6572</b>	0.161	2.8	ug/L	9		KED
	Cu -2	63	2123.2	1.5	<b>0.9176</b>	0.012	1.3	ug/L	172		KED
	Cu -3	65	946.0	2.7	<b>0.8617</b>	0.028	3.2	ug/L	89		KED
	Zn -3	66	5674.8	0.8	<b>21.7779</b>	0.274	1.3	ug/L	65		KED
	Zn -4	67	885.4	4.7	<b>20.3601</b>	1.028	5.1	ug/L	10		KED
	Zn -5	68	4104.9	1.9	<b>20.9701</b>	0.517	2.5	ug/L	39		KED
	As-2	75	61.3	6.8	<b>0.3325</b>	0.024	7.1	ug/L	1		KED
	Y-1	89	53319.3	1.3				ug/L	50921		KED
	Rh-1	103	36667.0	1.1				ug/L	32421		KED
>	Ge	72	318285.4	0.7				ug/L	400120		Standard
>	In	115	335339.2	1.2				ug/L	376660		Standard
>	Ge-1	72	25985.3	0.6				ug/L	21870		KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-410-01a 5X

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	79.548
In	115	89.030
Ge-1	72	118.818

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Saturday, June 01, 2024 14:32:01

Report Date/Time: Saturday, June 01, 2024 14:34:21

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 6.033

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	319844.7	2.9	41.7771	0.268	0.6	ug/L	-4073	Standard
	Ni -1	60	128232.3	2.9	40.8822	0.121	0.3	ug/L	155	Standard
	Ni -2	62	39636.9	0.5	39.6266	1.511	3.8	ug/L	26155	Standard
	Cu	63	303524.1	1.1	40.3810	0.698	1.7	ug/L	25402	Standard
	Cu -1	65	129995.9	1.7	40.3189	0.720	1.8	ug/L	479	Standard
	Zn	66	73507.7	1.6	41.0246	0.435	1.1	ug/L	604	Standard
	Zn -1	67	12123.1	0.7	40.6223	0.864	2.1	ug/L	115	Standard
	Zn -2	68	51345.8	2.0	40.0614	0.561	1.4	ug/L	605	Standard
	As	75	79336.2	2.0	38.2558	0.284	0.7	ug/L	12853	Standard
	As-1	75	67973.3	2.8	37.4104	0.078	0.2	ug/L	-4	Standard
	Se	77	4644.4	1.1	38.3184	0.581	1.5	ug/L	98	Standard
	Se -1	78	27062.6	0.5	42.7380	1.674	3.9	ug/L	12897	Standard
	Br	79	2301.5	2.0				ug/L	2838	Standard
	Se -2	82	6200.3	2.9	38.4890	0.661	1.7	ug/L	35	Standard
	Kr	83	35.7	14.4				ug/L	29	Standard
	Y	89	456774.8	3.0				ug/L	601935	Standard
	Rh	103	83518.6	3.0				ug/L	108502	Standard
	Ni -3	58	70142.0	0.5	41.8917	0.271	0.6	ug/L	68	KED
	Ni -4	60	30301.8	0.4	41.3237	0.420	1.0	ug/L	30	KED
	Ni -5	62	4454.4	0.1	40.1604	0.412	1.0	ug/L	9	KED
	Cu -2	63	76685.6	1.1	41.2527	0.360	0.9	ug/L	172	KED
	Cu -3	65	35589.6	0.9	40.3454	0.058	0.1	ug/L	89	KED
	Zn -3	66	8514.2	1.4	39.8228	0.126	0.3	ug/L	65	KED
	Zn -4	67	1408.4	3.0	39.5597	0.796	2.0	ug/L	10	KED
	Zn -5	68	6323.7	1.5	39.4652	0.332	0.8	ug/L	39	KED
	As-2	75	5782.2	1.1	38.4719	0.686	1.8	ug/L	1	KED
	Y-1	89	45464.2	0.2				ug/L	50921	KED
	Rh-1	103	30594.4	1.1				ug/L	32421	KED
>	Ge	72	322720.4	2.6				ug/L	400120	Standard
>	In	115	316150.9	2.0				ug/L	376660	Standard
>	Ge-1	72	21402.4	1.1				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

	Se -2	82	
	Kr	83	
	Y	89	
	Rh	103	
	Ni -3	58	
	Ni -4	60	
	Ni -5	62	
	Cu -2	63	
	Cu -3	65	
	Zn -3	66	
	Zn -4	67	
	Zn -5	68	
	As-2	75	
	Y-1	89	
	Rh-1	103	
>	Ge	72	80.656
>	In	115	83.935
>	Ge-1	72	97.863

## Quantitative Analysis - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, June 01, 2024 14:36:41

Report Date/Time: Saturday, June 01, 2024 14:39:01

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 7.034

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	190440.2	2.0	21.8547	0.124	0.6	ug/L	-4073	Standard
	Ni -1	60	76346.9	2.5	21.2055	0.080	0.4	ug/L	155	Standard
	Ni -2	62	30604.1	0.9	17.0386	1.146	6.7	ug/L	26155	Standard
	Cu	63	184110.6	2.5	20.3122	0.071	0.3	ug/L	25402	Standard
	Cu -1	65	77216.2	2.4	20.8482	0.093	0.4	ug/L	479	Standard
	Zn	66	43431.3	2.1	21.0013	0.091	0.4	ug/L	604	Standard
	Zn -1	67	7372.9	2.5	21.4072	0.251	1.2	ug/L	115	Standard
	Zn -2	68	30944.8	3.1	20.8609	0.215	1.0	ug/L	605	Standard
	As	75	52125.2	2.6	19.4520	0.203	1.0	ug/L	12853	Standard
	As-1	75	40300.5	3.5	19.3222	0.218	1.1	ug/L	-4	Standard
	Se	77	2835.3	2.2	20.0885	0.446	2.2	ug/L	98	Standard
	Se -1	78	21310.2	1.3	21.1767	0.653	3.1	ug/L	12897	Standard
	Br	79	2022.5	2.1				ug/L	2838	Standard
	Se -2	82	3753.5	4.3	20.2207	0.419	2.1	ug/L	35	Standard
	Kr	83	34.0	29.0				ug/L	29	Standard
	Y	89	512286.2	0.8				ug/L	601935	Standard
	Rh	103	93717.8	1.2				ug/L	108502	Standard
	Ni -3	58	41121.5	0.5	21.8473	0.266	1.2	ug/L	68	KED
	Ni -4	60	17776.7	1.5	21.5650	0.239	1.1	ug/L	30	KED
	Ni -5	62	2696.6	0.5	21.6353	0.093	0.4	ug/L	9	KED
	Cu -2	63	44700.5	1.3	21.3813	0.290	1.4	ug/L	172	KED
	Cu -3	65	20716.7	1.3	20.8819	0.130	0.6	ug/L	89	KED
	Zn -3	66	5016.2	1.3	20.7840	0.251	1.2	ug/L	65	KED
	Zn -4	67	805.4	3.4	19.9972	0.625	3.1	ug/L	10	KED
	Zn -5	68	3678.5	3.5	20.2840	0.574	2.8	ug/L	39	KED
	As-2	75	3390.1	1.7	20.0636	0.373	1.9	ug/L	1	KED
	Y-1	89	51831.5	0.1				ug/L	50921	KED
	Rh-1	103	34659.0	0.4				ug/L	32421	KED
>	Ge	72	370362.0	2.5				ug/L	400120	Standard
>	In	115	355624.7	1.0				ug/L	376660	Standard
>	Ge-1	72	24057.2	0.7				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: QC Std 7

Report Date/Time: Saturday, June 01, 2024 14:39:01

Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	92.563
In	115	94.415
Ge-1	72	110.002

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Saturday, June 01, 2024 14:41:21

Report Date/Time: Saturday, June 01, 2024 14:43:41

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 8.035

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-5603.2	2.0	<b>-0.2758</b>	0.015	5.5	ug/L	-4073	Standard
	Ni -1	60	164.3	10.3	<b>0.0360</b>	0.006	15.3	ug/L	155	Standard
	Ni -2	62	18778.0	0.5	<b>-0.4180</b>	0.552	132.2	ug/L	26155	Standard
	Cu	63	15932.2	0.7	<b>-0.1935</b>	0.043	22.2	ug/L	25402	Standard
	Cu -1	65	447.7	4.9	<b>0.0910</b>	0.008	8.9	ug/L	479	Standard
	Zn	66	663.7	2.5	<b>0.0885</b>	0.004	4.0	ug/L	604	Standard
	Zn -1	67	142.7	13.1	<b>0.1861</b>	0.063	33.9	ug/L	115	Standard
	Zn -2	68	661.3	3.4	<b>0.0990</b>	0.018	18.4	ug/L	605	Standard
	As	75	12616.1	2.7	<b>0.4751</b>	0.080	16.9	ug/L	12853	Standard
	As-1	75	-23.9	329.1	<b>-0.0163</b>	0.038	235.2	ug/L	-4	Standard
	Se	77	156.0	7.4	<b>0.5316</b>	0.069	13.0	ug/L	98	Standard
	Se -1	78	12696.6	2.3	<b>2.6170</b>	0.243	9.3	ug/L	12897	Standard
	Br	79	1796.8	2.2				ug/L	2838	Standard
	Se -2	82	41.0	23.5	<b>0.0668</b>	0.051	76.4	ug/L	35	Standard
	Kr	83	34.7	9.3				ug/L	29	Standard
	Y	89	506172.5	2.8				ug/L	601935	Standard
	Rh	103	93249.7	1.5				ug/L	108502	Standard
	Ni -3	58	84.4	9.2	<b>0.0408</b>	0.003	8.4	ug/L	68	KED
	Ni -4	60	37.3	20.1	<b>0.0447</b>	0.010	22.9	ug/L	30	KED
	Ni -5	62	13.7	11.2	<b>0.1265</b>	0.013	10.2	ug/L	9	KED
	Cu -2	63	226.7	4.3	<b>0.0862</b>	0.007	8.1	ug/L	172	KED
	Cu -3	65	113.0	3.2	<b>0.0931</b>	0.005	5.1	ug/L	89	KED
	Zn -3	66	72.0	6.1	<b>0.1169</b>	0.022	19.2	ug/L	65	KED
	Zn -4	67	12.7	36.5	<b>0.0607</b>	0.125	206.5	ug/L	10	KED
	Zn -5	68	48.0	19.9	<b>-0.0125</b>	0.050	395.3	ug/L	39	KED
	As-2	75	3.7	63.0	<b>0.0181</b>	0.014	74.7	ug/L	1	KED
	Y-1	89	50920.3	1.0				ug/L	50921	KED
	Rh-1	103	34400.7	1.9				ug/L	32421	KED
>	Ge	72	364025.4	1.6				ug/L	400120	Standard
>	In	115	349102.7	1.3				ug/L	376660	Standard
>	Ge-1	72	23790.8	2.0				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: QC Std 8

Report Date/Time: Saturday, June 01, 2024 14:43:41

Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	90.979
In	115	92.684
Ge-1	72	108.784

## Quantitative Analysis - Summary Report

**Sample ID: 05-442-01c 5X**

Sample Date/Time: Saturday, June 01, 2024 14:46:57

Report Date/Time: Saturday, June 01, 2024 14:49:17

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-442-01c 5X.036

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	74445.3	8.2	9.2406	0.731	7.9	ug/L	-4073	Standard
	Ni -1	60	14397.3	1.5	4.2164	0.093	2.2	ug/L	155	Standard
	Ni -2	62	68003.9	6.6	79.5710	7.055	8.9	ug/L	26155	Standard
	Cu	63	67823.6	5.5	6.5765	0.464	7.1	ug/L	25402	Standard
	Cu -1	65	2276.5	4.2	0.6181	0.029	4.6	ug/L	479	Standard
	Zn	66	2543.6	0.7	1.0725	0.017	1.6	ug/L	604	Standard
	Zn -1	67	1799.4	1.8	5.3403	0.079	1.5	ug/L	115	Standard
	Zn -2	68	4702.8	0.7	3.0450	0.020	0.6	ug/L	605	Standard
	As	75	18323.7	0.2	3.6258	0.089	2.4	ug/L	12853	Standard
	As-1	75	6086.2	1.7	3.0798	0.076	2.5	ug/L	-4	Standard
	Se	77	2619.2	4.0	19.5851	0.791	4.0	ug/L	98	Standard
	Se -1	78	13279.2	0.8	5.0741	0.367	7.2	ug/L	12897	Standard
	Br	79	329698.2	1.3				ug/L	2838	Standard
	Se -2	82	428.3	5.8	2.2993	0.170	7.4	ug/L	35	Standard
	Kr	83	71.7	26.2				ug/L	29	Standard
	Y	89	518159.6	0.6				ug/L	601935	Standard
	Rh	103	86873.4	0.8				ug/L	108502	Standard
	Ni -3	58	21730.1	1.7	11.1822	0.269	2.4	ug/L	68	KED
	Ni -4	60	3438.1	3.3	4.0386	0.091	2.2	ug/L	30	KED
	Ni -5	62	498.0	3.6	3.8823	0.077	2.0	ug/L	9	KED
	Cu -2	63	1215.7	2.7	0.5404	0.022	4.1	ug/L	172	KED
	Cu -3	65	591.0	3.0	0.5555	0.016	2.9	ug/L	89	KED
	Zn -3	66	297.0	2.4	1.0156	0.048	4.7	ug/L	65	KED
	Zn -4	67	241.7	5.5	5.6269	0.328	5.8	ug/L	10	KED
	Zn -5	68	859.7	6.4	4.3769	0.370	8.4	ug/L	39	KED
	As-2	75	497.0	1.8	2.8461	0.032	1.1	ug/L	1	KED
	Y-1	89	52194.2	2.5				ug/L	50921	KED
	Rh-1	103	35147.2	2.1				ug/L	32421	KED
>	Ge	72	350598.0	1.1				ug/L	400120	Standard
>	In	115	338694.0	0.6				ug/L	376660	Standard
>	Ge-1	72	24835.9	1.6				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
> Ge	72	87.623
> In	115	89.920
> Ge-1	72	113.563

## Quantitative Analysis - Summary Report

**Sample ID: 05-442-02c 5X**

Sample Date/Time: Saturday, June 01, 2024 14:51:37

Report Date/Time: Saturday, June 01, 2024 14:53:56

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-442-02c 5X.037

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
S	Ni	58	74346.9	4.6	9.5922	0.697	7.3	ug/L	-4073	Standard
	Ni -1	60	13477.0	2.2	4.1027	0.045	1.1	ug/L	155	Standard
	Ni -2	62	115822.3	5.6	163.4288	4.643	2.8	ug/L	26155	Standard
	Cu	63	116663.8	5.8	13.4635	0.407	3.0	ug/L	25402	Standard
	Cu -1	65	3920.2	2.0	1.1321	0.016	1.4	ug/L	479	Standard
	Zn	66	7248.8	1.3	3.6531	0.100	2.7	ug/L	604	Standard
	Zn -1	67	2063.8	0.8	6.4177	0.234	3.6	ug/L	115	Standard
	Zn -2	68	6749.3	4.0	4.7202	0.098	2.1	ug/L	605	Standard
	As	75	18958.7	4.4	4.3286	0.145	3.4	ug/L	12853	Standard
	As-1	75	5477.6	7.8	2.8778	0.137	4.8	ug/L	-4	Standard
	Se	77	2586.6	2.5	20.1277	0.557	2.8	ug/L	98	Standard
	Se -1	78	14413.9	3.4	9.0479	0.279	3.1	ug/L	12897	Standard
	Br	79	351941.9	3.0				ug/L	2838	Standard
	Se -2	82	387.3	9.9	2.1473	0.157	7.3	ug/L	35	Standard
	Kr	83	110.7	20.2				ug/L	29	Standard
	Y	89	504873.2	1.4				ug/L	601935	Standard
	Rh	103	83581.2	2.3				ug/L	108502	Standard
	Ni -3	58	20123.0	2.9	10.1910	0.303	3.0	ug/L	68	KED
	Ni -4	60	3281.7	3.6	3.7953	0.148	3.9	ug/L	30	KED
	Ni -5	62	505.3	3.2	3.8778	0.069	1.8	ug/L	9	KED
	Cu -2	63	2332.9	3.7	1.0412	0.029	2.8	ug/L	172	KED
	Cu -3	65	1073.4	2.9	1.0105	0.031	3.0	ug/L	89	KED
	Zn -3	66	904.0	1.6	3.4161	0.067	2.0	ug/L	65	KED
	Zn -4	67	264.0	4.7	6.0675	0.217	3.6	ug/L	10	KED
	Zn -5	68	1017.4	3.4	5.1426	0.242	4.7	ug/L	39	KED
	As-2	75	462.7	2.8	2.6073	0.048	1.8	ug/L	1	KED
	Y-1	89	53144.7	0.7				ug/L	50921	KED
	Rh-1	103	35677.8	1.5				ug/L	32421	KED
>	Ge	72	337289.6	3.2				ug/L	400120	Standard
>	In	115	348512.9	1.8				ug/L	376660	Standard
>	Ge-1	72	25232.3	1.4				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-442-02c 5X

Report Date/Time: Saturday, June 01, 2024 14:53:56

Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	84.297
In	115	92.527
Ge-1	72	115.375

## Quantitative Analysis - Summary Report

**Sample ID: 05-311-01b 10X 29WM1**

Sample Date/Time: Saturday, June 01, 2024 14:56:16

Report Date/Time: Saturday, June 01, 2024 14:58:36

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-311-01b 10X 29WM1.038

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	4328.3	4.4	0.8574	0.028	3.2	ug/L	-4073	Standard
	Ni -1	60	5172.9	0.6	1.4311	0.019	1.3	ug/L	155	Standard
	Ni -2	62	158983.1	2.5	212.4137	2.815	1.3	ug/L	26155	Standard
	Cu	63	751762.0	1.9	89.8908	0.646	0.7	ug/L	25402	Standard
	Cu -1	65	255568.6	1.9	69.2627	0.345	0.5	ug/L	479	Standard
	Zn	66	152776.9	2.3	74.6803	1.016	1.4	ug/L	604	Standard
	Zn -1	67	23512.3	1.8	68.9796	0.289	0.4	ug/L	115	Standard
	Zn -2	68	100878.1	2.5	69.0138	0.792	1.1	ug/L	605	Standard
	As	75	16401.7	2.8	2.2190	0.130	5.9	ug/L	12853	Standard
	As-1	75	1682.4	11.4	0.8049	0.093	11.5	ug/L	-4	Standard
	Se	77	4026.6	8.0	28.8493	1.954	6.8	ug/L	98	Standard
	Se -1	78	15873.5	2.4	9.2444	0.362	3.9	ug/L	12897	Standard
	Br	79	411440.0	2.4				ug/L	2838	Standard
	Se -2	82	476.3	3.5	2.4357	0.119	4.9	ug/L	35	Standard
	Kr	83	137.0	3.9				ug/L	29	Standard
	Y	89	550279.3	2.2				ug/L	601935	Standard
	Rh	103	92855.7	3.3				ug/L	108502	Standard
	Ni -3	58	2737.6	2.1	1.2884	0.021	1.6	ug/L	68	KED
	Ni -4	60	1051.0	0.7	1.1321	0.004	0.4	ug/L	30	KED
	Ni -5	62	189.3	5.3	1.3648	0.072	5.2	ug/L	9	KED
	Cu -2	63	168669.3	0.8	71.7627	0.237	0.3	ug/L	172	KED
	Cu -3	65	78083.8	1.0	70.0098	0.496	0.7	ug/L	89	KED
	Zn -3	66	19018.7	1.3	70.4847	0.788	1.1	ug/L	65	KED
	Zn -4	67	2863.3	0.3	63.7656	0.507	0.8	ug/L	10	KED
	Zn -5	68	13521.1	1.0	66.9198	0.299	0.4	ug/L	39	KED
	As-2	75	79.7	3.2	0.4155	0.012	2.9	ug/L	1	KED
	Y-1	89	57977.1	0.9				ug/L	50921	KED
	Rh-1	103	38187.6	0.7				ug/L	32421	KED
>	Ge	72	369345.9	1.4				ug/L	400120	Standard
>	In	115	377959.4	1.8				ug/L	376660	Standard
>	Ge-1	72	27066.3	0.5				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	92.309
In	115	100.345
Ge-1	72	123.761

# Quantitative Analysis - Summary Report

**Sample ID: 05-311-02b 10X**

Sample Date/Time: Saturday, June 01, 2024 15:00:56

Report Date/Time: Saturday, June 01, 2024 15:03:15

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-311-02b 10X.039

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-878.8	13.5	0.2537	0.014	5.5	ug/L	-4073	Standard
	Ni -1	60	4819.8	0.8	1.5281	0.017	1.1	ug/L	155	Standard
	Ni -2	62	268384.8	2.3	438.2181	3.635	0.8	ug/L	26155	Standard
	Cu	63	435725.8	2.9	58.9444	0.849	1.4	ug/L	25402	Standard
	Cu -1	65	5358.0	3.2	1.6317	0.032	2.0	ug/L	479	Standard
	Zn	66	6172.3	3.4	3.2252	0.071	2.2	ug/L	604	Standard
	Zn -1	67	4127.9	1.9	13.6800	0.103	0.8	ug/L	115	Standard
	Zn -2	68	3816.5	3.5	2.6437	0.064	2.4	ug/L	605	Standard
	As	75	21323.1	2.7	6.1043	0.143	2.3	ug/L	12853	Standard
	As-1	75	5638.1	2.1	3.1021	0.069	2.2	ug/L	-4	Standard
	Se	77	21344.9	2.9	178.4497	2.648	1.5	ug/L	98	Standard
	Se -1	78	20035.7	2.9	24.9245	0.702	2.8	ug/L	12897	Standard
	Br	79	1707279.7	2.8				ug/L	2838	Standard
	Se -2	82	1736.8	1.5	10.6760	0.140	1.3	ug/L	35	Standard
	Kr	83	806.4	7.9				ug/L	29	Standard
	Y	89	477406.4	0.3				ug/L	601935	Standard
	Rh	103	80060.1	1.4				ug/L	108502	Standard
	Ni -3	58	1180.3	3.5	0.6301	0.028	4.5	ug/L	68	KED
	Ni -4	60	507.7	9.1	0.6222	0.062	10.0	ug/L	30	KED
	Ni -5	62	145.3	6.2	1.1944	0.074	6.2	ug/L	9	KED
	Cu -2	63	2282.5	3.3	1.0818	0.026	2.4	ug/L	172	KED
	Cu -3	65	1054.0	4.9	1.0535	0.042	4.0	ug/L	89	KED
	Zn -3	66	618.3	1.9	2.4279	0.075	3.1	ug/L	65	KED
	Zn -4	67	104.0	23.0	2.3844	0.616	25.8	ug/L	10	KED
	Zn -5	68	485.7	2.7	2.4637	0.048	1.9	ug/L	39	KED
	As-2	75	62.7	8.8	0.3717	0.035	9.3	ug/L	1	KED
	Y-1	89	50708.8	1.0				ug/L	50921	KED
	Rh-1	103	32304.2	0.2				ug/L	32421	KED
>	Ge	72	322435.4	1.6				ug/L	400120	Standard
>	In	115	329362.6	1.4				ug/L	376660	Standard
>	Ge-1	72	23781.4	1.0				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-311-02b 10X

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	80.585
In	115	87.443
Ge-1	72	108.741

## Quantitative Analysis - Summary Report

**Sample ID: 05-311-03b 10X**

Sample Date/Time: Saturday, June 01, 2024 15:05:35

Report Date/Time: Saturday, June 01, 2024 15:07:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-311-03b 10X.040

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-29.8	1370.4	<b>0.3648</b>	0.041	11.2	ug/L	-4073	Standard
	Ni -1	60	1946.5	2.6	<b>0.4696</b>	0.006	1.3	ug/L	155	Standard
	Ni -2	62	391223.7	1.5	<b>497.4556</b>	1.334	0.3	ug/L	26155	Standard
	Cu	63	414522.9	2.0	<b>42.7675</b>	0.286	0.7	ug/L	25402	Standard
	Cu -1	65	6267.4	1.1	<b>1.4723</b>	0.004	0.3	ug/L	479	Standard
	Zn	66	5188.9	2.4	<b>2.0110</b>	0.030	1.5	ug/L	604	Standard
	Zn -1	67	1707.4	7.0	<b>4.2127</b>	0.371	8.8	ug/L	115	Standard
	Zn -2	68	3801.8	1.1	<b>1.9525</b>	0.023	1.2	ug/L	605	Standard
	As	75	24529.6	1.5	<b>4.7962</b>	0.289	6.0	ug/L	12853	Standard
	As-1	75	4125.1	5.3	<b>1.7517</b>	0.076	4.4	ug/L	-4	Standard
	Se	77	2485.9	9.7	<b>15.5083</b>	1.771	11.4	ug/L	98	Standard
	Se -1	78	20798.5	2.2	<b>14.8890</b>	1.453	9.8	ug/L	12897	Standard
	Br	79	94325.4	0.4				ug/L	2838	Standard
	Se -2	82	185.3	7.2	<b>0.7337</b>	0.054	7.3	ug/L	35	Standard
	Kr	83	254.7	8.9				ug/L	29	Standard
	Y	89	583625.9	1.5				ug/L	601935	Standard
	Rh	103	105488.4	1.6				ug/L	108502	Standard
	Ni -3	58	1519.2	2.7	<b>0.7150</b>	0.024	3.3	ug/L	68	KED
	Ni -4	60	417.0	3.1	<b>0.4498</b>	0.018	4.1	ug/L	30	KED
	Ni -5	62	127.0	6.9	<b>0.9231</b>	0.062	6.7	ug/L	9	KED
	Cu -2	63	2986.6	2.9	<b>1.2507</b>	0.021	1.7	ug/L	172	KED
	Cu -3	65	1399.1	1.3	<b>1.2362</b>	0.032	2.6	ug/L	89	KED
	Zn -3	66	545.3	1.7	<b>1.8440</b>	0.004	0.2	ug/L	65	KED
	Zn -4	67	103.0	10.3	<b>2.0486</b>	0.271	13.2	ug/L	10	KED
	Zn -5	68	434.0	4.4	<b>1.8791</b>	0.077	4.1	ug/L	39	KED
	As-2	75	331.0	3.9	<b>1.7432</b>	0.092	5.3	ug/L	1	KED
	Y-1	89	58331.5	1.4				ug/L	50921	KED
	Rh-1	103	37739.8	1.8				ug/L	32421	KED
>	Ge	72	417195.9	1.4				ug/L	400120	Standard
>	In	115	397560.3	1.7				ug/L	376660	Standard
>	Ge-1	72	26995.5	1.5				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	104.268
In	115	105.549
Ge-1	72	123.438

## Quantitative Analysis - Summary Report

**Sample ID: 05-311-04c 10X**

Sample Date/Time: Saturday, June 01, 2024 15:10:14

Report Date/Time: Saturday, June 01, 2024 15:12:33

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-311-04c 10X.041

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-5021.7	3.0	-0.3558	0.018	5.0	ug/L	-4073	Standard
	Ni -1	60	3619.5	5.3	1.2733	0.059	4.6	ug/L	155	Standard
	Ni -2	62	414607.9	1.1	773.6459	12.823	1.7	ug/L	26155	Standard
	Cu	63	627925.6	0.8	95.7425	1.293	1.4	ug/L	25402	Standard
	Cu -1	65	6710.9	0.6	2.2848	0.036	1.6	ug/L	479	Standard
	Zn	66	6310.7	2.4	3.6990	0.108	2.9	ug/L	604	Standard
	Zn -1	67	3896.9	4.2	14.3693	0.702	4.9	ug/L	115	Standard
	Zn -2	68	3757.8	2.4	2.9283	0.089	3.0	ug/L	605	Standard
	As	75	22066.8	1.9	7.8832	0.245	3.1	ug/L	12853	Standard
	As-1	75	5916.1	2.7	3.6181	0.075	2.1	ug/L	-4	Standard
	Se	77	19142.8	1.3	177.9033	2.290	1.3	ug/L	98	Standard
	Se -1	78	20284.7	2.3	31.3051	1.285	4.1	ug/L	12897	Standard
	Br	79	1476022.9	3.0				ug/L	2838	Standard
	Se -2	82	1652.1	4.4	11.2952	0.458	4.1	ug/L	35	Standard
	Kr	83	900.7	1.2				ug/L	29	Standard
	Y	89	415991.4	1.3				ug/L	601935	Standard
	Rh	103	72744.5	2.2				ug/L	108502	Standard
	Ni -3	58	371.4	5.6	0.2275	0.012	5.1	ug/L	68	KED
	Ni -4	60	163.3	9.6	0.2317	0.022	9.4	ug/L	30	KED
	Ni -5	62	103.7	11.3	0.9931	0.115	11.5	ug/L	9	KED
	Cu -2	63	3024.3	0.4	1.6790	0.021	1.2	ug/L	172	KED
	Cu -3	65	1319.4	2.9	1.5428	0.032	2.1	ug/L	89	KED
	Zn -3	66	627.3	5.8	2.8953	0.165	5.7	ug/L	65	KED
	Zn -4	67	110.3	14.9	2.9964	0.444	14.8	ug/L	10	KED
	Zn -5	68	455.0	2.5	2.7084	0.097	3.6	ug/L	39	KED
	As-2	75	37.7	18.1	0.2588	0.050	19.2	ug/L	1	KED
	Y-1	89	44224.7	1.2				ug/L	50921	KED
	Rh-1	103	28216.8	1.4				ug/L	32421	KED
>	Ge	72	290097.0	0.9				ug/L	400120	Standard
>	In	115	292772.9	1.2				ug/L	376660	Standard
>	Ge-1	72	20463.6	1.3				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-311-04c 10X

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	72.503
In	115	77.729
Ge-1	72	93.571

## Quantitative Analysis - Summary Report

**Sample ID: 05-311-05c 10X**

Sample Date/Time: Saturday, June 01, 2024 15:14:53

Report Date/Time: Saturday, June 01, 2024 15:17:12

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-311-05c 10X.042

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-4429.8	1.3	-0.1270	0.008	6.3	ug/L	-4073	Standard
	Ni -1	60	3880.2	2.2	1.0561	0.003	0.3	ug/L	155	Standard
	Ni -2	62	347385.2	2.4	492.1690	22.299	4.5	ug/L	26155	Standard
	Cu	63	548135.9	1.6	64.0780	2.311	3.6	ug/L	25402	Standard
	Cu -1	65	7048.7	2.1	1.8532	0.010	0.5	ug/L	479	Standard
	Zn	66	7326.9	2.8	3.3026	0.037	1.1	ug/L	604	Standard
	Zn -1	67	4392.0	0.7	12.5173	0.193	1.5	ug/L	115	Standard
	Zn -2	68	4187.9	2.4	2.4787	0.022	0.9	ug/L	605	Standard
	As	75	22693.4	1.5	5.1189	0.048	0.9	ug/L	12853	Standard
	As-1	75	6323.7	11.3	2.9931	0.293	9.8	ug/L	-4	Standard
	Se	77	22738.8	1.8	163.6885	1.208	0.7	ug/L	98	Standard
	Se -1	78	21123.3	0.4	20.2620	1.016	5.0	ug/L	12897	Standard
	Br	79	1667226.9	2.2				ug/L	2838	Standard
	Se -2	82	1896.5	7.5	10.0264	0.665	6.6	ug/L	35	Standard
	Kr	83	1189.4	3.5				ug/L	29	Standard
	Y	89	525627.0	0.8				ug/L	601935	Standard
	Rh	103	92285.5	1.4				ug/L	108502	Standard
	Ni -3	58	418.0	3.6	0.1959	0.006	3.0	ug/L	68	KED
	Ni -4	60	170.3	8.4	0.1853	0.016	8.6	ug/L	30	KED
	Ni -5	62	88.0	6.9	0.6526	0.048	7.4	ug/L	9	KED
	Cu -2	63	3101.0	1.4	1.3165	0.019	1.4	ug/L	172	KED
	Cu -3	65	1410.4	1.2	1.2622	0.008	0.6	ug/L	89	KED
	Zn -3	66	701.7	3.7	2.4595	0.082	3.3	ug/L	65	KED
	Zn -4	67	121.0	15.8	2.4854	0.443	17.8	ug/L	10	KED
	Zn -5	68	504.7	1.3	2.2636	0.031	1.4	ug/L	39	KED
	As-2	75	41.3	7.8	0.2171	0.017	7.6	ug/L	1	KED
	Y-1	89	57049.4	1.1				ug/L	50921	KED
	Rh-1	103	35836.9	0.3				ug/L	32421	KED
>	Ge	72	374406.7	1.9				ug/L	400120	Standard
>	In	115	376243.7	1.5				ug/L	376660	Standard
>	Ge-1	72	26656.5	0.7				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	93.574
In	115	99.889
Ge-1	72	121.888

>  
>  
>

## Quantitative Analysis - Summary Report

**Sample ID: 05-311-03c 10X FFD**

Sample Date/Time: Saturday, June 01, 2024 15:19:32

Report Date/Time: Saturday, June 01, 2024 15:21:51

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\05-311-03c 10X FFD.043

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	452.0	166.1	0.4145	0.078	18.9	ug/L	-4073	Standard
	Ni -1	60	1836.5	4.1	0.4583	0.019	4.1	ug/L	155	Standard
	Ni -2	62	322568.8	7.1	419.9498	27.512	6.6	ug/L	26155	Standard
	Cu	63	345815.1	8.0	36.6085	2.743	7.5	ug/L	25402	Standard
	Cu -1	65	3898.9	3.4	0.9362	0.029	3.1	ug/L	479	Standard
	Zn	66	1909.5	2.6	0.6163	0.027	4.3	ug/L	604	Standard
	Zn -1	67	1296.1	2.2	3.2551	0.085	2.6	ug/L	115	Standard
	Zn -2	68	1421.7	2.6	0.5332	0.020	3.7	ug/L	605	Standard
	As	75	26035.3	0.7	5.8281	0.088	1.5	ug/L	12853	Standard
	As-1	75	3671.3	2.2	1.6132	0.027	1.7	ug/L	-4	Standard
	Se	77	3349.1	6.2	21.8566	1.590	7.3	ug/L	98	Standard
	Se -1	78	22820.9	0.3	20.4041	0.440	2.2	ug/L	12897	Standard
	Br	79	111414.1	1.2				ug/L	2838	Standard
	Se -2	82	213.0	7.4	0.9038	0.088	9.7	ug/L	35	Standard
	Kr	83	535.0	5.4				ug/L	29	Standard
	Y	89	574764.5	1.7				ug/L	601935	Standard
	Rh	103	103782.7	2.3				ug/L	108502	Standard
	Ni -3	58	1153.7	10.5	0.5987	0.054	9.0	ug/L	68	KED
	Ni -4	60	319.0	3.4	0.3800	0.013	3.5	ug/L	30	KED
	Ni -5	62	124.7	3.0	1.0004	0.041	4.1	ug/L	9	KED
	Cu -2	63	1537.4	5.1	0.7019	0.048	6.8	ug/L	172	KED
	Cu -3	65	686.3	2.8	0.6602	0.028	4.2	ug/L	89	KED
	Zn -3	66	148.7	6.2	0.4248	0.045	10.6	ug/L	65	KED
	Zn -4	67	32.0	8.3	0.5295	0.061	11.5	ug/L	10	KED
	Zn -5	68	132.7	6.1	0.4476	0.051	11.5	ug/L	39	KED
	As-2	75	285.3	4.7	1.6601	0.083	5.0	ug/L	1	KED
	Y-1	89	53702.4	1.5				ug/L	50921	KED
	Rh-1	103	33756.8	1.6				ug/L	32421	KED
>	Ge	72	403166.5	0.9				ug/L	400120	Standard
>	In	115	374372.2	1.8				ug/L	376660	Standard
>	Ge-1	72	24427.2	2.0				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: 05-311-03c 10X FFD

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Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	100.761
In	115	99.393
Ge-1	72	111.694

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Saturday, June 01, 2024 15:24:12

Report Date/Time: Saturday, June 01, 2024 15:26:32

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 6.044

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	308971.0	1.4	40.1423	0.509	1.3	ug/L	-4073	Standard
	Ni -1	60	124163.0	1.7	39.3602	0.661	1.7	ug/L	155	Standard
	Ni -2	62	338495.1	5.7	556.9901	43.741	7.9	ug/L	26155	Standard
	Cu	63	609195.7	3.5	82.7702	4.485	5.4	ug/L	25402	Standard
	Cu -1	65	126100.2	2.0	38.8721	0.251	0.6	ug/L	479	Standard
	Zn	66	71406.1	2.0	39.6039	0.246	0.6	ug/L	604	Standard
	Zn -1	67	12076.1	1.5	40.2160	0.516	1.3	ug/L	115	Standard
	Zn -2	68	50679.4	2.0	39.2982	0.332	0.8	ug/L	605	Standard
	As	75	86108.9	0.6	41.7363	0.797	1.9	ug/L	12853	Standard
	As-1	75	69480.4	0.4	38.0254	0.578	1.5	ug/L	-4	Standard
	Se	77	5965.2	1.6	49.1110	1.708	3.5	ug/L	98	Standard
	Se -1	78	32413.4	0.8	55.8142	1.083	1.9	ug/L	12897	Standard
	Br	79	22747.4	4.1				ug/L	2838	Standard
	Se -2	82	6241.7	3.0	38.5208	1.054	2.7	ug/L	35	Standard
	Kr	83	225.3	16.2				ug/L	29	Standard
	Y	89	462703.8	2.2				ug/L	601935	Standard
	Rh	103	86425.7	1.5				ug/L	108502	Standard
	Ni -3	58	59888.4	0.8	39.6749	1.035	2.6	ug/L	68	KED
	Ni -4	60	26236.7	1.1	39.6800	0.484	1.2	ug/L	30	KED
	Ni -5	62	3903.2	0.3	39.0309	0.699	1.8	ug/L	9	KED
	Cu -2	63	64578.3	0.1	38.5303	0.710	1.8	ug/L	172	KED
	Cu -3	65	30472.1	0.7	38.3117	0.488	1.3	ug/L	89	KED
	Zn -3	66	7513.6	1.2	38.9758	0.751	1.9	ug/L	65	KED
	Zn -4	67	1231.4	2.2	38.3560	0.754	2.0	ug/L	10	KED
	Zn -5	68	5646.1	1.5	39.0747	0.268	0.7	ug/L	39	KED
	As-2	75	5140.6	1.6	37.9267	0.183	0.5	ug/L	1	KED
	Y-1	89	43242.7	0.7				ug/L	50921	KED
	Rh-1	103	27724.5	1.8				ug/L	32421	KED
>	Ge	72	324610.1	1.8				ug/L	400120	Standard
>	In	115	298631.8	0.9				ug/L	376660	Standard
>	Ge-1	72	19300.0	1.9				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	100.356	
	Ni -1	60	98.400	
	Ni -2	62	1392.475	
	Cu	63	206.926	
	Cu -1	65	97.180	
	Zn	66	99.010	
	Zn -1	67	100.540	
	Zn -2	68	98.245	
	As	75	104.341	
	As-1	75	95.063	
	Se	77	122.777	
	Se -1	78	139.535	
	Br	79		

Sample ID: QC Std 6

Report Date/Time: Saturday, June 01, 2024 15:26:32

Se -2	82	96.302	
Kr	83		
Y	89		
Rh	103		
Ni -3	58	99.187	
Ni -4	60	99.200	
Ni -5	62	97.577	
Cu -2	63	96.326	
Cu -3	65	95.779	
Zn -3	66	97.439	
Zn -4	67	95.890	
Zn -5	68	97.687	
As-2	75	94.817	
Y-1	89		
Rh-1	103		
Ge	72		81.128
In	115		79.284
Ge-1	72		88.250

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Saturday, June 01, 2024 15:28:53

Report Date/Time: Saturday, June 01, 2024 15:31:13

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 7.045

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	172435.7	0.9	20.1093	0.178	0.9	ug/L	-4073	Standard
	Ni -1	60	71725.3	0.9	20.2155	0.107	0.5	ug/L	155	Standard
	Ni -2	62	175904.5	1.4	241.4276	6.835	2.8	ug/L	26155	Standard
	Cu	63	326766.1	0.8	38.3288	0.722	1.9	ug/L	25402	Standard
	Cu -1	65	72500.5	1.8	19.8621	0.335	1.7	ug/L	479	Standard
	Zn	66	41119.4	0.4	20.1670	0.201	1.0	ug/L	604	Standard
	Zn -1	67	6875.3	2.1	20.2441	0.451	2.2	ug/L	115	Standard
	Zn -2	68	29163.1	0.4	19.9368	0.196	1.0	ug/L	605	Standard
	As	75	55265.1	1.5	21.3616	0.232	1.1	ug/L	12853	Standard
	As-1	75	39976.4	2.0	19.4513	0.170	0.9	ug/L	-4	Standard
	Se	77	3425.7	1.2	24.7690	0.446	1.8	ug/L	98	Standard
	Se -1	78	24537.7	0.5	29.1035	0.643	2.2	ug/L	12897	Standard
	Br	79	14113.6	0.7				ug/L	2838	Standard
	Se -2	82	3665.5	1.8	20.0412	0.162	0.8	ug/L	35	Standard
	Kr	83	100.0	13.2				ug/L	29	Standard
	Y	89	531729.4	0.8				ug/L	601935	Standard
	Rh	103	97557.0	0.8				ug/L	108502	Standard
	Ni -3	58	33387.4	1.1	19.9609	0.092	0.5	ug/L	68	KED
	Ni -4	60	14445.3	2.3	19.7202	0.322	1.6	ug/L	30	KED
	Ni -5	62	2175.2	2.6	19.6401	0.393	2.0	ug/L	9	KED
	Cu -2	63	36886.9	2.7	19.8537	0.463	2.3	ug/L	172	KED
	Cu -3	65	17214.0	0.8	19.5270	0.210	1.1	ug/L	89	KED
	Zn -3	66	4381.7	1.1	20.4287	0.221	1.1	ug/L	65	KED
	Zn -4	67	714.0	7.2	19.9518	1.409	7.1	ug/L	10	KED
	Zn -5	68	3128.0	1.5	19.4015	0.168	0.9	ug/L	39	KED
	As-2	75	2797.6	4.0	18.6358	0.840	4.5	ug/L	1	KED
	Y-1	89	47181.8	1.2				ug/L	50921	KED
	Rh-1	103	30327.2	0.8				ug/L	32421	KED
>	Ge	72	364989.4	1.4				ug/L	400120	Standard
>	In	115	333450.0	1.5				ug/L	376660	Standard
>	Ge-1	72	21376.3	0.7				ug/L	21870	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	100.546	
	Ni -1	60	101.077	
	Ni -2	62	1207.138	
	Cu	63	191.644	
	Cu -1	65	99.311	
	Zn	66	100.835	
	Zn -1	67	101.221	
	Zn -2	68	99.684	
	As	75	106.808	
	As-1	75	97.256	
	Se	77	123.845	
	Se -1	78	145.518	
	Br	79		

	Se -2	82	100.206	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	99.805	
	Ni -4	60	98.601	
	Ni -5	62	98.200	
	Cu -2	63	99.268	
	Cu -3	65	97.635	
	Zn -3	66	102.144	
	Zn -4	67	99.759	
	Zn -5	68	97.008	
	As-2	75	93.179	
	Y-1	89		
	Rh-1	103		
>	Ge	72		91.220
>	In	115		88.528
>	Ge-1	72		97.744

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Saturday, June 01, 2024 15:33:34

Report Date/Time: Saturday, June 01, 2024 15:35:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240601B.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240601B\QC Std 8.046

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-5502.6	0.7	-0.2719	0.010	3.8	ug/L	-4073	Standard
	Ni -1	60	163.3	5.7	0.0362	0.003	7.2	ug/L	155	Standard
	Ni -2	62	127145.6	0.2	169.2425	1.735	1.0	ug/L	26155	Standard
	Cu	63	129432.7	0.1	14.1070	0.134	1.0	ug/L	25402	Standard
	Cu -1	65	735.7	4.3	0.1726	0.007	4.0	ug/L	479	Standard
	Zn	66	717.0	1.9	0.1195	0.010	8.4	ug/L	604	Standard
	Zn -1	67	242.3	9.0	0.4921	0.066	13.5	ug/L	115	Standard
	Zn -2	68	657.3	0.1	0.1017	0.004	3.8	ug/L	605	Standard
	As	75	15063.8	0.9	1.7690	0.026	1.5	ug/L	12853	Standard
	As-1	75	-47.6	272.5	-0.0282	0.064	227.3	ug/L	-4	Standard
	Se	77	515.3	6.7	3.2515	0.294	9.0	ug/L	98	Standard
	Se -1	78	15201.1	0.2	8.6695	0.282	3.2	ug/L	12897	Standard
	Br	79	11603.4	0.6				ug/L	2838	Standard
	Se -2	82	57.7	9.6	0.1629	0.028	17.3	ug/L	35	Standard
	Kr	83	63.0	17.5				ug/L	29	Standard
	Y	89	522005.8	1.1				ug/L	601935	Standard
	Rh	103	96265.9	0.8				ug/L	108502	Standard
	Ni -3	58	75.0	3.4	0.0409	0.002	4.5	ug/L	68	KED
	Ni -4	60	35.0	10.3	0.0472	0.005	11.1	ug/L	30	KED
	Ni -5	62	28.3	19.4	0.2743	0.050	18.1	ug/L	9	KED
	Cu -2	63	212.3	8.3	0.0922	0.010	11.3	ug/L	172	KED
	Cu -3	65	82.0	11.8	0.0721	0.012	16.3	ug/L	89	KED
	Zn -3	66	68.3	5.9	0.1378	0.022	15.8	ug/L	65	KED
	Zn -4	67	8.0	25.0	-0.0341	0.057	166.4	ug/L	10	KED
	Zn -5	68	47.3	31.7	0.0179	0.095	530.4	ug/L	39	KED
	As-2	75	2.7	21.7	0.0143	0.004	27.1	ug/L	1	KED
	Y-1	89	46932.6	0.8				ug/L	50921	KED
	Rh-1	103	29947.4	1.2				ug/L	32421	KED
>	Ge	72	359629.0	0.9				ug/L	400120	Standard
>	In	115	329065.3	0.8				ug/L	376660	Standard
>	Ge-1	72	21119.3	0.8				ug/L	21870	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	Cu	63		
	Cu -1	65		
	Zn	66		
	Zn -1	67		
	Zn -2	68		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		

Sample ID: QC Std 8

Report Date/Time: Saturday, June 01, 2024 15:35:54

Se -2	82	
Kr	83	
Y	89	
Rh	103	
Ni -3	58	
Ni -4	60	
Ni -5	62	
Cu -2	63	
Cu -3	65	
Zn -3	66	
Zn -4	67	
Zn -5	68	
As-2	75	
Y-1	89	
Rh-1	103	
Ge	72	89.880
In	115	87.364
Ge-1	72	96.568

Work continued from Page

Stn Name	Lab ID	Source	Source ID	Exp	Intend Conc ppm	Vol ml	Final Conc ppm	Vol ml	Comments	Est	Date
602010x	TM12-014-01	IV6020G-1	T2MEB726406	2-9-25	20	1.0	2	50	8% HNO <sub>3</sub>	Kon	5-28-24
6020100x	TM12-014-02	↓	↓	↓	1	0.1	2	↓	↓	↓	↓
5 Sta 1	TM12-014-03	6020100x	T12-014-02	6-11-24	2	.65	.0002	50	5% HNO <sub>3</sub>	Kon	5-28-24
2	04	↓	↓	↓	↓	.175	.0005	↓	↓	↓	↓
3	05	602010x	T12-014-01	↓	2	.05	.002	↓	↓	↓	↓
4	06	IV6020G-1	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	07	↓	T2MEB726406	2-9-25	20	.05	.02	↓	↓	↓	↓
6	08	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	09	↓	↓	↓	↓	.25	.10	↓	↓	↓	↓
IW *	10	IV PECKI	T2MEB724233	5-28-25	10	.25	.05	↓	↓	↓	↓
Sta 1	TM12-014-11	6020100x	T12-014-02	6-11-24	2	.05	.0002	50	5% HNO <sub>3</sub>	Kon	5-28-24
2	12	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
3	13	602010x	T12-014-01	↓	2	.05	.002	↓	↓	↓	↓
4	14	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	15	IW 6020G-1	T2MEB726406	2-9-25	20	.05	.02	↓	↓	↓	↓
6	16	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	17	↓	↓	↓	↓	.25	.10	↓	↓	↓	↓
IW	18	IV PECKI	T2MEB724233	5-28-25	10	.25	.05	↓	↓	↓	↓
Sta 1	TM12-014-19	6020100x	T12-014-02	6-11-24	2	.05	.0002	50	5% HNO <sub>3</sub>	Kon	6-3-24
2	20	↓	↓	↓	↓	.125	.0005	↓	↓	↓	↓
3	21	602010x	T12-014-01	↓	2	.05	.002	↓	↓	↓	↓
4	22	↓	↓	↓	↓	.125	.005	↓	↓	↓	↓
5	23	IV 6020G-1	T2MEB726406	2-9-25	20	.05	.02	↓	↓	↓	↓
6	24	↓	↓	↓	↓	.10	.04	↓	↓	↓	↓
7	25	↓	↓	↓	↓	.25	.10	↓	↓	↓	↓
IW	26	IV PECKI	T2MEB724233	5-28-25	10	.25	.05	↓	↓	↓	↓

SIGNATURE

Work continued to Page

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

August 29, 2024

Robert Trahan  
GeoEngineers, Inc.  
2101 4th Avenue, Suite 950  
Seattle, WA 98121

Re: Analytical Data for Project 5147-006-18  
Laboratory Reference No. 2408-224

Dear Robert:

Enclosed are the analytical results and associated quality control data for samples submitted on August 19, 2024.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures



Date of Report: August 29, 2024  
Samples Submitted: August 19, 2024  
Laboratory Reference: 2408-224  
Project: 5147-006-18

### Case Narrative

Samples were collected on August 19, 2024 and received by the laboratory on August 19, 2024. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below. However the soil results for the QA/QC samples are reported on a wet-weight basis.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: August 29, 2024  
Samples Submitted: August 19, 2024  
Laboratory Reference: 2408-224  
Project: 5147-006-18

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW-2B-240819	08-224-01	Water	8-19-24	8-19-24	
MW-3A-240819	08-224-02	Water	8-19-24	8-19-24	
MW-6-240819	08-224-03	Water	8-19-24	8-19-24	
MW-8-240819	08-224-04	Water	8-19-24	8-19-24	
DUP-240819	08-224-05	Water	8-19-24	8-19-24	



Date of Report: August 29, 2024  
 Samples Submitted: August 19, 2024  
 Laboratory Reference: 2408-224  
 Project: 5147-006-18

### PAHs EPA 8270E/SIM

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-2B-240819</b>					
Laboratory ID:	08-224-01					
Naphthalene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
2-Methylnaphthalene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
1-Methylnaphthalene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
Acenaphthylene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
Acenaphthene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
Fluorene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
Phenanthrene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
Anthracene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
Fluoranthene	0.17	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
Pyrene	0.12	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[a]anthracene	ND	0.0094	EPA 8270E/SIM	8-23-24	8-23-24	
Chrysene	0.016	0.0094	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[b]fluoranthene	0.017	0.0094	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo(j,k)fluoranthene	ND	0.0094	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[a]pyrene	0.010	0.0094	EPA 8270E/SIM	8-23-24	8-23-24	
Indeno(1,2,3-c,d)pyrene	ND	0.0094	EPA 8270E/SIM	8-23-24	8-23-24	
Dibenz[a,h]anthracene	ND	0.0094	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[g,h,i]perylene	ND	0.0094	EPA 8270E/SIM	8-23-24	8-23-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	59	27-106				
Pyrene-d10	80	37-125				
Terphenyl-d14	79	37-110				



Date of Report: August 29, 2024  
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 Laboratory Reference: 2408-224  
 Project: 5147-006-18

**PAHs EPA 8270E/SIM**

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-3A-240819</b>					
Laboratory ID:	08-224-02					
Naphthalene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
2-Methylnaphthalene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
1-Methylnaphthalene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
Acenaphthylene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
Acenaphthene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
Fluorene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
Phenanthrene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
Anthracene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
Fluoranthene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
Pyrene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[a]anthracene	ND	0.0093	EPA 8270E/SIM	8-23-24	8-23-24	
Chrysene	ND	0.0093	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[b]fluoranthene	ND	0.0093	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo(j,k)fluoranthene	ND	0.0093	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[a]pyrene	ND	0.0093	EPA 8270E/SIM	8-23-24	8-23-24	
Indeno(1,2,3-c,d)pyrene	ND	0.0093	EPA 8270E/SIM	8-23-24	8-23-24	
Dibenz[a,h]anthracene	ND	0.0093	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[g,h,i]perylene	ND	0.0093	EPA 8270E/SIM	8-23-24	8-23-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	45	27-106				
Pyrene-d10	85	37-125				
Terphenyl-d14	90	37-110				



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 Project: 5147-006-18

### PAHs EPA 8270E/SIM

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-6-240819</b>					
Laboratory ID:	08-224-03					
Naphthalene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
2-Methylnaphthalene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
1-Methylnaphthalene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
Acenaphthylene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
Acenaphthene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
Fluorene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
Phenanthrene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
Anthracene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
Fluoranthene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
Pyrene	ND	0.094	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[a]anthracene	ND	0.0094	EPA 8270E/SIM	8-23-24	8-23-24	
Chrysene	ND	0.0094	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[b]fluoranthene	ND	0.0094	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo(j,k)fluoranthene	ND	0.0094	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[a]pyrene	ND	0.0094	EPA 8270E/SIM	8-23-24	8-23-24	
Indeno(1,2,3-c,d)pyrene	ND	0.0094	EPA 8270E/SIM	8-23-24	8-23-24	
Dibenz[a,h]anthracene	ND	0.0094	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[g,h,i]perylene	ND	0.0094	EPA 8270E/SIM	8-23-24	8-23-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	38	27-106				
Pyrene-d10	71	37-125				
Terphenyl-d14	73	37-110				



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 Project: 5147-006-18

**PAHs EPA 8270E/SIM**

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MW-8-240819</b>					
Laboratory ID:	08-224-04					
Naphthalene	ND	0.095	EPA 8270E/SIM	8-23-24	8-23-24	
2-Methylnaphthalene	ND	0.095	EPA 8270E/SIM	8-23-24	8-23-24	
1-Methylnaphthalene	ND	0.095	EPA 8270E/SIM	8-23-24	8-23-24	
Acenaphthylene	ND	0.095	EPA 8270E/SIM	8-23-24	8-23-24	
Acenaphthene	ND	0.095	EPA 8270E/SIM	8-23-24	8-23-24	
Fluorene	ND	0.095	EPA 8270E/SIM	8-23-24	8-23-24	
Phenanthrene	ND	0.095	EPA 8270E/SIM	8-23-24	8-23-24	
Anthracene	ND	0.095	EPA 8270E/SIM	8-23-24	8-23-24	
Fluoranthene	ND	0.095	EPA 8270E/SIM	8-23-24	8-23-24	
Pyrene	ND	0.095	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[a]anthracene	ND	0.0095	EPA 8270E/SIM	8-23-24	8-23-24	
Chrysene	ND	0.0095	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[b]fluoranthene	ND	0.0095	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo(j,k)fluoranthene	ND	0.0095	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[a]pyrene	ND	0.0095	EPA 8270E/SIM	8-23-24	8-23-24	
Indeno(1,2,3-c,d)pyrene	ND	0.0095	EPA 8270E/SIM	8-23-24	8-23-24	
Dibenz[a,h]anthracene	ND	0.0095	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[g,h,i]perylene	ND	0.0095	EPA 8270E/SIM	8-23-24	8-23-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	50	27-106				
Pyrene-d10	71	37-125				
Terphenyl-d14	73	37-110				



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 Project: 5147-006-18

### PAHs EPA 8270E/SIM

Matrix: Water  
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>DUP-240819</b>					
Laboratory ID:	08-224-05					
Naphthalene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
2-Methylnaphthalene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
1-Methylnaphthalene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
Acenaphthylene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
Acenaphthene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
Fluorene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
Phenanthrene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
Anthracene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
Fluoranthene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
Pyrene	ND	0.093	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[a]anthracene	ND	0.0093	EPA 8270E/SIM	8-23-24	8-23-24	
Chrysene	ND	0.0093	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[b]fluoranthene	ND	0.0093	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo(j,k)fluoranthene	ND	0.0093	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[a]pyrene	ND	0.0093	EPA 8270E/SIM	8-23-24	8-23-24	
Indeno(1,2,3-c,d)pyrene	ND	0.0093	EPA 8270E/SIM	8-23-24	8-23-24	
Dibenz[a,h]anthracene	ND	0.0093	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[g,h,i]perylene	ND	0.0093	EPA 8270E/SIM	8-23-24	8-23-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	42	27-106				
Pyrene-d10	73	37-125				
Terphenyl-d14	75	37-110				



Date of Report: August 29, 2024  
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 Project: 5147-006-18

**TOTAL METALS  
 EPA 200.8**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-2B-240819</b>					
Laboratory ID:	08-224-01					
Arsenic	<b>6.9</b>	5.6	EPA 200.8	8-26-24	8-26-24	
Nickel	<b>ND</b>	5.6	EPA 200.8	8-26-24	8-26-24	

<b>Client ID:</b>	<b>MW-3A-240819</b>					
Laboratory ID:	08-224-02					
Arsenic	<b>ND</b>	5.6	EPA 200.8	8-26-24	8-26-24	
Nickel	<b>ND</b>	5.6	EPA 200.8	8-26-24	8-26-24	

<b>Client ID:</b>	<b>MW-6-240819</b>					
Laboratory ID:	08-224-03					
Arsenic	<b>ND</b>	5.6	EPA 200.8	8-26-24	8-26-24	
Nickel	<b>ND</b>	5.6	EPA 200.8	8-26-24	8-26-24	

<b>Client ID:</b>	<b>MW-8-240819</b>					
Laboratory ID:	08-224-04					
Arsenic	<b>17</b>	5.6	EPA 200.8	8-26-24	8-26-24	
Nickel	<b>ND</b>	5.6	EPA 200.8	8-26-24	8-26-24	

<b>Client ID:</b>	<b>DUP-240819</b>					
Laboratory ID:	08-224-05					
Arsenic	<b>ND</b>	5.6	EPA 200.8	8-26-24	8-26-24	
Nickel	<b>ND</b>	5.6	EPA 200.8	8-26-24	8-26-24	



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 Project: 5147-006-18

**DISSOLVED METALS**  
**EPA 200.8**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MW-2B-240819</b>					
Laboratory ID:	08-224-01					
Arsenic	<b>5.9</b>	5.0	EPA 200.8		8-26-24	
Nickel	<b>ND</b>	5.0	EPA 200.8		8-26-24	

<b>Client ID:</b>	<b>MW-3A-240819</b>					
Laboratory ID:	08-224-02					
Arsenic	<b>ND</b>	5.0	EPA 200.8		8-26-24	
Nickel	<b>ND</b>	5.0	EPA 200.8		8-26-24	

<b>Client ID:</b>	<b>MW-6-240819</b>					
Laboratory ID:	08-224-03					
Arsenic	<b>ND</b>	5.0	EPA 200.8		8-26-24	
Nickel	<b>ND</b>	5.0	EPA 200.8		8-26-24	

<b>Client ID:</b>	<b>MW-8-240819</b>					
Laboratory ID:	08-224-04					
Arsenic	<b>19</b>	5.0	EPA 200.8		8-26-24	
Nickel	<b>ND</b>	5.0	EPA 200.8		8-26-24	

<b>Client ID:</b>	<b>DUP-240819</b>					
Laboratory ID:	08-224-05					
Arsenic	<b>ND</b>	5.0	EPA 200.8		8-26-24	
Nickel	<b>ND</b>	5.0	EPA 200.8		8-26-24	



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**PAHs EPA 8270E/SIM  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>METHOD BLANK</b>						
Laboratory ID:	MB0823W1					
Naphthalene	ND	0.10	EPA 8270E/SIM	8-23-24	8-23-24	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	8-23-24	8-23-24	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	8-23-24	8-23-24	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	8-23-24	8-23-24	
Acenaphthene	ND	0.10	EPA 8270E/SIM	8-23-24	8-23-24	
Fluorene	ND	0.10	EPA 8270E/SIM	8-23-24	8-23-24	
Phenanthrene	ND	0.10	EPA 8270E/SIM	8-23-24	8-23-24	
Anthracene	ND	0.10	EPA 8270E/SIM	8-23-24	8-23-24	
Fluoranthene	ND	0.10	EPA 8270E/SIM	8-23-24	8-23-24	
Pyrene	ND	0.10	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	8-23-24	8-23-24	
Chrysene	ND	0.010	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	8-23-24	8-23-24	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270E/SIM	8-23-24	8-23-24	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	8-23-24	8-23-24	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	8-23-24	8-23-24	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>74</i>	<i>27-106</i>				
<i>Pyrene-d10</i>	<i>80</i>	<i>37-125</i>				
<i>Terphenyl-d14</i>	<i>88</i>	<i>37-110</i>				



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**PAHs EPA 8270E/SIM  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0823W1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	0.267	0.226	0.500	0.500	53	45	36-95	17	34	
Acenaphthylene	0.289	0.264	0.500	0.500	58	53	51-103	9	26	
Acenaphthene	0.254	0.242	0.500	0.500	51	48	47-97	5	25	
Fluorene	0.286	0.280	0.500	0.500	57	56	51-105	2	23	
Phenanthrene	0.346	0.342	0.500	0.500	69	68	52-110	1	24	
Anthracene	0.398	0.377	0.500	0.500	80	75	55-104	5	24	
Fluoranthene	0.444	0.428	0.500	0.500	89	86	59-111	4	24	
Pyrene	0.439	0.409	0.500	0.500	88	82	59-110	7	22	
Benzo[a]anthracene	0.524	0.489	0.500	0.500	105	98	55-116	7	22	
Chrysene	0.441	0.425	0.500	0.500	88	85	59-111	4	23	
Benzo[b]fluoranthene	0.460	0.420	0.500	0.500	92	84	62-115	9	27	
Benzo(j,k)fluoranthene	0.437	0.434	0.500	0.500	87	87	59-117	1	23	
Benzo[a]pyrene	0.467	0.441	0.500	0.500	93	88	64-109	6	24	
Indeno(1,2,3-c,d)pyrene	0.436	0.428	0.500	0.500	87	86	58-114	2	22	
Dibenz[a,h]anthracene	0.445	0.422	0.500	0.500	89	84	63-114	5	24	
Benzo[g,h,i]perylene	0.427	0.413	0.500	0.500	85	83	61-110	3	24	
<i>Surrogate:</i>										
2-Fluorobiphenyl					56	49	27-106			
Pyrene-d10					85	79	37-125			
Terphenyl-d14					83	80	37-110			



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**TOTAL METALS  
 EPA 200.8  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0826WM1					
Arsenic	ND	3.3	EPA 200.8	8-26-24	8-26-24	
Nickel	ND	22	EPA 200.8	8-26-24	8-26-24	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-013-05							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	NA	20
Nickel	ND	ND	NA	NA	NA	NA	NA	20

**MATRIX SPIKES**

Laboratory ID:	MS	MSD	MS	MSD	MS	MSD	MSD	RPD	RPD Limit
	08-013-05								
Arsenic	119	121	111	111	ND	107	109	75-125	1 20
Nickel	108	108	111	111	ND	98	97	75-125	0 20



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**TOTAL METALS  
 EPA 200.8  
 CONTINUING CALIBRATION SUMMARY**

Analyte	Lab ID	True Value (ppb)	Calc. Value	Percent Difference	Control Limits
Arsenic	ICV082624Y	50.0	48.3	3.4	+/- 10%
Nickel	ICV082624Y	50.0	48.7	2.6	+/- 10%
Arsenic	CCV1082624Y	40.0	38.9	2.8	+/- 10%
Nickel	CCV1082624Y	40.0	39.5	1.3	+/- 10%
Arsenic	CCV1082624Y	20.0	19.4	3.0	+/- 10%
Nickel	CCV1082624Y	20.0	19.4	3.0	+/- 10%
Arsenic	CCV2082624Y	40.0	38.7	3.2	+/- 10%
Nickel	CCV2082624Y	40.0	37.7	5.7	+/- 10%
Arsenic	CCV2082624Y	20.0	19.6	2.0	+/- 10%
Nickel	CCV2082624Y	20.0	18.7	6.5	+/- 10%
Arsenic	CCV3082624Y	40.0	38.4	4.0	+/- 10%
Nickel	CCV3082624Y	40.0	38.0	5.0	+/- 10%
Arsenic	CCV3082624Y	20.0	19.4	3.0	+/- 10%
Nickel	CCV3082624Y	20.0	18.7	6.5	+/- 10%
Arsenic	CCV4082624Y	40.0	38.2	4.5	+/- 10%
Nickel	CCV4082624Y	40.0	38.8	3.0	+/- 10%
Arsenic	CCV4082624Y	20.0	19.3	3.5	+/- 10%
Nickel	CCV4082624Y	20.0	19.2	4.0	+/- 10%



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**DISSOLVED METALS  
 EPA 200.8  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0826D1					
Arsenic	ND	3.0	EPA 200.8		8-26-24	
Nickel	ND	20	EPA 200.8		8-26-24	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-224-04							
	ORIG	DUP						
Arsenic	18.6	18.7	NA	NA	NA	NA	1	20
Nickel	ND	ND	NA	NA	NA	NA	NA	20

**MATRIX SPIKES**

Analyte	Result		Spike Level		Recovery	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
	MS	MSD	MS	MSD		MS	MSD				
Laboratory ID:	08-224-04										
Arsenic	424	412	400	400	18.6	101	98	75-125	3	20	
Nickel	382	359	400	400	ND	96	90	75-125	6	20	



Date of Report: August 29, 2024  
 Samples Submitted: August 19, 2024  
 Laboratory Reference: 2408-224  
 Project: 5147-006-18

**DISSOLVED METALS  
 EPA 200.8  
 CONTINUING CALIBRATION SUMMARY**

Analyte	Lab ID	True Value (ppb)	Calc. Value	Percent Difference	Control Limits
Arsenic	ICV082624Y	50.0	48.3	3.4	+/- 10%
Nickel	ICV082624Y	50.0	48.7	2.6	+/- 10%
Arsenic	CCV1082624Y	40.0	38.9	2.8	+/- 10%
Nickel	CCV1082624Y	40.0	39.5	1.3	+/- 10%
Arsenic	CCV1082624Y	20.0	19.4	3.0	+/- 10%
Nickel	CCV1082624Y	20.0	19.4	3.0	+/- 10%
Arsenic	CCV2082624Y	40.0	38.7	3.2	+/- 10%
Nickel	CCV2082624Y	40.0	37.7	5.7	+/- 10%
Arsenic	CCV2082624Y	20.0	19.6	2.0	+/- 10%
Nickel	CCV2082624Y	20.0	18.7	6.5	+/- 10%
Arsenic	CCV3082624Y	40.0	38.4	4.0	+/- 10%
Nickel	CCV3082624Y	40.0	38.0	5.0	+/- 10%
Arsenic	CCV3082624Y	20.0	19.4	3.0	+/- 10%
Nickel	CCV3082624Y	20.0	18.7	6.5	+/- 10%
Arsenic	CCV4082624Y	40.0	38.2	4.5	+/- 10%
Nickel	CCV4082624Y	40.0	38.8	3.0	+/- 10%
Arsenic	CCV4082624Y	20.0	19.3	3.5	+/- 10%
Nickel	CCV4082624Y	20.0	19.2	4.0	+/- 10%





### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
  - E - The value reported exceeds the quantitation range and is an estimate.
  - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
  - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
  - I - Compound recovery is outside of the control limits.
  - J - The value reported was below the practical quantitation limit. The value is an estimate.
  - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
  - L - The RPD is outside of the control limits.
  - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
  - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
  - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
  - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
  - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
  - P - The RPD of the detected concentrations between the two columns is greater than 40.
  - Q - Surrogate recovery is outside of the control limits.
  - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
  - T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
  - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
  - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
  - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
  - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
  - X - Sample extract treated with a mercury cleanup procedure.
  - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
  - X2 - Sample extract treated with a silica gel cleanup procedure.
  - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
  - Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.
  - Z -
- ND - Not Detected at PQL  
 PQL - Practical Quantitation Limit  
 RPD - Relative Percent Difference





**Onsite Environmental Inc.**  
 Analytical Laboratory Testing Services  
 14648 NE 95th Street • Redmond, WA 98052  
 Phone: (425) 883-3881 • www.onsite-env.com

# Chain of Custody

Turnaround Request  
 (in working days)  
 (Check One)

- Same Day  1 Day  
 2 Days  3 Days  
 Standard (7 Days)

\_\_\_\_\_ (other)

Laboratory Number: **08-2224**

Company: **GeoEngineers**  
 Project Number: **5147-006-18**  
 Project Name: **Dakota Creek Industries**  
 Project Manager: **Robert Trahan**  
 Sampled by: **Michael Ysagurre**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	MW-2B-240819	8/19/24	1330	H <sub>2</sub> O	4
2	MW-3A-240819		1200		
3	MW-6-240819		1116		
4	MW-8-240819		1450		
5	DUP-240819		1115		

Signature	Company	Date	Time	Comments/Special Instructions
	GeoEngineers	8/19/24	1737	
	OSE	8/19/24	1737	

Signature	Company	Date	Time	Comments/Special Instructions
	GeoEngineers	8/19/24	1737	
	OSE	8/19/24	1737	

Comments/Special Instructions
NWTPH-HCID NWTPH-Gx/BTEX (8021 <input type="checkbox"/> 8260 <input type="checkbox"/> NWTPH-Gx NWTPH-Dx (SG Clean-up <input type="checkbox"/> Volatiles 8260 Halogenated Volatiles 8260 EDB EPA 8011 (Waters Only) Semivolatiles 8270/SIM (with low-level PAHs) PAHs 8270/SIM (low-level) PCBs 8082 Organochlorine Pesticides 8081 Organophosphorus Pesticides 8270/SIM Chlorinated Acid Herbicides 8151 Total RCRA Metals Total MTCA Metals TCLP Metals HEM (oil and grease) 1664 Total & Dissolved Arsenic + Nickel by EPA Method 200.8 % Moisture

Data Package: Standard  Level III  Level IV   
 Chromatograms with final report  Electronic Data Deliverables (EDDs)

# Sample/Cooler Receipt and Acceptance Checklist

Client: IES

Client Project Name/Number: 5147-006-18

OnSite Project Number: 08-224

Initiated by: nb

Date Initiated: 8/19/24

## 1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	<input checked="" type="radio"/> No	N/A	1 2 3 4
1.2 Were the custody seals intact?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4
1.4 Were the samples delivered on ice or blue ice?	<input checked="" type="radio"/> Yes	No	N/A	1 2 3 4
1.5 Were samples received between 0-6 degrees Celsius?	<input checked="" type="radio"/> Yes	No	N/A	Temperature: <u>5</u>
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	<input checked="" type="radio"/> N/A		
1.7 How were the samples delivered?	<input checked="" type="radio"/> Client	<input type="radio"/> Courier	<input type="radio"/> UPS/FedEx	<input type="radio"/> OSE Pickup <input type="radio"/> Other

## 2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	<input checked="" type="radio"/> Yes	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	<input checked="" type="radio"/> No		1 2 3 4

## 3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	<input checked="" type="radio"/> No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	<input checked="" type="radio"/> No		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	<input checked="" type="radio"/> Yes	No		1 2 3 4
3.4 Have the samples been correctly preserved?	<input checked="" type="radio"/> Yes	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	<input checked="" type="radio"/> Yes	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	<input checked="" type="radio"/> No		1 2 3 4
3.8 Was method 5035A used?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		<input checked="" type="radio"/> N/A	1 2 3 4

### Explain any discrepancies:


1 - Discuss issue in Case Narrative

3 - Client contacted to discuss problem

2 - Process Sample As-is

4 - Sample cannot be analyzed or client does not wish to proceed

## COMPLETE DATA PACKAGE

- PAHs EPA 8270E/SIM
- Total Metals EPA 200.8
- Dissolved Metals by EPA 200.8

## PAHs EPA 8270E/SIM

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration Data
- Administrative Forms

Data Path : X:\semivols\Corey\DATA\C240823\  
 Data File : C0823018.D  
 Acq On : 23 Aug 2024 2:49 pm  
 Operator : JP  
 Sample : 08-224-01 REX  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 23 15:07:43 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

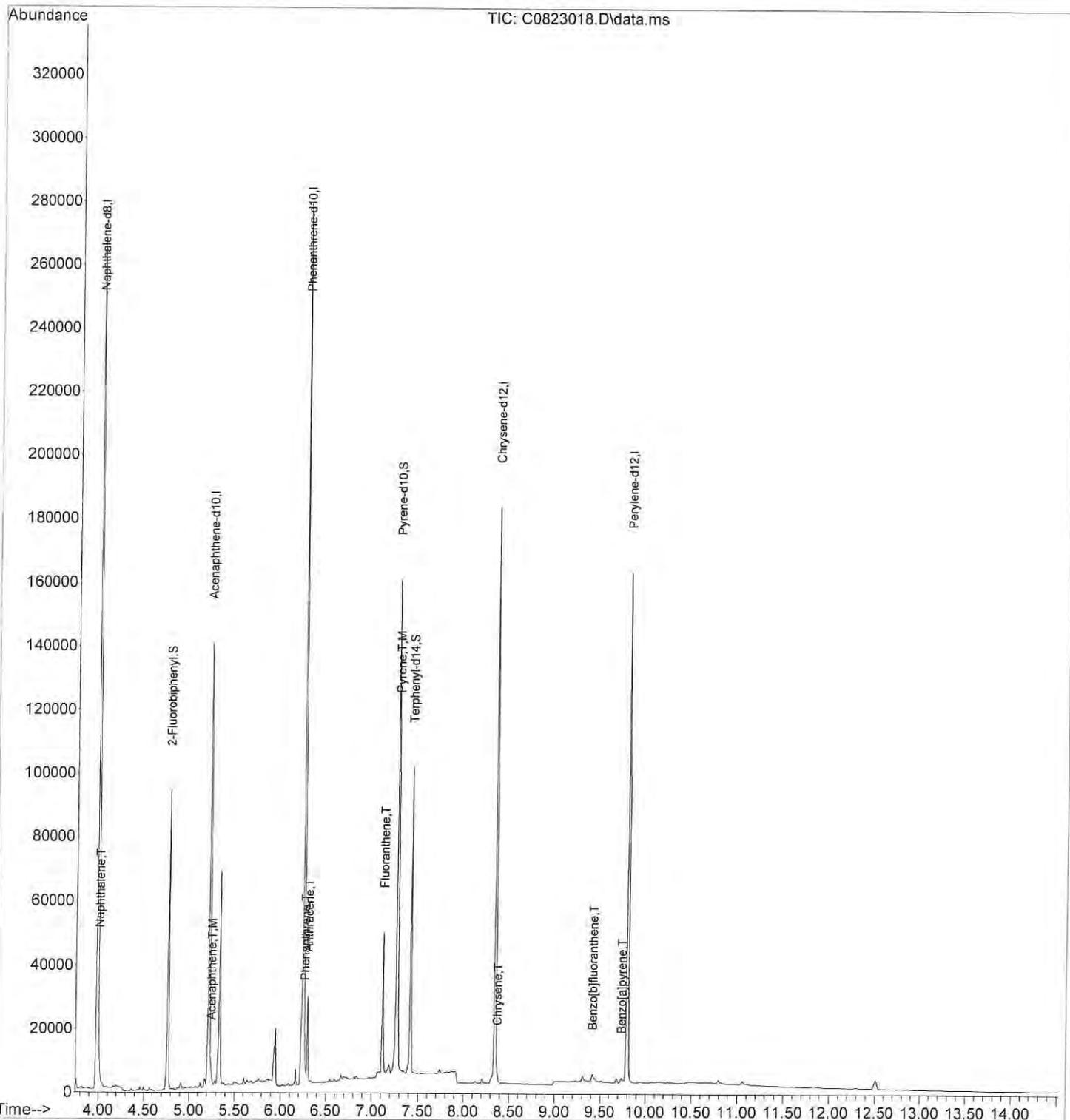
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	3.985	136	303583	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.220	164	157679	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.246	188	269556	2000.00	ppb	0.01	
16) Chrysene-d12	8.347	240	175491	2000.00	ppb	0.03	
20) Perylene-d12	9.799	264	176403	2000.00	ppb	0.04	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	4.771	172	76834	591.89	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	59.19%		
10) Pyrene-d10	7.265	212	98209	799.86	ppb	0.03	
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	79.99%		
17) Terphenyl-d14	7.418	244	68174	794.08	ppb	0.02	
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	79.41%		
Target Compounds							
2) Naphthalene	4.001	128	2062	11.90	ppb		Qvalue 53
8) Acenaphthene	5.244	153	4093	36.26	ppb		100
12) Phenanthrene	6.263	178	7526	43.20	ppb		97
13) Anthracene	6.298	178	15943	97.94	ppb		91
14) Fluoranthene	7.120	202	30404m	179.62	ppb		
15) Pyrene	7.274	202	22064m	126.64	ppb		
19) Chrysene	8.370	228	2273	17.38	ppb		81
21) Benzo[b]fluoranthene	9.416	252	2464m	17.54	ppb		
23) Benzo[a]pyrene	9.736	252	1282	10.98	ppb	#	31
-----							

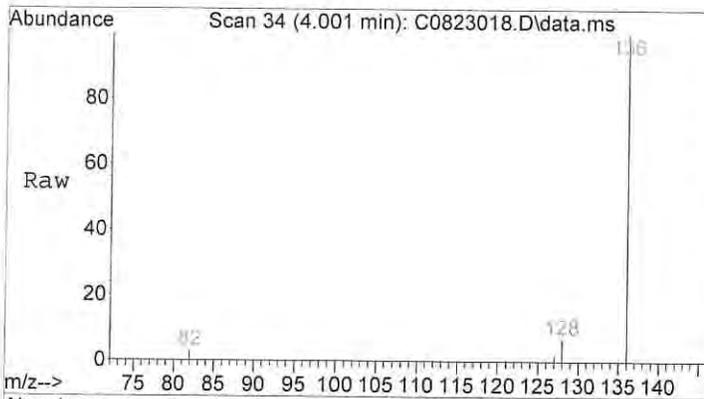
JP  
8/23/24

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

Data Path : X:\semivol\Corey\DATA\C240823\  
 Data File : C0823018.D  
 Acq On : 23 Aug 2024 2:49 pm  
 Operator : JP  
 Sample : 08-224-01 REX  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

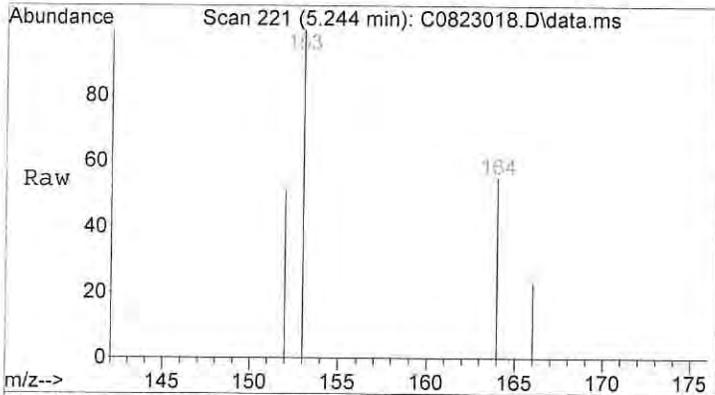
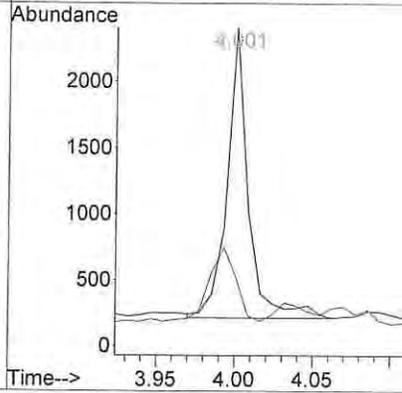
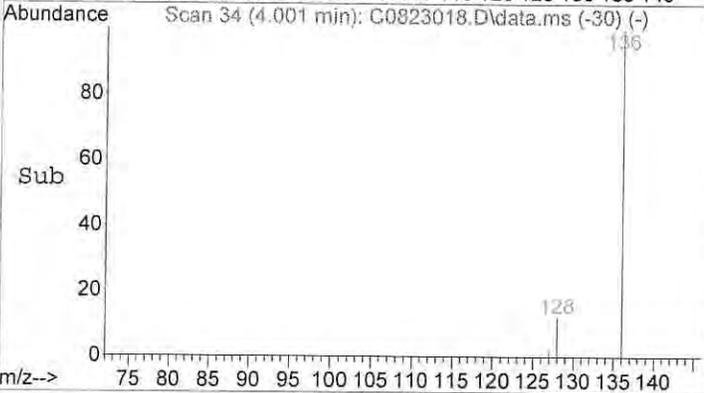
Quant Time: Aug 23 15:07:43 2024  
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 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration





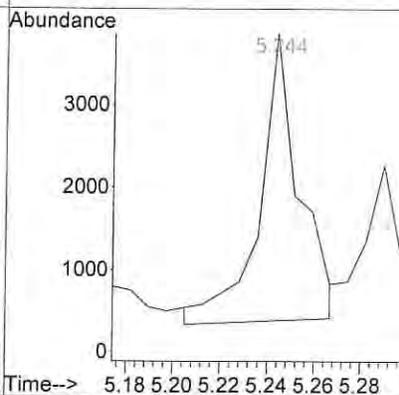
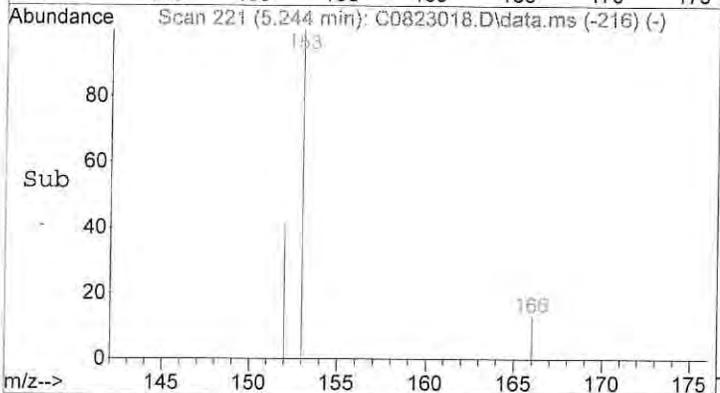
#2  
 Naphthalene  
 Concen: 11.90 ppb  
 RT: 4.001 min Scan# 34  
 Delta R.T. 0.007 min  
 Lab File: C0823018.D  
 Acq: 23 Aug 24 2:49 pm

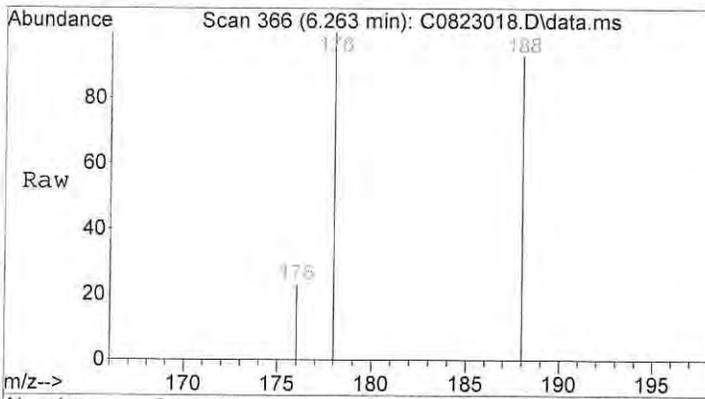
Tgt Ion:128 Resp: 2062  
 Ion Ratio Lower Upper  
 128 100  
 127 31.1 0.0 32.5



#8  
 Acenaphthene  
 Concen: 36.26 ppb  
 RT: 5.244 min Scan# 221  
 Delta R.T. 0.010 min  
 Lab File: C0823018.D  
 Acq: 23 Aug 24 2:49 pm

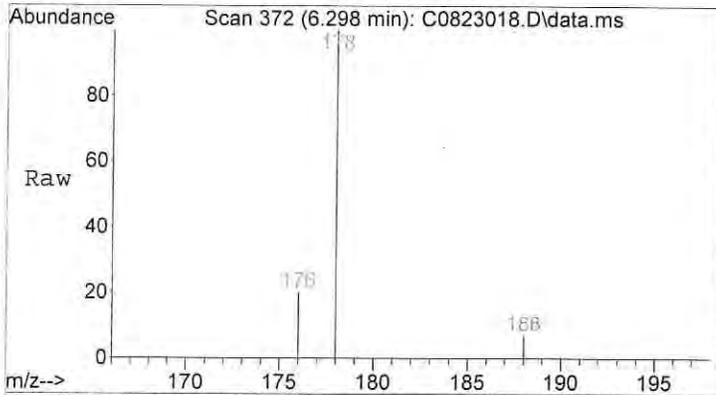
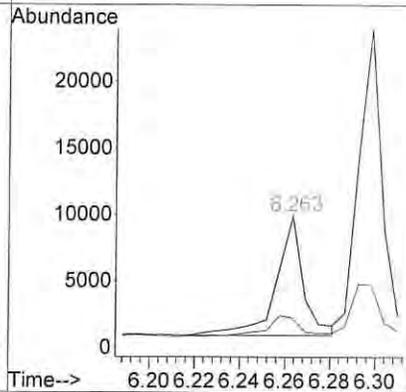
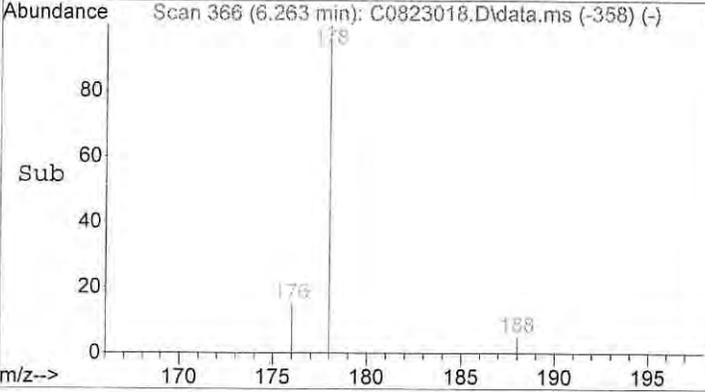
Tgt Ion:153 Resp: 4093





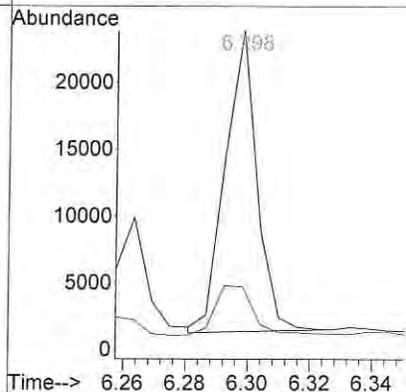
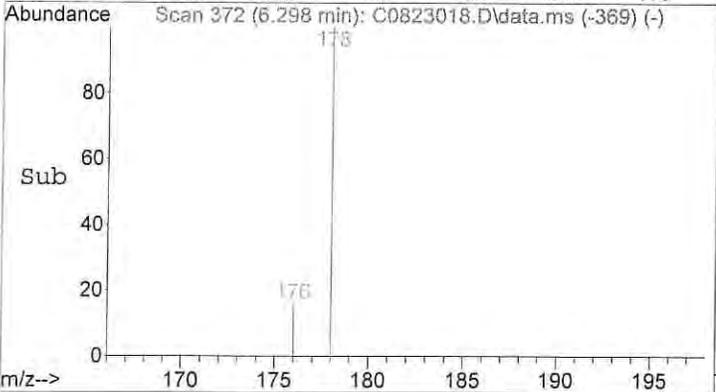
#12  
 Phenanthrene  
 Concen: 43.20 ppb  
 RT: 6.263 min Scan# 366  
 Delta R.T. 0.012 min  
 Lab File: C0823018.D  
 Acq: 23 Aug 24 2:49 pm

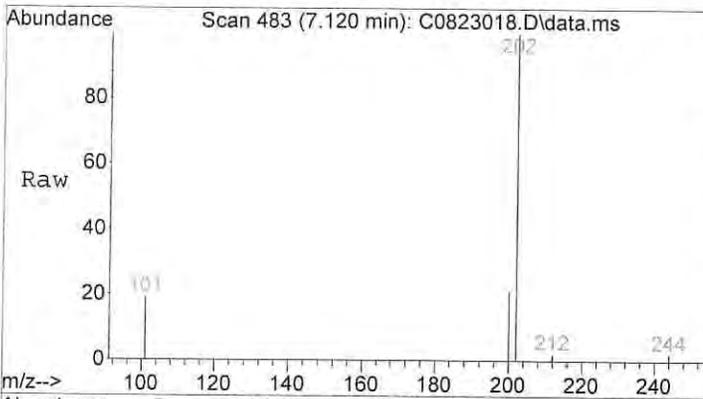
Tgt Ion:178 Resp: 7526  
 Ion Ratio Lower Upper  
 178 100  
 176 19.7 0.0 38.2



#13  
 Anthracene  
 Concen: 97.94 ppb  
 RT: 6.298 min Scan# 372  
 Delta R.T. 0.012 min  
 Lab File: C0823018.D  
 Acq: 23 Aug 24 2:49 pm

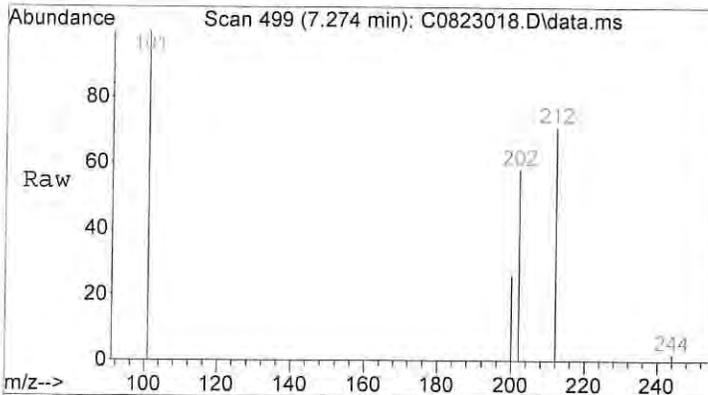
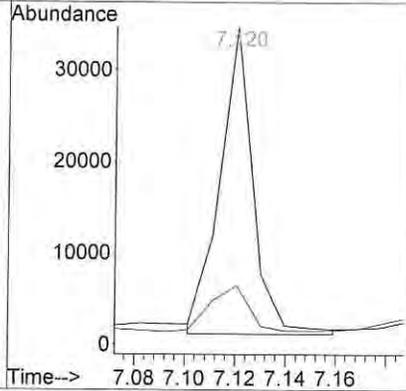
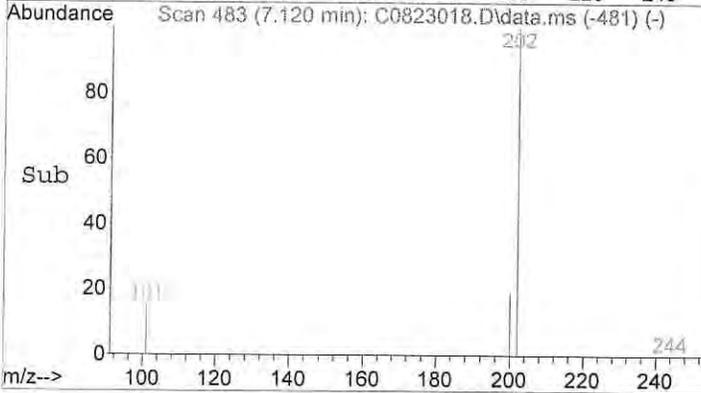
Tgt Ion:178 Resp: 15943  
 Ion Ratio Lower Upper  
 178 100  
 176 21.5 0.0 37.7





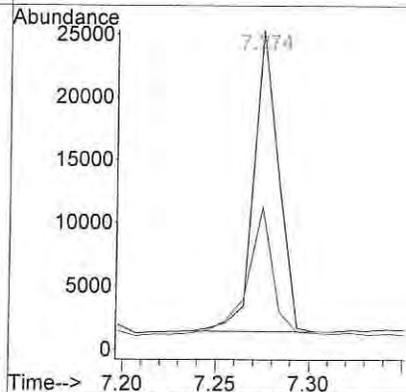
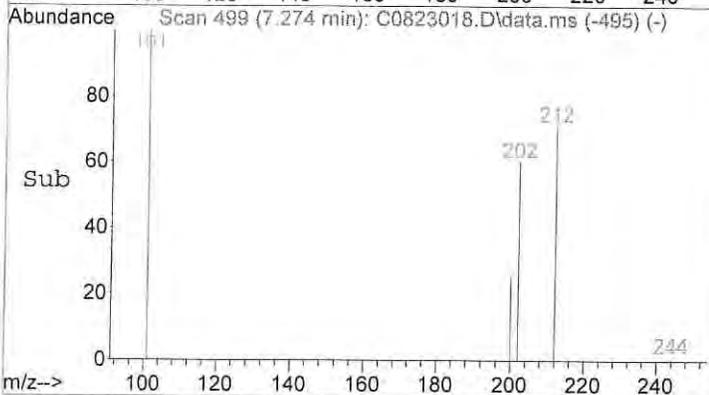
#14  
 Fluoranthene  
 Concen: 179.62 ppb m  
 RT: 7.120 min Scan# 483  
 Delta R.T. 0.048 min  
 Lab File: C0823018.D  
 Acq: 23 Aug 24 2:49 pm

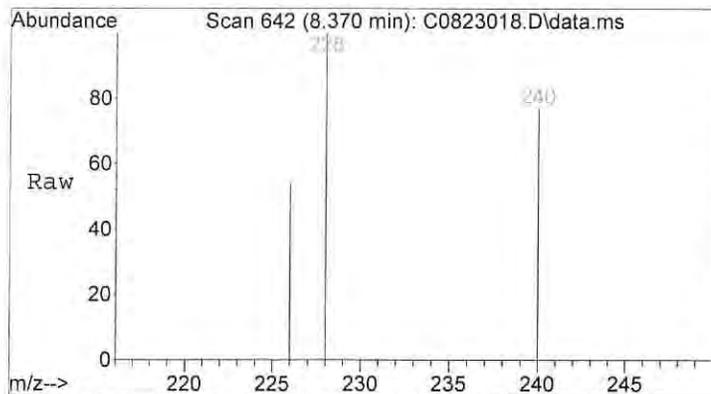
Tgt Ion: 202 Resp: 30404  
 Ion Ratio Lower Upper  
 202 100  
 101 17.8 0.0 31.5



#15  
 Pyrene  
 Concen: 126.64 ppb m  
 RT: 7.274 min Scan# 499  
 Delta R.T. 0.029 min  
 Lab File: C0823018.D  
 Acq: 23 Aug 24 2:49 pm

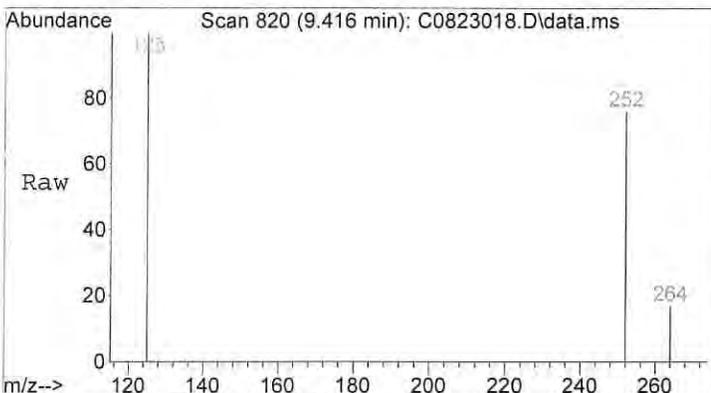
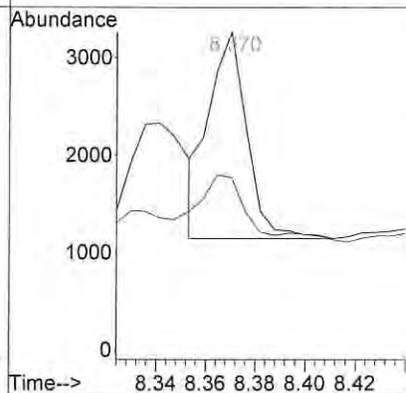
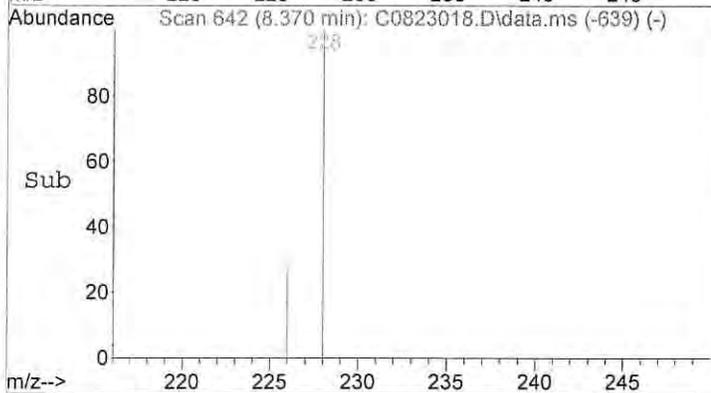
Tgt Ion: 202 Resp: 22064  
 Ion Ratio Lower Upper  
 202 100  
 200 47.7 0.0 39.9#





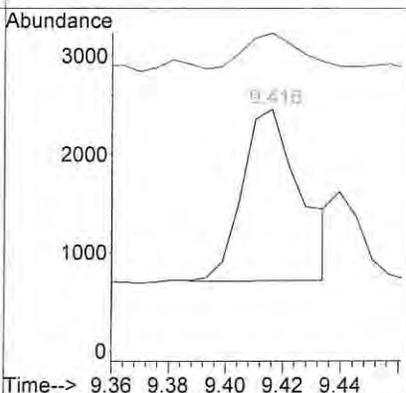
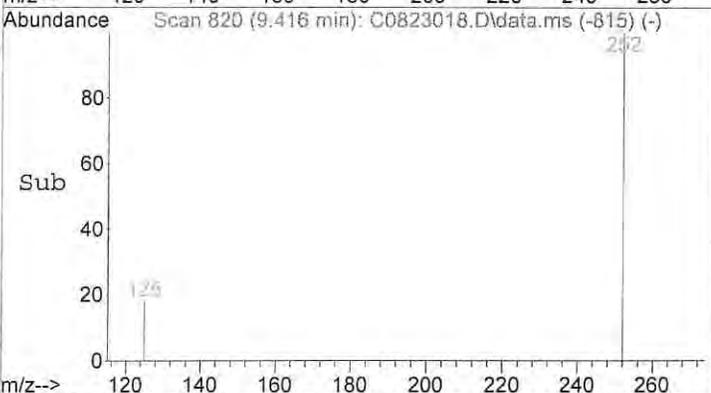
#19  
 Chrysene  
 Concen: 17.38 ppb  
 RT: 8.370 min Scan# 642  
 Delta R.T. 0.035 min  
 Lab File: C0823018.D  
 Acq: 23 Aug 24 2:49 pm

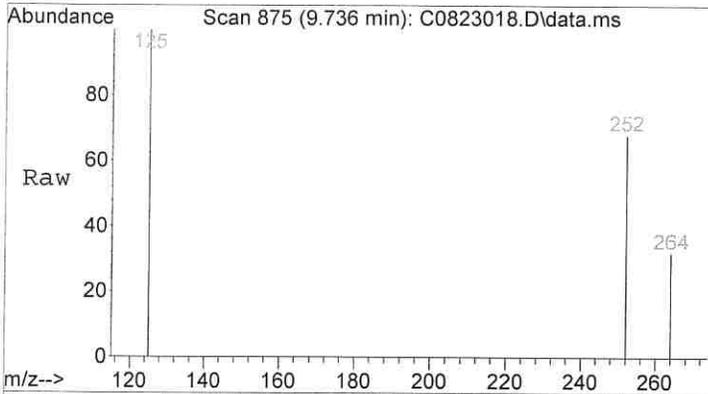
Tgt Ion: 228 Resp: 2273  
 Ion Ratio Lower Upper  
 228 100  
 226 38.7 8.7 48.7



#21  
 Benzo[b]fluoranthene  
 Concen: 17.54 ppb m  
 RT: 9.416 min Scan# 820  
 Delta R.T. 0.040 min  
 Lab File: C0823018.D  
 Acq: 23 Aug 24 2:49 pm

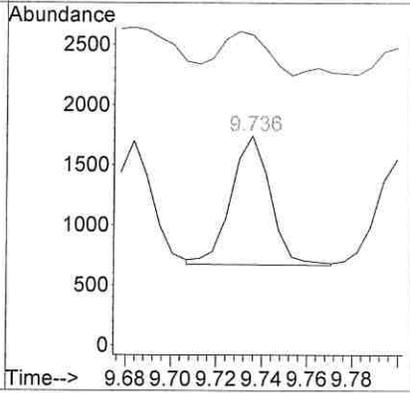
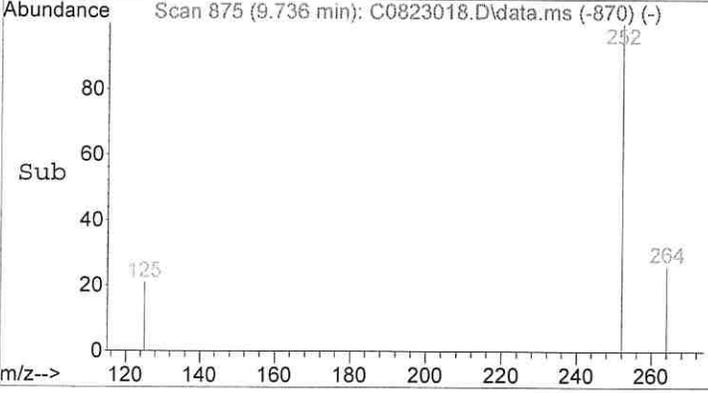
Tgt Ion: 252 Resp: 2464  
 Ion Ratio Lower Upper  
 252 100  
 125 0.0 0.0 31.5





#23  
 Benzo[a]pyrene  
 Concen: 10.98 ppb  
 RT: 9.736 min Scan# 875  
 Delta R.T. 0.040 min  
 Lab File: C0823018.D  
 Acq: 23 Aug 24 2:49 pm

Tgt Ion	Resp	Lower	Upper
252	1282	100	32.5#
125	39.5	0.0	32.5#



Data Path : X:\semivols\Corey\DATA\C240823\  
 Data File : C0823014.D  
 Acq On : 23 Aug 2024 1:12 pm  
 Operator : JP  
 Sample : 08-224-02  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

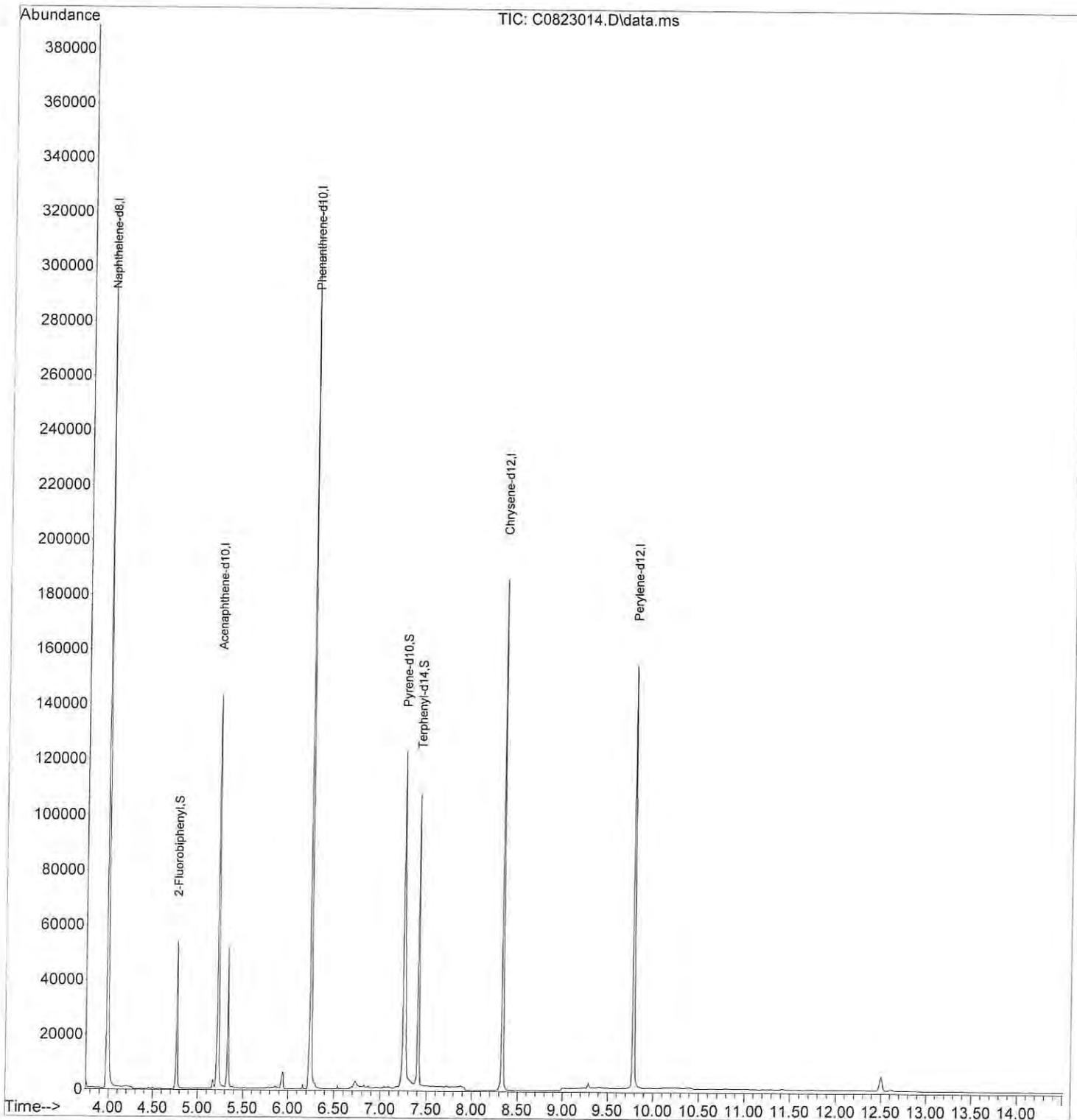
Quant Time: Aug 23 13:27:27 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.987	136	298541	2000.00	ppb	0.00
5) Acenaphthene-d10	5.227	164	151315	2000.00	ppb	0.00
9) Phenanthrene-d10	6.246	188	259320	2000.00	ppb	0.01
16) Chrysene-d12	8.336	240	184282	2000.00	ppb	0.02
20) Perylene-d12	9.783	264	185879	2000.00	ppb	0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl	4.767	172	55920	448.90	ppb	0.00
Spiked Amount	1000.000	Range 25 - 89	Recovery =	44.89%		
10) Pyrene-d10	7.246	212	100266	848.85	ppb	0.01
Spiked Amount	1000.000	Range 40 - 110	Recovery =	84.89%		
17) Terphenyl-d14	7.409	244	81172	900.38	ppb	0.01
Spiked Amount	1000.000	Range 39 - 92	Recovery =	90.04%		
Target Compounds						
18) Benzo[a]anthracene	8.330	228	965	Below Cal		Qvalue 83

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

Data Path : X:\semivols\Corey\DATA\C240823\  
Data File : C0823014.D  
Acq On : 23 Aug 2024 1:12 pm  
Operator : JP  
Sample : 08-224-02  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 23 13:27:27 2024  
Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Tue Aug 20 14:46:01 2024  
Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240823\  
 Data File : C0823015.D  
 Acq On : 23 Aug 2024 1:34 pm  
 Operator : JP  
 Sample : 08-224-03  
 Misc :  
 ALS Vial : 15 Sample Multiplier: 1

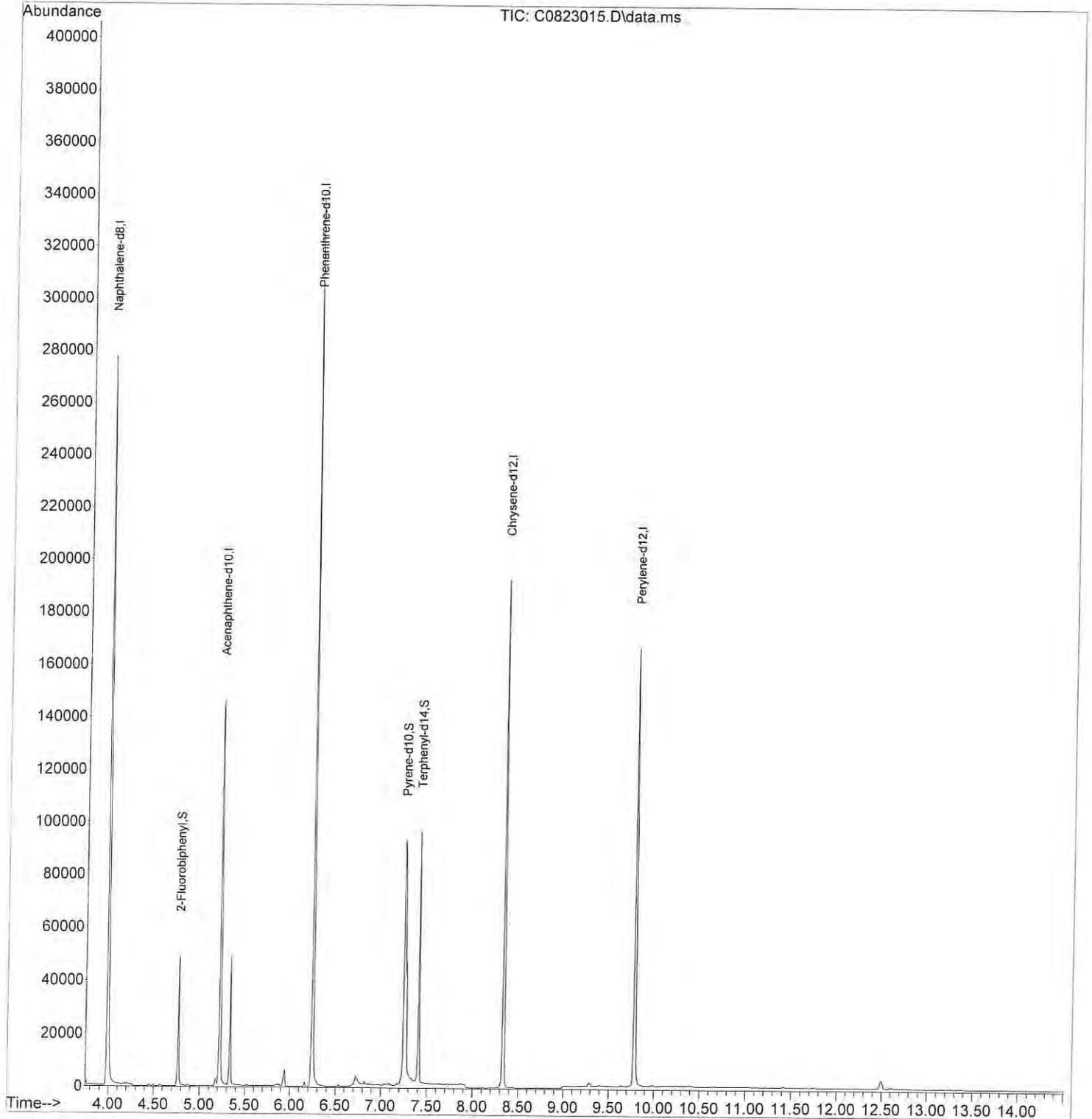
Quant Time: Aug 23 13:49:09 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Naphthalene-d8	3.986	136	284441	2000.00	ppb	0.00
5) Acenaphthene-d10	5.227	164	148849	2000.00	ppb	0.00
9) Phenanthrene-d10	6.246	188	262638	2000.00	ppb	0.01
16) Chrysene-d12	8.336	240	187083	2000.00	ppb	0.02
20) Perylene-d12	9.783	264	188559	2000.00	ppb	0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl	4.772	172	47035	383.83	ppb	0.00
Spiked Amount	1000.000	Range 25 - 89	Recovery =	38.38%		
10) Pyrene-d10	7.244	212	85347	713.41	ppb	0.00
Spiked Amount	1000.000	Range 40 - 110	Recovery =	71.34%		
17) Terphenyl-d14	7.408	244	67117	733.33	ppb	0.00
Spiked Amount	1000.000	Range 39 - 92	Recovery =	73.33%		
Target Compounds						
18) Benzo[a]anthracene	8.331	228	814	Below Cal	Qvalue	91
-----						

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

Data Path : X:\semivols\Corey\DATA\C240823\  
Data File : C0823015.D  
Acq On : 23 Aug 2024 1:34 pm  
Operator : JP  
Sample : 08-224-03  
Misc :  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 23 13:49:09 2024  
Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Tue Aug 20 14:46:01 2024  
Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240823\  
 Data File : C0823016.D  
 Acq On : 23 Aug 2024 1:56 pm  
 Operator : JP  
 Sample : 08-224-04  
 Misc :  
 ALS Vial : 16 Sample Multiplier: 1

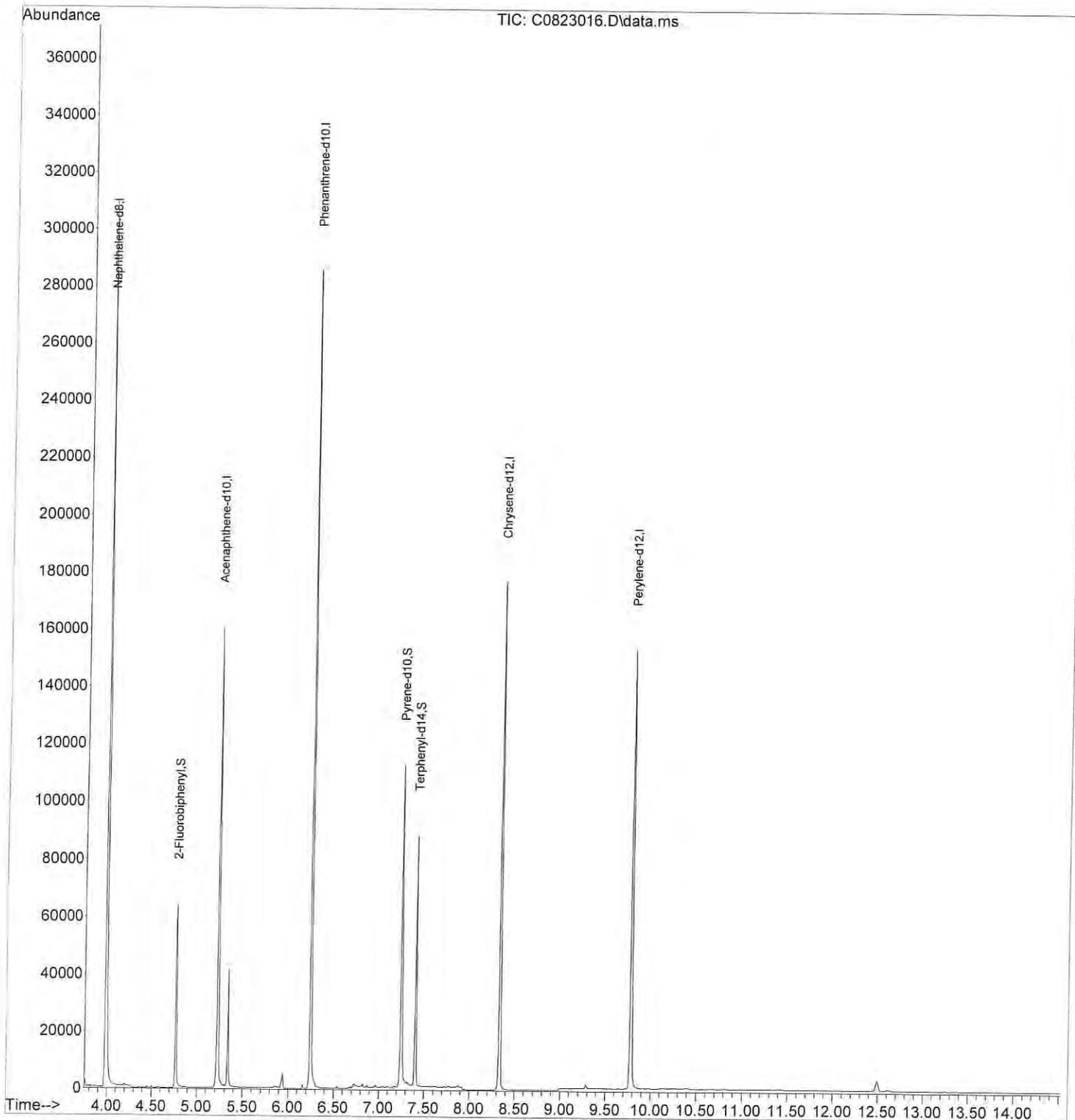
Quant Time: Aug 23 14:11:00 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.986	136	288916	2000.00	ppb	0.00
5) Acenaphthene-d10	5.221	164	145442	2000.00	ppb	0.00
9) Phenanthrene-d10	6.247	188	255001	2000.00	ppb	0.01
16) Chrysene-d12	8.335	240	180189	2000.00	ppb	0.02
20) Perylene-d12	9.782	264	180969	2000.00	ppb	0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl	4.772	172	60332	503.87	ppb	0.00
Spiked Amount	1000.000	Range 25 - 89	Recovery =	50.39%		
10) Pyrene-d10	7.245	212	82434	709.70	ppb	0.00
Spiked Amount	1000.000	Range 40 - 110	Recovery =	70.97%		
17) Terphenyl-d14	7.409	244	64506	731.77	ppb	0.00
Spiked Amount	1000.000	Range 39 - 92	Recovery =	73.18%		
Target Compounds						
18) Benzo[a]anthracene	8.329	228	716	Below Cal		Qvalue 76

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

Data Path : X:\semivols\Corey\DATA\C240823\  
 Data File : C0823016.D  
 Acq On : 23 Aug 2024 1:56 pm  
 Operator : JP  
 Sample : 08-224-04  
 Misc :  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 23 14:11:00 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration



Data Path : C:\MSDCHEM\1\DATA\C240823\  
 Data File : C0823017.D  
 Acq On : 23 Aug 2024 2:18 pm  
 Operator : JP  
 Sample : 08-224-05  
 Misc :  
 ALS Vial : 17 Sample Multiplier: 1

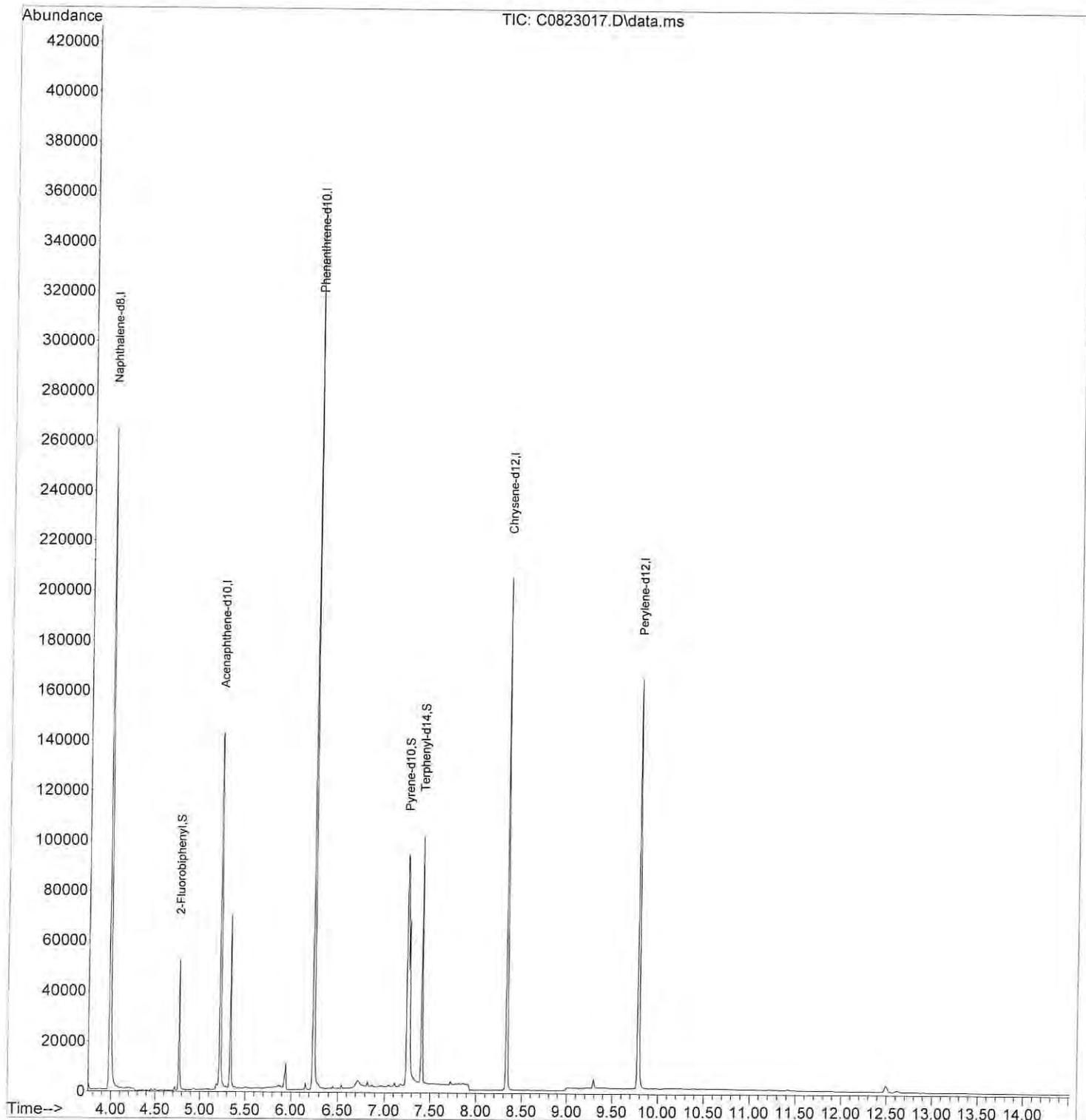
Quant Time: Aug 23 14:32:37 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Naphthalene-d8	3.985	136	276828	2000.00	ppb	0.00
5) Acenaphthene-d10	5.227	164	146036	2000.00	ppb	0.00
9) Phenanthrene-d10	6.246	188	256428	2000.00	ppb	0.01
16) Chrysene-d12	8.336	240	185074	2000.00	ppb	0.02
20) Perylene-d12	9.789	264	182704	2000.00	ppb	0.03
System Monitoring Compounds						
6) 2-Fluorobiphenyl	4.767	172	50189	417.45	ppb	0.00
Spiked Amount	1000.000	Range 25 - 89	Recovery	=	41.74%	
10) Pyrene-d10	7.244	212	85843	734.94	ppb	0.00
Spiked Amount	1000.000	Range 40 - 110	Recovery	=	73.49%	
17) Terphenyl-d14	7.407	244	67906	750.01	ppb	0.00
Spiked Amount	1000.000	Range 39 - 92	Recovery	=	75.00%	
Target Compounds						
18) Benzo[a]anthracene	8.336	228	796	Below Cal	#	50
-----						

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

Data Path : C:\MSDCHEM\1\DATA\C240823\  
Data File : C0823017.D  
Acq On : 23 Aug 2024 2:18 pm  
Operator : JP  
Sample : 08-224-05  
Misc :  
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 23 14:32:37 2024  
Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Tue Aug 20 14:46:01 2024  
Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240823\  
 Data File : C0823012.D  
 Acq On : 23 Aug 2024 12:29 pm  
 Operator : JP  
 Sample : MB0823W1  
 Misc :  
 ALS Vial : 12 Sample Multiplier: 1

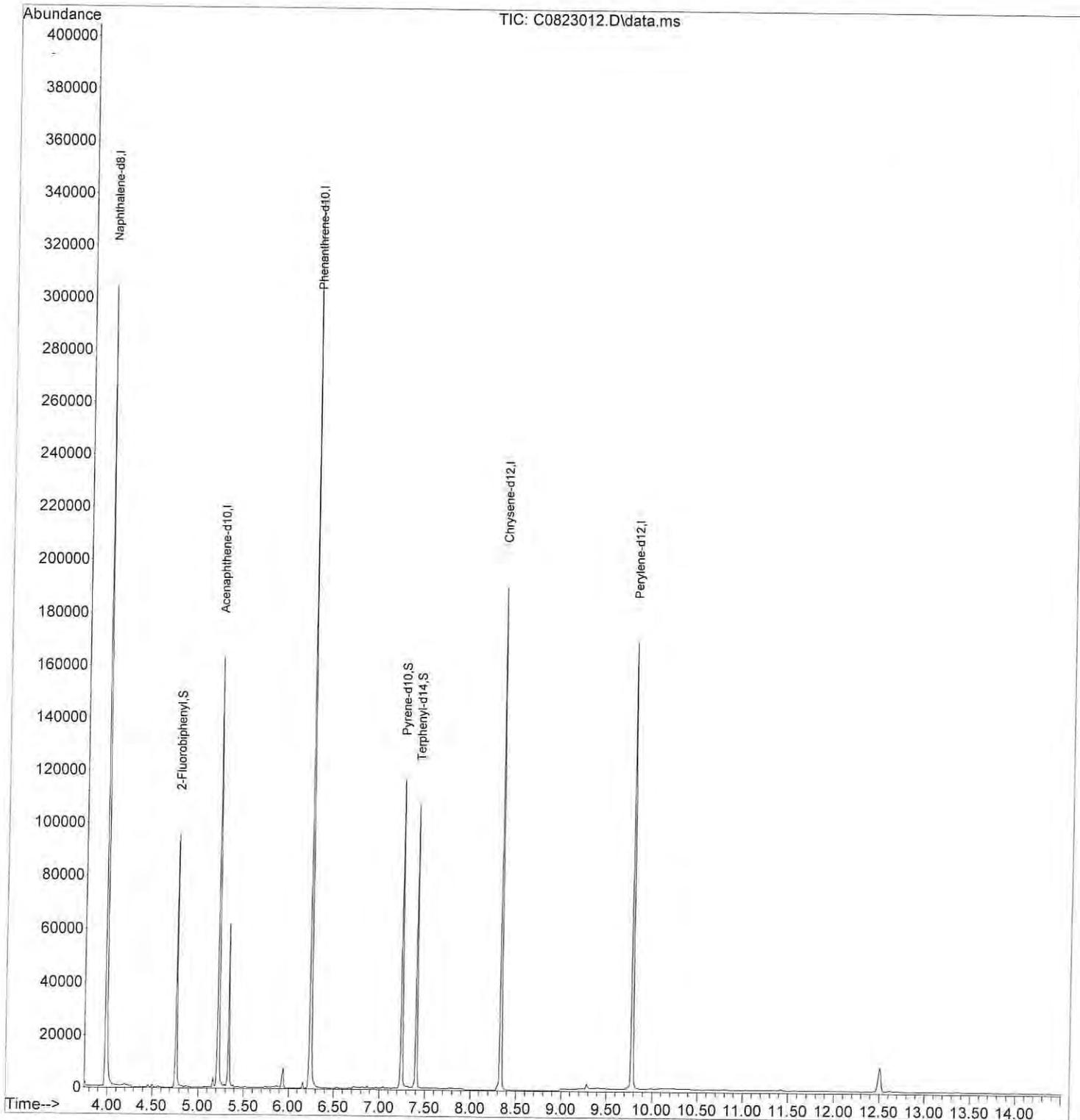
Quant Time: Aug 23 12:44:00 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	3.985	136	288142	2000.00	ppb	0.00
5) Acenaphthene-d10	5.220	164	151270	2000.00	ppb	0.00
9) Phenanthrene-d10	6.246	188	265799	2000.00	ppb	0.01
16) Chrysene-d12	8.330	240	189942	2000.00	ppb	0.01
20) Perylene-d12	9.783	264	189307	2000.00	ppb	0.02
System Monitoring Compounds						
6) 2-Fluorobiphenyl	4.772	172	92529	742.99	ppb	0.00
Spiked Amount	1000.000	Range	25 - 89	Recovery	=	74.30%
10) Pyrene-d10	7.245	212	96818	799.68	ppb	0.00
Spiked Amount	1000.000	Range	40 - 110	Recovery	=	79.97%
17) Terphenyl-d14	7.408	244	81699	879.22	ppb	0.00
Spiked Amount	1000.000	Range	39 - 92	Recovery	=	87.92%
Target Compounds						
18) Benzo[a]anthracene	8.330	228	839	Below Cal	Qvalue	85

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

Data Path : X:\semivols\Coreey\DATA\C240823\  
Data File : C0823012.D  
Acq On : 23 Aug 2024 12:29 pm  
Operator : JP  
Sample : MB0823W1  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 23 12:44:00 2024  
Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
Quant Title : PAH'S BY SIMS  
QLast Update : Tue Aug 20 14:46:01 2024  
Response via : Initial Calibration



Data Path : X:\semivols\Coreey\DATA\C240823\  
 Data File : C0823009.D  
 Acq On : 23 Aug 2024 11:24 am  
 Operator : JP  
 Sample : SB0823W1  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 23 12:06:53 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

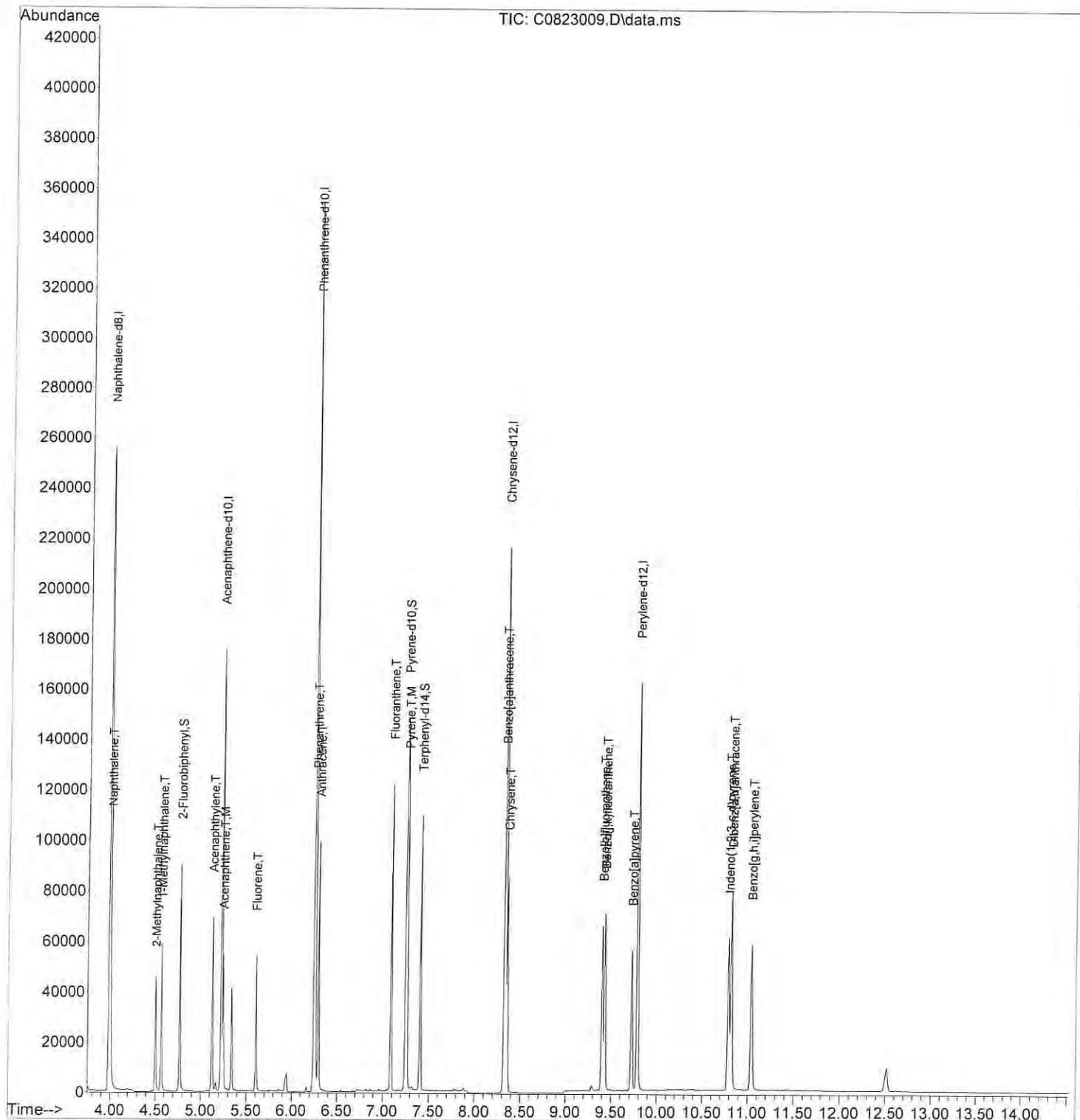
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	3.994	136	271798	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.227	164	145509	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.247	188	252884	2000.00	ppb	0.01	
16) Chrysene-d12	8.336	240	185069	2000.00	ppb	0.02	
20) Perylene-d12	9.788	264	184526	2000.00	ppb	0.03	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	4.771	172	67629	564.55	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	56.45%			
10) Pyrene-d10	7.254	212	98420	854.42	ppb	0.02	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	85.44%			
17) Terphenyl-d14	7.408	244	74968	828.03	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	82.80%			
Target Compounds							
							Qvalue
2) Naphthalene	4.002	128	41349	266.54	ppb		99
3) 2-Methylnaphthalene	4.504	142	21826	231.27	ppb		100
4) 1-Methylnaphthalene	4.568	142	24244	254.47	ppb		97
7) Acenaphthylene	5.127	152	46241	288.92	ppb		100
8) Acenaphthene	5.243	153	26513	254.49	ppb		100
11) Fluorene	5.605	166	33744	285.54	ppb		100
12) Phenanthrene	6.259	178	56623	346.48	ppb		96
13) Anthracene	6.293	178	60846	398.43	ppb		98
14) Fluoranthene	7.091	202	70577	444.44	ppb		90
15) Pyrene	7.264	202	71685	438.57	ppb		93
18) Benzo[a]anthracene	8.325	228	63234	524.22	ppb		94
19) Chrysene	8.359	228	60836	440.98	ppb		96
21) Benzo[b]fluoranthene	9.404	252	67654	460.27	ppb		89
22) Benzo[j,k]fluoranthene	9.428	252	62045	436.55	ppb		91
23) Benzo[a]pyrene	9.724	252	57027	466.99	ppb		88
24) Indeno(1,2,3-c,d)pyrene	10.789	276	56811m	436.48	ppb		
25) Dibenz[a,h]anthracene	10.819	278	59270	444.63	ppb		85
26) Benzo[g,h,i]perylene	11.043	276	58904	427.14	ppb		78
-----							

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

JP  
8/23/24

Data Path : X:\semivols\Corey\DATA\C240823\  
 Data File : C0823009.D  
 Acq On : 23 Aug 2024 11:24 am  
 Operator : JP  
 Sample : SB0823W1  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 23 12:06:53 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240823\  
 Data File : C0823010.D  
 Acq On : 23 Aug 2024 11:45 am  
 Operator : JP  
 Sample : SB0823W1 DUP  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 23 12:07:13 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

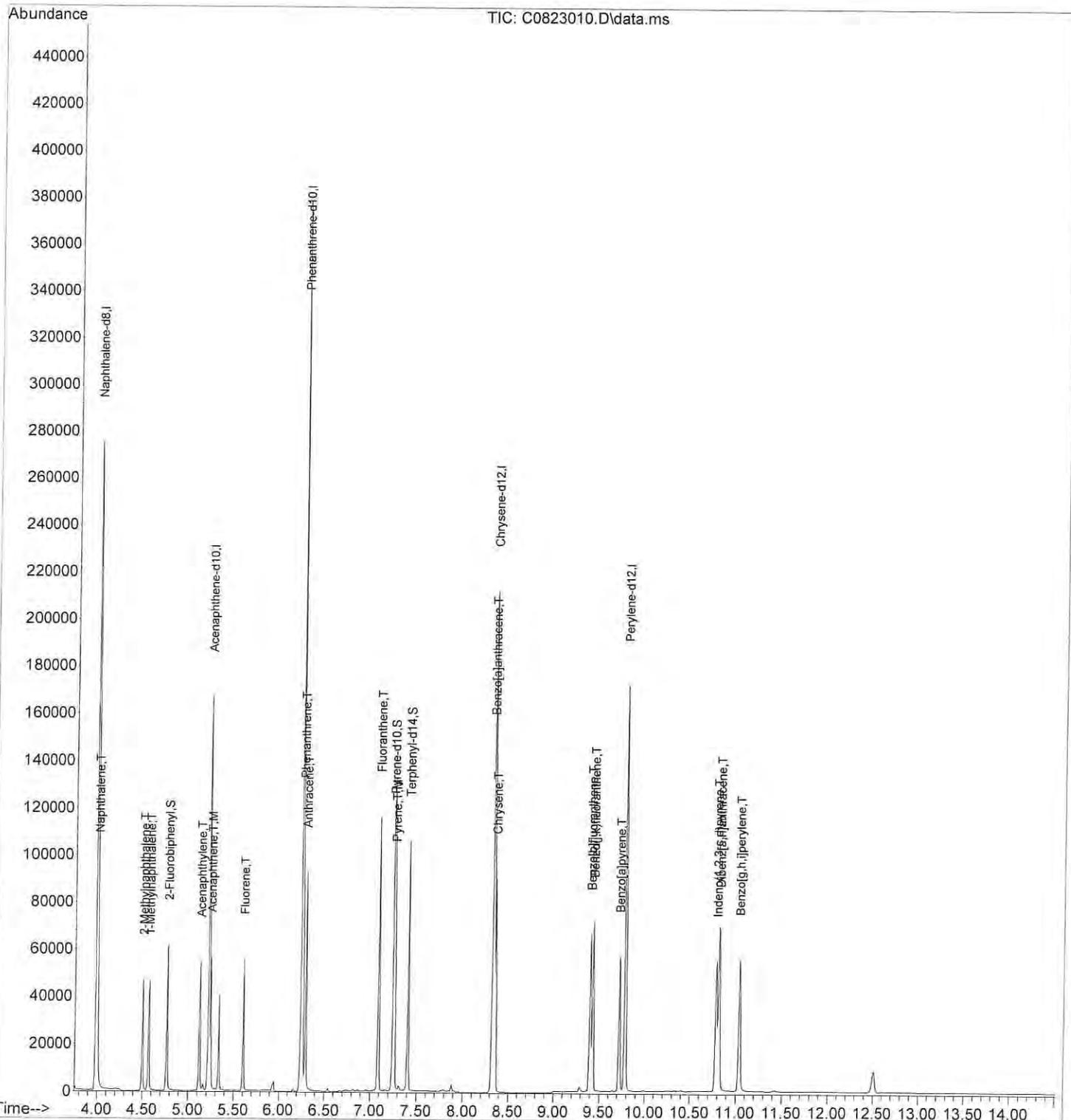
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	3.986	136	288414	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.227	164	151404	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.246	188	262831	2000.00	ppb	0.01	
16) Chrysene-d12	8.337	240	191949	2000.00	ppb	0.02	
20) Perylene-d12	9.783	264	190703	2000.00	ppb	0.02	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	4.773	172	60981	489.23	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	48.92%			
10) Pyrene-d10	7.244	212	94687	790.91	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	79.09%			
17) Terphenyl-d14	7.408	244	75005	798.74	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	79.87%			
Target Compounds							
							Qvalue
2) Naphthalene	4.001	128	37129	225.55	ppb	99	
3) 2-Methylnaphthalene	4.500	142	19973	199.45	ppb	100	
4) 1-Methylnaphthalene	4.570	142	22075	218.36	ppb	97	
7) Acenaphthylene	5.127	152	43920	263.74	ppb	100	
8) Acenaphthene	5.243	153	26268	242.32	ppb	100	
11) Fluorene	5.605	166	34452	280.50	ppb	100	
12) Phenanthrene	6.258	178	58136	342.28	ppb	96	
13) Anthracene	6.293	178	59888	377.31	ppb	97	
14) Fluoranthene	7.091	202	70610	427.82	ppb	93	
15) Pyrene	7.264	202	69458	408.86	ppb	94	
18) Benzo[a]anthracene	8.325	228	61318	489.40	ppb	94	
19) Chrysene	8.354	228	60796	424.90	ppb	96	
21) Benzo[b]fluoranthene	9.400	252	63871	420.46	ppb	89	
22) Benzo(j,k)fluoranthene	9.429	252	63804	434.39	ppb	90	
23) Benzo[a]pyrene	9.719	252	55713	441.46	ppb	88	
24) Indeno(1,2,3-c,d)pyrene	10.789	276	57585m	428.10	ppb		
25) Dibenz[a,h]anthracene	10.820	278	58189	422.38	ppb	85	
26) Benzo[g,h,i]perylene	11.036	276	58791	412.52	ppb	79	
-----							

JP  
8/23/24

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

Data Path : X:\semivols\Corey\DATA\C240823\  
 Data File : C0823010.D  
 Acq On : 23 Aug 2024 11:45 am  
 Operator : JP  
 Sample : SB0823W1 DUP  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 23 12:07:13 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration



Method Path : C:\MSDCHEM\1\METHODS\  
 Method File : CS240820.M  
 Title : PAH'S BY SIMS  
 Last Update : Tue Aug 20 14:46:01 2024  
 Response Via : Initial Calibration

Calibration Files  
 10 =C0820008.D 20 =C0820009.D 50 =C0820010.D 100 =C0820011.D 200 =C0820012.D 500 =C0820013.D 1000=C0820014.D  
 5000=C0820015.D

Compound	10	20	50	100	200	500	1000	5000	Avg	%RSD
1) I Naphthalene-d8										
2) T Naphthalene	1.241	1.239	1.212	1.161	1.103	1.124	1.109	0.944	1.142	8.53
3) T 2-Methylnaphth...	0.742	0.752	0.737	0.712	0.664	0.673	0.671	0.604	0.694	7.29
4) T 1-Methylnaphth...	0.764	0.754	0.743	0.706	0.663	0.679	0.680	0.619	0.701	7.16
5) I Acenaphthene-d10										
6) S 2-Fluorobiphenyl	2.093	1.808	1.716	1.662	1.582	1.533	1.479	1.299	1.647	14.44
7) T Acenaphthylene	2.428	2.436	2.380	2.294	2.144	2.101	2.036	1.778	2.200	10.42
8) T,M Acenaphthene	1.559	1.551	1.534	1.483	1.406	1.384	1.338	1.200	1.432	8.70
9) I Phenanthrene-d10										
10) S Pyrene-d10	0.963	0.975	0.942	0.942	0.895	0.898	0.872	0.801	0.911	6.25
11) T Fluorene	1.042	1.014	1.000	0.949	0.925	0.897	0.879	0.772	0.935	9.35
12) T Phenanthrene	1.480	1.418	1.369	1.308	1.281	1.236	1.202	1.047	1.292	10.49
13) T Anthracene	1.273	1.242	1.241	1.211	1.197	1.167	1.243	1.088	1.208	4.85
14) T Fluoranthene	1.352	1.324	1.320	1.264	1.289	1.204	1.176	1.119	1.256	6.51
15) T,M Pyrene	1.394	1.370	1.342	1.321	1.246	1.257	1.232	1.180	1.293	5.79
16) I Chrysene-d12										
17) S Terphenyl-d14	1.141	1.016	1.020	0.982	0.987	0.928	0.923	0.831	0.978	9.22
18) T Benzo[a]anthra...	2.235	1.940	1.620	1.519	1.464	1.428	1.385	1.242	1.604	20.36
19) T Chrysene	1.572	1.511	1.606	1.547	1.521	1.453	1.450	1.267	1.491	7.06
20) I Perylene-d12										
21) T Benzo[b]Fluora...	1.734	1.708	1.637	1.624	1.672	1.514	1.495	1.361	1.593	7.94
22) T Benzo[j,k]Fluo...	1.640	1.584	1.609	1.553	1.472	1.544	1.510	1.410	1.540	4.87
23) T Benzo[a]pyrene	1.402	1.383	1.370	1.317	1.325	1.294	1.286	1.211	1.324	4.68
24) T Indeno[1,2,3-C...	1.534	1.521	1.467	1.401	1.391	1.375	1.351	1.244	1.411	6.76
25) T Dibenz[a,h]ant...	1.521	1.503	1.483	1.452	1.456	1.417	1.404	1.322	1.445	4.41
26) T Benzo[g,h,i]pe...	1.674	1.586	1.532	1.485	1.490	1.447	1.426	1.318	1.495	7.15

(#) = Out of Range

Compound List Report Corey

Method Path : C:\MSDCHEM\1\METHODS\  
 Method File : CS240820.M  
 Title : PAH'S BY SIMS  
 Last Update : Tue Aug 20 14:46:01 2024  
 Response Via : Initial Calibration

Total Cpnds : 26

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Naphthalene-d8	136	3.986	1.000	A	0	A	R
2	T	Naphthalene	128	3.993	1.002	A	1	A	R
3	T	2-Methylnaphthalene	142	4.493	1.127	A	1	A	R
4	T	1-Methylnaphthalene	142	4.563	1.145	A	1	A	R
5	I	Acenaphthene-d10	164	5.219	1.000	A	0	A	R
6	S	2-Fluorobiphenyl	172	4.766	0.913	A	0	A	R
7	T	Acenaphthylene	152	5.118	0.981	A	0	A	R
8	T	Acenaphthene	153	5.234	1.003	A	0	A	R
9	I	Phenanthrene-d10	188	6.234	1.000	A	0	A	R
10	S	Pyrene-d10	212	7.236	1.161	A	0	A	R
11	T	Fluorene	166	5.596	0.898	A	0	A	R
12	T	Phenanthrene	178	6.252	1.003	A	1	A	R
13	T	Anthracene	178	6.287	1.008	A	1	A	R
14	T	Fluoranthene	202	7.072	1.134	A	1	A	R
15	T	Pyrene	202	7.245	1.162	A	1	A	R
16	I	Chrysene-d12	240	8.318	1.000	A	0	A	R
17	S	Terphenyl-d14	244	7.399	0.889	A	0	A	R
18	T	Benzo[a]anthracene	228	8.300	0.998	L	1	A	R
19	T	Chrysene	228	8.336	1.002	A	1	A	R
20	I	Perylene-d12	264	9.759	1.000	A	0	A	R
21	T	Benzo[b]fluoranthene	252	9.376	0.961	A	1	A	R
22	T	Benzo(j,k)fluoranthene	252	9.405	0.964	A	1	A	R
23	T	Benzo[a]pyrene	252	9.695	0.993	A	1	A	R
24	T	Indeno(1,2,3-c,d)pyrene	276	10.751	1.102	A	1	A	R
25	T	Dibenz[a,h]anthracene	278	10.790	1.106	A	1	A	R
26	T	Benzo[g,h,i]perylene	276	11.006	1.128	A	1	A	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin

#Qual = number of qualifiers

A/H = Area or Height

ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

CS240820.M Fri Aug 23 12:55:40 2024

Data Path : X:\semivols\Corey\DATA\C240820\  
 Data File : C0820008.D  
 Acq On : 20 Aug 2024 11:51 am  
 Operator : JP  
 Sample : 10 PPB ICAL  
 Misc : SV6-168-25  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 20 14:46:16 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

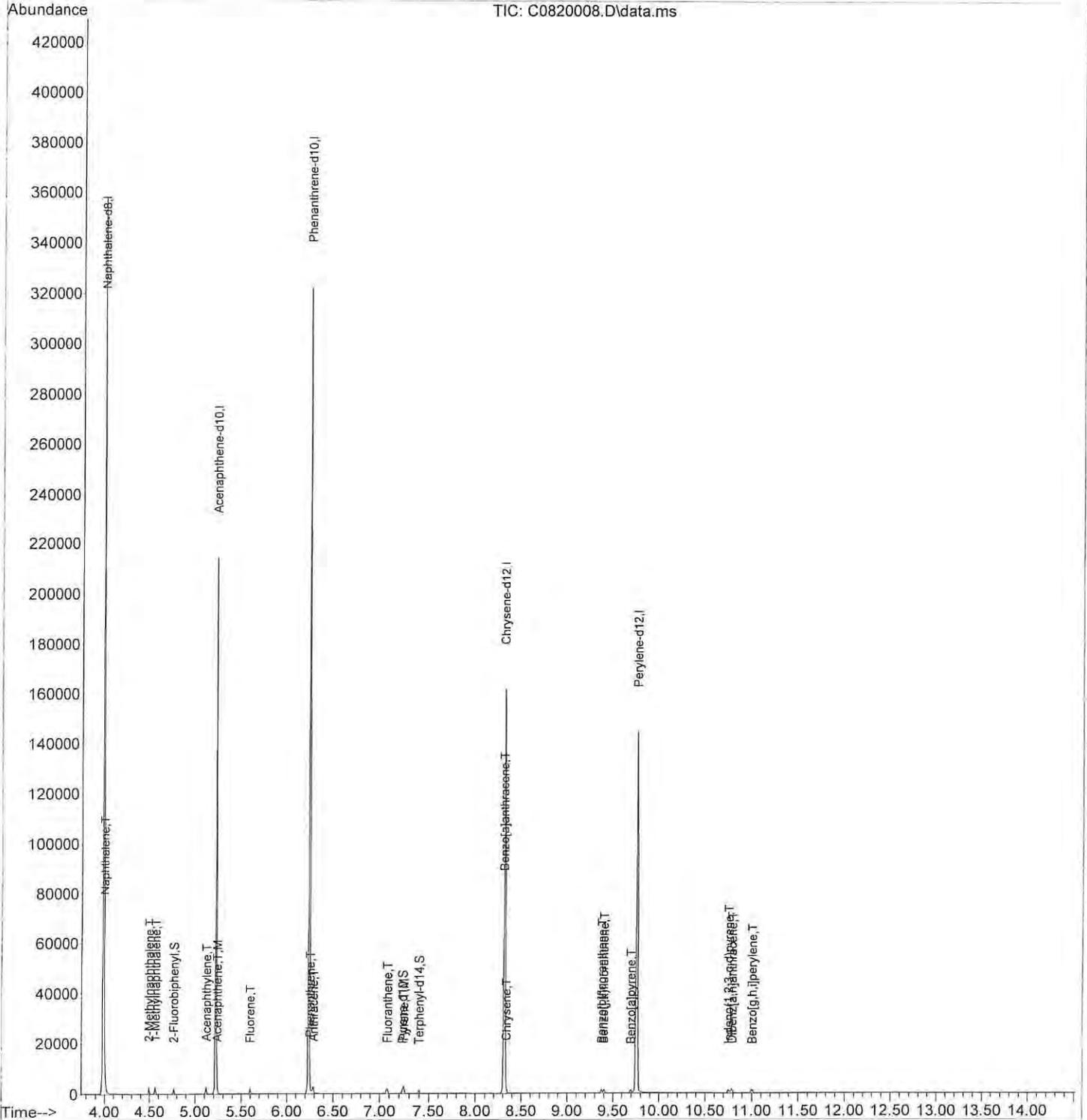
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	3.986	136	272423	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.219	164	135898	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.235	188	224899	2000.00	ppb	0.00	
16) Chrysene-d12	8.313	240	159671	2000.00	ppb	0.00	
20) Perylene-d12	9.760	264	156301	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	4.767	172	1422	12.71	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	1.27%#			
10) Pyrene-d10	7.235	212	1083	10.57	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	1.06%#			
17) Terphenyl-d14	7.398	244	911	11.66	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	1.17%#			
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	3.994	128	1690	10.87	ppb		98
3) 2-Methylnaphthalene	4.494	142	1011	10.69	ppb		95
4) 1-Methylnaphthalene	4.564	142	1041	10.90	ppb		97
7) Acenaphthylene	5.119	152	1650	11.04	ppb		100
8) Acenaphthene	5.234	153	1059	10.88	ppb		100
11) Fluorene	5.597	166	1172	11.15	ppb		100
12) Phenanthrene	6.252	178	1664	11.45	ppb		99
13) Anthracene	6.287	178	1431	10.54	ppb		98
14) Fluoranthene	7.081	202	1520	10.76	ppb		91
15) Pyrene	7.244	202	1567	10.78	ppb		97
18) Benzo[a]anthracene	8.307	228	1784	6.61	ppb		93
19) Chrysene	8.336	228	1255	10.54	ppb		95
21) Benzo[b]fluoranthene	9.376	252	1355	10.88	ppb		91
22) Benzo[j,k]fluoranthene	9.400	252	1282	10.65	ppb		90
23) Benzo[a]pyrene	9.696	252	1096	10.60	ppb		87
24) Indeno[1,2,3-c,d]pyrene	10.751	276	1199	10.88	ppb		82
25) Dibenz[a,h]anthracene	10.790	278	1189	10.53	ppb		91
26) Benzo[g,h,i]perylene	11.006	276	1308	11.20	ppb		78

JP  
8/20/24

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

Data Path : X:\semivols\Corey\DATA\C240820\  
 Data File : C0820008.D  
 Acq On : 20 Aug 2024 11:51 am  
 Operator : JP  
 Sample : 10 PPB ICAL  
 Misc : SV6-168-25  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 20 14:46:16 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration



Data Path : X:\semivolts\Corey\DATA\C240820\  
 Data File : C0820009.D  
 Acq On : 20 Aug 2024 12:13 pm  
 Operator : JP  
 Sample : 20 PPB ICAL  
 Misc : SV6-168-24  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 20 14:48:08 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

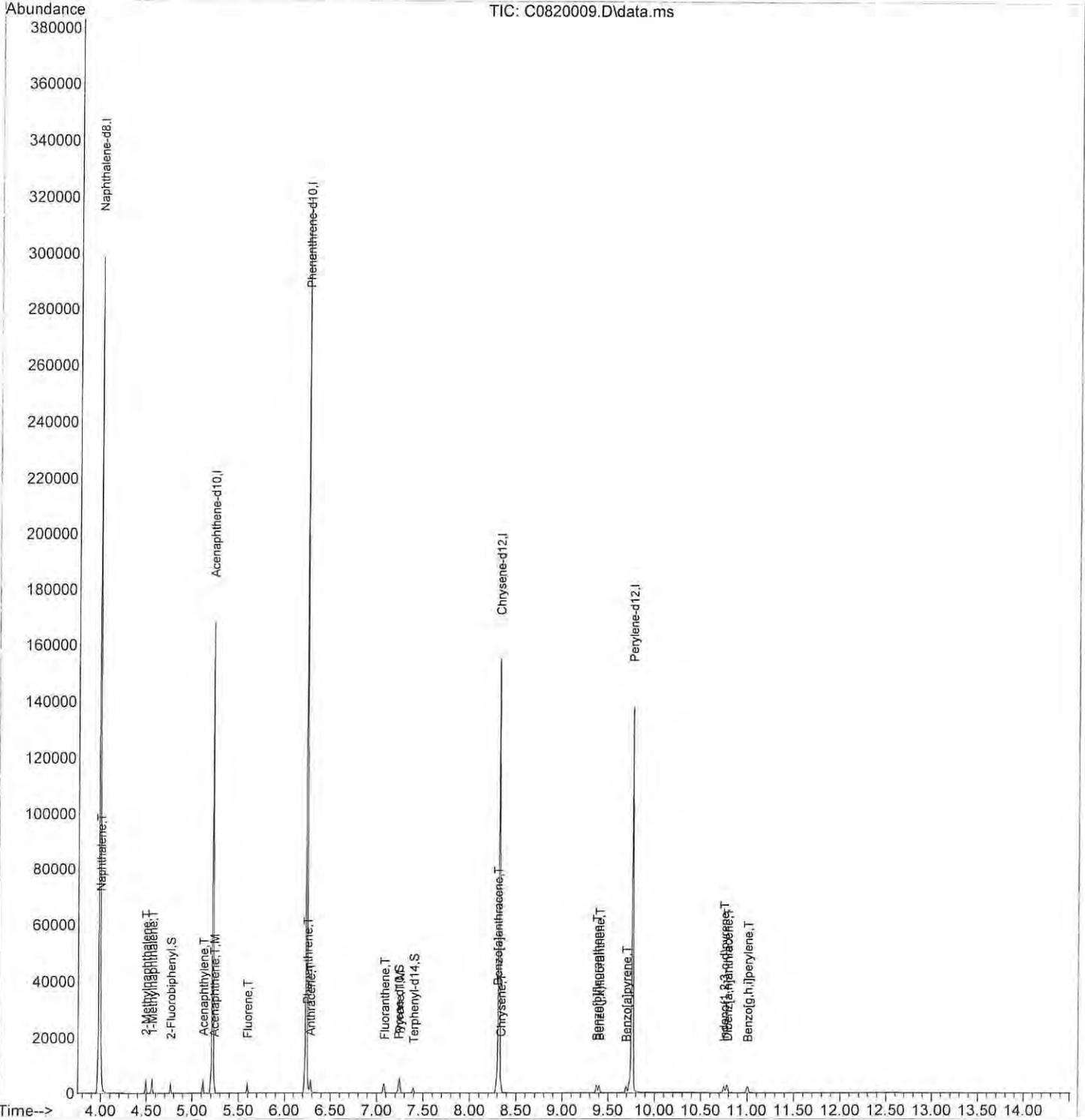
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	3.986	136	255401	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.219	164	127972	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.236	188	216084	2000.00	ppb	0.00	
16) Chrysene-d12	8.313	240	150861	2000.00	ppb	0.00	
20) Perylene-d12	9.758	264	149196	2000.00	ppb	0.00	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	4.766	172	2314	21.96	ppb	0.00	
Spiked Amount	1000.000	Range	25 - 89	Recovery	=	2.20%#	
10) Pyrene-d10	7.236	212	2106	21.40	ppb	0.00	
Spiked Amount	1000.000	Range	40 - 110	Recovery	=	2.14%#	
17) Terphenyl-d14	7.399	244	1532	20.76	ppb	0.00	
Spiked Amount	1000.000	Range	39 - 92	Recovery	=	2.08%#	
Target Compounds							
							Qvalue
2) Naphthalene	3.994	128	3164	21.70	ppb		99
3) 2-Methylnaphthalene	4.493	142	1921	21.66	ppb		98
4) 1-Methylnaphthalene	4.562	142	1925	21.50	ppb		97
7) Acenaphthylene	5.119	152	3118	22.15	ppb		100
8) Acenaphthene	5.235	153	1985	21.66	ppb		100
11) Fluorene	5.597	166	2191	21.70	ppb		100
12) Phenanthrene	6.247	178	3063	21.93	ppb		98
13) Anthracene	6.282	178	2684	20.57	ppb		97
14) Fluoranthene	7.082	202	2860	21.08	ppb		92
15) Pyrene	7.245	202	2960	21.19	ppb		96
18) Benzo[a]anthracene	8.301	228	2926	19.49	ppb		97
19) Chrysene	8.336	228	2279	20.27	ppb		95
21) Benzo[b]fluoranthene	9.375	252	2549	21.45	ppb		91
22) Benzo[j,k]fluoranthene	9.404	252	2364	20.57	ppb		88
23) Benzo[a]pyrene	9.694	252	2063	20.89	ppb		86
24) Indeno(1,2,3-c,d)pyrene	10.750	276	2263m	21.50	ppb		
25) Dibenz[a,h]anthracene	10.789	278	2242	20.80	ppb		87
26) Benzo[g,h,i]perylene	11.005	276	2366	21.22	ppb		79
-----							

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

*JP*  
*8/20/24*

Data Path : X:\semivols\Corey\DATA\C240820\  
 Data File : C0820009.D  
 Acq On : 20 Aug 2024 12:13 pm  
 Operator : JP  
 Sample : 20 PPB ICAL  
 Misc : SV6-168-24  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 20 14:48:08 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Coreey\DATA\C240820\  
 Data File : C0820010.D  
 Acq On : 20 Aug 2024 12:34 pm  
 Operator : JP  
 Sample : 50 PPB ICAL  
 Misc : SV6-168-23  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 20 14:46:33 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

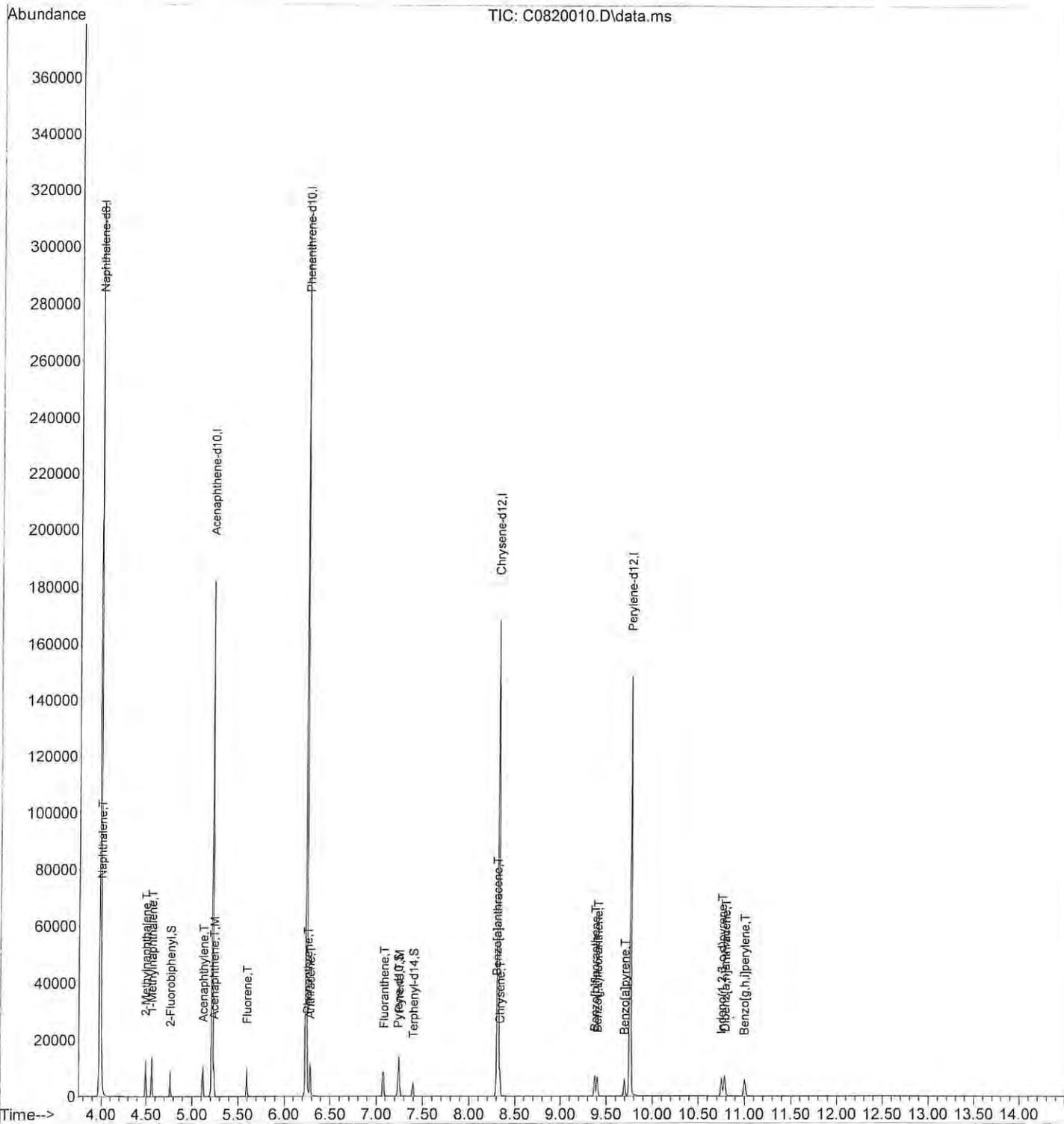
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	3.986	136	262973	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.220	164	130108	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.235	188	222578	2000.00	ppb	0.00	
16) Chrysene-d12	8.313	240	154657	2000.00	ppb	0.00	
20) Perylene-d12	9.758	264	152859	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	4.765	172	5582	52.11	ppb	0.00	
Spiked Amount	1000.000	Range	25 - 89	Recovery	=	5.21%#	
10) Pyrene-d10	7.235	212	5243	51.71	ppb	0.00	
Spiked Amount	1000.000	Range	40 - 110	Recovery	=	5.17%#	
17) Terphenyl-d14	7.398	244	3943	52.11	ppb	0.00	
Spiked Amount	1000.000	Range	39 - 92	Recovery	=	5.21%#	
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	3.994	128	7966	53.07	ppb		98
3) 2-Methylnaphthalene	4.492	142	4844	53.05	ppb		98
4) 1-Methylnaphthalene	4.562	142	4884	52.98	ppb		99
7) Acenaphthylene	5.120	152	7743	54.11	ppb		100
8) Acenaphthene	5.235	153	4990	53.57	ppb		100
11) Fluorene	5.597	166	5562	53.47	ppb		100
12) Phenanthrene	6.252	178	7615	52.94	ppb		97
13) Anthracene	6.281	178	6908	51.39	ppb		97
14) Fluoranthene	7.081	202	7345	52.55	ppb		90
15) Pyrene	7.245	202	7468	51.91	ppb		96
18) Benzo[a]anthracene	8.302	228	6265	52.55	ppb		98
19) Chrysene	8.336	228	6208	53.85	ppb		97
21) Benzo[b]fluoranthene	9.375	252	6254	51.36	ppb		89
22) Benzo[j,k]fluoranthene	9.404	252	6149	52.23	ppb		89
23) Benzo[a]pyrene	9.694	252	5235	51.75	ppb		89
24) Indeno(1,2,3-c,d)pyrene	10.750	276	5606	51.99	ppb		83
25) Dibenz[a,h]anthracene	10.789	278	5668	51.33	ppb		84
26) Benzo[g,h,i]perylene	10.997	276	5853	51.24	ppb		78

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

UP  
8/20/24

Data Path : X:\semivols\Corey\DATA\C240820\  
 Data File : C0820010.D  
 Acq On : 20 Aug 2024 12:34 pm  
 Operator : JP  
 Sample : 50 PPB ICAL  
 Misc : SV6-168-23  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 20 14:46:33 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Coreey\DATA\C240820\  
 Data File : C0820011.D  
 Acq On : 20 Aug 2024 12:56 pm  
 Operator : JP  
 Sample : 100 PPB ICAL  
 Misc : SV6-168-22  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 20 14:46:40 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

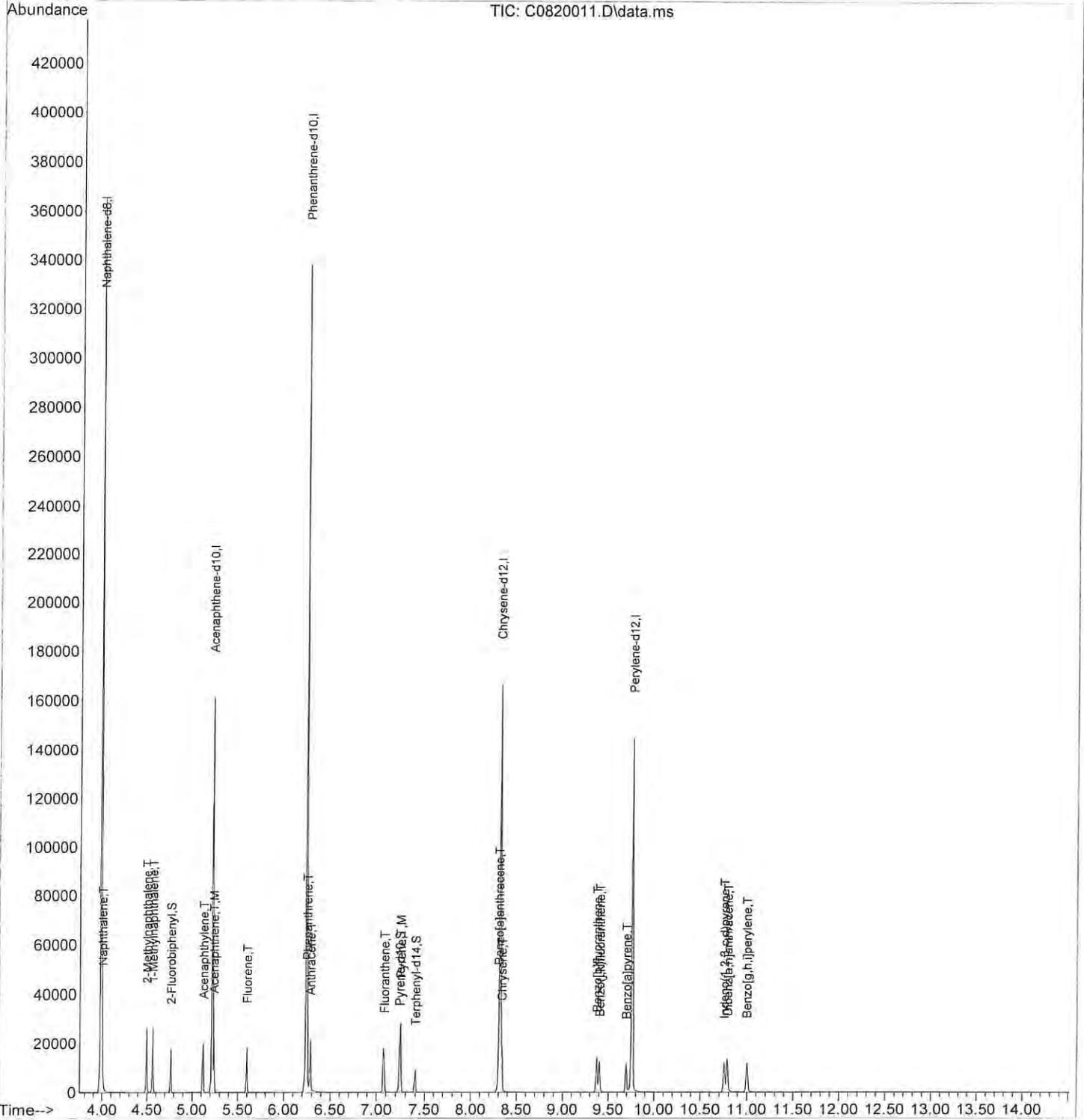
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Naphthalene-d8	3.985	136	268800	2000.00	ppb	0.00
5) Acenaphthene-d10	5.220	164	130360	2000.00	ppb	0.00
9) Phenanthrene-d10	6.236	188	224043	2000.00	ppb	0.00
16) Chrysene-d12	8.313	240	156385	2000.00	ppb	0.00
20) Perylene-d12	9.759	264	154650	2000.00	ppb	0.00
<b>System Monitoring Compounds</b>						
6) 2-Fluorobiphenyl	4.766	172	10833	100.94	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	10.09%#		
10) Pyrene-d10	7.236	212	10547	103.35	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	10.33%#		
17) Terphenyl-d14	7.399	244	7678	100.36	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	10.04%#		
<b>Target Compounds</b>						
						Qvalue
2) Naphthalene	4.000	128	15605	101.71	ppb	99
3) 2-Methylnaphthalene	4.493	142	9575	102.59	ppb	100
4) 1-Methylnaphthalene	4.562	142	9494	100.76	ppb	99
7) Acenaphthylene	5.120	152	14954	104.29	ppb	100
8) Acenaphthene	5.235	153	9666	103.56	ppb	100
11) Fluorene	5.598	166	10629	101.52	ppb	100
12) Phenanthrene	6.247	178	14655	101.22	ppb	97
13) Anthracene	6.282	178	13571	100.30	ppb	97
14) Fluoranthene	7.082	202	14154	100.61	ppb	89
15) Pyrene	7.245	202	14799	102.20	ppb	97
18) Benzo[a]anthracene	8.302	228	11880	108.08	ppb	96
19) Chrysene	8.337	228	12099	103.79	ppb	97
21) Benzo[b]fluoranthene	9.375	252	12560	101.96	ppb	89
22) Benzo[j,k]fluoranthene	9.404	252	12010	100.83	ppb	90
23) Benzo[a]pyrene	9.695	252	10187	99.54	ppb	88
24) Indeno(1,2,3-c,d)pyrene	10.751	276	10837	99.35	ppb	82
25) Dibenz[a,h]anthracene	10.789	278	11228	100.50	ppb	84
26) Benzo[g,h,i]perylene	10.997	276	11485	99.37	ppb	78

*JP*  
 8/20/24

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

Data Path : X:\semivols\Corey\DATA\C240820\  
 Data File : C0820011.D  
 Acq On : 20 Aug 2024 12:56 pm  
 Operator : JP  
 Sample : 100 PPB ICAL  
 Misc : SV6-168-22  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 20 14:46:40 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240820\  
 Data File : C0820012.D  
 Acq On : 20 Aug 2024 1:22 pm  
 Operator : JP  
 Sample : 200 PPB ICAL  
 Misc : SV6-168-21  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 20 14:48:47 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

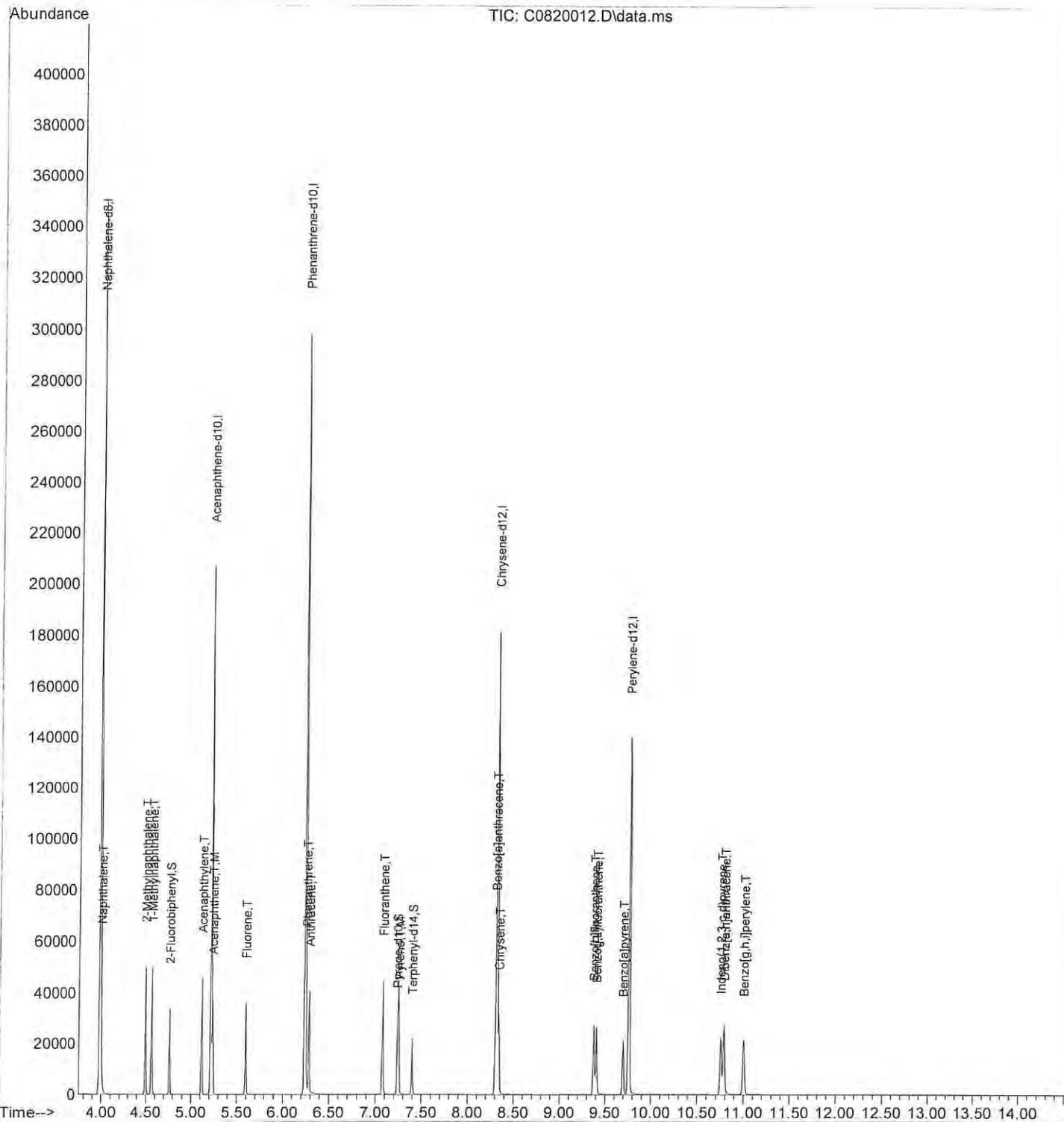
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Naphthalene-d8	3.986	136	272185	2000.00	ppb	0.00
5) Acenaphthene-d10	5.219	164	130802	2000.00	ppb	0.00
9) Phenanthrene-d10	6.235	188	218074	2000.00	ppb	0.00
16) Chrysene-d12	8.319	240	153276	2000.00	ppb	0.00
20) Perylene-d12	9.759	264	151261	2000.00	ppb	0.00
<b>System Monitoring Compounds</b>						
6) 2-Fluorobiphenyl	4.766	172	20690	192.13	ppb	0.00
Spiked Amount 1000.000	Range 25 - 89		Recovery =	19.21%#		
10) Pyrene-d10	7.236	212	19528	196.59	ppb	0.00
Spiked Amount 1000.000	Range 40 - 110		Recovery =	19.66%#		
17) Terphenyl-d14	7.399	244	15129	201.76	ppb	0.00
Spiked Amount 1000.000	Range 39 - 92		Recovery =	20.18%#		
<b>Target Compounds</b>						
						Qvalue
2) Naphthalene	4.001	128	30031	193.31	ppb	99
3) 2-Methylnaphthalene	4.494	142	18072	191.22	ppb	98
4) 1-Methylnaphthalene	4.563	142	18050	189.19	ppb	98
7) Acenaphthylene	5.119	152	28045	194.93	ppb	100
8) Acenaphthene	5.234	153	18394	196.41	ppb	100
11) Fluorene	5.597	166	20167	197.89	ppb	100
12) Phenanthrene	6.252	178	27942	198.27	ppb	97
13) Anthracene	6.287	178	26094	198.14	ppb	96
14) Fluoranthene	7.082	202	28114	205.30	ppb	92
15) Pyrene	7.255	202	27180	192.83	ppb	95
18) Benzo[a]anthracene	8.307	228	22444	218.43	ppb	96
19) Chrysene	8.342	228	23316	204.07	ppb	96
21) Benzo[b]fluoranthene	9.376	252	25287	209.87	ppb	92
22) Benzo[j,k]fluoranthene	9.405	252	22270	191.15	ppb	86
23) Benzo[a]pyrene	9.695	252	20037	200.17	ppb	89
24) Indeno(1,2,3-c,d)pyrene	10.751	276	21020m	197.02	ppb	
25) Dibenz[a,h]anthracene	10.790	278	22027	201.58	ppb	84
26) Benzo[g,h,i]perylene	11.006	276	22535	199.35	ppb	78

*UP*  
*8/20/24*

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

Data Path : X:\semivols\Corey\DATA\C240820\  
 Data File : C0820012.D  
 Acq On : 20 Aug 2024 1:22 pm  
 Operator : JP  
 Sample : 200 PPB ICAL  
 Misc : SV6-168-21  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 20 14:48:47 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Coreey\DATA\C240820\  
 Data File : C0820013.D  
 Acq On : 20 Aug 2024 1:43 pm  
 Operator : JP  
 Sample : 500 PPB ICAL  
 Misc : SV6-168-20  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 20 14:46:56 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

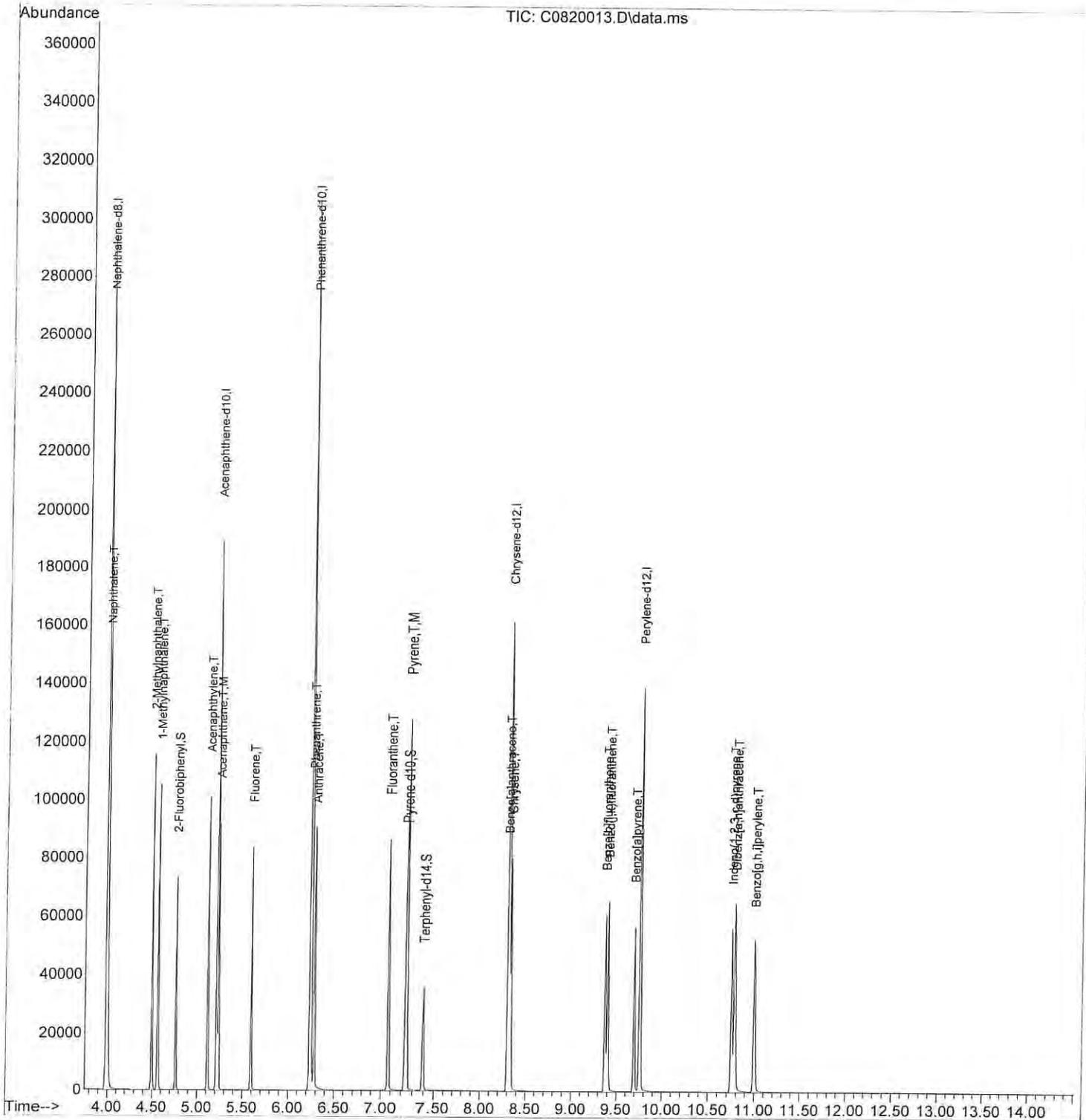
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Naphthalene-d8	3.986	136	250949	2000.00	ppb	0.00
5) Acenaphthene-d10	5.219	164	124990	2000.00	ppb	0.00
9) Phenanthrene-d10	6.234	188	210314	2000.00	ppb	0.00
16) Chrysene-d12	8.318	240	148965	2000.00	ppb	0.00
20) Perylene-d12	9.759	264	147386	2000.00	ppb	0.00
<b>System Monitoring Compounds</b>						
6) 2-Fluorobiphenyl	4.766	172	47889	465.39	ppb	0.00
Spiked Amount	1000.000	Range 25 - 89	Recovery =	46.54%		
10) Pyrene-d10	7.236	212	47229	493.01	ppb	0.00
Spiked Amount	1000.000	Range 40 - 110	Recovery =	49.30%		
17) Terphenyl-d14	7.399	244	34549	474.08	ppb	0.00
Spiked Amount	1000.000	Range 39 - 92	Recovery =	47.41%		
<b>Target Compounds</b>						
						Qvalue
2) Naphthalene	3.993	128	70503	492.22	ppb	98
3) 2-Methylnaphthalene	4.493	142	42232	484.68	ppb	98
4) 1-Methylnaphthalene	4.563	142	42572	483.97	ppb	98
7) Acenaphthylene	5.118	152	65645	477.50	ppb	100
8) Acenaphthene	5.234	153	43247	483.26	ppb	100
11) Fluorene	5.596	166	47148	479.72	ppb	100
12) Phenanthrene	6.252	178	64989	478.17	ppb	96
13) Anthracene	6.287	178	61377	483.26	ppb	96
14) Fluoranthene	7.072	202	63306	479.35	ppb	89
15) Pyrene	7.245	202	66101	486.26	ppb	95
18) Benzo[a]anthracene	8.301	228	53183	548.24	ppb	96
19) Chrysene	8.336	228	54100	487.20	ppb	94
21) Benzo[b]fluoranthene	9.376	252	55804	475.32	ppb	88
22) Benzo[j,k]fluoranthene	9.405	252	56893	501.17	ppb	89
23) Benzo[a]pyrene	9.695	252	47683	488.87	ppb	88
24) Indeno(1,2,3-c,d)pyrene	10.751	276	50675	487.45	ppb	80
25) Dibenz[a,h]anthracene	10.790	278	52199	490.26	ppb	82
26) Benzo[g,h,i]perylene	11.006	276	53300	483.90	ppb	77

*JP*  
 8/20/24

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

Data Path : X:\semivols\Corey\DATA\C240820\  
 Data File : C0820013.D  
 Acq On : 20 Aug 2024 1:43 pm  
 Operator : JP  
 Sample : 500 PPB ICAL  
 Misc : SV6-168-20  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 20 14:46:56 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Coreey\DATA\C240820\  
 Data File : C0820014.D  
 Acq On : 20 Aug 2024 2:05 pm  
 Operator : JP  
 Sample : 1000 PPB ICAL  
 Misc : SV6-168-19  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 20 14:47:04 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

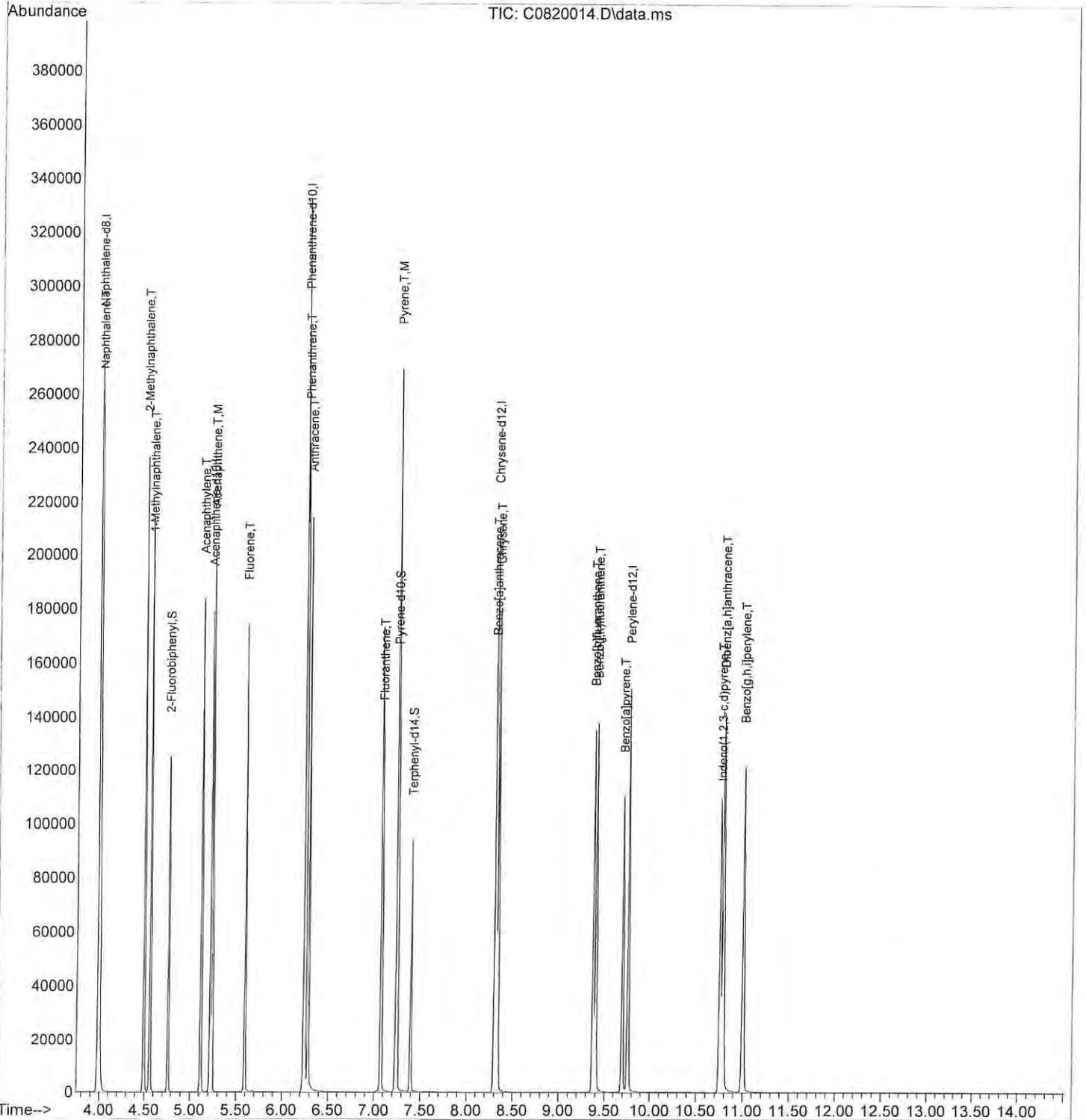
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	3.987	136	261767	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.219	164	133166	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.235	188	224315	2000.00	ppb	0.00	
16) Chrysene-d12	8.313	240	160187	2000.00	ppb	0.00	
20) Perylene-d12	9.759	264	158552	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	4.761	172	98501	898.48	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	89.85%#			
10) Pyrene-d10	7.235	212	97766	956.84	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	95.68%			
17) Terphenyl-d14	7.398	244	73935	943.46	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	94.35%#			
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	3.995	128	145091	971.10	ppb		97
3) 2-Methylnaphthalene	4.494	142	87847	966.52	ppb		97
4) 1-Methylnaphthalene	4.564	142	89035	970.35	ppb		98
7) Acenaphthylene	5.119	152	135595	925.75	ppb		100
8) Acenaphthene	5.235	153	89108	934.60	ppb		100
11) Fluorene	5.597	166	98589	940.51	ppb		100
12) Phenanthrene	6.247	178	134769	929.70	ppb		94
13) Anthracene	6.281	178	140487	1037.09	ppb		98
14) Fluoranthene	7.081	202	131884	936.28	ppb		88
15) Pyrene	7.244	202	138147	952.83	ppb		93
18) Benzo[a]anthracene	8.301	228	110913	1073.48	ppb		94
19) Chrysene	8.336	228	116167	972.86	ppb		95
21) Benzo[b]fluoranthene	9.376	252	118496	938.22	ppb		87
22) Benzo[j,k]fluoranthene	9.405	252	119681	980.03	ppb		88
23) Benzo[a]pyrene	9.696	252	101987	971.99	ppb		87
24) Indeno(1,2,3-c,d)pyrene	10.759	276	107078	957.46	ppb		79
25) Dibenz[a,h]anthracene	10.790	278	111342	972.09	ppb		81
26) Benzo[g,h,i]perylene	11.006	276	113058	954.15	ppb		76

LD  
8/20/24

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

Data Path : X:\semivols\Corey\DATA\C240820\  
 Data File : C0820014.D  
 Acq On : 20 Aug 2024 2:05 pm  
 Operator : JP  
 Sample : 1000 PPB ICAL  
 Misc : SV6-168-19  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 20 14:47:04 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240820\  
 Data File : C0820015.D  
 Acq On : 20 Aug 2024 2:26 pm  
 Operator : JP  
 Sample : 5000 PPB ICAL  
 Misc : SV6-168-18  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 20 14:49:39 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

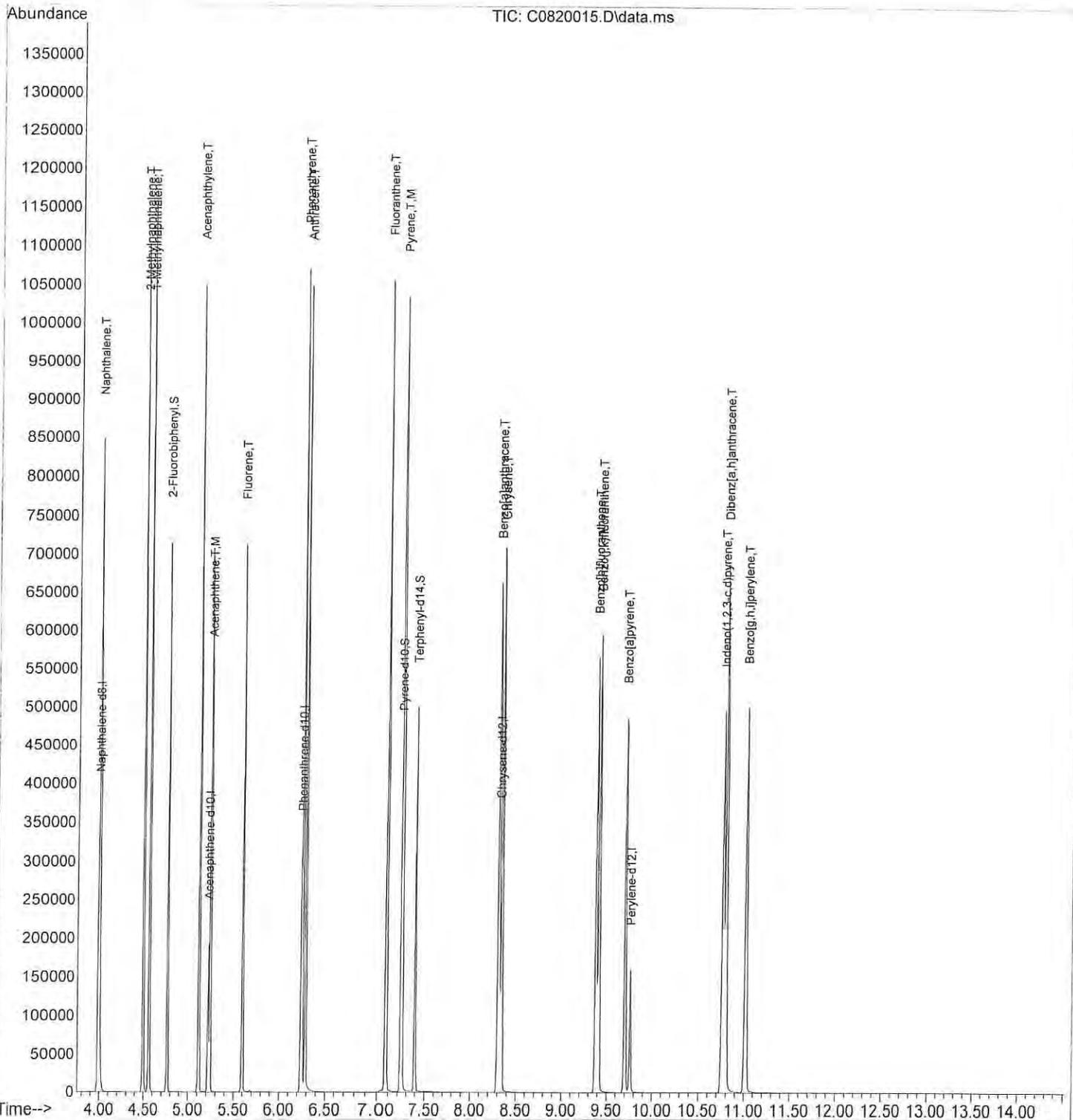
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Naphthalene-d8	3.987	136	257964	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.219	164	134391	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.235	188	222643	2000.00	ppb	0.00	
16) Chrysene-d12	8.318	240	166597	2000.00	ppb	0.00	
20) Perylene-d12	9.759	264	160873	2000.00	ppb	0.00	
System Monitoring Compounds							
6) 2-Fluorobiphenyl	4.766	172	436588	3946.04	ppb	0.00	
Spiked Amount	1000.000	Range 25 - 89	Recovery =	394.60%#			
10) Pyrene-d10	7.235	212	445912	4396.95	ppb	0.00	
Spiked Amount	1000.000	Range 40 - 110	Recovery =	439.69%#			
17) Terphenyl-d14	7.398	244	346187	4247.63	ppb	0.00	
Spiked Amount	1000.000	Range 39 - 92	Recovery =	424.76%#			
Target Compounds							
							Qvalue
2) Naphthalene	3.994	128	609027	4136.33	ppb		93
3) 2-Methylnaphthalene	4.493	142	389237	4345.65	ppb		95
4) 1-Methylnaphthalene	4.563	142	399282	4415.74	ppb		95
7) Acenaphthylene	5.119	152	597244	4040.41	ppb		100
8) Acenaphthene	5.242	153	403279	4191.19	ppb		100
11) Fluorene	5.596	166	429631	4129.33	ppb		100
12) Phenanthrene	6.253	178	582629	4049.43	ppb		88
13) Anthracene	6.287	178	610019	4537.06	ppb		91
14) Fluoranthene	7.081	202	623047	4456.41	ppb		89
15) Pyrene	7.254	202	656705	4563.43	ppb		90
18) Benzo[a]anthracene	8.307	228	517417	4853.12	ppb		90
19) Chrysene	8.347	228	527667	4249.02	ppb		90
21) Benzo[b]fluoranthene	9.382	252	547383	4271.52	ppb		84
22) Benzo[j,k]fluoranthene	9.417	252	567202	4577.63	ppb		84
23) Benzo[a]pyrene	9.707	252	486926	4573.70	ppb		84
24) Indeno[1,2,3-c,d]pyrene	10.767	276	500463m	4410.45	ppb		
25) Dibenz[a,h]anthracene	10.797	278	531575	4574.04	ppb		79
26) Benzo[g,h,i]perylene	11.021	276	530229	4410.30	ppb		74

JP  
8/20/24

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

Data Path : X:\semivols\Corey\DATA\C240820\  
 Data File : C0820015.D  
 Acq On : 20 Aug 2024 2:26 pm  
 Operator : JP  
 Sample : 5000 PPB ICAL  
 Misc : SV6-168-18  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 20 14:49:39 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\semivols\Corey\DATA\C240820\  
 Data File : C0820016.D  
 Acq On : 20 Aug 2024 2:48 pm  
 Operator : JP  
 Sample : ICV  
 Misc : SV6-169-07  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 20 15:07:30 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Naphthalene-d8	2000.000	2000.000	0.0	108	0.00
2 T	Naphthalene	500.000	467.723	6.5	103	0.00
3 T	2-Methylnaphthalene	500.000	509.577	-1.9	114	0.00
4 T	1-Methylnaphthalene	500.000	468.198	6.4	104	0.00
5 I	Acenaphthene-d10	2000.000	2000.000	0.0	108	0.00
6 S	2-Fluorobiphenyl	500.000	491.457	1.7	114	0.00
7 T	Acenaphthylene	500.000	460.999	7.8	104	0.00
8 T,M	Acenaphthene	500.000	495.953	0.8	111	0.00
9 I	Phenanthrene-d10	2000.000	2000.000	0.0	109	0.00
10 S	Pyrene-d10	500.000	478.474	4.3	106	0.00
11 T	Fluorene	500.000	469.743	6.1	107	0.00
12 T	Phenanthrene	500.000	478.369	4.3	109	0.00
13 T	Anthracene	500.000	463.147	7.4	104	0.00
14 T	Fluoranthene	500.000	462.221	7.6	105	0.00
15 T,M	Pyrene	500.000	478.523	4.3	107	0.00
16 I	Chrysene-d12	2000.000	2000.000	0.0	107	0.00
17 S	Terphenyl-d14	500.000	515.963	-3.2	117	0.00
18 T	Benzo[a]anthracene	500.000	572.949	-14.6	112	0.00
19 T	Chrysene	500.000	503.004	-0.6	111	0.00
20 I	Perylene-d12	2000.000	2000.000	0.0	109	0.00
21 T	Benzo[b]fluoranthene	500.000	464.205	7.2	106	0.00
22 T	Benzo(j,k)fluoranthene	500.000	480.938	3.8	104	0.00
23 T	Benzo[a]pyrene	500.000	504.247	-0.8	112	0.00
24 T	Indeno(1,2,3-c,d)pyrene	500.000	496.525	0.7	111	0.00
25 T	Dibenz[a,h]anthracene	500.000	469.027	6.2	104	0.00
26 T	Benzo[g,h,i]perylene	500.000	469.927	6.0	106	0.00

(#) = Out of Range

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

CS240820.M Tue Aug 20 15:08:20 2024

Data Path : X:\semivols\Corey\DATA\C240820\  
 Data File : C0820016.D  
 Acq On : 20 Aug 2024 2:48 pm  
 Operator : JP  
 Sample : ICV  
 Misc : SV6-169-07  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 20 15:07:30 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

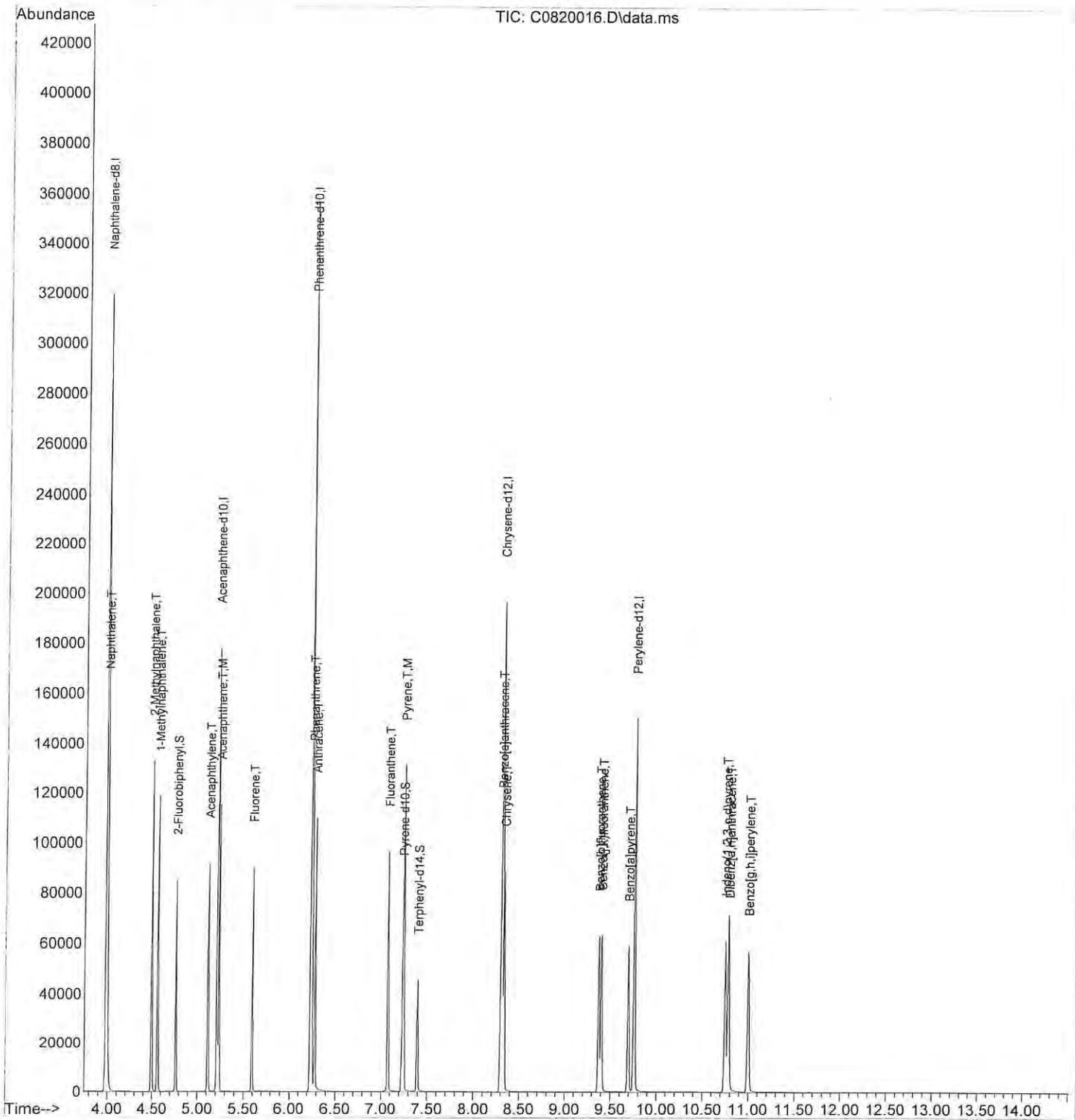
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)	
<b>Internal Standards</b>							
1) Naphthalene-d8	3.986	136	271000	2000.00	ppb	0.00	
5) Acenaphthene-d10	5.220	164	134780	2000.00	ppb	0.00	
9) Phenanthrene-d10	6.236	188	229131	2000.00	ppb	0.00	
16) Chrysene-d12	8.313	240	159586	2000.00	ppb	0.00	
20) Perylene-d12	9.758	264	160474	2000.00	ppb	0.00	
<b>System Monitoring Compounds</b>							
6) 2-Fluorobiphenyl	4.766	172	54532	491.46	ppb	0.00	
Spiked Amount 1000.000	Range 25 - 89		Recovery =	49.15%			
10) Pyrene-d10	7.235	212	49938	478.47	ppb	0.00	
Spiked Amount 1000.000	Range 40 - 110		Recovery =	47.85%			
17) Terphenyl-d14	7.398	244	40282	515.96	ppb	0.00	
Spiked Amount 1000.000	Range 39 - 92		Recovery =	51.60%			
<b>Target Compounds</b>							
							Qvalue
2) Naphthalene	3.994	128	72347	467.72	ppb		98
3) 2-Methylnaphthalene	4.493	142	47949	509.58	ppb		98
4) 1-Methylnaphthalene	4.562	142	44475	468.20	ppb		97
7) Acenaphthylene	5.119	152	68341	461.00	ppb		100
8) Acenaphthene	5.235	153	47859	495.95	ppb		100
11) Fluorene	5.597	166	50298	469.74	ppb		100
12) Phenanthrene	6.247	178	70833	478.37	ppb		96
13) Anthracene	6.282	178	64086	463.15	ppb		96
14) Fluoranthene	7.072	202	66506	462.22	ppb		87
15) Pyrene	7.245	202	70869	478.52	ppb		95
18) Benzo[a]anthracene	8.302	228	59493	572.95	ppb		94
19) Chrysene	8.337	228	59837	503.00	ppb		96
21) Benzo[b]fluoranthene	9.375	252	59339	464.20	ppb		87
22) Benzo[j,k]fluoranthene	9.404	252	59444	480.94	ppb		89
23) Benzo[a]pyrene	9.694	252	53550	504.25	ppb		88
24) Indeno(1,2,3-c,d)pyrene	10.750	276	56202	496.53	ppb		81
25) Dibenz[a,h]anthracene	10.789	278	54373	469.03	ppb		82
26) Benzo[g,h,i]perylene	11.005	276	56357	469.93	ppb		77

JP  
8/20/24

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

Data Path : X:\semivols\Corey\DATA\C240820\  
 Data File : C0820016.D  
 Acq On : 20 Aug 2024 2:48 pm  
 Operator : JP  
 Sample : ICV  
 Misc : SV6-169-07  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 20 15:07:30 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data Path : X:\semivols\Corey\DATA\C240823\  
 Data File : C0823001.D  
 Acq On : 23 Aug 2024 8:19 am  
 Operator : JP  
 Sample : PAH CCV0823-1  
 Misc : SV6-169-16  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 23 08:34:10 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound		Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Naphthalene-d8	2000.000	2000.000	0.0	123	0.00
2 T	Naphthalene	500.000	480.065	4.0	120	0.00
3 T	2-Methylnaphthalene	500.000	484.514	3.1	123	0.00
4 T	1-Methylnaphthalene	500.000	481.325	3.7	123	0.00
5 I	Acenaphthene-d10	2000.000	2000.000	0.0	130	0.00
6 S	2-Fluorobiphenyl	500.000	472.034	5.6	131	0.00
7 T	Acenaphthylene	500.000	474.422	5.1	129	0.00
8 T,M	Acenaphthene	500.000	455.546	8.9	122	0.00
9 I	Phenanthrene-d10	2000.000	2000.000	0.0	132	0.00
10 S	Pyrene-d10	500.000	478.705	4.3	128	0.02
11 T	Fluorene	500.000	459.619	8.1	127	0.00
12 T	Phenanthrene	500.000	460.851	7.8	127	0.00
13 T	Anthracene	500.000	472.048	5.6	129	0.00
14 T	Fluoranthene	500.000	461.008	7.8	127	0.02
15 T,M	Pyrene	500.000	470.484	5.9	128	0.02
16 I	Chrysene-d12	2000.000	2000.000	0.0	133	0.01
17 S	Terphenyl-d14	500.000	509.486	-1.9	143	0.02
18 T	Benzo[a]anthracene	500.000	548.028	-9.6	133	0.02
19 T	Chrysene	500.000	476.344	4.7	130	0.02
20 I	Perylene-d12	2000.000	2000.000	0.0	134	0.01
21 T	Benzo[b]fluoranthene	500.000	470.623	5.9	133	0.01
22 T	Benzo(j,k)fluoranthene	500.000	476.605	4.7	128	0.01
23 T	Benzo[a]pyrene	500.000	488.435	2.3	134	0.01
24 T	Indeno(1,2,3-c,d)pyrene	500.000	471.693	5.7	130	0.00
25 T	Dibenz[a,h]anthracene	500.000	469.250	6.2	128	0.00
26 T	Benzo[g,h,i]perylene	500.000	465.812	6.8	129	0.00

(#) = Out of Range

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

Data Path : X:\semivols\Corey\DATA\C240823\  
 Data File : C0823001.D  
 Acq On : 23 Aug 2024 8:19 am  
 Operator : JP  
 Sample : PAH CCV0823-1  
 Misc : SV6-169-16  
 ALS Vial : 1 Sample Multiplier: 1

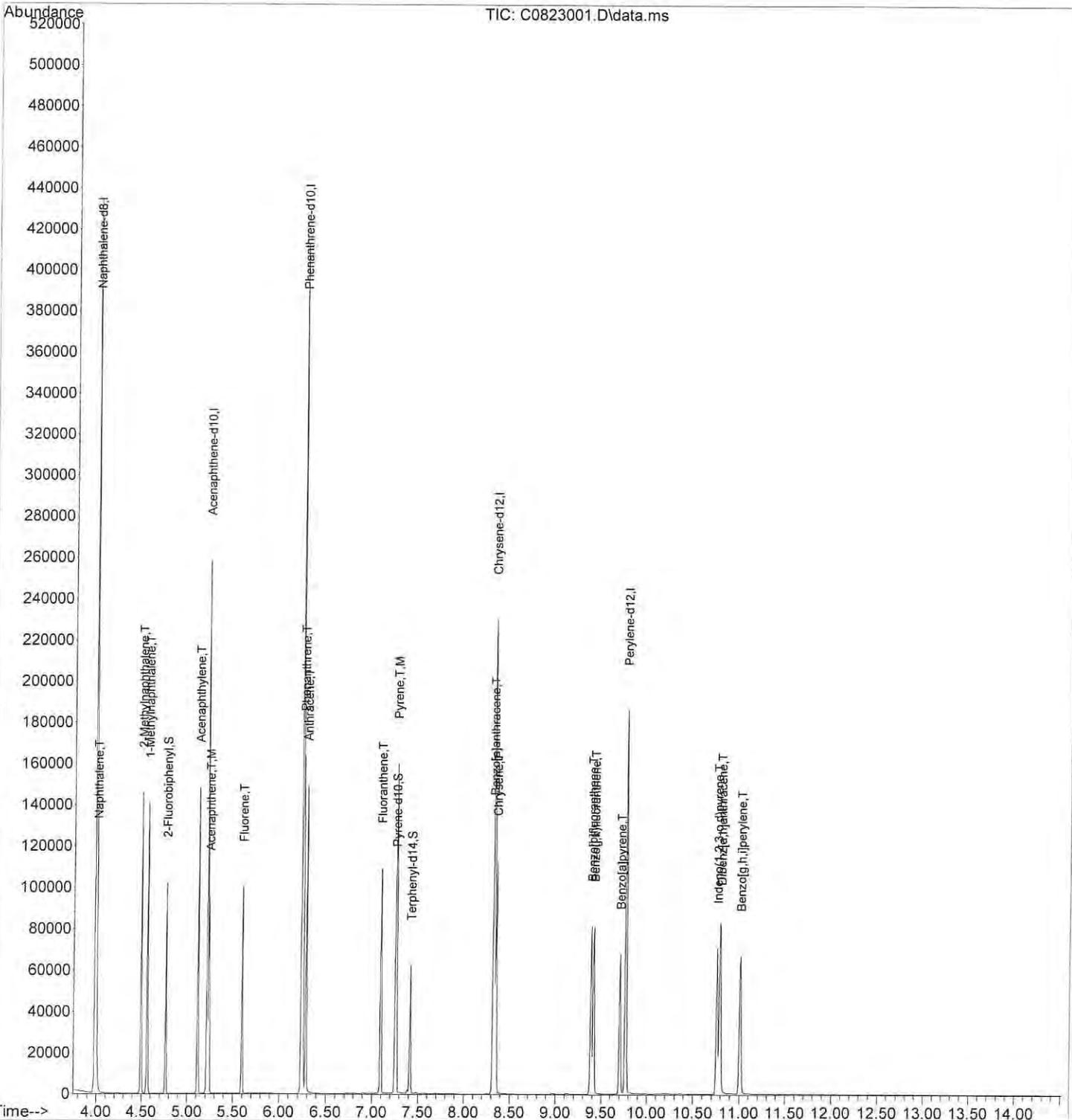
Quant Time: Aug 23 08:34:10 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Naphthalene-d8	3.986	136	309473	2000.00	ppb	0.00
5) Acenaphthene-d10	5.219	164	161939	2000.00	ppb	0.00
9) Phenanthrene-d10	6.241	188	277798	2000.00	ppb	0.00
16) Chrysene-d12	8.330	240	197824	2000.00	ppb	0.01
20) Perylene-d12	9.771	264	197788	2000.00	ppb	0.01
System Monitoring Compounds						
6) 2-Fluorobiphenyl	4.767	172	62931	472.03	ppb	0.00
Spiked Amount	1000.000	Range 25 - 89	Recovery =	47.20%		
10) Pyrene-d10	7.254	212	60574	478.71	ppb	0.02
Spiked Amount	1000.000	Range 40 - 110	Recovery =	47.87%		
17) Terphenyl-d14	7.417	244	49307	509.49	ppb	0.02
Spiked Amount	1000.000	Range 39 - 92	Recovery =	50.95%		
Target Compounds						
						Qvalue
2) Naphthalene	4.001	128	84798	480.07	ppb	98
3) 2-Methylnaphthalene	4.494	142	52063	484.51	ppb	98
4) 1-Methylnaphthalene	4.563	142	52213	481.33	ppb	98
7) Acenaphthylene	5.119	152	84503	474.42	ppb	100
8) Acenaphthene	5.234	153	52818	455.55	ppb	100
11) Fluorene	5.596	166	59667	459.62	ppb	100
12) Phenanthrene	6.253	178	82733	460.85	ppb	95
13) Anthracene	6.287	178	79191	472.05	ppb	96
14) Fluoranthene	7.091	202	80420	461.01	ppb	89
15) Pyrene	7.264	202	84478	470.48	ppb	95
18) Benzo[a]anthracene	8.319	228	70600	548.03	ppb	95
19) Chrysene	8.353	228	70243	476.34	ppb	97
21) Benzo[b]fluoranthene	9.388	252	74148	470.62	ppb	89
22) Benzo[j,k]fluoranthene	9.417	252	72606	476.61	ppb	91
23) Benzo[a]pyrene	9.707	252	63932	488.43	ppb	89
24) Indeno(1,2,3-c,d)pyrene	10.759	276	65806	471.69	ppb	82
25) Dibenz[a,h]anthracene	10.798	278	67048	469.25	ppb	84
26) Benzo[g,h,i]perylene	11.014	276	68853	465.81	ppb	80

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

Data Path : X:\semivols\Corey\DATA\C240823\  
 Data File : C0823001.D  
 Acq On : 23 Aug 2024 8:19 am  
 Operator : JP  
 Sample : PAH CCV0823-1  
 Misc : SV6-169-16  
 ALS Vial : 1 Sample Multiplier: 1

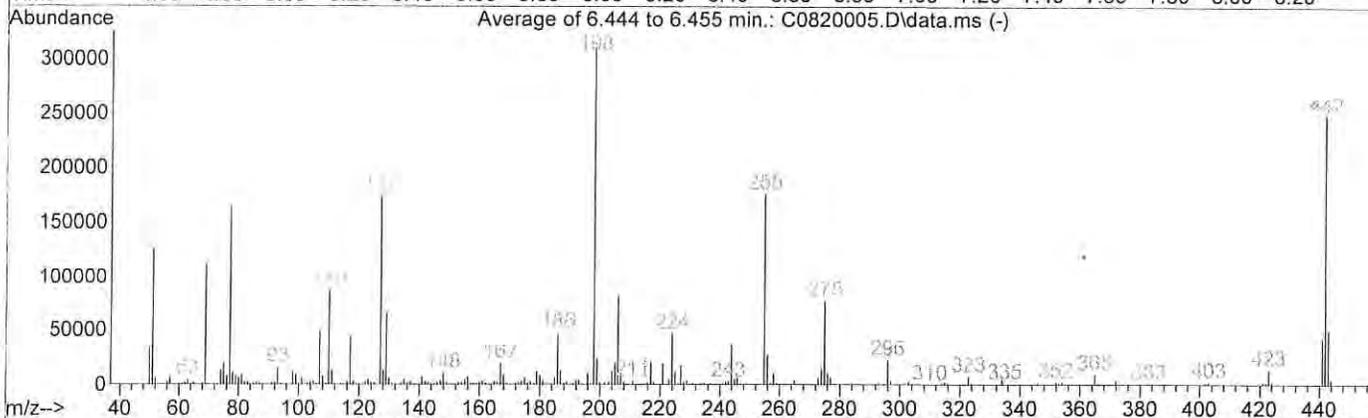
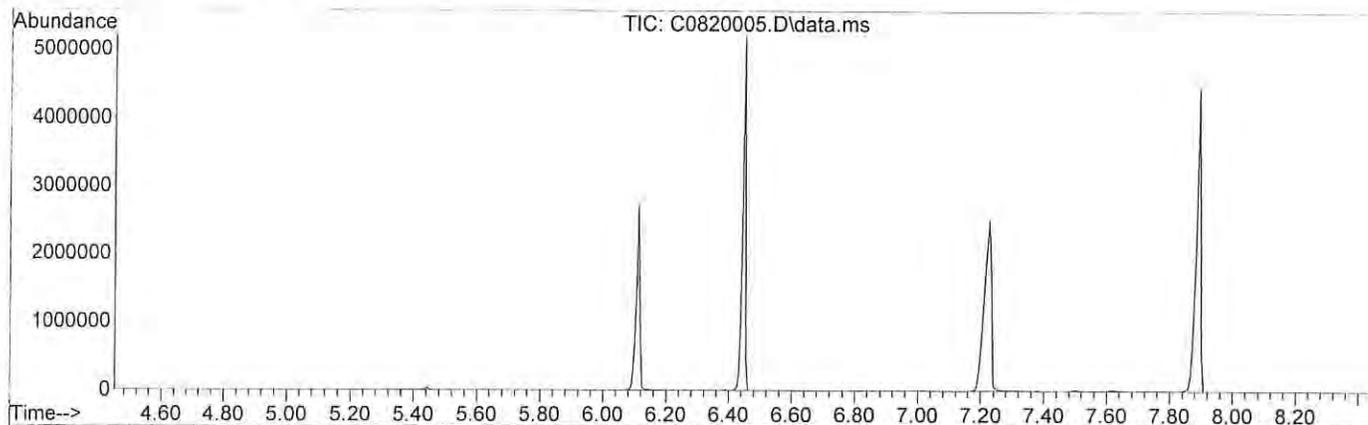
Quant Time: Aug 23 08:34:10 2024  
 Quant Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Quant Title : PAH'S BY SIMS  
 QLast Update : Tue Aug 20 14:46:01 2024  
 Response via : Initial Calibration



Data Path : X:\semivols\Corey\DATA\C240820\  
 Data File : C0820005.D  
 Acq On : 20 Aug 2024 10:46 am  
 Operator : JP  
 Sample : DFTPP  
 Misc : SV6-164-02  
 ALS Vial : 5 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\CS240820.M  
 Title : PAH'S BY SIMS  
 Last Update : Tue Aug 20 14:46:01 2024



AutoFind: Scans 587, 588, 589; Background Corrected with Scan 579

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	40.4	125383	PASS
68	69	0.00	2	1.6	1765	PASS
69	198	0.00	100	36.4	112712	PASS
70	69	0.00	2	0.6	692	PASS
127	198	10	80	55.8	173043	PASS
197	198	0.00	2	0.3	970	PASS
198	198	100	100	100.0	310074	PASS
199	198	5	9	7.5	23293	PASS
275	198	10	60	24.8	76913	PASS
365	198	0.10	100	3.0	9269	PASS
441	443	0.01	100	86.5	42704	PASS
442	198	40	110	80.2	248768	PASS
443	442	15	24	19.8	49349	PASS

GC/MS QA-QC Check Report

Tune File : X:\semivols\Corey\DATA\C240820\C0820016.D  
 Tune Time : 20 Aug 2024 2:48 pm

Daily Calibration File : X:\semivols\Corey\DATA\C240820\C0820016.D

(PRY)	(NPT)	(ACE)	(PHN)
	271000	134780	229131
	(CRY)	(PRY)	
	159586	160474	

File	Sample	Surrogate Recovery %			Internal Standard Responses		
=====							
C0820008.D	10 PPB ICA	1*	1*	1*	272423	135898	224899
					159671	156301	
-----							
C0820009.D	20 PPB ICA	2*	2*	2*	255401	127972	216084
					150861	149196	
-----							
C0820010.D	50 PPB ICA	5*	5*	5*	262973	130108	222578
					154657	152859	
-----							
C0820011.D	100 PPB IC	10*	10*	10*	268800	130360	224043
					156385	154650	
-----							
C0820012.D	200 PPB IC	19*	20*	20*	272185	130802	218074
					153276	151261	
-----							
C0820013.D	500 PPB IC	47	49	47	250949	124990	210314
					148965	147386	
-----							
C0820014.D	1000 PPB I	90*	96	94*	261767	133166	224315
					160187	158552	
-----							
C0820015.D	5000 PPB I	395*	440*	425*	257964	134391	222643
					166597	160873	
-----							

(fails) - fails 12hr time check \* - fails criteria

Created: Fri Aug 23 12:54:48 2024 Corey

GC/MS QA-QC Check Report

Tune File : X:\semivols\Corey\DATA\C240823\C0823001.D  
 Tune Time : 23 Aug 2024 8:19 am

Daily Calibration File : X:\semivols\Corey\DATA\C240823\C0823001.D

(PRY)	(NPT)	(ACE)	(PHN)
	309473	161939	277798
	(CRY)	(PRY)	
	197824	197788	

File	Sample	Surrogate Recovery %			Internal Standard Responses		
C0823009.D	SB0823W1	56	85	83	271798	145509	252884
			185069		184526		
C0823010.D	SB0823W1 D	49	79	80	288414	151404	262831
			191949		190703		
C0823012.D	MB0823W1	74	80	88	288142	151270	265799
			189942		189307		
C0823014.D	08-224-02	45	85	90	298541	151315	259320
			184282		185879		
C0823015.D	08-224-03	38	71	73	284441	148849	262638
			187083		188559		
C0823016.D	08-224-04	50	71	73	288916	145442	255001
			180189		180969		
C0823017.D	08-224-05	42	73	75	276828	146036	256428
			185074		182704		
C0823018.D	08-224-01	59	80	79	303583	157679	269556
			175491		176403		

(fails) - fails 12hr time check \* - fails criteria

Created: Fri Aug 23 15:19:04 2024 Corey

Sequence Name: C:\msdchem\1\sequence\C240820.S

Comment:

Operator: JP

Data Path: C:\MSDCHEM\1\DATA\C240820\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run      On A Barcode Mismatch  
(X) Full Method              (X) Inject Anyway  
( ) Reprocessing Only        ( ) Don't Inject

-----

Line		Sample Name/Misc Info
1)	Sample	1 C0820001 CS240819 M
2)	Sample	2 C0820002 CS240819 TEST
3)	Sample	3 C0820003 CS240819 TEST
4)	Sample	4 C0820004 CS240819 TEST
5)	Sample	5 C0820005 CSIMSCAN DFTPP
6)	Sample	6 C0820006 CS240819 M
7)	Sample	7 C0820007 CS240819 M
8)	Sample	8 C0820008 CS240819 10 PPB ICAL
9)	Sample	9 C0820009 CS240819 20 PPB ICAL
10)	Sample	10 C0820010 CS240819 50 PPB ICAL
11)	Sample	11 C0820011 CS240819 100 PPB ICAL
12)	Sample	12 C0820012 CS240819 200 PPB ICAL
13)	Sample	13 C0820013 CS240819 500 PPB ICAL
14)	Sample	14 C0820014 CS240819 1000 PPB ICAL
15)	Sample	15 C0820015 CS240819 5000 PPB ICAL
16)	Sample	16 C0820016 CS240819 ICV



Work continued from Page		Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Init	Date	
200 ICAL #1	<del>SV614701</del>	SV614701	SV614641	1000 ppm	1 mL	5 mL	200 ppm	MeCl <sub>2</sub>	JP	3/26/24
5	ICAL #2	SV614702	SV614645	1	1 mL					
			16	2000 ppm	0.5 mL					
			17	4000 ppm	0.25 mL					
	<del>RNA</del> CV	SV614703	SV614712	200 ppm	60/60 µL	200 µL	60 ppm	MeCl <sub>2</sub>	JP	3/26/24
	50	04			50/50		50			
	35	05			35/35		35			
10	20	06			40/40	400 µL	20			
	10	07			10/10	200 µL	10			
	5	08	SV614706	20 ppm	50		5			
	2	09			20		2			
	1	10			10		1			
15	0.5	11			5		0.5			
	10	12	SV613704601	200 ppm	20/20		20			
	PAH CV	SV614713	SV613809	10 ppm	200 µL/10 µL	200 µL	500 ppb	MeCl <sub>2</sub>	JP	3/26/24
	BNA CV	14	SV614712	200 ppm	20/20 µL		20 ppm			
	BNA CV	15								
20	PAH CV	16	SV613809	10	10 µL		500 ppb			
	PAH CV	17								
	BNA CV	18	SV614712	200	20/20 µL		20 ppm			
	BNA CV	19	SV614712							
	PAH CV	20	SV613809	10	10 µL		500 ppb	JP		3/29/24
25	PAH CV	21	SV613809					JP		4/11/24
	BNA CV	22	SV614712	200	20/20 µL		20 ppm			
	PAH CV	23								4/2/24
	PAH CV	24	SV613809	10	10 µL		500 ppb	JP		4/12/24
	BNA CV	25	SV614712	200	20/20 µL		20 ppm			4/13/24
30	PAH Mix	SV614726								

**LRAD2030**  
30/04/25  
Ex. No. 008881

**CRM47543**  
Polynuclear Aromatic Hydrocarbons Mix  
certified reference material,  
2000 µg/mL, each component in  
benzene: dichloromethane (50:50).

(Contains: Methylene chloride, Benzene, 3,4-Benzopyrene)

Contains 3,4-Benzopyrene. May produce an allergic reaction. For LRAD use only. Not for drug, household, or other uses. May produce an allergic reaction. Store at +2° C to +8° C. SDS available.

Made in USA

EN Danger May cause genetic defects. May cause cancer. Causes damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways. IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Do NOT induce vomiting.

sigmaaldrich.com

SCM-A-ALDRICH Co. 300 Spence Street, St. Louis, MO 63103 USA  
+1-314-771-5700  
SIGMA-ALDRICH CHEMIE GmbH, Steinbühl, D-62562 Steinheim, Germany +49-7143-209-0

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nued to Page  
DATE

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Work continued from Page	Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	In it	Date
5	<del>SWV148 BIN Mix</del>	SWV14801	10							
	DATA CV	02	SV014726	2000 ppm	50 mL	10 mL	10 ppm			
	Stock		14801	1000	100 mL					
10	DATA CV	03	SV014802	10 ppm	10 mL	200 mL	500 ppb			4/14/24
	OPP A	SV014804								
15	OPP A	05								
20	OPP B	06								
25	OPP B	07								
25	OPP ICAL A	08	SV014804	200 ppm	100 µL	2 mL	10 ppm	MecIn		
			SV013416	1000 ppm	20					
	OPP ICAL	09	SV014806	200 ppm	100					
	OPP ICV ICAL A	10	SV014805	1	100					
			SV013501	1000 ppm	20					
30	OPP ICV B	11	SV014807	200 ppm	100					
	OPP 200	2007	SV0148819	10 ppm	414 µL	200 µL	200 ppb			
	500	13			10/10		500			
	1000	14			20/20		1000			
	2000	15			40/40		2000			
35	3000	16			60/60		3000			
		17			80/80		10000			

**RESTEK**  
31887  
110 Benner Circle Bellefonte, PA 16823  
814-353-1300  
www.restek.com

Warning

Lot# A0207600  
Expire: 01/2030  
Revised BIN Sumgale Mix  
1000 µg/mL each in Methylene chloride  
Sonication required Mix is photosensitive  
Full label information for the chemical is provided on the outside package

Store: 10°C or colder

Receipt Date: \_\_\_\_\_  
Opened Date: \_\_\_\_\_  
Made in USA

1 mL

For Laboratory Use Only

**RESTEK**  
32277  
110 Benner Circle Bellefonte, PA 16823  
814-353-1300  
www.restek.com

Danger

Lot# A0203600  
Expire: 10/2024  
9140B141 OP Pesticide Calibration Mix A  
200 µg/mL each in Hexane/Acetone (60:20)  
This product is photosensitive  
Full label information for the chemical is provided on the outside package

Store: 10°C or colder

Receipt Date: \_\_\_\_\_  
Opened Date: \_\_\_\_\_  
Made in USA

1 mL

For Laboratory Use Only

**RESTEK**  
32277  
110 Benner Circle Bellefonte, PA 16823  
814-353-1300  
www.restek.com

Danger

Lot# A0205272  
Expire: 12/2024  
9140B141 OP Pesticide Calibration Mix A  
200 µg/mL each in Hexane/Acetone (60:20)  
This product is photosensitive  
Full label information for the chemical is provided on the outside package

Store: 10°C or colder

Receipt Date: \_\_\_\_\_  
Opened Date: \_\_\_\_\_  
Made in USA

1 mL

For Laboratory Use Only

**RESTEK**  
32278  
110 Benner Circle Bellefonte, PA 16823  
814-353-1300  
www.restek.com

Danger

Lot# A0204002  
Expire: 11/2024  
9141 OP Pesticide Calibration Mix B  
200 µg/mL each in Hexane/Acetone (65:5)  
This product is photosensitive  
Full label information for the chemical is provided on the outside package

Store: 10°C or colder

Receipt Date: \_\_\_\_\_  
Opened Date: \_\_\_\_\_  
Made in USA

1 mL

For Laboratory Use Only

**RESTEK**  
32278  
110 Benner Circle Bellefonte, PA 16823  
814-353-1300  
www.restek.com

Danger

Lot# A0202657  
Expire: 09/2024  
9141 OP Pesticide Calibration Mix B  
200 µg/mL each in Hexane/Acetone (65:5)  
This product is photosensitive  
Full label information for the chemical is provided on the outside package

Store: 10°C or colder

Receipt Date: \_\_\_\_\_  
Opened Date: \_\_\_\_\_  
Made in USA

1 mL

For Laboratory Use Only

Work continued to Page

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Work continued from Page		Stock	Stock	Final	Final	Solvent	Unit	Date
Analyte	Lab ID	Stock ID	Conc	Vol	Vol	Conc		
<del>SV6155</del> Dimethyl Phthalate	SV615501						JP	5/20/24
		<b>AccuStandard®</b> 125 Market St. New Haven, CT 06513 www.AccuStandard.com <b>APP-9-088-10X</b> Dimethyl phthalate 1000 µg/mL in Methanol Lot: 221121015 Exp: Mar 03, 2030 PRODUCT OF THE USA		1 mL 1 comp(s) Storage: Ambient (>5 °C)				
8270 MDL Splice A	SV615502	SV612509	1000 ppm	100 µL	10 mL	10 ppm	Acetone	
8270 MDL Splice B	03	SV613419	1000	1000		100		
8270 MDL Extra #1	04	SV613620	2000	250		50		
		02		250		50		
		03	5000	100		50		
		04	1000	500		50		
		05	2000	250		50		
8270 MDL Extract #2	05	SV615501	1000	1000		100		
		SV612607	2000	5		1		
33: Pichlorazidine	06	SV612601	2000	250		50		
20 PAF Splice	SV615507	SV613708	100 ppm	2.5 mL	50 mL	5 ppm	Acetone	5/20/24
OPP 1STD	SV615508	SV613510	1000 ppm	320 µL	8 mL	40 ppm	Meth	5/21/24
OPP 200	SV615509	SV6148819	10 ppm	4/4 µL	200 µL	200 ppb		
	10			10/10		500		
	11			20/20		1000		
	12			40/40		2000		
	13			60/60		3000		
	14			80/80		4000		
	15	SV614810/11		20/20		1000		
8270 CALM x HS	16							
		31995 8270 Calibration Mix #5, Revised Lot# A0191064 Expire: 09/2028 Store: 10°C or colder 2000 µg/mL each in Methylene Chloride <b>RESTEK</b>		US/EN 1 mL 5 µL required				
PAH Splice	17	SV615516	2000 ppm	1 mL	20 mL	100 ppm	Meth	
PAH Splice	18	SV615517	1000 ppm	2.5 mL	50 mL	5 ppm	Acetone	

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Work continued to Page

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Work continued from Page	Stock	Stock	Stock	Final	Final	Solvent	Intr	Date	
Analyte	Lab ID	ID	Conc	Vol	Vol	Conc			
BNA CCV	SV015801	SV014714	200ppm	20/20ml	200µl	20ppm	Mecl2	JP	6/12/24
PAH CCV	SV015802	SV013809	10ppm	10ml	↑	500ppb	↑	JP	6/13/24
PAH CCV	03	↑	↑	↑	↑	↑	↑	JP	6/14/24
BNA CCV	04	SV014714	200µM	20/20ml	↑	20ppm	↑	JP	6/14/24
8270	05	↑	↑	↑	↑	↑	↑	JP	6/14/24
Megamix									
Custom Stock	06								
8270 Site #1	07	SV015805	100ppm	1ml	5ml	200ppm	Acetone	JP	6/14/24
↓ #2	08	SV015806	↓	↓	↓	↓	↓	JP	6/14/24
BNA CCV	SV015809	SV014741L	200ppm	20/10 µl	200µl	20ppm	Mecl2	JP	6/14/24
PAH CCV	↑ 10	SV013809	10ppm	10 µl	↑	500ppb	↓	JP	6/14/24
Revised BNA SWR	SV015811								
PAH SWR	SV015812	SV015811	100ppm	1ml	100ml	10ppm	Acetone	JP	6/17/24
BNA CCV	SV015813	SV014712	200ppm	20/20ml	20µl	↑	Mecl2	JP	6/17/24
PAH CCV	↑ 14	SV013809	10ppm	10ml	↓	↑	↑	JP	6/17/24
Revised BNA SWR	SV015815								
PAH Working Stock	JP 6/17/24	SV015816	SV015815	10ppm	↑	↑	↑	JP	6/17/24
8270 Cal Mix #5	SV015816								

**RESTEK**  
31850  
110 Banner Circle Bellefonte, PA 16823  
814-353-1300  
www.restek.com

Lot# A0231725  
Expire 04/2025  
8270 Megamix®  
500-1000 µg/mL each in Methylene Chloride  
Sonication required Mix is photosensitive  
Full label information for the chemical is provided on the outside package

Warning Danger  
Store 0°C or colder  
Receipt Date: \_\_\_\_\_  
Opened Date: \_\_\_\_\_  
Made in USA  
For Laboratory Use Only

**AccuStandard®** 125 Market St. New Haven, CT 06513  
www.AccuStandard.com

S-15651  
Custom SVOC and VOC Standard  
1000 µg/mL in Methylene chloride  
Lot: 224021347  
Exp: Mar 26, 2025  
PRODUCT OF THE USA

1 mL  
5 comp(s)  
Storage: Freeze (<-10 °C)  
FOR LABORATORY USE ONLY

H315 H335  
H332 H302  
H350 H350  
P338 P360  
P331 P233  
P262 P202  
Refer to SDS

Signal Word: Warning

**RESTEK**  
31887  
110 Banner Circle Bellefonte, PA 16823  
814-353-1300  
www.restek.com

Lot# A0203840  
Expire 03/2029  
Revised BNA Sumogate Mix  
1000 µg/mL each in Methylene chloride  
Sonication required Mix is photosensitive  
Full label information for the chemical is provided on the outside package

Warning  
Store 10°C or colder  
Receipt Date: \_\_\_\_\_  
Opened Date: \_\_\_\_\_  
Made in USA  
For Laboratory Use Only

**RESTEK**  
31887  
110 Banner Circle Bellefonte, PA 16823  
814-353-1300  
www.restek.com

Lot# A0197406  
Expire 03/2029  
Revised BNA Sumogate Mix  
1000 µg/mL each in Methylene chloride  
Sonication required Mix is photosensitive  
Full label information for the chemical is provided on the outside package

Warning  
Store 10°C or colder  
Receipt Date: \_\_\_\_\_  
Opened Date: \_\_\_\_\_  
Made in USA  
For Laboratory Use Only

**RESTEK**  
31995  
8270 Calibration Mix #5 Revised  
Lot# A0191064  
Expire: 09/2028  
2000 µg/mL each in Methylene Chloride

US/EN  
Sonication required

1 mL

Work continued from Page		Stock	Stock	Stock	Final	Final	Solvent	Int	Date
Analyte	Lab ID	ID	Conc	Vol	Vol	Conc			
PAH Working Stock	SV615901	SV615816	2000ppm	50ml	10ml	10ppm	MeCl <sub>2</sub>	JP	6/17/24
		15	100ppm	100ml					
5 PAH 5000	SV615902	SV615901	10ppm	500ml	1ml	500ppb			
1000	03			100		100			
500	04			50		500			
200	05			20		200			
100	06			10		100			
10	07	SV615903	1000ppb	50		50			
50	08			20		20			
20	09			10		10			
10	10								
100		SV614802	10ppm	10ml		500			
Diox 100	SV615911	SV6151-11			200ml	10ppm		JP	6/18/24
15 PAH CCU	SV615912	SV615901							
BNA CCU	SV615913	SV6147112	200ppm	20/20ml	200ml	20ppm	MeCl <sub>2</sub>		
Diox CCU	SV615914	SV615110	10ppm	10ml	200ml	500ppb		JP	6/19/24
PAH CCU	15	SV615901							
PAH CCU	SV615916							JP	6/20/24
20 PAH CCU	SV615917							JP	6/24/24
PAH 100	SV615918	SV614802							
PAH CCU	SV615919	SV615901							6/25/24
BNA CCU	SV615920	SV6147112	200ppm	20/20ml		20ppm			
PAH CCU	SV615921	SV615901	10ppm	10ml	200ml	500ppb	MeCl <sub>2</sub>	JP	6/26/24
25 PAH CCU	SV615922							JP	6/27/24
PAH CCU	4 23							JP	6/28/24
BNA CCU	24	SV613815 SV614601	200ppm	20/20ml		20ppm			
BNA CCU	SV615925	SV6147112	200ppm	20/20ml	200ml	20ppm	MeCl <sub>2</sub>	JP	7/1/24
PAH CCU	SV615926	SV615901	10ppm	10ml		500ppb			
30 OPP 200	SV615927	SV61481011		4/4 ml		200ppb	MeCl <sub>2</sub>	JP	7/2/24
500	28			10/10		500			
1000	29			20/20		1000			
2000	30			40/40		2000			
3000	31			60/60		3000			
4000	32			80/80		4000			
1000	33	SV6148319		20/20		1000			

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Work continued to Page

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

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Work continued from Page		Stock	Stock	Stock	Final	Final	Solvent	Init	Date	
Analyte	Lab ID	ID	Conc	Vol	Vol	Conc				
DPP	200	SV616301	SV614810/11	10ppm	4/4 µL	200µL	200 ppb	MeCl <sub>2</sub>	JP	7/25/24
	500	02			10/10		500			
	1000	03			20/20		1000			
	2000	04			40/40		2000			
	3000	05			60/60		3000			
	4000	06			80/80		4000			
	100	07	SV61488/9		20/20		1000			
BNA CW		08	SV616115 14601	20ppm	20/20 µL		20ppm			
PAH CW		09	SV615901	10ppm	10 µL		500ppb			
OPP 1CW		10	SV616310	1	20/20 µL		1000ppb			
BNA CW		11	SV614711L	200ppm	20/20 µL		20ppm	JP	7/26/24	
PAH CW		12	SV615901	10ppm	10 µL		500ppb			
OPP 200		13	SV614810/11		4/4 µL		200			
	500	14			10/10		500			
	1000	15			20/20		1000			
	2000	16			40/40		2000			
	3000	17			60/60		3000			
	4000	18			80/80		4000			
	100	19	SV61488/9		20/20		1000			
ISTD Mar		20	SV616320					JP	7/29/24	
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p><b>AccuStandard</b>® 125 Market St, New Haven, CT 06513 www.AccuStandard.com</p> <p><b>Z-014J</b> 1 mL Internal Standard Mix 4.0 mg/mL in CH<sub>2</sub>Cl<sub>2</sub> Lot: 223061537 6 comp(s) Exp: Jun 28, 2033 Storage: Ambient (&gt;5 °C)/Sonicate PRODUCT OF THE USA FOR LABORATORY USE ONLY</p> </div> <div style="width: 35%; text-align: right;"> <p>H315 H335 H332 H302 H351 H350 P338 P361 P331 P233 P262 P202 Refer to SDS</p> <p>Signal Word: Warning</p>  </div> </div>										
PAH ISTD		21	SV616320	400ppm	0.5 µL	50 µL	40ppm	MeCl <sub>2</sub>	JP	7/26/24
PAH 1CW		22	SV614802	10ppm	10 µL	200 µL	500ppb	MeCl <sub>2</sub>	JP	7/29/24
PAH CW		23	SV615901	1	1	1	1			
OPP 200		24	SV614810/11	10ppm	4/4 ppb	200 µL	200 ppb		JP	7/30/24
	500	25			10/10		500			
	1000	26			20/20		1000			
	2000	27			40/40		2000			
	3000	28			60/60		3000			
	4000	29			80/80		4000			
	100	30	SV61488/9		20/20		1000			

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Work continued from Page	Stock	Stock	Stock	Final Stock Vol	Final Conc	Solvent	Int	Date	
Analyte	Lab ID	ID	Conc	Vol	Conc				
BNA CW	SV616401	SV61615 14601	200ppm	20/20µL	200µL	20ppm	MeCl <sub>2</sub>	JP	7/30/24
DFTPP	SV616402							JP	7/30/24
<p><b>LRAD2841</b>                      31/08/25                      (Exp. Date 03/2027)</p> <p><b>47387</b>                      EPA 8270 GC-MS Tuning Solution                      certified reference material,                      50 µg/mL each component in dichloro-                      methane</p> <p>(Contains: Methylene chloride)</p> <p>Store under inert gas. For RAD use only. Not for drug, household, or other uses.                      Store at +2°C to +8°C. SDS available.</p> <p>Made in USA</p> <p>sigmaldrich.com</p> <p>SIGMA-ALDRICH Co. 3350 Spruce Street, St. Louis, MO 63103 USA                      +1 314 771 5700                      SIGMA-ALDRICH (EU) GmbH, Reckart 2, 85558 Steinheim, Germany +49 7141 20 970</p>									
PAH CW	SV616403	SV61590	10ppm	10µL	200µL	500ppb	MeCl <sub>2</sub>	JP	7/31/24
PAH CW	SV616404	SV614802						JP	8/1/24
PAH CW	SV616405	SV61590						JP	8/1/24
BNA CW	SV616406	SV61615 14601	200ppm	20/20µL		70ppm		JP	8/1/24
PAH CW	SV616407	SV614802	10ppm	10µL	200µL	500ppb		JP	8/2/24
OPP 200	08	SV614810/4	10ppm	1/4 µL		200 ppb		JP	8/2/24
500	09			10/10		500			
1000	10			20/20		1000			
200	11			40/40		2000			
3000	12			60/60		3000			
4000	13			80/80		4000			
100	14	SV6148819		20/20		1000			
PAH CW	15	SV61590		10µL		500ppb			
BNA CW	16	SV6147112	200ppm	20/20µL		20ppm			
PAH CW	17	SV614802	10ppm	10µL		500 ppb			
PAH 5000	18	SV61590		500µL		5000 ppb			
1000	19			100		1000			
500	20			50		500			
200	21			20		200			
100	22			10		100			
50	23	SV616419	1000ppb	50		50			
20	24			20		20			
10	25			10		10			
PAH CW	26	SV61590	10ppm	10	200µL	500		JP	8/5/24



EN Warning Suspected of causing cancer.  
 Harmful to aquatic life with long lasting effects. Do not handle until all safety precautions have been read and understood. IF exposed or concerned: Get medical advice/ attention.



Made in USA

sigmaldrich.com



SIGMA-ALDRICH Co. 3350 Spruce Street, St. Louis, MO 63103 USA  
 +1 314 771 5700  
 SIGMA-ALDRICH (EU) GmbH, Reckart 2, 85558 Steinheim, Germany +49 7141 20 970

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Work continued to Page

Work continued from Page		Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Init	Date
PAH	CCV	SV616801	SV615901	10ppm	10µl	200ppt	MeCl <sub>2</sub>	JP	8/14/24
PAH	CCV	02	↓	↓	↓	↓	MeCl <sub>2</sub>	JP	8/15/24
BNA	CCV	03	SV6166516	2000ppm	20/20µl	20ppm	↓	↓	↓
BNA	60	04	SV6167213	200ppm	60 µl each	60 ppm	↓	↓	↓
	50	05	↓	↓	50	50	↓	↓	↓
	35	06	↓	↓	35	35	↓	↓	↓
	20	07	↓	↓	40	20	↓	↓	↓
	10	08	↓	↓	10	10	↓	↓	↓
	5	09	SV616807	20ppm	40	5	↓	↓	↓
	2	10	↓	↓	20	2	↓	↓	↓
	1	11	↓	↓	10	1	↓	↓	↓
	0.5	12	↓	↓	5	0.5	↓	↓	↓
	1µl	13	SV6166516	20ppm	20µl each	20	↓	↓	↓
PAH	CCV	SV616814	SV614802	10ppm	10µl	500ppt	↓	↓	↓
BNA	20	15	SV6167213	200ppm	20/20µl	20ppm	↓	↓	↓
BNA	1µl	16	SV616151600	↓	↓	↓	↓	↓	↓
BNA	1µl	17	↓	↓	↓	↓	↓	↓	↓
PAH	5000	SV616818	SV615901	10ppm	500 µl	1ml	5000 ppt	JP	8/16/24
	1000	19	↓	↓	100	1000	↓	↓	↓
	500	20	↓	↓	50	500	↓	↓	↓
	200	21	↓	↓	20	200	↓	↓	↓
	100	22	↓	↓	10	100	↓	↓	↓
	50	23	SV616819	1000 ppt	50	50	↓	↓	↓
	20	24	↓	↓	20	20	↓	↓	↓
	10	25	↓	↓	10	10	↓	↓	↓
PAH	CCV	26	SV614802	10ppm	10	200µl	MeCl <sub>2</sub>	JP	8/16/24
BNA	CCV	27	SV6167213	200ppm	20/20	↓	↓	↓	↓
B/N Sum		28							
PAH Sum		29	SV616825	100ppm	1µl	100µl	Acetone	JP	8/16/24
PAH	CCV	SV616830	SV615901	10ppm	10µl	200µl	MeCl <sub>2</sub>	↓	↓

RESTEK 31887  
 Lot# A0207660  
 Expiry 01/2030 Store: 10°C or colder  
 Reversed BIN Surrogate Mix  
 1000 µg/mL each in Methylene chloride  
 Sonication required Mix is photosensitive  
 Full label information for the chemical is provided on the outside package For Laboratory Use Only

Warning  
 Receipt Date:  
 Opened Date:  
 Made in USA

1 ml

Work continued to Page

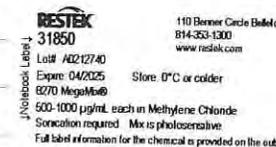
www.scientificbindery88yrs.com

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Work continued from Page	Analyte	Lab ID	Stock ID	Stock Conc	Stock Vol	Final Vol	Final Conc	Solvent	Init	Date
	PAH CW	SV616901	SV616901	10ppm	10µL	200µL	500ppb	MeCl <sub>2</sub>	JP	8/19/24
	PAH CW	SV616902							JP	8/20/24
5	PAH CW	SV616903							JP	8/20/24
	BNA CW	SV616904	SV6167 2/3	200ppm	20/20		20ppm			
	8270 Surrogate Std	SV616905	 125 Market St, New Haven, CT 06513 www.AccuStandard.com			M-8270-SS Method 8270 - Surrogate Standard 4.0 mg/mL in CH <sub>2</sub> Cl <sub>2</sub> Lot: 223021602 Exp: Mar 01, 2033 PRODUCT OF THE USA		1 mL 6 comp(s) Storage: Ambient (>5 °C) FOR LABORATORY USE ONLY	 H315 H335 H332 H302 H351 H350 P338 P360 P331 P233 P262 P202 Refer to SDS Signal Word: Warning	
10			 125 Market St, New Haven, CT 06513 www.AccuStandard.com			M-8270-SS Method 8270 - Surrogate Standard 4.0 mg/mL in CH <sub>2</sub> Cl <sub>2</sub> Lot: 223021602 Exp: Mar 01, 2033 PRODUCT OF THE USA		1 mL 6 comp(s) Storage: Ambient (>5 °C) FOR LABORATORY USE ONLY	 H315 H335 H332 H302 H351 H350 P338 P360 P331 P233 P262 P202 Refer to SDS Signal Word: Warning	
	8270 Surrogate PAH CW	SV616906	SV616905	4000ppm	2µL	100µL	80ppm	Acetone	JP	
		SV616907	SV616902	10ppm	10µL	200µL	500ppb	MeCl <sub>2</sub>	JP	8/20/24
	8270 Mega mix	SV616908	 110 Bonner Circle Bellefonte, PA 16823 814-353-1300 www.restek.com Lot: A212740 Expire: 04/2025 0270 MegaMix® 500-1000 µg/mL each in Methylene Chloride Sonication required. Mix is photosensitive. Full label information for the chemical is provided on the outside package.			Warning Danger Receipt Date: _____ Opened Date: _____ Made in USA 1 mL			JP	8/21/24
20			 125 Market St, New Haven, CT 06513 www.AccuStandard.com			S-15651 Custom SVOC and VOC Standard 1000 µg/mL in Methylene chloride Lot: 224021347 Exp: Mar 26, 2025 PRODUCT OF THE USA		1 mL 5 comp(s) Storage: Freeze (<-10 °C) FOR LABORATORY USE ONLY	 H315 H335 H332 H302 H350 H350 P338 P360 P331 P233 P262 P202 Refer to SDS Signal Word: Warning	
	Custom SVOC Mix		09							
25	8270 Spike #1	10	SV616908	1000ppm	1µL	5µL	200ppm	Acetone		
	#2	11	09							
	PAH CW	SV616912	SV616901	10ppm	10µL	200µL	500ppb	MeCl <sub>2</sub>	JP	8/20/24
	BNA CW	13	SV6167 2/3	200ppm	20/20µL		20ppm		JP	1
30	BNA CW	SV616914							JP	8/22/24
	PAH CW	SV616915	SV615901	10ppm	10µL	200µL	500ppb	MeCl <sub>2</sub>	JP	8/22/24
	PAH CW	SV616916							JP	8/23/24
	BNA CW	17	SV6167 2/3	200ppm	20/20µL		20ppm			1
35										

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## Total Metals EPA 200.8

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration Data
- Administrative Forms

# Dataset Report

KPM

8-26-24

User Name: kmckinney

Computer Name: DESKTOP-RIRVUDN

Dataset File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\

Report Date/Time: Monday, August 26, 2024 11:19:14

## The Dataset

Batch ID	Sample ID	Date and Time	Read Type	Samp. File Name	Description
SmartTune - [STD/KED] Nebulizer		07:07:45 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - CQID		07:09:57 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - CQID		07:12:05 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - CQID		07:14:15 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - MMass Calibration and		07:16:47 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - MMass Calibration and		07:17:15 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - [STD] Performance Ct		07:17:57 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - [STD] Performance Ct		07:19:17 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - [STD] Performance Ct		07:20:36 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - [STD] Performance Ct		07:22:55 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Sample	07:29:50 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Sample	07:34:00 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 6	07:38:11 Mon 26-AQC Std #6		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Blank	07:43:04 Mon 26-ABlank		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Standard 1	07:46:24 Mon 26-AStandard #1		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Standard 2	07:49:45 Mon 26-AStandard #2		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Standard 3	07:53:05 Mon 26-AStandard #3		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Standard 4	07:56:25 Mon 26-AStandard #4		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Standard 5	07:59:45 Mon 26-AStandard #5		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Standard 6	08:03:05 Mon 26-AStandard #6		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Standard 7	08:06:25 Mon 26-AStandard #7		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 1	08:10:35 Mon 26-AQC Std #1		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 2	08:14:46 Mon 26-AQC Std #2		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 6	08:18:06 Mon 26-AQC Std #6		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 7	08:22:16 Mon 26-AQC Std #7		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 8	08:26:26 Mon 26-AQC Std #8		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	MB0826D1 2X	08:29:47 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	SB0826D1 2X	08:37:20 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-01d 10X	08:41:29 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-02d 10X	08:45:38 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-03d 10X	08:49:47 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-04d 10X	08:53:56 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-05d 10X	08:58:05 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-04dD 10X	09:02:16 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-04dL 50X	09:06:25 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-04dMS 10X	09:10:35 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 6	09:14:46 Mon 26-AQC Std #6		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 7	09:18:56 Mon 26-AQC Std #7		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 8	09:23:07 Mon 26-AQC Std #8		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-04dMSD 10X	09:27:34 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	MB0826WM1 2X	09:31:43 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	SB0826WM1 2X	09:43:42 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-013-05a 2X	09:47:50 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-013-05aD 2X	09:51:59 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-013-05aL 10X	09:56:08 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-013-05aMS 2X	10:00:17 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-013-05aMSD 2X	10:04:26 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-013-05aPS 2X	10:08:36 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-01c 10X	10:26:27 Mon 26-ASample		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 6	10:30:38 Mon 26-AQC Std #6		C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	

QC Std 7	10:34:49 Mon 26-AQC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
QC Std 8	10:39:00 Mon 26-AQC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
08-224-02c 10X	10:43:34 Mon 26-ASample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
08-224-03c 10X	10:47:44 Mon 26-ASample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
08-224-04c 10X	10:51:53 Mon 26-ASample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
08-224-05c 10X	10:56:02 Mon 26-ASample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
QC Std 6	11:00:12 Mon 26-AQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
BL	11:04:42 Mon 26-ASample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
QC Std 6	11:08:52 Mon 26-AQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
QC Std 7	11:13:03 Mon 26-AQC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
QC Std 8	11:17:14 Mon 26-AQC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408

## SmartTune Wizard - Summary

### Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\wizard\SmartTune\SmartTune Daily.swz

Start Time: 8/26/2024 7:16:47 AM

End Time: 8/26/2024 7:17:45 AM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.704)

Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.710)

Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.711)

Target/Obtained mass (207.977/207.975), Target/Obtained resolution (0.7/0.692)

Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.702)

## SmartTune Wizard - Details

### Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\SmartTune Daily.swz

### Optimization Status

Start Time: 8/26/2024 7:22:54 AM

### [STD] Performance Check

#### Optimization Settings:

Method: \Optimizations\STD Performance Check.mth.  
Intensity Criterion: Li 7 > 55000  
Intensity Criterion: In 115 > 300000  
Intensity Criterion: U 238 > 225000  
Intensity Criterion: Bkgd 220.5 <= 5  
Formula Criterion: Ce++ 70 ÷ Ce 140 <= 0.03  
Formula Criterion: CeO 156 ÷ Ce 140 <= 0.025  
RSD Criterion: Li 7.016 < 0.05  
RSD Criterion: In 114.904 < 0.05  
RSD Criterion: U 238.05 < 0.05

#### Optimization Results:

##### Initial Try

Obtained Intensity (Li 7): 83830.31  
Obtained Intensity (In 115): 353286.72  
Obtained Intensity (U 238): 234529.61  
Obtained Intensity (Bkgd 220.5): 0.90  
Obtained Formula (Ce++ 70 ÷ Ce 140): 0.009 (=3701.61 ÷ 390450.62)  
Obtained Formula (CeO 156 ÷ Ce 140): 0.025 (=9568.67 ÷ 390450.62)  
Obtained RSD (Li 7): 0.0044  
Obtained RSD (In 115): 0.0126  
Obtained RSD (U 238): 0.0070

[Passed] Optimum value(s): N/A

End Time: 8/26/2024 7:25:00 AM

## Quantitative Analysis Calibration Report

File Name:

File Path:

Calibration Type: External Calibration

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Ni	57.935	Weighted Linear	0.02	0.00	0.999831
Ni -1	59.933	Weighted Linear	0.01	0.00	0.999747
Ni -2	61.928	Weighted Linear	0.00	0.00	0.999615
As	74.922	Weighted Linear	0.01	0.00	0.999911
As-1	74.922	Weighted Linear	0.01	-0.00	0.999317
Se	76.920	Weighted Linear	0.00	0.00	0.999853
Se -1	77.917	Weighted Linear	0.00	0.00	0.998953
Br	78.918	Weighted Linear	0.00	0.00	0.000000
Se -2	81.917	Weighted Linear	0.00	0.00	0.999643
Kr	82.914	Weighted Linear	0.00	0.00	0.000000
Y	88.905	Weighted Linear	0.00	0.00	0.000000
Rh	102.905	Weighted Linear	0.00	0.00	0.000000
Ni -3	57.935	Weighted Linear	0.07	0.00	0.999599
Ni -4	59.933	Weighted Linear	0.03	0.00	0.999653
Ni -5	61.928	Weighted Linear	0.01	0.00	0.999172
As-2	74.922	Weighted Linear	0.01	-0.00	0.998311
Y-1	88.905	Weighted Linear	0.00	0.00	0.000000
Rh-1	102.905	Weighted Linear	0.00	0.00	0.000000
Ge	71.922	Linear Thru Zero	0.00	0.00	0.000000
In	114.904	Linear Thru Zero	0.00	0.00	0.000000
Ge-1	71.922	Linear Thru Zero	0.00	0.00	0.000000

## Quantitative Analysis - Summary Report

**Sample ID: Blank**

Sample Date/Time: Monday, August 26, 2024 07:43:04

Report Date/Time: Monday, August 26, 2024 07:44:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\Blank.014

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-9342.9	2.2				ug/L		Standard
	Ni -1	60	582.0	4.1				ug/L		Standard
	Ni -2	62	3054.7	0.6				ug/L		Standard
	As	75	25703.0	0.6				ug/L		Standard
	As-1	75	1358.8	3.7				ug/L		Standard
	Se	77	259.0	4.1				ug/L		Standard
	Se -1	78	25820.3	0.8				ug/L		Standard
	Br	79	715.0	3.2				ug/L		Standard
	Se -2	82	617.3	3.7				ug/L		Standard
	Kr	83	646.3	5.6				ug/L		Standard
	Y	89	2084970.2	0.7				ug/L		Standard
	Rh	103	1339953.1	0.5				ug/L		Standard
	Ni -3	58	229.0	4.6				ug/L		KED
	Ni -4	60	94.3	6.4				ug/L		KED
	Ni -5	62	13.7	4.2				ug/L		KED
	As-2	75	8.0	45.1				ug/L		KED
	Y-1	89	151628.4	0.2				ug/L		KED
	Rh-1	103	379534.0	0.6				ug/L		KED
>	Ge	72	1316182.2	1.1				ug/L		Standard
>	In	115	994104.9	0.3				ug/L		Standard
>	Ge-1	72	67787.1	0.8				ug/L		KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		
>	In	115		
>	Ge-1	72		

Sample ID: Blank

Report Date/Time: Monday, August 26, 2024 07:44:54

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## Quantitative Analysis - Summary Report

### Sample ID: Standard 1

Sample Date/Time: Monday, August 26, 2024 07:46:24

Report Date/Time: Monday, August 26, 2024 07:48:14

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\Standard 1.015

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-4877.6	0.3				ug/L	-9343	Standard
	Ni -1	60	2700.9	1.0				ug/L	582	Standard
	Ni -2	62	3404.4	1.1				ug/L	3055	Standard
	As	75	27582.2	0.2				ug/L	25703	Standard
	As-1	75	2753.7	3.5				ug/L	1359	Standard
	Se	77	366.0	5.3				ug/L	259	Standard
	Se -1	78	26694.6	0.5				ug/L	25820	Standard
	Br	79	765.0	1.3				ug/L	715	Standard
	Se -2	82	771.7	4.3				ug/L	617	Standard
	Kr	83	628.3	5.8				ug/L	646	Standard
	Y	89	2119085.7	0.3				ug/L	2084970	Standard
	Rh	103	1496770.7	0.7				ug/L	1339953	Standard
	Ni -3	58	1234.8	2.2				ug/L	229	KED
	Ni -4	60	551.3	6.5				ug/L	94	KED
	Ni -5	62	90.3	2.8				ug/L	14	KED
	As-2	75	93.3	17.1				ug/L	8	KED
	Y-1	89	151423.0	0.9				ug/L	151628	KED
	Rh-1	103	412720.0	0.4				ug/L	379534	KED
>	Ge	72	1349969.2	0.6				ug/L	1316182	Standard
>	In	115	1011868.8	0.2				ug/L	994105	Standard
>	Ge-1	72	67690.3	0.5				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		
>	In	115		
>	Ge-1	72		

Sample ID: Standard 1

Report Date/Time: Monday, August 26, 2024 07:48:14

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## Quantitative Analysis - Summary Report

### Sample ID: Standard 2

Sample Date/Time: Monday, August 26, 2024 07:49:45

Report Date/Time: Monday, August 26, 2024 07:51:34

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\Standard 2.016

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	4416.0	8.0				ug/L	-9343	Standard
	Ni -1	60	6414.4	0.5				ug/L	582	Standard
	Ni -2	62	3951.5	1.0				ug/L	3055	Standard
	As	75	29948.7	1.0				ug/L	25703	Standard
	As-1	75	5130.6	1.4	0.5000	0.006	1.2	ug/L	1359	Standard
	Se	77	512.7	2.8				ug/L	259	Standard
	Se -1	78	27158.1	0.6				ug/L	25820	Standard
	Br	79	734.0	5.1				ug/L	715	Standard
	Se -2	82	958.4	4.3				ug/L	617	Standard
	Kr	83	621.7	7.9				ug/L	646	Standard
	Y	89	2115000.8	0.3				ug/L	2084970	Standard
	Rh	103	1499381.4	0.7				ug/L	1339953	Standard
	Ni -3	58	2991.4	1.5				ug/L	229	KED
	Ni -4	60	1370.1	3.4				ug/L	94	KED
	Ni -5	62	204.3	7.9				ug/L	14	KED
	As-2	75	259.7	8.2	0.5000	0.038	7.6	ug/L	8	KED
	Y-1	89	153673.8	0.6				ug/L	151628	KED
	Rh-1	103	415952.1	0.6				ug/L	379534	KED
>	Ge	72	1329986.3	0.8				ug/L	1316182	Standard
>	In	115	1008179.0	0.6				ug/L	994105	Standard
>	Ge-1	72	67813.2	0.3				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		
>	In	115		
>	Ge-1	72		

Sample ID: Standard 2

Report Date/Time: Monday, August 26, 2024 07:51:34

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# Quantitative Analysis - Summary Report

**Sample ID: Standard 3**

Sample Date/Time: Monday, August 26, 2024 07:53:05

Report Date/Time: Monday, August 26, 2024 07:54:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\Standard 3.017

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	45934.9	2.0				ug/L	-9343	Standard
	Ni -1	60	23134.7	0.8	<b>2.0000</b>	0.032	1.6	ug/L	582	Standard
	Ni -2	62	6421.1	1.2	<b>2.0000</b>	0.054	2.7	ug/L	3055	Standard
	As	75	40360.4	0.6	<b>2.0000</b>	0.053	2.6	ug/L	25703	Standard
	As-1	75	15681.0	1.0	<b>1.9428</b>	0.019	1.0	ug/L	1359	Standard
	Se	77	1200.4	1.3	<b>2.0000</b>	0.012	0.6	ug/L	259	Standard
	Se -1	78	29492.4	0.3				ug/L	25820	Standard
	Br	79	747.7	4.8				ug/L	715	Standard
	Se -2	82	1932.1	0.6	<b>2.0000</b>	0.017	0.9	ug/L	617	Standard
	Kr	83	620.7	2.8				ug/L	646	Standard
	Y	89	2122700.3	0.5				ug/L	2084970	Standard
	Rh	103	1476828.7	0.5				ug/L	1339953	Standard
	Ni -3	58	10938.6	1.6	<b>2.0000</b>	0.043	2.2	ug/L	229	KED
	Ni -4	60	4837.8	0.8	<b>2.0000</b>	0.017	0.9	ug/L	94	KED
	Ni -5	62	769.4	1.2	<b>2.0000</b>	0.035	1.8	ug/L	14	KED
	As-2	75	923.0	0.7	<b>1.8956</b>	0.010	0.5	ug/L	8	KED
	Y-1	89	154448.8	0.3				ug/L	151628	KED
	Rh-1	103	416222.0	0.2				ug/L	379534	KED
>	Ge	72	1326034.6	1.0				ug/L	1316182	Standard
>	In	115	1002577.9	0.7				ug/L	994105	Standard
>	Ge-1	72	68493.1	0.6				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		
>	In	115		
>	Ge-1	72		

## Quantitative Analysis - Summary Report

**Sample ID: Standard 4**

Sample Date/Time: Monday, August 26, 2024 07:56:25

Report Date/Time: Monday, August 26, 2024 07:58:15

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\Standard 4.018

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	120104.1	2.2	<b>5.0000</b>	0.061	1.2	ug/L	-9343	Standard
	Ni -1	60	53937.0	1.9	<b>4.9762</b>	0.040	0.8	ug/L	582	Standard
	Ni -2	62	10913.8	1.8	<b>4.9854</b>	0.064	1.3	ug/L	3055	Standard
	As	75	59624.8	0.5	<b>5.0291</b>	0.140	2.8	ug/L	25703	Standard
	As-1	75	35580.5	0.4	<b>4.8894</b>	0.070	1.4	ug/L	1359	Standard
	Se	77	2588.9	1.8	<b>5.0914</b>	0.022	0.4	ug/L	259	Standard
	Se -1	78	33359.6	0.2	<b>5.0000</b>	0.335	6.7	ug/L	25820	Standard
	Br	79	707.7	0.7				ug/L	715	Standard
	Se -2	82	3704.5	1.6	<b>4.9746</b>	0.119	2.4	ug/L	617	Standard
	Kr	83	648.0	2.5				ug/L	646	Standard
	Y	89	2041081.5	1.2				ug/L	2084970	Standard
	Rh	103	1427597.1	0.7				ug/L	1339953	Standard
	Ni -3	58	25597.4	0.7	<b>4.9728</b>	0.040	0.8	ug/L	229	KED
	Ni -4	60	11277.8	1.7	<b>4.9816</b>	0.106	2.1	ug/L	94	KED
	Ni -5	62	1746.4	0.5	<b>4.8969</b>	0.011	0.2	ug/L	14	KED
	As-2	75	2263.5	1.0	<b>4.8873</b>	0.072	1.5	ug/L	8	KED
	Y-1	89	150582.8	0.3				ug/L	151628	KED
	Rh-1	103	402097.1	0.6				ug/L	379534	KED
>	Ge	72	1277916.0	1.5				ug/L	1316182	Standard
>	In	115	967247.2	0.6				ug/L	994105	Standard
>	Ge-1	72	66356.8	0.7				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		
>	In	115		
>	Ge-1	72		

Sample ID: Standard 4

Report Date/Time: Monday, August 26, 2024 07:58:15

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# Quantitative Analysis - Summary Report

**Sample ID: Standard 5**

Sample Date/Time: Monday, August 26, 2024 07:59:45

Report Date/Time: Monday, August 26, 2024 08:01:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\Standard 5.019

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	509133.3	0.3	19.9600	0.038	0.2	ug/L	-9343	Standard
	Ni -1	60	210793.2	0.6	19.4999	0.068	0.3	ug/L	582	Standard
	Ni -2	62	34236.3	0.4	19.4773	0.055	0.3	ug/L	3055	Standard
	As	75	162231.5	0.3	19.6819	0.123	0.6	ug/L	25703	Standard
	As-1	75	138442.2	0.3	19.3244	0.096	0.5	ug/L	1359	Standard
	Se	77	9683.3	0.6	20.0380	0.145	0.7	ug/L	259	Standard
	Se -1	78	55757.3	0.6	19.2766	0.177	0.9	ug/L	25820	Standard
	Br	79	652.7	6.1				ug/L	715	Standard
	Se -2	82	12626.2	1.1	19.2727	0.174	0.9	ug/L	617	Standard
	Kr	83	672.3	4.5				ug/L	646	Standard
	Y	89	2055733.5	0.8				ug/L	2084970	Standard
	Rh	103	1164901.6	1.1				ug/L	1339953	Standard
	Ni -3	58	99932.0	0.9	19.4655	0.147	0.8	ug/L	229	KED
	Ni -4	60	44055.8	0.5	19.5383	0.240	1.2	ug/L	94	KED
	Ni -5	62	6775.3	1.0	19.2055	0.266	1.4	ug/L	14	KED
	As-2	75	9022.8	1.9	19.2880	0.233	1.2	ug/L	8	KED
	Y-1	89	154972.0	0.4				ug/L	151628	KED
	Rh-1	103	335619.7	0.1				ug/L	379534	KED
>	Ge	72	1312501.6	0.2				ug/L	1316182	Standard
>	In	115	986770.5	0.8				ug/L	994105	Standard
>	Ge-1	72	68234.9	0.9				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		
>	In	115		
>	Ge-1	72		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 6**

Sample Date/Time: Monday, August 26, 2024 08:03:05

Report Date/Time: Monday, August 26, 2024 08:04:55

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\Standard 6.020

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	1066742.7	0.5	<b>40.5327</b>	0.279	0.7	ug/L	-9343	Standard
	Ni -1	60	430257.8	1.3	<b>39.5324</b>	0.603	1.5	ug/L	582	Standard
	Ni -2	62	66742.9	0.7	<b>39.4558</b>	0.137	0.3	ug/L	3055	Standard
	As	75	306035.3	0.8	<b>39.8936</b>	0.183	0.5	ug/L	25703	Standard
	As-1	75	284109.9	1.0	<b>39.4604</b>	0.278	0.7	ug/L	1359	Standard
	Se	77	19160.2	0.5	<b>39.7452</b>	0.295	0.7	ug/L	259	Standard
	Se -1	78	86451.5	0.7	<b>39.1508</b>	0.476	1.2	ug/L	25820	Standard
	Br	79	665.3	5.3				ug/L	715	Standard
	Se -2	82	25447.0	0.2	<b>39.5127</b>	0.131	0.3	ug/L	617	Standard
	Kr	83	652.3	1.9				ug/L	646	Standard
	Y	89	2090592.5	0.7				ug/L	2084970	Standard
	Rh	103	1201354.6	0.7				ug/L	1339953	Standard
	Ni -3	58	201943.5	0.7	<b>39.3842</b>	0.360	0.9	ug/L	229	KED
	Ni -4	60	89085.2	0.7	<b>39.5221</b>	0.408	1.0	ug/L	94	KED
	Ni -5	62	13732.3	1.1	<b>39.0952</b>	0.661	1.7	ug/L	14	KED
	As-2	75	18247.0	1.3	<b>39.0297</b>	0.583	1.5	ug/L	8	KED
	Y-1	89	156266.1	1.0				ug/L	151628	KED
	Rh-1	103	339805.4	0.9				ug/L	379534	KED
>	Ge	72	1331299.4	0.4				ug/L	1316182	Standard
>	In	115	1012949.8	1.0				ug/L	994105	Standard
>	Ge-1	72	68768.1	0.6				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		
>	In	115		
>	Ge-1	72		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 7**

Sample Date/Time: Monday, August 26, 2024 08:06:25

Report Date/Time: Monday, August 26, 2024 08:08:15

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\Standard 7.021

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	2552171.1	0.9	97.9260	0.215	0.2	ug/L	-9343	Standard
	Ni -1	60	1049137.1	1.4	97.5882	0.614	0.6	ug/L	582	Standard
	Ni -2	62	156209.9	1.6	96.3734	0.471	0.5	ug/L	3055	Standard
	As	75	713059.6	0.7	98.7265	0.412	0.4	ug/L	25703	Standard
	As-1	75	694802.2	0.4	97.6847	0.686	0.7	ug/L	1359	Standard
	Se	77	46639.7	0.3	98.4087	0.935	1.0	ug/L	259	Standard
	Se -1	78	175049.7	0.8	98.3283	0.728	0.7	ug/L	25820	Standard
	Br	79	637.0	3.2				ug/L	715	Standard
	Se -2	82	61782.0	0.6	98.2832	1.713	1.7	ug/L	617	Standard
	Kr	83	694.4	3.4				ug/L	646	Standard
	Y	89	2089441.5	0.6				ug/L	2084970	Standard
	Rh	103	1174331.5	0.4				ug/L	1339953	Standard
	Ni -3	58	490586.8	0.7	96.4291	0.671	0.7	ug/L	229	KED
	Ni -4	60	215434.3	0.4	96.3763	0.485	0.5	ug/L	94	KED
	Ni -5	62	33372.9	1.1	95.9092	1.078	1.1	ug/L	14	KED
	As-2	75	44491.8	0.7	95.7639	0.433	0.5	ug/L	8	KED
	Y-1	89	157689.2	0.9				ug/L	151628	KED
	Rh-1	103	332503.0	1.1				ug/L	379534	KED
>	Ge	72	1326613.6	1.1				ug/L	1316182	Standard
>	In	115	1016299.3	0.8				ug/L	994105	Standard
>	Ge-1	72	69079.6	0.3				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		
>	In	115		
>	Ge-1	72		

Sample ID: Standard 7

Report Date/Time: Monday, August 26, 2024 08:08:15

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 1**

Sample Date/Time: Monday, August 26, 2024 08:10:35

Report Date/Time: Monday, August 26, 2024 08:12:25

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 1.022

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	1367303.4	0.7	<b>50.0420</b>	0.639	1.3	ug/L	-9343	Standard
	Ni -1	60	551665.7	0.4	<b>48.7824</b>	0.342	0.7	ug/L	582	Standard
	Ni -2	62	83843.3	0.3	<b>48.2533</b>	0.167	0.3	ug/L	3055	Standard
	As	75	386651.0	0.6	<b>49.1048</b>	0.488	1.0	ug/L	25703	Standard
	As-1	75	367239.8	0.6	<b>49.0382</b>	0.435	0.9	ug/L	1359	Standard
	Se	77	25273.7	1.0	<b>50.4594</b>	0.460	0.9	ug/L	259	Standard
	Se -1	78	104059.3	0.2	<b>47.9824</b>	0.402	0.8	ug/L	25820	Standard
	Br	79	663.0	3.4				ug/L	715	Standard
	Se -2	82	33368.6	0.4	<b>50.0010</b>	0.159	0.3	ug/L	617	Standard
	Kr	83	626.7	5.2				ug/L	646	Standard
	Y	89	2158985.5	0.8				ug/L	2084970	Standard
	Rh	103	493830.4	1.4				ug/L	1339953	Standard
	Ni -3	58	260610.8	0.5	<b>48.8118</b>	0.649	1.3	ug/L	229	KED
	Ni -4	60	114375.7	0.3	<b>48.7420</b>	0.386	0.8	ug/L	94	KED
	Ni -5	62	17645.6	0.2	<b>48.3192</b>	0.569	1.2	ug/L	14	KED
	As-2	75	23535.4	0.4	<b>48.3158</b>	0.688	1.4	ug/L	8	KED
	Y-1	89	169870.3	0.2				ug/L	151628	KED
	Rh-1	103	141074.2	0.5				ug/L	379534	KED
>	Ge	72	1394095.0	0.6				ug/L	1316182	Standard
>	In	115	1101204.7	0.8				ug/L	994105	Standard
>	Ge-1	72	72424.5	1.0				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	100.084	
	Ni -1	60	97.565	
	Ni -2	62	96.507	
	As	75	98.210	
	As-1	75	98.076	
	Se	77	100.919	
	Se -1	78	95.965	
	Br	79		
	Se -2	82	100.002	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	97.624	
	Ni -4	60	97.484	
	Ni -5	62	96.638	
	As-2	75	96.632	
	Y-1	89		
	Rh-1	103		
>	Ge	72		105.920
>	In	115		110.773
>	Ge-1	72		106.841

Sample ID: QC Std 1

Report Date/Time: Monday, August 26, 2024 08:12:25

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## Quantitative Analysis - Summary Report

**Sample ID: QC Std 2**

Sample Date/Time: Monday, August 26, 2024 08:14:46

Report Date/Time: Monday, August 26, 2024 08:16:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 2.023

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-6557.5	5.4	<b>-0.0198</b>	0.014	69.7	ug/L	-9343	Standard
	Ni -1	60	854.4	13.0	<b>-0.0183</b>	0.011	59.9	ug/L	582	Standard
	Ni -2	62	3209.7	2.5	<b>0.0919</b>	0.050	54.6	ug/L	3055	Standard
	As	75	23996.4	1.3	<b>-0.2476</b>	0.045	18.2	ug/L	25703	Standard
	As-1	75	1350.7	10.7	<b>0.0089</b>	0.021	234.3	ug/L	1359	Standard
	Se	77	236.0	10.8	<b>-0.0692</b>	0.054	78.4	ug/L	259	Standard
	Se -1	78	24081.6	1.5	<b>-1.1874</b>	0.232	19.5	ug/L	25820	Standard
	Br	79	653.3	2.4				ug/L	715	Standard
	Se -2	82	599.0	7.5	<b>-0.0517</b>	0.073	141.7	ug/L	617	Standard
	Kr	83	603.7	6.5				ug/L	646	Standard
	Y	89	1879283.4	1.0				ug/L	2084970	Standard
	Rh	103	1310465.5	1.3				ug/L	1339953	Standard
	Ni -3	58	313.4	8.0	<b>-0.0418</b>	0.006	13.4	ug/L	229	KED
	Ni -4	60	139.0	12.6	<b>-0.0662</b>	0.008	11.6	ug/L	94	KED
	Ni -5	62	21.7	37.3	<b>-0.0438</b>	0.023	53.5	ug/L	14	KED
	As-2	75	13.7	18.4	<b>0.0161</b>	0.005	33.6	ug/L	8	KED
	Y-1	89	154173.5	0.3				ug/L	151628	KED
	Rh-1	103	374979.7	0.6				ug/L	379534	KED
>	Ge	72	1289742.1	0.4				ug/L	1316182	Standard
>	In	115	977337.9	1.2				ug/L	994105	Standard
>	Ge-1	72	67557.7	1.1				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		97.991
>	In	115		98.313
>	Ge-1	72		99.662

Sample ID: QC Std 2

Report Date/Time: Monday, August 26, 2024 08:16:35

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# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, August 26, 2024 08:18:06

Report Date/Time: Monday, August 26, 2024 08:19:56

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 6.024

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	1002757.7	1.0	40.3113	0.409	1.0	ug/L	-9343	Standard
	Ni -1	60	405583.8	0.8	39.3292	0.164	0.4	ug/L	582	Standard
	Ni -2	62	62974.5	1.0	39.4163	0.574	1.5	ug/L	3055	Standard
	As	75	291528.5	0.3	39.9652	0.071	0.2	ug/L	25703	Standard
	As-1	75	270960.9	0.7	39.6610	0.090	0.2	ug/L	1359	Standard
	Se	77	18453.6	0.6	40.3081	0.441	1.1	ug/L	259	Standard
	Se -1	78	82094.2	0.9	39.1691	0.740	1.9	ug/L	25820	Standard
	Br	79	626.7	4.9				ug/L	715	Standard
	Se -2	82	24263.6	0.7	39.6796	0.227	0.6	ug/L	617	Standard
	Kr	83	671.0	1.5				ug/L	646	Standard
	Y	89	1808204.0	0.4				ug/L	2084970	Standard
	Rh	103	1139476.6	0.7				ug/L	1339953	Standard
	Ni -3	58	195170.8	0.1	39.0827	0.055	0.1	ug/L	229	KED
	Ni -4	60	86647.6	0.1	39.4765	0.085	0.2	ug/L	94	KED
	Ni -5	62	13260.2	0.8	38.8212	0.335	0.9	ug/L	14	KED
	As-2	75	17711.6	1.8	38.8919	0.673	1.7	ug/L	8	KED
	Y-1	89	152702.5	0.6				ug/L	151628	KED
	Rh-1	103	328947.2	0.7				ug/L	379534	KED
>	Ge	72	1270624.1	0.5				ug/L	1316182	Standard
>	In	115	962571.0	0.5				ug/L	994105	Standard
>	Ge-1	72	67698.7	0.1				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	100.778	
	Ni -1	60	98.323	
	Ni -2	62	98.541	
	As	75	99.913	
	As-1	75	99.152	
	Se	77	100.770	
	Se -1	78	97.923	
	Br	79		
	Se -2	82	99.199	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	97.707	
	Ni -4	60	98.691	
	Ni -5	62	97.053	
	As-2	75	97.230	
	Y-1	89		
	Rh-1	103		
>	Ge	72		96.539
>	In	115		96.828
>	Ge-1	72		99.870

Sample ID: QC Std 6

Report Date/Time: Monday, August 26, 2024 08:19:56

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## Quantitative Analysis - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, August 26, 2024 08:22:16

Report Date/Time: Monday, August 26, 2024 08:24:05

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 7.025

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	476121.8	0.4	19.9245	0.285	1.4	ug/L	-9343	Standard
	Ni -1	60	195351.4	1.0	19.5477	0.117	0.6	ug/L	582	Standard
	Ni -2	62	31992.8	0.9	19.7732	0.088	0.4	ug/L	3055	Standard
	As	75	153159.3	0.8	19.9891	0.113	0.6	ug/L	25703	Standard
	As-1	75	131823.2	0.7	19.8696	0.105	0.5	ug/L	1359	Standard
	Se	77	9134.6	1.9	20.3550	0.204	1.0	ug/L	259	Standard
	Se -1	78	52526.4	0.4	19.9811	0.253	1.3	ug/L	25820	Standard
	Br	79	590.3	7.3				ug/L	715	Standard
	Se -2	82	12316.3	0.5	20.3442	0.266	1.3	ug/L	617	Standard
	Kr	83	673.7	3.0				ug/L	646	Standard
	Y	89	1903198.9	6.4				ug/L	2084970	Standard
	Rh	103	1105525.6	0.5				ug/L	1339953	Standard
	Ni -3	58	93882.6	0.2	19.2569	0.234	1.2	ug/L	229	KED
	Ni -4	60	41630.6	0.5	19.4160	0.282	1.5	ug/L	94	KED
	Ni -5	62	6372.4	1.9	19.1095	0.510	2.7	ug/L	14	KED
	As-2	75	8612.6	1.4	19.4179	0.327	1.7	ug/L	8	KED
	Y-1	89	149044.8	0.7				ug/L	151628	KED
	Rh-1	103	317354.3	0.4				ug/L	379534	KED
>	Ge	72	1228196.3	1.0				ug/L	1316182	Standard
>	In	115	941359.4	0.1				ug/L	994105	Standard
>	Ge-1	72	65915.4	1.0				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	99.623	
	Ni -1	60	97.739	
	Ni -2	62	98.866	
	As	75	99.945	
	As-1	75	99.348	
	Se	77	101.775	
	Se -1	78	99.906	
	Br	79		
	Se -2	82	101.721	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	96.285	
	Ni -4	60	97.080	
	Ni -5	62	95.548	
	As-2	75	97.089	
	Y-1	89		
	Rh-1	103		
>	Ge	72		93.315
>	In	115		94.694
>	Ge-1	72		97.239

Sample ID: QC Std 7

Report Date/Time: Monday, August 26, 2024 08:24:05

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# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, August 26, 2024 08:26:26

Report Date/Time: Monday, August 26, 2024 08:28:16

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 8.026

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-5799.6	1.0	0.0050	0.002	31.1	ug/L	-9343	Standard
	Ni -1	60	823.4	11.2	-0.0195	0.009	45.7	ug/L	582	Standard
	Ni -2	62	2992.0	2.3	-0.0060	0.046	769.9	ug/L	3055	Standard
	As	75	23490.8	1.7	-0.2454	0.044	18.1	ug/L	25703	Standard
	As-1	75	1267.9	12.1	0.0010	0.022	2313.6	ug/L	1359	Standard
	Se	77	241.3	6.9	-0.0457	0.037	80.8	ug/L	259	Standard
	Se -1	78	23579.1	1.4	-1.1733	0.145	12.3	ug/L	25820	Standard
	Br	79	651.0	1.5				ug/L	715	Standard
	Se -2	82	567.0	5.9	-0.0838	0.055	65.9	ug/L	617	Standard
	Kr	83	665.7	2.1				ug/L	646	Standard
	Y	89	1773687.2	0.3				ug/L	2084970	Standard
	Rh	103	1290609.0	0.6				ug/L	1339953	Standard
	Ni -3	58	326.1	12.1	-0.0395	0.007	18.8	ug/L	229	KED
	Ni -4	60	137.0	10.0	-0.0672	0.006	9.3	ug/L	94	KED
	Ni -5	62	21.7	17.5	-0.0439	0.011	26.0	ug/L	14	KED
	As-2	75	10.7	37.9	0.0094	0.009	92.0	ug/L	8	KED
	Y-1	89	152429.6	1.1				ug/L	151628	KED
	Rh-1	103	368348.3	0.9				ug/L	379534	KED
>	Ge	72	1261715.4	0.5				ug/L	1316182	Standard
>	In	115	963757.9	1.2				ug/L	994105	Standard
>	Ge-1	72	67767.0	0.7				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		95.862
>	In	115		96.947
>	Ge-1	72		99.970

Sample ID: QC Std 8

Report Date/Time: Monday, August 26, 2024 08:28:16

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# Quantitative Analysis - Summary Report

**Sample ID: MB0826D1 2X**

Sample Date/Time: Monday, August 26, 2024 08:29:47

Report Date/Time: Monday, August 26, 2024 08:31:37

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\MB0826D1 2X.027

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-5290.2	4.4	0.0248	0.010	40.9	ug/L	-9343	Standard
	Ni -1	60	915.4	7.2	-0.0102	0.006	61.0	ug/L	582	Standard
	Ni -2	62	2965.0	1.3	-0.0179	0.034	190.4	ug/L	3055	Standard
	As	75	23444.2	0.5	-0.2415	0.012	4.8	ug/L	25703	Standard
	As-1	75	1144.8	7.2	-0.0168	0.011	67.9	ug/L	1359	Standard
	Se	77	245.7	4.4	-0.0344	0.023	65.8	ug/L	259	Standard
	Se -1	78	23596.1	0.3	-1.1111	0.041	3.7	ug/L	25820	Standard
	Br	79	649.3	2.8				ug/L	715	Standard
	Se -2	82	543.7	6.4	-0.1205	0.056	46.9	ug/L	617	Standard
	Kr	83	668.7	4.0				ug/L	646	Standard
	Y	89	1749067.8	0.4				ug/L	2084970	Standard
	Rh	103	1282469.6	0.4				ug/L	1339953	Standard
	Ni -3	58	292.6	2.6	-0.0460	0.001	2.6	ug/L	229	KED
	Ni -4	60	126.0	4.2	-0.0721	0.002	3.1	ug/L	94	KED
	Ni -5	62	17.7	11.8	-0.0555	0.006	10.7	ug/L	14	KED
	As-2	75	8.3	54.1	0.0044	0.010	223.2	ug/L	8	KED
	Y-1	89	153900.9	0.2				ug/L	151628	KED
	Rh-1	103	370690.1	0.1				ug/L	379534	KED
>	Ge	72	1257903.2	0.5				ug/L	1316182	Standard
>	In	115	952812.3	0.2				ug/L	994105	Standard
>	Ge-1	72	67567.4	1.4				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		95.572
>	In	115		95.846
>	Ge-1	72		99.676

Sample ID: MB0826D1 2X

Report Date/Time: Monday, August 26, 2024 08:31:37

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# Quantitative Analysis - Summary Report

**Sample ID: SB0826D1 2X**

Sample Date/Time: Monday, August 26, 2024 08:37:20

Report Date/Time: Monday, August 26, 2024 08:39:09

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\SB0826D1 2X.028

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	960184.6	0.8	<b>40.0308</b>	0.391	1.0	ug/L	-9343	Standard
	Ni -1	60	388507.6	0.1	<b>39.0682</b>	0.150	0.4	ug/L	582	Standard
	Ni -2	62	60530.0	0.3	<b>39.2811</b>	0.078	0.2	ug/L	3055	Standard
	As	75	282478.9	0.5	<b>40.1764</b>	0.065	0.2	ug/L	25703	Standard
	As-1	75	262386.3	0.7	<b>39.8287</b>	0.182	0.5	ug/L	1359	Standard
	Se	77	17820.8	0.4	<b>40.3665</b>	0.044	0.1	ug/L	259	Standard
	Se -1	78	79595.8	0.3	<b>39.4776</b>	0.315	0.8	ug/L	25820	Standard
	Br	79	607.7	4.8				ug/L	715	Standard
	Se -2	82	23465.9	0.8	<b>39.7989</b>	0.300	0.8	ug/L	617	Standard
	Kr	83	720.7	3.2				ug/L	646	Standard
	Y	89	1975437.1	0.3				ug/L	2084970	Standard
	Rh	103	1136354.4	1.2				ug/L	1339953	Standard
	Ni -3	58	187660.7	1.1	<b>38.4014</b>	0.643	1.7	ug/L	229	KED
	Ni -4	60	82935.4	1.4	<b>38.6117</b>	0.760	2.0	ug/L	94	KED
	Ni -5	62	12812.4	1.8	<b>38.3298</b>	0.692	1.8	ug/L	14	KED
	As-2	75	17327.2	0.8	<b>38.8798</b>	0.163	0.4	ug/L	8	KED
	Y-1	89	150394.2	1.1				ug/L	151628	KED
	Rh-1	103	328383.3	1.1				ug/L	379534	KED
>	Ge	72	1225259.1	0.3				ug/L	1316182	Standard
>	In	115	925385.3	1.7				ug/L	994105	Standard
>	Ge-1	72	66250.3	0.8				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		93.092
>	In	115		93.087
>	Ge-1	72		97.733

Sample ID: SB0826D1 2X

Report Date/Time: Monday, August 26, 2024 08:39:09

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-01d 10X**

Sample Date/Time: Monday, August 26, 2024 08:41:29

Report Date/Time: Monday, August 26, 2024 08:43:18

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-01d 10X.029

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	7947.7	0.4	<b>0.6239</b>	0.003	0.4	ug/L	-9343	Standard
	Ni -1	60	12239.9	1.6	<b>1.3440</b>	0.012	0.9	ug/L	582	Standard
	Ni -2	62	411794.7	2.7	<b>326.6709</b>	12.658	3.9	ug/L	3055	Standard
	As	75	30448.9	0.9	<b>1.7509</b>	0.012	0.7	ug/L	25703	Standard
	As-1	75	11764.3	1.0	<b>1.9129</b>	0.011	0.6	ug/L	1359	Standard
	Se	77	23449.0	7.4	<b>62.4484</b>	3.987	6.4	ug/L	259	Standard
	Se -1	78	31263.2	1.0	<b>8.6430</b>	0.257	3.0	ug/L	25820	Standard
	Br	79	3651852.4	1.2				ug/L	715	Standard
	Se -2	82	4981.9	1.8	<b>9.1060</b>	0.216	2.4	ug/L	617	Standard
	Kr	83	3732.5	2.4				ug/L	646	Standard
	Y	89	1710372.6	0.5				ug/L	2084970	Standard
	Rh	103	1085431.1	1.0				ug/L	1339953	Standard
	Ni -3	58	2817.5	0.3	<b>0.5180</b>	0.021	4.0	ug/L	229	KED
	Ni -4	60	1237.4	0.9	<b>0.4928</b>	0.015	2.9	ug/L	94	KED
	Ni -5	62	251.0	3.5	<b>0.7033</b>	0.008	1.1	ug/L	14	KED
	As-2	75	248.0	6.6	<b>0.5853</b>	0.031	5.3	ug/L	8	KED
	Y-1	89	135059.6	2.2				ug/L	151628	KED
	Rh-1	103	330762.4	1.7				ug/L	379534	KED
>	Ge	72	1046958.3	1.1				ug/L	1316182	Standard
>	In	115	778511.3	1.2				ug/L	994105	Standard
>	Ge-1	72	61528.0	3.1				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		79.545
>	In	115		78.313
>	Ge-1	72		90.766

Sample ID: 08-224-01d 10X

Report Date/Time: Monday, August 26, 2024 08:43:18

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-02d 10X**

Sample Date/Time: Monday, August 26, 2024 08:45:38

Report Date/Time: Monday, August 26, 2024 08:47:27

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-02d 10X.030

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	4955.6	1.9	<b>0.4888</b>	0.006	1.2	ug/L	-9343	Standard
	Ni -1	60	14247.8	1.5	<b>1.6514</b>	0.021	1.3	ug/L	582	Standard
	Ni -2	62	826129.6	3.3	<b>684.8733</b>	25.062	3.7	ug/L	3055	Standard
	As	75	40505.6	4.6	<b>3.8938</b>	0.395	10.1	ug/L	25703	Standard
	As-1	75	17124.3	8.8	<b>2.9989</b>	0.299	10.0	ug/L	1359	Standard
	Se	77	65530.7	3.2	<b>183.0476</b>	6.269	3.4	ug/L	259	Standard
	Se -1	78	45554.2	3.3	<b>22.2384</b>	1.382	6.2	ug/L	25820	Standard
	Br	79	6609892.1	1.2				ug/L	715	Standard
	Se -2	82	8767.7	1.1	<b>17.5666</b>	0.314	1.8	ug/L	617	Standard
	Kr	83	13256.5	2.5				ug/L	646	Standard
	Y	89	1676011.9	0.6				ug/L	2084970	Standard
	Rh	103	1048538.3	0.4				ug/L	1339953	Standard
	Ni -3	58	1380.2	2.0	<b>0.1986</b>	0.007	3.8	ug/L	229	KED
	Ni -4	60	619.0	2.7	<b>0.1801</b>	0.008	4.6	ug/L	94	KED
	Ni -5	62	247.7	2.7	<b>0.6889</b>	0.026	3.8	ug/L	14	KED
	As-2	75	144.3	10.6	<b>0.3332</b>	0.036	10.9	ug/L	8	KED
	Y-1	89	134425.5	0.3				ug/L	151628	KED
	Rh-1	103	322627.5	0.4				ug/L	379534	KED
>	Ge	72	1004813.0	0.6				ug/L	1316182	Standard
>	In	115	762493.8	0.4				ug/L	994105	Standard
>	Ge-1	72	61817.8	0.7				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		76.343
>	In	115		76.702
>	Ge-1	72		91.194

Sample ID: 08-224-02d 10X

Report Date/Time: Monday, August 26, 2024 08:47:27

# Quantitative Analysis - Summary Report

**Sample ID: 08-224-03d 10X**

Sample Date/Time: Monday, August 26, 2024 08:49:47

Report Date/Time: Monday, August 26, 2024 08:51:36

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-03d 10X.031

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	3432.3	9.0	<b>0.4090</b>	0.016	3.8	ug/L	-9343	Standard
	Ni -1	60	13239.8	0.6	<b>1.5010</b>	0.012	0.8	ug/L	582	Standard
	Ni -2	62	1401436.3	6.5	<b>1144.1641</b>	76.367	6.7	ug/L	3055	Standard
	As	75	53447.6	4.3	<b>6.1842</b>	0.453	7.3	ug/L	25703	Standard
	As-1	75	15884.1	10.1	<b>2.7193</b>	0.297	10.9	ug/L	1359	Standard
	Se	77	68448.9	1.1	<b>188.0873</b>	2.502	1.3	ug/L	259	Standard
	Se -1	78	59443.5	3.9	<b>33.5333</b>	2.084	6.2	ug/L	25820	Standard
	Br	79	6539691.5	1.7				ug/L	715	Standard
	Se -2	82	8673.3	2.1	<b>17.0654</b>	0.424	2.5	ug/L	617	Standard
	Kr	83	16175.8	3.3				ug/L	646	Standard
	Y	89	1718704.7	0.4				ug/L	2084970	Standard
	Rh	103	1077500.8	1.1				ug/L	1339953	Standard
	Ni -3	58	1025.7	4.4	<b>0.1193</b>	0.007	5.8	ug/L	229	KED
	Ni -4	60	482.0	2.5	<b>0.1101</b>	0.004	3.7	ug/L	94	KED
	Ni -5	62	372.7	5.3	<b>1.0839</b>	0.060	5.5	ug/L	14	KED
	As-2	75	136.3	8.9	<b>0.3122</b>	0.029	9.4	ug/L	8	KED
	Y-1	89	134605.6	1.7				ug/L	151628	KED
	Rh-1	103	322641.6	1.5				ug/L	379534	KED
>	Ge	72	1021485.3	0.3				ug/L	1316182	Standard
>	In	115	785329.5	1.1				ug/L	994105	Standard
>	Ge-1	72	62169.0	1.3				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		77.610
>	In	115		78.999
>	Ge-1	72		91.712

Sample ID: 08-224-03d 10X

Report Date/Time: Monday, August 26, 2024 08:51:36

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-04d 10X**

Sample Date/Time: Monday, August 26, 2024 08:53:56

Report Date/Time: Monday, August 26, 2024 08:55:45

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-04d 10X.032

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	12797.7	19.0	<b>0.8037</b>	0.101	12.6	ug/L	-9343	Standard
	Ni -1	60	4364.7	2.7	<b>0.3695</b>	0.008	2.2	ug/L	582	Standard
	Ni -2	62	415976.3	10.2	<b>300.4940</b>	27.640	9.2	ug/L	3055	Standard
	As	75	51342.2	2.4	<b>4.7329</b>	0.143	3.0	ug/L	25703	Standard
	As-1	75	12982.3	1.9	<b>1.9266</b>	0.057	2.9	ug/L	1359	Standard
	Se	77	11031.6	8.8	<b>26.4562</b>	2.112	8.0	ug/L	259	Standard
	Se -1	78	41853.6	2.7	<b>14.4320</b>	0.587	4.1	ug/L	25820	Standard
	Br	79	288286.8	0.2				ug/L	715	Standard
	Se -2	82	1432.7	2.0	<b>1.6197</b>	0.076	4.7	ug/L	617	Standard
	Kr	83	1842.5	8.2				ug/L	646	Standard
	Y	89	1846170.5	0.8				ug/L	2084970	Standard
	Rh	103	1221532.5	1.4				ug/L	1339953	Standard
	Ni -3	58	3379.0	0.2	<b>0.6563</b>	0.005	0.8	ug/L	229	KED
	Ni -4	60	705.7	3.6	<b>0.2321</b>	0.013	5.7	ug/L	94	KED
	Ni -5	62	169.0	6.0	<b>0.4493</b>	0.036	8.0	ug/L	14	KED
	As-2	75	760.4	3.5	<b>1.8596</b>	0.054	2.9	ug/L	8	KED
	Y-1	89	136164.9	0.7				ug/L	151628	KED
	Rh-1	103	345313.8	0.9				ug/L	379534	KED
>	Ge	72	1148066.8	1.1				ug/L	1316182	Standard
>	In	115	849077.0	1.8				ug/L	994105	Standard
>	Ge-1	72	60344.5	0.7				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		87.227
>	In	115		85.411
>	Ge-1	72		89.021

Sample ID: 08-224-04d 10X

Report Date/Time: Monday, August 26, 2024 08:55:45

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-05d 10X**

Sample Date/Time: Monday, August 26, 2024 08:58:05

Report Date/Time: Monday, August 26, 2024 08:59:55

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-05d 10X.033

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	3738.0	32.6	<b>0.4215</b>	0.058	13.7	ug/L	-9343	Standard
	Ni -1	60	13731.9	1.9	<b>1.5399</b>	0.018	1.2	ug/L	582	Standard
	Ni -2	62	1448317.5	10.9	<b>1166.9089</b>	113.493	9.7	ug/L	3055	Standard
	As	75	68035.5	4.0	<b>8.7479</b>	0.363	4.2	ug/L	25703	Standard
	As-1	75	15708.4	10.1	<b>2.6537</b>	0.320	12.0	ug/L	1359	Standard
	Se	77	68769.5	2.1	<b>186.6124</b>	1.842	1.0	ug/L	259	Standard
	Se -1	78	74727.6	5.0	<b>45.8621</b>	2.437	5.3	ug/L	25820	Standard
	Br	79	6737455.1	0.7				ug/L	715	Standard
	Se -2	82	8900.1	1.8	<b>17.3127</b>	0.540	3.1	ug/L	617	Standard
	Kr	83	18123.3	11.2				ug/L	646	Standard
	Y	89	1757119.9	0.5				ug/L	2084970	Standard
	Rh	103	1096473.9	0.8				ug/L	1339953	Standard
	Ni -3	58	888.3	0.5	<b>0.0849</b>	0.001	1.1	ug/L	229	KED
	Ni -4	60	399.3	1.9	<b>0.0644</b>	0.004	6.1	ug/L	94	KED
	Ni -5	62	399.0	3.1	<b>1.1389</b>	0.038	3.3	ug/L	14	KED
	As-2	75	123.0	7.8	<b>0.2735</b>	0.022	8.1	ug/L	8	KED
	Y-1	89	137612.0	0.5				ug/L	151628	KED
	Rh-1	103	326483.7	0.6				ug/L	379534	KED
>	Ge	72	1034265.5	1.2				ug/L	1316182	Standard
>	In	115	791236.9	0.6				ug/L	994105	Standard
>	Ge-1	72	63627.4	0.1				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		78.581
>	In	115		79.593
>	Ge-1	72		93.864

Sample ID: 08-224-05d 10X

Report Date/Time: Monday, August 26, 2024 08:59:55

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-04dD 10X**

Sample Date/Time: Monday, August 26, 2024 09:02:16

Report Date/Time: Monday, August 26, 2024 09:04:05

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-04dD 10X.034

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	14080.6	6.0	<b>0.8762</b>	0.030	3.4	ug/L	-9343	Standard
	Ni -1	60	4736.8	3.9	<b>0.4219</b>	0.014	3.4	ug/L	582	Standard
	Ni -2	62	740049.3	6.8	<b>549.4461</b>	31.008	5.6	ug/L	3055	Standard
	As	75	63119.4	2.6	<b>6.9465</b>	0.204	2.9	ug/L	25703	Standard
	As-1	75	14051.5	3.6	<b>2.1570</b>	0.105	4.9	ug/L	1359	Standard
	Se	77	11384.2	9.8	<b>27.9996</b>	2.477	8.8	ug/L	259	Standard
	Se -1	78	53053.7	3.4	<b>23.9941</b>	0.991	4.1	ug/L	25820	Standard
	Br	79	319631.1	1.6				ug/L	715	Standard
	Se -2	82	1642.4	5.9	<b>2.0827</b>	0.158	7.6	ug/L	617	Standard
	Kr	83	3227.0	12.2				ug/L	646	Standard
	Y	89	1806168.2	0.1				ug/L	2084970	Standard
	Rh	103	1192546.2	0.2				ug/L	1339953	Standard
	Ni -3	58	3617.6	1.4	<b>0.7165</b>	0.012	1.7	ug/L	229	KED
	Ni -4	60	763.4	3.0	<b>0.2647</b>	0.009	3.6	ug/L	94	KED
	Ni -5	62	200.3	4.3	<b>0.5577</b>	0.032	5.8	ug/L	14	KED
	As-2	75	760.0	3.3	<b>1.8736</b>	0.049	2.6	ug/L	8	KED
	Y-1	89	136270.2	0.9				ug/L	151628	KED
	Rh-1	103	340305.6	0.5				ug/L	379534	KED
>	Ge	72	1120596.8	1.3				ug/L	1316182	Standard
>	In	115	829329.3	1.2				ug/L	994105	Standard
>	Ge-1	72	59870.9	0.9				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		85.140
>	In	115		83.425
>	Ge-1	72		88.322

Sample ID: 08-224-04dD 10X

Report Date/Time: Monday, August 26, 2024 09:04:05

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-04dL 50X**

Sample Date/Time: Monday, August 26, 2024 09:06:25

Report Date/Time: Monday, August 26, 2024 09:08:14

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-04dL 50X.035

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-3031.8	6.8	<b>0.0730</b>	0.012	16.0	ug/L	-9343	Standard
	Ni -1	60	1220.1	2.6	<b>0.0617</b>	0.004	7.2	ug/L	582	Standard
	Ni -2	62	319370.4	2.4	<b>284.5287</b>	7.290	2.6	ug/L	3055	Standard
	As	75	38248.0	0.6	<b>4.0380</b>	0.037	0.9	ug/L	25703	Standard
	As-1	75	3796.9	4.0	<b>0.5751</b>	0.028	4.9	ug/L	1359	Standard
	Se	77	4107.3	5.3	<b>11.8356</b>	0.679	5.7	ug/L	259	Standard
	Se -1	78	36827.7	0.6	<b>17.1536</b>	0.258	1.5	ug/L	25820	Standard
	Br	79	89703.1	0.9				ug/L	715	Standard
	Se -2	82	987.0	3.3	<b>1.2184</b>	0.078	6.4	ug/L	617	Standard
	Kr	83	1099.0	2.8				ug/L	646	Standard
	Y	89	1470557.4	0.2				ug/L	2084970	Standard
	Rh	103	1013660.9	0.6				ug/L	1339953	Standard
	Ni -3	58	729.2	7.5	<b>0.0938</b>	0.015	16.3	ug/L	229	KED
	Ni -4	60	165.3	6.1	<b>-0.0273</b>	0.006	22.1	ug/L	94	KED
	Ni -5	62	85.0	13.9	<b>0.2311</b>	0.047	20.2	ug/L	14	KED
	As-2	75	153.3	7.5	<b>0.4430</b>	0.033	7.5	ug/L	8	KED
	Y-1	89	112173.7	0.4				ug/L	151628	KED
	Rh-1	103	286610.2	0.2				ug/L	379534	KED
>	Ge	72	931170.3	0.3				ug/L	1316182	Standard
>	In	115	689809.5	0.8				ug/L	994105	Standard
>	Ge-1	72	49899.7	0.3				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		70.748
>	In	115		69.390
>	Ge-1	72		73.612

Sample ID: 08-224-04dL 50X

Report Date/Time: Monday, August 26, 2024 09:08:14

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-04dMS 10X**

Sample Date/Time: Monday, August 26, 2024 09:10:35

Report Date/Time: Monday, August 26, 2024 09:12:24

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-04dMS 10X.036

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	800688.3	1.1	<b>39.9009</b>	0.174	0.4	ug/L	-9343	Standard
	Ni -1	60	320031.8	0.9	<b>38.4661</b>	0.037	0.1	ug/L	582	Standard
	Ni -2	62	307271.3	2.1	<b>248.4119</b>	3.966	1.6	ug/L	3055	Standard
	As	75	270423.8	0.1	<b>46.5240</b>	0.358	0.8	ug/L	25703	Standard
	As-1	75	241177.6	0.2	<b>43.7803</b>	0.330	0.8	ug/L	1359	Standard
	Se	77	19587.1	0.5	<b>53.2187</b>	0.482	0.9	ug/L	259	Standard
	Se -1	78	84442.8	0.9	<b>54.7827</b>	1.142	2.1	ug/L	25820	Standard
	Br	79	263407.6	0.4				ug/L	715	Standard
	Se -2	82	21783.3	1.1	<b>44.2801</b>	0.877	2.0	ug/L	617	Standard
	Kr	83	902.0	4.3				ug/L	646	Standard
	Y	89	1665185.6	0.3				ug/L	2084970	Standard
	Rh	103	1110073.4	0.9				ug/L	1339953	Standard
	Ni -3	58	155944.5	1.1	<b>38.1833</b>	0.320	0.8	ug/L	229	KED
	Ni -4	60	68593.0	0.9	<b>38.2101</b>	0.236	0.6	ug/L	94	KED
	Ni -5	62	10529.2	1.3	<b>37.6911</b>	0.388	1.0	ug/L	14	KED
	As-2	75	15776.7	1.3	<b>42.3636</b>	0.436	1.0	ug/L	8	KED
	Y-1	89	127575.8	0.8				ug/L	151628	KED
	Rh-1	103	316419.0	0.9				ug/L	379534	KED
>	Ge	72	1025046.6	0.8				ug/L	1316182	Standard
>	In	115	764691.4	0.4				ug/L	994105	Standard
>	Ge-1	72	55362.1	0.3				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		77.880
>	In	115		76.923
>	Ge-1	72		81.670

**Sample ID: 08-224-04dMS 10X**

Report Date/Time: Monday, August 26, 2024 09:12:24

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, August 26, 2024 09:14:46

Report Date/Time: Monday, August 26, 2024 09:16:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 6.037

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	896159.5	0.6	<b>39.2929</b>	0.307	0.8	ug/L	-9343	Standard
	Ni -1	60	368593.3	1.1	<b>38.9773</b>	0.477	1.2	ug/L	582	Standard
	Ni -2	62	229897.6	2.7	<b>162.8264</b>	3.830	2.4	ug/L	3055	Standard
	As	75	275919.8	0.5	<b>41.3706</b>	0.142	0.3	ug/L	25703	Standard
	As-1	75	250110.8	0.2	<b>39.9242</b>	0.056	0.1	ug/L	1359	Standard
	Se	77	18536.4	0.9	<b>44.2078</b>	0.376	0.9	ug/L	259	Standard
	Se -1	78	83501.3	1.0	<b>45.3644</b>	0.548	1.2	ug/L	25820	Standard
	Br	79	24067.3	3.1				ug/L	715	Standard
	Se -2	82	22761.1	0.4	<b>40.6161</b>	0.320	0.8	ug/L	617	Standard
	Kr	83	697.4	3.4				ug/L	646	Standard
	Y	89	1883808.6	1.6				ug/L	2084970	Standard
	Rh	103	1098168.9	0.2				ug/L	1339953	Standard
	Ni -3	58	173651.7	0.8	<b>37.5663</b>	0.478	1.3	ug/L	229	KED
	Ni -4	60	76546.5	0.4	<b>37.6731</b>	0.357	0.9	ug/L	94	KED
	Ni -5	62	11835.2	0.2	<b>37.4318</b>	0.269	0.7	ug/L	14	KED
	As-2	75	16321.7	0.9	<b>38.7204</b>	0.215	0.6	ug/L	8	KED
	Y-1	89	145166.9	0.4				ug/L	151628	KED
	Rh-1	103	307950.1	0.2				ug/L	379534	KED
>	Ge	72	1165166.3	0.4				ug/L	1316182	Standard
>	In	115	893945.9	0.2				ug/L	994105	Standard
>	Ge-1	72	62661.8	0.6				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	98.232	
	Ni -1	60	97.443	
	Ni -2	62	407.066	
	As	75	103.426	
	As-1	75	99.810	
	Se	77	110.519	
	Se -1	78	113.411	
	Br	79		
	Se -2	82	101.540	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	93.916	
	Ni -4	60	94.183	
	Ni -5	62	93.580	
	As-2	75	96.801	
	Y-1	89		
	Rh-1	103		
>	Ge	72		88.526
>	In	115		89.925
>	Ge-1	72		92.439

Sample ID: QC Std 6

Report Date/Time: Monday, August 26, 2024 09:16:35

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## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, August 26, 2024 09:18:56

Report Date/Time: Monday, August 26, 2024 09:20:45

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 7.038

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	410926.9	0.3	<b>19.3693</b>	0.060	0.3	ug/L	-9343	Standard
	Ni -1	60	171461.2	0.7	<b>19.3190</b>	0.129	0.7	ug/L	582	Standard
	Ni -2	62	163981.2	1.2	<b>123.6065</b>	1.507	1.2	ug/L	3055	Standard
	As	75	142415.9	0.3	<b>21.1088</b>	0.076	0.4	ug/L	25703	Standard
	As-1	75	118341.3	0.8	<b>20.0881</b>	0.172	0.9	ug/L	1359	Standard
	Se	77	9225.0	0.7	<b>23.2297</b>	0.151	0.6	ug/L	259	Standard
	Se -1	78	51723.5	0.2	<b>24.0696</b>	0.057	0.2	ug/L	25820	Standard
	Br	79	17738.3	1.1				ug/L	715	Standard
	Se -2	82	10925.5	2.0	<b>20.3195</b>	0.422	2.1	ug/L	617	Standard
	Kr	83	611.3	2.9				ug/L	646	Standard
	Y	89	1780967.9	0.5				ug/L	2084970	Standard
	Rh	103	991912.9	0.5				ug/L	1339953	Standard
	Ni -3	58	82202.3	0.6	<b>18.4671</b>	0.105	0.6	ug/L	229	KED
	Ni -4	60	36542.0	0.9	<b>18.6653</b>	0.190	1.0	ug/L	94	KED
	Ni -5	62	5601.1	0.8	<b>18.3955</b>	0.182	1.0	ug/L	14	KED
	As-2	75	7931.2	0.2	<b>19.5902</b>	0.175	0.9	ug/L	8	KED
	Y-1	89	140017.2	0.7				ug/L	151628	KED
	Rh-1	103	285903.4	1.0				ug/L	379534	KED
>	Ge	72	1090677.6	0.0				ug/L	1316182	Standard
>	In	115	843059.4	0.5				ug/L	994105	Standard
>	Ge-1	72	60166.1	1.0				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	96.847	
	Ni -1	60	96.595	
	Ni -2	62	618.033	
	As	75	105.544	
	As-1	75	100.440	
	Se	77	116.149	
	Se -1	78	120.348	
	Br	79		
	Se -2	82	101.597	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	92.335	
	Ni -4	60	93.327	
	Ni -5	62	91.977	
	As-2	75	97.951	
	Y-1	89		
	Rh-1	103		
>	Ge	72		82.867
>	In	115		84.806
>	Ge-1	72		88.757

Sample ID: QC Std 7

Report Date/Time: Monday, August 26, 2024 09:20:45

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## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, August 26, 2024 09:23:07

Report Date/Time: Monday, August 26, 2024 09:24:56

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 8.039

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-6301.4	0.9	-0.0529	0.003	5.2	ug/L	-9343	Standard
	Ni -1	60	357.7	5.3	-0.0599	0.002	3.4	ug/L	582	Standard
	Ni -2	62	117083.5	0.5	87.0587	0.725	0.8	ug/L	3055	Standard
	As	75	24362.9	0.8	0.4341	0.020	4.6	ug/L	25703	Standard
	As-1	75	1083.4	10.9	-0.0025	0.020	784.1	ug/L	1359	Standard
	Se	77	896.0	4.6	1.7128	0.113	6.6	ug/L	259	Standard
	Se -1	78	24713.0	0.4	2.1750	0.085	3.9	ug/L	25820	Standard
	Br	79	14616.8	1.6				ug/L	715	Standard
	Se -2	82	599.0	4.9	0.1210	0.060	50.0	ug/L	617	Standard
	Kr	83	559.7	5.3				ug/L	646	Standard
	Y	89	1790044.6	0.6				ug/L	2084970	Standard
	Rh	103	1145569.9	0.9				ug/L	1339953	Standard
	Ni -3	58	143.7	12.3	-0.0731	0.004	5.5	ug/L	229	KED
	Ni -4	60	73.3	8.9	-0.0929	0.003	3.5	ug/L	94	KED
	Ni -5	62	28.7	2.0	-0.0147	0.002	13.0	ug/L	14	KED
	As-2	75	6.7	17.3	0.0022	0.003	129.8	ug/L	8	KED
	Y-1	89	141780.1	0.6				ug/L	151628	KED
	Rh-1	103	327871.5	0.5				ug/L	379534	KED
>	Ge	72	1098402.5	0.4				ug/L	1316182	Standard
>	In	115	852570.7	0.2				ug/L	994105	Standard
>	Ge-1	72	61408.4	0.6				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		83.454
>	In	115		85.763
>	Ge-1	72		90.590

Sample ID: QC Std 8

Report Date/Time: Monday, August 26, 2024 09:24:56

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# Quantitative Analysis - Summary Report

**Sample ID: 08-224-04dMSD 10X**

Sample Date/Time: Monday, August 26, 2024 09:27:34

Report Date/Time: Monday, August 26, 2024 09:29:23

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-04dMSD 10X.040

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	742401.8	1.4	<b>38.2907</b>	0.579	1.5	ug/L	-9343	Standard
	Ni -1	60	302339.0	0.8	<b>37.5982</b>	0.296	0.8	ug/L	582	Standard
	Ni -2	62	178603.9	0.7	<b>148.6140</b>	0.764	0.5	ug/L	3055	Standard
	As	75	249947.8	0.4	<b>44.3257</b>	0.093	0.2	ug/L	25703	Standard
	As-1	75	227882.6	0.3	<b>42.7963</b>	0.018	0.0	ug/L	1359	Standard
	Se	77	16813.9	0.7	<b>47.2024</b>	0.423	0.9	ug/L	259	Standard
	Se -1	78	72916.3	0.6	<b>47.0668</b>	0.289	0.6	ug/L	25820	Standard
	Br	79	205780.8	0.4				ug/L	715	Standard
	Se -2	82	20061.1	1.1	<b>42.1407</b>	0.483	1.1	ug/L	617	Standard
	Kr	83	607.3	1.4				ug/L	646	Standard
	Y	89	1603380.9	0.9				ug/L	2084970	Standard
	Rh	103	1085030.4	0.6				ug/L	1339953	Standard
	Ni -3	58	142541.5	0.9	<b>35.8664</b>	0.350	1.0	ug/L	229	KED
	Ni -4	60	62791.7	0.7	<b>35.9444</b>	0.376	1.0	ug/L	94	KED
	Ni -5	62	9771.7	0.6	<b>35.9500</b>	0.531	1.5	ug/L	14	KED
	As-2	75	14930.1	0.2	<b>41.2099</b>	0.756	1.8	ug/L	8	KED
	Y-1	89	124507.2	0.7				ug/L	151628	KED
	Rh-1	103	304560.1	1.0				ug/L	379534	KED
>	Ge	72	990674.9	0.2				ug/L	1316182	Standard
>	In	115	748130.0	0.7				ug/L	994105	Standard
>	Ge-1	72	53870.1	1.8				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		75.269
>	In	115		75.257
>	Ge-1	72		79.469

Sample ID: 08-224-04dMSD 10X

Report Date/Time: Monday, August 26, 2024 09:29:23

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# Quantitative Analysis - Summary Report

**Sample ID: MB0826WM1 2X**

Sample Date/Time: Monday, August 26, 2024 09:31:43

Report Date/Time: Monday, August 26, 2024 09:33:33

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\MB0826WM1 2X.041

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Ni	58	-7077.4	3.2	-0.1179	0.011	9.5	ug/L	-9343		Standard
	Ni -1	60	240.3	7.9	-0.0707	0.002	3.4	ug/L	582		Standard
	Ni -2	62	104079.4	0.9	84.2231	1.073	1.3	ug/L	3055		Standard
	As	75	23763.4	0.4	0.6978	0.006	0.8	ug/L	25703		Standard
	As-1	75	959.8	15.9	-0.0089	0.028	317.1	ug/L	1359		Standard
	Se	77	866.0	5.4	1.8337	0.138	7.5	ug/L	259		Standard
	Se -1	78	24085.6	0.4	3.3896	0.039	1.2	ug/L	25820		Standard
	Br	79	12795.1	1.5				ug/L	715		Standard
	Se -2	82	538.7	5.7	0.0970	0.066	68.4	ug/L	617		Standard
	Kr	83	550.3	4.7				ug/L	646		Standard
	Y	89	1630543.3	0.2				ug/L	2084970		Standard
	Rh	103	1144781.7	0.7				ug/L	1339953		Standard
	Ni -3	58	91.8	8.8	-0.0827	0.002	2.1	ug/L	229		KED
	Ni -4	60	31.0	11.2	-0.1127	0.002	1.9	ug/L	94		KED
	Ni -5	62	30.7	13.2	0.0010	0.015	1567.5	ug/L	14		KED
	As-2	75	5.7	27.0	0.0010	0.004	388.5	ug/L	8		KED
	Y-1	89	128899.6	0.4				ug/L	151628		KED
	Rh-1	103	325873.6	0.5				ug/L	379534		KED
>	Ge	72	1008533.4	0.4				ug/L	1316182		Standard
>	In	115	777013.6	0.1				ug/L	994105		Standard
>	Ge-1	72	56259.6	1.6				ug/L	67787		KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		76.626
>	In	115		78.162
>	Ge-1	72		82.994

Sample ID: MB0826WM1 2X

Report Date/Time: Monday, August 26, 2024 09:33:33

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## Quantitative Analysis - Summary Report

**Sample ID: SB0826WM1 2X**

Sample Date/Time: Monday, August 26, 2024 09:43:42

Report Date/Time: Monday, August 26, 2024 09:45:30

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\SB0826WM1 2X.043

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	1156047.6	0.6	<b>51.8836</b>	0.645	1.2	ug/L	-9343	Standard
	Ni -1	60	468933.9	0.2	<b>50.8618</b>	0.352	0.7	ug/L	582	Standard
	Ni -2	62	290965.4	2.8	<b>211.8696</b>	6.992	3.3	ug/L	3055	Standard
	As	75	345244.9	0.5	<b>54.1359</b>	0.226	0.4	ug/L	25703	Standard
	As-1	75	318008.4	0.6	<b>52.0912</b>	0.083	0.2	ug/L	1359	Standard
	Se	77	27714.5	0.5	<b>68.0669</b>	0.599	0.9	ug/L	259	Standard
	Se -1	78	101200.5	0.4	<b>60.6253</b>	0.937	1.5	ug/L	25820	Standard
	Br	79	18840.4	3.7				ug/L	715	Standard
	Se -2	82	29172.1	0.8	<b>53.6887</b>	0.614	1.1	ug/L	617	Standard
	Kr	83	1522.7	4.8				ug/L	646	Standard
	Y	89	1810568.6	1.5				ug/L	2084970	Standard
	Rh	103	1246429.4	1.1				ug/L	1339953	Standard
	Ni -3	58	220864.1	1.6	<b>48.9392</b>	0.529	1.1	ug/L	229	KED
	Ni -4	60	97477.1	1.3	<b>49.1470</b>	0.338	0.7	ug/L	94	KED
	Ni -5	62	14934.1	0.6	<b>48.3820</b>	0.185	0.4	ug/L	14	KED
	As-2	75	20612.2	0.7	<b>50.0614</b>	0.107	0.2	ug/L	8	KED
	Y-1	89	137082.0	1.9				ug/L	151628	KED
	Rh-1	103	351396.5	1.8				ug/L	379534	KED
>	Ge	72	1136686.8	0.8				ug/L	1316182	Standard
>	In	115	839145.9	0.9				ug/L	994105	Standard
>	Ge-1	72	61211.9	0.6				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		86.362
>	In	115		84.412
>	Ge-1	72		90.300

Sample ID: SB0826WM1 2X

Report Date/Time: Monday, August 26, 2024 09:45:30

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## Quantitative Analysis - Summary Report

**Sample ID: 08-013-05a 2X**

Sample Date/Time: Monday, August 26, 2024 09:47:50

Report Date/Time: Monday, August 26, 2024 09:49:39

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-013-05a 2X.044

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-3304.9	4.7	<b>0.0842</b>	0.007	8.5	ug/L	-9343	Standard
	Ni -1	60	3053.3	1.8	<b>0.2464</b>	0.004	1.7	ug/L	582	Standard
	Ni -2	62	171552.3	3.3	<b>129.7117</b>	5.085	3.9	ug/L	3055	Standard
	As	75	31959.1	1.6	<b>1.8052</b>	0.123	6.8	ug/L	25703	Standard
	As-1	75	4968.3	6.1	<b>0.6665</b>	0.057	8.6	ug/L	1359	Standard
	Se	77	4318.0	3.3	<b>10.5884</b>	0.428	4.0	ug/L	259	Standard
	Se -1	78	28576.2	0.8	<b>5.4777</b>	0.304	5.5	ug/L	25820	Standard
	Br	79	29168.7	0.5				ug/L	715	Standard
	Se -2	82	664.3	0.8	<b>0.2597</b>	0.012	4.6	ug/L	617	Standard
	Kr	83	995.7	0.7				ug/L	646	Standard
	Y	89	1745999.3	0.9				ug/L	2084970	Standard
	Rh	103	1183030.0	0.8				ug/L	1339953	Standard
	Ni -3	58	806.6	3.1	<b>0.0791</b>	0.004	5.1	ug/L	229	KED
	Ni -4	60	336.3	3.5	<b>0.0449</b>	0.008	17.5	ug/L	94	KED
	Ni -5	62	71.3	18.6	<b>0.1308</b>	0.046	35.3	ug/L	14	KED
	As-2	75	288.3	6.5	<b>0.7054</b>	0.040	5.7	ug/L	8	KED
	Y-1	89	134961.2	0.9				ug/L	151628	KED
	Rh-1	103	336969.0	1.8				ug/L	379534	KED
>	Ge	72	1088303.2	0.6				ug/L	1316182	Standard
>	In	115	819333.5	0.7				ug/L	994105	Standard
>	Ge-1	72	59587.0	1.0				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		82.686
>	In	115		82.419
>	Ge-1	72		87.903

Sample ID: 08-013-05a 2X

Report Date/Time: Monday, August 26, 2024 09:49:39

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# Quantitative Analysis - Summary Report

**Sample ID: 08-013-05aD 2X**

Sample Date/Time: Monday, August 26, 2024 09:51:59

Report Date/Time: Monday, August 26, 2024 09:53:49

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-013-05aD 2X.045

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-3401.6	3.0	<b>0.0775</b>	0.004	5.1	ug/L	-9343	Standard
	Ni -1	60	2992.6	1.6	<b>0.2442</b>	0.006	2.4	ug/L	582	Standard
	Ni -2	62	124406.1	1.7	<b>94.8135</b>	2.055	2.2	ug/L	3055	Standard
	As	75	29893.3	0.9	<b>1.5141</b>	0.027	1.8	ug/L	25703	Standard
	As-1	75	4973.3	5.9	<b>0.6788</b>	0.050	7.4	ug/L	1359	Standard
	Se	77	3012.7	1.0	<b>7.3166</b>	0.120	1.6	ug/L	259	Standard
	Se -1	78	26462.5	0.7	<b>4.0620</b>	0.107	2.6	ug/L	25820	Standard
	Br	79	26206.0	0.9				ug/L	715	Standard
	Se -2	82	644.3	2.3	<b>0.2379</b>	0.036	15.2	ug/L	617	Standard
	Kr	83	813.4	8.2				ug/L	646	Standard
	Y	89	1724230.0	0.4				ug/L	2084970	Standard
	Rh	103	1176177.8	0.5				ug/L	1339953	Standard
	Ni -3	58	745.1	5.3	<b>0.0670</b>	0.009	14.1	ug/L	229	KED
	Ni -4	60	340.0	8.2	<b>0.0488</b>	0.015	29.8	ug/L	94	KED
	Ni -5	62	71.7	2.1	<b>0.1343</b>	0.004	3.2	ug/L	14	KED
	As-2	75	265.0	9.5	<b>0.6550</b>	0.066	10.1	ug/L	8	KED
	Y-1	89	134271.1	0.6				ug/L	151628	KED
	Rh-1	103	335134.1	0.1				ug/L	379534	KED
>	Ge	72	1073647.4	0.6				ug/L	1316182	Standard
>	In	115	815751.8	0.6				ug/L	994105	Standard
>	Ge-1	72	58926.0	0.8				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		81.573
>	In	115		82.059
>	Ge-1	72		86.928

Sample ID: 08-013-05aD 2X

Report Date/Time: Monday, August 26, 2024 09:53:49

## Quantitative Analysis - Summary Report

**Sample ID: 08-013-05aL 10X**

Sample Date/Time: Monday, August 26, 2024 09:56:08

Report Date/Time: Monday, August 26, 2024 09:57:58

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-013-05aL 10X.046

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-5885.8	2.5	-0.0481	0.004	8.0	ug/L	-9343	Standard
	Ni -1	60	1073.0	2.3	0.0269	0.001	4.0	ug/L	582	Standard
	Ni -2	62	95941.1	0.9	74.8472	0.441	0.6	ug/L	3055	Standard
	As	75	25523.2	0.2	0.8710	0.061	7.0	ug/L	25703	Standard
	As-1	75	2285.7	2.9	0.2226	0.006	2.7	ug/L	1359	Standard
	Se	77	1889.8	1.8	4.5167	0.081	1.8	ug/L	259	Standard
	Se -1	78	24866.6	0.5	3.3543	0.338	10.1	ug/L	25820	Standard
	Br	79	13963.5	1.1				ug/L	715	Standard
	Se -2	82	676.0	4.8	0.3400	0.068	20.0	ug/L	617	Standard
	Kr	83	694.0	3.3				ug/L	646	Standard
	Y	89	1659493.1	1.2				ug/L	2084970	Standard
	Rh	103	1150197.6	1.1				ug/L	1339953	Standard
	Ni -3	58	321.9	4.8	-0.0238	0.003	14.0	ug/L	229	KED
	Ni -4	60	135.7	13.5	-0.0521	0.009	18.1	ug/L	94	KED
	Ni -5	62	40.7	12.4	0.0422	0.017	41.0	ug/L	14	KED
	As-2	75	78.7	6.0	0.2028	0.011	5.2	ug/L	8	KED
	Y-1	89	123384.2	0.9				ug/L	151628	KED
	Rh-1	103	310065.9	1.4				ug/L	379534	KED
>	Ge	72	1043144.2	1.5				ug/L	1316182	Standard
>	In	115	794835.5	1.1				ug/L	994105	Standard
>	Ge-1	72	53968.1	2.0				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		79.255
>	In	115		79.955
>	Ge-1	72		79.614

Sample ID: 08-013-05aL 10X

Report Date/Time: Monday, August 26, 2024 09:57:58

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## Quantitative Analysis - Summary Report

**Sample ID: 08-013-05aMS 2X**

Sample Date/Time: Monday, August 26, 2024 10:00:17

Report Date/Time: Monday, August 26, 2024 10:02:06

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-013-05aMS 2X.047

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	1030780.3	0.7	<b>51.2079</b>	0.263	0.5	ug/L	-9343	Standard
	Ni -1	60	421028.6	1.4	<b>50.5440</b>	0.262	0.5	ug/L	582	Standard
	Ni -2	62	153902.3	0.7	<b>123.2194</b>	2.006	1.6	ug/L	3055	Standard
	As	75	330428.6	0.3	<b>57.5791</b>	0.547	0.9	ug/L	25703	Standard
	As-1	75	309917.2	0.3	<b>56.2104</b>	0.577	1.0	ug/L	1359	Standard
	Se	77	22570.8	0.9	<b>61.3007</b>	0.340	0.6	ug/L	259	Standard
	Se -1	78	92074.4	0.5	<b>61.1773</b>	0.560	0.9	ug/L	25820	Standard
	Br	79	22782.5	0.5				ug/L	715	Standard
	Se -2	82	28216.5	0.8	<b>57.5569</b>	0.812	1.4	ug/L	617	Standard
	Kr	83	639.0	1.5				ug/L	646	Standard
	Y	89	1641138.4	0.8				ug/L	2084970	Standard
	Rh	103	1120749.6	0.3				ug/L	1339953	Standard
	Ni -3	58	199194.0	0.7	<b>48.3682</b>	0.297	0.6	ug/L	229	KED
	Ni -4	60	88173.6	0.6	<b>48.7172</b>	0.315	0.6	ug/L	94	KED
	Ni -5	62	13507.7	0.9	<b>47.9529</b>	0.304	0.6	ug/L	14	KED
	As-2	75	20129.5	1.0	<b>53.5743</b>	0.236	0.4	ug/L	8	KED
	Y-1	89	127521.7	0.9				ug/L	151628	KED
	Rh-1	103	317645.7	0.6				ug/L	379534	KED
>	Ge	72	1026927.8	1.2				ug/L	1316182	Standard
>	In	115	782362.5	0.6				ug/L	994105	Standard
>	Ge-1	72	55861.3	1.3				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		78.023
>	In	115		78.700
>	Ge-1	72		82.407

Sample ID: 08-013-05aMS 2X

Report Date/Time: Monday, August 26, 2024 10:02:06

## Quantitative Analysis - Summary Report

**Sample ID: 08-013-05aMSD 2X**

Sample Date/Time: Monday, August 26, 2024 10:04:26

Report Date/Time: Monday, August 26, 2024 10:06:15

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-013-05aMSD 2X.048

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	1028394.5	0.2	<b>50.8839</b>	0.339	0.7	ug/L	-9343	Standard
	Ni -1	60	420384.0	1.3	<b>50.2620</b>	0.538	1.1	ug/L	582	Standard
	Ni -2	62	140852.0	0.5	<b>112.1305</b>	1.169	1.0	ug/L	3055	Standard
	As	75	331489.6	1.2	<b>57.5214</b>	0.359	0.6	ug/L	25703	Standard
	As-1	75	311876.0	1.5	<b>56.3309</b>	0.456	0.8	ug/L	1359	Standard
	Se	77	22462.0	1.0	<b>60.7505</b>	0.252	0.4	ug/L	259	Standard
	Se -1	78	91826.2	0.9	<b>60.6455</b>	0.895	1.5	ug/L	25820	Standard
	Br	79	21715.2	0.5				ug/L	715	Standard
	Se -2	82	28471.0	1.7	<b>57.8411</b>	0.918	1.6	ug/L	617	Standard
	Kr	83	646.0	6.0				ug/L	646	Standard
	Y	89	1665060.7	1.1				ug/L	2084970	Standard
	Rh	103	1136758.2	0.8				ug/L	1339953	Standard
	Ni -3	58	200188.4	1.7	<b>48.1554</b>	0.273	0.6	ug/L	229	KED
	Ni -4	60	88771.0	2.2	<b>48.5876</b>	0.540	1.1	ug/L	94	KED
	Ni -5	62	13639.5	3.0	<b>47.9646</b>	0.920	1.9	ug/L	14	KED
	As-2	75	20596.5	2.4	<b>54.3051</b>	0.784	1.4	ug/L	8	KED
	Y-1	89	130426.1	1.4				ug/L	151628	KED
	Rh-1	103	322076.2	2.4				ug/L	379534	KED
>	Ge	72	1031105.0	0.8				ug/L	1316182	Standard
>	In	115	795221.7	1.5				ug/L	994105	Standard
>	Ge-1	72	56382.4	1.2				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		78.341
>	In	115		79.994
>	Ge-1	72		83.176

Sample ID: 08-013-05aMSD 2X

Report Date/Time: Monday, August 26, 2024 10:06:15

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## Quantitative Analysis - Summary Report

**Sample ID: 08-013-05aPS 2X**

Sample Date/Time: Monday, August 26, 2024 10:08:36

Report Date/Time: Monday, August 26, 2024 10:10:25

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240826A\08-013-05aPS 2X.049

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	744122.6	0.2	<b>37.9258</b>	0.158	0.4	ug/L	-9343	Standard
	Ni -1	60	307391.3	0.5	<b>37.7731</b>	0.171	0.5	ug/L	582	Standard
	Ni -2	62	115377.4	0.7	<b>94.1493</b>	1.159	1.2	ug/L	3055	Standard
	As	75	249390.3	0.6	<b>43.6482</b>	0.222	0.5	ug/L	25703	Standard
	As-1	75	229187.2	0.7	<b>42.5287</b>	0.204	0.5	ug/L	1359	Standard
	Se	77	16523.6	1.0	<b>45.8180</b>	0.279	0.6	ug/L	259	Standard
	Se -1	78	73192.7	0.4	<b>46.5417</b>	0.241	0.5	ug/L	25820	Standard
	Br	79	20975.7	1.0				ug/L	715	Standard
	Se -2	82	20900.6	1.0	<b>43.4126</b>	0.212	0.5	ug/L	617	Standard
	Kr	83	666.7	2.0				ug/L	646	Standard
	Y	89	1606104.7	1.3				ug/L	2084970	Standard
	Rh	103	1104484.1	0.6				ug/L	1339953	Standard
	Ni -3	58	145880.5	1.2	<b>35.9283</b>	0.568	1.6	ug/L	229	KED
	Ni -4	60	64479.5	0.5	<b>36.1273</b>	0.317	0.9	ug/L	94	KED
	Ni -5	62	9945.8	0.3	<b>35.8112</b>	0.222	0.6	ug/L	14	KED
	As-2	75	14956.2	0.6	<b>40.3998</b>	0.097	0.2	ug/L	8	KED
	Y-1	89	125465.6	1.4				ug/L	151628	KED
	Rh-1	103	311608.6	1.4				ug/L	379534	KED
>	Ge	72	1002591.5	0.7				ug/L	1316182	Standard
>	In	115	772730.3	0.2				ug/L	994105	Standard
>	Ge-1	72	55034.1	0.7				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		76.174
>	In	115		77.731
>	Ge-1	72		81.187

Sample ID: 08-013-05aPS 2X

Report Date/Time: Monday, August 26, 2024 10:10:25

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-01c 10X**

Sample Date/Time: Monday, August 26, 2024 10:26:27

Report Date/Time: Monday, August 26, 2024 10:28:17

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-01c 10X.050

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	4674.0	11.8	<b>0.4698</b>	0.025	5.3	ug/L	-9343	Standard
	Ni -1	60	10312.7	4.6	<b>1.1428</b>	0.042	3.7	ug/L	582	Standard
	Ni -2	62	462729.0	11.7	<b>374.9520</b>	39.925	10.6	ug/L	3055	Standard
	As	75	35524.5	4.3	<b>2.8148</b>	0.210	7.5	ug/L	25703	Standard
	As-1	75	10396.4	5.4	<b>1.7097</b>	0.113	6.6	ug/L	1359	Standard
	Se	77	30413.4	5.6	<b>82.9590</b>	3.689	4.4	ug/L	259	Standard
	Se -1	78	36740.3	4.7	<b>13.9007</b>	1.111	8.0	ug/L	25820	Standard
	Br	79	2908180.5	0.8				ug/L	715	Standard
	Se -2	82	4610.7	0.3	<b>8.5551</b>	0.142	1.7	ug/L	617	Standard
	Kr	83	3241.0	21.7				ug/L	646	Standard
	Y	89	1673944.1	1.0				ug/L	2084970	Standard
	Rh	103	1047755.7	1.4				ug/L	1339953	Standard
	Ni -3	58	2622.3	1.7	<b>0.4843</b>	0.010	2.0	ug/L	229	KED
	Ni -4	60	1095.7	2.9	<b>0.4307</b>	0.017	3.9	ug/L	94	KED
	Ni -5	62	293.3	4.3	<b>0.8562</b>	0.042	4.9	ug/L	14	KED
	As-2	75	259.3	6.0	<b>0.6235</b>	0.037	5.9	ug/L	8	KED
	Y-1	89	133564.1	0.4				ug/L	151628	KED
	Rh-1	103	313584.8	0.6				ug/L	379534	KED
>	Ge	72	1024630.0	1.2				ug/L	1316182	Standard
>	In	115	743405.4	1.8				ug/L	994105	Standard
>	Ge-1	72	60497.8	0.3				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		77.849
>	In	115		74.781
>	Ge-1	72		89.247

Sample ID: 08-224-01c 10X

Report Date/Time: Monday, August 26, 2024 10:28:17

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## Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, August 26, 2024 10:30:38

Report Date/Time: Monday, August 26, 2024 10:32:28

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 6.051

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	949157.5	0.6	<b>39.7290</b>	0.224	0.6	ug/L	-9343	Standard
	Ni -1	60	385425.8	1.0	<b>38.9104</b>	0.279	0.7	ug/L	582	Standard
	Ni -2	62	317445.9	0.2	<b>215.3079</b>	2.645	1.2	ug/L	3055	Standard
	As	75	291311.4	1.0	<b>41.7297</b>	0.178	0.4	ug/L	25703	Standard
	As-1	75	263311.7	1.1	<b>40.1274</b>	0.063	0.2	ug/L	1359	Standard
	Se	77	23019.2	1.7	<b>52.5204</b>	0.761	1.4	ug/L	259	Standard
	Se -1	78	89378.1	1.5	<b>46.7412</b>	0.534	1.1	ug/L	25820	Standard
	Br	79	29277.3	2.9				ug/L	715	Standard
	Se -2	82	24216.2	2.1	<b>41.2671</b>	0.431	1.0	ug/L	617	Standard
	Kr	83	1930.8	4.2				ug/L	646	Standard
	Y	89	1971939.7	1.1				ug/L	2084970	Standard
	Rh	103	1127149.2	1.9				ug/L	1339953	Standard
	Ni -3	58	184698.7	0.8	<b>37.8593</b>	0.351	0.9	ug/L	229	KED
	Ni -4	60	81524.6	0.0	<b>38.0180</b>	0.083	0.2	ug/L	94	KED
	Ni -5	62	12513.1	0.8	<b>37.4987</b>	0.276	0.7	ug/L	14	KED
	As-2	75	17086.2	0.8	<b>38.4081</b>	0.357	0.9	ug/L	8	KED
	Y-1	89	150997.5	0.1				ug/L	151628	KED
	Rh-1	103	314945.8	0.3				ug/L	379534	KED
>	Ge	72	1220471.2	1.1				ug/L	1316182	Standard
>	In	115	911413.7	1.8				ug/L	994105	Standard
>	Ge-1	72	66131.4	0.2				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	99.323	
	Ni -1	60	97.276	
	Ni -2	62	538.270	
	As	75	104.324	
	As-1	75	100.319	
	Se	77	131.301	
	Se -1	78	116.853	
	Br	79		
	Se -2	82	103.168	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	94.648	
	Ni -4	60	95.045	
	Ni -5	62	93.747	
	As-2	75	96.020	
	Y-1	89		
	Rh-1	103		
>	Ge	72		92.728
>	In	115		91.682
>	Ge-1	72		97.557

Sample ID: QC Std 6

Report Date/Time: Monday, August 26, 2024 10:32:28

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## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, August 26, 2024 10:34:49

Report Date/Time: Monday, August 26, 2024 10:36:38

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240826A\QC Std 7.052

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	440998.4	0.7	<b>19.4386</b>	0.216	1.1	ug/L	-9343	Standard
	Ni -1	60	182420.7	0.5	<b>19.2206</b>	0.092	0.5	ug/L	582	Standard
	Ni -2	62	222224.6	1.1	<b>157.1794</b>	1.609	1.0	ug/L	3055	Standard
	As	75	151098.8	0.4	<b>20.9143</b>	0.192	0.9	ug/L	25703	Standard
	As-1	75	126589.6	0.1	<b>20.0956</b>	0.186	0.9	ug/L	1359	Standard
	Se	77	11168.0	0.4	<b>26.3774</b>	0.298	1.1	ug/L	259	Standard
	Se -1	78	55314.9	1.2	<b>24.0723</b>	0.301	1.2	ug/L	25820	Standard
	Br	79	18866.5	0.8				ug/L	715	Standard
	Se -2	82	12169.5	0.9	<b>21.2086</b>	0.118	0.6	ug/L	617	Standard
	Kr	83	1306.7	1.3				ug/L	646	Standard
	Y	89	1905707.5	0.4				ug/L	2084970	Standard
	Rh	103	1098500.1	0.5				ug/L	1339953	Standard
	Ni -3	58	88194.9	1.0	<b>18.6970</b>	0.205	1.1	ug/L	229	KED
	Ni -4	60	38728.1	1.1	<b>18.6652</b>	0.091	0.5	ug/L	94	KED
	Ni -5	62	6054.9	1.1	<b>18.7662</b>	0.223	1.2	ug/L	14	KED
	As-2	75	8320.8	0.7	<b>19.3924</b>	0.162	0.8	ug/L	8	KED
	Y-1	89	148344.2	0.4				ug/L	151628	KED
	Rh-1	103	312943.0	0.9				ug/L	379534	KED
>	Ge	72	1166324.2	0.8				ug/L	1316182	Standard
>	In	115	892179.3	0.8				ug/L	994105	Standard
>	Ge-1	72	63762.3	0.6				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	97.193	
	Ni -1	60	96.103	
	Ni -2	62	785.897	
	As	75	104.572	
	As-1	75	100.478	
	Se	77	131.887	
	Se -1	78	120.362	
	Br	79		
	Se -2	82	106.043	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	93.485	
	Ni -4	60	93.326	
	Ni -5	62	93.831	
	As-2	75	96.962	
	Y-1	89		
	Rh-1	103		
>	Ge	72		88.614
>	In	115		89.747
>	Ge-1	72		94.063

Sample ID: QC Std 7

Report Date/Time: Monday, August 26, 2024 10:36:38

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## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, August 26, 2024 10:39:00

Report Date/Time: Monday, August 26, 2024 10:40:49

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 8.053

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-7688.1	1.2	-0.1014	0.004	4.3	ug/L	-9343	Standard
	Ni -1	60	432.7	4.2	-0.0536	0.002	3.5	ug/L	582	Standard
	Ni -2	62	165734.6	1.2	118.4993	0.863	0.7	ug/L	3055	Standard
	As	75	25834.4	0.9	0.4919	0.022	4.5	ug/L	25703	Standard
	As-1	75	2256.0	2.2	0.1801	0.007	4.1	ug/L	1359	Standard
	Se	77	1624.8	2.3	3.3969	0.085	2.5	ug/L	259	Standard
	Se -1	78	26046.7	0.8	2.3233	0.080	3.5	ug/L	25820	Standard
	Br	79	15754.0	0.9				ug/L	715	Standard
	Se -2	82	1007.0	1.4	0.8268	0.018	2.2	ug/L	617	Standard
	Kr	83	1129.7	1.9				ug/L	646	Standard
	Y	89	1868042.8	0.0				ug/L	2084970	Standard
	Rh	103	1176027.5	0.1				ug/L	1339953	Standard
	Ni -3	58	159.3	9.3	-0.0711	0.003	4.2	ug/L	229	KED
	Ni -4	60	72.0	17.4	-0.0951	0.006	6.4	ug/L	94	KED
	Ni -5	62	45.0	9.7	0.0321	0.014	44.5	ug/L	14	KED
	As-2	75	7.7	27.2	0.0039	0.005	127.6	ug/L	8	KED
	Y-1	89	146506.4	0.8				ug/L	151628	KED
	Rh-1	103	337693.1	0.5				ug/L	379534	KED
>	Ge	72	1149042.9	0.5				ug/L	1316182	Standard
>	In	115	873469.2	0.2				ug/L	994105	Standard
>	Ge-1	72	64121.3	0.6				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		87.301
>	In	115		87.865
>	Ge-1	72		94.592

Sample ID: QC Std 8

Report Date/Time: Monday, August 26, 2024 10:40:49

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-02c 10X**

Sample Date/Time: Monday, August 26, 2024 10:43:34

Report Date/Time: Monday, August 26, 2024 10:45:24

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-02c 10X.054

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	5077.7	76.8	<b>0.4939</b>	0.197	39.8	ug/L	-9343	Standard
	Ni -1	60	14989.6	11.3	<b>1.7307</b>	0.216	12.5	ug/L	582	Standard
	Ni -2	62	1661450.2	33.6	<b>1371.2470</b>	466.406	34.0	ug/L	3055	Standard
	As	75	52158.3	12.0	<b>6.0405</b>	1.226	20.3	ug/L	25703	Standard
	As-1	75	13798.2	19.1	<b>2.3599</b>	0.473	20.0	ug/L	1359	Standard
	Se	77	75617.9	4.7	<b>209.8851</b>	11.061	5.3	ug/L	259	Standard
	Se -1	78	62837.8	13.1	<b>36.9946</b>	7.434	20.1	ug/L	25820	Standard
	Br	79	6585907.1	1.0				ug/L	715	Standard
	Se -2	82	9697.6	2.5	<b>19.3961</b>	0.404	2.1	ug/L	617	Standard
	Kr	83	22918.9	35.8				ug/L	646	Standard
	Y	89	1718626.5	3.0				ug/L	2084970	Standard
	Rh	103	1062382.5	2.0				ug/L	1339953	Standard
	Ni -3	58	1237.9	3.6	<b>0.1558</b>	0.008	5.1	ug/L	229	KED
	Ni -4	60	552.7	2.1	<b>0.1353</b>	0.009	6.3	ug/L	94	KED
	Ni -5	62	616.3	3.7	<b>1.7904</b>	0.051	2.9	ug/L	14	KED
	As-2	75	156.0	5.1	<b>0.3455</b>	0.015	4.3	ug/L	8	KED
	Y-1	89	136903.0	1.8				ug/L	151628	KED
	Rh-1	103	316784.0	1.5				ug/L	379534	KED
>	Ge	72	1011764.3	0.6				ug/L	1316182	Standard
>	In	115	757443.8	1.2				ug/L	994105	Standard
>	Ge-1	72	64535.5	1.2				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		76.871
>	In	115		76.194
>	Ge-1	72		95.203

Sample ID: 08-224-02c 10X

Report Date/Time: Monday, August 26, 2024 10:45:24

## Quantitative Analysis - Summary Report

**Sample ID: 08-224-03c 10X**

Sample Date/Time: Monday, August 26, 2024 10:47:44

Report Date/Time: Monday, August 26, 2024 10:49:33

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-03c 10X.055

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	10088.6	10.6	<b>0.7168</b>	0.050	7.0	ug/L	-9343	Standard
	Ni -1	60	16440.1	3.3	<b>1.7966</b>	0.061	3.4	ug/L	582	Standard
	Ni -2	62	2530352.8	5.2	<b>1972.1529</b>	102.964	5.2	ug/L	3055	Standard
	As	75	71351.1	1.7	<b>8.9141</b>	0.234	2.6	ug/L	25703	Standard
	As-1	75	14625.4	7.4	<b>2.3660</b>	0.196	8.3	ug/L	1359	Standard
	Se	77	79202.0	0.8	<b>207.6850</b>	1.475	0.7	ug/L	259	Standard
	Se -1	78	80546.8	1.7	<b>48.4941</b>	1.098	2.3	ug/L	25820	Standard
	Br	79	6235298.7	1.0				ug/L	715	Standard
	Se -2	82	9466.1	1.0	<b>17.8116</b>	0.236	1.3	ug/L	617	Standard
	Kr	83	35050.0	6.0				ug/L	646	Standard
	Y	89	1825699.2	0.9				ug/L	2084970	Standard
	Rh	103	1129356.8	0.3				ug/L	1339953	Standard
	Ni -3	58	1015.0	1.9	<b>0.0928</b>	0.005	5.3	ug/L	229	KED
	Ni -4	60	471.3	5.6	<b>0.0791</b>	0.010	13.0	ug/L	94	KED
	Ni -5	62	588.0	3.6	<b>1.5671</b>	0.068	4.3	ug/L	14	KED
	As-2	75	145.0	5.0	<b>0.2951</b>	0.017	5.8	ug/L	8	KED
	Y-1	89	148607.6	0.8				ug/L	151628	KED
	Rh-1	103	343040.6	0.7				ug/L	379534	KED
>	Ge	72	1070711.3	0.3				ug/L	1316182	Standard
>	In	115	802404.9	0.8				ug/L	994105	Standard
>	Ge-1	72	69799.4	0.6				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		81.350
>	In	115		80.716
>	Ge-1	72		102.969

Sample ID: 08-224-03c 10X

Report Date/Time: Monday, August 26, 2024 10:49:33

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-04c 10X**

Sample Date/Time: Monday, August 26, 2024 10:51:53

Report Date/Time: Monday, August 26, 2024 10:53:42

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-04c 10X.056

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	9782.8	10.3	<b>0.6199</b>	0.038	6.1	ug/L	-9343	Standard
	Ni -1	60	5256.3	1.7	<b>0.3987</b>	0.008	2.0	ug/L	582	Standard
	Ni -2	62	1100799.5	3.1	<b>704.4180</b>	22.911	3.3	ug/L	3055	Standard
	As	75	67185.6	1.5	<b>6.0476</b>	0.150	2.5	ug/L	25703	Standard
	As-1	75	13464.1	1.9	<b>1.7459</b>	0.038	2.2	ug/L	1359	Standard
	Se	77	13367.6	6.7	<b>28.3297</b>	1.961	6.9	ug/L	259	Standard
	Se -1	78	58800.5	2.3	<b>22.0900</b>	0.910	4.1	ug/L	25820	Standard
	Br	79	298088.4	0.9				ug/L	715	Standard
	Se -2	82	2079.8	1.7	<b>2.3650</b>	0.058	2.5	ug/L	617	Standard
	Kr	83	6469.8	7.9				ug/L	646	Standard
	Y	89	1684042.2	0.9				ug/L	2084970	Standard
	Rh	103	1336597.4	1.1				ug/L	1339953	Standard
	Ni -3	58	3197.8	4.5	<b>0.5074</b>	0.027	5.4	ug/L	229	KED
	Ni -4	60	745.7	9.4	<b>0.1952</b>	0.030	15.4	ug/L	94	KED
	Ni -5	62	274.3	6.5	<b>0.6604</b>	0.046	7.0	ug/L	14	KED
	As-2	75	718.0	0.4	<b>1.4901</b>	0.007	0.5	ug/L	8	KED
	Y-1	89	157121.7	0.4				ug/L	151628	KED
	Rh-1	103	390088.4	0.9				ug/L	379534	KED
>	Ge	72	1301792.8	0.6				ug/L	1316182	Standard
>	In	115	909008.3	1.1				ug/L	994105	Standard
>	Ge-1	72	70995.6	0.6				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		98.907
>	In	115		91.440
>	Ge-1	72		104.733

Sample ID: 08-224-04c 10X

Report Date/Time: Monday, August 26, 2024 10:53:42

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-05c 10X**

Sample Date/Time: Monday, August 26, 2024 10:56:02

Report Date/Time: Monday, August 26, 2024 10:57:51

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-05c 10X.057

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	6907.9	30.2	<b>0.5601</b>	0.096	17.2	ug/L	-9343	Standard
	Ni -1	60	15257.2	4.5	<b>1.6294</b>	0.071	4.4	ug/L	582	Standard
	Ni -2	62	2642166.2	9.7	<b>2023.2663</b>	189.112	9.3	ug/L	3055	Standard
	As	75	73872.4	4.8	<b>9.1337</b>	0.563	6.2	ug/L	25703	Standard
	As-1	75	16256.1	8.2	<b>2.6010</b>	0.226	8.7	ug/L	1359	Standard
	Se	77	67069.8	2.6	<b>172.7238</b>	3.966	2.3	ug/L	259	Standard
	Se -1	78	81417.0	4.7	<b>48.0458</b>	2.864	6.0	ug/L	25820	Standard
	Br	79	6590550.9	0.3				ug/L	715	Standard
	Se -2	82	9459.5	0.7	<b>17.4722</b>	0.178	1.0	ug/L	617	Standard
	Kr	83	30473.9	14.8				ug/L	646	Standard
	Y	89	1870057.8	0.2				ug/L	2084970	Standard
	Rh	103	1151698.5	0.6				ug/L	1339953	Standard
	Ni -3	58	1076.4	2.9	<b>0.1037</b>	0.006	6.1	ug/L	229	KED
	Ni -4	60	476.0	3.3	<b>0.0802</b>	0.007	8.2	ug/L	94	KED
	Ni -5	62	745.0	2.2	<b>2.0034</b>	0.046	2.3	ug/L	14	KED
	As-2	75	117.3	7.2	<b>0.2348</b>	0.018	7.6	ug/L	8	KED
	Y-1	89	149627.9	0.7				ug/L	151628	KED
	Rh-1	103	345527.5	0.7				ug/L	379534	KED
>	Ge	72	1089571.7	0.5				ug/L	1316182	Standard
>	In	115	816232.2	0.8				ug/L	994105	Standard
>	Ge-1	72	70148.8	0.1				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		82.783
>	In	115		82.107
>	Ge-1	72		103.484

Sample ID: 08-224-05c 10X

Report Date/Time: Monday, August 26, 2024 10:57:51

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## Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, August 26, 2024 11:08:52

Report Date/Time: Monday, August 26, 2024 11:10:42

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240826A\QC Std 6.060

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	1073967.8	0.7	<b>40.0390</b>	0.129	0.3	ug/L	-9343	Standard
	Ni -1	60	435092.8	0.6	<b>39.1260</b>	0.161	0.4	ug/L	582	Standard
	Ni -2	62	774773.1	3.5	<b>470.3581</b>	15.712	3.3	ug/L	3055	Standard
	As	75	331148.3	1.0	<b>42.3020</b>	0.475	1.1	ug/L	25703	Standard
	As-1	75	294854.0	1.0	<b>40.0268</b>	0.522	1.3	ug/L	1359	Standard
	Se	77	23092.0	1.1	<b>46.8683</b>	0.472	1.0	ug/L	259	Standard
	Se -1	78	105453.5	1.9	<b>50.0192</b>	1.076	2.2	ug/L	25820	Standard
	Br	79	38881.2	0.3				ug/L	715	Standard
	Se -2	82	27293.1	1.9	<b>41.4398</b>	0.990	2.4	ug/L	617	Standard
	Kr	83	2251.5	2.1				ug/L	646	Standard
	Y	89	1809730.0	0.8				ug/L	2084970	Standard
	Rh	103	1256992.6	0.6				ug/L	1339953	Standard
	Ni -3	58	212341.4	0.3	<b>38.8438</b>	0.262	0.7	ug/L	229	KED
	Ni -4	60	93289.3	0.7	<b>38.8278</b>	0.659	1.7	ug/L	94	KED
	Ni -5	62	14461.3	1.6	<b>38.6799</b>	0.901	2.3	ug/L	14	KED
	As-2	75	19062.0	0.5	<b>38.2381</b>	0.327	0.9	ug/L	8	KED
	Y-1	89	165545.7	0.6				ug/L	151628	KED
	Rh-1	103	357533.1	0.3				ug/L	379534	KED
>	Ge	72	1370153.7	0.6				ug/L	1316182	Standard
>	In	115	996206.7	0.3				ug/L	994105	Standard
>	Ge-1	72	74109.7	1.0				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	100.098	
	Ni -1	60	97.815	
	Ni -2	62	1175.895	
	As	75	105.755	
	As-1	75	100.067	
	Se	77	117.171	
	Se -1	78	125.048	
	Br	79		
	Se -2	82	103.599	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	97.109	
	Ni -4	60	97.070	
	Ni -5	62	96.700	
	As-2	75	95.595	
	Y-1	89		
	Rh-1	103		
>	Ge	72		104.101
>	In	115		100.211
>	Ge-1	72		109.327

Sample ID: QC Std 6

Report Date/Time: Monday, August 26, 2024 11:10:42

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## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, August 26, 2024 11:13:03

Report Date/Time: Monday, August 26, 2024 11:14:53

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 7.061

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	496821.2	0.7	<b>19.8513</b>	0.022	0.1	ug/L	-9343	Standard
	Ni -1	60	205461.7	0.9	<b>19.6315</b>	0.107	0.5	ug/L	582	Standard
	Ni -2	62	549472.0	1.1	<b>354.8609</b>	2.024	0.6	ug/L	3055	Standard
	As	75	171573.8	0.2	<b>21.6463</b>	0.156	0.7	ug/L	25703	Standard
	As-1	75	140154.2	0.4	<b>20.1750</b>	0.187	0.9	ug/L	1359	Standard
	Se	77	11517.6	1.5	<b>24.6269</b>	0.283	1.1	ug/L	259	Standard
	Se -1	78	66195.0	0.7	<b>27.6189</b>	0.048	0.2	ug/L	25820	Standard
	Br	79	31401.5	1.3				ug/L	715	Standard
	Se -2	82	13743.3	0.1	<b>21.7436</b>	0.124	0.6	ug/L	617	Standard
	Kr	83	1736.8	1.0				ug/L	646	Standard
	Y	89	1728615.7	1.0				ug/L	2084970	Standard
	Rh	103	1189601.2	0.8				ug/L	1339953	Standard
	Ni -3	58	98728.1	0.2	<b>19.1186</b>	0.136	0.7	ug/L	229	KED
	Ni -4	60	43596.1	0.8	<b>19.1946</b>	0.149	0.8	ug/L	94	KED
	Ni -5	62	6913.7	1.0	<b>19.5745</b>	0.074	0.4	ug/L	14	KED
	As-2	75	9064.2	0.6	<b>19.2944</b>	0.155	0.8	ug/L	8	KED
	Y-1	89	158132.7	0.2				ug/L	151628	KED
	Rh-1	103	332818.1	0.8				ug/L	379534	KED
>	Ge	72	1286245.6	0.6				ug/L	1316182	Standard
>	In	115	951780.2	1.3				ug/L	994105	Standard
>	Ge-1	72	69813.2	0.8				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	99.257	
	Ni -1	60	98.158	
	Ni -2	62	1774.304	
	As	75	108.232	
	As-1	75	100.875	
	Se	77	123.134	
	Se -1	78	138.094	
	Br	79		
	Se -2	82	108.718	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	95.593	
	Ni -4	60	95.973	
	Ni -5	62	97.873	
	As-2	75	96.472	
	Y-1	89		
	Rh-1	103		
>	Ge	72		97.725
>	In	115		95.742
>	Ge-1	72		102.989

Sample ID: QC Std 7

Report Date/Time: Monday, August 26, 2024 11:14:53

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, August 26, 2024 11:17:14

Report Date/Time: Monday, August 26, 2024 11:19:04

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 8.062

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-8112.6	0.7	-0.0865	0.002	2.8	ug/L	-9343	Standard
	Ni -1	60	585.3	2.6	-0.0431	0.001	2.3	ug/L	582	Standard
	Ni -2	62	422306.3	1.2	276.2845	4.927	1.8	ug/L	3055	Standard
	As	75	32176.4	1.3	1.0443	0.061	5.8	ug/L	25703	Standard
	As-1	75	2792.0	5.0	0.2246	0.016	6.9	ug/L	1359	Standard
	Se	77	1406.1	1.5	2.5383	0.045	1.8	ug/L	259	Standard
	Se -1	78	32571.4	1.3	4.9786	0.244	4.9	ug/L	25820	Standard
	Br	79	25743.5	1.1				ug/L	715	Standard
	Se -2	82	1298.7	4.9	1.1416	0.076	6.6	ug/L	617	Standard
	Kr	83	1534.4	2.4				ug/L	646	Standard
	Y	89	1696856.8	0.6				ug/L	2084970	Standard
	Rh	103	1282322.6	0.1				ug/L	1339953	Standard
	Ni -3	58	205.1	9.9	-0.0646	0.004	5.7	ug/L	229	KED
	Ni -4	60	98.7	1.5	-0.0857	0.001	1.1	ug/L	94	KED
	Ni -5	62	84.0	3.6	0.1337	0.011	7.9	ug/L	14	KED
	As-2	75	11.7	9.9	0.0111	0.003	24.3	ug/L	8	KED
	Y-1	89	157579.4	0.7				ug/L	151628	KED
	Rh-1	103	362394.2	0.8				ug/L	379534	KED
>	Ge	72	1267888.5	1.4				ug/L	1316182	Standard
>	In	115	942557.6	0.5				ug/L	994105	Standard
>	Ge-1	72	69240.7	0.9				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		96.331
>	In	115		94.815
>	Ge-1	72		102.144



## Dissolved Metals EPA 200.8

- Sample Data
- QA/QC Data
- Initial Calibration Data
- Continuing Calibration Data
- Administrative Forms

# Dataset Report

KPM

8-26-24

User Name: kmckinney

Computer Name: DESKTOP-RIRVUDN

Dataset File Path: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\

Report Date/Time: Monday, August 26, 2024 11:19:14

## The Dataset

Batch ID	Sample ID	Date and Time	Read Type	Samp. File Name	Description
SmartTune - [STD/KED] Nebulizer		07:07:45 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - CQID		07:09:57 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - CQID		07:12:05 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - CQID		07:14:15 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - IMass Calibration and		07:16:47 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - IMass Calibration and		07:17:15 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - [STD] Performance Ct		07:17:57 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - [STD] Performance Ct		07:19:17 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - [STD] Performance Ct		07:20:36 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
SmartTune - [STD] Performance Ct		07:22:55 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Sample	07:29:50 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Sample	07:34:00 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 6	07:38:11 Mon 26-A	AQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Blank	07:43:04 Mon 26-A	Blank	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Standard 1	07:46:24 Mon 26-A	Standard #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Standard 2	07:49:45 Mon 26-A	Standard #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Standard 3	07:53:05 Mon 26-A	Standard #3	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Standard 4	07:56:25 Mon 26-A	Standard #4	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Standard 5	07:59:45 Mon 26-A	Standard #5	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Standard 6	08:03:05 Mon 26-A	Standard #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	Standard 7	08:06:25 Mon 26-A	Standard #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 1	08:10:35 Mon 26-A	AQC Std #1	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 2	08:14:46 Mon 26-A	AQC Std #2	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 6	08:18:06 Mon 26-A	AQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 7	08:22:16 Mon 26-A	AQC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 8	08:26:26 Mon 26-A	AQC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	MB0826D1 2X	08:29:47 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	SB0826D1 2X	08:37:20 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-01d 10X	08:41:29 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-02d 10X	08:45:38 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-03d 10X	08:49:47 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-04d 10X	08:53:56 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-05d 10X	08:58:05 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-04dD 10X	09:02:16 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-04dL 50X	09:06:25 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-04dMS 10X	09:10:35 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 6	09:14:46 Mon 26-A	AQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 7	09:18:56 Mon 26-A	AQC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 8	09:23:07 Mon 26-A	AQC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-04dMSD 10X	09:27:34 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	MB0826WM1 2X	09:31:43 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	SB0826WM1 2X	09:43:42 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-013-05a 2X	09:47:50 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-013-05aD 2X	09:51:59 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-013-05aL 10X	09:56:08 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-013-05aMS 2X	10:00:17 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-013-05aMSD 2X	10:04:26 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-013-05aPS 2X	10:08:36 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	08-224-01c 10X	10:26:27 Mon 26-A	Sample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	
	QC Std 6	10:30:38 Mon 26-A	AQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\	

QC Std 7	10:34:49 Mon 26-AQC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
QC Std 8	10:39:00 Mon 26-AQC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
08-224-02c 10X	10:43:34 Mon 26-ASample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
08-224-03c 10X	10:47:44 Mon 26-ASample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
08-224-04c 10X	10:51:53 Mon 26-ASample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
08-224-05c 10X	10:56:02 Mon 26-ASample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
QC Std 6	11:00:12 Mon 26-AQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
BL	11:04:42 Mon 26-ASample	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
QC Std 6	11:08:52 Mon 26-AQC Std #6	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
QC Std 7	11:13:03 Mon 26-AQC Std #7	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408
QC Std 8	11:17:14 Mon 26-AQC Std #8	C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y2408

## SmartTune Wizard - Summary

### Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\SmartTune Daily.swz

Start Time: 8/26/2024 7:16:47 AM

End Time: 8/26/2024 7:17:45 AM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.704)

Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.710)

Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.711)

Target/Obtained mass (207.977/207.975), Target/Obtained resolution (0.7/0.692)

Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.702)

## SmartTune Wizard - Details

### Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\SmartTune Daily.swz

### Optimization Status

Start Time: 8/26/2024 7:22:54 AM

### [STD] Performance Check

#### Optimization Settings:

Method: \Optimizations\STD Performance Check.mth.  
Intensity Criterion: Li 7 > 55000  
Intensity Criterion: In 115 > 300000  
Intensity Criterion: U 238 > 225000  
Intensity Criterion: Bkgd 220.5 <= 5  
Formula Criterion: Ce++ 70 ÷ Ce 140 <= 0.03  
Formula Criterion: CeO 156 ÷ Ce 140 <= 0.025  
RSD Criterion: Li 7.016 < 0.05  
RSD Criterion: In 114.904 < 0.05  
RSD Criterion: U 238.05 < 0.05

#### Optimization Results:

##### Initial Try

Obtained Intensity (Li 7): 83830.31  
Obtained Intensity (In 115): 353286.72  
Obtained Intensity (U 238): 234529.61  
Obtained Intensity (Bkgd 220.5): 0.90  
Obtained Formula (Ce++ 70 ÷ Ce 140): 0.009 (=3701.61 ÷ 390450.62)  
Obtained Formula (CeO 156 ÷ Ce 140): 0.025 (=9568.67 ÷ 390450.62)  
Obtained RSD (Li 7): 0.0044  
Obtained RSD (In 115): 0.0126  
Obtained RSD (U 238): 0.0070

[Passed] Optimum value(s): N/A

End Time: 8/26/2024 7:25:00 AM

## Quantitative Analysis Calibration Report

File Name:

File Path:

Calibration Type: External Calibration

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Ni	57.935	Weighted Linear	0.02	0.00	0.999831
Ni -1	59.933	Weighted Linear	0.01	0.00	0.999747
Ni -2	61.928	Weighted Linear	0.00	0.00	0.999615
As	74.922	Weighted Linear	0.01	0.00	0.999911
As-1	74.922	Weighted Linear	0.01	-0.00	0.999317
Se	76.920	Weighted Linear	0.00	0.00	0.999853
Se -1	77.917	Weighted Linear	0.00	0.00	0.998953
Br	78.918	Weighted Linear	0.00	0.00	0.000000
Se -2	81.917	Weighted Linear	0.00	0.00	0.999643
Kr	82.914	Weighted Linear	0.00	0.00	0.000000
Y	88.905	Weighted Linear	0.00	0.00	0.000000
Rh	102.905	Weighted Linear	0.00	0.00	0.000000
Ni -3	57.935	Weighted Linear	0.07	0.00	0.999599
Ni -4	59.933	Weighted Linear	0.03	0.00	0.999653
Ni -5	61.928	Weighted Linear	0.01	0.00	0.999172
As-2	74.922	Weighted Linear	0.01	-0.00	0.998311
Y-1	88.905	Weighted Linear	0.00	0.00	0.000000
Rh-1	102.905	Weighted Linear	0.00	0.00	0.000000
Ge	71.922	Linear Thru Zero	0.00	0.00	0.000000
In	114.904	Linear Thru Zero	0.00	0.00	0.000000
Ge-1	71.922	Linear Thru Zero	0.00	0.00	0.000000

# Quantitative Analysis - Summary Report

**Sample ID: Blank**

Sample Date/Time: Monday, August 26, 2024 07:43:04

Report Date/Time: Monday, August 26, 2024 07:44:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\Blank.014

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-9342.9	2.2				ug/L		Standard
	Ni -1	60	582.0	4.1				ug/L		Standard
	Ni -2	62	3054.7	0.6				ug/L		Standard
	As	75	25703.0	0.6				ug/L		Standard
	As-1	75	1358.8	3.7				ug/L		Standard
	Se	77	259.0	4.1				ug/L		Standard
	Se -1	78	25820.3	0.8				ug/L		Standard
	Br	79	715.0	3.2				ug/L		Standard
	Se -2	82	617.3	3.7				ug/L		Standard
	Kr	83	646.3	5.6				ug/L		Standard
	Y	89	2084970.2	0.7				ug/L		Standard
	Rh	103	1339953.1	0.5				ug/L		Standard
	Ni -3	58	229.0	4.6				ug/L		KED
	Ni -4	60	94.3	6.4				ug/L		KED
	Ni -5	62	13.7	4.2				ug/L		KED
	As-2	75	8.0	45.1				ug/L		KED
	Y-1	89	151628.4	0.2				ug/L		KED
	Rh-1	103	379534.0	0.6				ug/L		KED
>	Ge	72	1316182.2	1.1				ug/L		Standard
>	In	115	994104.9	0.3				ug/L		Standard
>	Ge-1	72	67787.1	0.8				ug/L		KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		
>	In	115		
>	Ge-1	72		

Sample ID: Blank

Report Date/Time: Monday, August 26, 2024 07:44:54

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## Quantitative Analysis - Summary Report

### Sample ID: Standard 1

Sample Date/Time: Monday, August 26, 2024 07:46:24

Report Date/Time: Monday, August 26, 2024 07:48:14

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\Standard 1.015

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-4877.6	0.3				ug/L	-9343	Standard
	Ni -1	60	2700.9	1.0				ug/L	582	Standard
	Ni -2	62	3404.4	1.1				ug/L	3055	Standard
	As	75	27582.2	0.2				ug/L	25703	Standard
	As-1	75	2753.7	3.5				ug/L	1359	Standard
	Se	77	366.0	5.3				ug/L	259	Standard
	Se -1	78	26694.6	0.5				ug/L	25820	Standard
	Br	79	765.0	1.3				ug/L	715	Standard
	Se -2	82	771.7	4.3				ug/L	617	Standard
	Kr	83	628.3	5.8				ug/L	646	Standard
	Y	89	2119085.7	0.3				ug/L	2084970	Standard
	Rh	103	1496770.7	0.7				ug/L	1339953	Standard
	Ni -3	58	1234.8	2.2				ug/L	229	KED
	Ni -4	60	551.3	6.5				ug/L	94	KED
	Ni -5	62	90.3	2.8				ug/L	14	KED
	As-2	75	93.3	17.1				ug/L	8	KED
	Y-1	89	151423.0	0.9				ug/L	151628	KED
	Rh-1	103	412720.0	0.4				ug/L	379534	KED
>	Ge	72	1349969.2	0.6				ug/L	1316182	Standard
>	In	115	1011868.8	0.2				ug/L	994105	Standard
>	Ge-1	72	67690.3	0.5				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		
>	In	115		
>	Ge-1	72		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 2**

Sample Date/Time: Monday, August 26, 2024 07:49:45

Report Date/Time: Monday, August 26, 2024 07:51:34

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\Standard 2.016

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	4416.0	8.0				ug/L	-9343	Standard
	Ni -1	60	6414.4	0.5				ug/L	582	Standard
	Ni -2	62	3951.5	1.0				ug/L	3055	Standard
	As	75	29948.7	1.0				ug/L	25703	Standard
	As-1	75	5130.6	1.4	0.5000	0.006	1.2	ug/L	1359	Standard
	Se	77	512.7	2.8				ug/L	259	Standard
	Se -1	78	27158.1	0.6				ug/L	25820	Standard
	Br	79	734.0	5.1				ug/L	715	Standard
	Se -2	82	958.4	4.3				ug/L	617	Standard
	Kr	83	621.7	7.9				ug/L	646	Standard
	Y	89	2115000.8	0.3				ug/L	2084970	Standard
	Rh	103	1499381.4	0.7				ug/L	1339953	Standard
	Ni -3	58	2991.4	1.5				ug/L	229	KED
	Ni -4	60	1370.1	3.4				ug/L	94	KED
	Ni -5	62	204.3	7.9				ug/L	14	KED
	As-2	75	259.7	8.2	0.5000	0.038	7.6	ug/L	8	KED
	Y-1	89	153673.8	0.6				ug/L	151628	KED
	Rh-1	103	415952.1	0.6				ug/L	379534	KED
>	Ge	72	1329986.3	0.8				ug/L	1316182	Standard
>	In	115	1008179.0	0.6				ug/L	994105	Standard
>	Ge-1	72	67813.2	0.3				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		
>	In	115		
>	Ge-1	72		

Sample ID: Standard 2

Report Date/Time: Monday, August 26, 2024 07:51:34

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## Quantitative Analysis - Summary Report

### Sample ID: Standard 3

Sample Date/Time: Monday, August 26, 2024 07:53:05

Report Date/Time: Monday, August 26, 2024 07:54:54

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\Standard 3.017

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	45934.9	2.0				ug/L	-9343	Standard
	Ni -1	60	23134.7	0.8	<b>2.0000</b>	0.032	1.6	ug/L	582	Standard
	Ni -2	62	6421.1	1.2	<b>2.0000</b>	0.054	2.7	ug/L	3055	Standard
	As	75	40360.4	0.6	<b>2.0000</b>	0.053	2.6	ug/L	25703	Standard
	As-1	75	15681.0	1.0	<b>1.9428</b>	0.019	1.0	ug/L	1359	Standard
	Se	77	1200.4	1.3	<b>2.0000</b>	0.012	0.6	ug/L	259	Standard
	Se -1	78	29492.4	0.3				ug/L	25820	Standard
	Br	79	747.7	4.8				ug/L	715	Standard
	Se -2	82	1932.1	0.6	<b>2.0000</b>	0.017	0.9	ug/L	617	Standard
	Kr	83	620.7	2.8				ug/L	646	Standard
	Y	89	2122700.3	0.5				ug/L	2084970	Standard
	Rh	103	1476828.7	0.5				ug/L	1339953	Standard
	Ni -3	58	10938.6	1.6	<b>2.0000</b>	0.043	2.2	ug/L	229	KED
	Ni -4	60	4837.8	0.8	<b>2.0000</b>	0.017	0.9	ug/L	94	KED
	Ni -5	62	769.4	1.2	<b>2.0000</b>	0.035	1.8	ug/L	14	KED
	As-2	75	923.0	0.7	<b>1.8956</b>	0.010	0.5	ug/L	8	KED
	Y-1	89	154448.8	0.3				ug/L	151628	KED
	Rh-1	103	416222.0	0.2				ug/L	379534	KED
>	Ge	72	1326034.6	1.0				ug/L	1316182	Standard
>	In	115	1002577.9	0.7				ug/L	994105	Standard
>	Ge-1	72	68493.1	0.6				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		
>	In	115		
>	Ge-1	72		

Sample ID: Standard 3

Report Date/Time: Monday, August 26, 2024 07:54:54

# Quantitative Analysis - Summary Report

**Sample ID: Standard 4**

Sample Date/Time: Monday, August 26, 2024 07:56:25

Report Date/Time: Monday, August 26, 2024 07:58:15

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\Standard 4.018

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Ni	58	120104.1	2.2	5.0000	0.061	1.2	ug/L	-9343		Standard
	Ni -1	60	53937.0	1.9	4.9762	0.040	0.8	ug/L	582		Standard
	Ni -2	62	10913.8	1.8	4.9854	0.064	1.3	ug/L	3055		Standard
	As	75	59624.8	0.5	5.0291	0.140	2.8	ug/L	25703		Standard
	As-1	75	35580.5	0.4	4.8894	0.070	1.4	ug/L	1359		Standard
	Se	77	2588.9	1.8	5.0914	0.022	0.4	ug/L	259		Standard
	Se -1	78	33359.6	0.2	5.0000	0.335	6.7	ug/L	25820		Standard
	Br	79	707.7	0.7				ug/L	715		Standard
	Se -2	82	3704.5	1.6	4.9746	0.119	2.4	ug/L	617		Standard
	Kr	83	648.0	2.5				ug/L	646		Standard
	Y	89	2041081.5	1.2				ug/L	2084970		Standard
	Rh	103	1427597.1	0.7				ug/L	1339953		Standard
	Ni -3	58	25597.4	0.7	4.9728	0.040	0.8	ug/L	229		KED
	Ni -4	60	11277.8	1.7	4.9816	0.106	2.1	ug/L	94		KED
	Ni -5	62	1746.4	0.5	4.8969	0.011	0.2	ug/L	14		KED
	As-2	75	2263.5	1.0	4.8873	0.072	1.5	ug/L	8		KED
	Y-1	89	150582.8	0.3				ug/L	151628		KED
	Rh-1	103	402097.1	0.6				ug/L	379534		KED
>	Ge	72	1277916.0	1.5				ug/L	1316182		Standard
>	In	115	967247.2	0.6				ug/L	994105		Standard
>	Ge-1	72	66356.8	0.7				ug/L	67787		KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		
>	In	115		
>	Ge-1	72		

# Quantitative Analysis - Summary Report

**Sample ID: Standard 5**

Sample Date/Time: Monday, August 26, 2024 07:59:45

Report Date/Time: Monday, August 26, 2024 08:01:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\Standard 5.019

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	509133.3	0.3	<b>19.9600</b>	0.038	0.2	ug/L	-9343	Standard
	Ni -1	60	210793.2	0.6	<b>19.4999</b>	0.068	0.3	ug/L	582	Standard
	Ni -2	62	34236.3	0.4	<b>19.4773</b>	0.055	0.3	ug/L	3055	Standard
	As	75	162231.5	0.3	<b>19.6819</b>	0.123	0.6	ug/L	25703	Standard
	As-1	75	138442.2	0.3	<b>19.3244</b>	0.096	0.5	ug/L	1359	Standard
	Se	77	9683.3	0.6	<b>20.0380</b>	0.145	0.7	ug/L	259	Standard
	Se -1	78	55757.3	0.6	<b>19.2766</b>	0.177	0.9	ug/L	25820	Standard
	Br	79	652.7	6.1				ug/L	715	Standard
	Se -2	82	12626.2	1.1	<b>19.2727</b>	0.174	0.9	ug/L	617	Standard
	Kr	83	672.3	4.5				ug/L	646	Standard
	Y	89	2055733.5	0.8				ug/L	2084970	Standard
	Rh	103	1164901.6	1.1				ug/L	1339953	Standard
	Ni -3	58	99932.0	0.9	<b>19.4655</b>	0.147	0.8	ug/L	229	KED
	Ni -4	60	44055.8	0.5	<b>19.5383</b>	0.240	1.2	ug/L	94	KED
	Ni -5	62	6775.3	1.0	<b>19.2055</b>	0.266	1.4	ug/L	14	KED
	As-2	75	9022.8	1.9	<b>19.2880</b>	0.233	1.2	ug/L	8	KED
	Y-1	89	154972.0	0.4				ug/L	151628	KED
	Rh-1	103	335619.7	0.1				ug/L	379534	KED
>	Ge	72	1312501.6	0.2				ug/L	1316182	Standard
>	In	115	986770.5	0.8				ug/L	994105	Standard
>	Ge-1	72	68234.9	0.9				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		
>	In	115		
>	Ge-1	72		

**Sample ID: Standard 5**

Report Date/Time: Monday, August 26, 2024 08:01:35

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## Quantitative Analysis - Summary Report

### Sample ID: Standard 6

Sample Date/Time: Monday, August 26, 2024 08:03:05

Report Date/Time: Monday, August 26, 2024 08:04:55

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\Standard 6.020

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	1066742.7	0.5	40.5327	0.279	0.7	ug/L	-9343	Standard
	Ni -1	60	430257.8	1.3	39.5324	0.603	1.5	ug/L	582	Standard
	Ni -2	62	66742.9	0.7	39.4558	0.137	0.3	ug/L	3055	Standard
	As	75	306035.3	0.8	39.8936	0.183	0.5	ug/L	25703	Standard
	As-1	75	284109.9	1.0	39.4604	0.278	0.7	ug/L	1359	Standard
	Se	77	19160.2	0.5	39.7452	0.295	0.7	ug/L	259	Standard
	Se -1	78	86451.5	0.7	39.1508	0.476	1.2	ug/L	25820	Standard
	Br	79	665.3	5.3				ug/L	715	Standard
	Se -2	82	25447.0	0.2	39.5127	0.131	0.3	ug/L	617	Standard
	Kr	83	652.3	1.9				ug/L	646	Standard
	Y	89	2090592.5	0.7				ug/L	2084970	Standard
	Rh	103	1201354.6	0.7				ug/L	1339953	Standard
	Ni -3	58	201943.5	0.7	39.3842	0.360	0.9	ug/L	229	KED
	Ni -4	60	89085.2	0.7	39.5221	0.408	1.0	ug/L	94	KED
	Ni -5	62	13732.3	1.1	39.0952	0.661	1.7	ug/L	14	KED
	As-2	75	18247.0	1.3	39.0297	0.583	1.5	ug/L	8	KED
	Y-1	89	156266.1	1.0				ug/L	151628	KED
	Rh-1	103	339805.4	0.9				ug/L	379534	KED
>	Ge	72	1331299.4	0.4				ug/L	1316182	Standard
>	In	115	1012949.8	1.0				ug/L	994105	Standard
>	Ge-1	72	68768.1	0.6				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		
>	In	115		
>	Ge-1	72		

Sample ID: Standard 6

Report Date/Time: Monday, August 26, 2024 08:04:55

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## Quantitative Analysis - Summary Report

### Sample ID: Standard 7

Sample Date/Time: Monday, August 26, 2024 08:06:25

Report Date/Time: Monday, August 26, 2024 08:08:15

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\Standard 7.021

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	2552171.1	0.9	<b>97.9260</b>	0.215	0.2	ug/L	-9343	Standard
	Ni -1	60	1049137.1	1.4	<b>97.5882</b>	0.614	0.6	ug/L	582	Standard
	Ni -2	62	156209.9	1.6	<b>96.3734</b>	0.471	0.5	ug/L	3055	Standard
	As	75	713059.6	0.7	<b>98.7265</b>	0.412	0.4	ug/L	25703	Standard
	As-1	75	694802.2	0.4	<b>97.6847</b>	0.686	0.7	ug/L	1359	Standard
	Se	77	46639.7	0.3	<b>98.4087</b>	0.935	1.0	ug/L	259	Standard
	Se -1	78	175049.7	0.8	<b>98.3283</b>	0.728	0.7	ug/L	25820	Standard
	Br	79	637.0	3.2				ug/L	715	Standard
	Se -2	82	61782.0	0.6	<b>98.2832</b>	1.713	1.7	ug/L	617	Standard
	Kr	83	694.4	3.4				ug/L	646	Standard
	Y	89	2089441.5	0.6				ug/L	2084970	Standard
	Rh	103	1174331.5	0.4				ug/L	1339953	Standard
	Ni -3	58	490586.8	0.7	<b>96.4291</b>	0.671	0.7	ug/L	229	KED
	Ni -4	60	215434.3	0.4	<b>96.3763</b>	0.485	0.5	ug/L	94	KED
	Ni -5	62	33372.9	1.1	<b>95.9092</b>	1.078	1.1	ug/L	14	KED
	As-2	75	44491.8	0.7	<b>95.7639</b>	0.433	0.5	ug/L	8	KED
	Y-1	89	157689.2	0.9				ug/L	151628	KED
	Rh-1	103	332503.0	1.1				ug/L	379534	KED
>	Ge	72	1326613.6	1.1				ug/L	1316182	Standard
>	In	115	1016299.3	0.8				ug/L	994105	Standard
>	Ge-1	72	69079.6	0.3				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		
>	In	115		
>	Ge-1	72		

Sample ID: Standard 7

Report Date/Time: Monday, August 26, 2024 08:08:15

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## Quantitative Analysis - Summary Report

### Sample ID: QC Std 1

Sample Date/Time: Monday, August 26, 2024 08:10:35

Report Date/Time: Monday, August 26, 2024 08:12:25

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 1.022

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Ni	58	1367303.4	0.7	<b>50.0420</b>	0.639	1.3	ug/L	-9343		Standard
	Ni -1	60	551665.7	0.4	<b>48.7824</b>	0.342	0.7	ug/L	582		Standard
	Ni -2	62	83843.3	0.3	<b>48.2533</b>	0.167	0.3	ug/L	3055		Standard
	As	75	386651.0	0.6	<b>49.1048</b>	0.488	1.0	ug/L	25703		Standard
	As-1	75	367239.8	0.6	<b>49.0382</b>	0.435	0.9	ug/L	1359		Standard
	Se	77	25273.7	1.0	<b>50.4594</b>	0.460	0.9	ug/L	259		Standard
	Se -1	78	104059.3	0.2	<b>47.9824</b>	0.402	0.8	ug/L	25820		Standard
	Br	79	663.0	3.4				ug/L	715		Standard
	Se -2	82	33368.6	0.4	<b>50.0010</b>	0.159	0.3	ug/L	617		Standard
	Kr	83	626.7	5.2				ug/L	646		Standard
	Y	89	2158985.5	0.8				ug/L	2084970		Standard
	Rh	103	493830.4	1.4				ug/L	1339953		Standard
	Ni -3	58	260610.8	0.5	<b>48.8118</b>	0.649	1.3	ug/L	229		KED
	Ni -4	60	114375.7	0.3	<b>48.7420</b>	0.386	0.8	ug/L	94		KED
	Ni -5	62	17645.6	0.2	<b>48.3192</b>	0.569	1.2	ug/L	14		KED
	As-2	75	23535.4	0.4	<b>48.3158</b>	0.688	1.4	ug/L	8		KED
	Y-1	89	169870.3	0.2				ug/L	151628		KED
	Rh-1	103	141074.2	0.5				ug/L	379534		KED
>	Ge	72	1394095.0	0.6				ug/L	1316182		Standard
>	In	115	1101204.7	0.8				ug/L	994105		Standard
>	Ge-1	72	72424.5	1.0				ug/L	67787		KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	100.084	
	Ni -1	60	97.565	
	Ni -2	62	96.507	
	As	75	98.210	
	As-1	75	98.076	
	Se	77	100.919	
	Se -1	78	95.965	
	Br	79		
	Se -2	82	100.002	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	97.624	
	Ni -4	60	97.484	
	Ni -5	62	96.638	
	As-2	75	96.632	
	Y-1	89		
	Rh-1	103		
>	Ge	72		105.920
>	In	115		110.773
>	Ge-1	72		106.841

## Quantitative Analysis - Summary Report

**Sample ID: QC Std 2**

Sample Date/Time: Monday, August 26, 2024 08:14:46

Report Date/Time: Monday, August 26, 2024 08:16:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 2.023

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-6557.5	5.4	-0.0198	0.014	69.7	ug/L	-9343	Standard
	Ni -1	60	854.4	13.0	-0.0183	0.011	59.9	ug/L	582	Standard
	Ni -2	62	3209.7	2.5	0.0919	0.050	54.6	ug/L	3055	Standard
	As	75	23996.4	1.3	-0.2476	0.045	18.2	ug/L	25703	Standard
	As-1	75	1350.7	10.7	0.0089	0.021	234.3	ug/L	1359	Standard
	Se	77	236.0	10.8	-0.0692	0.054	78.4	ug/L	259	Standard
	Se -1	78	24081.6	1.5	-1.1874	0.232	19.5	ug/L	25820	Standard
	Br	79	653.3	2.4				ug/L	715	Standard
	Se -2	82	599.0	7.5	-0.0517	0.073	141.7	ug/L	617	Standard
	Kr	83	603.7	6.5				ug/L	646	Standard
	Y	89	1879283.4	1.0				ug/L	2084970	Standard
	Rh	103	1310465.5	1.3				ug/L	1339953	Standard
	Ni -3	58	313.4	8.0	-0.0418	0.006	13.4	ug/L	229	KED
	Ni -4	60	139.0	12.6	-0.0662	0.008	11.6	ug/L	94	KED
	Ni -5	62	21.7	37.3	-0.0438	0.023	53.5	ug/L	14	KED
	As-2	75	13.7	18.4	0.0161	0.005	33.6	ug/L	8	KED
	Y-1	89	154173.5	0.3				ug/L	151628	KED
	Rh-1	103	374979.7	0.6				ug/L	379534	KED
>	Ge	72	1289742.1	0.4				ug/L	1316182	Standard
>	In	115	977337.9	1.2				ug/L	994105	Standard
>	Ge-1	72	67557.7	1.1				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		97.991
>	In	115		98.313
>	Ge-1	72		99.662

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, August 26, 2024 08:18:06

Report Date/Time: Monday, August 26, 2024 08:19:56

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 6.024

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	1002757.7	1.0	<b>40.3113</b>	0.409	1.0	ug/L	-9343	Standard
	Ni -1	60	405583.8	0.8	<b>39.3292</b>	0.164	0.4	ug/L	582	Standard
	Ni -2	62	62974.5	1.0	<b>39.4163</b>	0.574	1.5	ug/L	3055	Standard
	As	75	291528.5	0.3	<b>39.9652</b>	0.071	0.2	ug/L	25703	Standard
	As-1	75	270960.9	0.7	<b>39.6610</b>	0.090	0.2	ug/L	1359	Standard
	Se	77	18453.6	0.6	<b>40.3081</b>	0.441	1.1	ug/L	259	Standard
	Se -1	78	82094.2	0.9	<b>39.1691</b>	0.740	1.9	ug/L	25820	Standard
	Br	79	626.7	4.9				ug/L	715	Standard
	Se -2	82	24263.6	0.7	<b>39.6796</b>	0.227	0.6	ug/L	617	Standard
	Kr	83	671.0	1.5				ug/L	646	Standard
	Y	89	1808204.0	0.4				ug/L	2084970	Standard
	Rh	103	1139476.6	0.7				ug/L	1339953	Standard
	Ni -3	58	195170.8	0.1	<b>39.0827</b>	0.055	0.1	ug/L	229	KED
	Ni -4	60	86647.6	0.1	<b>39.4765</b>	0.085	0.2	ug/L	94	KED
	Ni -5	62	13260.2	0.8	<b>38.8212</b>	0.335	0.9	ug/L	14	KED
	As-2	75	17711.6	1.8	<b>38.8919</b>	0.673	1.7	ug/L	8	KED
	Y-1	89	152702.5	0.6				ug/L	151628	KED
	Rh-1	103	328947.2	0.7				ug/L	379534	KED
>	Ge	72	1270624.1	0.5				ug/L	1316182	Standard
>	In	115	962571.0	0.5				ug/L	994105	Standard
>	Ge-1	72	67698.7	0.1				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	100.778	
	Ni -1	60	98.323	
	Ni -2	62	98.541	
	As	75	99.913	
	As-1	75	99.152	
	Se	77	100.770	
	Se -1	78	97.923	
	Br	79		
	Se -2	82	99.199	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	97.707	
	Ni -4	60	98.691	
	Ni -5	62	97.053	
	As-2	75	97.230	
	Y-1	89		
	Rh-1	103		
>	Ge	72		96.539
>	In	115		96.828
>	Ge-1	72		99.870

Sample ID: QC Std 6

Report Date/Time: Monday, August 26, 2024 08:19:56

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# Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, August 26, 2024 08:22:16

Report Date/Time: Monday, August 26, 2024 08:24:05

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 7.025

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	476121.8	0.4	19.9245	0.285	1.4	ug/L	-9343	Standard
	Ni -1	60	195351.4	1.0	19.5477	0.117	0.6	ug/L	582	Standard
	Ni -2	62	31992.8	0.9	19.7732	0.088	0.4	ug/L	3055	Standard
	As	75	153159.3	0.8	19.9891	0.113	0.6	ug/L	25703	Standard
	As-1	75	131823.2	0.7	19.8696	0.105	0.5	ug/L	1359	Standard
	Se	77	9134.6	1.9	20.3550	0.204	1.0	ug/L	259	Standard
	Se -1	78	52526.4	0.4	19.9811	0.253	1.3	ug/L	25820	Standard
	Br	79	590.3	7.3				ug/L	715	Standard
	Se -2	82	12316.3	0.5	20.3442	0.266	1.3	ug/L	617	Standard
	Kr	83	673.7	3.0				ug/L	646	Standard
	Y	89	1903198.9	6.4				ug/L	2084970	Standard
	Rh	103	1105525.6	0.5				ug/L	1339953	Standard
	Ni -3	58	93882.6	0.2	19.2569	0.234	1.2	ug/L	229	KED
	Ni -4	60	41630.6	0.5	19.4160	0.282	1.5	ug/L	94	KED
	Ni -5	62	6372.4	1.9	19.1095	0.510	2.7	ug/L	14	KED
	As-2	75	8612.6	1.4	19.4179	0.327	1.7	ug/L	8	KED
	Y-1	89	149044.8	0.7				ug/L	151628	KED
	Rh-1	103	317354.3	0.4				ug/L	379534	KED
>	Ge	72	1228196.3	1.0				ug/L	1316182	Standard
>	In	115	941359.4	0.1				ug/L	994105	Standard
>	Ge-1	72	65915.4	1.0				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	99.623	
	Ni -1	60	97.739	
	Ni -2	62	98.866	
	As	75	99.945	
	As-1	75	99.348	
	Se	77	101.775	
	Se -1	78	99.906	
	Br	79		
	Se -2	82	101.721	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	96.285	
	Ni -4	60	97.080	
	Ni -5	62	95.548	
	As-2	75	97.089	
	Y-1	89		
	Rh-1	103		
>	Ge	72		93.315
>	In	115		94.694
>	Ge-1	72		97.239

Sample ID: QC Std 7

Report Date/Time: Monday, August 26, 2024 08:24:05

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# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, August 26, 2024 08:26:26

Report Date/Time: Monday, August 26, 2024 08:28:16

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 8.026

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-5799.6	1.0	0.0050	0.002	31.1	ug/L	-9343	Standard
	Ni -1	60	823.4	11.2	-0.0195	0.009	45.7	ug/L	582	Standard
	Ni -2	62	2992.0	2.3	-0.0060	0.046	769.9	ug/L	3055	Standard
	As	75	23490.8	1.7	-0.2454	0.044	18.1	ug/L	25703	Standard
	As-1	75	1267.9	12.1	0.0010	0.022	2313.6	ug/L	1359	Standard
	Se	77	241.3	6.9	-0.0457	0.037	80.8	ug/L	259	Standard
	Se -1	78	23579.1	1.4	-1.1733	0.145	12.3	ug/L	25820	Standard
	Br	79	651.0	1.5				ug/L	715	Standard
	Se -2	82	567.0	5.9	-0.0838	0.055	65.9	ug/L	617	Standard
	Kr	83	665.7	2.1				ug/L	646	Standard
	Y	89	1773687.2	0.3				ug/L	2084970	Standard
	Rh	103	1290609.0	0.6				ug/L	1339953	Standard
	Ni -3	58	326.1	12.1	-0.0395	0.007	18.8	ug/L	229	KED
	Ni -4	60	137.0	10.0	-0.0672	0.006	9.3	ug/L	94	KED
	Ni -5	62	21.7	17.5	-0.0439	0.011	26.0	ug/L	14	KED
	As-2	75	10.7	37.9	0.0094	0.009	92.0	ug/L	8	KED
	Y-1	89	152429.6	1.1				ug/L	151628	KED
	Rh-1	103	368348.3	0.9				ug/L	379534	KED
>	Ge	72	1261715.4	0.5				ug/L	1316182	Standard
>	In	115	963757.9	1.2				ug/L	994105	Standard
>	Ge-1	72	67767.0	0.7				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		95.862
>	In	115		96.947
>	Ge-1	72		99.970

Sample ID: QC Std 8

Report Date/Time: Monday, August 26, 2024 08:28:16

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## Quantitative Analysis - Summary Report

**Sample ID: MB0826D1 2X**

Sample Date/Time: Monday, August 26, 2024 08:29:47

Report Date/Time: Monday, August 26, 2024 08:31:37

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\MB0826D1 2X.027

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-5290.2	4.4	<b>0.0248</b>	0.010	40.9	ug/L	-9343	Standard
	Ni -1	60	915.4	7.2	<b>-0.0102</b>	0.006	61.0	ug/L	582	Standard
	Ni -2	62	2965.0	1.3	<b>-0.0179</b>	0.034	190.4	ug/L	3055	Standard
	As	75	23444.2	0.5	<b>-0.2415</b>	0.012	4.8	ug/L	25703	Standard
	As-1	75	1144.8	7.2	<b>-0.0168</b>	0.011	67.9	ug/L	1359	Standard
	Se	77	245.7	4.4	<b>-0.0344</b>	0.023	65.8	ug/L	259	Standard
	Se -1	78	23596.1	0.3	<b>-1.1111</b>	0.041	3.7	ug/L	25820	Standard
	Br	79	649.3	2.8				ug/L	715	Standard
	Se -2	82	543.7	6.4	<b>-0.1205</b>	0.056	46.9	ug/L	617	Standard
	Kr	83	668.7	4.0				ug/L	646	Standard
	Y	89	1749067.8	0.4				ug/L	2084970	Standard
	Rh	103	1282469.6	0.4				ug/L	1339953	Standard
	Ni -3	58	292.6	2.6	<b>-0.0460</b>	0.001	2.6	ug/L	229	KED
	Ni -4	60	126.0	4.2	<b>-0.0721</b>	0.002	3.1	ug/L	94	KED
	Ni -5	62	17.7	11.8	<b>-0.0555</b>	0.006	10.7	ug/L	14	KED
	As-2	75	8.3	54.1	<b>0.0044</b>	0.010	223.2	ug/L	8	KED
	Y-1	89	153900.9	0.2				ug/L	151628	KED
	Rh-1	103	370690.1	0.1				ug/L	379534	KED
>	Ge	72	1257903.2	0.5				ug/L	1316182	Standard
>	In	115	952812.3	0.2				ug/L	994105	Standard
>	Ge-1	72	67567.4	1.4				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		95.572
>	In	115		95.846
>	Ge-1	72		99.676

Sample ID: MB0826D1 2X

Report Date/Time: Monday, August 26, 2024 08:31:37

## Quantitative Analysis - Summary Report

**Sample ID: SB0826D1 2X**

Sample Date/Time: Monday, August 26, 2024 08:37:20

Report Date/Time: Monday, August 26, 2024 08:39:09

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\SB0826D1 2X.028

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	960184.6	0.8	<b>40.0308</b>	0.391	1.0	ug/L	-9343	Standard
	Ni -1	60	388507.6	0.1	<b>39.0682</b>	0.150	0.4	ug/L	582	Standard
	Ni -2	62	60530.0	0.3	<b>39.2811</b>	0.078	0.2	ug/L	3055	Standard
	As	75	282478.9	0.5	<b>40.1764</b>	0.065	0.2	ug/L	25703	Standard
	As-1	75	262386.3	0.7	<b>39.8287</b>	0.182	0.5	ug/L	1359	Standard
	Se	77	17820.8	0.4	<b>40.3665</b>	0.044	0.1	ug/L	259	Standard
	Se -1	78	79595.8	0.3	<b>39.4776</b>	0.315	0.8	ug/L	25820	Standard
	Br	79	607.7	4.8				ug/L	715	Standard
	Se -2	82	23465.9	0.8	<b>39.7989</b>	0.300	0.8	ug/L	617	Standard
	Kr	83	720.7	3.2				ug/L	646	Standard
	Y	89	1975437.1	0.3				ug/L	2084970	Standard
	Rh	103	1136354.4	1.2				ug/L	1339953	Standard
	Ni -3	58	187660.7	1.1	<b>38.4014</b>	0.643	1.7	ug/L	229	KED
	Ni -4	60	82935.4	1.4	<b>38.6117</b>	0.760	2.0	ug/L	94	KED
	Ni -5	62	12812.4	1.8	<b>38.3298</b>	0.692	1.8	ug/L	14	KED
	As-2	75	17327.2	0.8	<b>38.8798</b>	0.163	0.4	ug/L	8	KED
	Y-1	89	150394.2	1.1				ug/L	151628	KED
	Rh-1	103	328383.3	1.1				ug/L	379534	KED
>	Ge	72	1225259.1	0.3				ug/L	1316182	Standard
>	In	115	925385.3	1.7				ug/L	994105	Standard
>	Ge-1	72	66250.3	0.8				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		93.092
>	In	115		93.087
>	Ge-1	72		97.733

Sample ID: SB0826D1 2X

Report Date/Time: Monday, August 26, 2024 08:39:09

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# Quantitative Analysis - Summary Report

**Sample ID: 08-224-01d 10X**

Sample Date/Time: Monday, August 26, 2024 08:41:29

Report Date/Time: Monday, August 26, 2024 08:43:18

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-01d 10X.029

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	7947.7	0.4	<b>0.6239</b>	0.003	0.4	ug/L	-9343	Standard
	Ni -1	60	12239.9	1.6	<b>1.3440</b>	0.012	0.9	ug/L	582	Standard
	Ni -2	62	411794.7	2.7	<b>326.6709</b>	12.658	3.9	ug/L	3055	Standard
	As	75	30448.9	0.9	<b>1.7509</b>	0.012	0.7	ug/L	25703	Standard
	As-1	75	11764.3	1.0	<b>1.9129</b>	0.011	0.6	ug/L	1359	Standard
	Se	77	23449.0	7.4	<b>62.4484</b>	3.987	6.4	ug/L	259	Standard
	Se -1	78	31263.2	1.0	<b>8.6430</b>	0.257	3.0	ug/L	25820	Standard
	Br	79	3651852.4	1.2				ug/L	715	Standard
	Se -2	82	4981.9	1.8	<b>9.1060</b>	0.216	2.4	ug/L	617	Standard
	Kr	83	3732.5	2.4				ug/L	646	Standard
	Y	89	1710372.6	0.5				ug/L	2084970	Standard
	Rh	103	1085431.1	1.0				ug/L	1339953	Standard
	Ni -3	58	2817.5	0.3	<b>0.5180</b>	0.021	4.0	ug/L	229	KED
	Ni -4	60	1237.4	0.9	<b>0.4928</b>	0.015	2.9	ug/L	94	KED
	Ni -5	62	251.0	3.5	<b>0.7033</b>	0.008	1.1	ug/L	14	KED
	As-2	75	248.0	6.6	<b>0.5853</b>	0.031	5.3	ug/L	8	KED
	Y-1	89	135059.6	2.2				ug/L	151628	KED
	Rh-1	103	330762.4	1.7				ug/L	379534	KED
>	Ge	72	1046958.3	1.1				ug/L	1316182	Standard
>	In	115	778511.3	1.2				ug/L	994105	Standard
>	Ge-1	72	61528.0	3.1				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		79.545
>	In	115		78.313
>	Ge-1	72		90.766

Sample ID: 08-224-01d 10X

Report Date/Time: Monday, August 26, 2024 08:43:18

## Quantitative Analysis - Summary Report

**Sample ID: 08-224-02d 10X**

Sample Date/Time: Monday, August 26, 2024 08:45:38

Report Date/Time: Monday, August 26, 2024 08:47:27

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-02d 10X.030

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	4955.6	1.9	<b>0.4888</b>	0.006	1.2	ug/L	-9343	Standard
	Ni -1	60	14247.8	1.5	<b>1.6514</b>	0.021	1.3	ug/L	582	Standard
	Ni -2	62	826129.6	3.3	<b>684.8733</b>	25.062	3.7	ug/L	3055	Standard
	As	75	40505.6	4.6	<b>3.8938</b>	0.395	10.1	ug/L	25703	Standard
	As-1	75	17124.3	8.8	<b>2.9989</b>	0.299	10.0	ug/L	1359	Standard
	Se	77	65530.7	3.2	<b>183.0476</b>	6.269	3.4	ug/L	259	Standard
	Se -1	78	45554.2	3.3	<b>22.2384</b>	1.382	6.2	ug/L	25820	Standard
	Br	79	6609892.1	1.2				ug/L	715	Standard
	Se -2	82	8767.7	1.1	<b>17.5666</b>	0.314	1.8	ug/L	617	Standard
	Kr	83	13256.5	2.5				ug/L	646	Standard
	Y	89	1676011.9	0.6				ug/L	2084970	Standard
	Rh	103	1048538.3	0.4				ug/L	1339953	Standard
	Ni -3	58	1380.2	2.0	<b>0.1986</b>	0.007	3.8	ug/L	229	KED
	Ni -4	60	619.0	2.7	<b>0.1801</b>	0.008	4.6	ug/L	94	KED
	Ni -5	62	247.7	2.7	<b>0.6889</b>	0.026	3.8	ug/L	14	KED
	As-2	75	144.3	10.6	<b>0.3332</b>	0.036	10.9	ug/L	8	KED
	Y-1	89	134425.5	0.3				ug/L	151628	KED
	Rh-1	103	322627.5	0.4				ug/L	379534	KED
>	Ge	72	1004813.0	0.6				ug/L	1316182	Standard
>	In	115	762493.8	0.4				ug/L	994105	Standard
>	Ge-1	72	61817.8	0.7				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		76.343
>	In	115		76.702
>	Ge-1	72		91.194

Sample ID: 08-224-02d 10X

Report Date/Time: Monday, August 26, 2024 08:47:27

# Quantitative Analysis - Summary Report

**Sample ID: 08-224-03d 10X**

Sample Date/Time: Monday, August 26, 2024 08:49:47

Report Date/Time: Monday, August 26, 2024 08:51:36

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-03d 10X.031

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	3432.3	9.0	<b>0.4090</b>	0.016	3.8	ug/L	-9343	Standard
	Ni -1	60	13239.8	0.6	<b>1.5010</b>	0.012	0.8	ug/L	582	Standard
	Ni -2	62	1401436.3	6.5	<b>1144.1641</b>	76.367	6.7	ug/L	3055	Standard
	As	75	53447.6	4.3	<b>6.1842</b>	0.453	7.3	ug/L	25703	Standard
	As-1	75	15884.1	10.1	<b>2.7193</b>	0.297	10.9	ug/L	1359	Standard
	Se	77	68448.9	1.1	<b>188.0873</b>	2.502	1.3	ug/L	259	Standard
	Se -1	78	59443.5	3.9	<b>33.5333</b>	2.084	6.2	ug/L	25820	Standard
	Br	79	6539691.5	1.7				ug/L	715	Standard
	Se -2	82	8673.3	2.1	<b>17.0654</b>	0.424	2.5	ug/L	617	Standard
	Kr	83	16175.8	3.3				ug/L	646	Standard
	Y	89	1718704.7	0.4				ug/L	2084970	Standard
	Rh	103	1077500.8	1.1				ug/L	1339953	Standard
	Ni -3	58	1025.7	4.4	<b>0.1193</b>	0.007	5.8	ug/L	229	KED
	Ni -4	60	482.0	2.5	<b>0.1101</b>	0.004	3.7	ug/L	94	KED
	Ni -5	62	372.7	5.3	<b>1.0839</b>	0.060	5.5	ug/L	14	KED
	As-2	75	136.3	8.9	<b>0.3122</b>	0.029	9.4	ug/L	8	KED
	Y-1	89	134605.6	1.7				ug/L	151628	KED
	Rh-1	103	322641.6	1.5				ug/L	379534	KED
>	Ge	72	1021485.3	0.3				ug/L	1316182	Standard
>	In	115	785329.5	1.1				ug/L	994105	Standard
>	Ge-1	72	62169.0	1.3				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		77.610
>	In	115		78.999
>	Ge-1	72		91.712

Sample ID: 08-224-03d 10X

Report Date/Time: Monday, August 26, 2024 08:51:36

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-04d 10X**

Sample Date/Time: Monday, August 26, 2024 08:53:56

Report Date/Time: Monday, August 26, 2024 08:55:45

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-04d 10X.032

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	12797.7	19.0	<b>0.8037</b>	0.101	12.6	ug/L	-9343	Standard
	Ni -1	60	4364.7	2.7	<b>0.3695</b>	0.008	2.2	ug/L	582	Standard
	Ni -2	62	415976.3	10.2	<b>300.4940</b>	27.640	9.2	ug/L	3055	Standard
	As	75	51342.2	2.4	<b>4.7329</b>	0.143	3.0	ug/L	25703	Standard
	As-1	75	12982.3	1.9	<b>1.9266</b>	0.057	2.9	ug/L	1359	Standard
	Se	77	11031.6	8.8	<b>26.4562</b>	2.112	8.0	ug/L	259	Standard
	Se -1	78	41853.6	2.7	<b>14.4320</b>	0.587	4.1	ug/L	25820	Standard
	Br	79	288286.8	0.2				ug/L	715	Standard
	Se -2	82	1432.7	2.0	<b>1.6197</b>	0.076	4.7	ug/L	617	Standard
	Kr	83	1842.5	8.2				ug/L	646	Standard
	Y	89	1846170.5	0.8				ug/L	2084970	Standard
	Rh	103	1221532.5	1.4				ug/L	1339953	Standard
	Ni -3	58	3379.0	0.2	<b>0.6563</b>	0.005	0.8	ug/L	229	KED
	Ni -4	60	705.7	3.6	<b>0.2321</b>	0.013	5.7	ug/L	94	KED
	Ni -5	62	169.0	6.0	<b>0.4493</b>	0.036	8.0	ug/L	14	KED
	As-2	75	760.4	3.5	<b>1.8596</b>	0.054	2.9	ug/L	8	KED
	Y-1	89	136164.9	0.7				ug/L	151628	KED
	Rh-1	103	345313.8	0.9				ug/L	379534	KED
>	Ge	72	1148066.8	1.1				ug/L	1316182	Standard
>	In	115	849077.0	1.8				ug/L	994105	Standard
>	Ge-1	72	60344.5	0.7				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		87.227
>	In	115		85.411
>	Ge-1	72		89.021

Sample ID: 08-224-04d 10X

Report Date/Time: Monday, August 26, 2024 08:55:45

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-05d 10X**

Sample Date/Time: Monday, August 26, 2024 08:58:05

Report Date/Time: Monday, August 26, 2024 08:59:55

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-05d 10X.033

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	3738.0	32.6	<b>0.4215</b>	0.058	13.7	ug/L	-9343	Standard
	Ni -1	60	13731.9	1.9	<b>1.5399</b>	0.018	1.2	ug/L	582	Standard
	Ni -2	62	1448317.5	10.9	<b>1166.9089</b>	113.493	9.7	ug/L	3055	Standard
	As	75	68035.5	4.0	<b>8.7479</b>	0.363	4.2	ug/L	25703	Standard
	As-1	75	15708.4	10.1	<b>2.6537</b>	0.320	12.0	ug/L	1359	Standard
	Se	77	68769.5	2.1	<b>186.6124</b>	1.842	1.0	ug/L	259	Standard
	Se -1	78	74727.6	5.0	<b>45.8621</b>	2.437	5.3	ug/L	25820	Standard
	Br	79	6737455.1	0.7				ug/L	715	Standard
	Se -2	82	8900.1	1.8	<b>17.3127</b>	0.540	3.1	ug/L	617	Standard
	Kr	83	18123.3	11.2				ug/L	646	Standard
	Y	89	1757119.9	0.5				ug/L	2084970	Standard
	Rh	103	1096473.9	0.8				ug/L	1339953	Standard
	Ni -3	58	888.3	0.5	<b>0.0849</b>	0.001	1.1	ug/L	229	KED
	Ni -4	60	399.3	1.9	<b>0.0644</b>	0.004	6.1	ug/L	94	KED
	Ni -5	62	399.0	3.1	<b>1.1389</b>	0.038	3.3	ug/L	14	KED
	As-2	75	123.0	7.8	<b>0.2735</b>	0.022	8.1	ug/L	8	KED
	Y-1	89	137612.0	0.5				ug/L	151628	KED
	Rh-1	103	326483.7	0.6				ug/L	379534	KED
>	Ge	72	1034265.5	1.2				ug/L	1316182	Standard
>	In	115	791236.9	0.6				ug/L	994105	Standard
>	Ge-1	72	63627.4	0.1				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		78.581
>	In	115		79.593
>	Ge-1	72		93.864

Sample ID: 08-224-05d 10X

Report Date/Time: Monday, August 26, 2024 08:59:55

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-04dD 10X**

Sample Date/Time: Monday, August 26, 2024 09:02:16

Report Date/Time: Monday, August 26, 2024 09:04:05

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-04dD 10X.034

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	14080.6	6.0	<b>0.8762</b>	0.030	3.4	ug/L	-9343	Standard
	Ni -1	60	4736.8	3.9	<b>0.4219</b>	0.014	3.4	ug/L	582	Standard
	Ni -2	62	740049.3	6.8	<b>549.4461</b>	31.008	5.6	ug/L	3055	Standard
	As	75	63119.4	2.6	<b>6.9465</b>	0.204	2.9	ug/L	25703	Standard
	As-1	75	14051.5	3.6	<b>2.1570</b>	0.105	4.9	ug/L	1359	Standard
	Se	77	11384.2	9.8	<b>27.9996</b>	2.477	8.8	ug/L	259	Standard
	Se -1	78	53053.7	3.4	<b>23.9941</b>	0.991	4.1	ug/L	25820	Standard
	Br	79	319631.1	1.6				ug/L	715	Standard
	Se -2	82	1642.4	5.9	<b>2.0827</b>	0.158	7.6	ug/L	617	Standard
	Kr	83	3227.0	12.2				ug/L	646	Standard
	Y	89	1806168.2	0.1				ug/L	2084970	Standard
	Rh	103	1192546.2	0.2				ug/L	1339953	Standard
	Ni -3	58	3617.6	1.4	<b>0.7165</b>	0.012	1.7	ug/L	229	KED
	Ni -4	60	763.4	3.0	<b>0.2647</b>	0.009	3.6	ug/L	94	KED
	Ni -5	62	200.3	4.3	<b>0.5577</b>	0.032	5.8	ug/L	14	KED
	As-2	75	760.0	3.3	<b>1.8736</b>	0.049	2.6	ug/L	8	KED
	Y-1	89	136270.2	0.9				ug/L	151628	KED
	Rh-1	103	340305.6	0.5				ug/L	379534	KED
>	Ge	72	1120596.8	1.3				ug/L	1316182	Standard
>	In	115	829329.3	1.2				ug/L	994105	Standard
>	Ge-1	72	59870.9	0.9				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		85.140
>	In	115		83.425
>	Ge-1	72		88.322

Sample ID: 08-224-04dD 10X

Report Date/Time: Monday, August 26, 2024 09:04:05

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-04dL 50X**

Sample Date/Time: Monday, August 26, 2024 09:06:25

Report Date/Time: Monday, August 26, 2024 09:08:14

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\CPMS\DataSet\Y240826A\08-224-04dL 50X.035

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-3031.8	6.8	<b>0.0730</b>	0.012	16.0	ug/L	-9343	Standard
	Ni -1	60	1220.1	2.6	<b>0.0617</b>	0.004	7.2	ug/L	582	Standard
	Ni -2	62	319370.4	2.4	<b>284.5287</b>	7.290	2.6	ug/L	3055	Standard
	As	75	38248.0	0.6	<b>4.0380</b>	0.037	0.9	ug/L	25703	Standard
	As-1	75	3796.9	4.0	<b>0.5751</b>	0.028	4.9	ug/L	1359	Standard
	Se	77	4107.3	5.3	<b>11.8356</b>	0.679	5.7	ug/L	259	Standard
	Se -1	78	36827.7	0.6	<b>17.1536</b>	0.258	1.5	ug/L	25820	Standard
	Br	79	89703.1	0.9				ug/L	715	Standard
	Se -2	82	987.0	3.3	<b>1.2184</b>	0.078	6.4	ug/L	617	Standard
	Kr	83	1099.0	2.8				ug/L	646	Standard
	Y	89	1470557.4	0.2				ug/L	2084970	Standard
	Rh	103	1013660.9	0.6				ug/L	1339953	Standard
	Ni -3	58	729.2	7.5	<b>0.0938</b>	0.015	16.3	ug/L	229	KED
	Ni -4	60	165.3	6.1	<b>-0.0273</b>	0.006	22.1	ug/L	94	KED
	Ni -5	62	85.0	13.9	<b>0.2311</b>	0.047	20.2	ug/L	14	KED
	As-2	75	153.3	7.5	<b>0.4430</b>	0.033	7.5	ug/L	8	KED
	Y-1	89	112173.7	0.4				ug/L	151628	KED
	Rh-1	103	286610.2	0.2				ug/L	379534	KED
>	Ge	72	931170.3	0.3				ug/L	1316182	Standard
>	In	115	689809.5	0.8				ug/L	994105	Standard
>	Ge-1	72	49899.7	0.3				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		70.748
>	In	115		69.390
>	Ge-1	72		73.612

Sample ID: 08-224-04dL 50X

Report Date/Time: Monday, August 26, 2024 09:08:14

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-04dMS 10X**

Sample Date/Time: Monday, August 26, 2024 09:10:35

Report Date/Time: Monday, August 26, 2024 09:12:24

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-04dMS 10X.036

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	800688.3	1.1	<b>39.9009</b>	0.174	0.4	ug/L	-9343	Standard
	Ni -1	60	320031.8	0.9	<b>38.4661</b>	0.037	0.1	ug/L	582	Standard
	Ni -2	62	307271.3	2.1	<b>248.4119</b>	3.966	1.6	ug/L	3055	Standard
	As	75	270423.8	0.1	<b>46.5240</b>	0.358	0.8	ug/L	25703	Standard
	As-1	75	241177.6	0.2	<b>43.7803</b>	0.330	0.8	ug/L	1359	Standard
	Se	77	19587.1	0.5	<b>53.2187</b>	0.482	0.9	ug/L	259	Standard
	Se -1	78	84442.8	0.9	<b>54.7827</b>	1.142	2.1	ug/L	25820	Standard
	Br	79	263407.6	0.4				ug/L	715	Standard
	Se -2	82	21783.3	1.1	<b>44.2801</b>	0.877	2.0	ug/L	617	Standard
	Kr	83	902.0	4.3				ug/L	646	Standard
	Y	89	1665185.6	0.3				ug/L	2084970	Standard
	Rh	103	1110073.4	0.9				ug/L	1339953	Standard
	Ni -3	58	155944.5	1.1	<b>38.1833</b>	0.320	0.8	ug/L	229	KED
	Ni -4	60	68593.0	0.9	<b>38.2101</b>	0.236	0.6	ug/L	94	KED
	Ni -5	62	10529.2	1.3	<b>37.6911</b>	0.388	1.0	ug/L	14	KED
	As-2	75	15776.7	1.3	<b>42.3636</b>	0.436	1.0	ug/L	8	KED
	Y-1	89	127575.8	0.8				ug/L	151628	KED
	Rh-1	103	316419.0	0.9				ug/L	379534	KED
>	Ge	72	1025046.6	0.8				ug/L	1316182	Standard
>	In	115	764691.4	0.4				ug/L	994105	Standard
>	Ge-1	72	55362.1	0.3				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		77.880
>	In	115		76.923
>	Ge-1	72		81.670

Sample ID: 08-224-04dMS 10X

Report Date/Time: Monday, August 26, 2024 09:12:24

## Quantitative Analysis - Summary Report

### Sample ID: QC Std 6

Sample Date/Time: Monday, August 26, 2024 09:14:46

Report Date/Time: Monday, August 26, 2024 09:16:35

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 6.037

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	896159.5	0.6	<b>39.2929</b>	0.307	0.8	ug/L	-9343	Standard
	Ni -1	60	368593.3	1.1	<b>38.9773</b>	0.477	1.2	ug/L	582	Standard
	Ni -2	62	229897.6	2.7	<b>162.8264</b>	3.830	2.4	ug/L	3055	Standard
	As	75	275919.8	0.5	<b>41.3706</b>	0.142	0.3	ug/L	25703	Standard
	As-1	75	250110.8	0.2	<b>39.9242</b>	0.056	0.1	ug/L	1359	Standard
	Se	77	18536.4	0.9	<b>44.2078</b>	0.376	0.9	ug/L	259	Standard
	Se -1	78	83501.3	1.0	<b>45.3644</b>	0.548	1.2	ug/L	25820	Standard
	Br	79	24067.3	3.1				ug/L	715	Standard
	Se -2	82	22761.1	0.4	<b>40.6161</b>	0.320	0.8	ug/L	617	Standard
	Kr	83	697.4	3.4				ug/L	646	Standard
	Y	89	1883808.6	1.6				ug/L	2084970	Standard
	Rh	103	1098168.9	0.2				ug/L	1339953	Standard
	Ni -3	58	173651.7	0.8	<b>37.5663</b>	0.478	1.3	ug/L	229	KED
	Ni -4	60	76546.5	0.4	<b>37.6731</b>	0.357	0.9	ug/L	94	KED
	Ni -5	62	11835.2	0.2	<b>37.4318</b>	0.269	0.7	ug/L	14	KED
	As-2	75	16321.7	0.9	<b>38.7204</b>	0.215	0.6	ug/L	8	KED
	Y-1	89	145166.9	0.4				ug/L	151628	KED
	Rh-1	103	307950.1	0.2				ug/L	379534	KED
>	Ge	72	1165166.3	0.4				ug/L	1316182	Standard
>	In	115	893945.9	0.2				ug/L	994105	Standard
>	Ge-1	72	62661.8	0.6				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	98.232	
	Ni -1	60	97.443	
	Ni -2	62	407.066	
	As	75	103.426	
	As-1	75	99.810	
	Se	77	110.519	
	Se -1	78	113.411	
	Br	79		
	Se -2	82	101.540	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	93.916	
	Ni -4	60	94.183	
	Ni -5	62	93.580	
	As-2	75	96.801	
	Y-1	89		
	Rh-1	103		
>	Ge	72		88.526
>	In	115		89.925
>	Ge-1	72		92.439

Sample ID: QC Std 6

Report Date/Time: Monday, August 26, 2024 09:16:35

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## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, August 26, 2024 09:18:56

Report Date/Time: Monday, August 26, 2024 09:20:45

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 7.038

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	410926.9	0.3	19.3693	0.060	0.3	ug/L	-9343	Standard
	Ni -1	60	171461.2	0.7	19.3190	0.129	0.7	ug/L	582	Standard
	Ni -2	62	163981.2	1.2	123.6065	1.507	1.2	ug/L	3055	Standard
	As	75	142415.9	0.3	21.1088	0.076	0.4	ug/L	25703	Standard
	As-1	75	118341.3	0.8	20.0881	0.172	0.9	ug/L	1359	Standard
	Se	77	9225.0	0.7	23.2297	0.151	0.6	ug/L	259	Standard
	Se -1	78	51723.5	0.2	24.0696	0.057	0.2	ug/L	25820	Standard
	Br	79	17738.3	1.1				ug/L	715	Standard
	Se -2	82	10925.5	2.0	20.3195	0.422	2.1	ug/L	617	Standard
	Kr	83	611.3	2.9				ug/L	646	Standard
	Y	89	1780967.9	0.5				ug/L	2084970	Standard
	Rh	103	991912.9	0.5				ug/L	1339953	Standard
	Ni -3	58	82202.3	0.6	18.4671	0.105	0.6	ug/L	229	KED
	Ni -4	60	36542.0	0.9	18.6653	0.190	1.0	ug/L	94	KED
	Ni -5	62	5601.1	0.8	18.3955	0.182	1.0	ug/L	14	KED
	As-2	75	7931.2	0.2	19.5902	0.175	0.9	ug/L	8	KED
	Y-1	89	140017.2	0.7				ug/L	151628	KED
	Rh-1	103	285903.4	1.0				ug/L	379534	KED
>	Ge	72	1090677.6	0.0				ug/L	1316182	Standard
>	In	115	843059.4	0.5				ug/L	994105	Standard
>	Ge-1	72	60166.1	1.0				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	96.847	
	Ni -1	60	96.595	
	Ni -2	62	618.033	
	As	75	105.544	
	As-1	75	100.440	
	Se	77	116.149	
	Se -1	78	120.348	
	Br	79		
	Se -2	82	101.597	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	92.335	
	Ni -4	60	93.327	
	Ni -5	62	91.977	
	As-2	75	97.951	
	Y-1	89		
	Rh-1	103		
>	Ge	72		82.867
>	In	115		84.806
>	Ge-1	72		88.757

Sample ID: QC Std 7

Report Date/Time: Monday, August 26, 2024 09:20:45

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## Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, August 26, 2024 09:23:07

Report Date/Time: Monday, August 26, 2024 09:24:56

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 8.039

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-6301.4	0.9	-0.0529	0.003	5.2	ug/L	-9343	Standard
	Ni -1	60	357.7	5.3	-0.0599	0.002	3.4	ug/L	582	Standard
	Ni -2	62	117083.5	0.5	87.0587	0.725	0.8	ug/L	3055	Standard
	As	75	24362.9	0.8	0.4341	0.020	4.6	ug/L	25703	Standard
	As-1	75	1083.4	10.9	-0.0025	0.020	784.1	ug/L	1359	Standard
	Se	77	896.0	4.6	1.7128	0.113	6.6	ug/L	259	Standard
	Se -1	78	24713.0	0.4	2.1750	0.085	3.9	ug/L	25820	Standard
	Br	79	14616.8	1.6				ug/L	715	Standard
	Se -2	82	599.0	4.9	0.1210	0.060	50.0	ug/L	617	Standard
	Kr	83	559.7	5.3				ug/L	646	Standard
	Y	89	1790044.6	0.6				ug/L	2084970	Standard
	Rh	103	1145569.9	0.9				ug/L	1339953	Standard
	Ni -3	58	143.7	12.3	-0.0731	0.004	5.5	ug/L	229	KED
	Ni -4	60	73.3	8.9	-0.0929	0.003	3.5	ug/L	94	KED
	Ni -5	62	28.7	2.0	-0.0147	0.002	13.0	ug/L	14	KED
	As-2	75	6.7	17.3	0.0022	0.003	129.8	ug/L	8	KED
	Y-1	89	141780.1	0.6				ug/L	151628	KED
	Rh-1	103	327871.5	0.5				ug/L	379534	KED
>	Ge	72	1098402.5	0.4				ug/L	1316182	Standard
>	In	115	852570.7	0.2				ug/L	994105	Standard
>	Ge-1	72	61408.4	0.6				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		83.454
>	In	115		85.763
>	Ge-1	72		90.590

Sample ID: QC Std 8

Report Date/Time: Monday, August 26, 2024 09:24:56

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-04dMSD 10X**

Sample Date/Time: Monday, August 26, 2024 09:27:34

Report Date/Time: Monday, August 26, 2024 09:29:23

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-04dMSD 10X.040

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	742401.8	1.4	<b>38.2907</b>	0.579	1.5	ug/L	-9343	Standard
	Ni -1	60	302339.0	0.8	<b>37.5982</b>	0.296	0.8	ug/L	582	Standard
	Ni -2	62	178603.9	0.7	<b>148.6140</b>	0.764	0.5	ug/L	3055	Standard
	As	75	249947.8	0.4	<b>44.3257</b>	0.093	0.2	ug/L	25703	Standard
	As-1	75	227882.6	0.3	<b>42.7963</b>	0.018	0.0	ug/L	1359	Standard
	Se	77	16813.9	0.7	<b>47.2024</b>	0.423	0.9	ug/L	259	Standard
	Se -1	78	72916.3	0.6	<b>47.0668</b>	0.289	0.6	ug/L	25820	Standard
	Br	79	205780.8	0.4				ug/L	715	Standard
	Se -2	82	20061.1	1.1	<b>42.1407</b>	0.483	1.1	ug/L	617	Standard
	Kr	83	607.3	1.4				ug/L	646	Standard
	Y	89	1603380.9	0.9				ug/L	2084970	Standard
	Rh	103	1085030.4	0.6				ug/L	1339953	Standard
	Ni -3	58	142541.5	0.9	<b>35.8664</b>	0.350	1.0	ug/L	229	KED
	Ni -4	60	62791.7	0.7	<b>35.9444</b>	0.376	1.0	ug/L	94	KED
	Ni -5	62	9771.7	0.6	<b>35.9500</b>	0.531	1.5	ug/L	14	KED
	As-2	75	14930.1	0.2	<b>41.2099</b>	0.756	1.8	ug/L	8	KED
	Y-1	89	124507.2	0.7				ug/L	151628	KED
	Rh-1	103	304560.1	1.0				ug/L	379534	KED
>	Ge	72	990674.9	0.2				ug/L	1316182	Standard
>	In	115	748130.0	0.7				ug/L	994105	Standard
>	Ge-1	72	53870.1	1.8				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		75.269
>	In	115		75.257
>	Ge-1	72		79.469

Sample ID: 08-224-04dMSD 10X

Report Date/Time: Monday, August 26, 2024 09:29:23

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## Quantitative Analysis - Summary Report

**Sample ID: MB0826WM1 2X**

Sample Date/Time: Monday, August 26, 2024 09:31:43

Report Date/Time: Monday, August 26, 2024 09:33:33

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\MB0826WM1 2X.041

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-7077.4	3.2	-0.1179	0.011	9.5	ug/L	-9343	Standard
	Ni -1	60	240.3	7.9	-0.0707	0.002	3.4	ug/L	582	Standard
	Ni -2	62	104079.4	0.9	84.2231	1.073	1.3	ug/L	3055	Standard
	As	75	23763.4	0.4	0.6978	0.006	0.8	ug/L	25703	Standard
	As-1	75	959.8	15.9	-0.0089	0.028	317.1	ug/L	1359	Standard
	Se	77	866.0	5.4	1.8337	0.138	7.5	ug/L	259	Standard
	Se -1	78	24085.6	0.4	3.3896	0.039	1.2	ug/L	25820	Standard
	Br	79	12795.1	1.5				ug/L	715	Standard
	Se -2	82	538.7	5.7	0.0970	0.066	68.4	ug/L	617	Standard
	Kr	83	550.3	4.7				ug/L	646	Standard
	Y	89	1630543.3	0.2				ug/L	2084970	Standard
	Rh	103	1144781.7	0.7				ug/L	1339953	Standard
	Ni -3	58	91.8	8.8	-0.0827	0.002	2.1	ug/L	229	KED
	Ni -4	60	31.0	11.2	-0.1127	0.002	1.9	ug/L	94	KED
	Ni -5	62	30.7	13.2	0.0010	0.015	1567.5	ug/L	14	KED
	As-2	75	5.7	27.0	0.0010	0.004	388.5	ug/L	8	KED
	Y-1	89	128899.6	0.4				ug/L	151628	KED
	Rh-1	103	325873.6	0.5				ug/L	379534	KED
>	Ge	72	1008533.4	0.4				ug/L	1316182	Standard
>	In	115	777013.6	0.1				ug/L	994105	Standard
>	Ge-1	72	56259.6	1.6				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		76.626
>	In	115		78.162
>	Ge-1	72		82.994

Sample ID: MB0826WM1 2X

Report Date/Time: Monday, August 26, 2024 09:33:33

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## Quantitative Analysis - Summary Report

**Sample ID: SB0826WM1 2X**

Sample Date/Time: Monday, August 26, 2024 09:43:42

Report Date/Time: Monday, August 26, 2024 09:45:30

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\SB0826WM1 2X.043

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Ni	58	1156047.6	0.6	<b>51.8836</b>	0.645	1.2	ug/L	-9343		Standard
	Ni -1	60	468933.9	0.2	<b>50.8618</b>	0.352	0.7	ug/L	582		Standard
	Ni -2	62	290965.4	2.8	<b>211.8696</b>	6.992	3.3	ug/L	3055		Standard
	As	75	345244.9	0.5	<b>54.1359</b>	0.226	0.4	ug/L	25703		Standard
	As-1	75	318008.4	0.6	<b>52.0912</b>	0.083	0.2	ug/L	1359		Standard
	Se	77	27714.5	0.5	<b>68.0669</b>	0.599	0.9	ug/L	259		Standard
	Se -1	78	101200.5	0.4	<b>60.6253</b>	0.937	1.5	ug/L	25820		Standard
	Br	79	18840.4	3.7				ug/L	715		Standard
	Se -2	82	29172.1	0.8	<b>53.6887</b>	0.614	1.1	ug/L	617		Standard
	Kr	83	1522.7	4.8				ug/L	646		Standard
	Y	89	1810568.6	1.5				ug/L	2084970		Standard
	Rh	103	1246429.4	1.1				ug/L	1339953		Standard
	Ni -3	58	220864.1	1.6	<b>48.9392</b>	0.529	1.1	ug/L	229		KED
	Ni -4	60	97477.1	1.3	<b>49.1470</b>	0.338	0.7	ug/L	94		KED
	Ni -5	62	14934.1	0.6	<b>48.3820</b>	0.185	0.4	ug/L	14		KED
	As-2	75	20612.2	0.7	<b>50.0614</b>	0.107	0.2	ug/L	8		KED
	Y-1	89	137082.0	1.9				ug/L	151628		KED
	Rh-1	103	351396.5	1.8				ug/L	379534		KED
>	Ge	72	1136686.8	0.8				ug/L	1316182		Standard
>	In	115	839145.9	0.9				ug/L	994105		Standard
>	Ge-1	72	61211.9	0.6				ug/L	67787		KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		86.362
>	In	115		84.412
>	Ge-1	72		90.300

Sample ID: SB0826WM1 2X

Report Date/Time: Monday, August 26, 2024 09:45:30

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## Quantitative Analysis - Summary Report

**Sample ID: 08-013-05a 2X**

Sample Date/Time: Monday, August 26, 2024 09:47:50

Report Date/Time: Monday, August 26, 2024 09:49:39

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-013-05a 2X.044

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-3304.9	4.7	<b>0.0842</b>	0.007	8.5	ug/L	-9343	Standard
	Ni -1	60	3053.3	1.8	<b>0.2464</b>	0.004	1.7	ug/L	582	Standard
	Ni -2	62	171552.3	3.3	<b>129.7117</b>	5.085	3.9	ug/L	3055	Standard
	As	75	31959.1	1.6	<b>1.8052</b>	0.123	6.8	ug/L	25703	Standard
	As-1	75	4968.3	6.1	<b>0.6665</b>	0.057	8.6	ug/L	1359	Standard
	Se	77	4318.0	3.3	<b>10.5884</b>	0.428	4.0	ug/L	259	Standard
	Se -1	78	28576.2	0.8	<b>5.4777</b>	0.304	5.5	ug/L	25820	Standard
	Br	79	29168.7	0.5				ug/L	715	Standard
	Se -2	82	664.3	0.8	<b>0.2597</b>	0.012	4.6	ug/L	617	Standard
	Kr	83	995.7	0.7				ug/L	646	Standard
	Y	89	1745999.3	0.9				ug/L	2084970	Standard
	Rh	103	1183030.0	0.8				ug/L	1339953	Standard
	Ni -3	58	806.6	3.1	<b>0.0791</b>	0.004	5.1	ug/L	229	KED
	Ni -4	60	336.3	3.5	<b>0.0449</b>	0.008	17.5	ug/L	94	KED
	Ni -5	62	71.3	18.6	<b>0.1308</b>	0.046	35.3	ug/L	14	KED
	As-2	75	288.3	6.5	<b>0.7054</b>	0.040	5.7	ug/L	8	KED
	Y-1	89	134961.2	0.9				ug/L	151628	KED
	Rh-1	103	336969.0	1.8				ug/L	379534	KED
>	Ge	72	1088303.2	0.6				ug/L	1316182	Standard
>	In	115	819333.5	0.7				ug/L	994105	Standard
>	Ge-1	72	59587.0	1.0				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		82.686
>	In	115		82.419
>	Ge-1	72		87.903

Sample ID: 08-013-05a 2X

Report Date/Time: Monday, August 26, 2024 09:49:39

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## Quantitative Analysis - Summary Report

**Sample ID: 08-013-05aD 2X**

Sample Date/Time: Monday, August 26, 2024 09:51:59

Report Date/Time: Monday, August 26, 2024 09:53:49

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-013-05aD 2X.045

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-3401.6	3.0	<b>0.0775</b>	0.004	5.1	ug/L	-9343	Standard
	Ni -1	60	2992.6	1.6	<b>0.2442</b>	0.006	2.4	ug/L	582	Standard
	Ni -2	62	124406.1	1.7	<b>94.8135</b>	2.055	2.2	ug/L	3055	Standard
	As	75	29893.3	0.9	<b>1.5141</b>	0.027	1.8	ug/L	25703	Standard
	As-1	75	4973.3	5.9	<b>0.6788</b>	0.050	7.4	ug/L	1359	Standard
	Se	77	3012.7	1.0	<b>7.3166</b>	0.120	1.6	ug/L	259	Standard
	Se -1	78	26462.5	0.7	<b>4.0620</b>	0.107	2.6	ug/L	25820	Standard
	Br	79	26206.0	0.9				ug/L	715	Standard
	Se -2	82	644.3	2.3	<b>0.2379</b>	0.036	15.2	ug/L	617	Standard
	Kr	83	813.4	8.2				ug/L	646	Standard
	Y	89	1724230.0	0.4				ug/L	2084970	Standard
	Rh	103	1176177.8	0.5				ug/L	1339953	Standard
	Ni -3	58	745.1	5.3	<b>0.0670</b>	0.009	14.1	ug/L	229	KED
	Ni -4	60	340.0	8.2	<b>0.0488</b>	0.015	29.8	ug/L	94	KED
	Ni -5	62	71.7	2.1	<b>0.1343</b>	0.004	3.2	ug/L	14	KED
	As-2	75	265.0	9.5	<b>0.6550</b>	0.066	10.1	ug/L	8	KED
	Y-1	89	134271.1	0.6				ug/L	151628	KED
	Rh-1	103	335134.1	0.1				ug/L	379534	KED
>	Ge	72	1073647.4	0.6				ug/L	1316182	Standard
>	In	115	815751.8	0.6				ug/L	994105	Standard
>	Ge-1	72	58926.0	0.8				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		81.573
>	In	115		82.059
>	Ge-1	72		86.928

Sample ID: 08-013-05aD 2X

Report Date/Time: Monday, August 26, 2024 09:53:49

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## Quantitative Analysis - Summary Report

**Sample ID: 08-013-05aL 10X**

Sample Date/Time: Monday, August 26, 2024 09:56:08

Report Date/Time: Monday, August 26, 2024 09:57:58

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-013-05aL 10X.046

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Ni	58	-5885.8	2.5	-0.0481	0.004	8.0	ug/L	-9343		Standard
	Ni -1	60	1073.0	2.3	0.0269	0.001	4.0	ug/L	582		Standard
	Ni -2	62	95941.1	0.9	74.8472	0.441	0.6	ug/L	3055		Standard
	As	75	25523.2	0.2	0.8710	0.061	7.0	ug/L	25703		Standard
	As-1	75	2285.7	2.9	0.2226	0.006	2.7	ug/L	1359		Standard
	Se	77	1889.8	1.8	4.5167	0.081	1.8	ug/L	259		Standard
	Se -1	78	24866.6	0.5	3.3543	0.338	10.1	ug/L	25820		Standard
	Br	79	13963.5	1.1				ug/L	715		Standard
	Se -2	82	676.0	4.8	0.3400	0.068	20.0	ug/L	617		Standard
	Kr	83	694.0	3.3				ug/L	646		Standard
	Y	89	1659493.1	1.2				ug/L	2084970		Standard
	Rh	103	1150197.6	1.1				ug/L	1339953		Standard
	Ni -3	58	321.9	4.8	-0.0238	0.003	14.0	ug/L	229		KED
	Ni -4	60	135.7	13.5	-0.0521	0.009	18.1	ug/L	94		KED
	Ni -5	62	40.7	12.4	0.0422	0.017	41.0	ug/L	14		KED
	As-2	75	78.7	6.0	0.2028	0.011	5.2	ug/L	8		KED
	Y-1	89	123384.2	0.9				ug/L	151628		KED
	Rh-1	103	310065.9	1.4				ug/L	379534		KED
>	Ge	72	1043144.2	1.5				ug/L	1316182		Standard
>	In	115	794835.5	1.1				ug/L	994105		Standard
>	Ge-1	72	53968.1	2.0				ug/L	67787		KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		79.255
>	In	115		79.955
>	Ge-1	72		79.614

Sample ID: 08-013-05aL 10X

Report Date/Time: Monday, August 26, 2024 09:57:58

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## Quantitative Analysis - Summary Report

**Sample ID: 08-013-05aMS 2X**

Sample Date/Time: Monday, August 26, 2024 10:00:17

Report Date/Time: Monday, August 26, 2024 10:02:06

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-013-05aMS 2X.047

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	1030780.3	0.7	51.2079	0.263	0.5	ug/L	-9343	Standard
	Ni -1	60	421028.6	1.4	50.5440	0.262	0.5	ug/L	582	Standard
	Ni -2	62	153902.3	0.7	123.2194	2.006	1.6	ug/L	3055	Standard
	As	75	330428.6	0.3	57.5791	0.547	0.9	ug/L	25703	Standard
	As-1	75	309917.2	0.3	56.2104	0.577	1.0	ug/L	1359	Standard
	Se	77	22570.8	0.9	61.3007	0.340	0.6	ug/L	259	Standard
	Se -1	78	92074.4	0.5	61.1773	0.560	0.9	ug/L	25820	Standard
	Br	79	22782.5	0.5				ug/L	715	Standard
	Se -2	82	28216.5	0.8	57.5569	0.812	1.4	ug/L	617	Standard
	Kr	83	639.0	1.5				ug/L	646	Standard
	Y	89	1641138.4	0.8				ug/L	2084970	Standard
	Rh	103	1120749.6	0.3				ug/L	1339953	Standard
	Ni -3	58	199194.0	0.7	48.3682	0.297	0.6	ug/L	229	KED
	Ni -4	60	88173.6	0.6	48.7172	0.315	0.6	ug/L	94	KED
	Ni -5	62	13507.7	0.9	47.9529	0.304	0.6	ug/L	14	KED
	As-2	75	20129.5	1.0	53.5743	0.236	0.4	ug/L	8	KED
	Y-1	89	127521.7	0.9				ug/L	151628	KED
	Rh-1	103	317645.7	0.6				ug/L	379534	KED
>	Ge	72	1026927.8	1.2				ug/L	1316182	Standard
>	In	115	782362.5	0.6				ug/L	994105	Standard
>	Ge-1	72	55861.3	1.3				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		78.023
>	In	115		78.700
>	Ge-1	72		82.407

Sample ID: 08-013-05aMS 2X

Report Date/Time: Monday, August 26, 2024 10:02:06

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## Quantitative Analysis - Summary Report

**Sample ID: 08-013-05aMSD 2X**

Sample Date/Time: Monday, August 26, 2024 10:04:26

Report Date/Time: Monday, August 26, 2024 10:06:15

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-013-05aMSD 2X.048

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	1028394.5	0.2	<b>50.8839</b>	0.339	0.7	ug/L	-9343	Standard
	Ni -1	60	420384.0	1.3	<b>50.2620</b>	0.538	1.1	ug/L	582	Standard
	Ni -2	62	140852.0	0.5	<b>112.1305</b>	1.169	1.0	ug/L	3055	Standard
	As	75	331489.6	1.2	<b>57.5214</b>	0.359	0.6	ug/L	25703	Standard
	As-1	75	311876.0	1.5	<b>56.3309</b>	0.456	0.8	ug/L	1359	Standard
	Se	77	22462.0	1.0	<b>60.7505</b>	0.252	0.4	ug/L	259	Standard
	Se -1	78	91826.2	0.9	<b>60.6455</b>	0.895	1.5	ug/L	25820	Standard
	Br	79	21715.2	0.5				ug/L	715	Standard
	Se -2	82	28471.0	1.7	<b>57.8411</b>	0.918	1.6	ug/L	617	Standard
	Kr	83	646.0	6.0				ug/L	646	Standard
	Y	89	1665060.7	1.1				ug/L	2084970	Standard
	Rh	103	1136758.2	0.8				ug/L	1339953	Standard
	Ni -3	58	200188.4	1.7	<b>48.1554</b>	0.273	0.6	ug/L	229	KED
	Ni -4	60	88771.0	2.2	<b>48.5876</b>	0.540	1.1	ug/L	94	KED
	Ni -5	62	13639.5	3.0	<b>47.9646</b>	0.920	1.9	ug/L	14	KED
	As-2	75	20596.5	2.4	<b>54.3051</b>	0.784	1.4	ug/L	8	KED
	Y-1	89	130426.1	1.4				ug/L	151628	KED
	Rh-1	103	322076.2	2.4				ug/L	379534	KED
>	Ge	72	1031105.0	0.8				ug/L	1316182	Standard
>	In	115	795221.7	1.5				ug/L	994105	Standard
>	Ge-1	72	56382.4	1.2				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		78.341
>	In	115		79.994
>	Ge-1	72		83.176

Sample ID: 08-013-05aMSD 2X

Report Date/Time: Monday, August 26, 2024 10:06:15

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## Quantitative Analysis - Summary Report

**Sample ID: 08-013-05aPS 2X**

Sample Date/Time: Monday, August 26, 2024 10:08:36

Report Date/Time: Monday, August 26, 2024 10:10:25

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-013-05aPS 2X.049

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	744122.6	0.2	<b>37.9258</b>	0.158	0.4	ug/L	-9343	Standard
	Ni -1	60	307391.3	0.5	<b>37.7731</b>	0.171	0.5	ug/L	582	Standard
	Ni -2	62	115377.4	0.7	<b>94.1493</b>	1.159	1.2	ug/L	3055	Standard
	As	75	249390.3	0.6	<b>43.6482</b>	0.222	0.5	ug/L	25703	Standard
	As-1	75	229187.2	0.7	<b>42.5287</b>	0.204	0.5	ug/L	1359	Standard
	Se	77	16523.6	1.0	<b>45.8180</b>	0.279	0.6	ug/L	259	Standard
	Se -1	78	73192.7	0.4	<b>46.5417</b>	0.241	0.5	ug/L	25820	Standard
	Br	79	20975.7	1.0				ug/L	715	Standard
	Se -2	82	20900.6	1.0	<b>43.4126</b>	0.212	0.5	ug/L	617	Standard
	Kr	83	666.7	2.0				ug/L	646	Standard
	Y	89	1606104.7	1.3				ug/L	2084970	Standard
	Rh	103	1104484.1	0.6				ug/L	1339953	Standard
	Ni -3	58	145880.5	1.2	<b>35.9283</b>	0.568	1.6	ug/L	229	KED
	Ni -4	60	64479.5	0.5	<b>36.1273</b>	0.317	0.9	ug/L	94	KED
	Ni -5	62	9945.8	0.3	<b>35.8112</b>	0.222	0.6	ug/L	14	KED
	As-2	75	14956.2	0.6	<b>40.3998</b>	0.097	0.2	ug/L	8	KED
	Y-1	89	125465.6	1.4				ug/L	151628	KED
	Rh-1	103	311608.6	1.4				ug/L	379534	KED
>	Ge	72	1002591.5	0.7				ug/L	1316182	Standard
>	In	115	772730.3	0.2				ug/L	994105	Standard
>	Ge-1	72	55034.1	0.7				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		76.174
>	In	115		77.731
>	Ge-1	72		81.187

Sample ID: 08-013-05aPS 2X

Report Date/Time: Monday, August 26, 2024 10:10:25

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-01c 10X**

Sample Date/Time: Monday, August 26, 2024 10:26:27

Report Date/Time: Monday, August 26, 2024 10:28:17

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-01c 10X.050

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	4674.0	11.8	<b>0.4698</b>	0.025	5.3	ug/L	-9343	Standard
	Ni -1	60	10312.7	4.6	<b>1.1428</b>	0.042	3.7	ug/L	582	Standard
	Ni -2	62	462729.0	11.7	<b>374.9520</b>	39.925	10.6	ug/L	3055	Standard
	As	75	35524.5	4.3	<b>2.8148</b>	0.210	7.5	ug/L	25703	Standard
	As-1	75	10396.4	5.4	<b>1.7097</b>	0.113	6.6	ug/L	1359	Standard
	Se	77	30413.4	5.6	<b>82.9590</b>	3.689	4.4	ug/L	259	Standard
	Se -1	78	36740.3	4.7	<b>13.9007</b>	1.111	8.0	ug/L	25820	Standard
	Br	79	2908180.5	0.8				ug/L	715	Standard
	Se -2	82	4610.7	0.3	<b>8.5551</b>	0.142	1.7	ug/L	617	Standard
	Kr	83	3241.0	21.7				ug/L	646	Standard
	Y	89	1673944.1	1.0				ug/L	2084970	Standard
	Rh	103	1047755.7	1.4				ug/L	1339953	Standard
	Ni -3	58	2622.3	1.7	<b>0.4843</b>	0.010	2.0	ug/L	229	KED
	Ni -4	60	1095.7	2.9	<b>0.4307</b>	0.017	3.9	ug/L	94	KED
	Ni -5	62	293.3	4.3	<b>0.8562</b>	0.042	4.9	ug/L	14	KED
	As-2	75	259.3	6.0	<b>0.6235</b>	0.037	5.9	ug/L	8	KED
	Y-1	89	133564.1	0.4				ug/L	151628	KED
	Rh-1	103	313584.8	0.6				ug/L	379534	KED
>	Ge	72	1024630.0	1.2				ug/L	1316182	Standard
>	In	115	743405.4	1.8				ug/L	994105	Standard
>	Ge-1	72	60497.8	0.3				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		77.849
>	In	115		74.781
>	Ge-1	72		89.247

Sample ID: 08-224-01c 10X

Report Date/Time: Monday, August 26, 2024 10:28:17

# Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, August 26, 2024 10:30:38

Report Date/Time: Monday, August 26, 2024 10:32:28

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 6.051

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	949157.5	0.6	<b>39.7290</b>	0.224	0.6	ug/L	-9343	Standard
	Ni -1	60	385425.8	1.0	<b>38.9104</b>	0.279	0.7	ug/L	582	Standard
	Ni -2	62	317445.9	0.2	<b>215.3079</b>	2.645	1.2	ug/L	3055	Standard
	As	75	291311.4	1.0	<b>41.7297</b>	0.178	0.4	ug/L	25703	Standard
	As-1	75	263311.7	1.1	<b>40.1274</b>	0.063	0.2	ug/L	1359	Standard
	Se	77	23019.2	1.7	<b>52.5204</b>	0.761	1.4	ug/L	259	Standard
	Se -1	78	89378.1	1.5	<b>46.7412</b>	0.534	1.1	ug/L	25820	Standard
	Br	79	29277.3	2.9				ug/L	715	Standard
	Se -2	82	24216.2	2.1	<b>41.2671</b>	0.431	1.0	ug/L	617	Standard
	Kr	83	1930.8	4.2				ug/L	646	Standard
	Y	89	1971939.7	1.1				ug/L	2084970	Standard
	Rh	103	1127149.2	1.9				ug/L	1339953	Standard
	Ni -3	58	184698.7	0.8	<b>37.8593</b>	0.351	0.9	ug/L	229	KED
	Ni -4	60	81524.6	0.0	<b>38.0180</b>	0.083	0.2	ug/L	94	KED
	Ni -5	62	12513.1	0.8	<b>37.4987</b>	0.276	0.7	ug/L	14	KED
	As-2	75	17086.2	0.8	<b>38.4081</b>	0.357	0.9	ug/L	8	KED
	Y-1	89	150997.5	0.1				ug/L	151628	KED
	Rh-1	103	314945.8	0.3				ug/L	379534	KED
>	Ge	72	1220471.2	1.1				ug/L	1316182	Standard
>	In	115	911413.7	1.8				ug/L	994105	Standard
>	Ge-1	72	66131.4	0.2				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	99.323	
	Ni -1	60	97.276	
	Ni -2	62	538.270	
	As	75	104.324	
	As-1	75	100.319	
	Se	77	131.301	
	Se -1	78	116.853	
	Br	79		
	Se -2	82	103.168	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	94.648	
	Ni -4	60	95.045	
	Ni -5	62	93.747	
	As-2	75	96.020	
	Y-1	89		
	Rh-1	103		
>	Ge	72		92.728
>	In	115		91.682
>	Ge-1	72		97.557

**Sample ID: QC Std 6**

Report Date/Time: Monday, August 26, 2024 10:32:28

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## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, August 26, 2024 10:34:49

Report Date/Time: Monday, August 26, 2024 10:36:38

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 7.052

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	440998.4	0.7	<b>19.4386</b>	0.216	1.1	ug/L	-9343	Standard
	Ni -1	60	182420.7	0.5	<b>19.2206</b>	0.092	0.5	ug/L	582	Standard
	Ni -2	62	222224.6	1.1	<b>157.1794</b>	1.609	1.0	ug/L	3055	Standard
	As	75	151098.8	0.4	<b>20.9143</b>	0.192	0.9	ug/L	25703	Standard
	As-1	75	126589.6	0.1	<b>20.0956</b>	0.186	0.9	ug/L	1359	Standard
	Se	77	11168.0	0.4	<b>26.3774</b>	0.298	1.1	ug/L	259	Standard
	Se -1	78	55314.9	1.2	<b>24.0723</b>	0.301	1.2	ug/L	25820	Standard
	Br	79	18866.5	0.8				ug/L	715	Standard
	Se -2	82	12169.5	0.9	<b>21.2086</b>	0.118	0.6	ug/L	617	Standard
	Kr	83	1306.7	1.3				ug/L	646	Standard
	Y	89	1905707.5	0.4				ug/L	2084970	Standard
	Rh	103	1098500.1	0.5				ug/L	1339953	Standard
	Ni -3	58	88194.9	1.0	<b>18.6970</b>	0.205	1.1	ug/L	229	KED
	Ni -4	60	38728.1	1.1	<b>18.6652</b>	0.091	0.5	ug/L	94	KED
	Ni -5	62	6054.9	1.1	<b>18.7662</b>	0.223	1.2	ug/L	14	KED
	As-2	75	8320.8	0.7	<b>19.3924</b>	0.162	0.8	ug/L	8	KED
	Y-1	89	148344.2	0.4				ug/L	151628	KED
	Rh-1	103	312943.0	0.9				ug/L	379534	KED
>	Ge	72	1166324.2	0.8				ug/L	1316182	Standard
>	In	115	892179.3	0.8				ug/L	994105	Standard
>	Ge-1	72	63762.3	0.6				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	97.193	
	Ni -1	60	96.103	
	Ni -2	62	785.897	
	As	75	104.572	
	As-1	75	100.478	
	Se	77	131.887	
	Se -1	78	120.362	
	Br	79		
	Se -2	82	106.043	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	93.485	
	Ni -4	60	93.326	
	Ni -5	62	93.831	
	As-2	75	96.962	
	Y-1	89		
	Rh-1	103		
>	Ge	72		88.614
>	In	115		89.747
>	Ge-1	72		94.063

Sample ID: QC Std 7

Report Date/Time: Monday, August 26, 2024 10:36:38

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## Quantitative Analysis - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Monday, August 26, 2024 10:39:00

Report Date/Time: Monday, August 26, 2024 10:40:49

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 8.053

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank	Intens.	Mode
	Ni	58	-7688.1	1.2	-0.1014	0.004	4.3	ug/L	-9343		Standard
	Ni -1	60	432.7	4.2	-0.0536	0.002	3.5	ug/L	582		Standard
	Ni -2	62	165734.6	1.2	118.4993	0.863	0.7	ug/L	3055		Standard
	As	75	25834.4	0.9	0.4919	0.022	4.5	ug/L	25703		Standard
	As-1	75	2256.0	2.2	0.1801	0.007	4.1	ug/L	1359		Standard
	Se	77	1624.8	2.3	3.3969	0.085	2.5	ug/L	259		Standard
	Se -1	78	26046.7	0.8	2.3233	0.080	3.5	ug/L	25820		Standard
	Br	79	15754.0	0.9				ug/L	715		Standard
	Se -2	82	1007.0	1.4	0.8268	0.018	2.2	ug/L	617		Standard
	Kr	83	1129.7	1.9				ug/L	646		Standard
	Y	89	1868042.8	0.0				ug/L	2084970		Standard
	Rh	103	1176027.5	0.1				ug/L	1339953		Standard
	Ni -3	58	159.3	9.3	-0.0711	0.003	4.2	ug/L	229		KED
	Ni -4	60	72.0	17.4	-0.0951	0.006	6.4	ug/L	94		KED
	Ni -5	62	45.0	9.7	0.0321	0.014	44.5	ug/L	14		KED
	As-2	75	7.7	27.2	0.0039	0.005	127.6	ug/L	8		KED
	Y-1	89	146506.4	0.8				ug/L	151628		KED
	Rh-1	103	337693.1	0.5				ug/L	379534		KED
>	Ge	72	1149042.9	0.5				ug/L	1316182		Standard
>	In	115	873469.2	0.2				ug/L	994105		Standard
>	Ge-1	72	64121.3	0.6				ug/L	67787		KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		87.301
>	In	115		87.865
>	Ge-1	72		94.592

Sample ID: QC Std 8

Report Date/Time: Monday, August 26, 2024 10:40:49

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# Quantitative Analysis - Summary Report

**Sample ID: 08-224-02c 10X**

Sample Date/Time: Monday, August 26, 2024 10:43:34

Report Date/Time: Monday, August 26, 2024 10:45:24

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-02c 10X.054

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	5077.7	76.8	<b>0.4939</b>	0.197	39.8	ug/L	-9343	Standard
	Ni -1	60	14989.6	11.3	<b>1.7307</b>	0.216	12.5	ug/L	582	Standard
	Ni -2	62	1661450.2	33.6	<b>1371.2470</b>	466.406	34.0	ug/L	3055	Standard
	As	75	52158.3	12.0	<b>6.0405</b>	1.226	20.3	ug/L	25703	Standard
	As-1	75	13798.2	19.1	<b>2.3599</b>	0.473	20.0	ug/L	1359	Standard
	Se	77	75617.9	4.7	<b>209.8851</b>	11.061	5.3	ug/L	259	Standard
	Se -1	78	62837.8	13.1	<b>36.9946</b>	7.434	20.1	ug/L	25820	Standard
	Br	79	6585907.1	1.0				ug/L	715	Standard
	Se -2	82	9697.6	2.5	<b>19.3961</b>	0.404	2.1	ug/L	617	Standard
	Kr	83	22918.9	35.8				ug/L	646	Standard
	Y	89	1718626.5	3.0				ug/L	2084970	Standard
	Rh	103	1062382.5	2.0				ug/L	1339953	Standard
	Ni -3	58	1237.9	3.6	<b>0.1558</b>	0.008	5.1	ug/L	229	KED
	Ni -4	60	552.7	2.1	<b>0.1353</b>	0.009	6.3	ug/L	94	KED
	Ni -5	62	616.3	3.7	<b>1.7904</b>	0.051	2.9	ug/L	14	KED
	As-2	75	156.0	5.1	<b>0.3455</b>	0.015	4.3	ug/L	8	KED
	Y-1	89	136903.0	1.8				ug/L	151628	KED
	Rh-1	103	316784.0	1.5				ug/L	379534	KED
>	Ge	72	1011764.3	0.6				ug/L	1316182	Standard
>	In	115	757443.8	1.2				ug/L	994105	Standard
>	Ge-1	72	64535.5	1.2				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		76.871
>	In	115		76.194
>	Ge-1	72		95.203

Sample ID: 08-224-02c 10X

Report Date/Time: Monday, August 26, 2024 10:45:24

## Quantitative Analysis - Summary Report

**Sample ID: 08-224-03c 10X**

Sample Date/Time: Monday, August 26, 2024 10:47:44

Report Date/Time: Monday, August 26, 2024 10:49:33

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-03c 10X.055

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	10088.6	10.6	<b>0.7168</b>	0.050	7.0	ug/L	-9343	Standard
	Ni -1	60	16440.1	3.3	<b>1.7966</b>	0.061	3.4	ug/L	582	Standard
	Ni -2	62	2530352.8	5.2	<b>1972.1529</b>	102.964	5.2	ug/L	3055	Standard
	As	75	71351.1	1.7	<b>8.9141</b>	0.234	2.6	ug/L	25703	Standard
	As-1	75	14625.4	7.4	<b>2.3660</b>	0.196	8.3	ug/L	1359	Standard
	Se	77	79202.0	0.8	<b>207.6850</b>	1.475	0.7	ug/L	259	Standard
	Se -1	78	80546.8	1.7	<b>48.4941</b>	1.098	2.3	ug/L	25820	Standard
	Br	79	6235298.7	1.0				ug/L	715	Standard
	Se -2	82	9466.1	1.0	<b>17.8116</b>	0.236	1.3	ug/L	617	Standard
	Kr	83	35050.0	6.0				ug/L	646	Standard
	Y	89	1825699.2	0.9				ug/L	2084970	Standard
	Rh	103	1129356.8	0.3				ug/L	1339953	Standard
	Ni -3	58	1015.0	1.9	<b>0.0928</b>	0.005	5.3	ug/L	229	KED
	Ni -4	60	471.3	5.6	<b>0.0791</b>	0.010	13.0	ug/L	94	KED
	Ni -5	62	588.0	3.6	<b>1.5671</b>	0.068	4.3	ug/L	14	KED
	As-2	75	145.0	5.0	<b>0.2951</b>	0.017	5.8	ug/L	8	KED
	Y-1	89	148607.6	0.8				ug/L	151628	KED
	Rh-1	103	343040.6	0.7				ug/L	379534	KED
>	Ge	72	1070711.3	0.3				ug/L	1316182	Standard
>	In	115	802404.9	0.8				ug/L	994105	Standard
>	Ge-1	72	69799.4	0.6				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		81.350
>	In	115		80.716
>	Ge-1	72		102.969

Sample ID: 08-224-03c 10X

Report Date/Time: Monday, August 26, 2024 10:49:33

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## Quantitative Analysis - Summary Report

**Sample ID: 08-224-04c 10X**

Sample Date/Time: Monday, August 26, 2024 10:51:53

Report Date/Time: Monday, August 26, 2024 10:53:42

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-04c 10X.056

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	9782.8	10.3	<b>0.6199</b>	0.038	6.1	ug/L	-9343	Standard
	Ni -1	60	5256.3	1.7	<b>0.3987</b>	0.008	2.0	ug/L	582	Standard
	Ni -2	62	1100799.5	3.1	<b>704.4180</b>	22.911	3.3	ug/L	3055	Standard
	As	75	67185.6	1.5	<b>6.0476</b>	0.150	2.5	ug/L	25703	Standard
	As-1	75	13464.1	1.9	<b>1.7459</b>	0.038	2.2	ug/L	1359	Standard
	Se	77	13367.6	6.7	<b>28.3297</b>	1.961	6.9	ug/L	259	Standard
	Se -1	78	58800.5	2.3	<b>22.0900</b>	0.910	4.1	ug/L	25820	Standard
	Br	79	298088.4	0.9				ug/L	715	Standard
	Se -2	82	2079.8	1.7	<b>2.3650</b>	0.058	2.5	ug/L	617	Standard
	Kr	83	6469.8	7.9				ug/L	646	Standard
	Y	89	1684042.2	0.9				ug/L	2084970	Standard
	Rh	103	1336597.4	1.1				ug/L	1339953	Standard
	Ni -3	58	3197.8	4.5	<b>0.5074</b>	0.027	5.4	ug/L	229	KED
	Ni -4	60	745.7	9.4	<b>0.1952</b>	0.030	15.4	ug/L	94	KED
	Ni -5	62	274.3	6.5	<b>0.6604</b>	0.046	7.0	ug/L	14	KED
	As-2	75	718.0	0.4	<b>1.4901</b>	0.007	0.5	ug/L	8	KED
	Y-1	89	157121.7	0.4				ug/L	151628	KED
	Rh-1	103	390088.4	0.9				ug/L	379534	KED
>	Ge	72	1301792.8	0.6				ug/L	1316182	Standard
>	In	115	909008.3	1.1				ug/L	994105	Standard
>	Ge-1	72	70995.6	0.6				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		98.907
>	In	115		91.440
>	Ge-1	72		104.733

Sample ID: 08-224-04c 10X

Report Date/Time: Monday, August 26, 2024 10:53:42

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# Quantitative Analysis - Summary Report

**Sample ID: 08-224-05c 10X**

Sample Date/Time: Monday, August 26, 2024 10:56:02

Report Date/Time: Monday, August 26, 2024 10:57:51

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\08-224-05c 10X.057

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	6907.9	30.2	<b>0.5601</b>	0.096	17.2	ug/L	-9343	Standard
	Ni -1	60	15257.2	4.5	<b>1.6294</b>	0.071	4.4	ug/L	582	Standard
	Ni -2	62	2642166.2	9.7	<b>2023.2663</b>	189.112	9.3	ug/L	3055	Standard
	As	75	73872.4	4.8	<b>9.1337</b>	0.563	6.2	ug/L	25703	Standard
	As-1	75	16256.1	8.2	<b>2.6010</b>	0.226	8.7	ug/L	1359	Standard
	Se	77	67069.8	2.6	<b>172.7238</b>	3.966	2.3	ug/L	259	Standard
	Se -1	78	81417.0	4.7	<b>48.0458</b>	2.864	6.0	ug/L	25820	Standard
	Br	79	6590550.9	0.3				ug/L	715	Standard
	Se -2	82	9459.5	0.7	<b>17.4722</b>	0.178	1.0	ug/L	617	Standard
	Kr	83	30473.9	14.8				ug/L	646	Standard
	Y	89	1870057.8	0.2				ug/L	2084970	Standard
	Rh	103	1151698.5	0.6				ug/L	1339953	Standard
	Ni -3	58	1076.4	2.9	<b>0.1037</b>	0.006	6.1	ug/L	229	KED
	Ni -4	60	476.0	3.3	<b>0.0802</b>	0.007	8.2	ug/L	94	KED
	Ni -5	62	745.0	2.2	<b>2.0034</b>	0.046	2.3	ug/L	14	KED
	As-2	75	117.3	7.2	<b>0.2348</b>	0.018	7.6	ug/L	8	KED
	Y-1	89	149627.9	0.7				ug/L	151628	KED
	Rh-1	103	345527.5	0.7				ug/L	379534	KED
>	Ge	72	1089571.7	0.5				ug/L	1316182	Standard
>	In	115	816232.2	0.8				ug/L	994105	Standard
>	Ge-1	72	70148.8	0.1				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		82.783
>	In	115		82.107
>	Ge-1	72		103.484

Sample ID: 08-224-05c 10X

Report Date/Time: Monday, August 26, 2024 10:57:51

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## Quantitative Analysis - Summary Report

**Sample ID: QC Std 6**

Sample Date/Time: Monday, August 26, 2024 11:08:52

Report Date/Time: Monday, August 26, 2024 11:10:42

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 6.060

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	1073967.8	0.7	<b>40.0390</b>	0.129	0.3	ug/L	-9343	Standard
	Ni -1	60	435092.8	0.6	<b>39.1260</b>	0.161	0.4	ug/L	582	Standard
	Ni -2	62	774773.1	3.5	<b>470.3581</b>	15.712	3.3	ug/L	3055	Standard
	As	75	331148.3	1.0	<b>42.3020</b>	0.475	1.1	ug/L	25703	Standard
	As-1	75	294854.0	1.0	<b>40.0268</b>	0.522	1.3	ug/L	1359	Standard
	Se	77	23092.0	1.1	<b>46.8683</b>	0.472	1.0	ug/L	259	Standard
	Se -1	78	105453.5	1.9	<b>50.0192</b>	1.076	2.2	ug/L	25820	Standard
	Br	79	38881.2	0.3				ug/L	715	Standard
	Se -2	82	27293.1	1.9	<b>41.4398</b>	0.990	2.4	ug/L	617	Standard
	Kr	83	2251.5	2.1				ug/L	646	Standard
	Y	89	1809730.0	0.8				ug/L	2084970	Standard
	Rh	103	1256992.6	0.6				ug/L	1339953	Standard
	Ni -3	58	212341.4	0.3	<b>38.8438</b>	0.262	0.7	ug/L	229	KED
	Ni -4	60	93289.3	0.7	<b>38.8278</b>	0.659	1.7	ug/L	94	KED
	Ni -5	62	14461.3	1.6	<b>38.6799</b>	0.901	2.3	ug/L	14	KED
	As-2	75	19062.0	0.5	<b>38.2381</b>	0.327	0.9	ug/L	8	KED
	Y-1	89	165545.7	0.6				ug/L	151628	KED
	Rh-1	103	357533.1	0.3				ug/L	379534	KED
>	Ge	72	1370153.7	0.6				ug/L	1316182	Standard
>	In	115	996206.7	0.3				ug/L	994105	Standard
>	Ge-1	72	74109.7	1.0				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	100.098	
	Ni -1	60	97.815	
	Ni -2	62	1175.895	
	As	75	105.755	
	As-1	75	100.067	
	Se	77	117.171	
	Se -1	78	125.048	
	Br	79		
	Se -2	82	103.599	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	97.109	
	Ni -4	60	97.070	
	Ni -5	62	96.700	
	As-2	75	95.595	
	Y-1	89		
	Rh-1	103		
>	Ge	72		104.101
>	In	115		100.211
>	Ge-1	72		109.327

Sample ID: QC Std 6

Report Date/Time: Monday, August 26, 2024 11:10:42

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## Quantitative Analysis - Summary Report

**Sample ID: QC Std 7**

Sample Date/Time: Monday, August 26, 2024 11:13:03

Report Date/Time: Monday, August 26, 2024 11:14:53

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 7.061

### Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	496821.2	0.7	<b>19.8513</b>	0.022	0.1	ug/L	-9343	Standard
	Ni -1	60	205461.7	0.9	<b>19.6315</b>	0.107	0.5	ug/L	582	Standard
	Ni -2	62	549472.0	1.1	<b>354.8609</b>	2.024	0.6	ug/L	3055	Standard
	As	75	171573.8	0.2	<b>21.6463</b>	0.156	0.7	ug/L	25703	Standard
	As-1	75	140154.2	0.4	<b>20.1750</b>	0.187	0.9	ug/L	1359	Standard
	Se	77	11517.6	1.5	<b>24.6269</b>	0.283	1.1	ug/L	259	Standard
	Se -1	78	66195.0	0.7	<b>27.6189</b>	0.048	0.2	ug/L	25820	Standard
	Br	79	31401.5	1.3				ug/L	715	Standard
	Se -2	82	13743.3	0.1	<b>21.7436</b>	0.124	0.6	ug/L	617	Standard
	Kr	83	1736.8	1.0				ug/L	646	Standard
	Y	89	1728615.7	1.0				ug/L	2084970	Standard
	Rh	103	1189601.2	0.8				ug/L	1339953	Standard
	Ni -3	58	98728.1	0.2	<b>19.1186</b>	0.136	0.7	ug/L	229	KED
	Ni -4	60	43596.1	0.8	<b>19.1946</b>	0.149	0.8	ug/L	94	KED
	Ni -5	62	6913.7	1.0	<b>19.5745</b>	0.074	0.4	ug/L	14	KED
	As-2	75	9064.2	0.6	<b>19.2944</b>	0.155	0.8	ug/L	8	KED
	Y-1	89	158132.7	0.2				ug/L	151628	KED
	Rh-1	103	332818.1	0.8				ug/L	379534	KED
>	Ge	72	1286245.6	0.6				ug/L	1316182	Standard
>	In	115	951780.2	1.3				ug/L	994105	Standard
>	Ge-1	72	69813.2	0.8				ug/L	67787	KED

### QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58	99.257	
	Ni -1	60	98.158	
	Ni -2	62	1774.304	
	As	75	108.232	
	As-1	75	100.875	
	Se	77	123.134	
	Se -1	78	138.094	
	Br	79		
	Se -2	82	108.718	
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58	95.593	
	Ni -4	60	95.973	
	Ni -5	62	97.873	
	As-2	75	96.472	
	Y-1	89		
	Rh-1	103		
>	Ge	72		97.725
>	In	115		95.742
>	Ge-1	72		102.989

Sample ID: QC Std 7

Report Date/Time: Monday, August 26, 2024 11:14:53

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# Quantitative Analysis - Summary Report

**Sample ID: QC Std 8**

Sample Date/Time: Monday, August 26, 2024 11:17:14

Report Date/Time: Monday, August 26, 2024 11:19:04

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Y240826A.mth

Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Y240826A\QC Std 8.062

## Results (Mean Data)

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
	Ni	58	-8112.6	0.7	-0.0865	0.002	2.8	ug/L	-9343	Standard
	Ni -1	60	585.3	2.6	-0.0431	0.001	2.3	ug/L	582	Standard
	Ni -2	62	422306.3	1.2	276.2845	4.927	1.8	ug/L	3055	Standard
	As	75	32176.4	1.3	1.0443	0.061	5.8	ug/L	25703	Standard
	As-1	75	2792.0	5.0	0.2246	0.016	6.9	ug/L	1359	Standard
	Se	77	1406.1	1.5	2.5383	0.045	1.8	ug/L	259	Standard
	Se -1	78	32571.4	1.3	4.9786	0.244	4.9	ug/L	25820	Standard
	Br	79	25743.5	1.1				ug/L	715	Standard
	Se -2	82	1298.7	4.9	1.1416	0.076	6.6	ug/L	617	Standard
	Kr	83	1534.4	2.4				ug/L	646	Standard
	Y	89	1696856.8	0.6				ug/L	2084970	Standard
	Rh	103	1282322.6	0.1				ug/L	1339953	Standard
	Ni -3	58	205.1	9.9	-0.0646	0.004	5.7	ug/L	229	KED
	Ni -4	60	98.7	1.5	-0.0857	0.001	1.1	ug/L	94	KED
	Ni -5	62	84.0	3.6	0.1337	0.011	7.9	ug/L	14	KED
	As-2	75	11.7	9.9	0.0111	0.003	24.3	ug/L	8	KED
	Y-1	89	157579.4	0.7				ug/L	151628	KED
	Rh-1	103	362394.2	0.8				ug/L	379534	KED
>	Ge	72	1267888.5	1.4				ug/L	1316182	Standard
>	In	115	942557.6	0.5				ug/L	994105	Standard
>	Ge-1	72	69240.7	0.9				ug/L	67787	KED

## QC Calculated Values

Internal Standard Symbol	Analyte	Mass	QC Std % Recovery	Int Std % Recovery
	Ni	58		
	Ni -1	60		
	Ni -2	62		
	As	75		
	As-1	75		
	Se	77		
	Se -1	78		
	Br	79		
	Se -2	82		
	Kr	83		
	Y	89		
	Rh	103		
	Ni -3	58		
	Ni -4	60		
	Ni -5	62		
	As-2	75		
	Y-1	89		
	Rh-1	103		
>	Ge	72		96.331
>	In	115		94.815
>	Ge-1	72		102.144

Sample ID: QC Std 8

Report Date/Time: Monday, August 26, 2024 11:19:04



## Appendix C

### Data Validation Reports

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<b>Project:</b>	Dakota Creek Industries, Anacortes, Washington
<b>Date:</b>	March 13, 2024
<b>GEI File No:</b>	5147-006-18
<b>Subject:</b>	Post-Construction Compliance Groundwater Monitoring – November 2023 Groundwater Monitoring Event

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This report documents the results of a United States Environmental Protection Agency (USEPA) defined Stage 2B data validation (USEPA 2009) of the analytical data from the analyses of water samples collected as part of the November 2023 sampling event, and the associated laboratory and field quality control (QC) samples. The samples were obtained from the Dakota Creek Industries (DCI) Site located at 155 Q Avenue (north of 3<sup>rd</sup> Street between Commercial Avenue and R Avenue) in Anacortes, Washington.

## Objective and Quality Control Elements

GeoEngineers, Inc. (GeoEngineers) completed the data validation consistent with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA 2020a) and National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA 2020b) to determine if the laboratory analytical results meet the project objectives and are usable for their intended purpose. Data usability was assessed by determining if:

- The samples were analyzed using well-defined and acceptable methods that provide reporting limits below applicable regulatory criteria;
- The precision and accuracy of the data are well-defined and sufficient to provide defensible data; and
- The quality assurance/quality control (QA/QC) procedures utilized by the laboratory meet acceptable industry practices and standards.

In accordance with the Compliance Monitoring and Quality Assurance Project Plan (CMP/QAPP; GeoEngineers 2022), the data validation included review of the following QC elements:

- Data Package Completeness
- Chain-of-Custody Documentation
- Holding Times and Sample Preservation
- Surrogate Recoveries
- Method Blanks
- Matrix Spikes/Matrix Spike Duplicates
- Laboratory Control Samples/Laboratory Control Sample Duplicates
- Laboratory and Field Duplicates
- Instrument Tuning
- Internal Standards

- Initial Calibrations (ICALs)
- Continuing Calibrations (CCALs)
- Reporting Limits

## Validated Sample Delivery Groups

This data validation included review of the sample delivery group (SDG) listed below in Table 1.

**TABLE 1. SUMMARY OF VALIDATED SAMPLE DELIVERY GROUPS**

Laboratory SDG	Samples Validated
2311-272	MW-2B_20231128, MW-3A_20231128, MW-6_20231128, DUP-1_20231128, MW-8_20231128

## Chemical Analysis Performed

OnSite Environmental, Inc. (OnSite), located in Redmond, Washington, performed laboratory analyses on the samples using the following methods:

- Polycyclic Aromatic Hydrocarbons (PAHs) by Environmental Protection Agency (EPA) Method SW8270E-SIM; and
- Total and Dissolved Metals by EPA Method 200.8

## Data Validation Summary

The results for each of the QC elements are summarized below.

### DATA PACKAGE COMPLETENESS

OnSite provided the required deliverables for the data validation according to the National Functional Guidelines. The laboratory followed adequate corrective action processes and the identified anomalies were discussed in the relevant laboratory case narrative.

### CHAIN-OF-CUSTODY DOCUMENTATION

Chain-of-custody (COC) forms were provided with the laboratory analytical reports. The COCs were accurate and complete when submitted to the laboratory.

### HOLDING TIMES AND SAMPLE PRESERVATION

The sample holding time is defined as the time that elapses between sample collection and sample analysis. Maximum holding time criteria exist for each analysis to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample

collection. Established holding times were met for each analysis. The sample cooler arrived at the laboratory within the appropriate temperatures of between two and six degrees Celsius. Samples for PAH analysis was placed in laboratory prepared containers with hydrochloric acid (HCL) in accordance with method guidelines. Samples for metals analysis were placed in laboratory prepared containers with nitric acid (HNO<sub>3</sub>) in accordance with method guidelines. Samples for dissolved metal analysis were filtered in the field using a 0.45-micron inline filter prior to collection.

## **SURROGATE RECOVERIES**

A surrogate compound is a compound that is chemically similar to the organic analytes of interest, but unlikely to be found in an environmental sample. Surrogates are used for organic analyses and are added to the samples, standards, and blanks to serve as an accuracy and specificity check of each analysis. The surrogates are added to the samples at a known concentration and percent recoveries (%R) are calculated following analysis. The surrogate recoveries for field samples were within the laboratory control limits.

## **METHOD BLANKS**

Method blanks are analyzed to ensure that laboratory procedures and reagents do not introduce measurable concentrations of the analytes of interest. A method blank was analyzed with each batch of samples, at a frequency of 1 per 20 samples. For each sample batch, method blanks were analyzed at the required frequency. None of the analytes of interest were detected in the method blanks.

## **MATRIX SPIKES/MATRIX SPIKE DUPLICATES**

Since the actual analyte concentration in an environmental sample is not known, the accuracy of a particular analysis is usually inferred by performing a matrix spike (MS) analysis on one sample from the associated batch, known as the parent sample. One aliquot of the sample is analyzed in the normal manner and then a second aliquot of the sample is spiked with a known amount of analyte concentration and analyzed. From these analyses, a %R is calculated. Matrix spike duplicate (MSD) analyses are generally performed for organic analyses as a precision check and analyzed in the same sequence as a matrix spike. Using the results from the MS and MSD, the relative percent difference (RPD) is calculated. The %R control limits for MS and MSD analyses are specified in the laboratory documents, as are the RPD control limits for MS/MSD sample sets.

One MS/MSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements for GeoEngineers samples were met for each analysis and the %R and RPD values were within the proper control limits.

## **LABORATORY CONTROL SAMPLES/LABORATORY CONTROL SAMPLE DUPLICATES**

A laboratory control sample (LCS) is a blank sample that is spiked with a known amount of analyte and then analyzed. An LCS is similar to an MS, but without the possibility of matrix interference. Given that matrix interference is not an issue, control limits for accuracy and precision in the LCS and its duplicate (LCSD) are usually more rigorous than for MS/MSD analyses. Additionally, data qualification based on LCS/LCSD analyses would apply to each sample in the associated batch, instead of just the parent sample. The %R control limits for LCS and LCSD analyses are specified in the laboratory documents, as are the RPD control limits for LCS/LCSD sample sets.

One LCS/LCSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements were met for each analysis and the %R and RPD values were within the proper control limits.

## LABORATORY DUPLICATES

Internal laboratory duplicate analyses are performed to monitor the precision of the analyses. Two separate aliquots of a sample are analyzed as distinct samples in the laboratory and the RPD between the two results is calculated. Duplicate analyses should be performed once per analytical batch. If one or more of the samples used has a concentration less than five times the reporting limit for that sample, the absolute difference is used instead of the RPD. The RPD control limits are specified in the laboratory documents. Laboratory duplicates were analyzed at the proper frequency and the specified acceptance criteria were met.

## FIELD DUPLICATES

Field duplicates are similar to laboratory duplicates in that they are used to assess precision. Two samples (parent and duplicate) are created in the field by subsampling the homogenized sample and submitting them to the lab as separate samples. Duplicate samples were collected and analyzed for the same parameters as the associated parent samples. Precision is determined by calculating the RPD between each pair of samples. If one or more of the sample analytes has a concentration less than five times the reporting limit for that sample, then the absolute difference is used instead of the RPD. The RPD control limit for water samples is 35 percent.

- **SDG 2311-272:** One field duplicate sample pair, MW-6\_20231128 and DUP-1\_20231128, was submitted with this SDG. The precision criteria for the target analytes were met for this sample pair.

## INSTRUMENT TUNING

Instrument tuning for analyses by gas chromatography/mass spectrometry (GC/MS) are completed to ensure that mass resolution, identification, and sensitivity of the analyses are acceptable. Instrument tuning should be performed at the beginning of each 12-hour period during which samples or standards are analyzed. The frequency and specified acceptance criteria were met for each applicable analysis.

## INTERNAL STANDARDS (LOW RESOLUTION MASS SPECTROMETRY)

Like the surrogate, an internal standard is a compound that is chemically similar to the analytes of interest, but unlikely to be found in an environmental sample. Internal standards are used only for the mass spectrometry instrumentation and are usually added to the sample aliquot after extraction has taken place. The internal standard should be analyzed at the beginning of a 12-hour sample run and the control limits for internal standard recoveries are 50 percent to 200 percent of the calibration standard. The internal standard recoveries were within the control limits.

## INITIAL CALIBRATIONS (ICALS)

The initial calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. The relative standard deviation (%RSD) and relative response factors

(RRF) were within the internal laboratory control limits, or the control limits stated in the National Functional Guidelines (USEPA 2020a, 2020b).

### **CONTINUING CALIBRATIONS (CCALS)**

The continuing calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. The percent difference (%D) and relative response factors (RRF) were within the internal laboratory control limits, or the control limits stated in the National Functional Guidelines (USEPA 2020a, 2020b).

### **REPORTING LIMITS**

The reporting limits were met by the laboratory for the target analytes throughout this sampling event.

## **Overall Assessment**

As was determined by this data validation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the surrogate, LCS/LCSD, and MS/MSD %R values. Precision was acceptable, as demonstrated by the LCS/LCSD, MS/MSD, and laboratory/field duplicate RPD values.

No analytical results were qualified. The data are acceptable for the intended use.

## **References**

- GeoEngineers, Inc. (GeoEngineers) 2022. Compliance Monitoring and Quality Assurance Project Plan (CMP/QAPP), Dakota Creek Industries, Anacortes, Washington. Prepared for Washington State Department of Ecology on Behalf of Port of Anacortes. GEI File No. 5147-006-16. November 1, 2022.
- U.S. Environmental Protection Agency (USEPA) 2009. Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use. Publication No. EPA-540-R-08-005. Dated January 2009.
- U.S. Environmental Protection Agency (USEPA) 2020a. Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review. Publication No. EPA-540-R-20-005. Dated November 2020.
- U.S. Environmental Protection Agency (USEPA) 2020b. Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review. Publication No. EPA-540-R-10-011. Dated January 2010.

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<b>Project:</b>	Dakota Creek Industries, Anacortes, Washington
<b>Date:</b>	May 31, 2024
<b>GEI File No:</b>	5147-006-18
<b>Subject:</b>	Post-Construction Compliance Groundwater Monitoring – February 2024 Groundwater Monitoring Event

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This report documents the results of a United States Environmental Protection Agency (USEPA) defined Stage 2B data validation (USEPA 2009) of the analytical data from the analyses of water samples collected as part of the February 2024 sampling event, and the associated laboratory and field quality control (QC) samples. The samples were obtained from the Dakota Creek Industries (DCI) Site located at 155 Q Avenue (north of 3<sup>rd</sup> Street between Commercial Avenue and R Avenue) in Anacortes, Washington.

## Objective and Quality Control Elements

GeoEngineers, Inc. (GeoEngineers) completed the data validation consistent with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA 2020a) and National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA 2020b) to determine if the laboratory analytical results meet the project objectives and are usable for their intended purpose. Data usability was assessed by determining if:

- The samples were analyzed using well-defined and acceptable methods that provide reporting limits below applicable regulatory criteria;
- The precision and accuracy of the data are well-defined and sufficient to provide defensible data; and
- The quality assurance/quality control (QA/QC) procedures utilized by the laboratory meet acceptable industry practices and standards.

In accordance with the Compliance Monitoring and Quality Assurance Project Plan (CMP/QAPP; GeoEngineers 2022), the data validation included review of the following QC elements:

- Data Package Completeness
- Chain-of-Custody Documentation
- Holding Times and Sample Preservation
- Surrogate Recoveries
- Method Blanks
- Matrix Spikes/Matrix Spike Duplicates
- Laboratory Control Samples/Laboratory Control Sample Duplicates
- Laboratory and Field Duplicates
- Instrument Tuning
- Internal Standards

- Initial Calibrations (ICALs)
- Continuing Calibrations (CCALs)
- Reporting Limits

## Validated Sample Delivery Groups

This data validation included review of the sample delivery group (SDG) listed below in Table 1.

TABLE 1. SUMMARY OF VALIDATED SAMPLE DELIVERY GROUPS

Laboratory SDG	Samples Validated
2402-208	MW-2B-240214, MW-3A-240214, MW-6-240214, DUP-240214, MW-8-240214

## Chemical Analysis Performed

OnSite Environmental, Inc. (OnSite), located in Redmond, Washington, performed laboratory analyses on the samples using the following methods:

- Polycyclic Aromatic Hydrocarbons (PAHs) by Environmental Protection Agency (EPA) Method SW8270E-SIM; and
- Total and Dissolved Metals by EPA Method 200.8

## Data Validation Summary

The results for each of the QC elements are summarized below.

### DATA PACKAGE COMPLETENESS

OnSite provided the required deliverables for the data validation according to the National Functional Guidelines. The laboratory followed adequate corrective action processes and the identified anomalies were discussed in the relevant laboratory case narrative.

### CHAIN-OF-CUSTODY DOCUMENTATION

Chain-of-custody (COC) forms were provided with the laboratory analytical reports. The COCs were accurate and complete when submitted to the laboratory.

### HOLDING TIMES AND SAMPLE PRESERVATION

The sample holding time is defined as the time that elapses between sample collection and sample analysis. Maximum holding time criteria exist for each analysis to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample

collection. Established holding times were met for each analysis. The sample cooler arrived at the laboratory within the appropriate temperatures of between two and six degrees Celsius. Samples for PAH analysis was placed in laboratory prepared containers with hydrochloric acid (HCL) in accordance with method guidelines. Samples for metals analysis were placed in laboratory prepared containers with nitric acid (HNO<sub>3</sub>) in accordance with method guidelines. Samples for dissolved metal analysis were filtered in the field using a 0.45-micron inline filter prior to collection.

## SURROGATE RECOVERIES

A surrogate compound is a compound that is chemically similar to the organic analytes of interest, but unlikely to be found in an environmental sample. Surrogates are used for organic analyses and are added to the samples, standards, and blanks to serve as an accuracy and specificity check of each analysis. The surrogates are added to the samples at a known concentration and percent recoveries (%R) are calculated following analysis.

The surrogate percent recoveries for field samples were within the laboratory control limits, with the following exception:

- **SDG 2402-208:** (PAHs) The percent recovery of surrogate pyrene-d10 was less than the control limits in Sample MW-3A-240214; however, the sample was spiked with two additional surrogates and in each case the percent recovery values were within their respective control limits. No action was required for this outlier.

## METHOD BLANKS

Method blanks are analyzed to ensure that laboratory procedures and reagents do not introduce measurable concentrations of the analytes of interest. A method blank was analyzed with each batch of samples, at a frequency of 1 per 20 samples. For each sample batch, method blanks were analyzed at the required frequency. None of the analytes of interest were detected in the method blanks.

## MATRIX SPIKES/MATRIX SPIKE DUPLICATES

Since the actual analyte concentration in an environmental sample is not known, the accuracy of a particular analysis is usually inferred by performing a matrix spike (MS) analysis on one sample from the associated batch, known as the parent sample. One aliquot of the sample is analyzed in the normal manner and then a second aliquot of the sample is spiked with a known amount of analyte concentration and analyzed. From these analyses, a %R is calculated. Matrix spike duplicate (MSD) analyses are generally performed for organic analyses as a precision check and analyzed in the same sequence as a matrix spike. Using the results from the MS and MSD, the relative percent difference (RPD) is calculated. The %R control limits for MS and MSD analyses are specified in the laboratory documents, as are the RPD control limits for MS/MSD sample sets.

One MS/MSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements for GeoEngineers samples were met for each analysis and the %R and RPD values were within the proper control limits.

## LABORATORY CONTROL SAMPLES/LABORATORY CONTROL SAMPLE DUPLICATES

A laboratory control sample (LCS) is a blank sample that is spiked with a known amount of analyte and then analyzed. An LCS is similar to an MS, but without the possibility of matrix interference. Given that matrix interference is not an issue, control limits for accuracy and precision in the LCS and its duplicate (LCSD) are usually more rigorous than for MS/MSD analyses. Additionally, data qualification based on LCS/LCSD analyses would apply to each sample in the associated batch, instead of just the parent sample. The %R control limits for LCS and LCSD analyses are specified in the laboratory documents, as are the RPD control limits for LCS/LCSD sample sets.

One LCS/LCSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements were met for each analysis and the %R and RPD values were within the proper control limits.

## LABORATORY DUPLICATES

Internal laboratory duplicate analyses are performed to monitor the precision of the analyses. Two separate aliquots of a sample are analyzed as distinct samples in the laboratory and the RPD between the two results is calculated. Duplicate analyses should be performed once per analytical batch. If one or more of the samples used has a concentration less than five times the reporting limit for that sample, the absolute difference is used instead of the RPD. The RPD control limits are specified in the laboratory documents. Laboratory duplicates were analyzed at the proper frequency and the specified acceptance criteria were met.

## FIELD DUPLICATES

Field duplicates are similar to laboratory duplicates in that they are used to assess precision. Two samples (parent and duplicate) are created in the field by subsampling the homogenized sample and submitting them to the lab as separate samples. Duplicate samples were collected and analyzed for the same parameters as the associated parent samples. Precision is determined by calculating the RPD between each pair of samples. If one or more of the sample analytes has a concentration less than five times the reporting limit for that sample, then the absolute difference is used instead of the RPD. The RPD control limit for water samples is 35 percent.

- **SDG 2402-208:** One field duplicate sample pair, MW-6-240214 and DUP-240214, was submitted with this SDG. The precision criteria for the target analytes were met for this sample pair.

## INSTRUMENT TUNING

Instrument tuning for analyses by gas chromatography/mass spectrometry (GC/MS) are completed to ensure that mass resolution, identification, and sensitivity of the analyses are acceptable. Instrument tuning should be performed at the beginning of each 12-hour period during which samples or standards are analyzed. The frequency and specified acceptance criteria were met for each applicable analysis.

## INTERNAL STANDARDS (LOW RESOLUTION MASS SPECTROMETRY)

Like the surrogate, an internal standard is a compound that is chemically similar to the analytes of interest, but unlikely to be found in an environmental sample. Internal standards are used only for the mass spectrometry instrumentation and are usually added to the sample aliquot after extraction has taken place. The internal standard should be analyzed at the beginning of a 12-hour sample run and the control limits for internal standard recoveries are 50 percent to 200 percent of the calibration standard. The internal standard recoveries were within the control limits.

## INITIAL CALIBRATIONS (ICALS)

The initial calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. The relative standard deviation (%RSD) and relative response factors (RRF) were within the internal laboratory control limits, or the control limits stated in the National Functional Guidelines (USEPA 2020a, 2020b).

## CONTINUING CALIBRATIONS (CCALS)

The continuing calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. The percent difference (%D) and relative response factors (RRF) were within the internal laboratory control limits, or the control limits stated in the National Functional Guidelines (USEPA 2020a, 2020b).

## REPORTING LIMITS

The reporting limits were met by the laboratory for the target analytes throughout this sampling event.

## Overall Assessment

As was determined by this data validation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the surrogate, LCS/LCSD, and MS/MSD %R values. Precision was acceptable, as demonstrated by the LCS/LCSD, MS/MSD, and laboratory/field duplicate RPD values.

No analytical results were qualified. The data are acceptable for the intended use.

## References

GeoEngineers, Inc. (GeoEngineers) 2022. Compliance Monitoring and Quality Assurance Project Plan (CMP/QAPP), Dakota Creek Industries, Anacortes, Washington. Prepared for Washington State Department of Ecology on Behalf of Port of Anacortes. GEI File No. 5147-006-16. November 1, 2022.

U.S. Environmental Protection Agency (USEPA) 2009. Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use. Publication No. EPA-540-R-08-005. Dated January 2009.

U.S. Environmental Protection Agency (USEPA) 2020a. Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review. Publication No. EPA-540-R-20-005. Dated November 2020.

U.S. Environmental Protection Agency (USEPA) 2020b. Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review. Publication No. EPA-540-R-10-011. Dated January 2010.

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<b>Project:</b>	Dakota Creek Industries, Anacortes, Washington
<b>Date:</b>	August 9, 2024
<b>GEI File No:</b>	5147-006-18
<b>Subject:</b>	Post-Construction Compliance Groundwater Monitoring – May 2024 Groundwater Monitoring Event

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This report documents the results of a United States Environmental Protection Agency (USEPA) defined Stage 2B data validation (USEPA 2009) of the analytical data from the analyses of water samples collected as part of the May 2024 sampling event, and the associated laboratory and field quality control (QC) samples. The samples were obtained from the Dakota Creek Industries (DCI) Site located at 155 Q Avenue (north of 3<sup>rd</sup> Street between Commercial Avenue and R Avenue) in Anacortes, Washington.

## Objective and Quality Control Elements

GeoEngineers, Inc. (GeoEngineers) completed the data validation consistent with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA 2020a) and National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA 2020b) to determine if the laboratory analytical results meet the project objectives and are usable for their intended purpose. Data usability was assessed by determining if:

- The samples were analyzed using well-defined and acceptable methods that provide reporting limits below applicable regulatory criteria;
- The precision and accuracy of the data are well-defined and sufficient to provide defensible data; and
- The quality assurance/quality control (QA/QC) procedures utilized by the laboratory meet acceptable industry practices and standards.

In accordance with the Compliance Monitoring and Quality Assurance Project Plan (CMP/QAPP; GeoEngineers 2022), the data validation included review of the following QC elements:

- Data Package Completeness
- Chain-of-Custody Documentation
- Holding Times and Sample Preservation
- Surrogate Recoveries
- Method Blanks
- Matrix Spikes/Matrix Spike Duplicates
- Laboratory Control Samples/Laboratory Control Sample Duplicates
- Laboratory and Field Duplicates
- Instrument Tuning
- Internal Standards

- Initial Calibrations (ICALs)
- Continuing Calibrations (CCALs)
- Reporting Limits

## Validated Sample Delivery Groups

This data validation included review of the sample delivery group (SDG) listed below in Table 1.

**TABLE 1. SUMMARY OF VALIDATED SAMPLE DELIVERY GROUPS**

Laboratory SDG	Samples Validated
2405-311	MW-2B-240521, MW-3A-240521, MW-6-240524, DUP-240524, MW-8-240521

## Chemical Analysis Performed

OnSite Environmental, Inc. (OnSite), located in Redmond, Washington, performed laboratory analyses on the samples using the following methods:

- Polycyclic Aromatic Hydrocarbons (PAHs) by Environmental Protection Agency (EPA) Method SW8270E-SIM; and
- Total and Dissolved Metals by EPA Method 200.8

## Data Validation Summary

The results for each of the QC elements are summarized below.

### DATA PACKAGE COMPLETENESS

OnSite provided the required deliverables for the data validation according to the National Functional Guidelines. The laboratory followed adequate corrective action processes and the identified anomalies were discussed in the relevant laboratory case narrative.

### CHAIN-OF-CUSTODY DOCUMENTATION

Chain-of-custody (COC) forms were provided with the laboratory analytical reports. The COCs were accurate and complete when submitted to the laboratory.

### HOLDING TIMES AND SAMPLE PRESERVATION

The sample holding time is defined as the time that elapses between sample collection and sample analysis. Maximum holding time criteria exist for each analysis to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample

collection. Established holding times were met for each analysis. The sample cooler arrived at the laboratory within the appropriate temperatures of between two and six degrees Celsius. Samples for PAH analysis was placed in laboratory prepared containers with hydrochloric acid (HCL) in accordance with method guidelines. Samples for metals analysis were placed in laboratory prepared containers with nitric acid (HNO<sub>3</sub>) in accordance with method guidelines. Samples for dissolved metal analysis were filtered in the field using a 0.45-micron inline filter prior to collection.

## **SURROGATE RECOVERIES**

A surrogate compound is a compound that is chemically similar to the organic analytes of interest, but unlikely to be found in an environmental sample. Surrogates are used for organic analyses and are added to the samples, standards, and blanks to serve as an accuracy and specificity check of each analysis. The surrogates are added to the samples at a known concentration and percent recoveries (%R) are calculated following analysis. The surrogate recoveries for field samples were within the laboratory control limits.

## **METHOD BLANKS**

Method blanks are analyzed to ensure that laboratory procedures and reagents do not introduce measurable concentrations of the analytes of interest. A method blank was analyzed with each batch of samples, at a frequency of 1 per 20 samples. For each sample batch, method blanks were analyzed at the required frequency. None of the analytes of interest were detected in the method blanks.

## **MATRIX SPIKES/MATRIX SPIKE DUPLICATES**

Since the actual analyte concentration in an environmental sample is not known, the accuracy of a particular analysis is usually inferred by performing a matrix spike (MS) analysis on one sample from the associated batch, known as the parent sample. One aliquot of the sample is analyzed in the normal manner and then a second aliquot of the sample is spiked with a known amount of analyte concentration and analyzed. From these analyses, a %R is calculated. Matrix spike duplicate (MSD) analyses are generally performed for organic analyses as a precision check and analyzed in the same sequence as a matrix spike. Using the results from the MS and MSD, the relative percent difference (RPD) is calculated. The %R control limits for MS and MSD analyses are specified in the laboratory documents, as are the RPD control limits for MS/MSD sample sets.

One MS/MSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements for GeoEngineers samples were met for each analysis and the %R and RPD values were within the proper control limits.

## **LABORATORY CONTROL SAMPLES/LABORATORY CONTROL SAMPLE DUPLICATES**

A laboratory control sample (LCS) is a blank sample that is spiked with a known amount of analyte and then analyzed. An LCS is similar to an MS, but without the possibility of matrix interference. Given that matrix interference is not an issue, control limits for accuracy and precision in the LCS and its duplicate (LCSD) are usually more rigorous than for MS/MSD analyses. Additionally, data qualification based on LCS/LCSD analyses would apply to each sample in the associated batch, instead of just the parent sample. The %R control limits for LCS and LCSD analyses are specified in the laboratory documents, as are the RPD control limits for LCS/LCSD sample sets.

One LCS/LCSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements were met for each analysis and the %R and RPD values were within the proper control limits.

## LABORATORY DUPLICATES

Internal laboratory duplicate analyses are performed to monitor the precision of the analyses. Two separate aliquots of a sample are analyzed as distinct samples in the laboratory and the RPD between the two results is calculated. Duplicate analyses should be performed once per analytical batch. If one or more of the samples used has a concentration less than five times the reporting limit for that sample, the absolute difference is used instead of the RPD. The RPD control limits are specified in the laboratory documents. Laboratory duplicates were analyzed at the proper frequency and the specified acceptance criteria were met.

## FIELD DUPLICATES

Field duplicates are similar to laboratory duplicates in that they are used to assess precision. Two samples (parent and duplicate) are created in the field by subsampling the homogenized sample and submitting them to the lab as separate samples. Duplicate samples were collected and analyzed for the same parameters as the associated parent samples. Precision is determined by calculating the RPD between each pair of samples. If one or more of the sample analytes has a concentration less than five times the reporting limit for that sample, then the absolute difference is used instead of the RPD. The RPD control limit for water samples is 35 percent.

- **SDG 2405-311:** One field duplicate sample pair, MW-6-240524 and DUP-240524, was submitted with this SDG. The precision criteria for the target analytes were met for this sample pair.

## INSTRUMENT TUNING

Instrument tuning for analyses by gas chromatography/mass spectrometry (GC/MS) are completed to ensure that mass resolution, identification, and sensitivity of the analyses are acceptable. Instrument tuning should be performed at the beginning of each 12-hour period during which samples or standards are analyzed. The frequency and specified acceptance criteria were met for each applicable analysis.

## INTERNAL STANDARDS (LOW RESOLUTION MASS SPECTROMETRY)

Like the surrogate, an internal standard is a compound that is chemically similar to the analytes of interest, but unlikely to be found in an environmental sample. Internal standards are used only for the mass spectrometry instrumentation and are usually added to the sample aliquot after extraction has taken place. The internal standard should be analyzed at the beginning of a 12-hour sample run and the control limits for internal standard recoveries are 50 percent to 200 percent of the calibration standard. The internal standard recoveries were within the control limits.

## INITIAL CALIBRATIONS (ICALS)

The initial calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. The relative standard deviation (%RSD) and relative response factors

(RRF) were within the internal laboratory control limits, or the control limits stated in the National Functional Guidelines (USEPA 2020a, 2020b).

### **CONTINUING CALIBRATIONS (CCALS)**

The continuing calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. The percent difference (%D) and relative response factors (RRF) were within the internal laboratory control limits, or the control limits stated in the National Functional Guidelines (USEPA 2020a, 2020b).

### **REPORTING LIMITS**

The reporting limits were met by the laboratory for all target analytes throughout this sampling event.

## **Overall Assessment**

As was determined by this data validation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the surrogate, LCS/LCSD, and MS/MSD %R values. Precision was acceptable, as demonstrated by the LCS/LCSD, MS/MSD, and laboratory/field duplicate RPD values.

No analytical results were qualified. The data are acceptable for the intended use.

## **References**

- GeoEngineers, Inc. (GeoEngineers) 2022. Compliance Monitoring and Quality Assurance Project Plan (CMP/QAPP), Dakota Creek Industries, Anacortes, Washington. Prepared for Washington State Department of Ecology on Behalf of Port of Anacortes. GEI File No. 5147-006-16. November 1, 2022.
- U.S. Environmental Protection Agency (USEPA) 2009. Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use. Publication No. EPA-540-R-08-005. Dated January 2009.
- U.S. Environmental Protection Agency (USEPA) 2020a. Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review. Publication No. EPA-540-R-20-005. Dated November 2020.
- U.S. Environmental Protection Agency (USEPA) 2020b. Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review. Publication No. EPA-540-R-10-011. Dated January 2010.

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<b>Project:</b>	Dakota Creek Industries, Anacortes, Washington
<b>Date:</b>	September 11, 2024
<b>GEI File No:</b>	5147-006-18
<b>Subject:</b>	Post-Construction Compliance Groundwater Monitoring – August 2024 Groundwater Monitoring Event

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This report documents the results of a United States Environmental Protection Agency (USEPA) defined Stage 2B data validation (USEPA 2009) of the analytical data from the analyses of water samples collected as part of the August 2024 sampling event, and the associated laboratory and field quality control (QC) samples. The samples were obtained from the Dakota Creek Industries (DCI) Site located at 155 Q Avenue (north of 3rd Street between Commercial Avenue and R Avenue) in Anacortes, Washington.

## Objective and Quality Control Elements

GeoEngineers, Inc. (GeoEngineers) completed the data validation consistent with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review (USEPA 2020a) and National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA 2020b) to determine if the laboratory analytical results meet the project objectives and are usable for their intended purpose. Data usability was assessed by determining if:

- The samples were analyzed using well-defined and acceptable methods that provide reporting limits below applicable regulatory criteria;
- The precision and accuracy of the data are well-defined and sufficient to provide defensible data; and
- The quality assurance/quality control (QA/QC) procedures utilized by the laboratory meet acceptable industry practices and standards.

In accordance with the Compliance Monitoring and Quality Assurance Project Plan (CMP/QAPP; GeoEngineers 2022), the data validation included review of the following QC elements:

- Data Package Completeness
- Chain-of-Custody Documentation
- Holding Times and Sample Preservation
- Surrogate Recoveries
- Method Blanks
- Matrix Spikes/Matrix Spike Duplicates
- Laboratory Control Samples/Laboratory Control Sample Duplicates
- Laboratory and Field Duplicates
- Instrument Tuning
- Internal Standards

- Initial Calibrations (ICALs)
- Continuing Calibrations (CCALs)
- Reporting Limits

## Validated Sample Delivery Groups

This data validation included review of the sample delivery group (SDG) listed below in Table 1.

TABLE 1. SUMMARY OF VALIDATED SAMPLE DELIVERY GROUPS

LABORATORY SDG	SAMPLES VALIDATED
2408-224	MW-2B-240819, MW-3A-240819, MW-6-240819, DUP-240819, MW-8-240819

## Chemical Analysis Performed

OnSite Environmental, Inc. (OnSite), located in Redmond, Washington, performed laboratory analyses on the samples using the following methods:

- Polycyclic Aromatic Hydrocarbons (PAHs) by Environmental Protection Agency (EPA) Method SW8270E-SIM; and
- Total and Dissolved Metals by EPA Method 200.8

## Data Validation Summary

The results for each of the QC elements are summarized below.

### DATA PACKAGE COMPLETENESS

OnSite provided the required deliverables for the data validation according to the National Functional Guidelines. The laboratory followed adequate corrective action processes and the identified anomalies were discussed in the relevant laboratory case narrative.

### CHAIN-OF-CUSTODY DOCUMENTATION

Chain-of-custody (COC) forms were provided with the laboratory analytical reports. The COCs were accurate and complete when submitted to the laboratory.

### HOLDING TIMES AND SAMPLE PRESERVATION

The sample holding time is defined as the time that elapses between sample collection and sample analysis. Maximum holding time criteria exist for each analysis to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample collection. Established holding times were met for each analysis. The sample cooler arrived at the laboratory within the appropriate temperatures of between two and six degrees Celsius. Samples for PAH analysis was placed in laboratory prepared containers with hydrochloric acid (HCL) in accordance with method

guidelines. Samples for metals analysis were placed in laboratory prepared containers with nitric acid (HNO<sub>3</sub>) in accordance with method guidelines. Samples for dissolved metal analysis were filtered in the field using a 0.45-micron inline filter prior to collection.

## **SURROGATE RECOVERIES**

A surrogate compound is a compound that is chemically similar to the organic analytes of interest, but unlikely to be found in an environmental sample. Surrogates are used for organic analyses and are added to the samples, standards, and blanks to serve as an accuracy and specificity check of each analysis. The surrogates are added to the samples at a known concentration and percent recoveries (%R) are calculated following analysis. The surrogate recoveries for field samples were within the laboratory control limits.

## **METHOD BLANKS**

Method blanks are analyzed to ensure that laboratory procedures and reagents do not introduce measurable concentrations of the analytes of interest. A method blank was analyzed with each batch of samples, at a frequency of 1 per 20 samples. For each sample batch, method blanks were analyzed at the required frequency. None of the analytes of interest were detected in the method blanks.

## **MATRIX SPIKES/MATRIX SPIKE DUPLICATES**

Since the actual analyte concentration in an environmental sample is not known, the accuracy of a particular analysis is usually inferred by performing a matrix spike (MS) analysis on one sample from the associated batch, known as the parent sample. One aliquot of the sample is analyzed in the normal manner and then a second aliquot of the sample is spiked with a known amount of analyte concentration and analyzed. From these analyses, a %R is calculated. Matrix spike duplicate (MSD) analyses are generally performed for organic analyses as a precision check and analyzed in the same sequence as a matrix spike. Using the results from the MS and MSD, the relative percent difference (RPD) is calculated. The %R control limits for MS and MSD analyses are specified in the laboratory documents, as are the RPD control limits for MS/MSD sample sets.

One MS/MSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements for GeoEngineers samples were met for each analysis and the %R and RPD values were within the proper control limits.

## **LABORATORY CONTROL SAMPLES/LABORATORY CONTROL SAMPLE DUPLICATES**

A laboratory control sample (LCS) is a blank sample that is spiked with a known amount of analyte and then analyzed. An LCS is similar to an MS, but without the possibility of matrix interference. Given that matrix interference is not an issue, control limits for accuracy and precision in the LCS and its duplicate (LCSD) are usually more rigorous than for MS/MSD analyses. Additionally, data qualification based on LCS/LCSD analyses would apply to each sample in the associated batch, instead of just the parent sample. The %R control limits for LCS and LCSD analyses are specified in the laboratory documents, as are the RPD control limits for LCS/LCSD sample sets.

One LCS/LCSD analysis should be performed for every analytical batch or every 20 field samples, whichever is more frequent. The frequency requirements were met for each analysis and the %R and RPD values were within the proper control limits.

## LABORATORY DUPLICATES

Internal laboratory duplicate analyses are performed to monitor the precision of the analyses. Two separate aliquots of a sample are analyzed as distinct samples in the laboratory and the RPD between the two results is calculated. Duplicate analyses should be performed once per analytical batch. If one or more of the samples used has a concentration less than five times the reporting limit for that sample, the absolute difference is used instead of the RPD. The RPD control limits are specified in the laboratory documents. Laboratory duplicates were analyzed at the proper frequency and the specified acceptance criteria were met.

## FIELD DUPLICATES

Field duplicates are similar to laboratory duplicates in that they are used to assess precision. Two samples (parent and duplicate) are created in the field by subsampling the homogenized sample and submitting them to the lab as separate samples. Duplicate samples were collected and analyzed for the same parameters as the associated parent samples. Precision is determined by calculating the RPD between each pair of samples. If one or more of the sample analytes has a concentration less than five times the reporting limit for that sample, then the absolute difference is used instead of the RPD. The RPD control limit for water samples is 35 percent.

- **SDG 2408-224:** One field duplicate sample pair, MW-6-240819 and DUP-240819, was submitted with this SDG. The precision criteria for the target analytes were met for this sample pair.

## INSTRUMENT TUNING

Instrument tuning for analyses by gas chromatography/mass spectrometry (GC/MS) are completed to ensure that mass resolution, identification, and sensitivity of the analyses are acceptable. Instrument tuning should be performed at the beginning of each 12-hour period during which samples or standards are analyzed. The frequency and specified acceptance criteria were met for each applicable analysis.

## INTERNAL STANDARDS (LOW RESOLUTION MASS SPECTROMETRY)

Like the surrogate, an internal standard is a compound that is chemically similar to the analytes of interest, but unlikely to be found in an environmental sample. Internal standards are used only for the mass spectrometry instrumentation and are usually added to the sample aliquot after extraction has taken place. The internal standard should be analyzed at the beginning of a 12-hour sample run and the control limits for internal standard recoveries are 50 percent to 200 percent of the calibration standard. The internal standard recoveries were within the control limits.

## INITIAL CALIBRATIONS (ICALS)

The initial calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. The relative standard deviation (%RSD) and relative response factors (RRF) were within the internal laboratory control limits, or the control limits stated in the National Functional Guidelines (USEPA 2020a, 2020b).

## CONTINUING CALIBRATIONS (CCALS)

The continuing calibrations were conducted according to the laboratory methods and consisted of the appropriate number of standards. The percent difference (%D) and relative response factors (RRF) were within the internal laboratory control limits, or the control limits stated in the National Functional Guidelines (USEPA 2020a, 2020b).

## REPORTING LIMITS

The reporting limits were met by the laboratory for the target analytes throughout this sampling event.

## Overall Assessment

As was determined by this data validation, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the surrogate, LCS/LCSD, and MS/MSD percent recovery values. Precision was acceptable, as demonstrated by the LCS/LCSD, MS/MSD, and laboratory/field duplicate RPD values.

No analytical results were qualified. The data are acceptable for the intended use.

## References

- GeoEngineers, Inc. (GeoEngineers) 2022. Compliance Monitoring and Quality Assurance Project Plan (CMP/QAPP), Dakota Creek Industries, Anacortes, Washington. Prepared for Washington State Department of Ecology on Behalf of Port of Anacortes. GEI File No. 5147-006-16. November 1, 2022.
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- U.S. Environmental Protection Agency (USEPA) 2020a. Contract Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review, EPA-540-R-20-005. November 2020.
- U.S. Environmental Protection Agency (USEPA) 2020b. Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review, EPA-542-R-20-006. November 2020.

**Disclaimer:** Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

## Appendix D

### Historical Groundwater Chemical Analytical Results

**Table D-1**  
**Historical Groundwater Chemical Analytical Data**  
 Dakota Creek Industries  
 Anacortes, Washington

Groundwater Monitoring Well <sup>1</sup>	Date Sampled	Sampled By	Units	Depth to Water (Feet)	Water Elevation (MLLW)	Total Metals <sup>2</sup>		Dissolved Metals <sup>2</sup>		Carcinogenic Polycyclic Aromatic Hydrocarbons <sup>3</sup> (cPAHs)							
						Arsenic	Nickel	Arsenic	Nickel	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(j,k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-c,d)pyrene	Total cPAH TEQ <sup>4</sup> (ND=0.5RL)
MW-1	09/04/01	Landau	µg/L	N/A	N/A	-	-	9	10 U	-	-	-	-	-	-	-	-
	10/24/01	Landau	µg/L	N/A	N/A	-	-	6	2.3	-	-	-	-	-	-	-	-
	06/05/02	Landau	µg/L	N/A	N/A	5	3.8	4	2.2	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1.41 U
	08/19/02	Landau	µg/L	N/A	N/A	0.6	4.2	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.07 U
	11/17/06	Floyd Snider	µg/L	6.21	7.74	3.3	2.1	-	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.07 U
	06/17/08	GEI	µg/L	6.36	7.59	4.8	3.2	-	-	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.013 U
	06/17/08	GEI	µg/L	6.36	7.59	4.9	3.3	-	-	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.013 U
	05/23/12	GEI	µg/L	6.27	7.68	17 U	8 U	15 U	8 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.07 U
	08/16/12	GEI	µg/L	6.52	7.43	15	8 U	15	8 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.07 U
	11/13/12	GEI	µg/L	6.37	7.58	16 U	5.4	16 U	5 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.07 U
	02/13/13	GEI	µg/L	6.14	7.81	15	8 U	14	8 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.07 U
	02/10/16	GEI	µg/L	5.98	7.97	1.3	-	1.2 J	-	-	-	-	-	-	-	-	-
08/18/16	GEI	µg/L	6.71	7.24	9.2	-	7.8 U	-	-	-	-	-	-	-	-	-	
02/15/17	GEI	µg/L	5.81	8.14	11	-	5.6	-	-	-	-	-	-	-	-	-	
08/23/17	GEI	µg/L	6.69	7.26	5.6 U	-	5.6 U	-	-	-	-	-	-	-	-	-	
MW-2	09/04/01	Landau	µg/L	N/A	N/A	-	-	3	10 U	-	-	-	-	-	-	-	-
	10/24/01	Landau	µg/L	N/A	N/A	-	-	0.5	7	-	-	-	-	-	-	-	-
	10/24/01	Landau	µg/L	N/A	N/A	-	-	0.5	0.7	-	-	-	-	-	-	-	-
	06/05/02	Landau	µg/L	N/A	N/A	3	7.5	3	7.5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1.41 U
	06/05/02	Landau	µg/L	N/A	N/A	3	7.5	3	7.5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1.41 U
	08/19/02	Landau	µg/L	N/A	N/A	4	9.9	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.07 U
	08/19/02	Landau	µg/L	N/A	N/A	2	8.2	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.07 U
	11/17/06	Floyd Snider	µg/L	6.81	8.26	4	3.9	-	-	0.01 U	0.01 U	0.01 U	0.01 U	0.0069 J	0.01 U	0.01 U	0.007 U
11/17/06	Floyd Snider	µg/L	6.81	8.26	3.8	3.9	-	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.007 U	
06/17/08	GEI	µg/L	7.67	7.4	3.4	2.4	-	-	0.03	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.015	
MW-2A	05/23/12	GEI	µg/L	10.38	4.69	12 U	20 U	11 U	20 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.007 U
	08/16/12	GEI	µg/L	10.31	4.76	7.5 U	17	7.5 U	16	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.007 U
	11/13/12	GEI	µg/L	8.02	7.05	10 U	13	10 U	13	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.007 U
	02/13/13	GEI	µg/L	8.42	6.65	6	8 U	7	8 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.007 U
	02/10/16	GEI	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2B	08/19/16	GEI	µg/L	9.29	5.44	6	6.9	6.5	6	-	-	-	-	-	-	-	-
	02/15/17	GEI	µg/L	7.84	6.89	7.8 U	7.8 U	7 U	7 U	-	-	-	-	-	-	-	-
	08/23/17	GEI	µg/L	9.45	5.28	5.6 U	8.2	5 U	8.3	-	-	-	-	-	-	-	-
MW-3	09/04/01	Landau	µg/L	N/A	N/A	-	-	1	10 U	-	-	-	-	-	-	-	-
	09/04/01	Landau	µg/L	N/A	N/A	-	-	2	10 U	-	-	-	-	-	-	-	-
	10/24/01	Landau	µg/L	N/A	N/A	-	-	1 U	2.7	-	-	-	-	-	-	-	-
	06/05/02	Landau	µg/L	N/A	N/A	1 U	3.4	0.1 U	0.33	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1.41 U
	08/19/02	Landau	µg/L	N/A	N/A	1	3.7	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.07 U
	11/17/06	Floyd Snider	µg/L	4.45	10.38	0.9	1.5	-	-	0.0052 J	0.01 U	0.01 U	0.01 U	0.0065 J	0.01 U	0.01 U	0.007 J
06/17/08	GEI	µg/L	5.03	9.8	0.8	2.2	-	-	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.013 U	
MW-3A	05/23/12	GEI	µg/L	10.55	4.28	4 U	8 U	4.5 U	8 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.007 U
	08/16/12	GEI	µg/L	10.29	4.54	7.5 U	19	7.5 U	18	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.007 U
	11/13/12	GEI	µg/L	7.5	7.33	8 U	18	8 U	17	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.007 U
	02/13/13	GEI	µg/L	9.55	5.28	8 U	16	8 U	18	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.007 U
	02/11/16	GEI	µg/L	8.73	6.1	-	0.5 J	-	0.5 U	-	-	-	-	-	-	-	-
	08/19/16	GEI	µg/L	9.74	5.09	-	7.8 U	-	7 U	-	-	-	-	-	-	-	-
	02/16/17	GEI	µg/L	9.01	5.82	-	5.6 U	-	5 U	-	-	-	-	-	-	-	-
	08/24/17	GEI	µg/L	10.06	4.77	-	5.6 U	-	5 U	-	-	-	-	-	-	-	-
MW-4	09/04/01	Landau	µg/L	N/A	N/A	-	-	17	10 U	-	-	-	-	-	-	-	-
	10/24/01	Landau	µg/L	N/A	N/A	-	-	15	2.7	-	-	-	-	-	-	-	-
	06/05/02	Landau	µg/L	N/A	N/A	8	3.4	9	1.1	-	-	-	-	-	-	-	-
	08/19/02	Landau	µg/L	N/A	N/A	12	3.3	-	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.07 U
	11/17/06	Floyd Snider	µg/L	2.55	11.03	11.6	2	-	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.007 U
	06/17/08	GEI	µg/L	2.98	10.6	8.1	1.1	-	-	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.013 U
	08/16/12	GEI	µg/L	3.04	10.54	9 U	20 U	9.5 U	20 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.007 U
	08/16/12	GEI	µg/L	4.37	9.21	11	8 U	10	8 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.007 U
	11/13/12	GEI	µg/L	3.31	10.27	10 U	5 U	10 U	5 U	0.033	0.02	0.021	0.018	0.021	0.018	0.021	0.031
	02/13/13	GEI	µg/L	3.45	10.13	8 U	8 U	8 U	8 U	0.0095 U	0.0095 U	0.0095 U	0.011	0.013	0.0095 U	0.0095 U	0.015
	02/11/16	GEI	µg/L	3.61	9.97	3.5	-	3.5	-	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.007 U
	08/18/16	GEI	µg/L	5.43	8.15	7.8 U	-	7.8 U	-	0.013	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.008
	02/15/17	GEI	µg/L	3.97	9.61	5.6 U	-	5 U	-	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.007 U
08/24/17	GEI	µg/L	5.48	8.1	5.6 U	-	5 U	-	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.007 U	
MW-5	06/17/08	GEI	µg/L	4.5	8.24	10	5.2	-	-	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U	0.013 U

Groundwater Monitoring Well <sup>1</sup>	Date Sampled	Sampled By	Units	Depth to Water (Feet)	Water Elevation (MLLW)	Total Metals <sup>2</sup>		Dissolved Metals <sup>2</sup>		Carcinogenic Polycyclic Aromatic Hydrocarbons <sup>3</sup> (cPAHs)								
						Arsenic	Nickel	Arsenic	Nickel	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(j,k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-c,d)pyrene	Total cPAH TEQ <sup>4</sup> (ND=0.5RL)	
MW-6	05/23/12	GEI	µg/L	7.52	4.94	3.5 U	20 U	3 U	20 U	<b>0.01</b>	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	<b>0.008</b>
	08/16/12	GEI	µg/L	7.52	4.94	7.5 U	<b>18</b>	7.5 U	<b>19</b>	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.007 U
	11/13/12	GEI	µg/L	8.81	3.65	8 U	<b>18</b>	8 U	<b>18</b>	0.0092 U	0.0092 U	0.0092 U	0.0092 U	0.0092 U	0.0092 U	0.0092 U	0.0092 U	0.007 U
	02/13/13	GEI	µg/L	6.6	5.86	8 U	8 U	8 U	8 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.0093 U	0.007 U
	02/11/16	GEI	µg/L	5.48	6.98	-	0.4 U	-	0.4 U	-	-	-	-	-	-	-	-	-
	08/19/16	GEI	µg/L	7.82	4.64	-	7.8 U	-	7 U	-	-	-	-	-	-	-	-	-
	02/16/17	GEI	µg/L	6.23	6.23	-	5.6 U	-	5 U	-	-	-	-	-	-	-	-	-
08/24/17	GEI	µg/L	7.34	5.12	-	5.6 U	-	5 U	-	-	-	-	-	-	-	-	-	
MW-7	05/23/12	GEI	µg/L	6.48	6.88	<b>11 U</b>	20 U	9.8 U	20 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.007 U
	08/16/12	GEI	µg/L	6.68	6.68	<b>10</b>	<b>27</b>	7.5 U	<b>27</b>	<b>0.027</b>	0.0094 U	<b>0.014</b>	0.0094 U	<b>0.014</b>	0.0094 U	0.0094 U	0.0094 U	<b>0.01</b>
	11/13/12	GEI	µg/L	6.04	7.32	8 U	<b>18</b>	8 U	<b>19</b>	<b>0.013</b>	<b>0.0097</b>	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	<b>0.013</b>
	02/13/13	GEI	µg/L	6.47	6.89	<b>9</b>	<b>18</b>	<b>8</b>	<b>18</b>	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.007 U
	02/10/16	GEI	µg/L	6.46	6.9	<b>12.9</b>	<b>9.9</b>	<b>13</b>	<b>5.2 J</b>	-	-	-	-	-	-	-	-	-
	08/19/16	GEI	µg/L	6.74	6.62	<b>12</b>	<b>11</b>	<b>11</b>	<b>10</b>	-	-	-	-	-	-	-	-	-
	02/16/17	GEI	µg/L	5.49	7.87	<b>9.2</b>	<b>6.7</b>	<b>7.1</b>	<b>6.6</b>	-	-	-	-	-	-	-	-	-
08/23/17	GEI	µg/L	6.69	6.67	<b>14</b>	<b>8.8</b>	<b>12</b>	<b>9.3</b>	-	-	-	-	-	-	-	-	-	
MW-8	02/10/16	GEI	µg/L	7.01	6.79	<b>16.6</b>	<b>9.1</b>	<b>16.1</b>	<b>7.4</b>	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.008 U
	02/10/16	GEI	µg/L	7.01	6.79	<b>16.1</b>	<b>8.4</b>	<b>16.3</b>	<b>7.8</b>	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.008 U
	08/18/16	GEI	µg/L	7.71	6.09	<b>16</b>	7.8 U	<b>15</b>	7.8 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.008 U
	08/18/16	GEI	µg/L	7.71	6.09	<b>14</b>	7.8 U	<b>14</b>	7.8 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.008 U
	02/15/17	GEI	µg/L	6.69	7.11	<b>12</b>	5.6 U	<b>12</b>	5 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.007 U
	02/15/17	GEI	µg/L	6.69	7.11	5.6 U	5.6 U	5 U	5 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.007 U
	08/23/17	GEI	µg/L	7.71	6.09	<b>17</b>	<b>6.7</b>	<b>17</b>	5.6 U	<b>0.1</b>	<b>0.12</b>	<b>0.18</b>	<b>0.068</b>	<b>0.14</b>	0.024 U	<b>0.094</b>	<b>0.167</b>	
08/23/17	GEI	µg/L	7.71	6.09	<b>17</b>	<b>6</b>	<b>15</b>	5.6 U	<b>0.02</b>	<b>0.029</b>	<b>0.042</b>	<b>0.014</b>	<b>0.029</b>	0.0094 U	<b>0.026</b>	<b>0.04</b>		
Site-Specific Groundwater Cleanup Level (µg/L)						<b>8</b>	<b>8.2</b>	<b>8</b>	<b>8.2</b>	see cPAH TEQ								<b>0.01</b>

Notes:

<sup>1</sup> Monitoring well locations shown in Figure 2.

<sup>2</sup> Total and dissolved metals analyzed by United States Environmental Protection Agency (EPA) Method 200.8.

<sup>3</sup> Carcinogenic polycyclic aromatic hydrocarbons (cPAHs) analyzed by EPA method 8270/SIM.

<sup>4</sup> Total cPAHs calculated using toxic equivalency quotient (TEQ) methodology relative to benzo(a)pyrene. cPAHs that were not detected were assigned a value of one half of the reporting limit for these calculations.

MLLW = Mean Lower Low Water

µg/L = microgram per liter

ND = Non-Detect

RL = Reporting Limit

U = Laboratory qualifier indicating analyte not detected at level above listed reporting limit

**Bold** indicates analyte was detected.

*Italics* indicates non-detect analyte concentration greater than the Site-Specific Groundwater Cleanup Level.

Shading indicates analyte was detected at a concentration greater than the Site-Specific Groundwater Cleanup Level.