Semivolatiles Raw QC Data

Method: EPA1633_NIS_CALC.qmethod
Calibration: 240813_1633_ICAL

ID: WG1972760-1
Name: SCI05_240918_15.wiff
Date & Time: 2024-09-18T08:30:25
Description: WG1972930,WG1972760,ICAL21391
Instrument: Triple Quad 5500+
User: LCMS05:AC

LC/MS-MS Method:EPA_1633.dam

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
1	PFBA	375-22-4	N/A	213.0 / 169.0	N/A		N/A	N/A	N/A	N/A	N/A
2	PFPeA	2706-90-3	N/A	263.0 / 219.0	N/A		N/A	N/A	0.007	N/A	N/A
3	PFPeA_2	2706-90-3	N/A	263.0 / 68.9	N/A		N/A	N/A	0.007	N/A	N/A
4	PFHxA	307-24-4	N/A	313.0 / 269.0	N/A		N/A	N/A	0.072	N/A	N/A
5	PFHxA_2	307-24-4	N/A	313.0 / 119.0	N/A		N/A	N/A	0.072	N/A	N/A
6	PFHpA	375-85-9	N/A	363.1 / 319.0	N/A		N/A	N/A	0.297	N/A	N/A
7	PFHpA_2	375-85-9	N/A	363.1 / 169.0	N/A		N/A	N/A	0.297	N/A	N/A

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
8	PFOA	335-67-1	N/A	413.1 / 369.1	N/A		N/A	N/A	0.586	N/A	N/A
9	PFOA_2	335-67-1	N/A	413.1 / 169.0	N/A		N/A	N/A	0.586	N/A	N/A
10	PFNA	375-95-1	N/A	462.8 / 418.9	N/A		N/A	N/A	0.313	N/A	N/A
11	PFNA_2	375-95-1	N/A	462.8 / 218.9	N/A		N/A	N/A	0.313	N/A	N/A
12	PFDA	335-76-2	N/A	513.1 / 469.1	N/A		N/A	N/A	0.142	N/A	N/A
13	PFDA_2	335-76-2	N/A	513.1 / 219.0	N/A		N/A	N/A	0.142	N/A	N/A
14	PFUnA	2058-94-8	N/A	563.1 / 519.1	N/A		N/A	N/A	0.194	N/A	N/A
15	PFUnA_2	2058-94-8	N/A	563.1 / 269.0	N/A		N/A	N/A	0.194	N/A	N/A
16	PFDoA	307-55-1	N/A	613.1 / 569.1	N/A		N/A	N/A	0.167	N/A	N/A
17	PFDoA_2	307-55-1	N/A	613.1 / 319.0	N/A		N/A	N/A	0.167	N/A	N/A
18	PFTrDA	72629-94-8	N/A	663.1 / 619.1	N/A		N/A	N/A	0.228	N/A	N/A
19	PFTrDA_2	72629-94-8	N/A	663.1 / 169.0	N/A		N/A	N/A	0.228	N/A	N/A
20	PFTeDA	376-06-7	N/A	713.1 / 669.1	N/A		N/A	N/A	0.137	N/A	N/A
21	PFTeDA_2	376-06-7	N/A	713.1 / 169.0	N/A		N/A	N/A	0.137	N/A	N/A
22	PFBS	375-73-5	N/A	299.1 / 80.1	N/A		N/A	N/A	0.396	N/A	N/A

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
23	PFBS_2	375-73-5	N/A	299.1 / 99.1	N/A		N/A	N/A	0.396	N/A	N/A
24	PFPeS	2706-91-4	N/A	349.1 / 80.1	N/A		N/A	N/A	0.299	N/A	N/A
25	PFPeS_2	2706-91-4	N/A	349.1 / 99.1	N/A		N/A	N/A	0.299	N/A	N/A
26	PFHxS	355-46-4	N/A	399.1 / 80.1	N/A		N/A	N/A	0.315	N/A	N/A
27	PFHxS_2	355-46-4	N/A	399.1 / 99.1	N/A		N/A	N/A	0.315	N/A	N/A
28	PFHpS	375-92-8	N/A	449.1 / 80.1	N/A		N/A	N/A	0.287	N/A	N/A
29	PFHpS_2	375-92-8	N/A	449.1 / 99.1	N/A		N/A	N/A	0.287	N/A	N/A
30	PFOS	1763-23-1	N/A	499.1 / 80.1	N/A		N/A	N/A	0.238	N/A	N/A
31	PFOS_2	1763-23-1	N/A	499.1 / 99.1	N/A		N/A	N/A	0.238	N/A	N/A
32	PFNS	68259-12-1	N/A	549.1 / 80.1	N/A		N/A	N/A	0.301	N/A	N/A
33	PFNS_2	68259-12-1	N/A	549.1 / 99.1	N/A		N/A	N/A	0.301	N/A	N/A
34	PFDS	335-77-3	N/A	599.1 / 80.1	N/A		N/A	N/A	0.275	N/A	N/A
35	PFDS_2	335-77-3	N/A	599.1 / 99.1	N/A		N/A	N/A	0.275	N/A	N/A
36	PFDoS	79780-39-5	N/A	699.2 / 80.1	N/A		N/A	N/A	0.274	N/A	N/A
37	PFDoS_2	79780-39-5	N/A	699.2 / 99.1	N/A		N/A	N/A	0.274	N/A	N/A

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
38	4:2FTS	757124-72-4	N/A	327.1 / 307.1	N/A		N/A	N/A	0.516	N/A	N/A
39	4:2FTS_2	757124-72-4	N/A	327.1 / 81.1	N/A		N/A	N/A	0.516	N/A	N/A
40	6:2FTS	27619-97-2	N/A	427.2 / 407.2	N/A		N/A	N/A	0.565	N/A	N/A
41	6:2FTS_2	27619-97-2	N/A	427.2 / 81.1	N/A		N/A	N/A	0.565	N/A	N/A
42	8:2FTS	39108-34-4	N/A	527.2 / 507.2	N/A		N/A	N/A	0.662	N/A	N/A
43	8:2FTS_2	39108-34-4	N/A	527.2 / 81.1	N/A		N/A	N/A	0.662	N/A	N/A
44	PFOSA	754-91-6	N/A	498.1 / 78.1	N/A		N/A	N/A	0.025	N/A	N/A
45	PFOSA_2	754-91-6	N/A	498.1 / 478.0	N/A		N/A	N/A	0.025	N/A	N/A
46	NMeFOSA	31506-32-8	N/A	512.2 / 219.0	N/A		N/A	N/A	1.551	N/A	N/A
47	NMeFOSA_2	31506-32-8	N/A	512.2 / 169.0	N/A		N/A	N/A	1.551	N/A	N/A
48	NEtFOSA	4151-50-2	N/A	526.2 / 219.0	N/A		N/A	N/A	1.285	N/A	N/A
49	NEtFOSA_2	4151-50-2	N/A	526.2 / 169.0	N/A		N/A	N/A	1.285	N/A	N/A
50	NMeFOSAA	2355-31-9	N/A	570.2 / 419.1	N/A		N/A	N/A	0.700	N/A	N/A
51	NMeFOSAA_2	2355-31-9	N/A	570.2 / 483.0	N/A		N/A	N/A	0.700	N/A	N/A
52	NEtFOSAA	2991-50-6	N/A	584.2 / 419.1	N/A		N/A	N/A	0.487	N/A	N/A

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
53	NEtFOSAA_2	2991-50-6	N/A	584.2 / 526.2	N/A		N/A	N/A	0.487	N/A	N/A
54	NMeFOSE	24448-09-7	N/A	616.1 / 58.9	N/A		N/A	N/A	N/A	N/A	N/A
55	NEtFOSE	1691-99-2	N/A	630.0 / 58.9	N/A		N/A	N/A	N/A	N/A	N/A
56	HFPO-DA	13252-13-6	N/A	285.0 / 169.0	N/A		N/A	N/A	0.464	N/A	N/A
57	HFPO-DA_2	13252-13-6	N/A	285.0 / 184.9	N/A		N/A	N/A	0.464	N/A	N/A
58	ADONA	919005-14-4	N/A	377.1 / 251.0	N/A		N/A	N/A	0.634	N/A	N/A
59	ADONA_2	919005-14-4	N/A	377.1 / 84.8	N/A		N/A	N/A	0.634	N/A	N/A
60	9Cl-PF3ONS	756426-58-1	N/A	530.8 / 351.1	N/A		N/A	N/A	0.322	N/A	N/A
61	9Cl-PF3ONS_2	756426-58-1	N/A	532.8 / 353.0	N/A		N/A	N/A	0.322	N/A	N/A
62	11Cl-PF3OUdS	763051-92-9	N/A	630.9 / 451.0	N/A		N/A	N/A	0.331	N/A	N/A
63	11Cl-PF3OUdS_2	763051-92-9	N/A	632.9 / 452.9	N/A		N/A	N/A	0.331	N/A	N/A
64	3:3FTCA	356-02-5	N/A	241.1 / 177.1	N/A		N/A	N/A	1.074	N/A	N/A
65	3:3FTCA_2	356-02-5	N/A	241.1 / 117.0	N/A		N/A	N/A	1.074	N/A	N/A
66	5:3FTCA	914637-49-3	N/A	341.1 / 237.1	N/A		N/A	N/A	0.953	N/A	N/A
67	5:3FTCA_2	914637-49-3	N/A	341.1 / 217.0	N/A		N/A	N/A	0.953	N/A	N/A

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
68	7:3FTCA	812-70-4	N/A	441.1 / 316.9	N/A		N/A	N/A	1.558	N/A	N/A
69	7:3FTCA_2	812-70-4	N/A	441.1 / 337.1	N/A		N/A	N/A	1.558	N/A	N/A
70	PFEESA	113507-82-7	N/A	315.1 / 135.0	N/A		N/A	N/A	0.087	N/A	N/A
71	PFEESA_2	113507-82-7	N/A	315.1 / 82.9	N/A		N/A	N/A	0.087	N/A	N/A
72	PFMPA	377-73-1	N/A	229.0 / 85.0	N/A		N/A	N/A	N/A	N/A	N/A
73	PFMBA	863090-89-5	N/A	279.0 / 85.0	N/A		N/A	N/A	N/A	N/A	N/A
74	NFDHA	151772-58-6	N/A	295.0 / 201.0	N/A		N/A	N/A	0.910	N/A	N/A
75	NFDHA_2	151772-58-6	N/A	295.0 / 84.9	N/A		N/A	N/A	0.910	N/A	N/A
76	TDCA	516-50-7	N/A	499.1 / 124.1	N/A		N/A	N/A	40.716	N/A	N/A
77	TDCA_2	516-50-7	N/A	499.1 / 79.9	N/A		N/A	N/A	40.716	N/A	N/A
78	13C2D4-4:2FTS	Surr	N/A	333.2 / 312.1	N/A		N/A	N/A	N/A	N/A	N/A
79	13C2-PFOA	Surr	N/A	415.0 / 370.0	N/A		N/A	N/A	N/A	N/A	N/A

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C4-PFBA	EIS	2.84	217.0 / 172.0	2280757		8.057	NA	NA	NA	80.6

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C5-PFPeA	EIS	4.67	268.0 / 223.0	1513883		4.842	NA	NA	NA	96.8
	13C5-PFHxA	EIS	5.36	318.0 / 273.0	900506		2.193	NA	NA	NA	87.7
	13C4-PFHpA	EIS	6.27	367.0 / 322.0	868810		2.113	NA	NA	NA	84.5
	13C8-PFOA	EIS	7.49	421.0 / 376.0	1290816		2.193	NA	NA	NA	87.7
	13C9-PFNA	EIS	7.93	472.0 / 427.0	586861		0.988	NA	NA	NA	79.1
	13C6-PFDA	EIS	8.15	519.0 / 474.0	555720		0.919	NA	NA	NA	73.5
	13C7-PFUnA	EIS	8.42	570.0 / 525.0	427961		0.875	NA	NA	NA	70.0

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C2-PFDoA	EIS	8.83	615.1 / 570.0	347243		1.091	NA	NA	NA	87.3
	13C2-PFTeDA	EIS	9.85	715.1 / 670.1	263583		0.763	NA	NA	NA	61.0
	13C3-PFBS	EIS	5.33	302.1 / 80.1	657081		1.856	NA	NA	NA	79.7
	13C3-PFHxS	EIS	7.60	402.1 / 80.1	522291		1.857	NA	NA	NA	78.4
	13C8-PFOS	EIS	8.24	507.1 / 80.1	523157		1.679	NA	NA	NA	70.1
	13C2-4:2FTS	EIS	5.15	329.1 / 81.1	254098		4.021	NA	NA	NA	85.7
	13C2-6:2FTS	EIS	7.10	429.2 / 81.1	158613		3.425	NA	NA	NA	72.0
	13C2-8:2FTS	EIS	8.05	529.2 / 81.1	212626		3.137	NA	NA	NA	65.4

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C8-PFOSA	EIS	9.51	506.1 / 78.1	732646		1.769	NA	NA	NA	70.8
	d3-NMeFOSA	EIS	10.14	515.2 / 219.0	100834		1.446	NA	NA	NA	57.9
	d5-NEtFOSA	EIS	10.35	531.2 / 219.0	98879		1.452	NA	NA	NA	58.1
	d3-NMeFOSAA	EIS	8.20	573.2 / 419.1	238706		1.514	NA	NA	NA	30.3
	d5-NEtFOSAA	EIS	8.33	589.3 / 419.1	228951		2.764	NA	NA	NA	55.3
	d7-NMeFOSE	EIS	10.05	623.2 / 58.9	988272		18.355	NA	NA	NA	73.4
	d9-NEtFOSE	EIS	10.25	639.2 / 58.9	1473568		18.563	NA	NA	NA	74.3

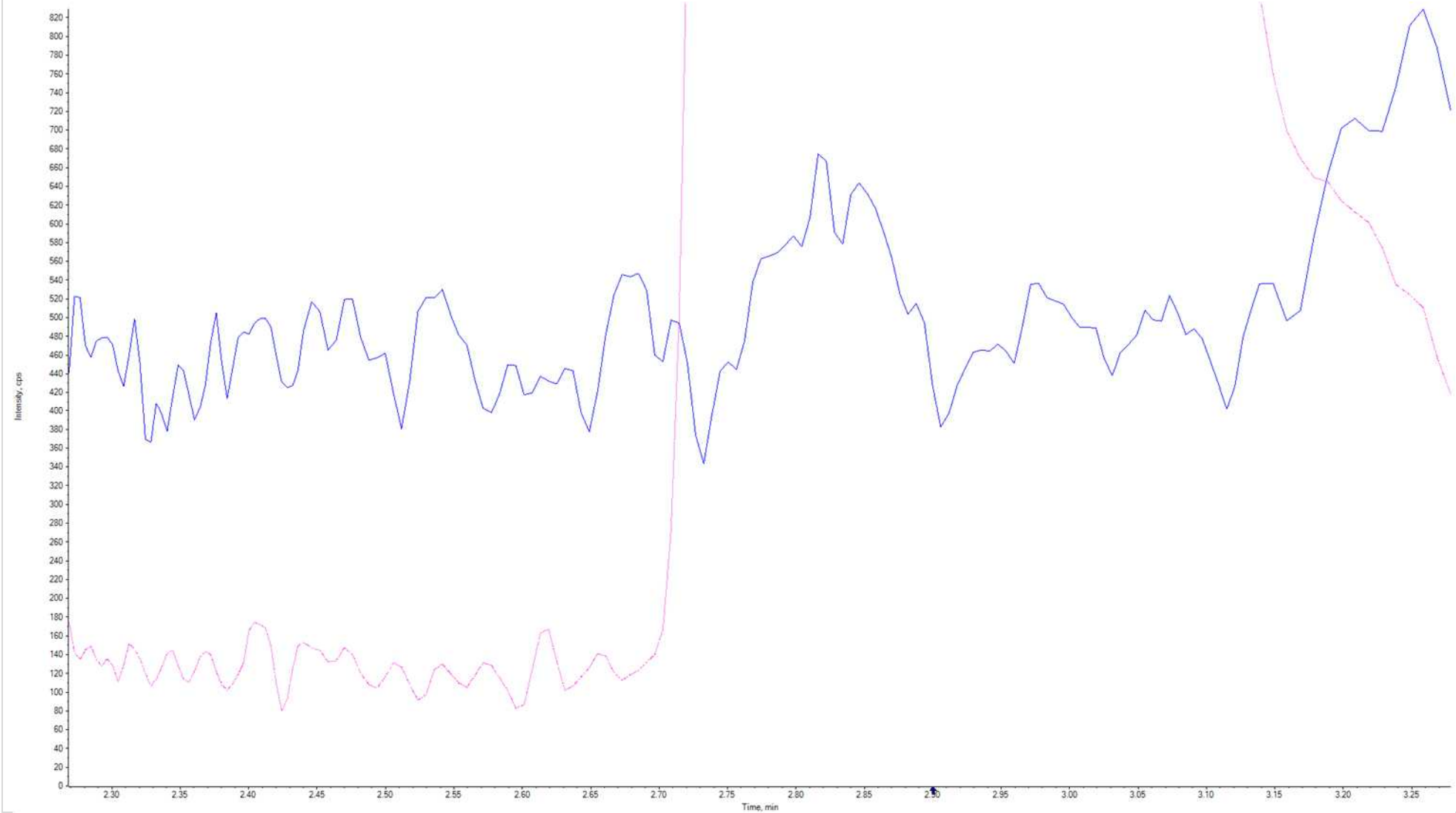
	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C3-HFPO-DA	EIS	5.62	287.0 / 169.0	2426933		8.917	NA	NA	NA	89.2
	13C3-PFBA	NIS	2.84	216.0 / 172.0	1238374		5.792	NA	NA	NA	115.8
	13C2-PFHxA	NIS	5.36	315.0 / 270.0	1219385		2.490	NA	NA	NA	99.6
	13C4-PFOA	NIS	7.49	417.0 / 372.0	770141		2.460	NA	NA	NA	98.4
	13C5-PFNA	NIS	7.92	468.0 / 423.0	723530		1.321	NA	NA	NA	105.7
	13C2-PFDA	NIS	8.14	515.1 / 470.1	710133		1.386	NA	NA	NA	110.9
	18O2-PFHxS	NIS	7.60	403.1 / 84.1	571593		2.440	NA	NA	NA	102.9
	13C4-PFOS	NIS	8.24	503.1 / 80.1	551086		2.617	NA	NA	NA	109.3

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	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec

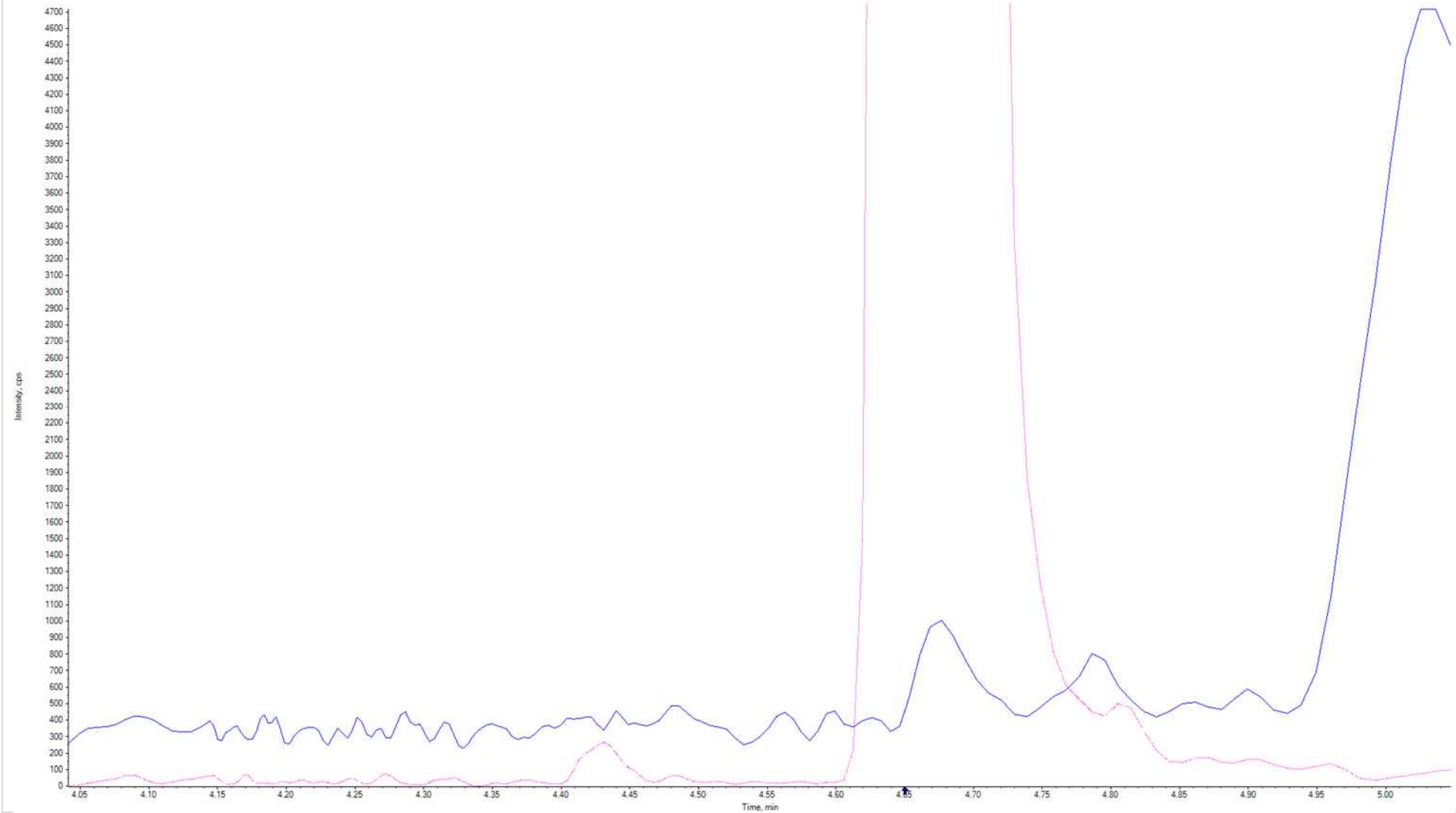
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PFBA
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



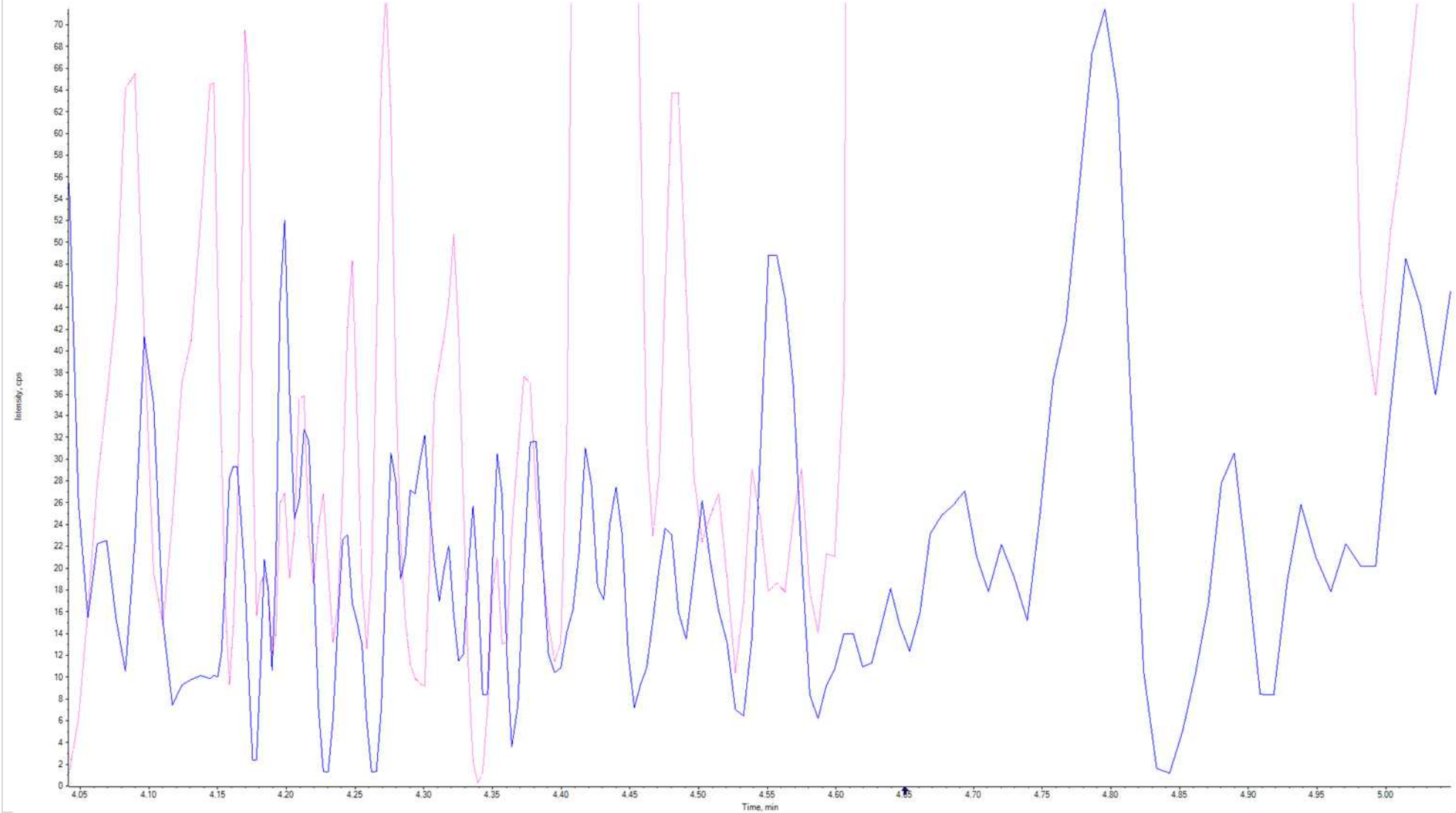
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PFPeA
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



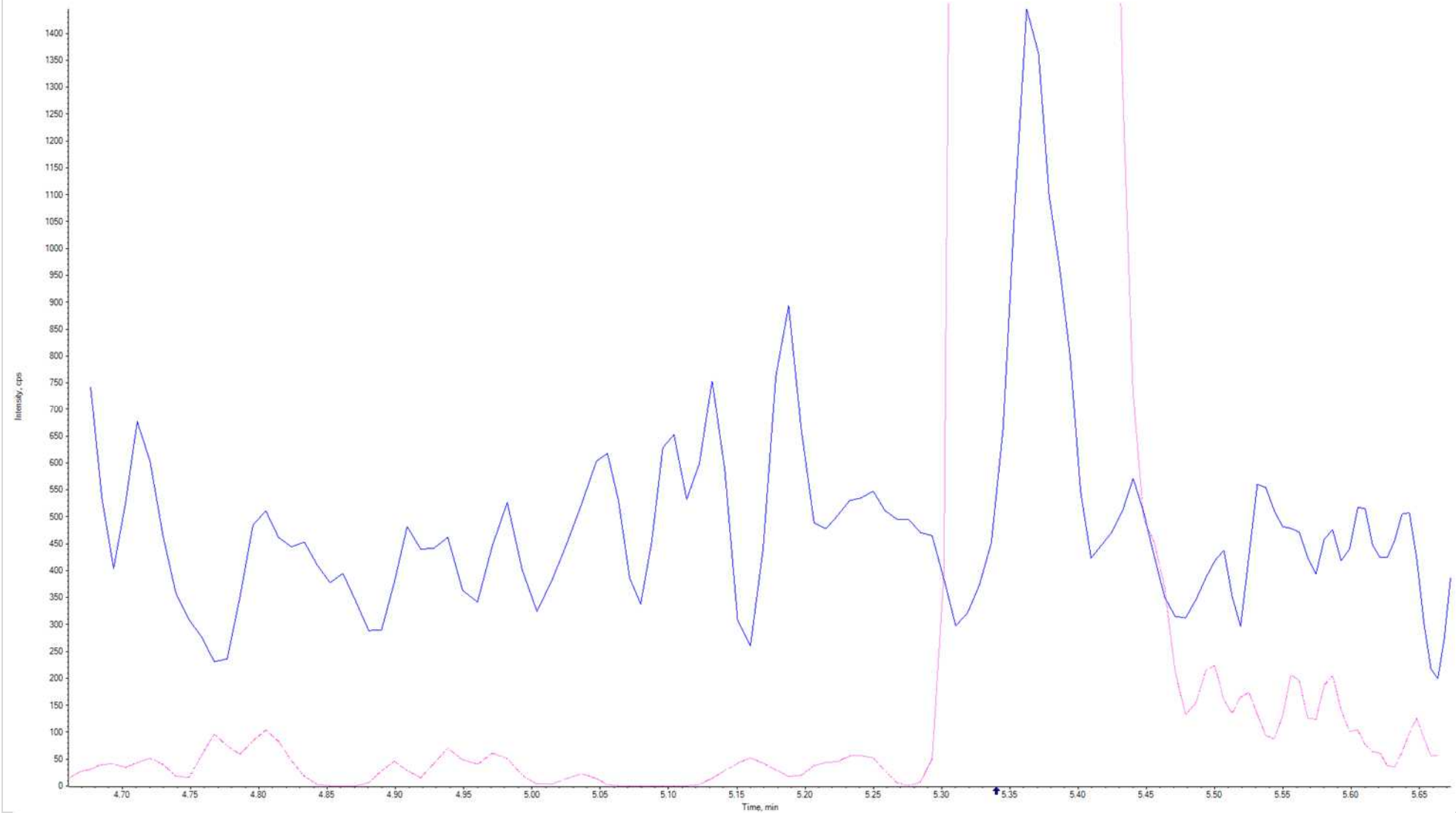
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PFPeA_2
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



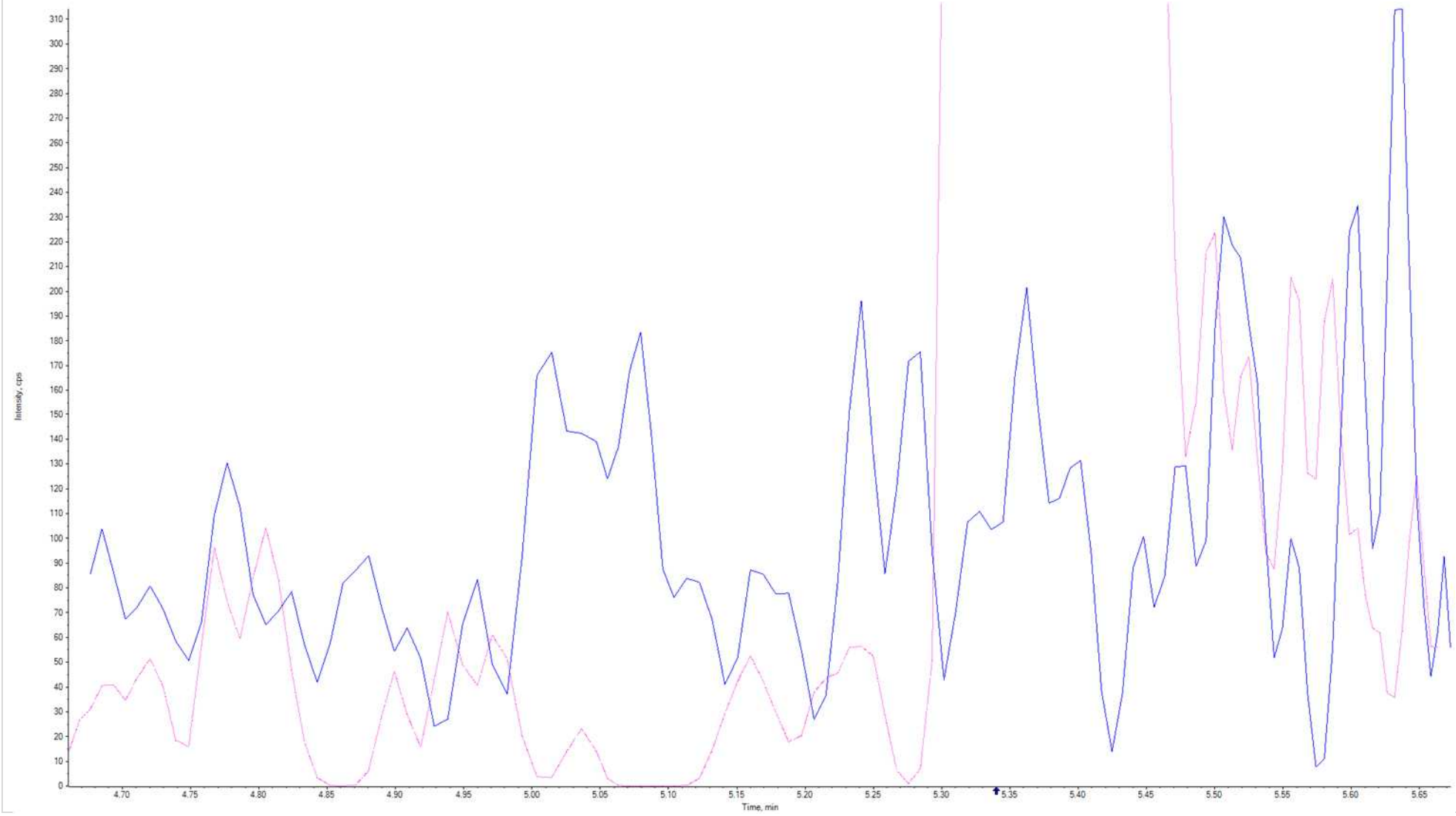
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PFHxA
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



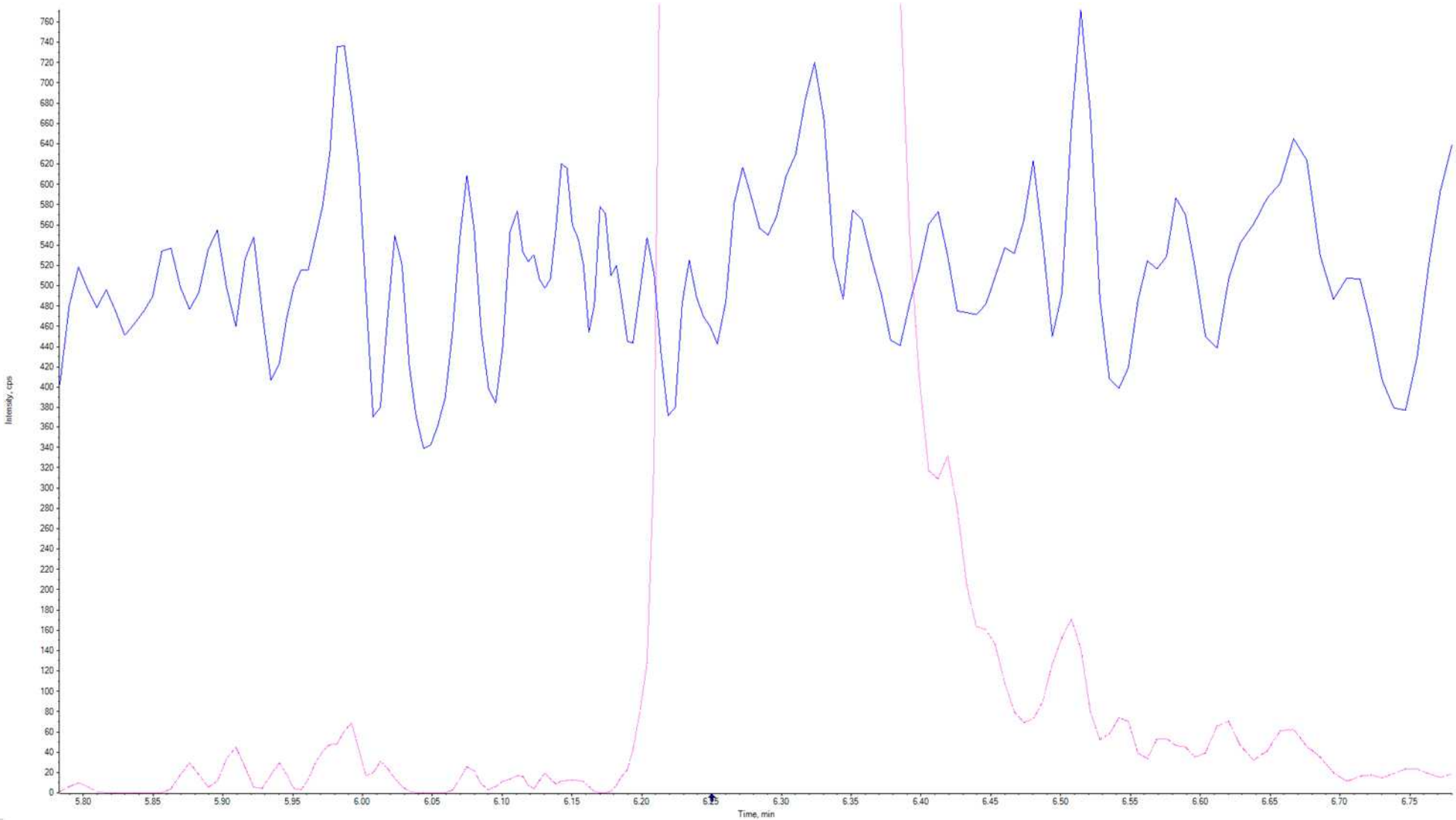
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PFHxA_2
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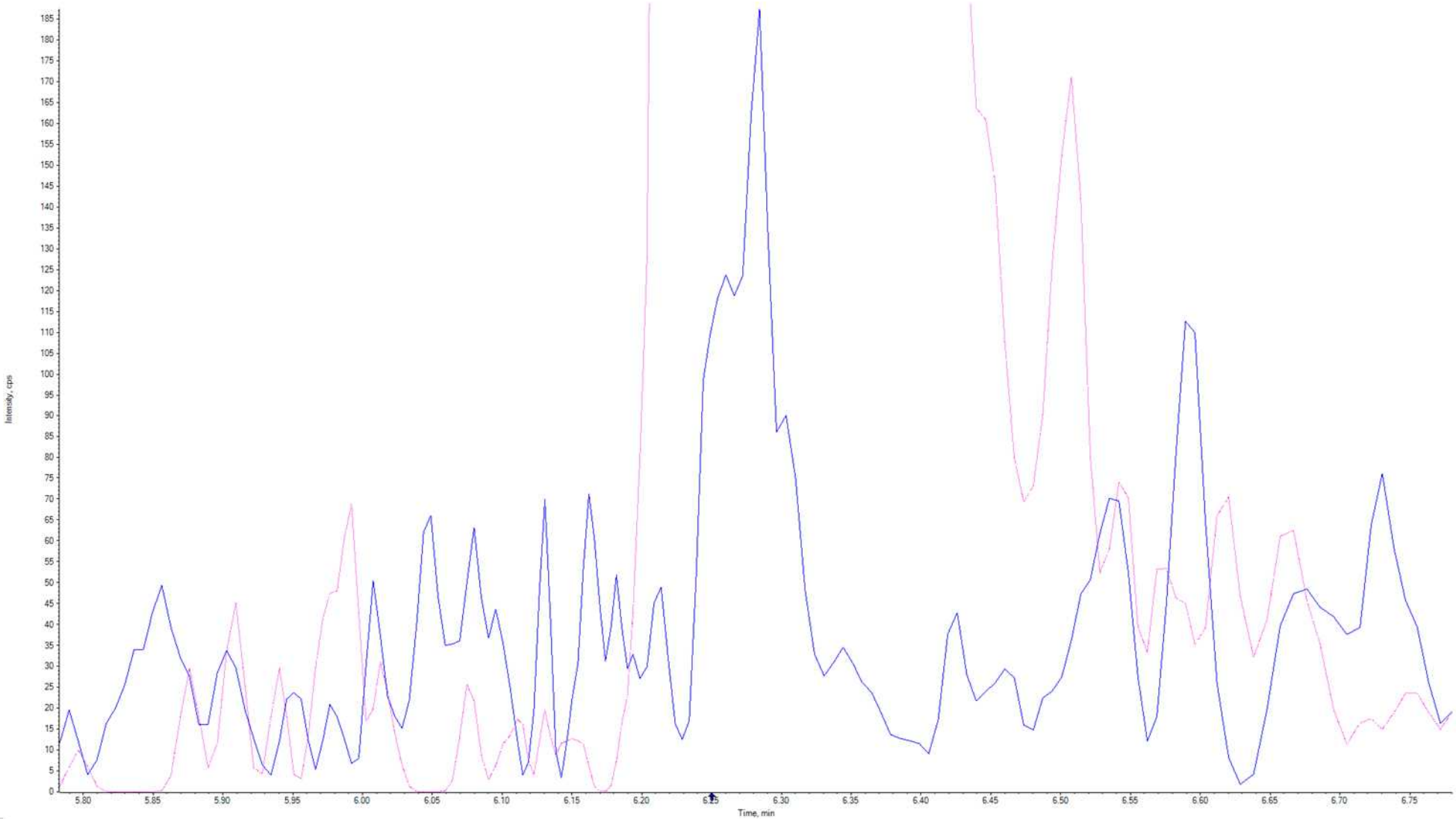
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PFHpA
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



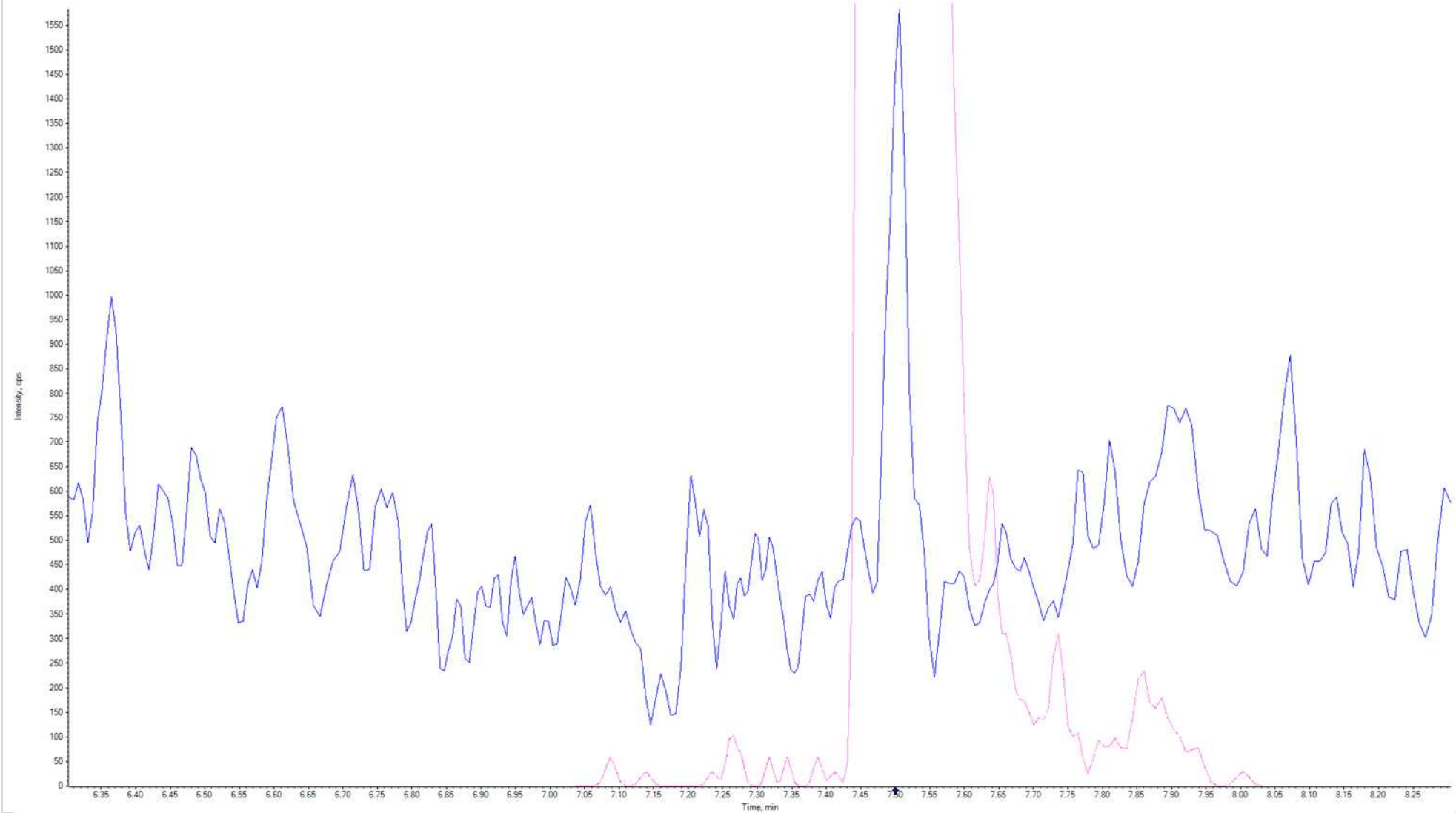
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PFHpA_2
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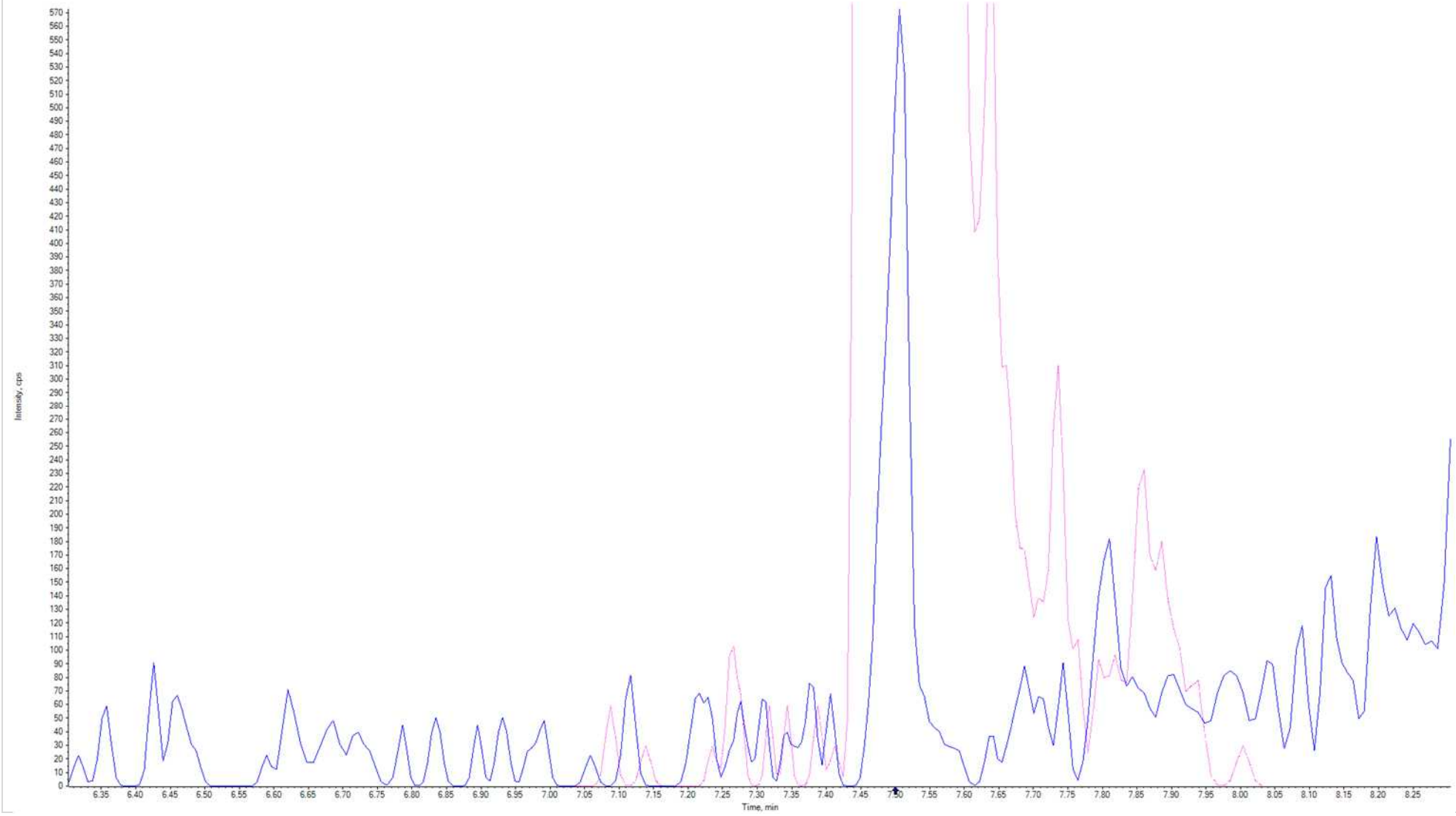
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PFOA
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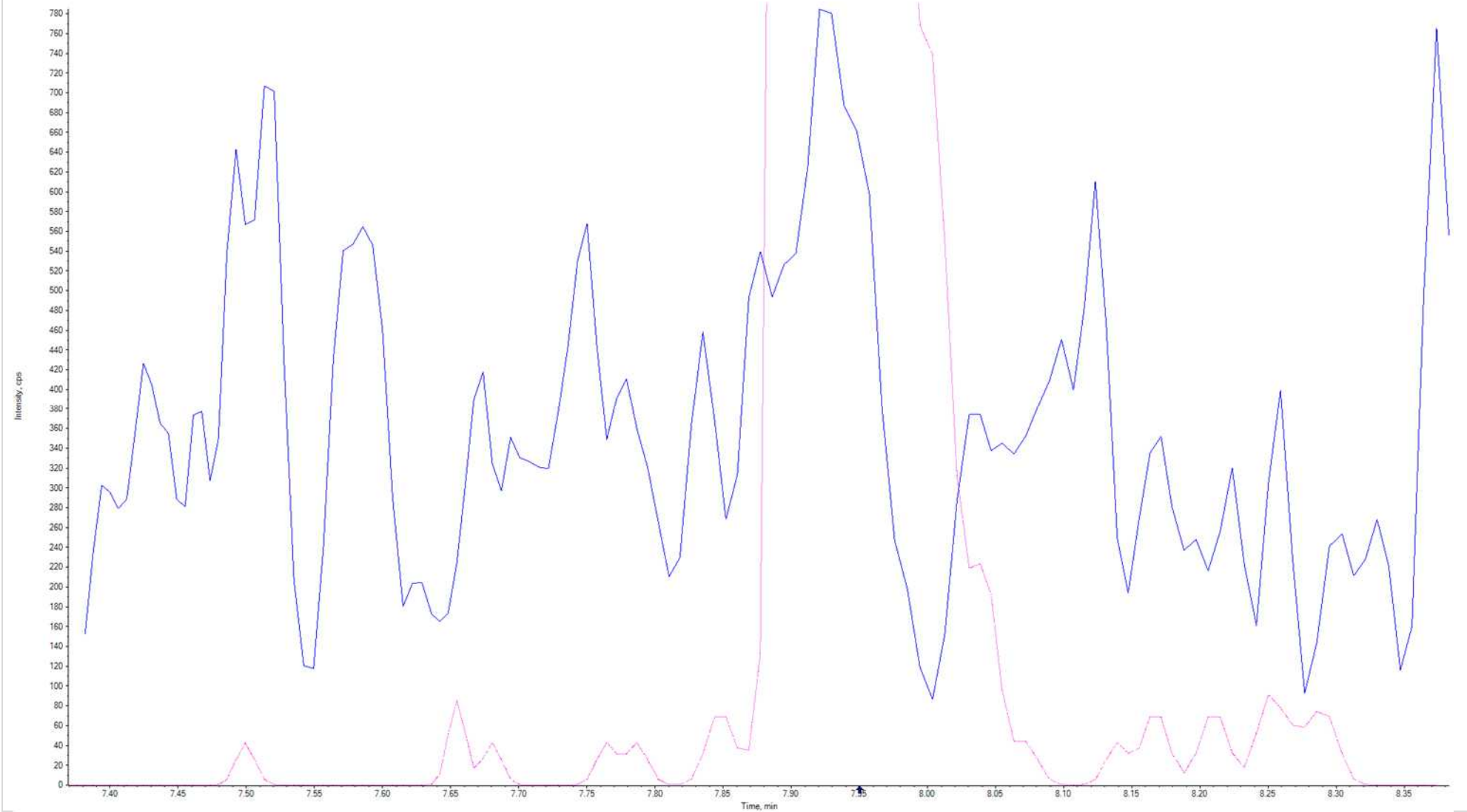
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PFOA_2
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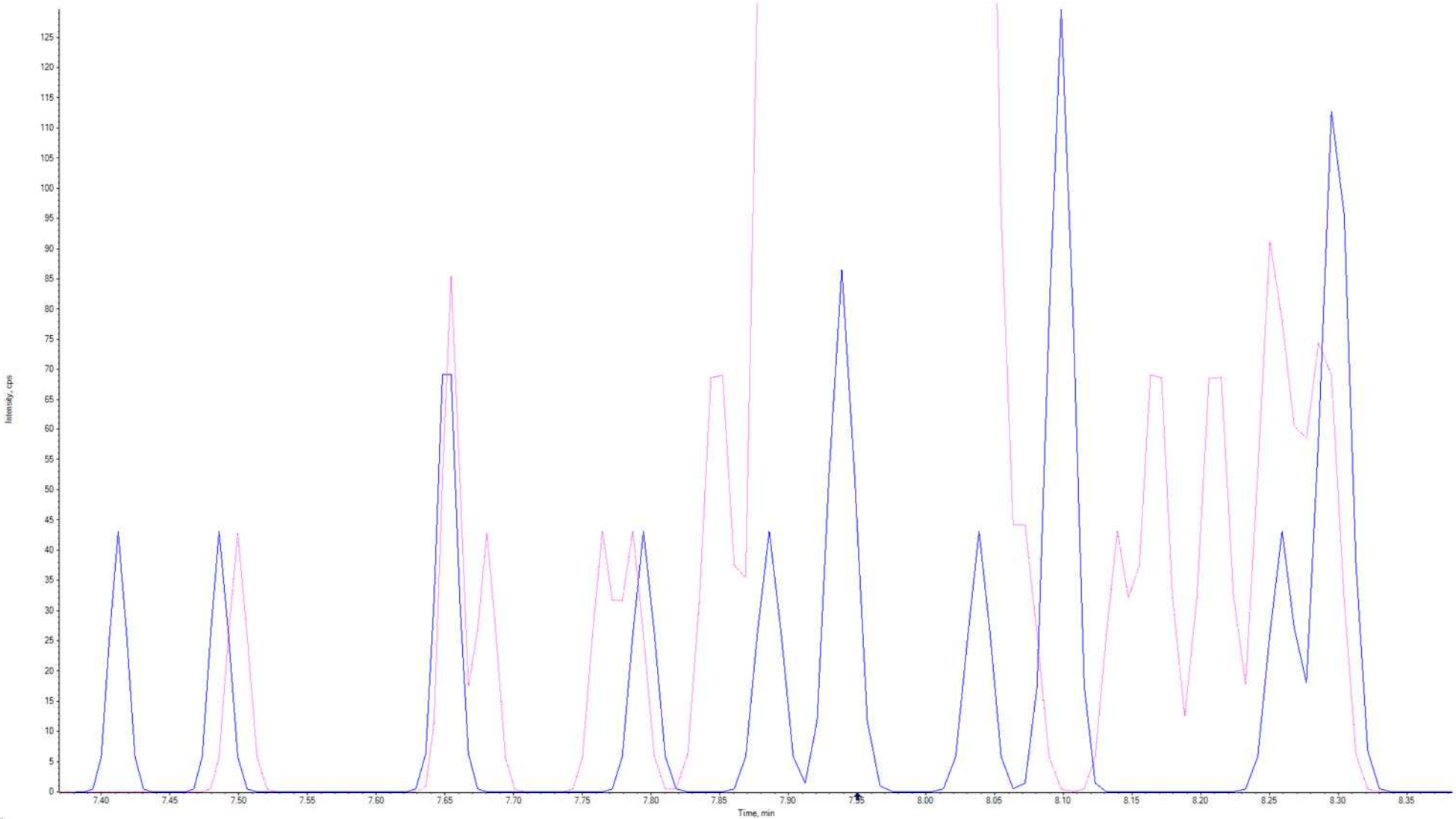


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PFNA
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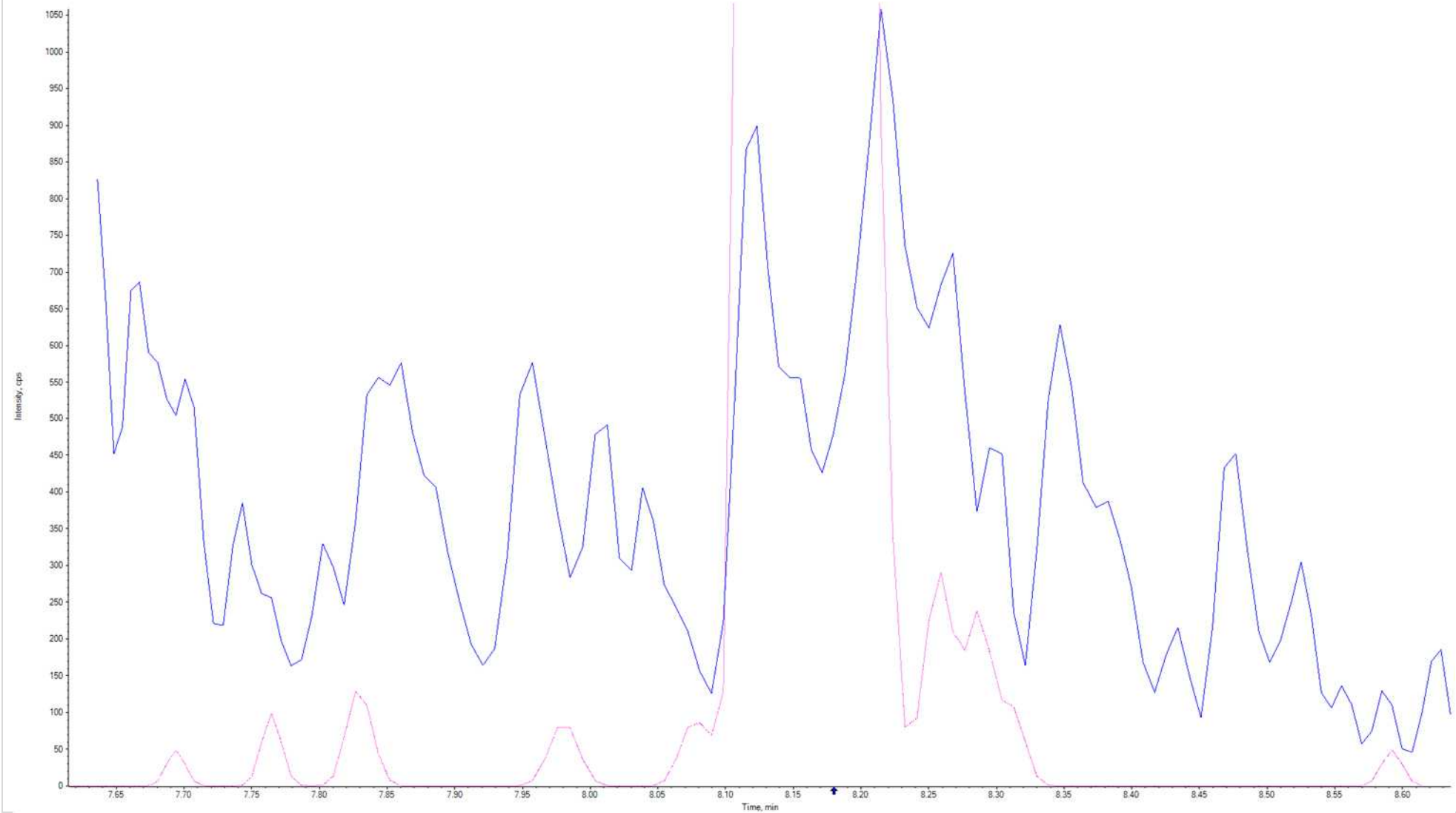


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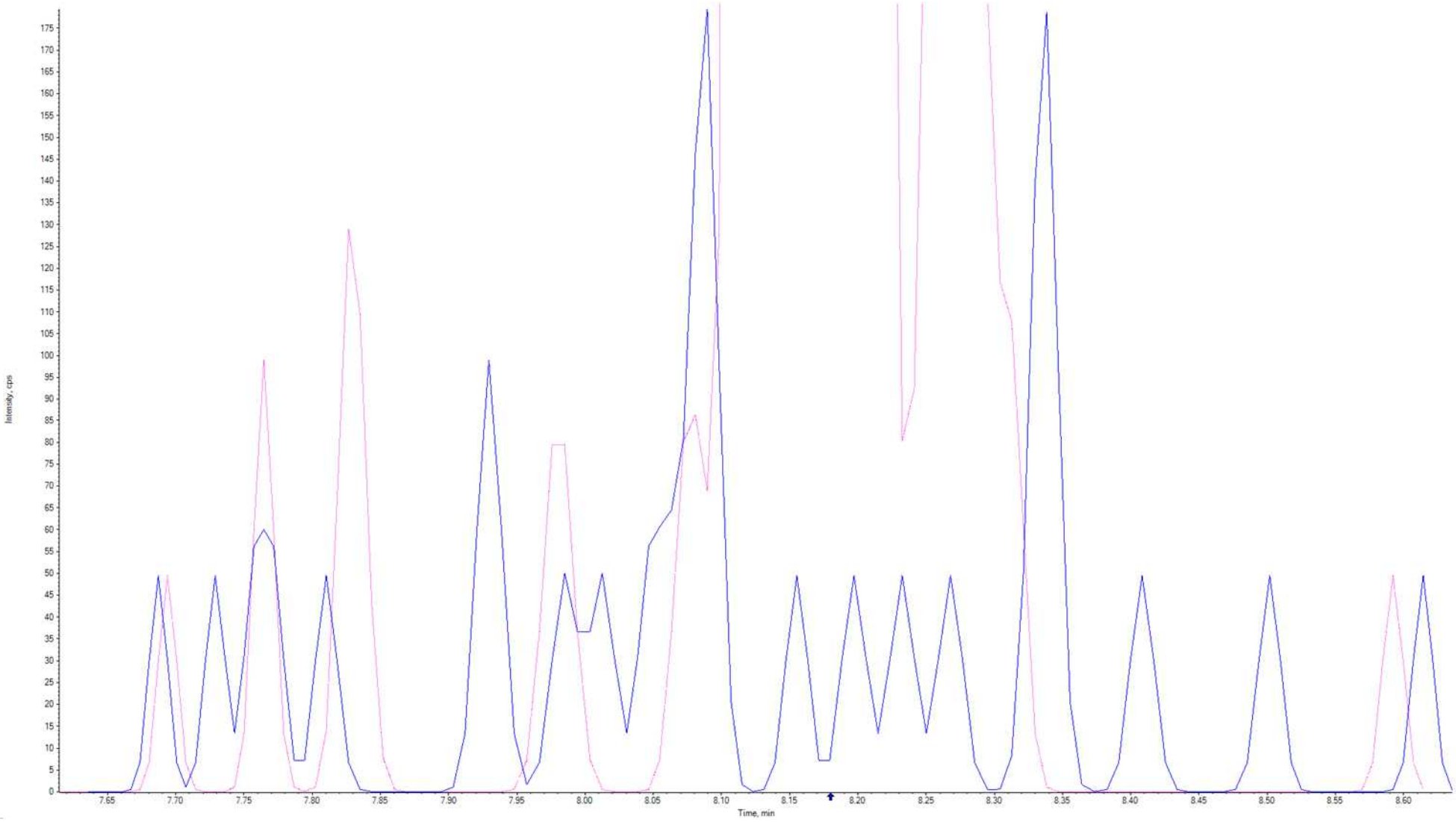
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PFDA
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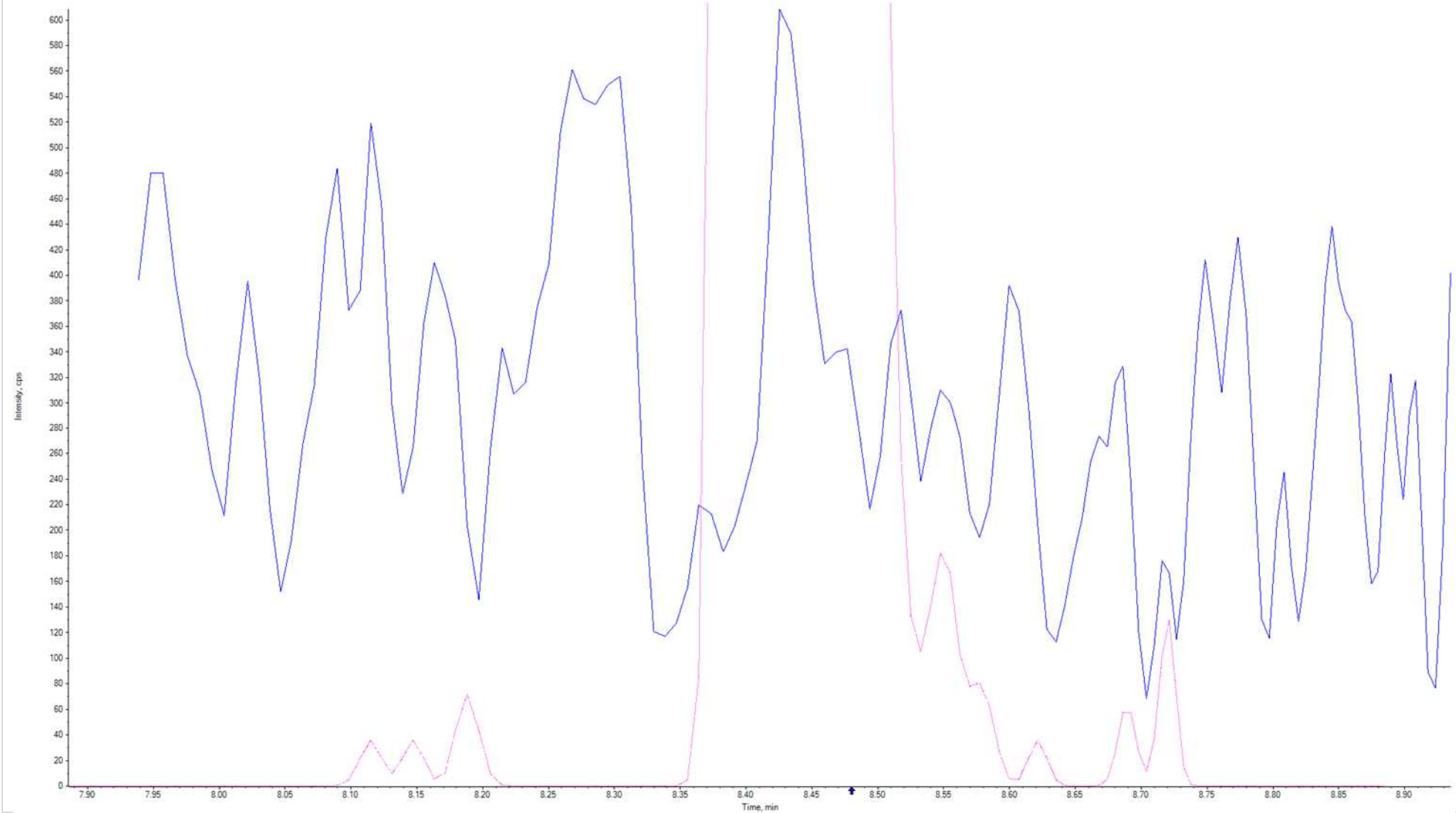
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PFDA_2
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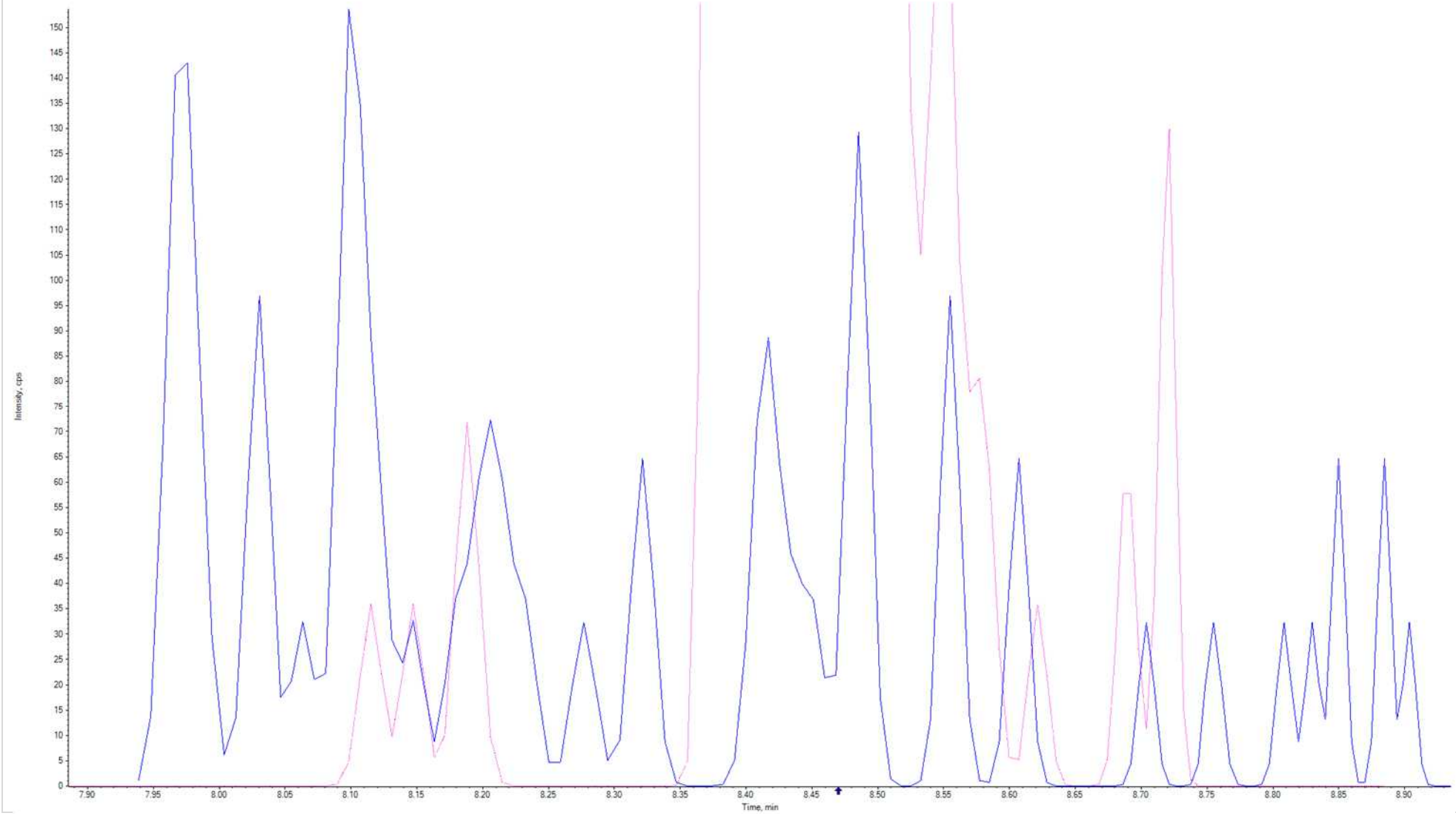
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PFUnA
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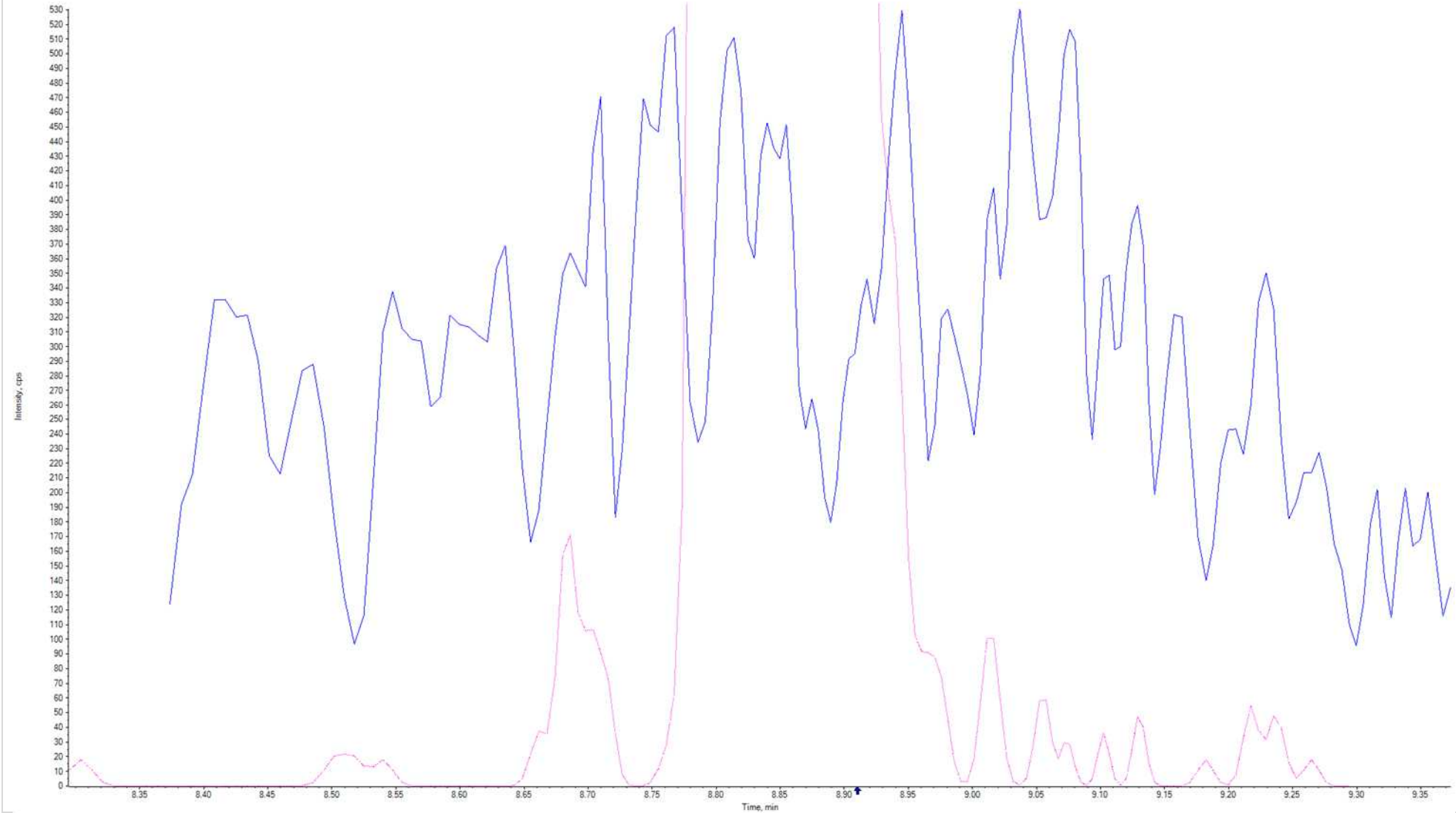
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PFUnA_2
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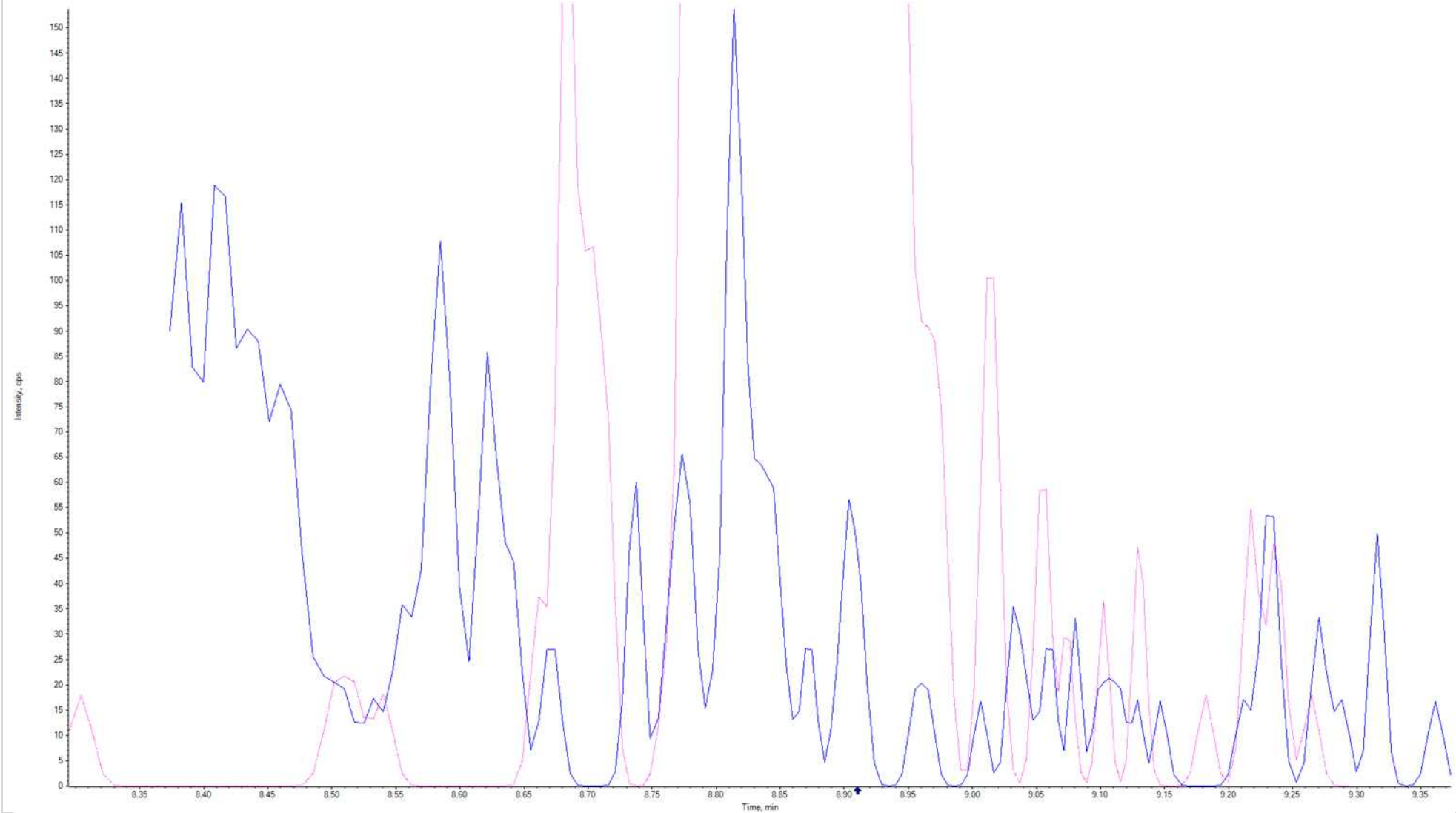
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PFDoA
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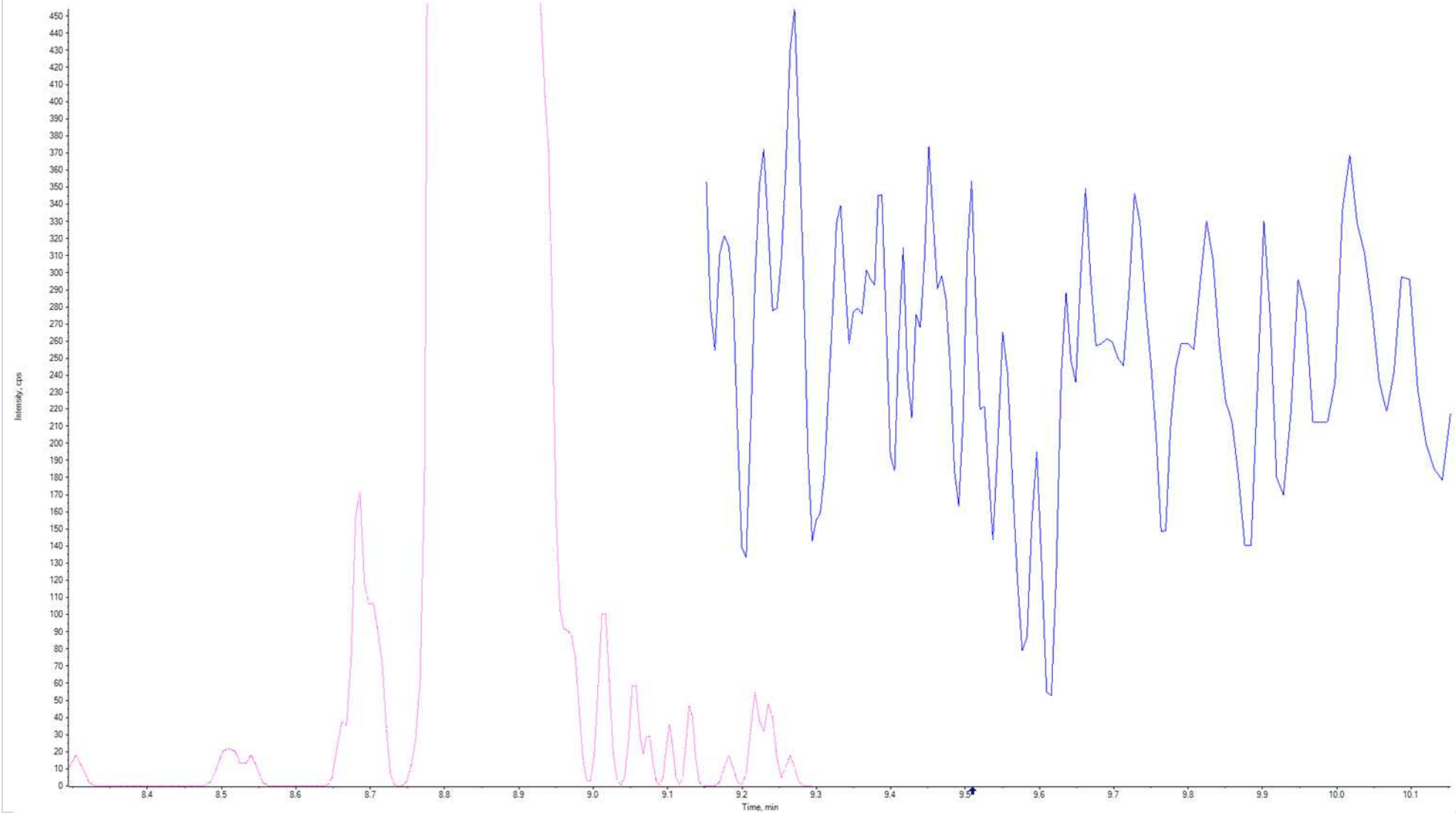
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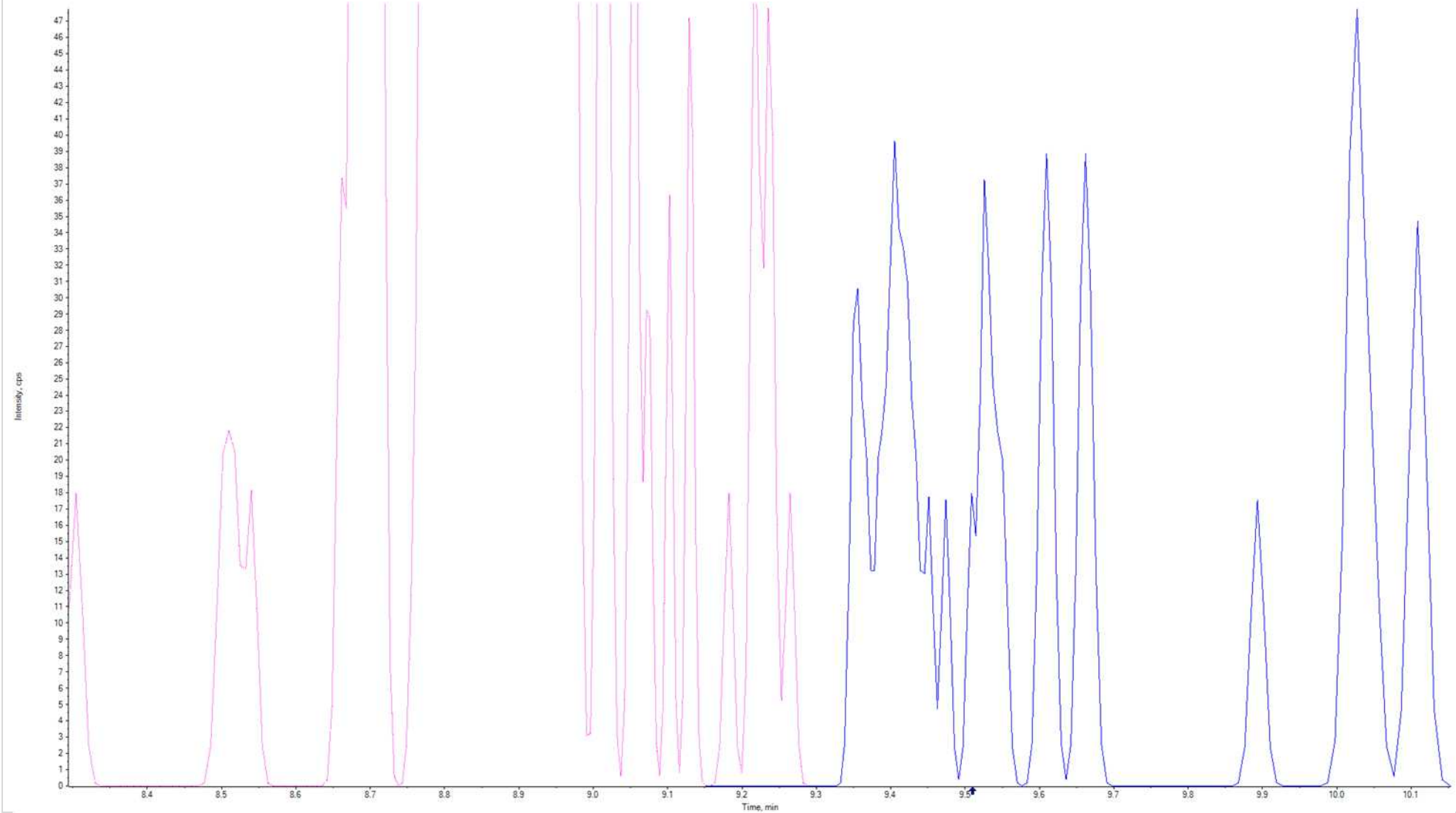
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PFTrDA
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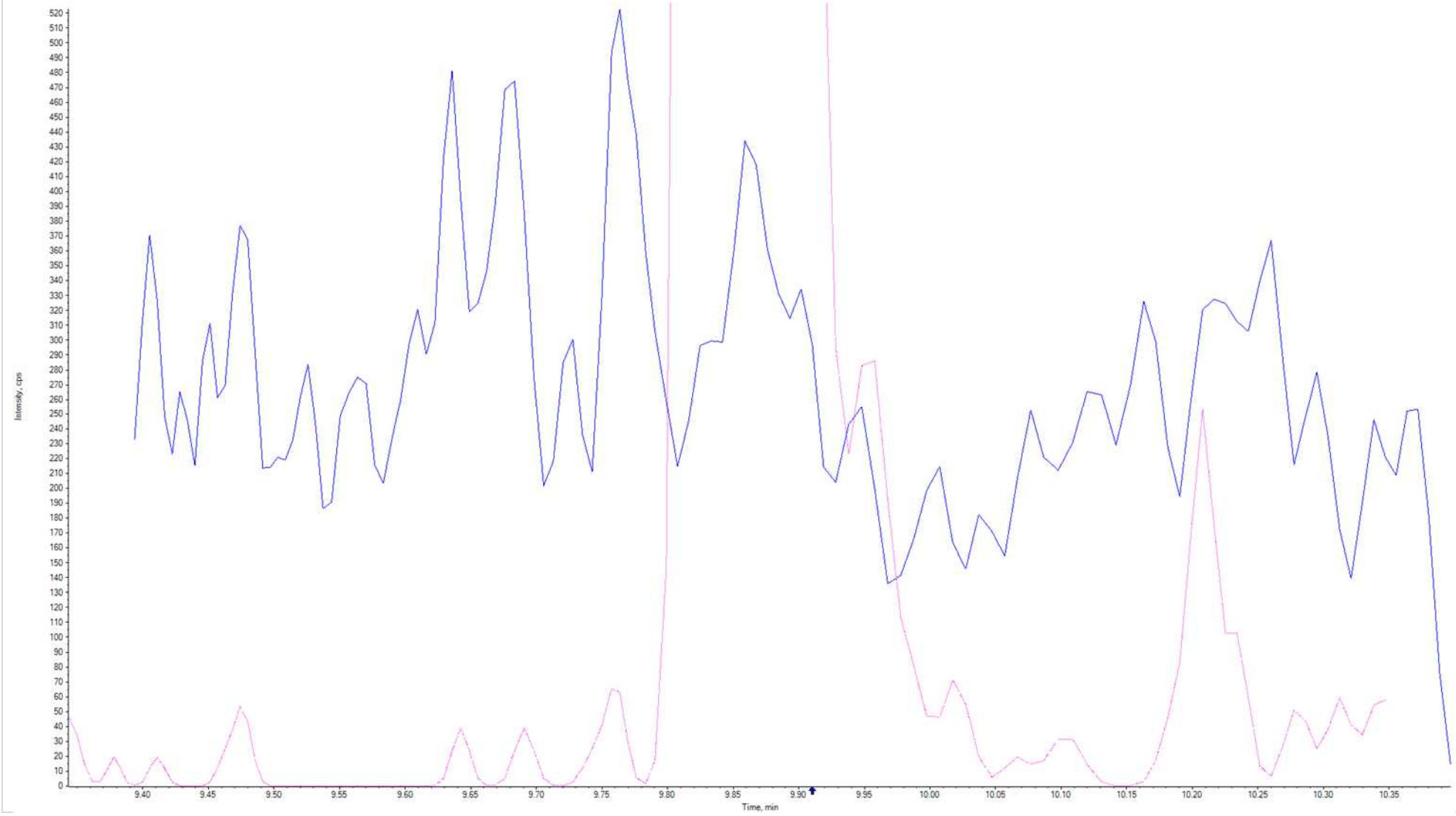
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PFTrDA_2
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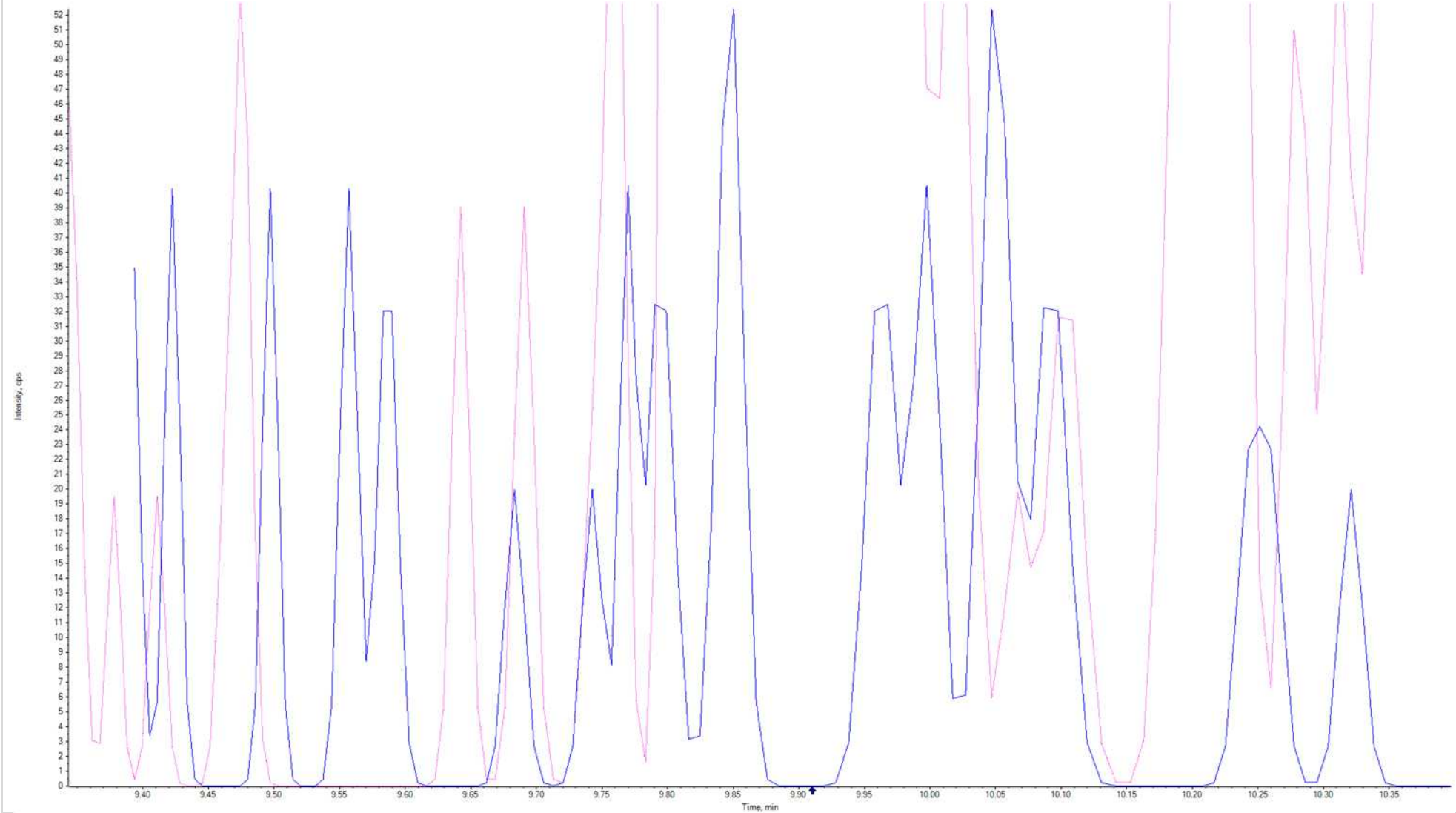
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PFTeDA
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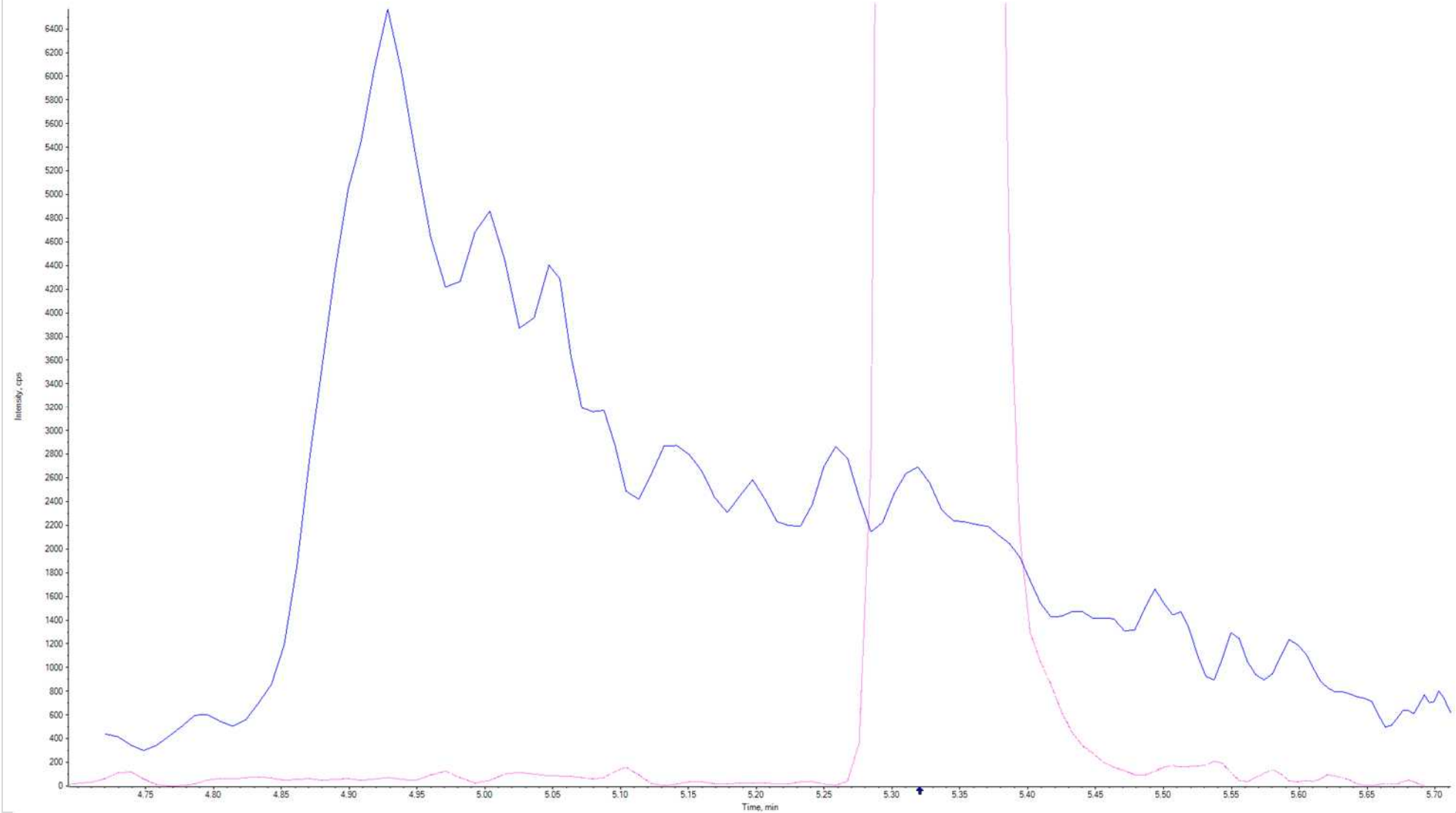
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PFTeDA_2
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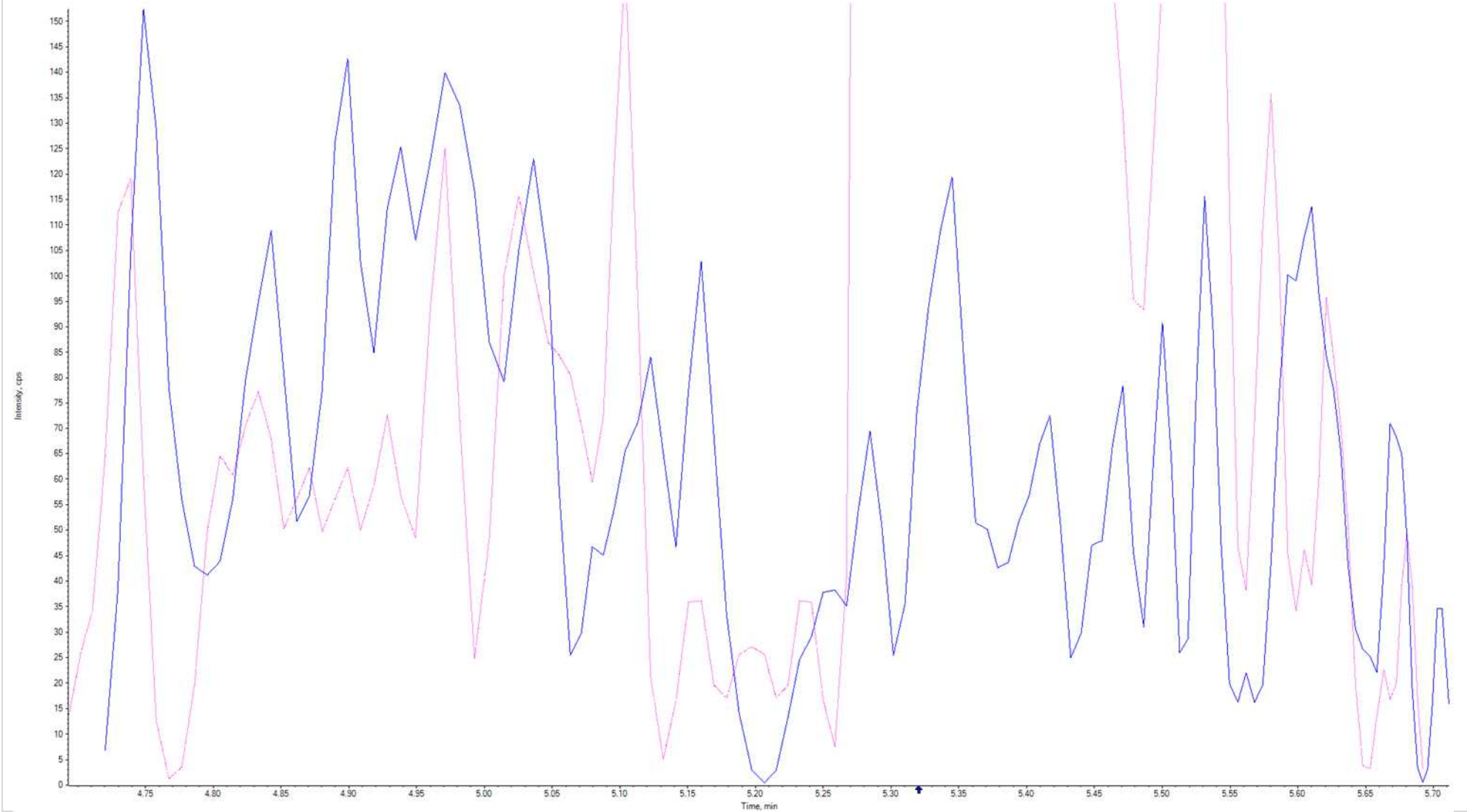
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PFBS
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



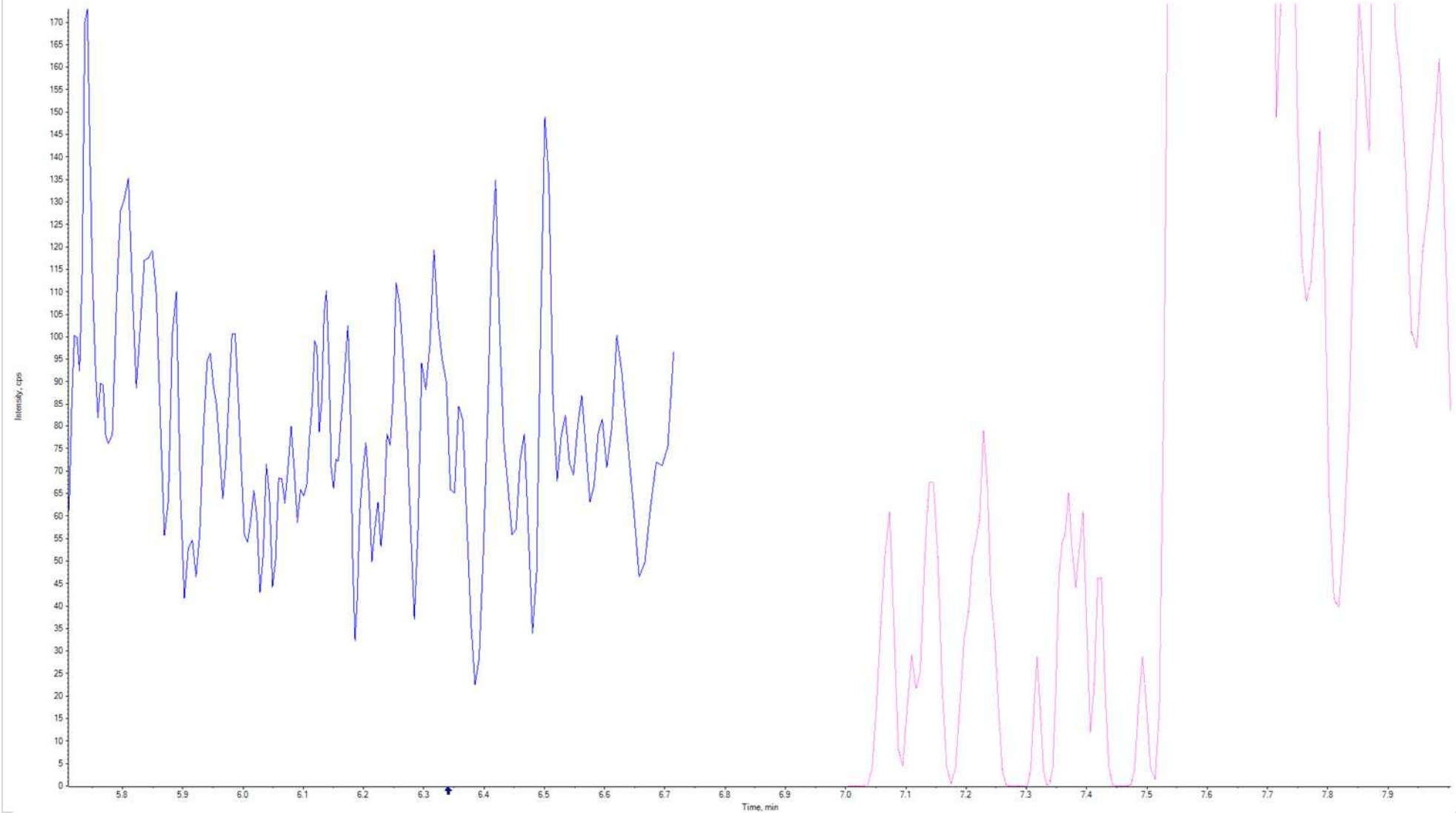
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PFBS_2
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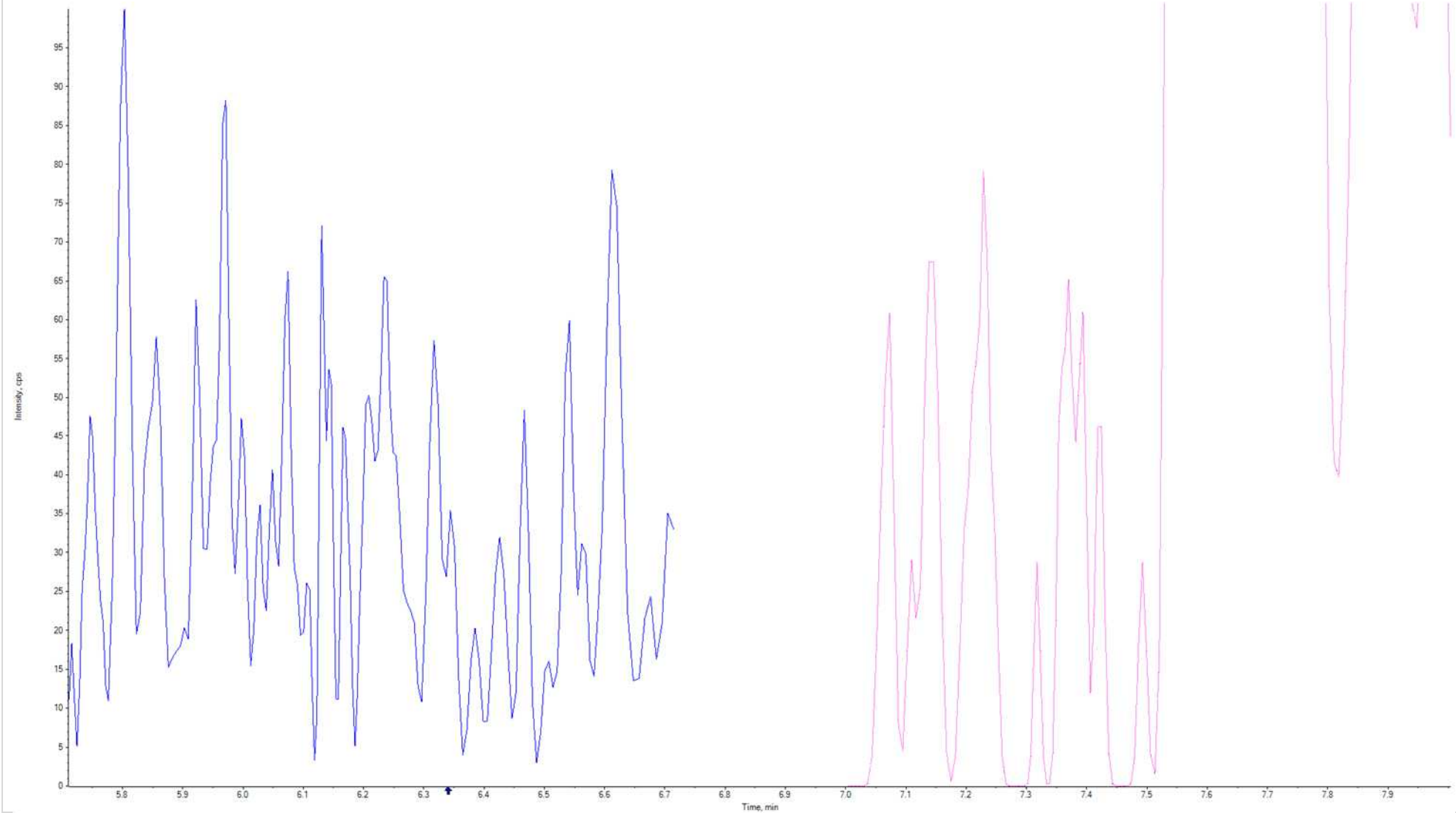
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PFPeS
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



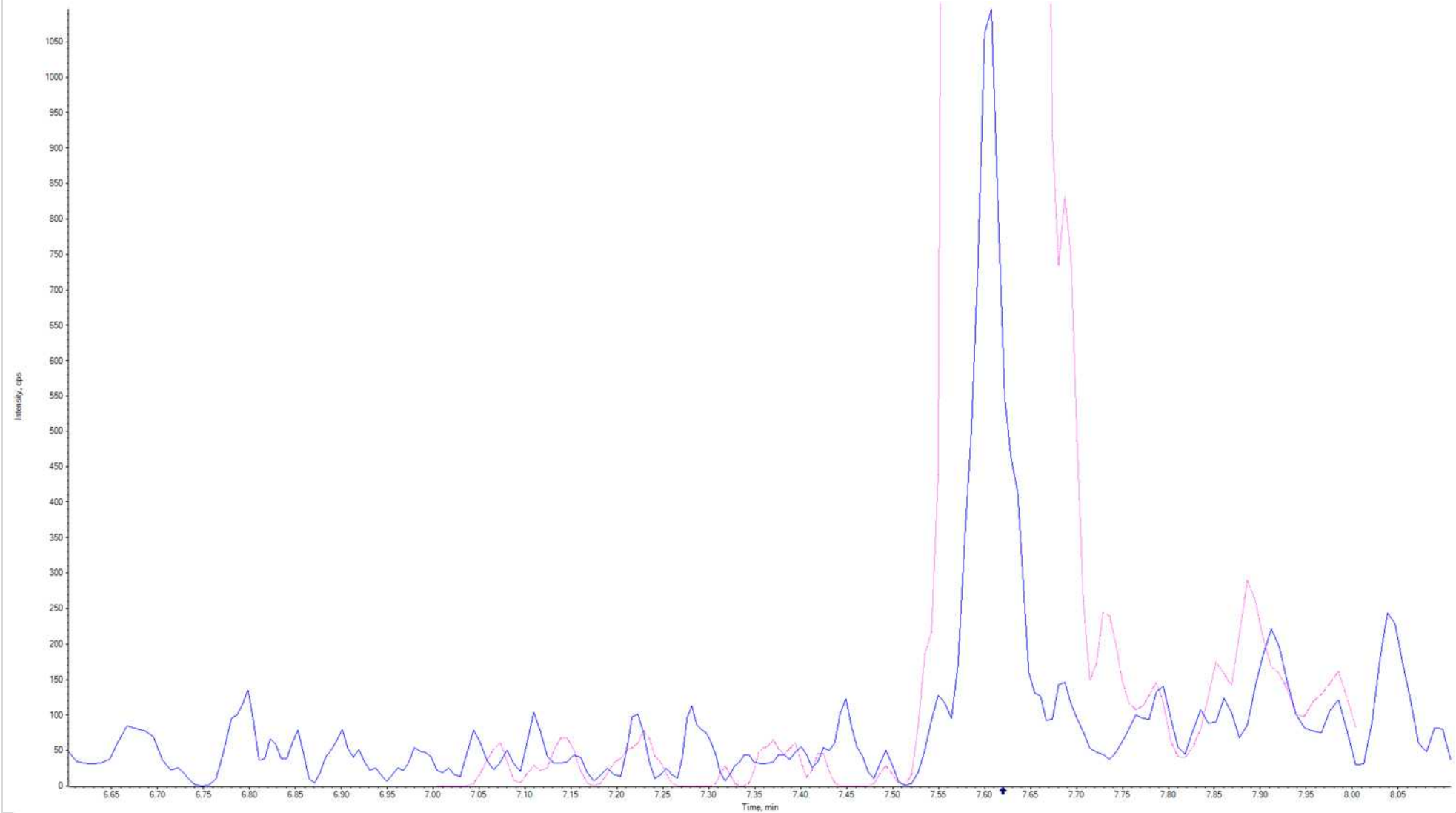
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PFPeS_2
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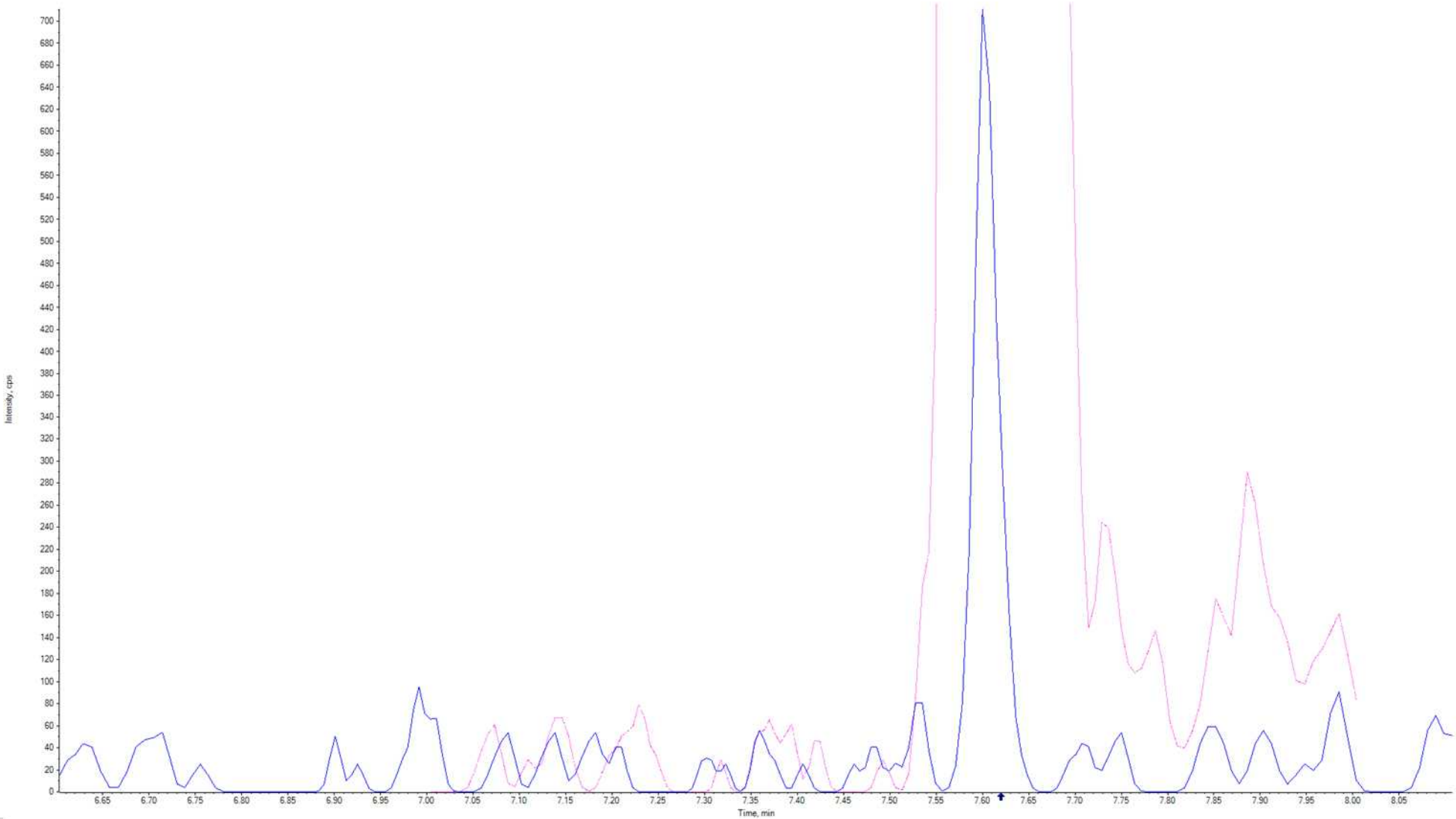
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PFHxS
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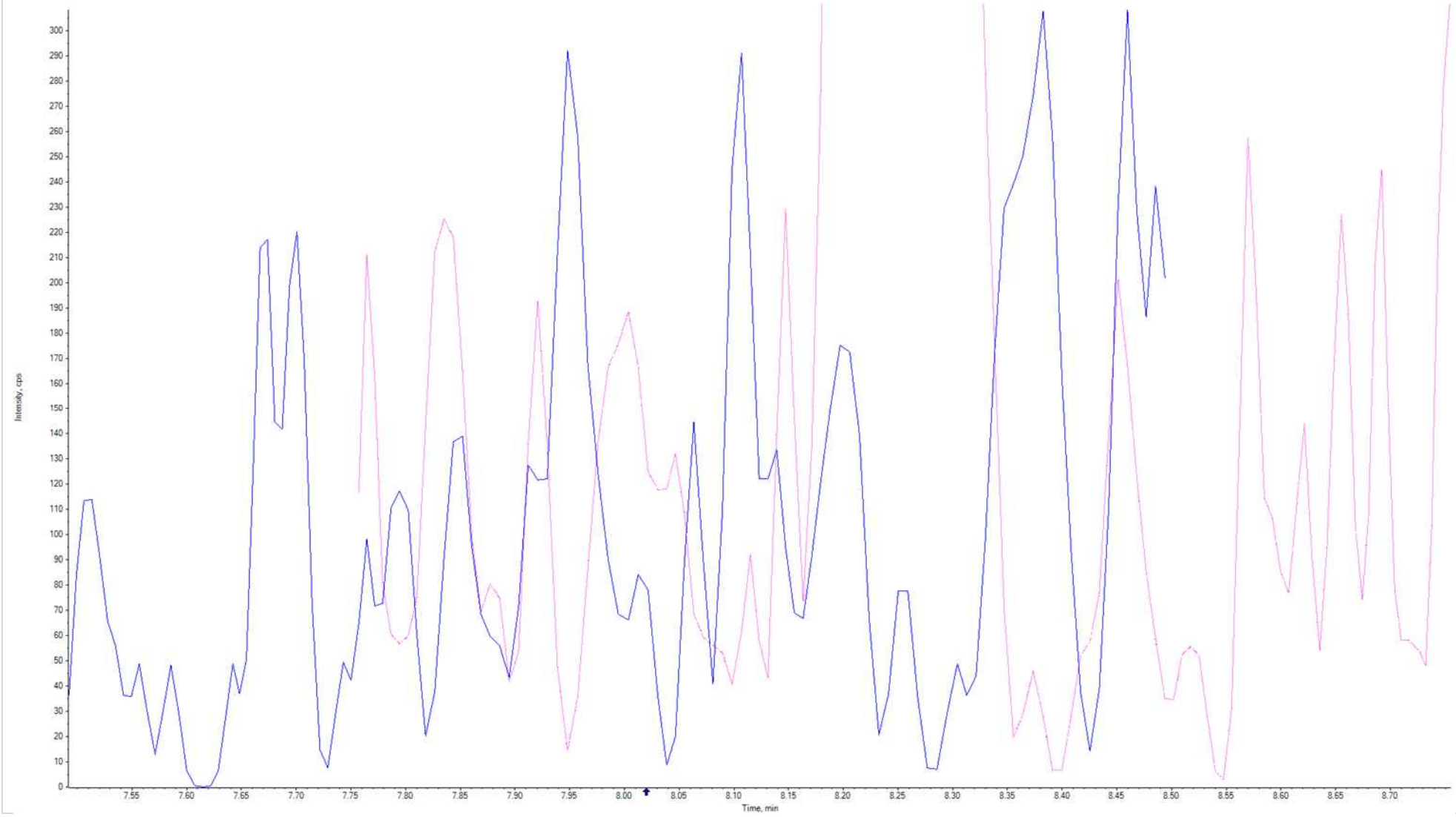
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PFHxS_2
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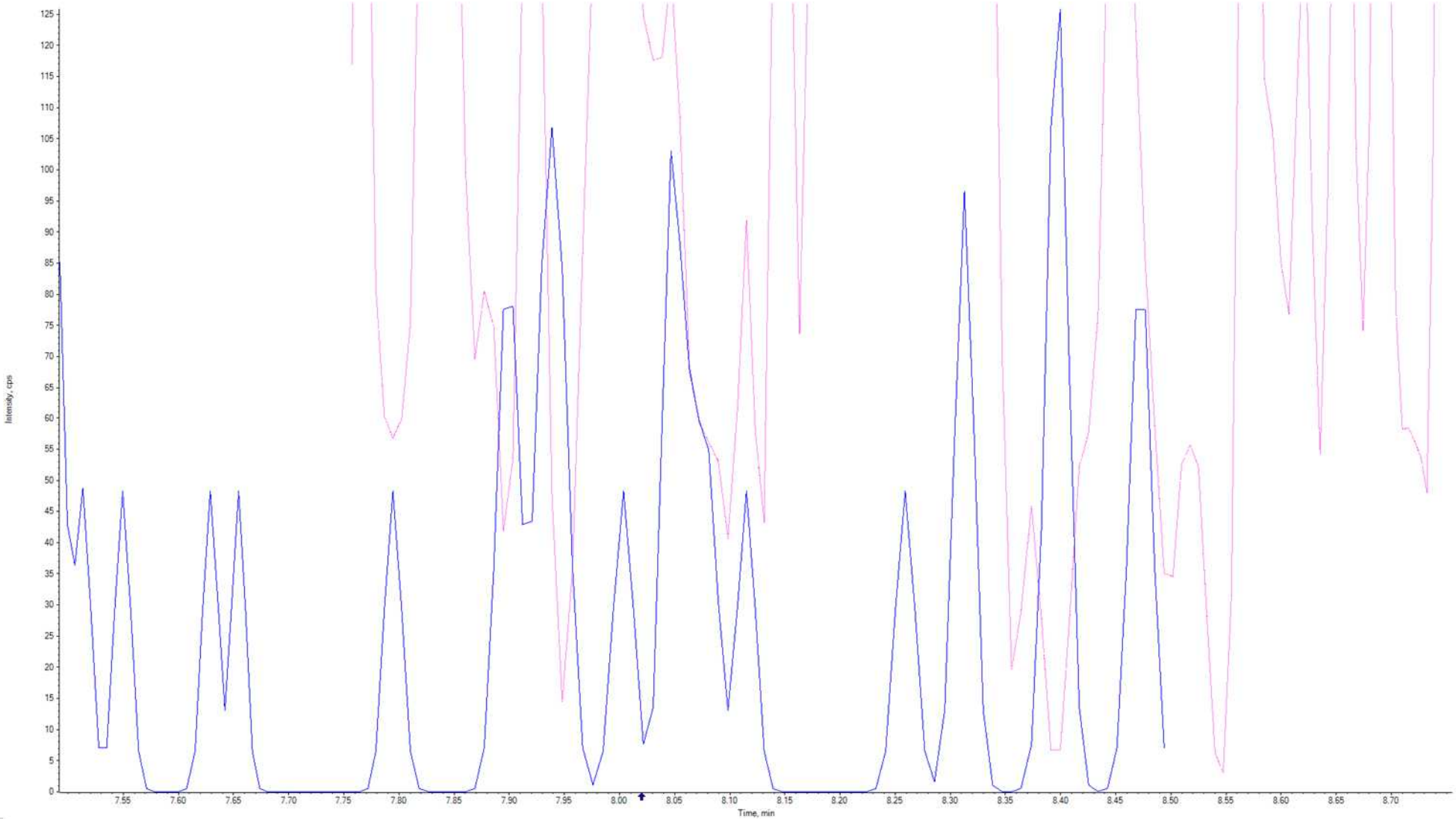
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PFHpS
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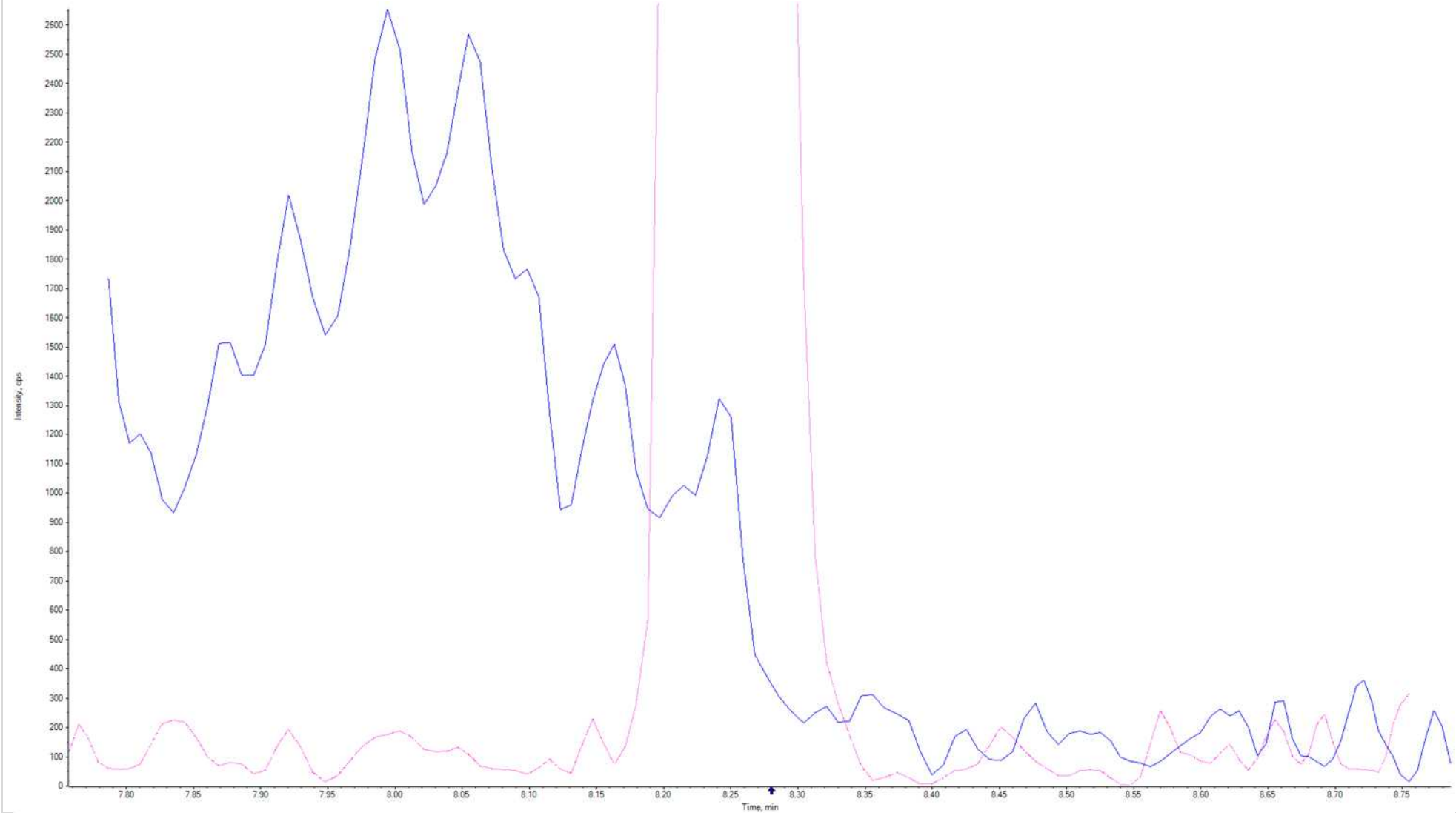
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PFHpS_2
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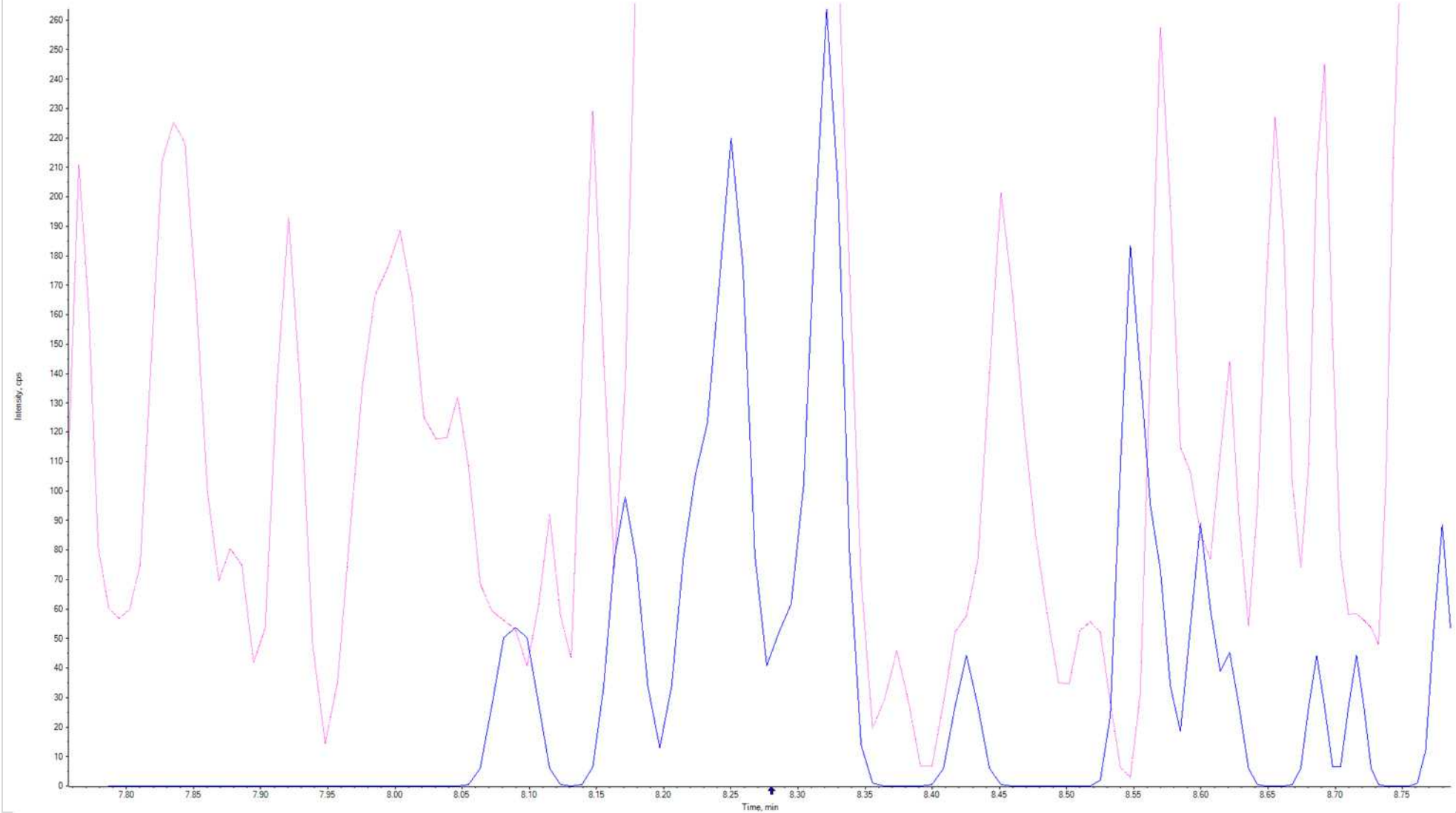


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PFOS
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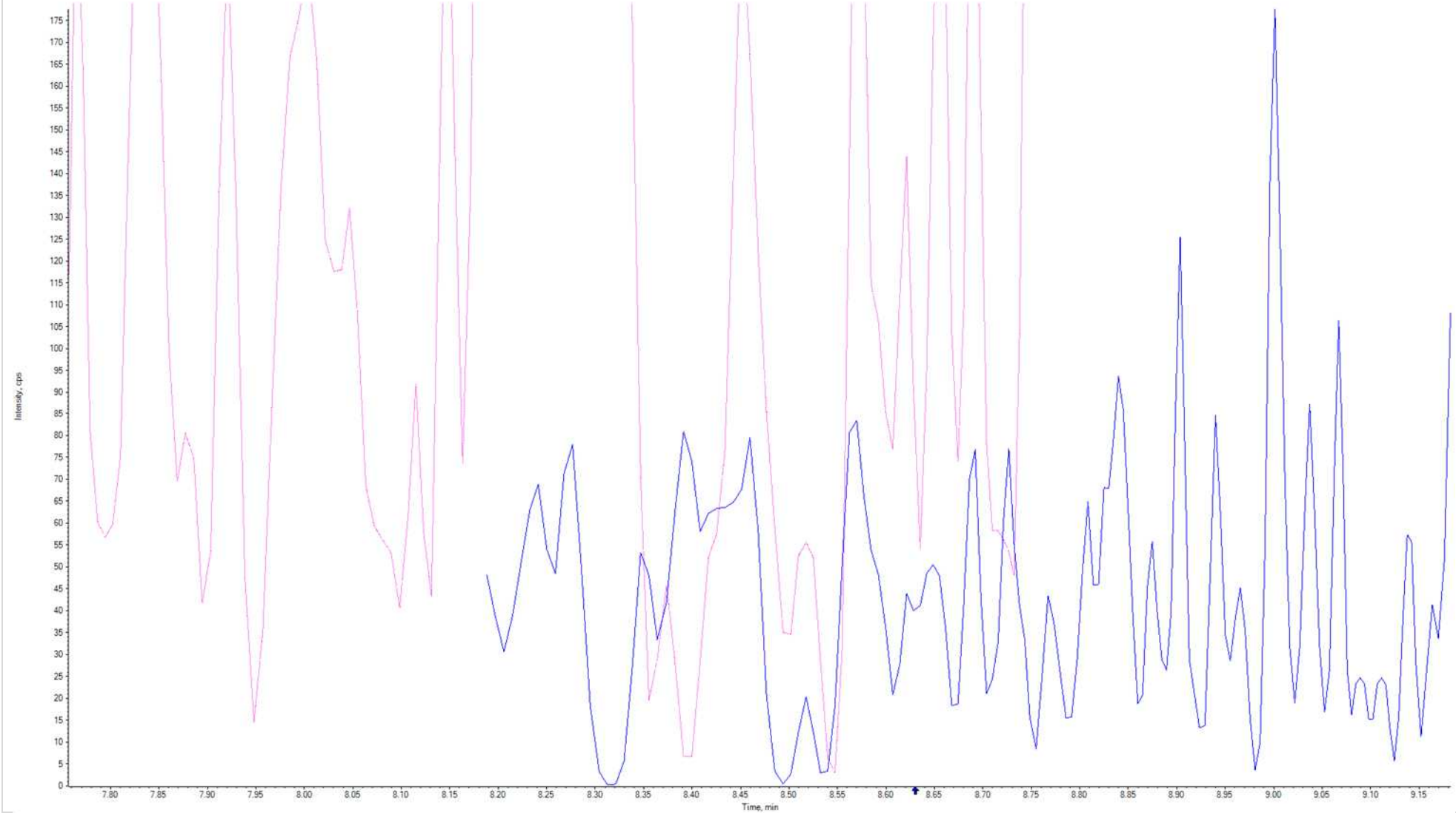


PFOS_2
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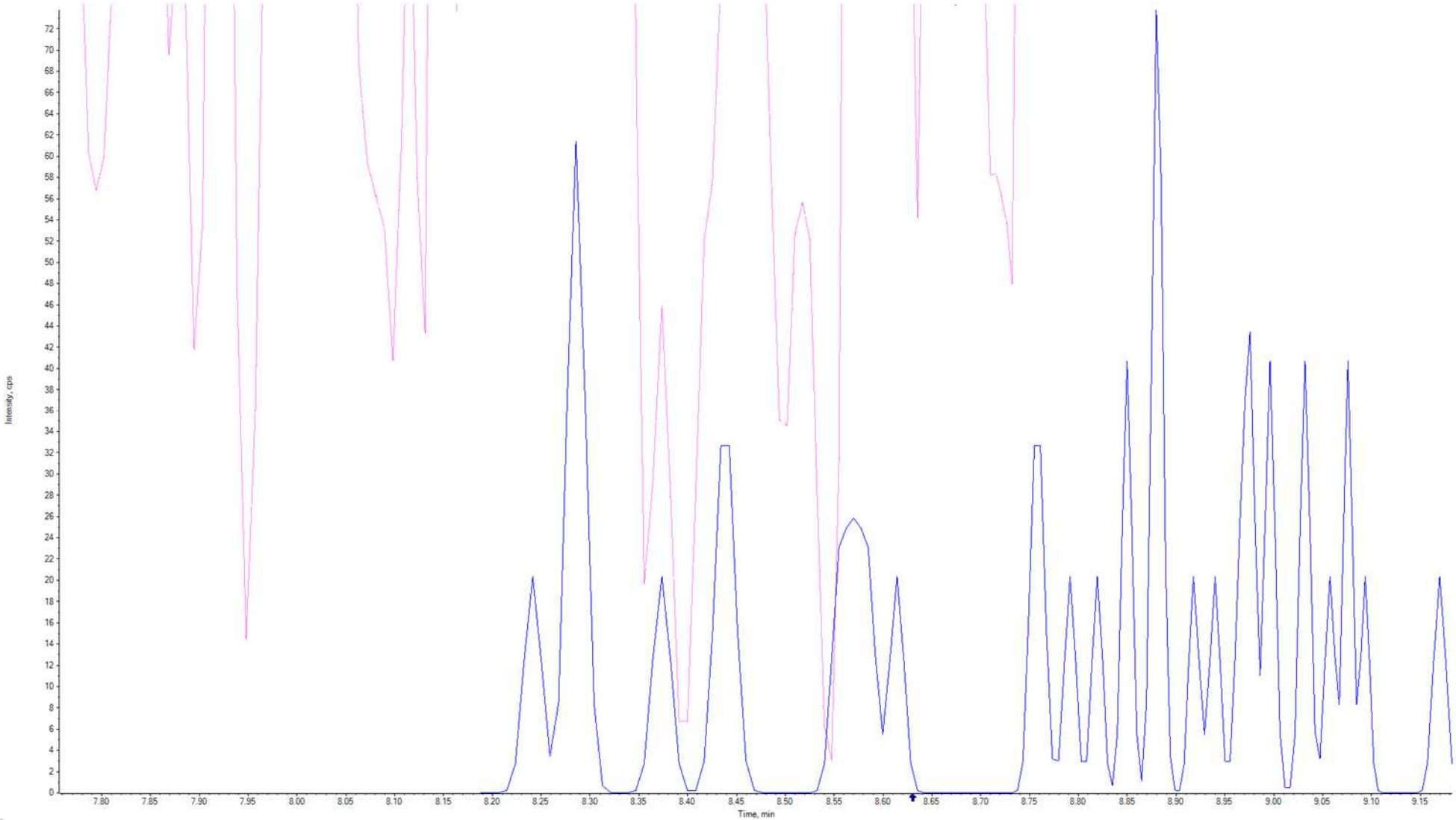
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PFNS
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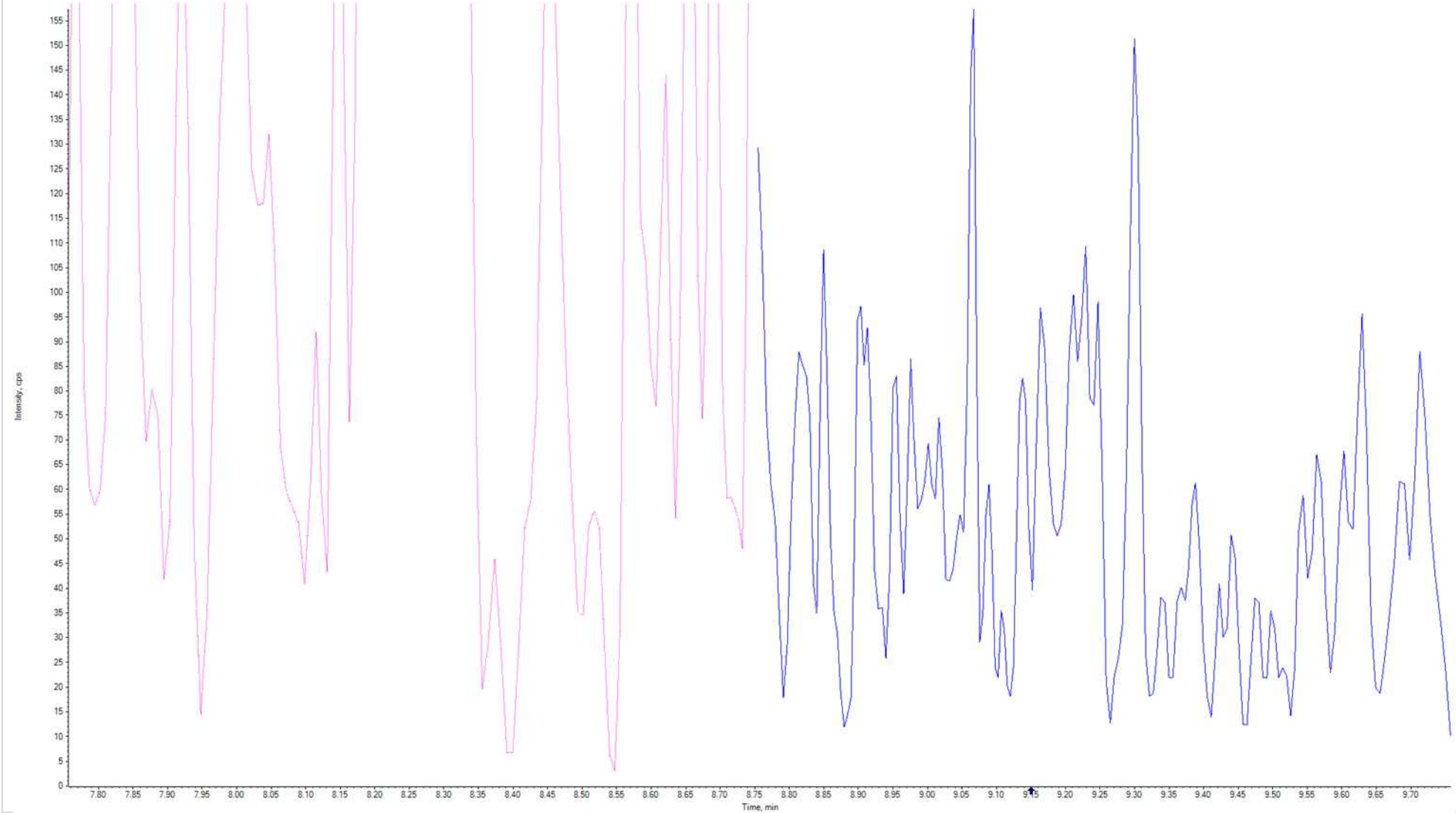
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PFNS_2
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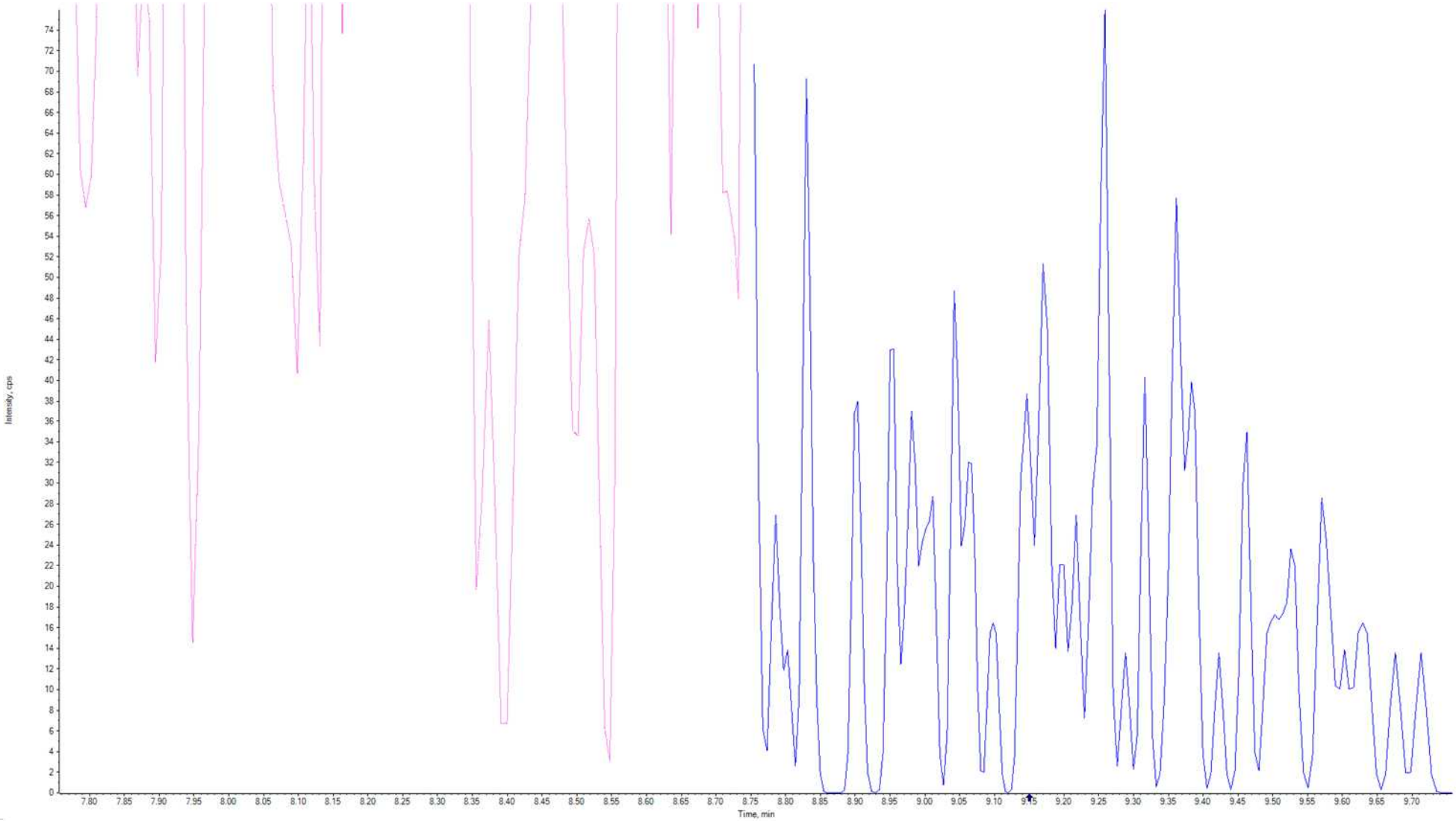
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PFDS
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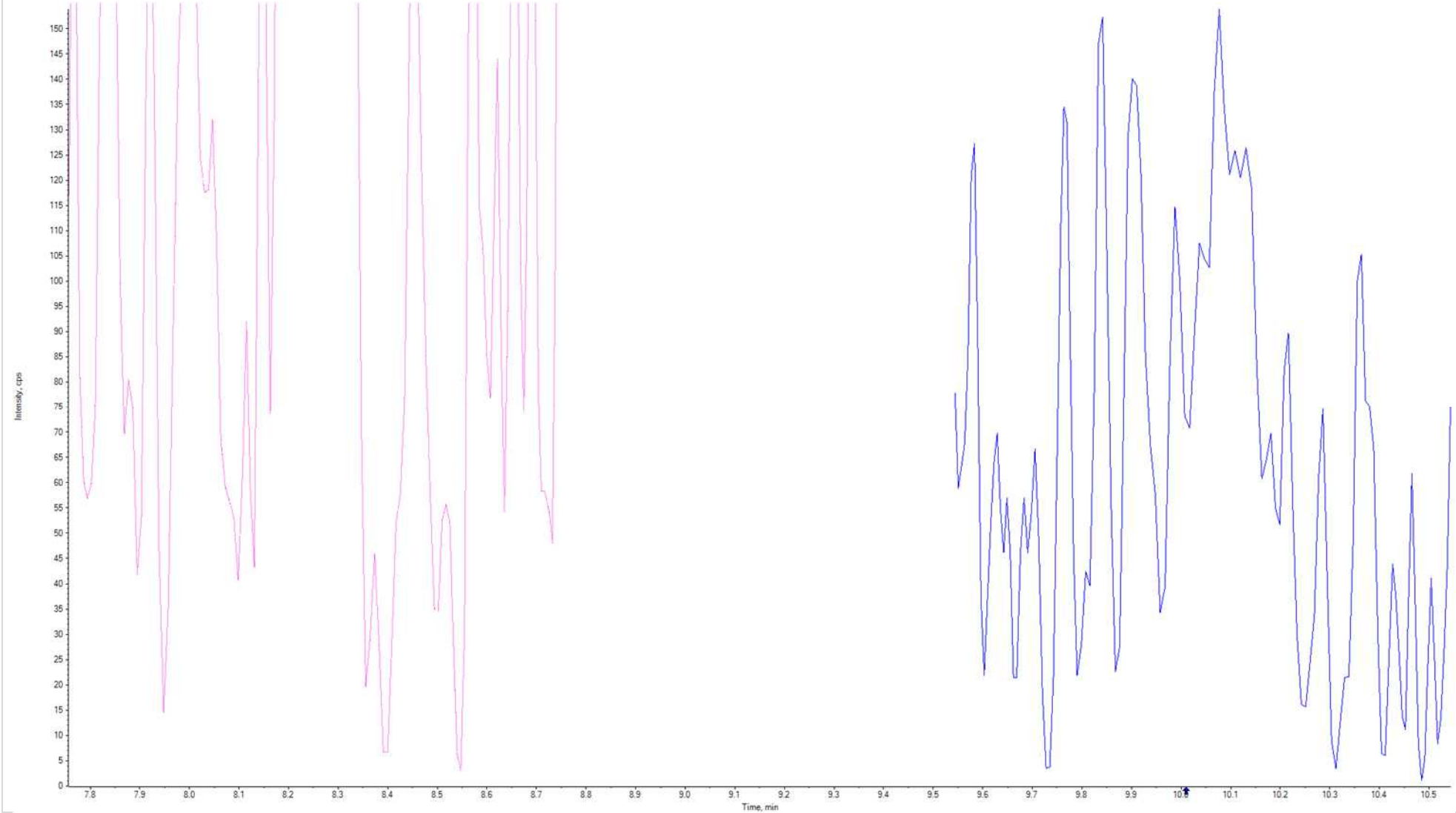
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PFDS_2
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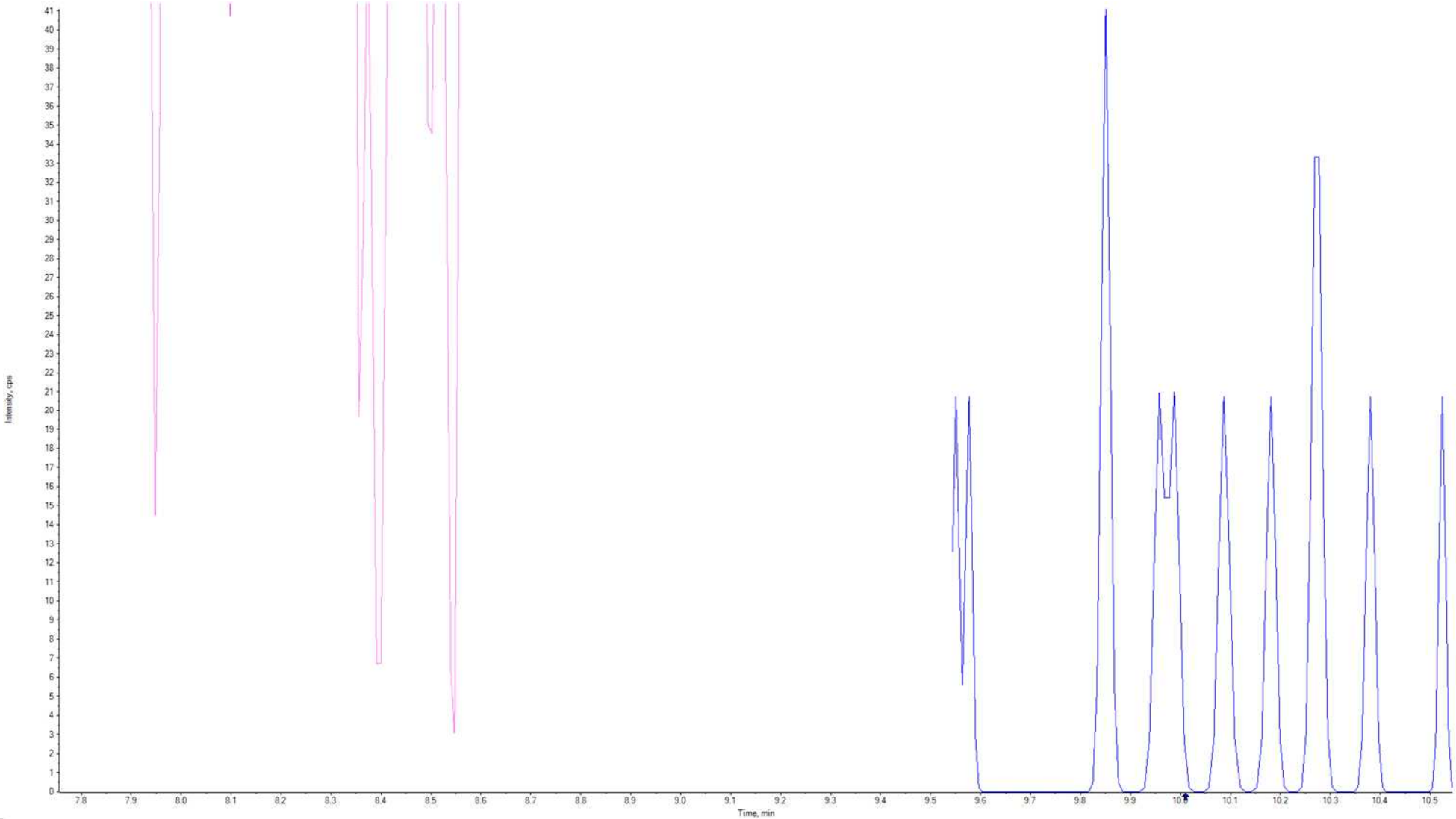
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PFDoS
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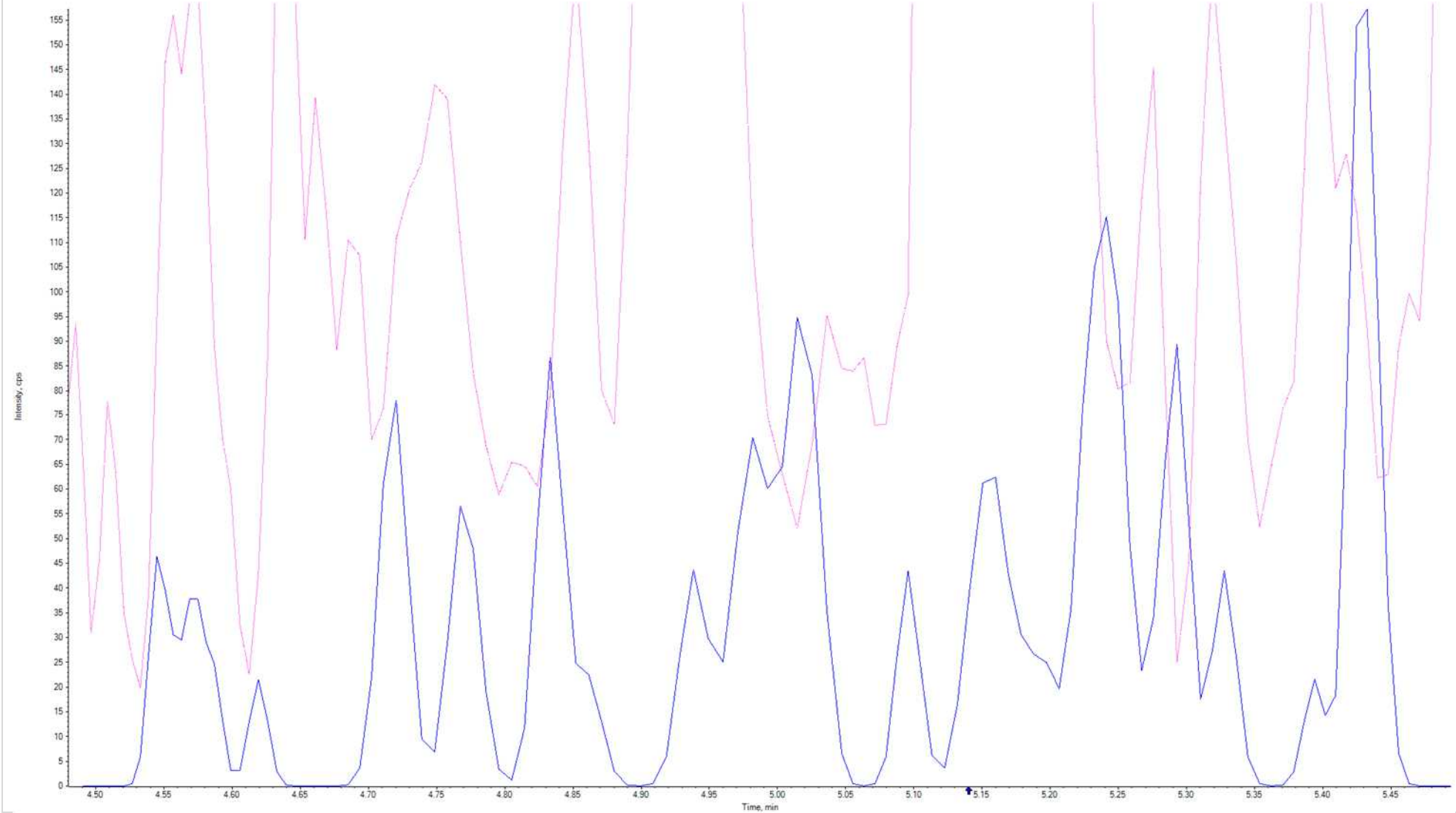
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PFDoS_2
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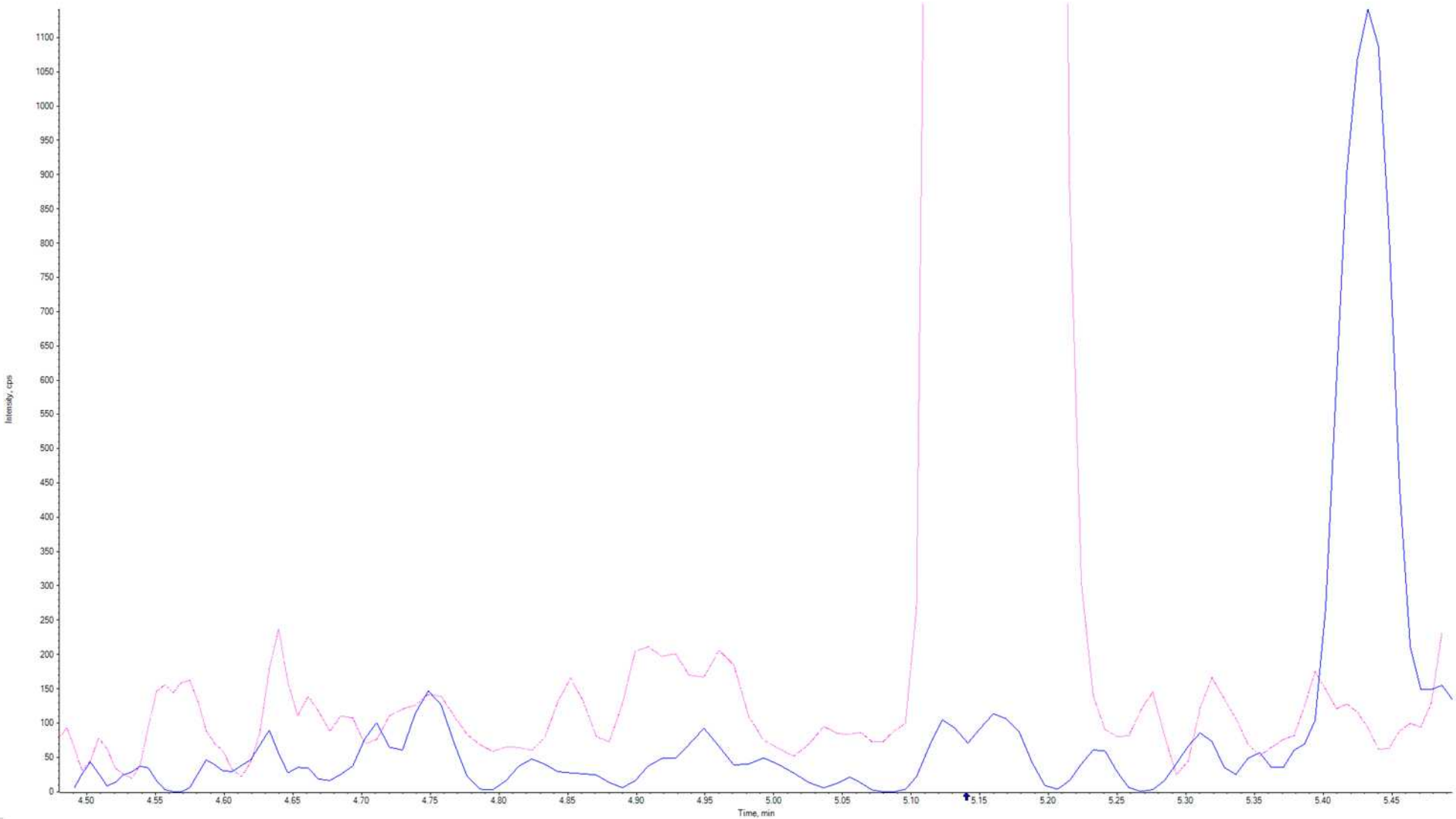


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Generated: 9/18/2024 6:35:36 AM

4:2FTS
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A

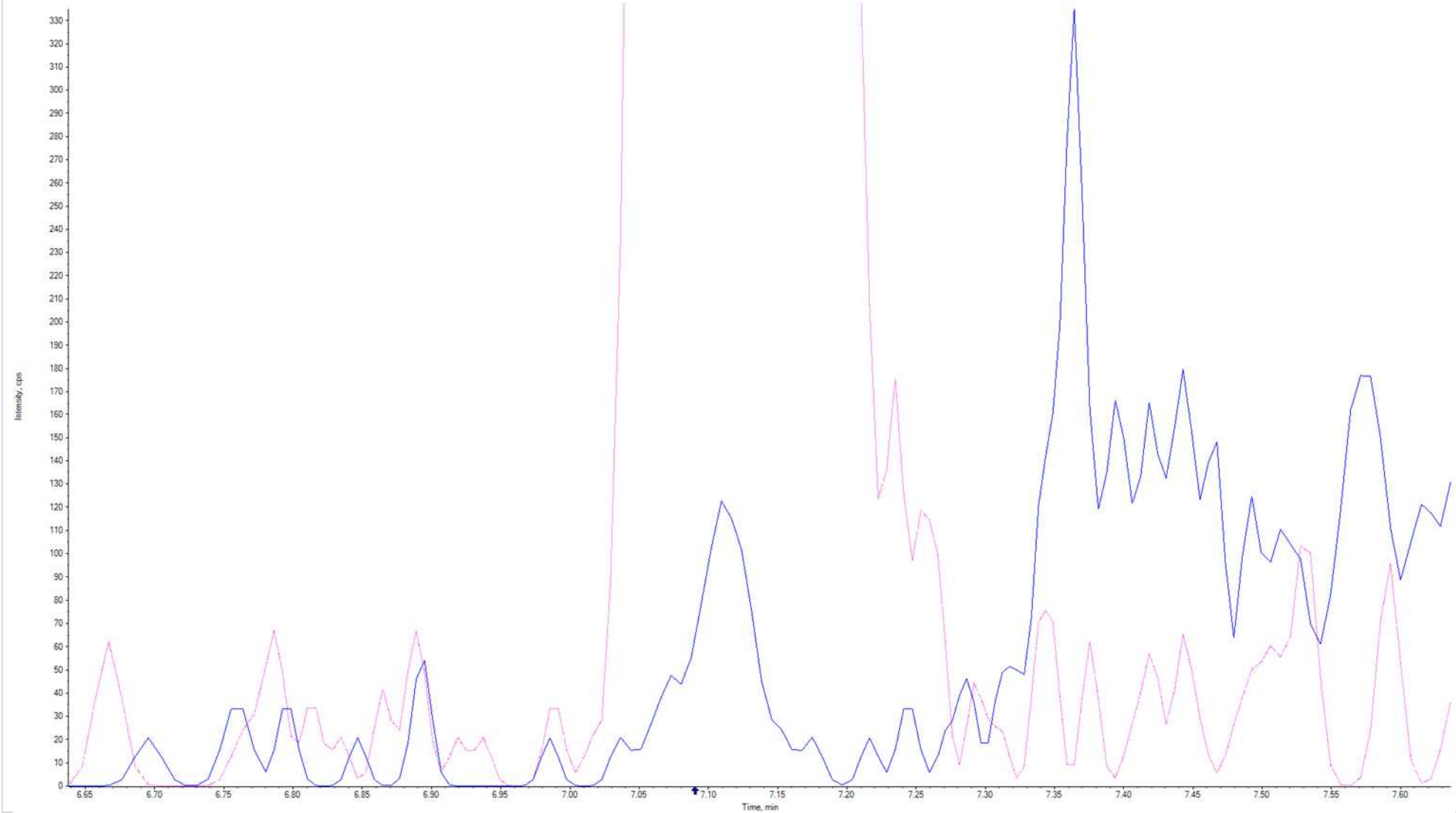


4:2FTS_2
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



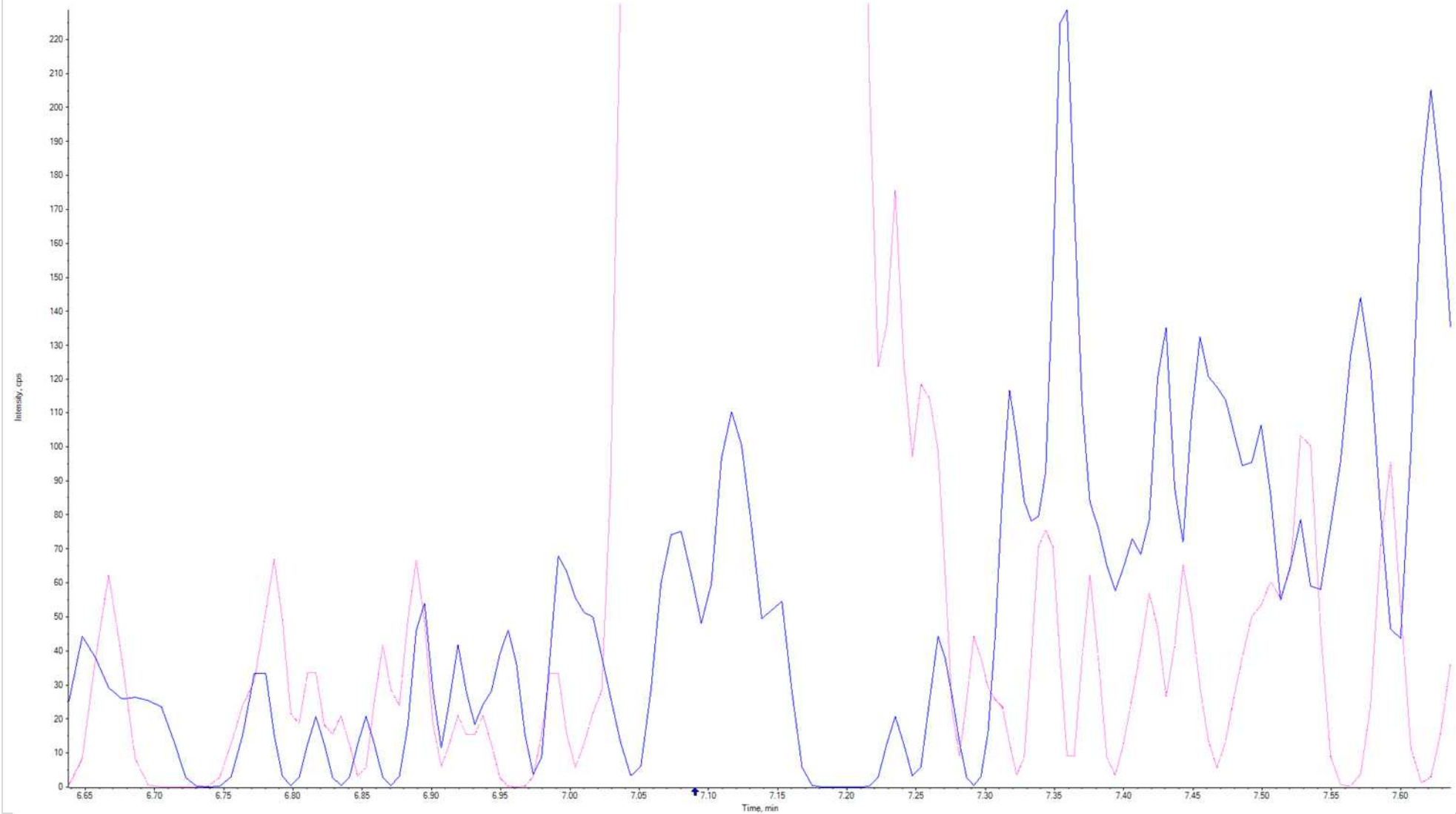
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Last Altered: 9/18/2024 12:41:54 PM
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6:2FTS
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



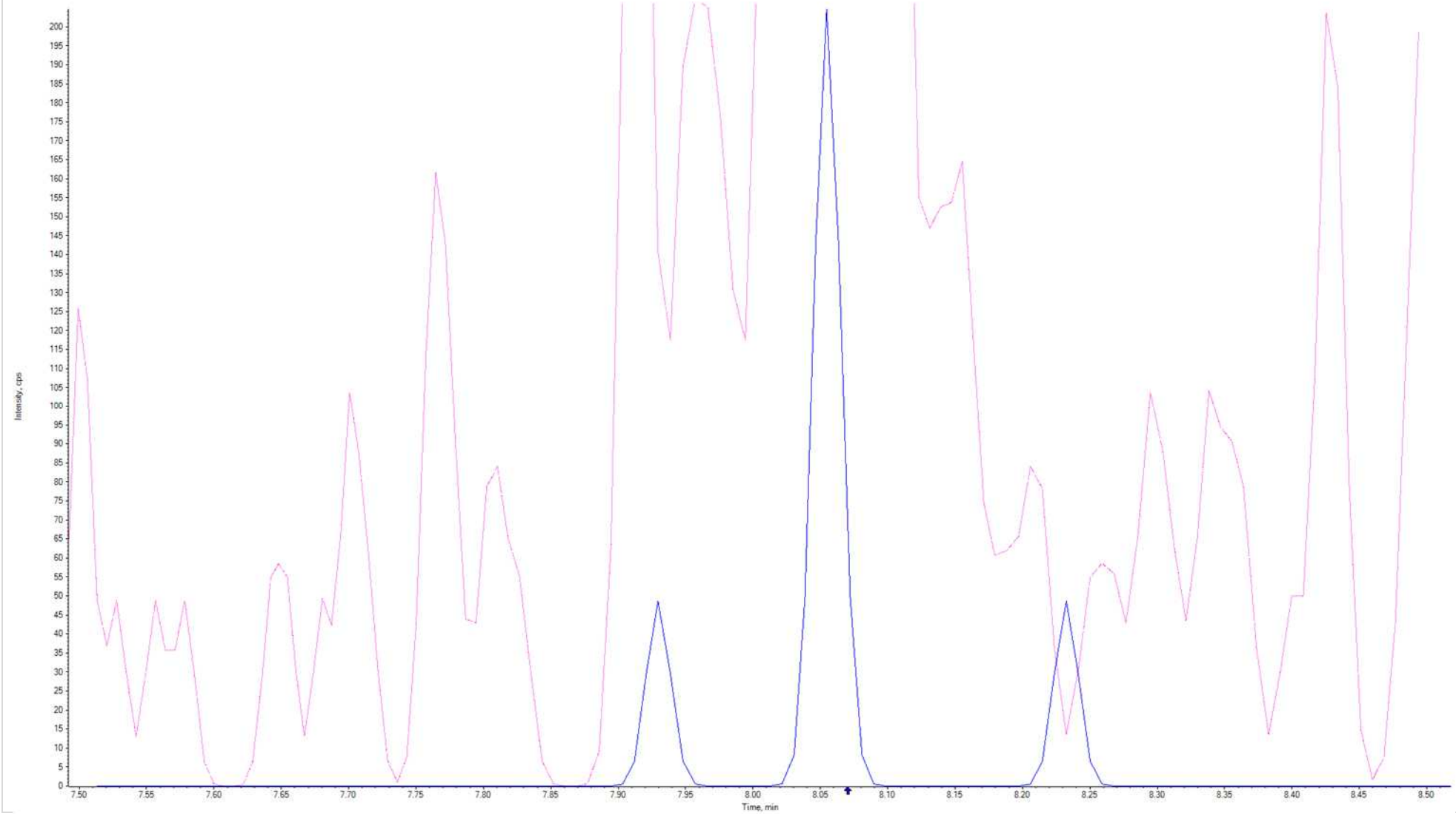
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6:2FTS_2
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



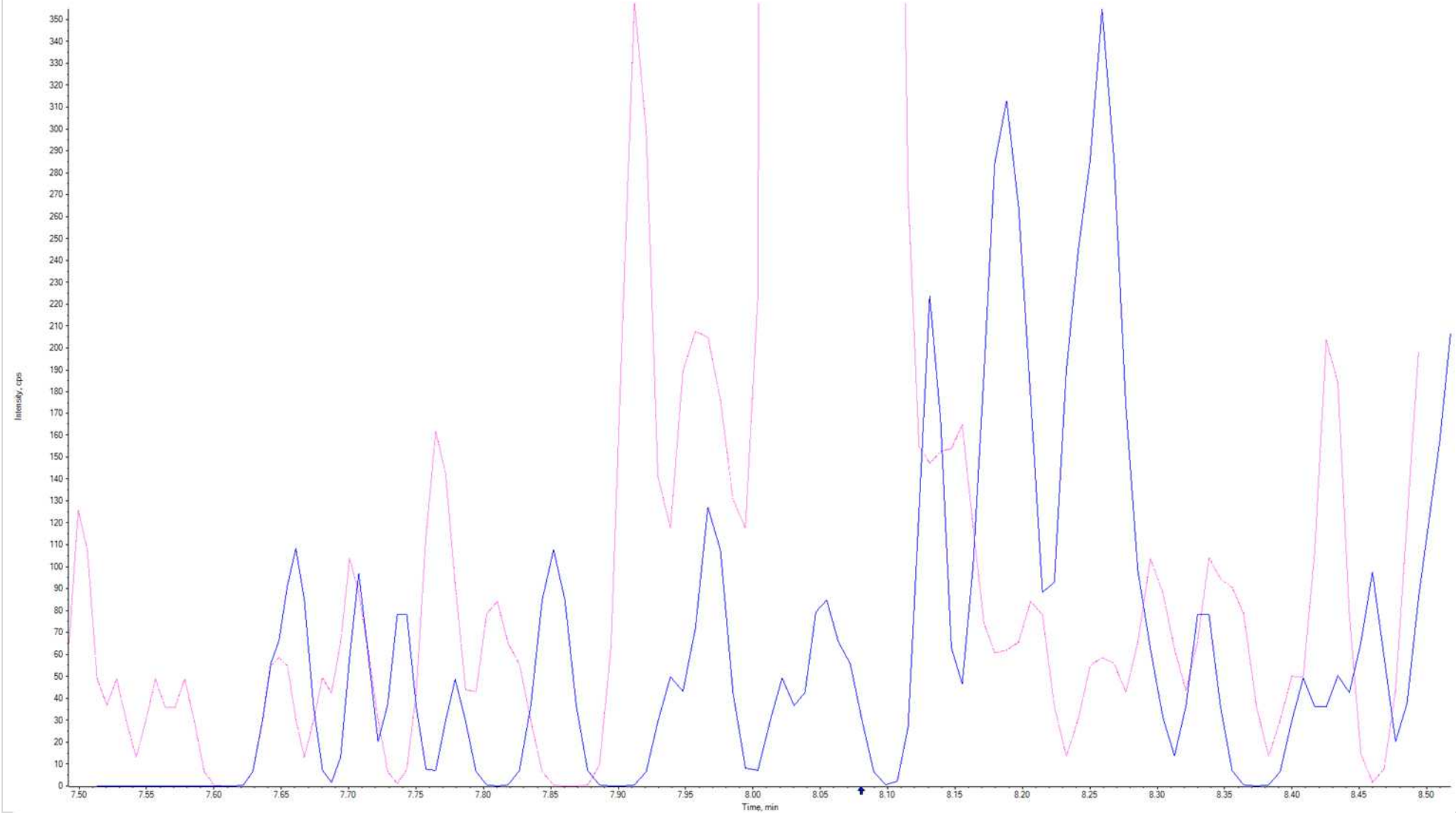
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8:2FTS
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



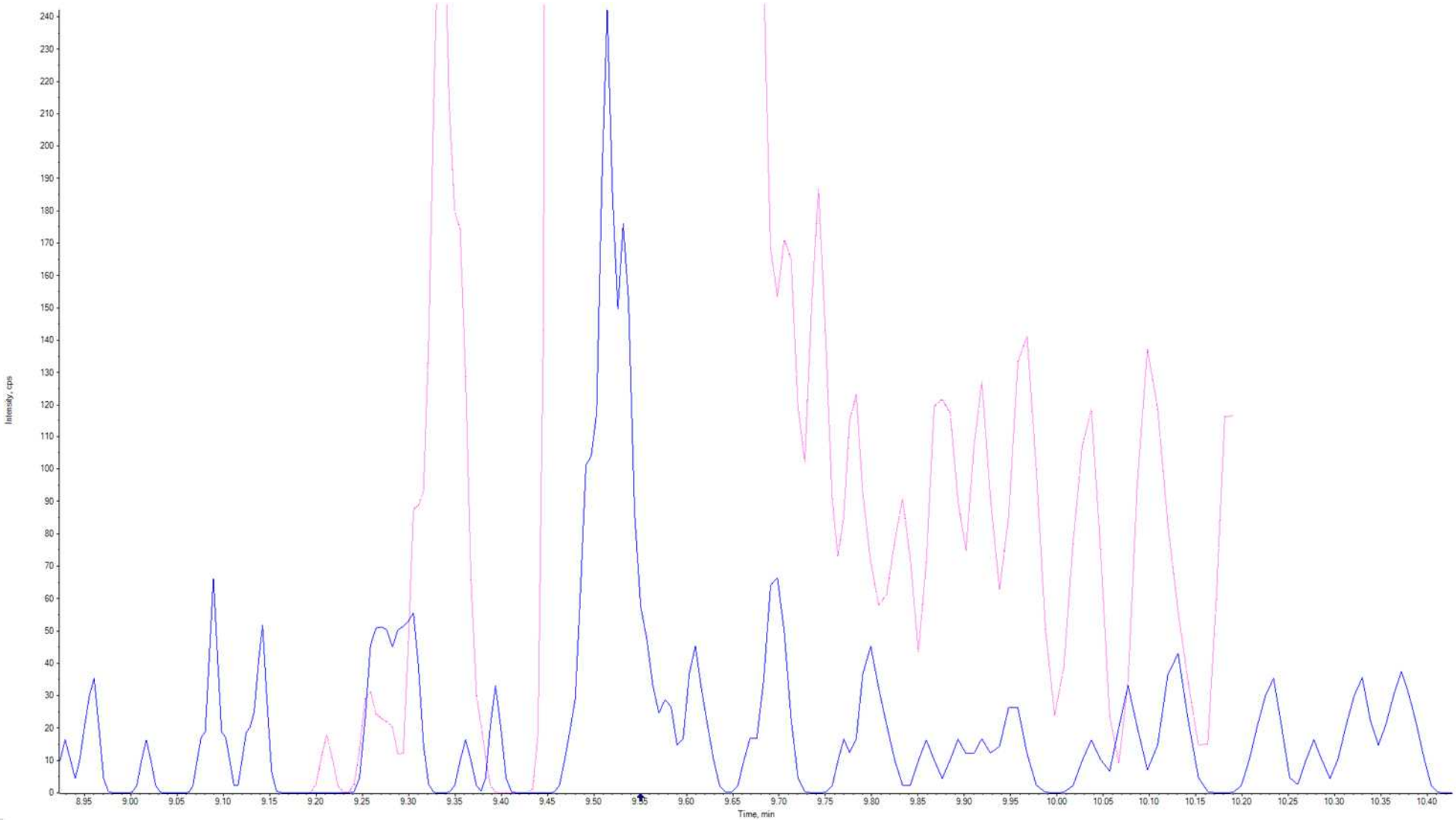
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8:2FTS_2
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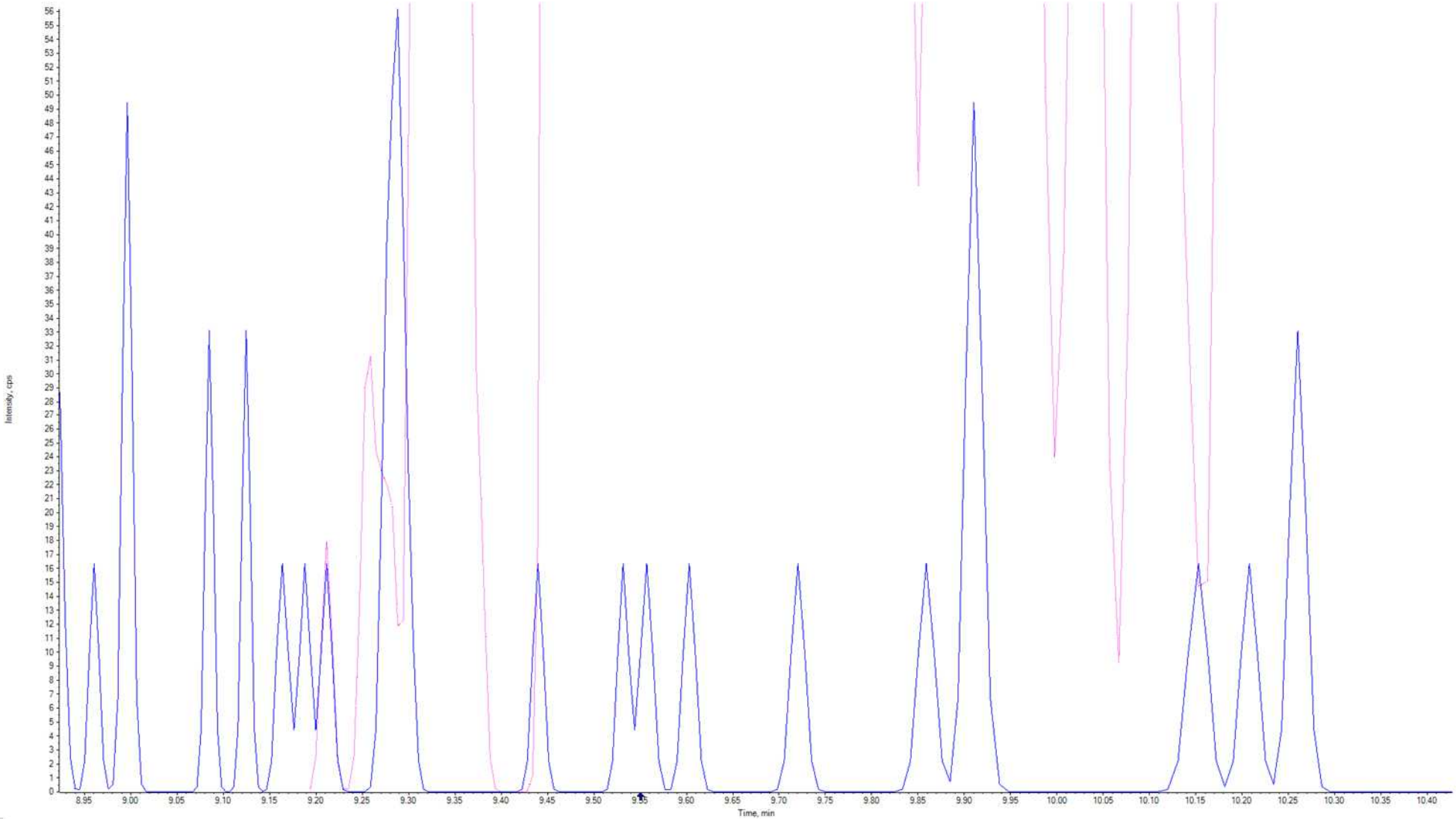
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PFOSA
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



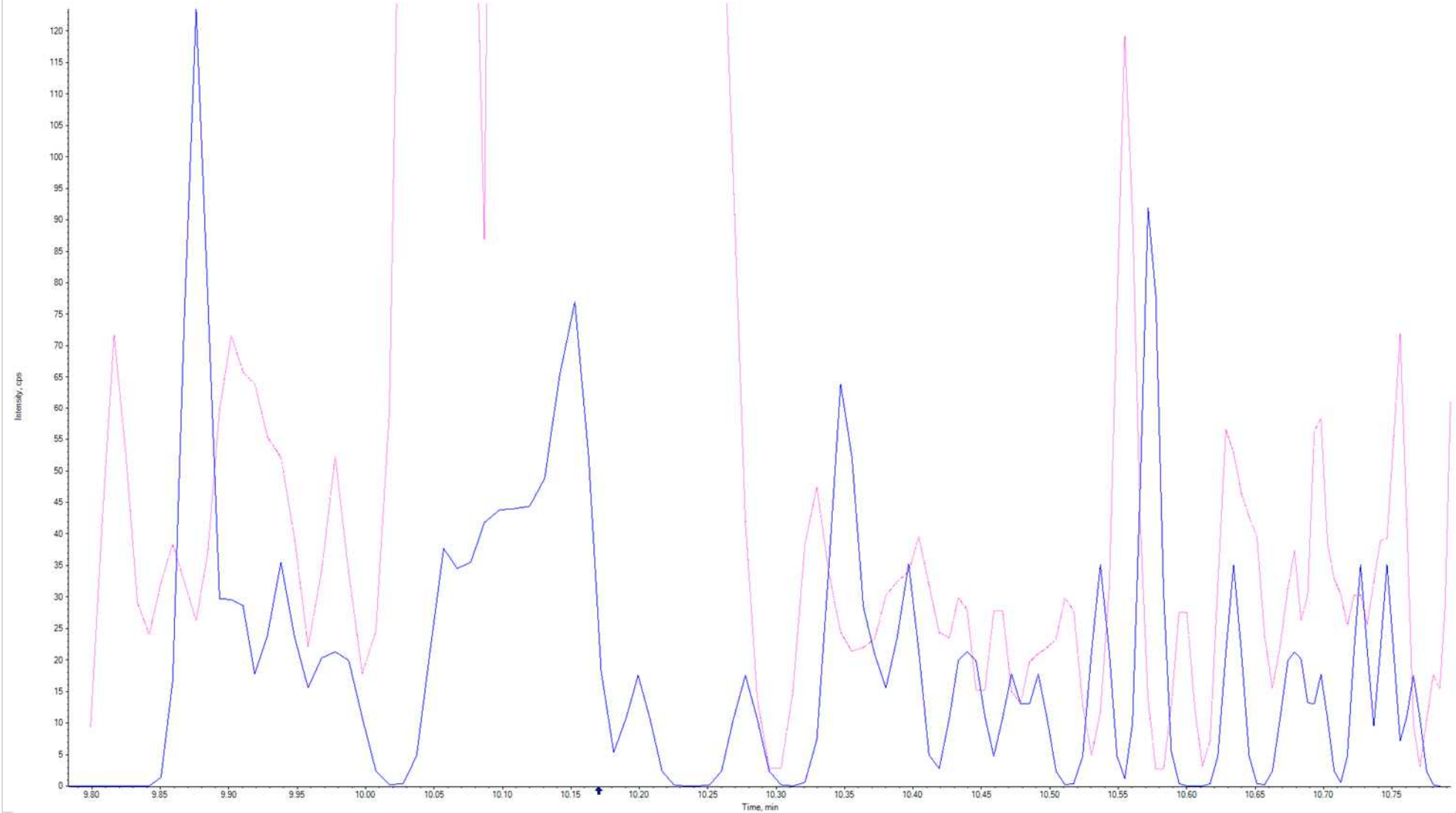
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PFOSA_2
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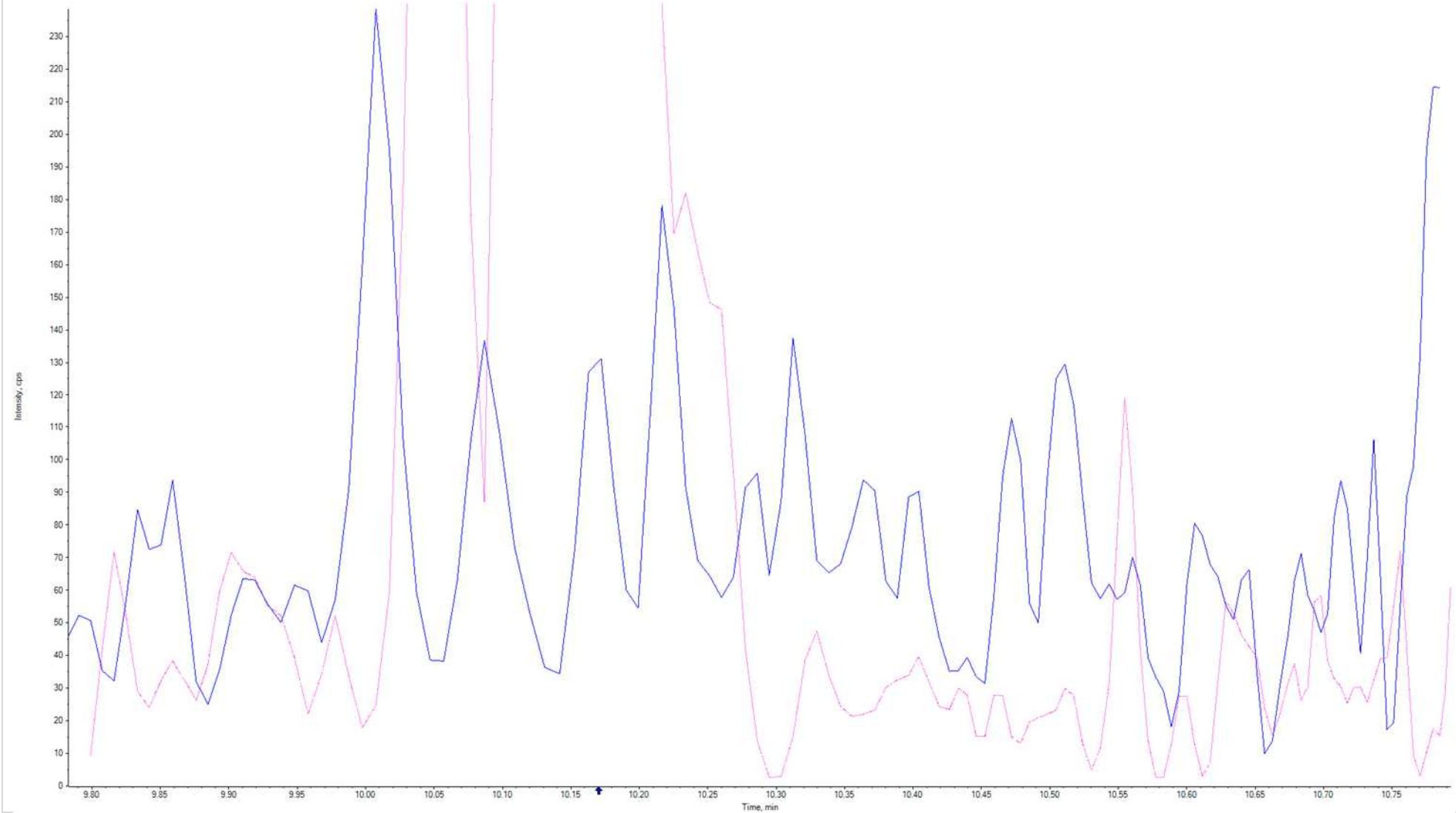
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NMeFOSA
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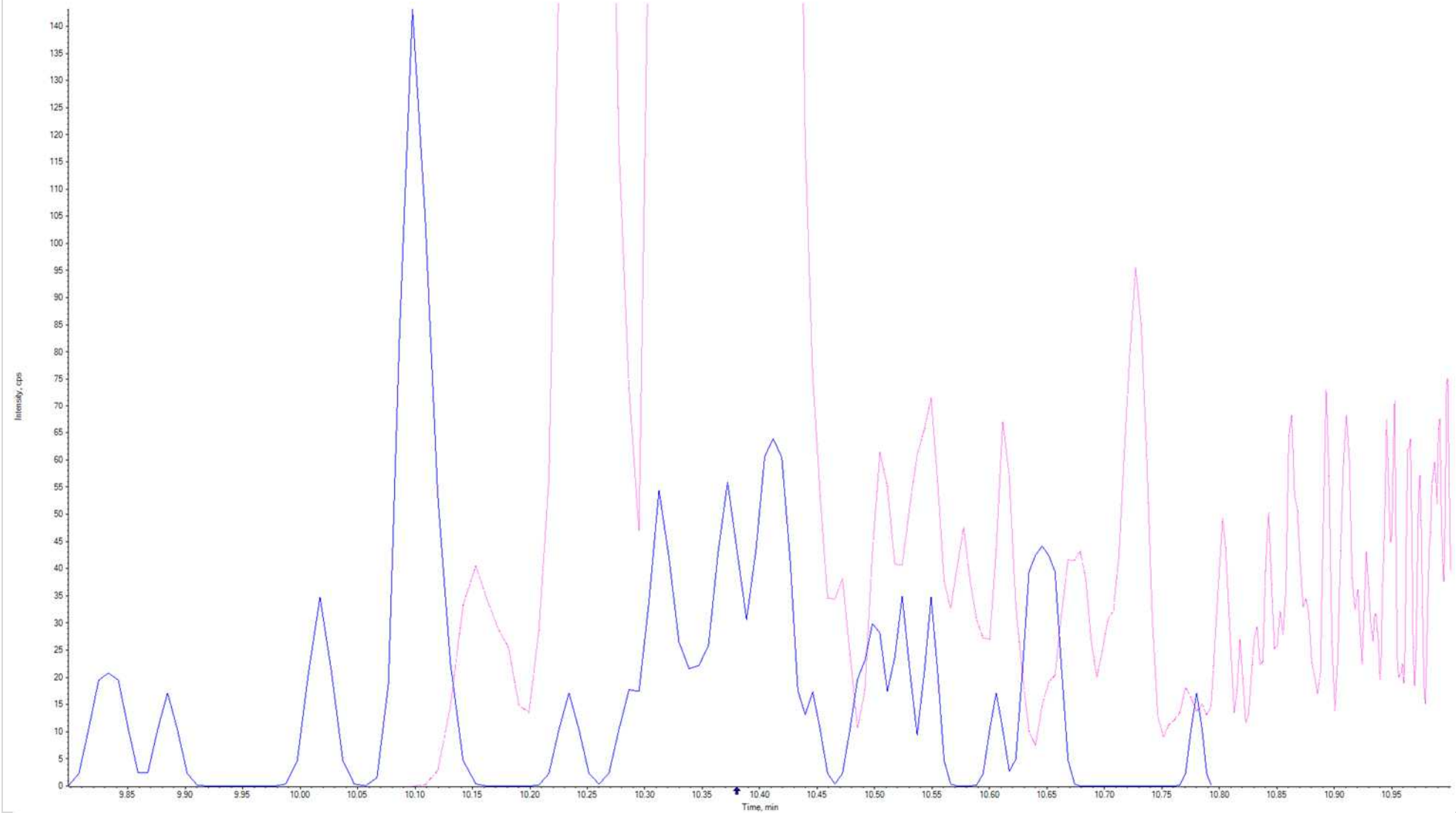
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NMeFOSA_2
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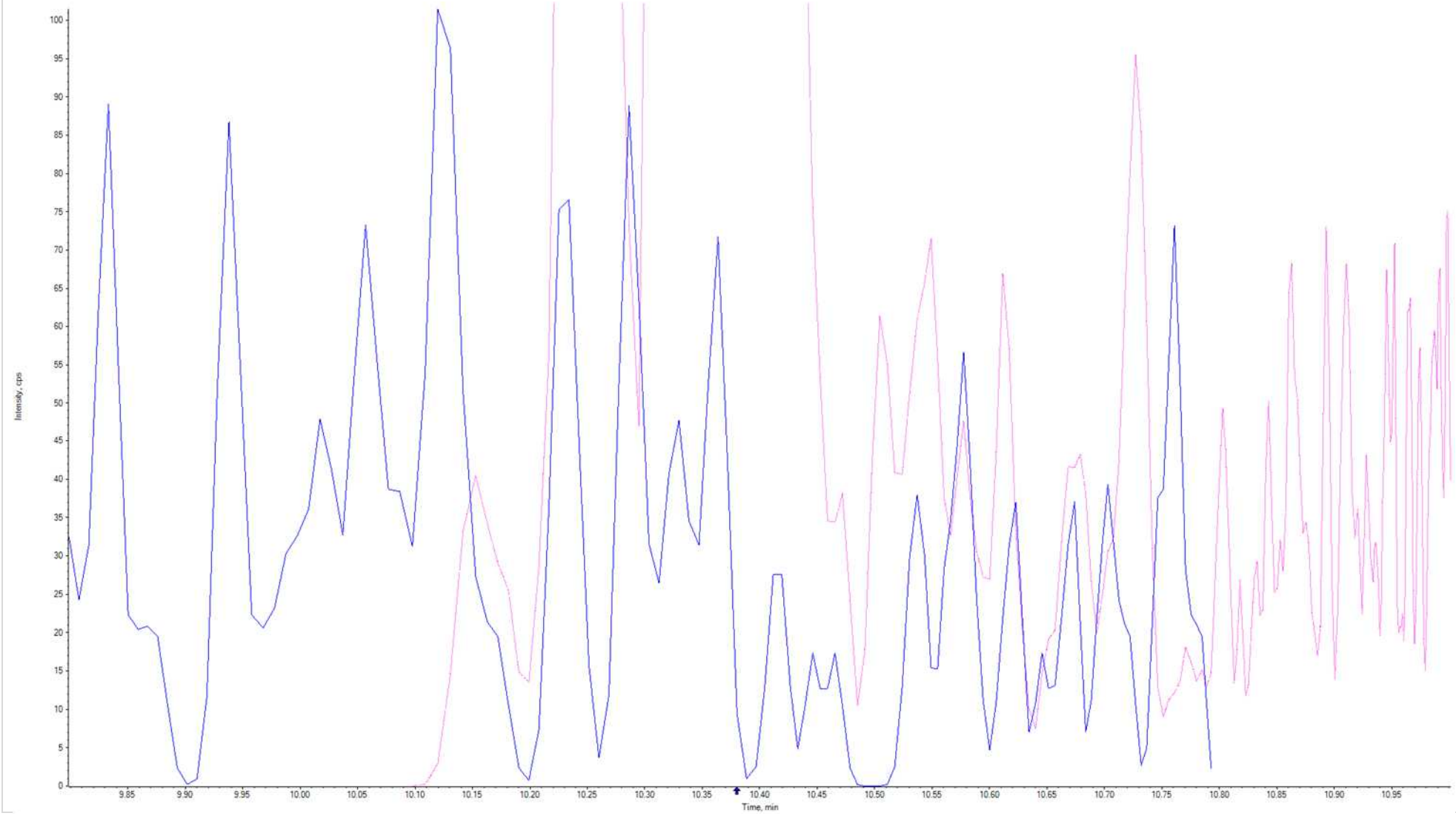
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NEtFOSA
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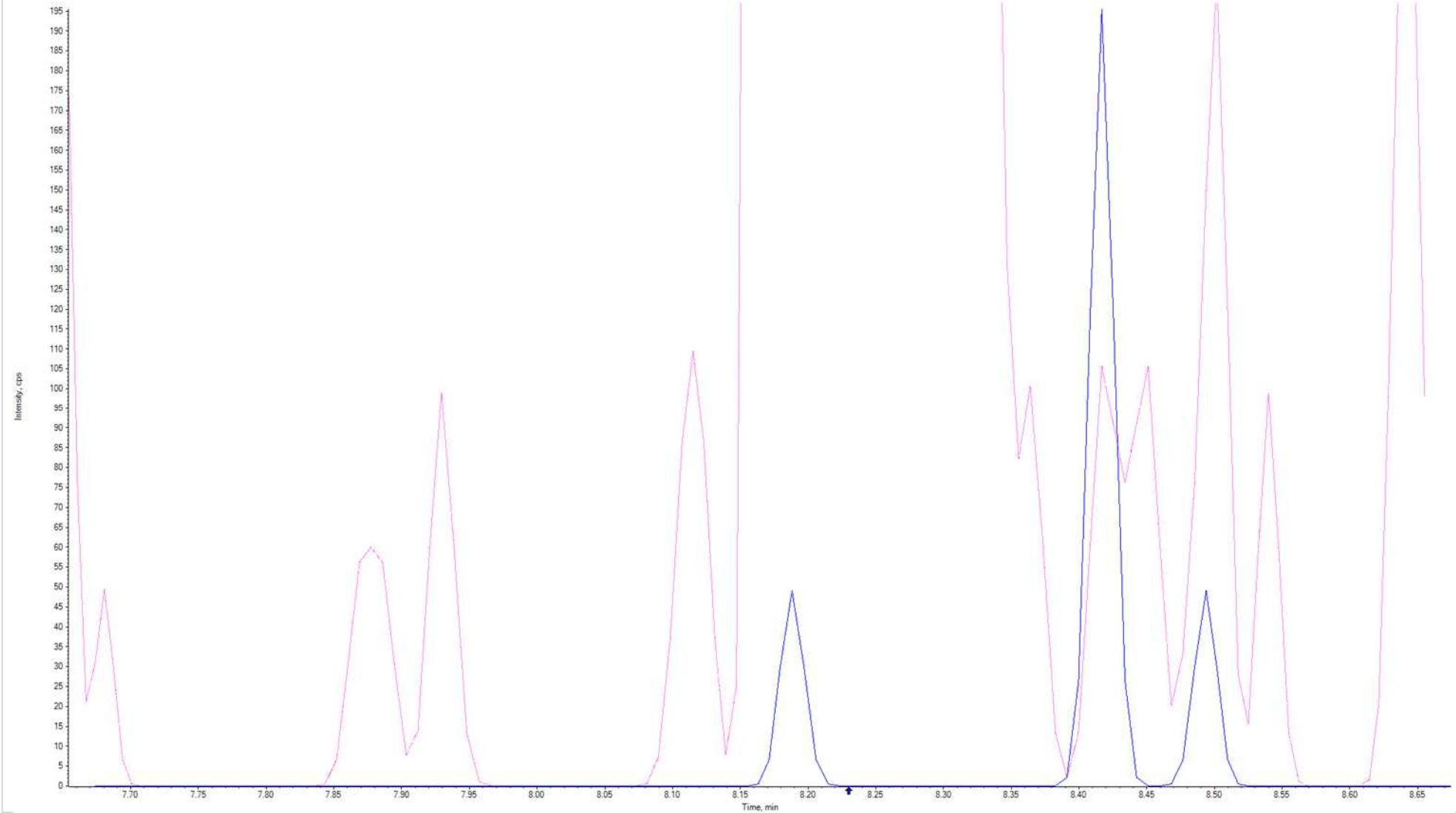
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NEtFOSA_2
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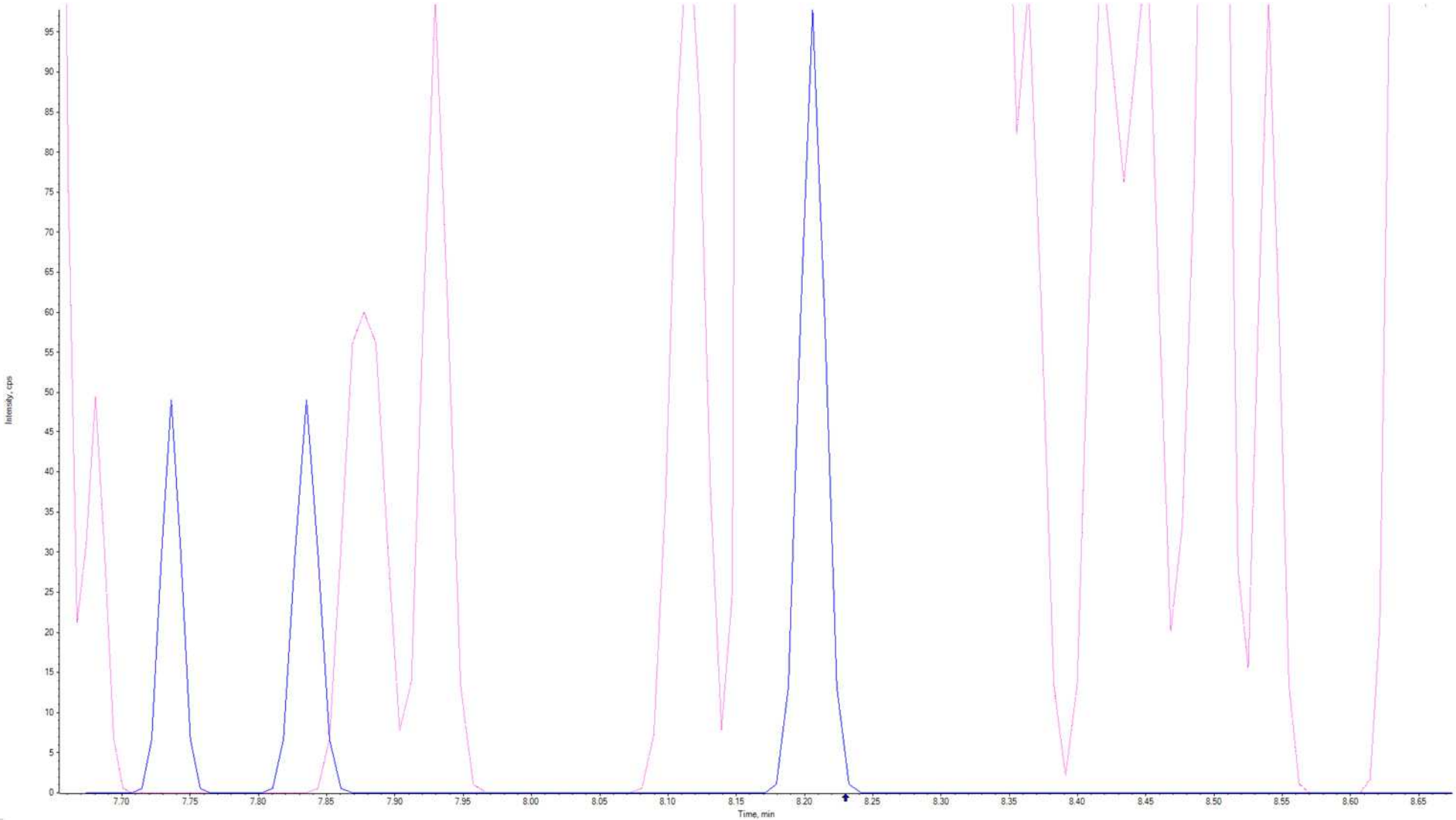
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NMeFOSAA
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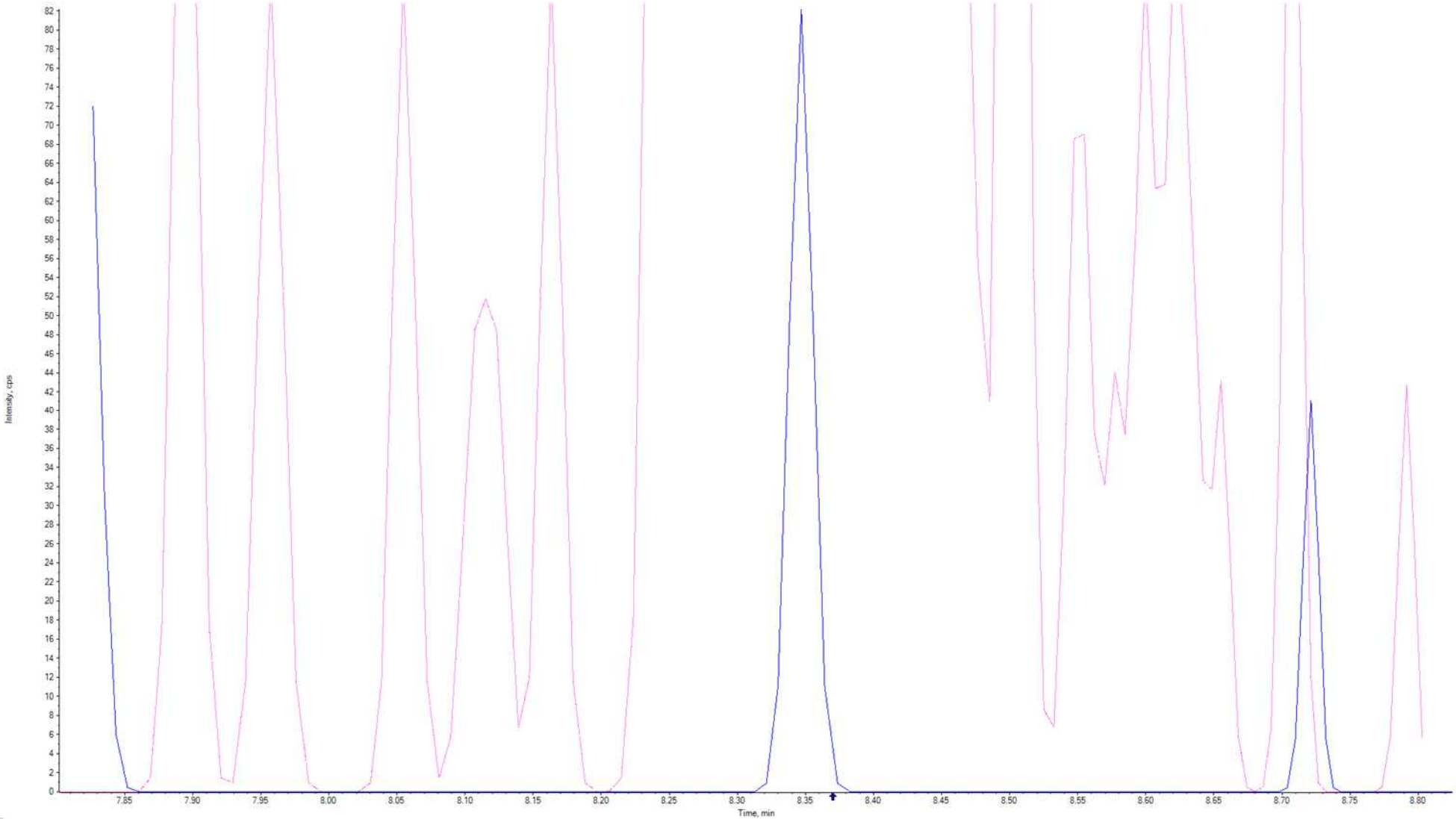
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NMeFOSAA_2
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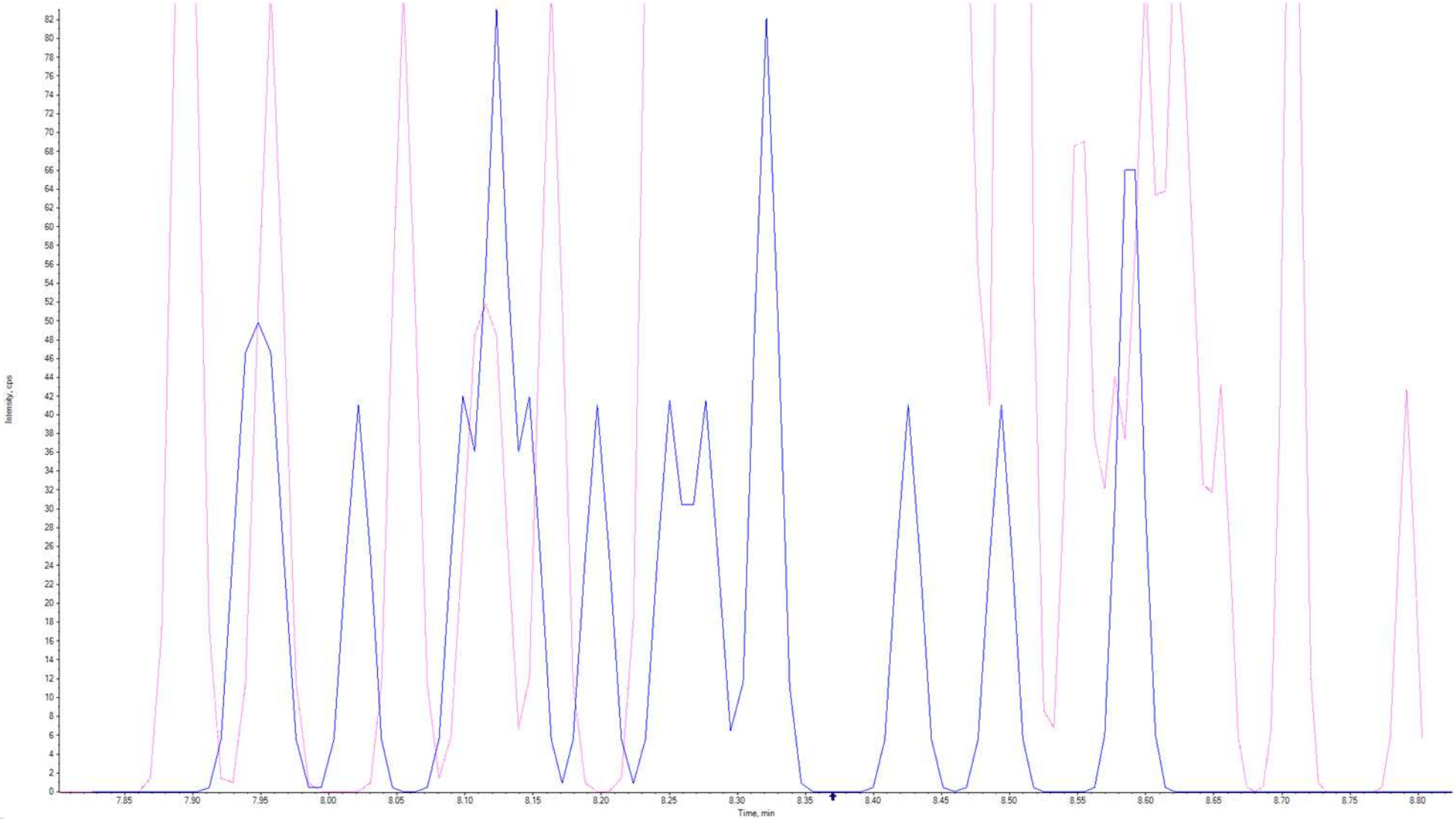
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NEtFOSAA
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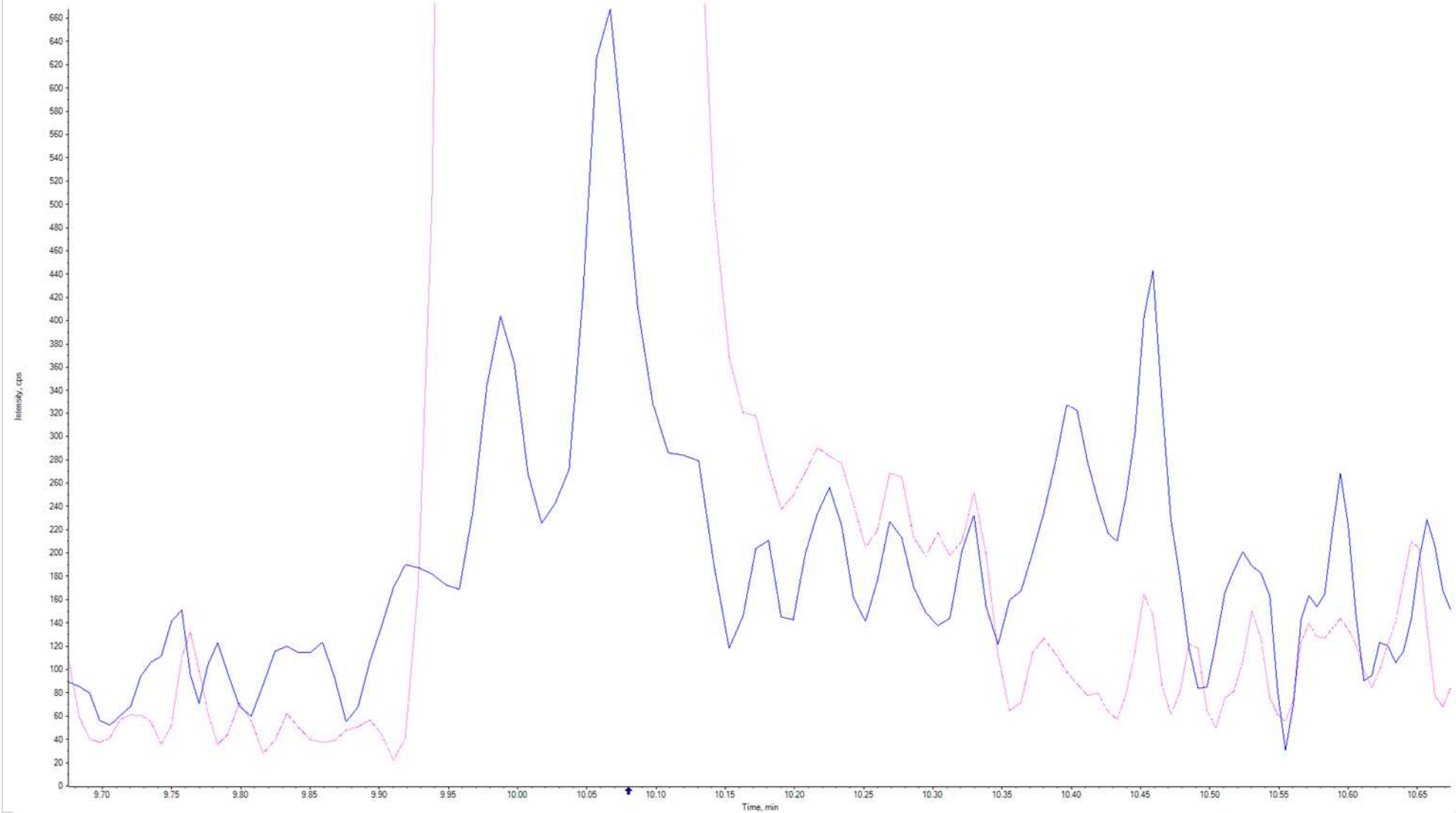
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NEtFOSAA_2
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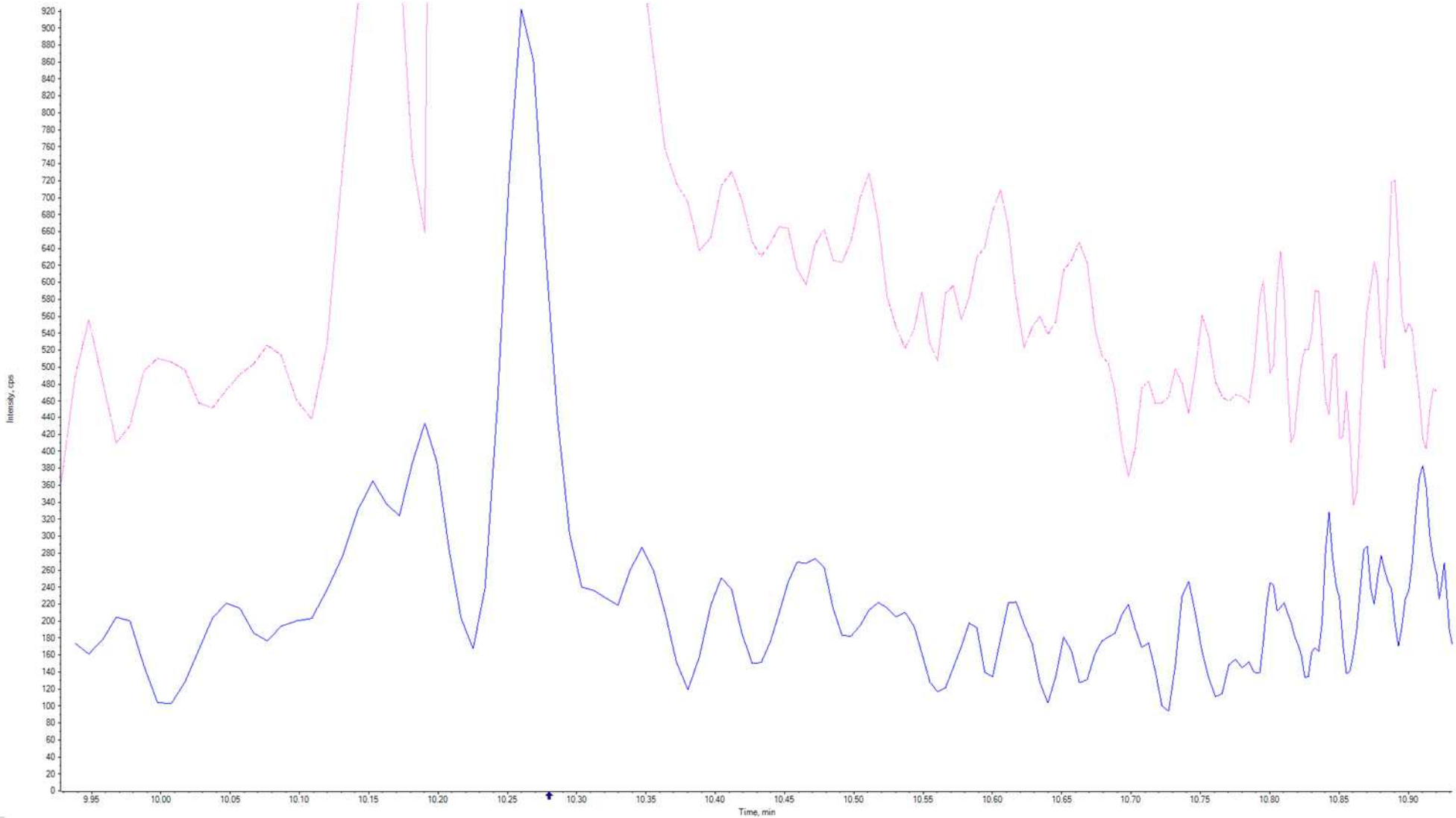
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NMeFOSE
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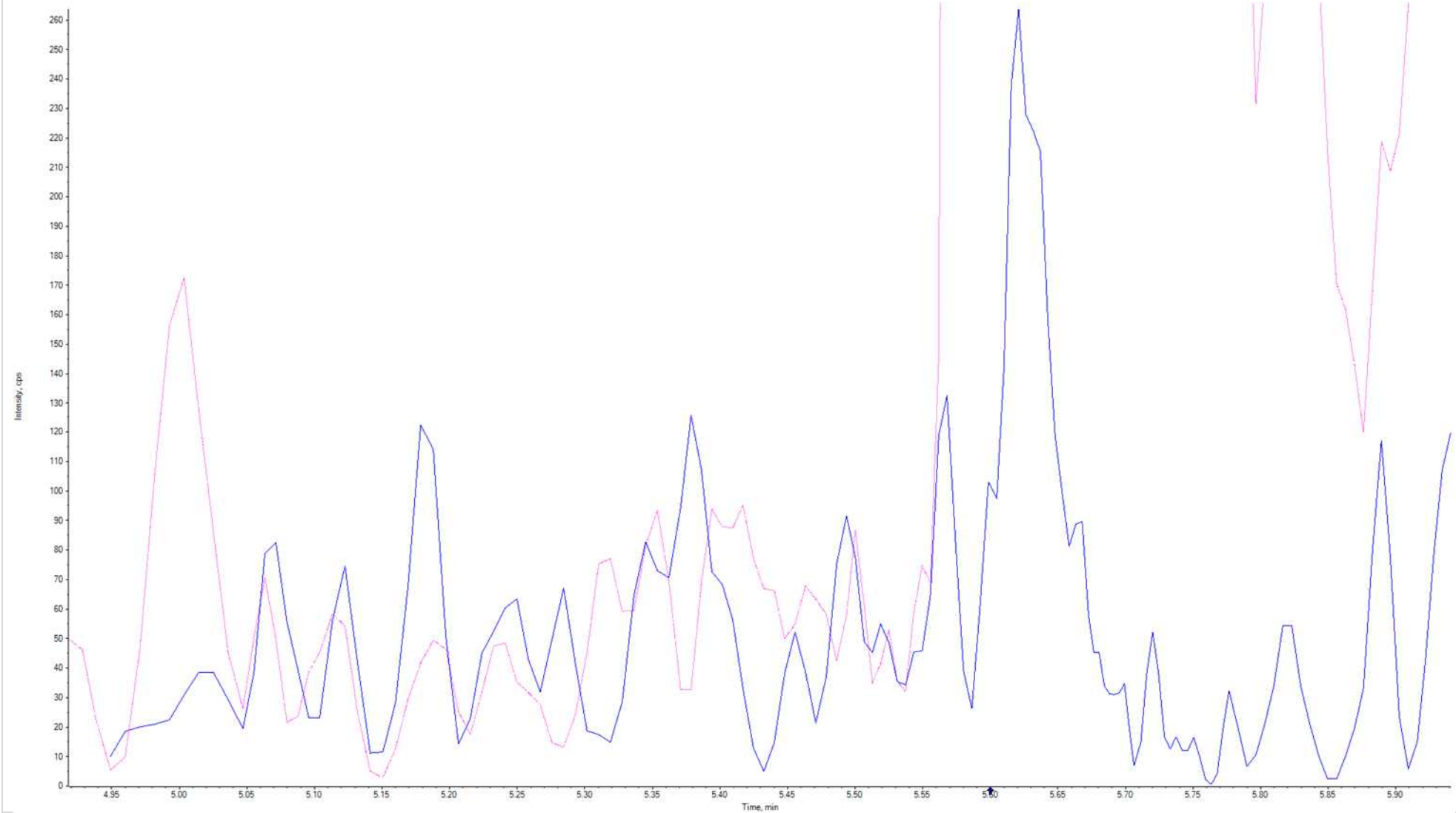
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NEtFOSE
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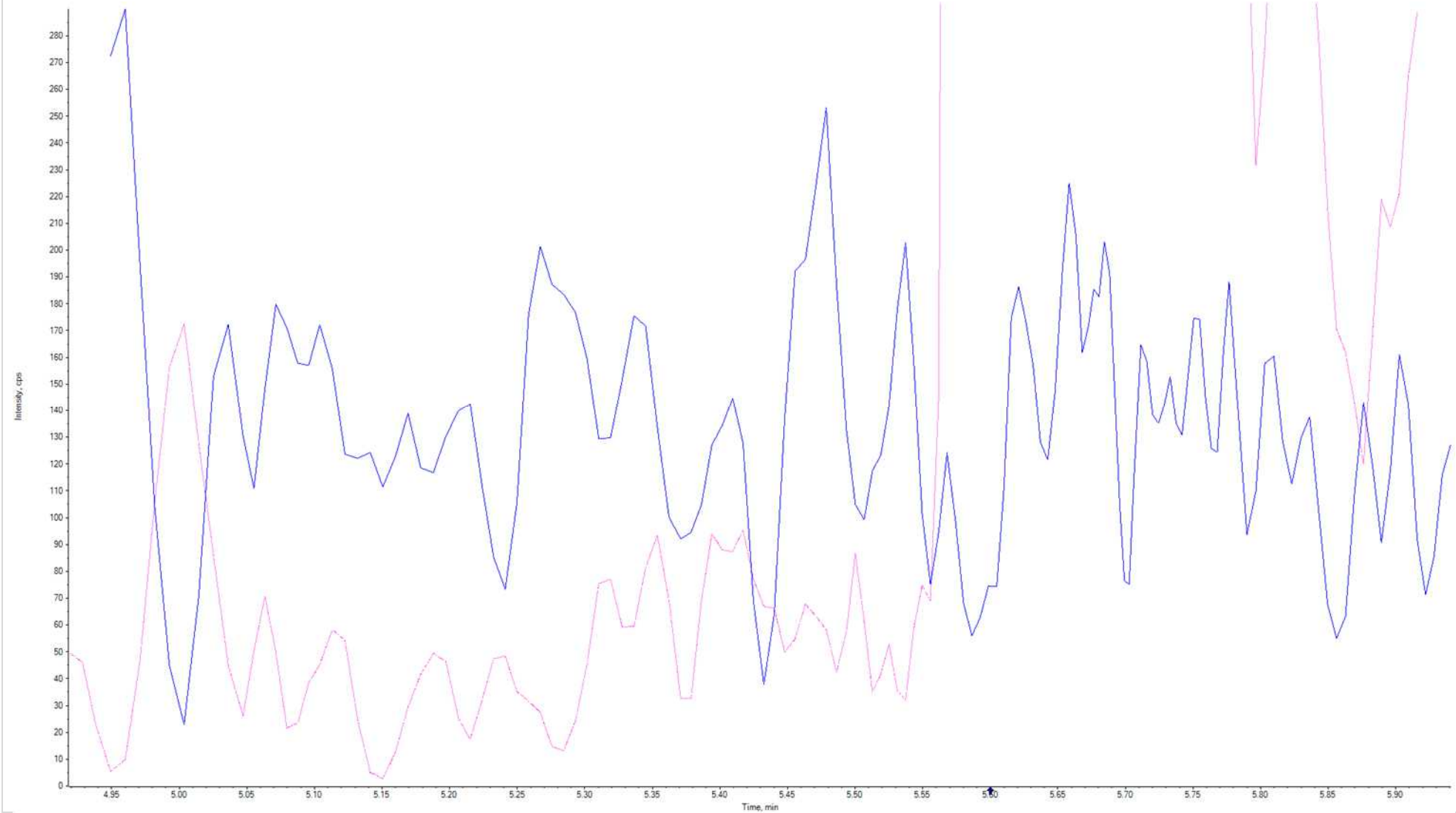
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HFPO-DA
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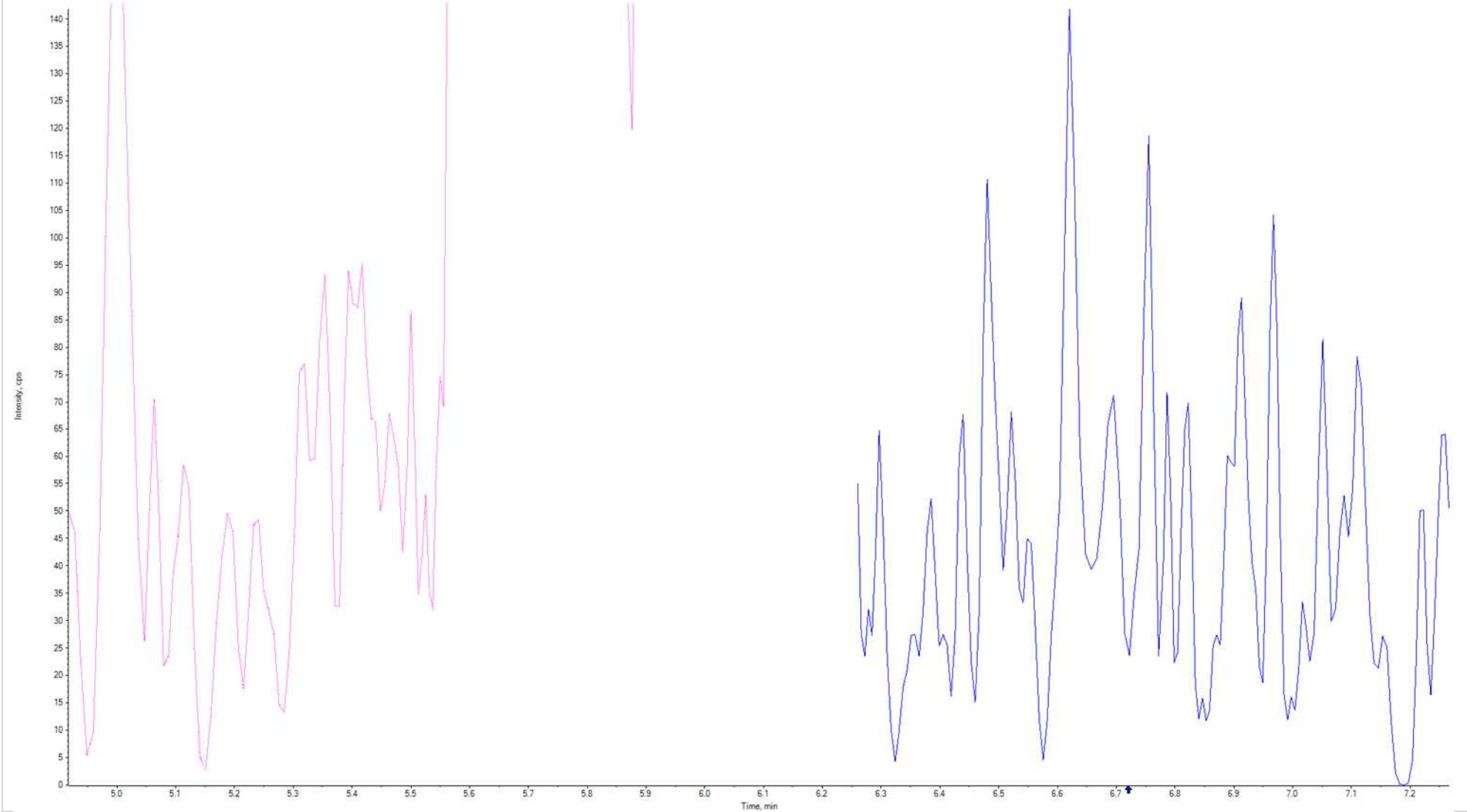
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HFPO-DA_2
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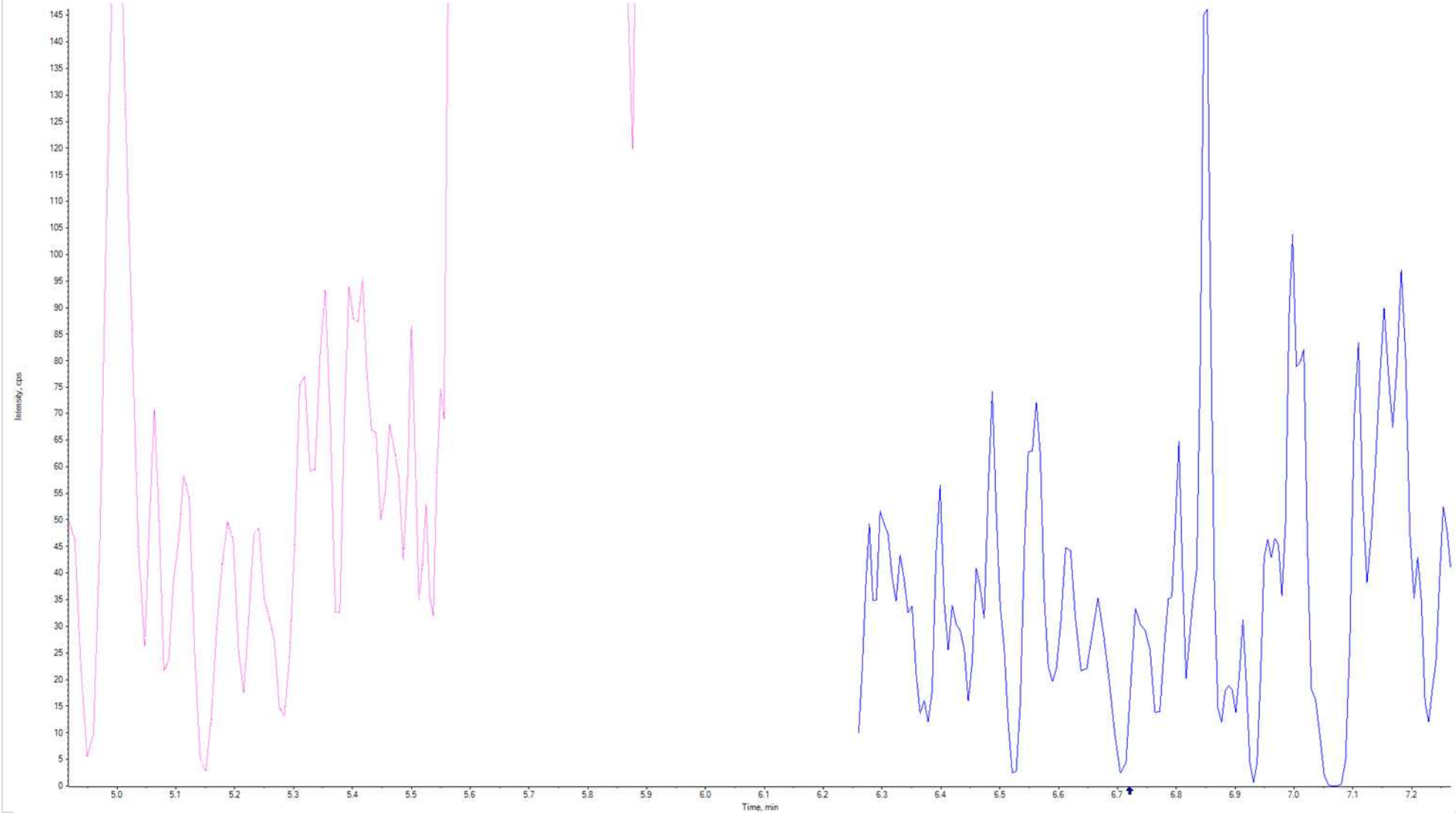
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ADONA
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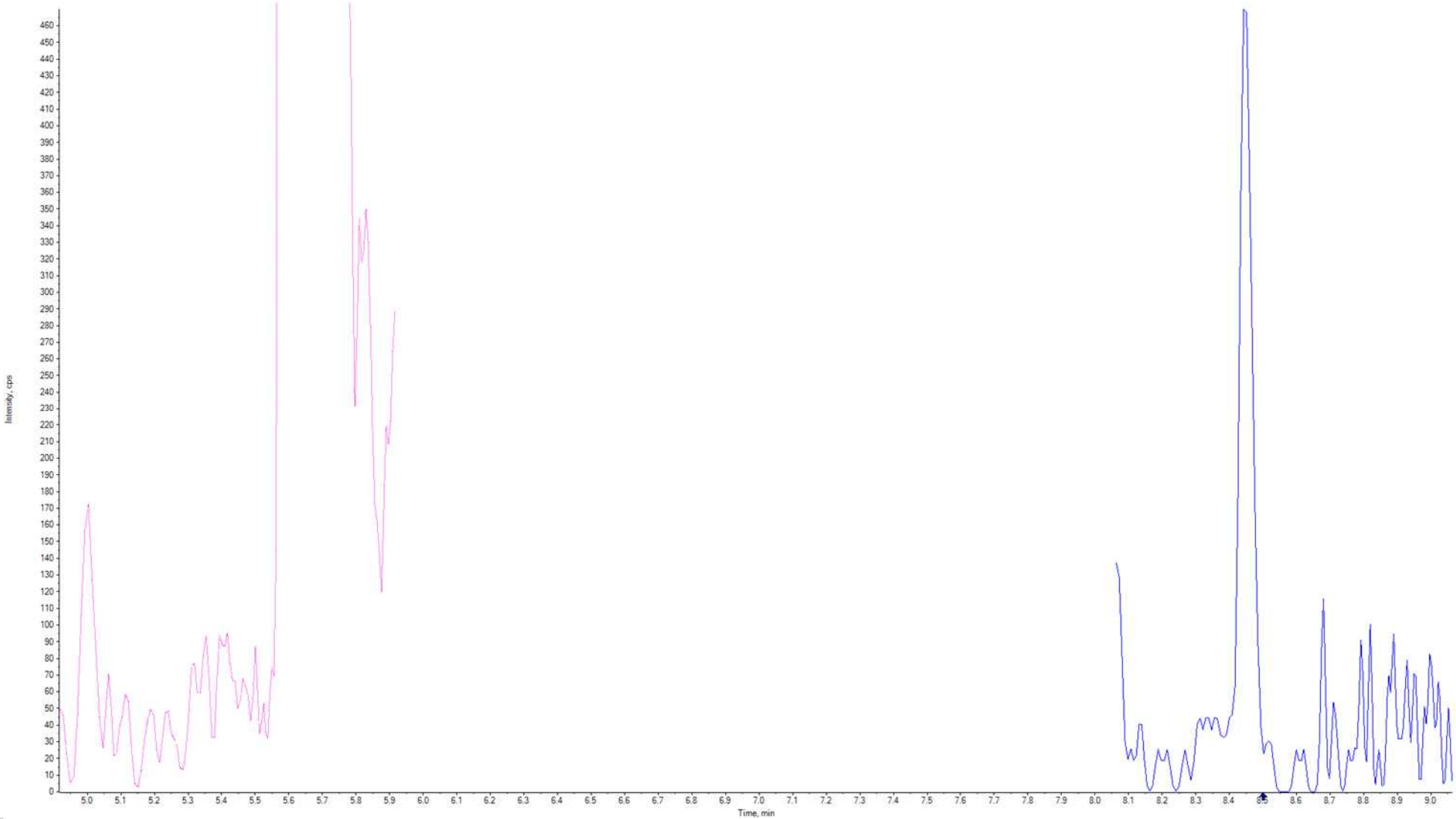
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ADONA_2
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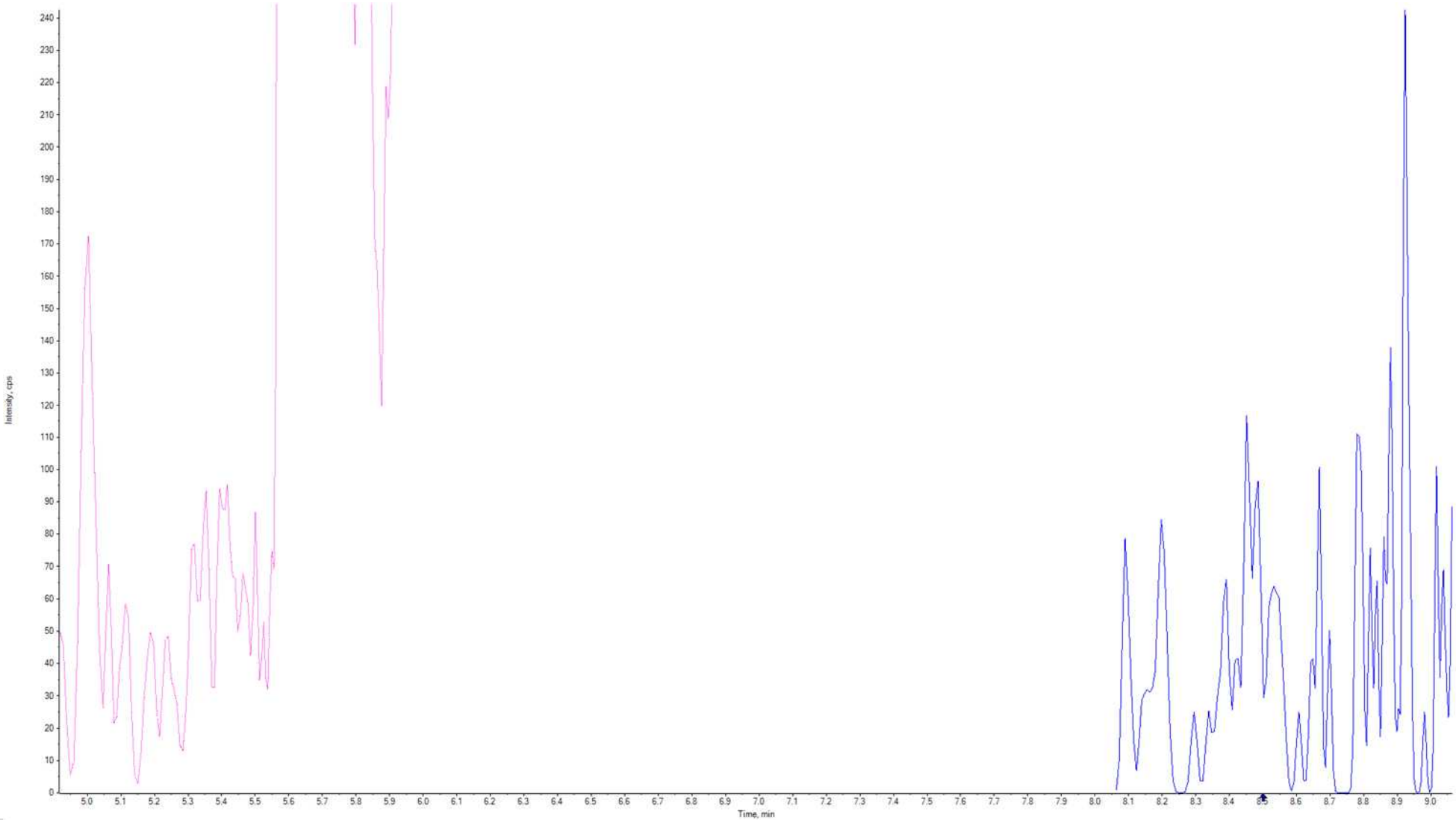
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9Cl-PF3ONS
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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9Cl-PF3ONS_2
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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11Cl-PF3OUdS
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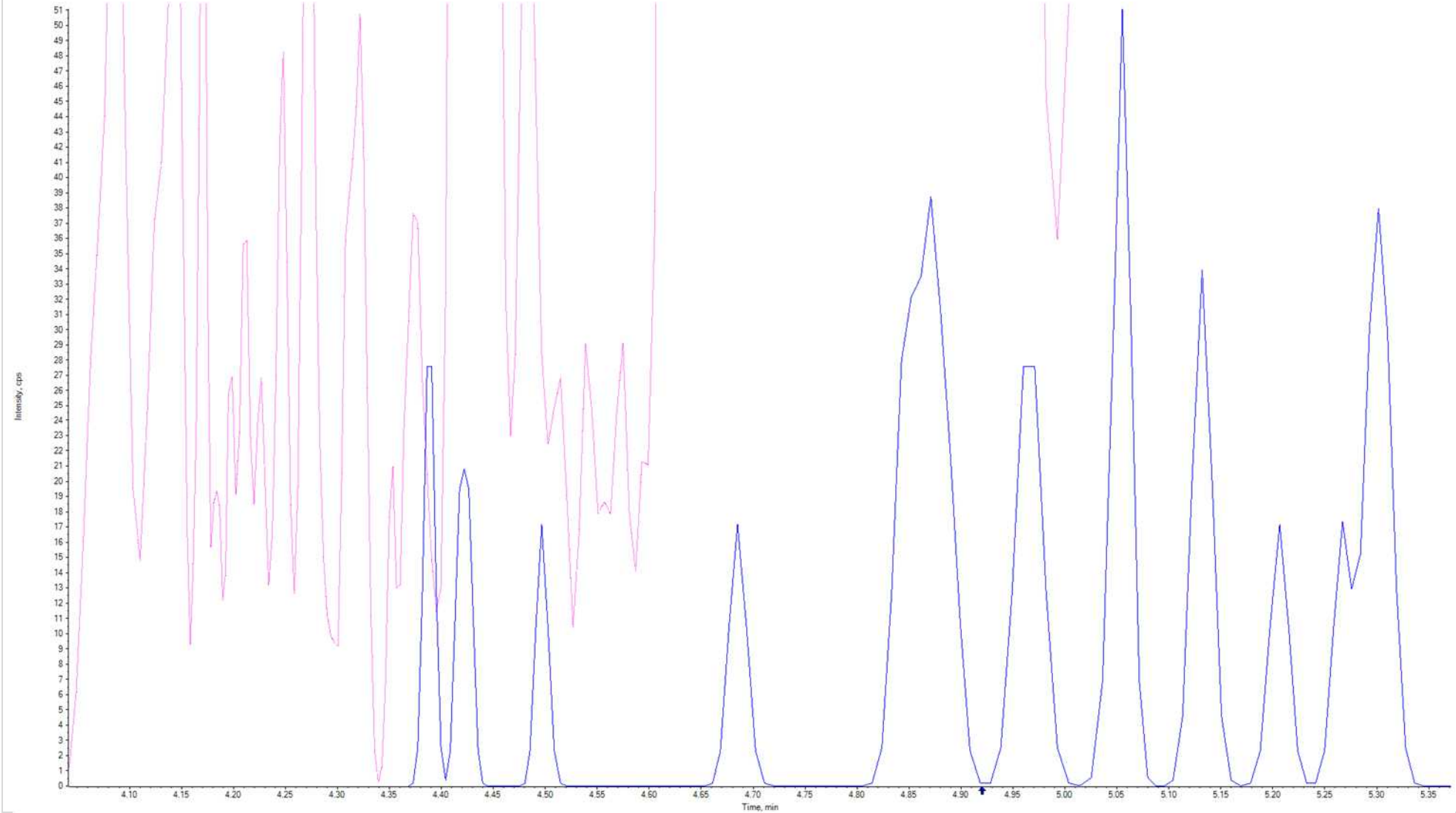


11Cl-PF3OUdS_2
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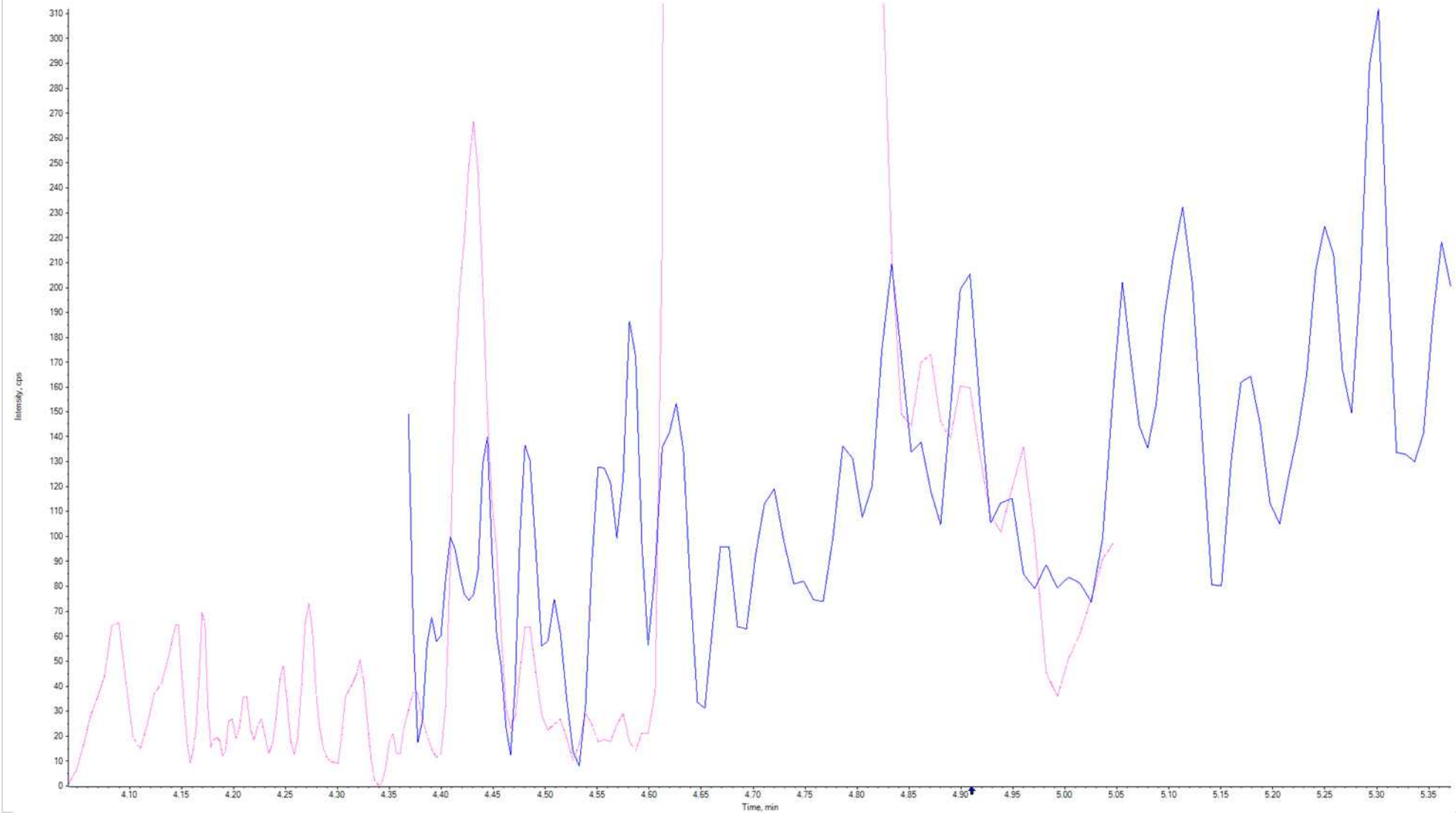
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3:3FTCA
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



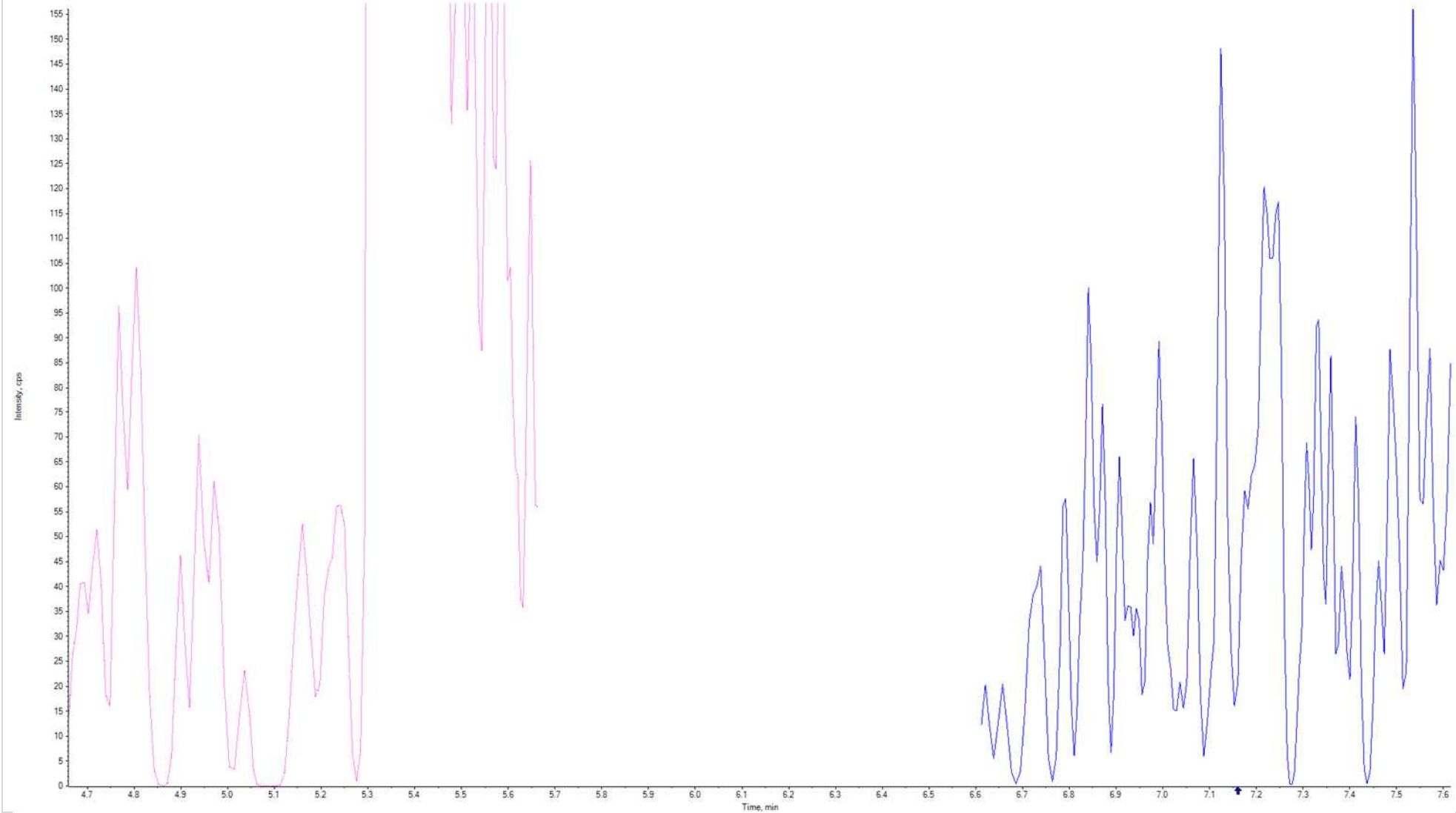
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3:3FTCA_2
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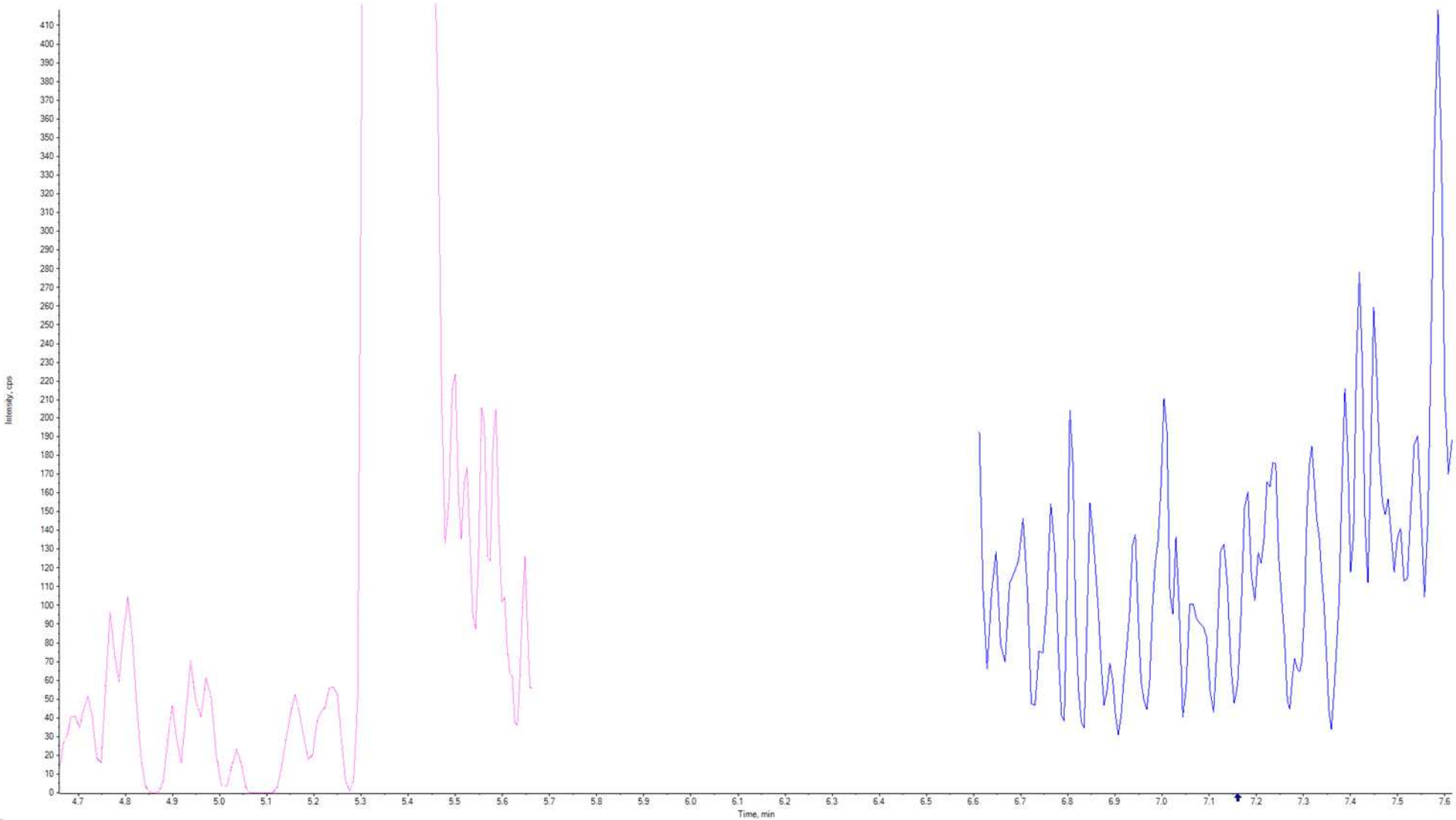
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5:3FTCA
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



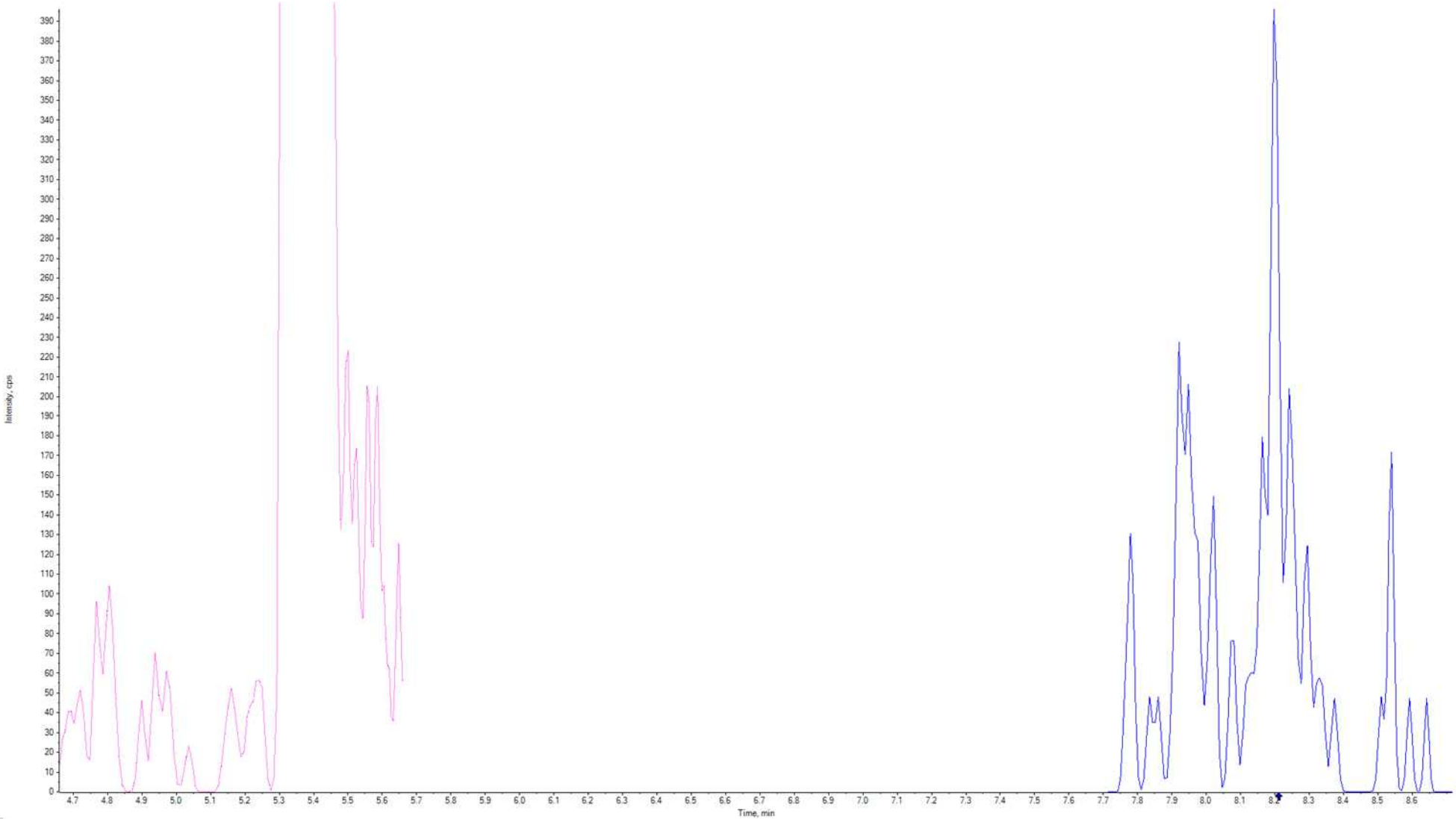
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5:3FTCA_2
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



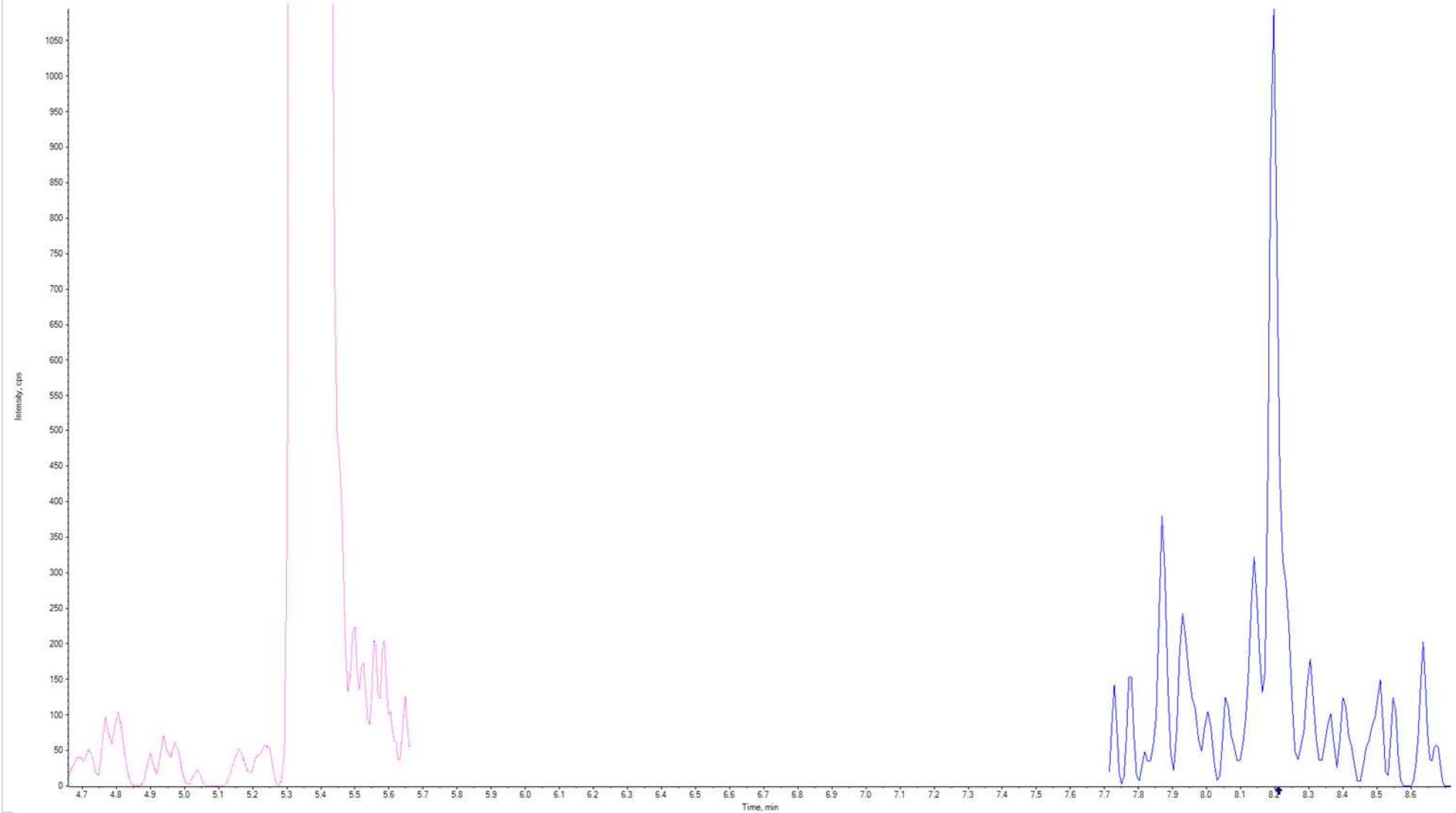
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Last Altered: 9/18/2024 12:41:54 PM
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7:3FTCA
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



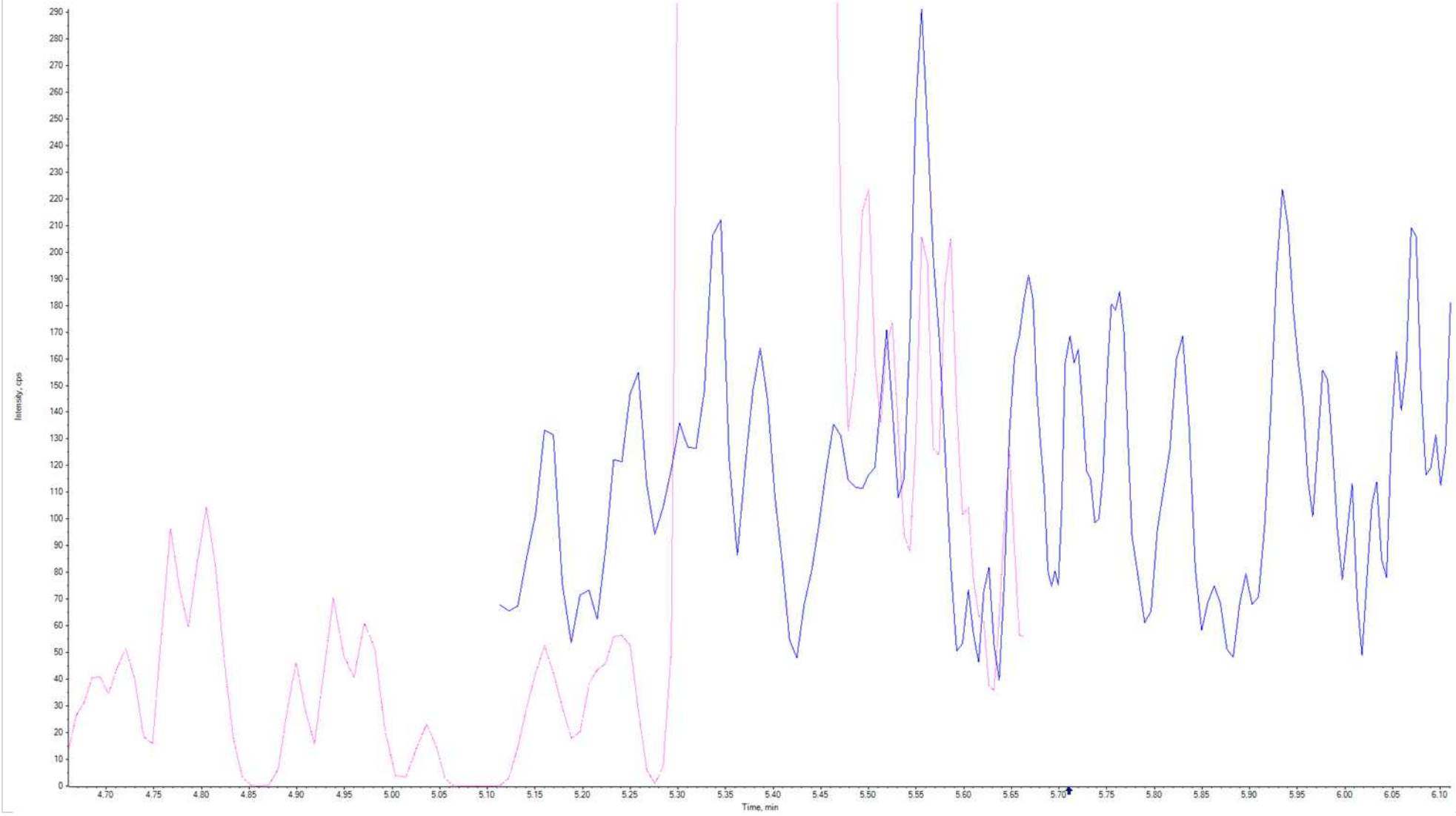
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Last Altered: 9/18/2024 12:41:54 PM
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7:3FTCA_2
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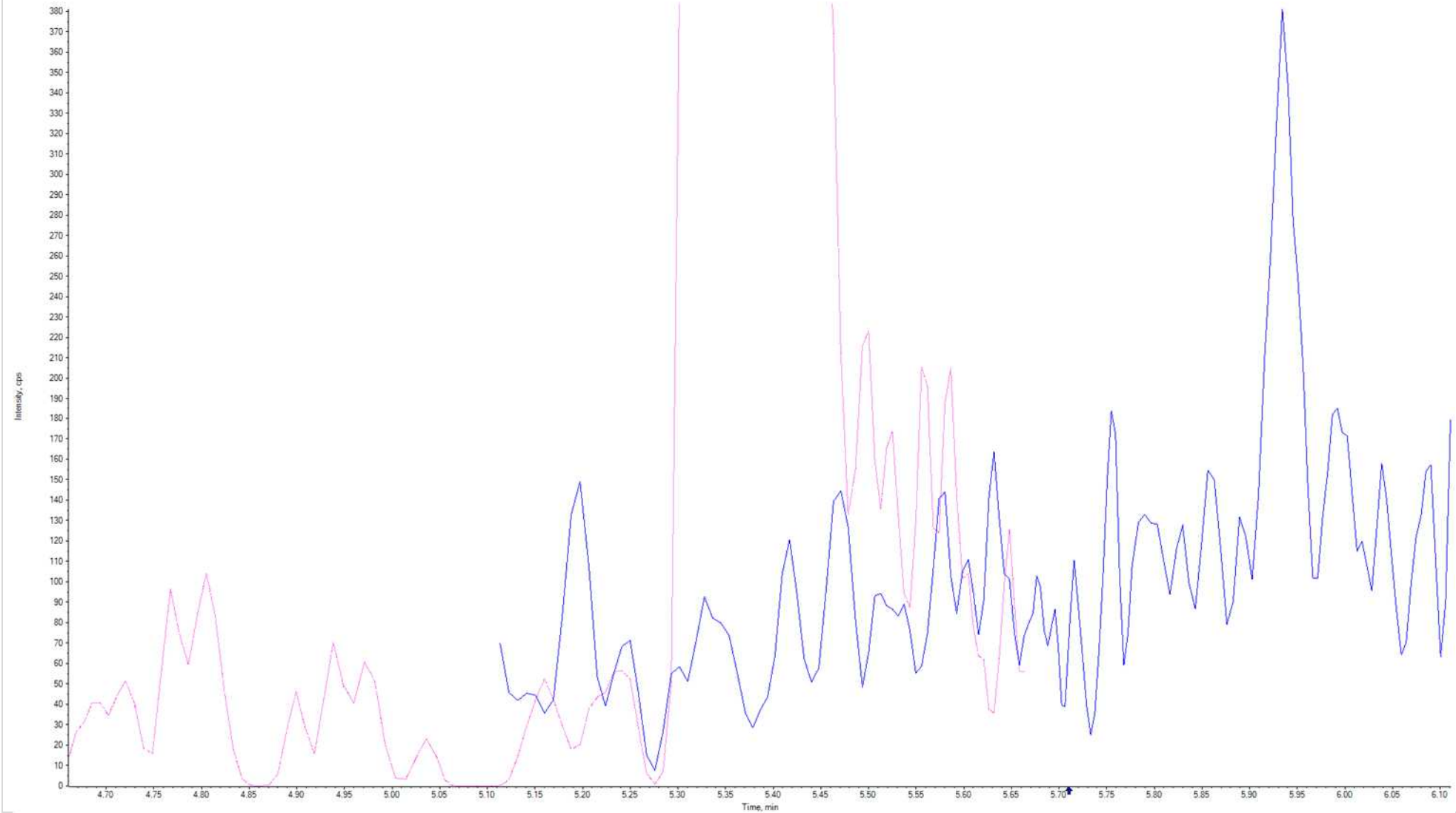
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFEESA
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



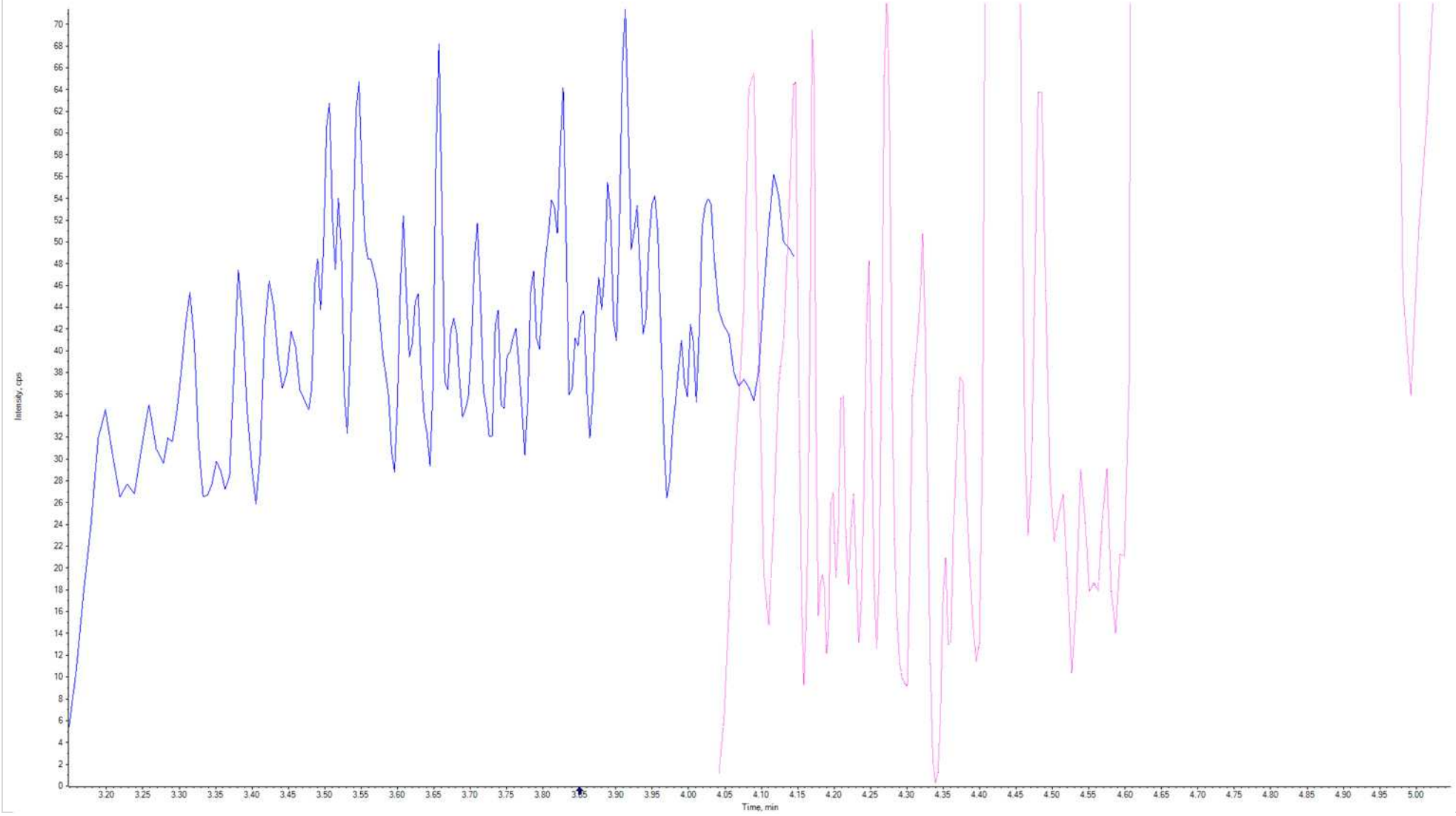
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PFEESA_2
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



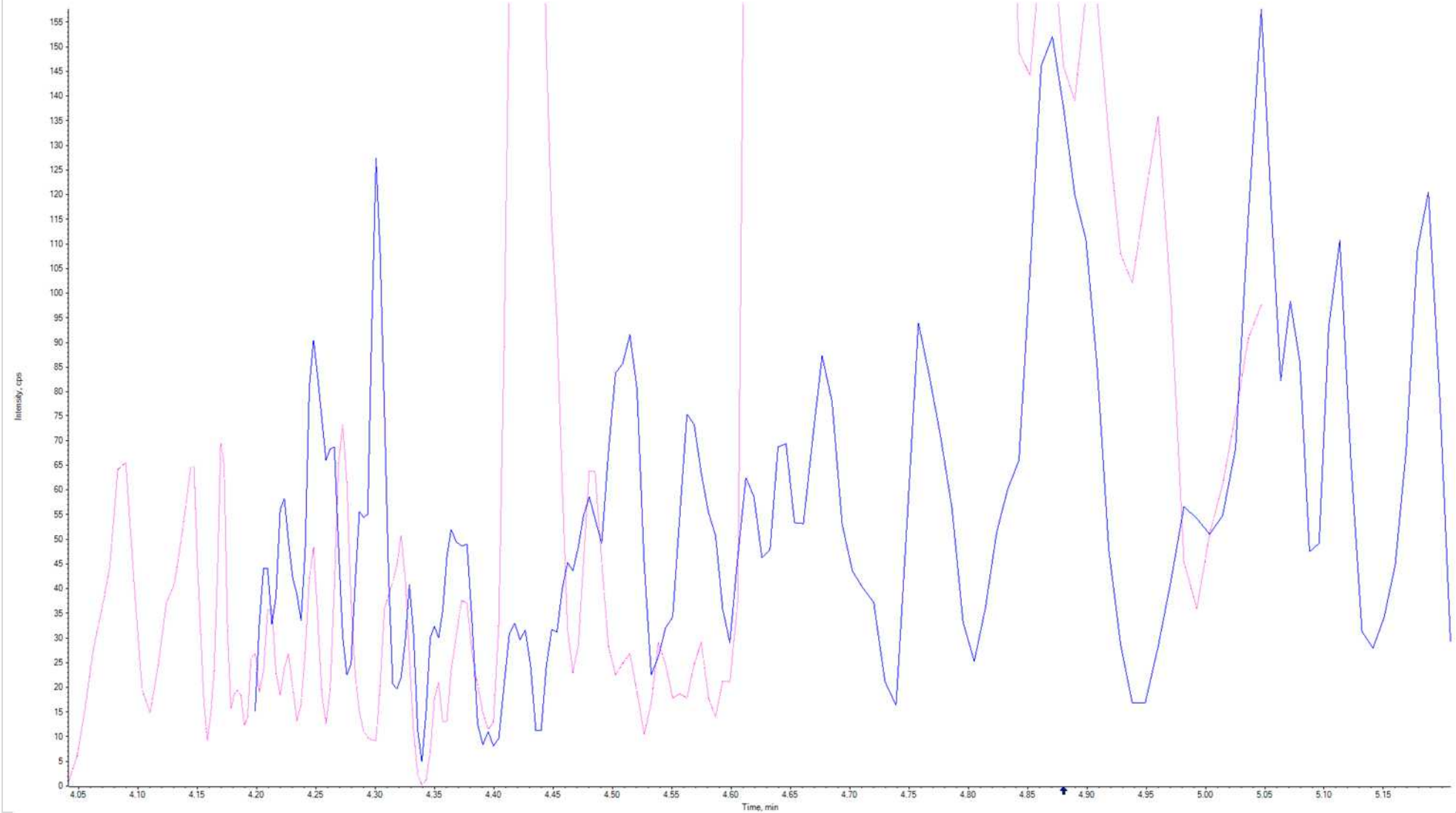
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PFMPA
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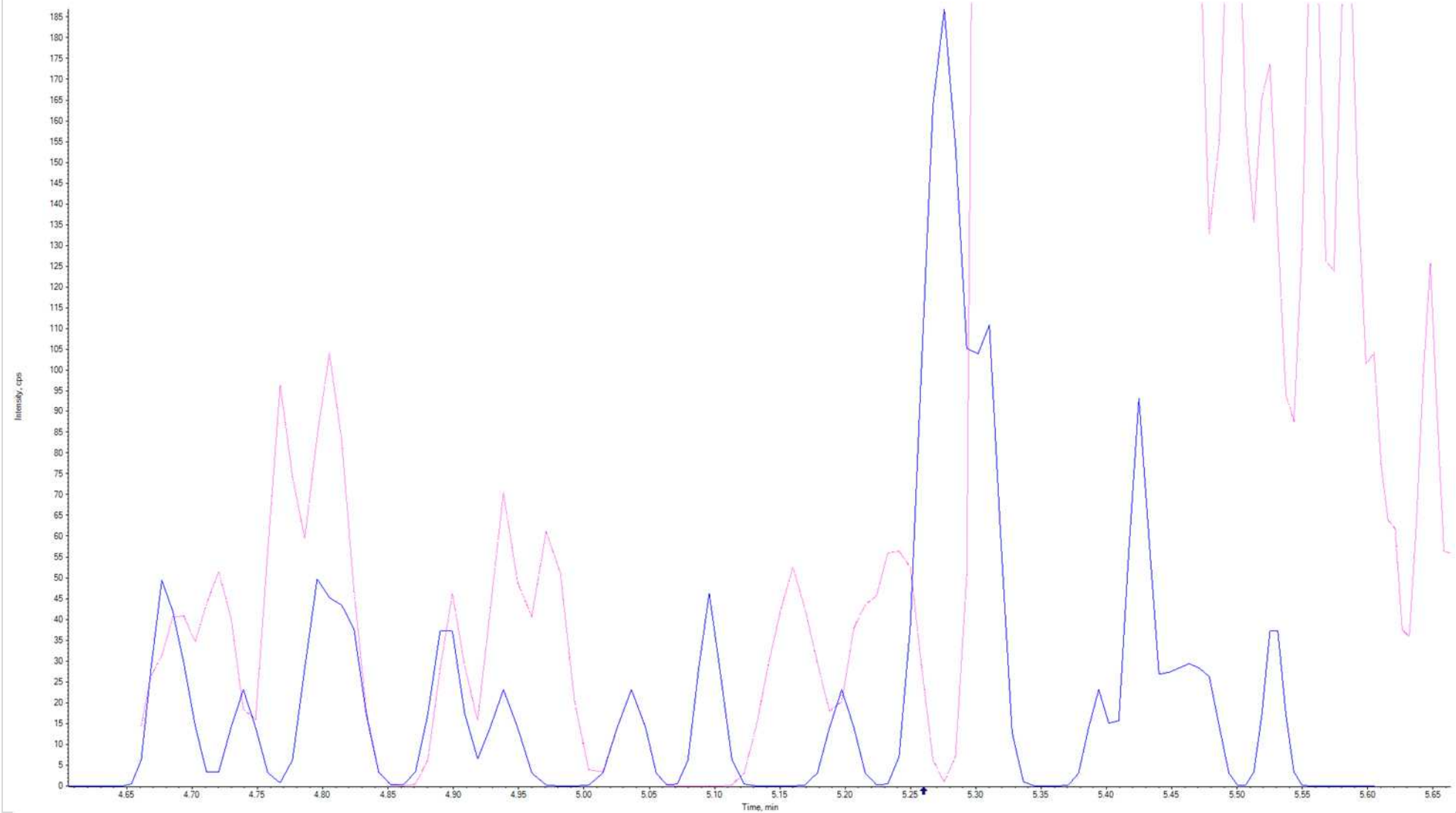
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PFMBA
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



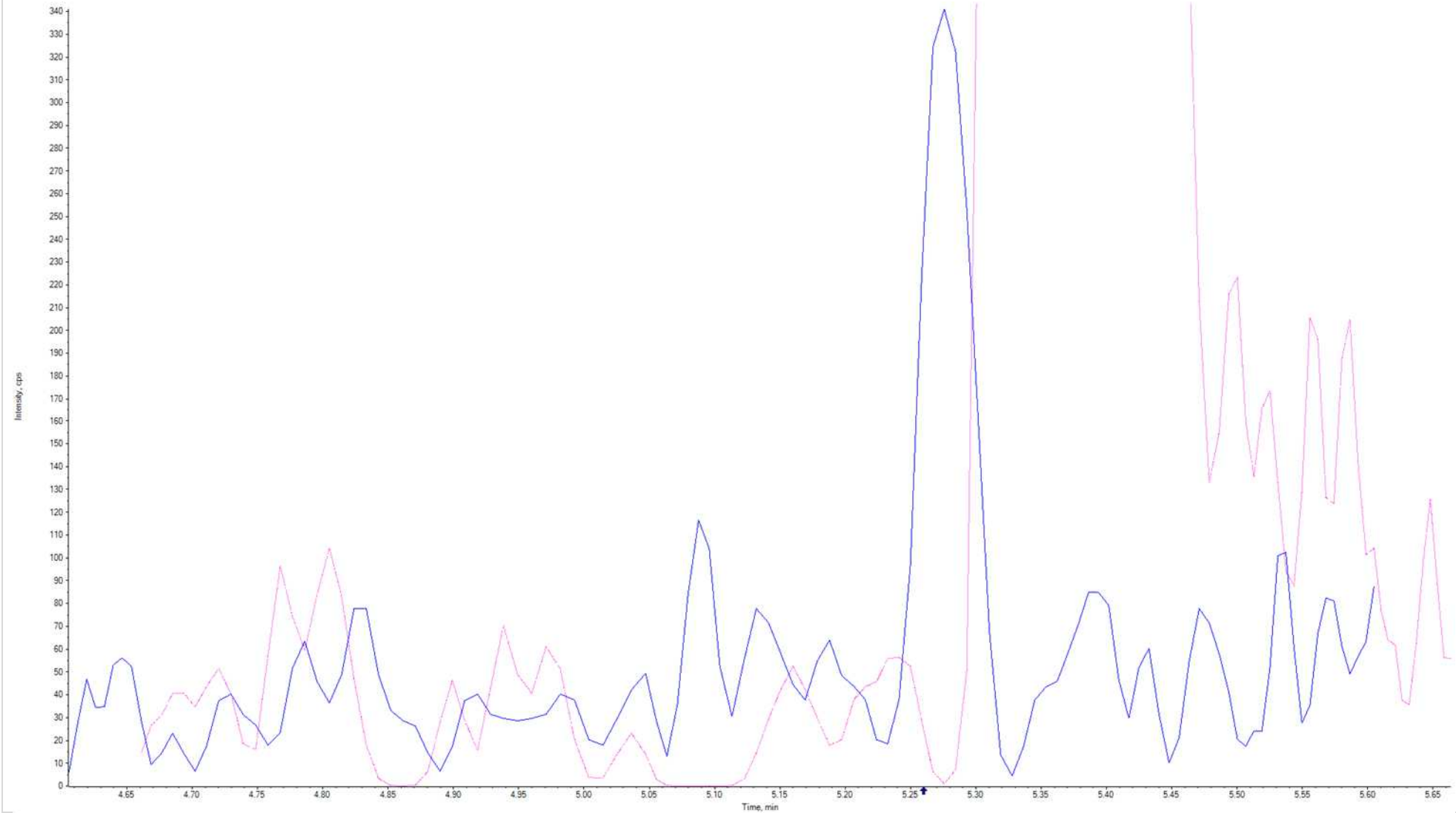
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NFDHA
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



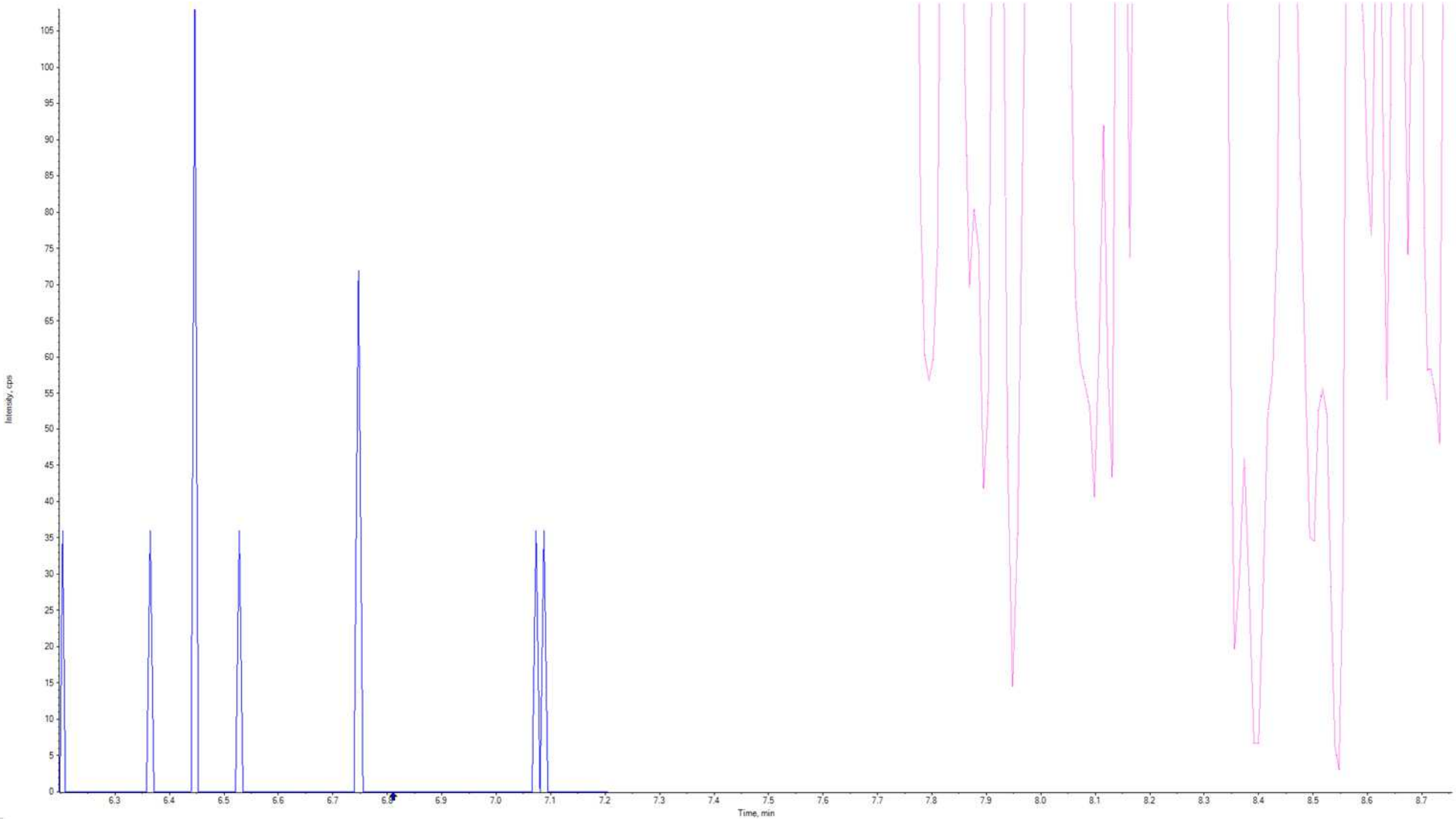
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NFDHA_2
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



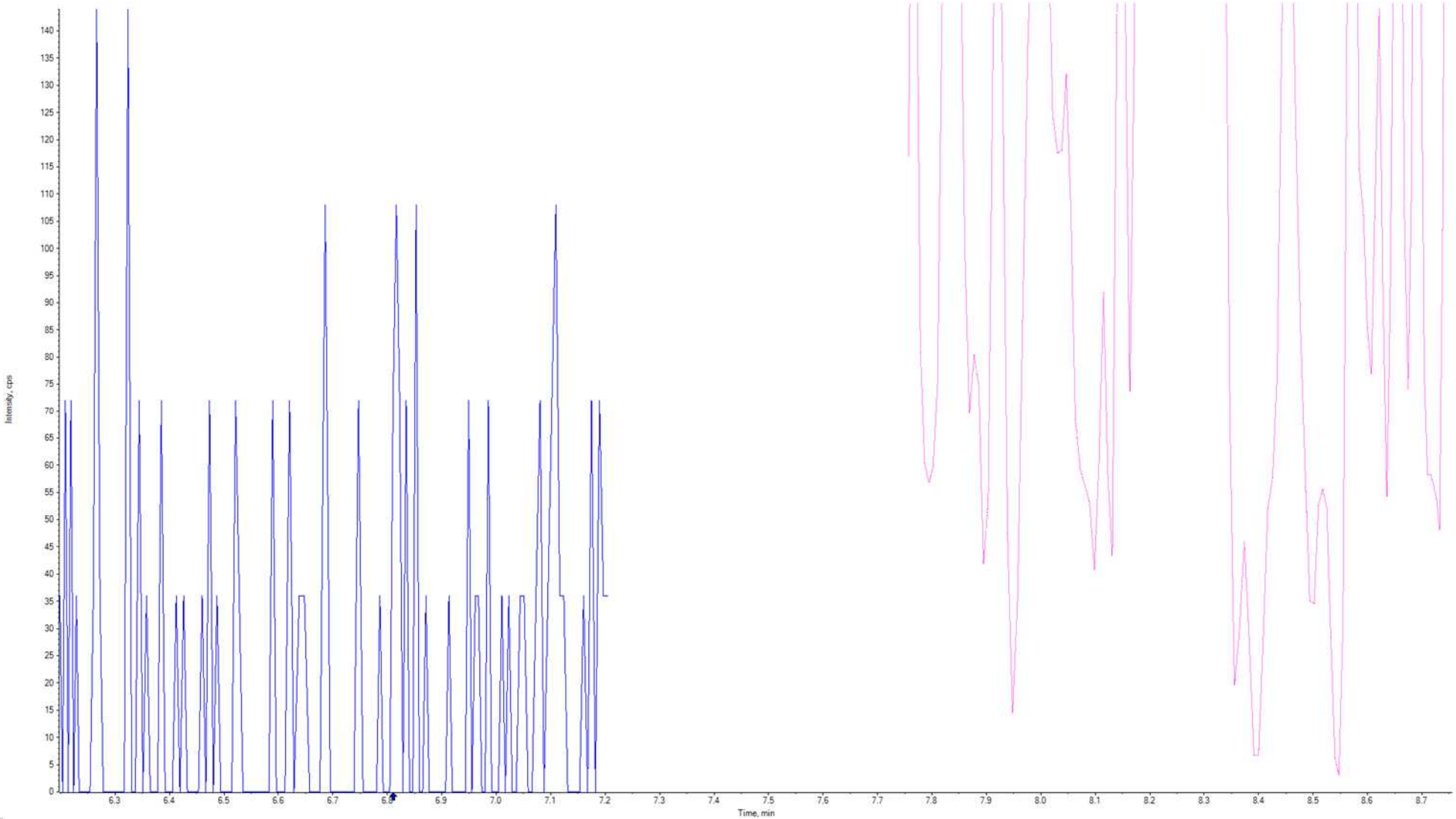
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TDCA
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



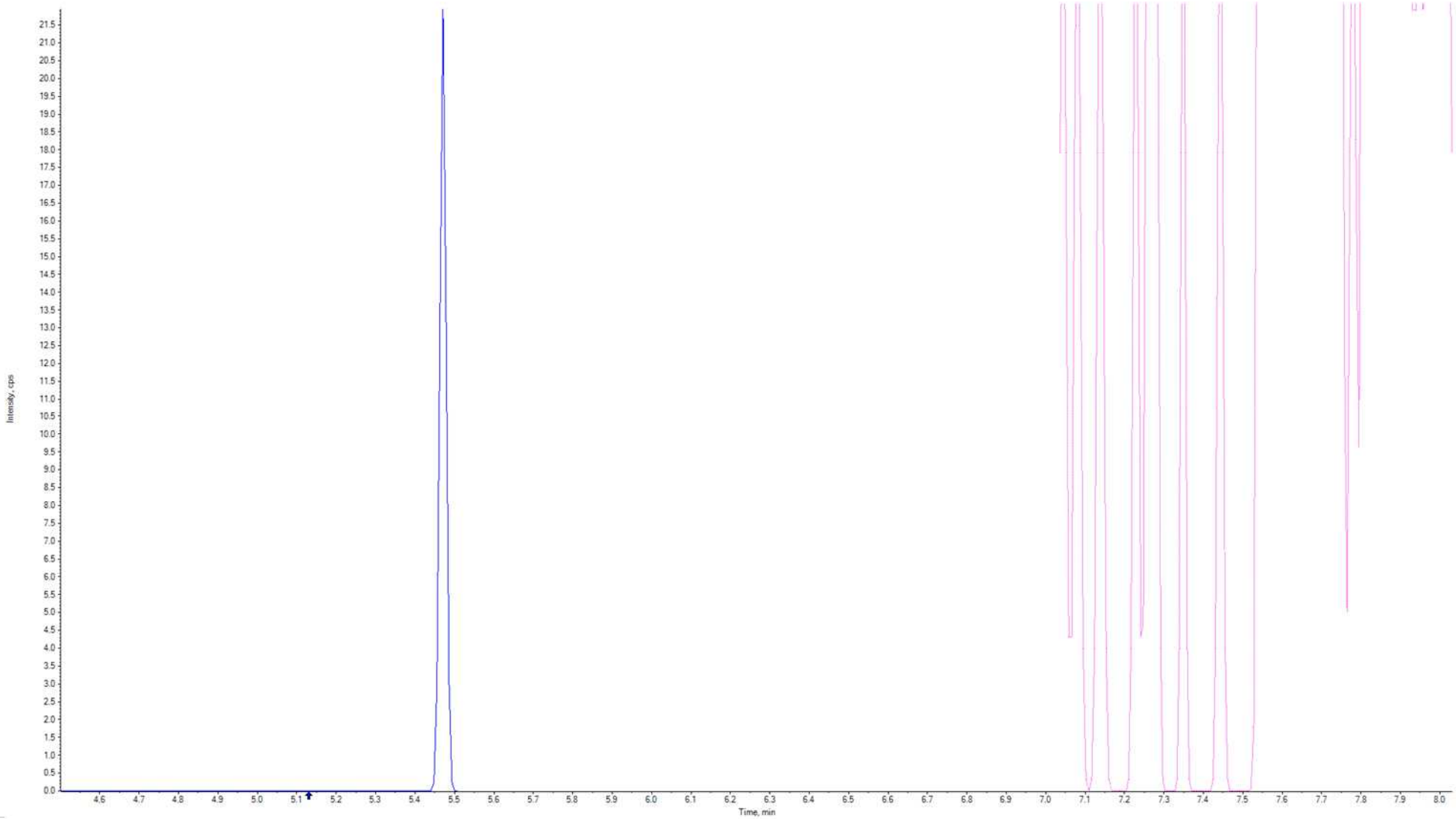
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TDCA_2
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



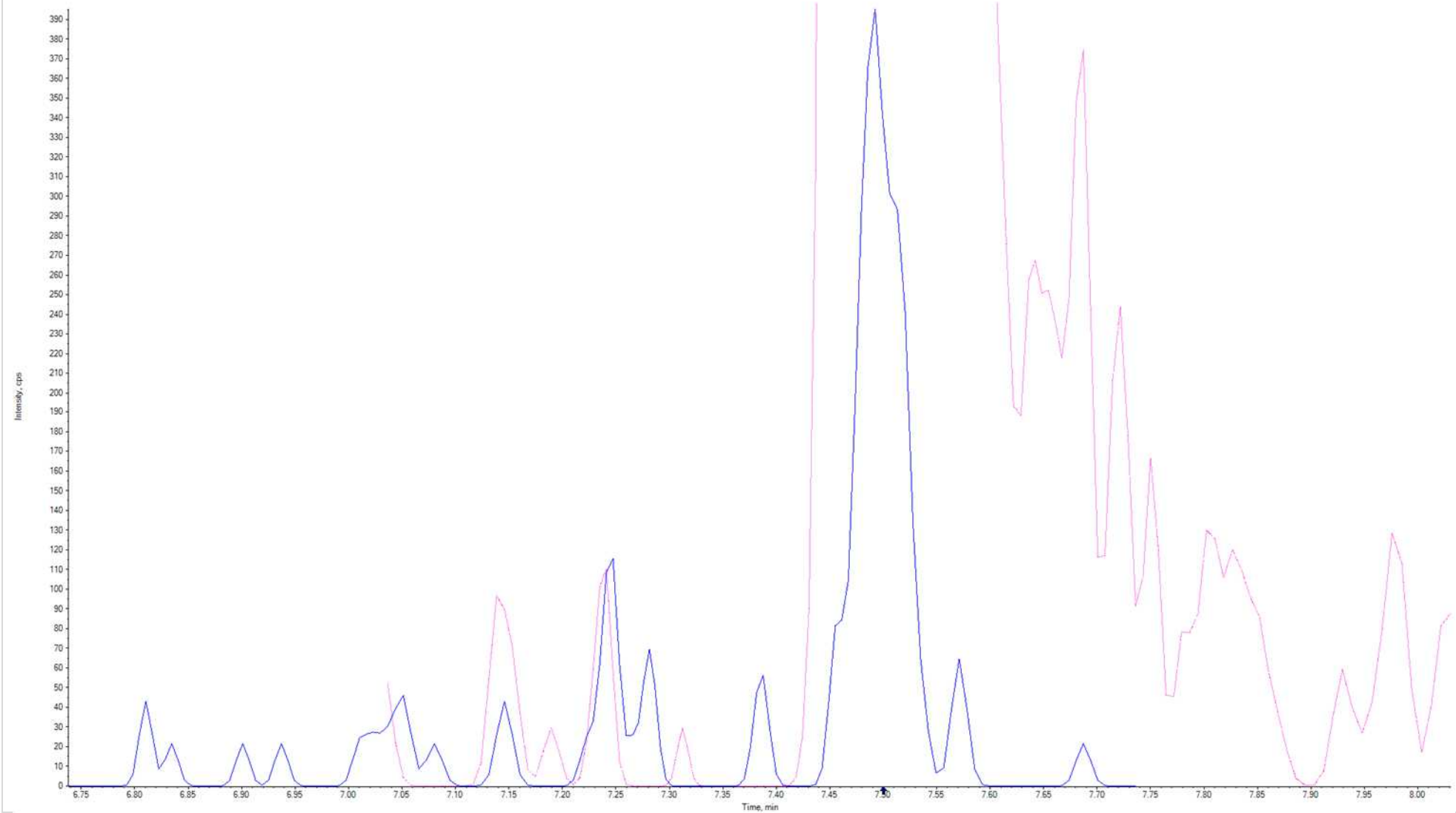
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13C2D4-4:2FTS
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A

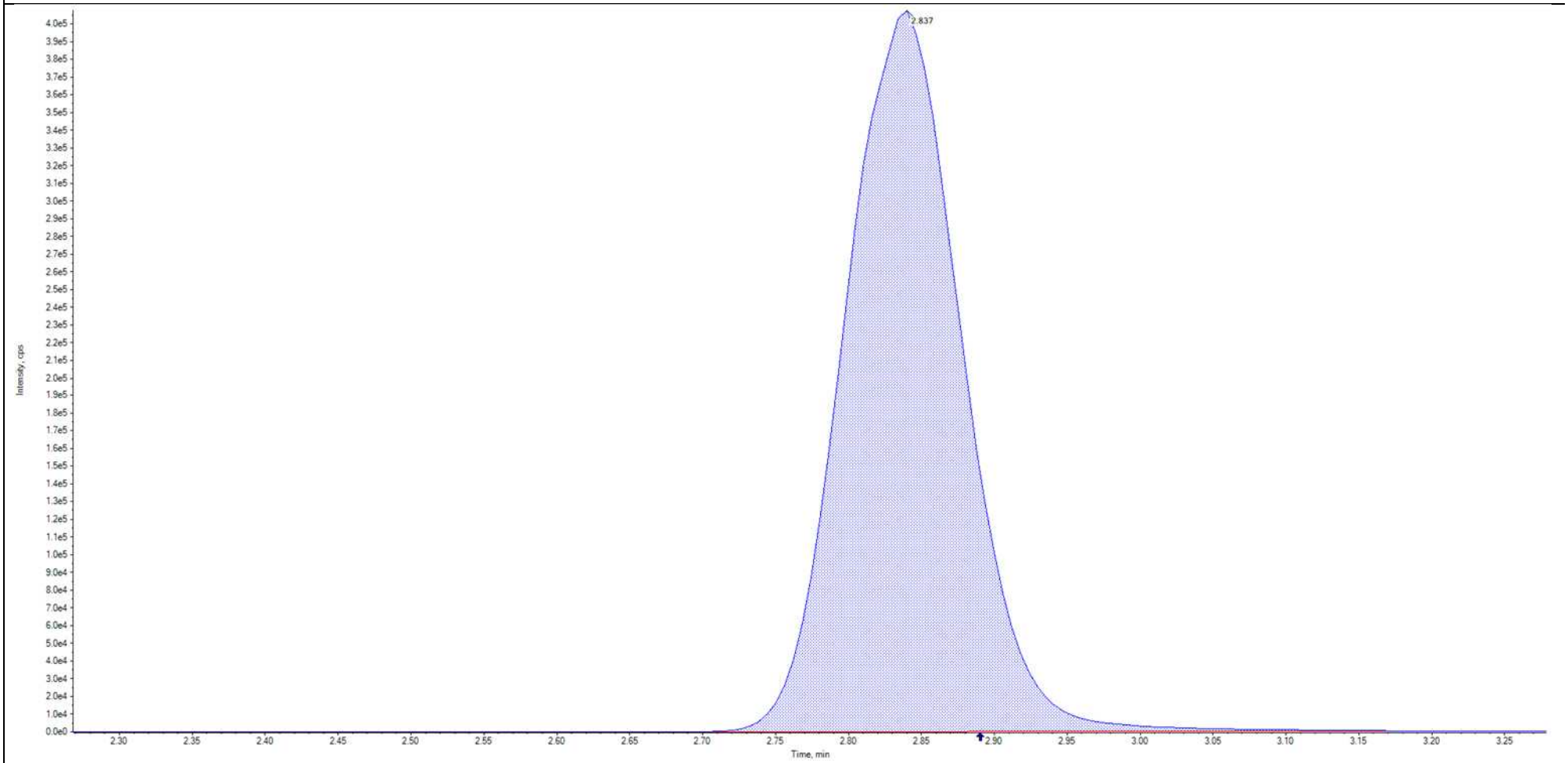


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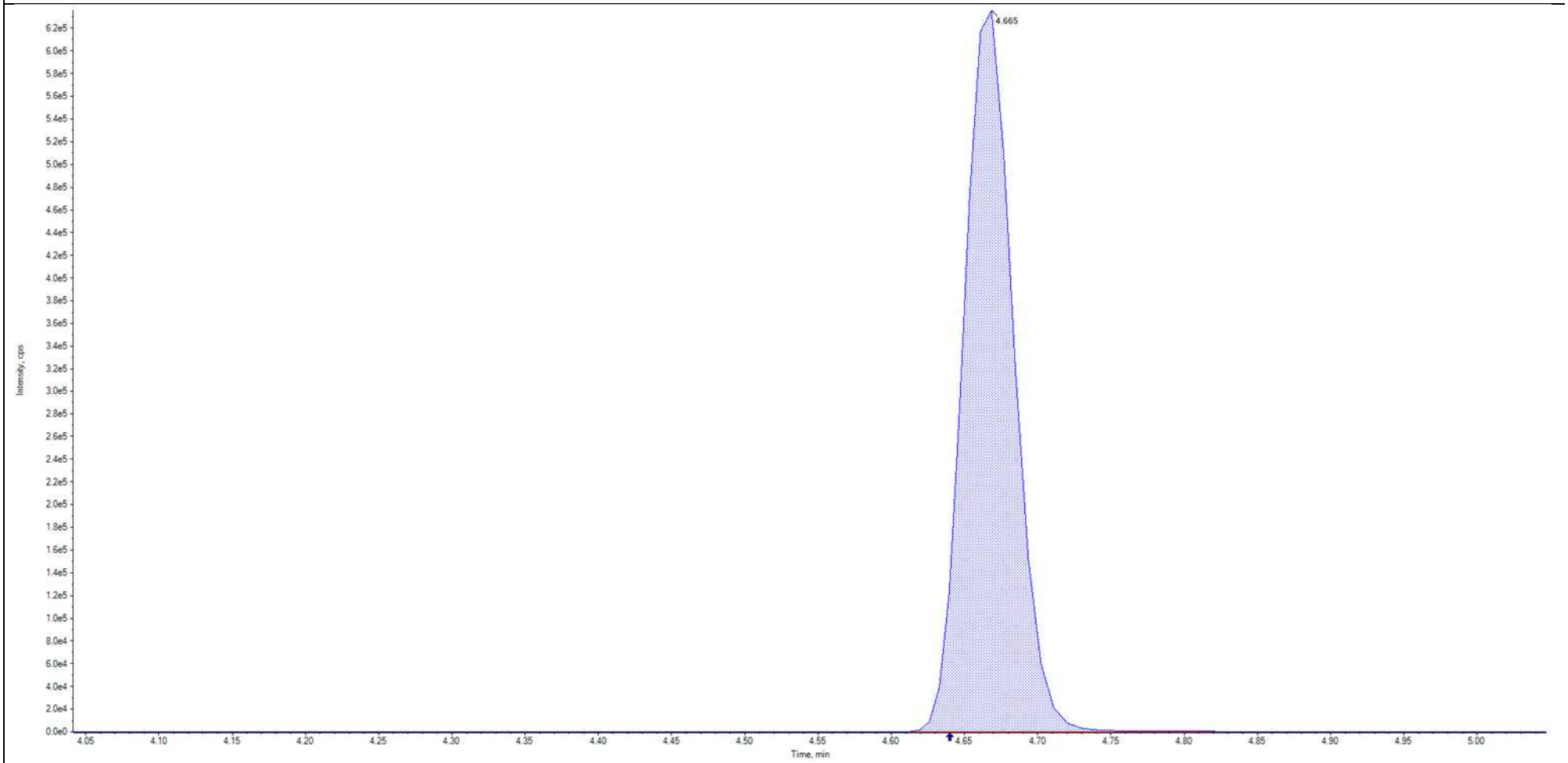
13C2-PFOA
Sample: WG1972760-1 S/N:N/A Points Across peak:N/A



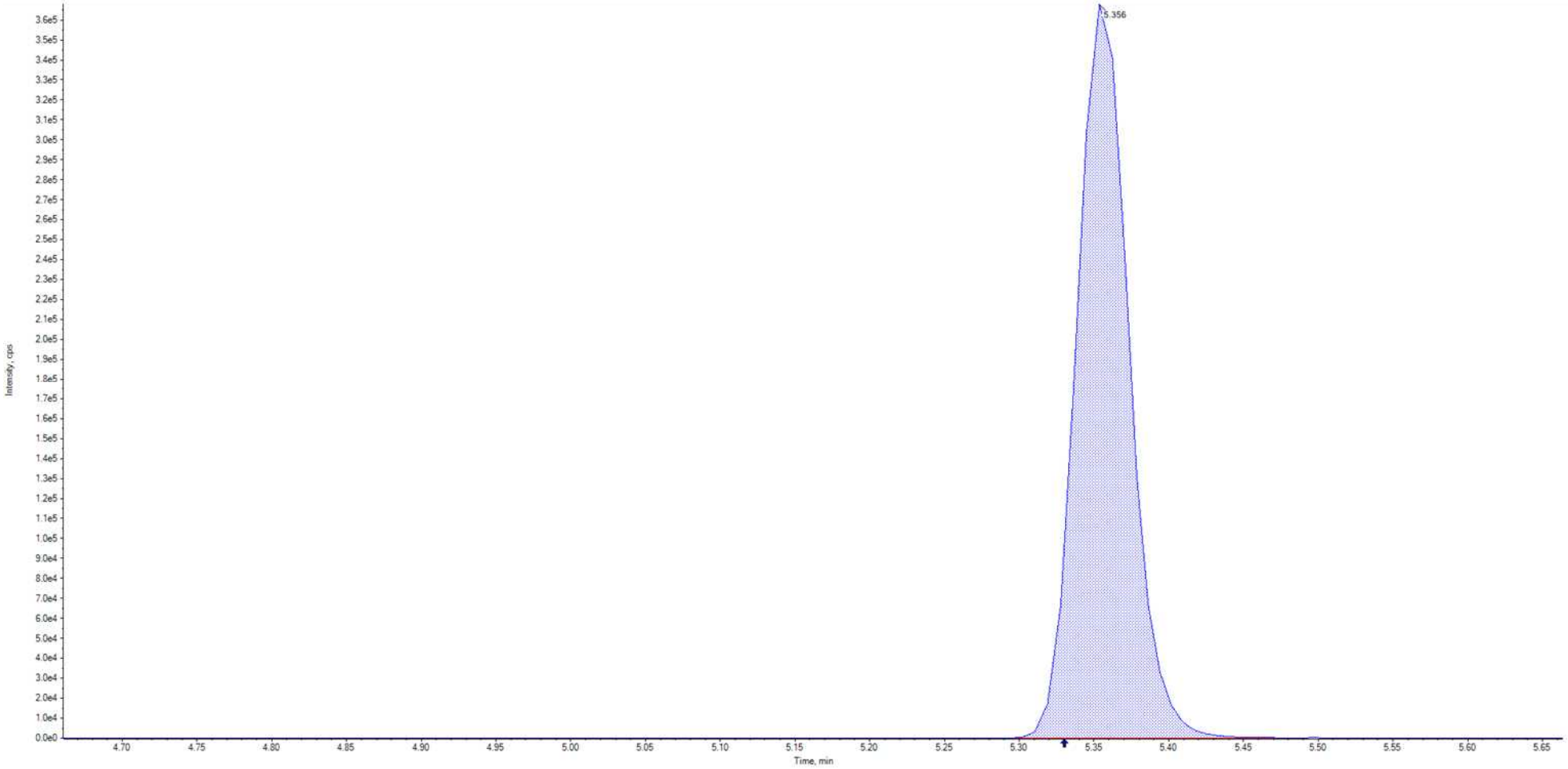
13C4-PFBA
Sample: WG1972760-1



13C5-PFPeA
Sample: WG1972760-1

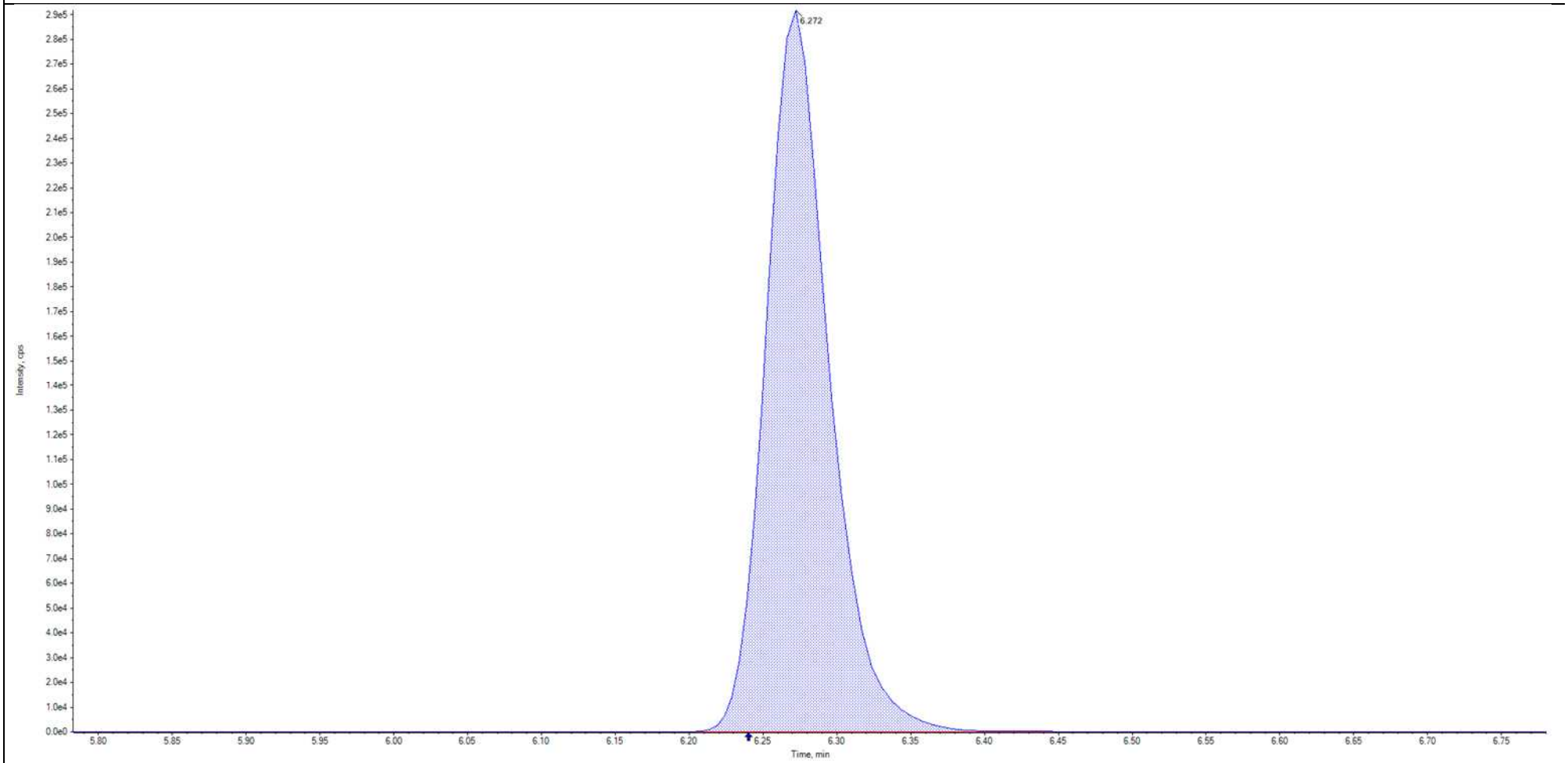


13C5-PFHxA
Sample: WG1972760-1

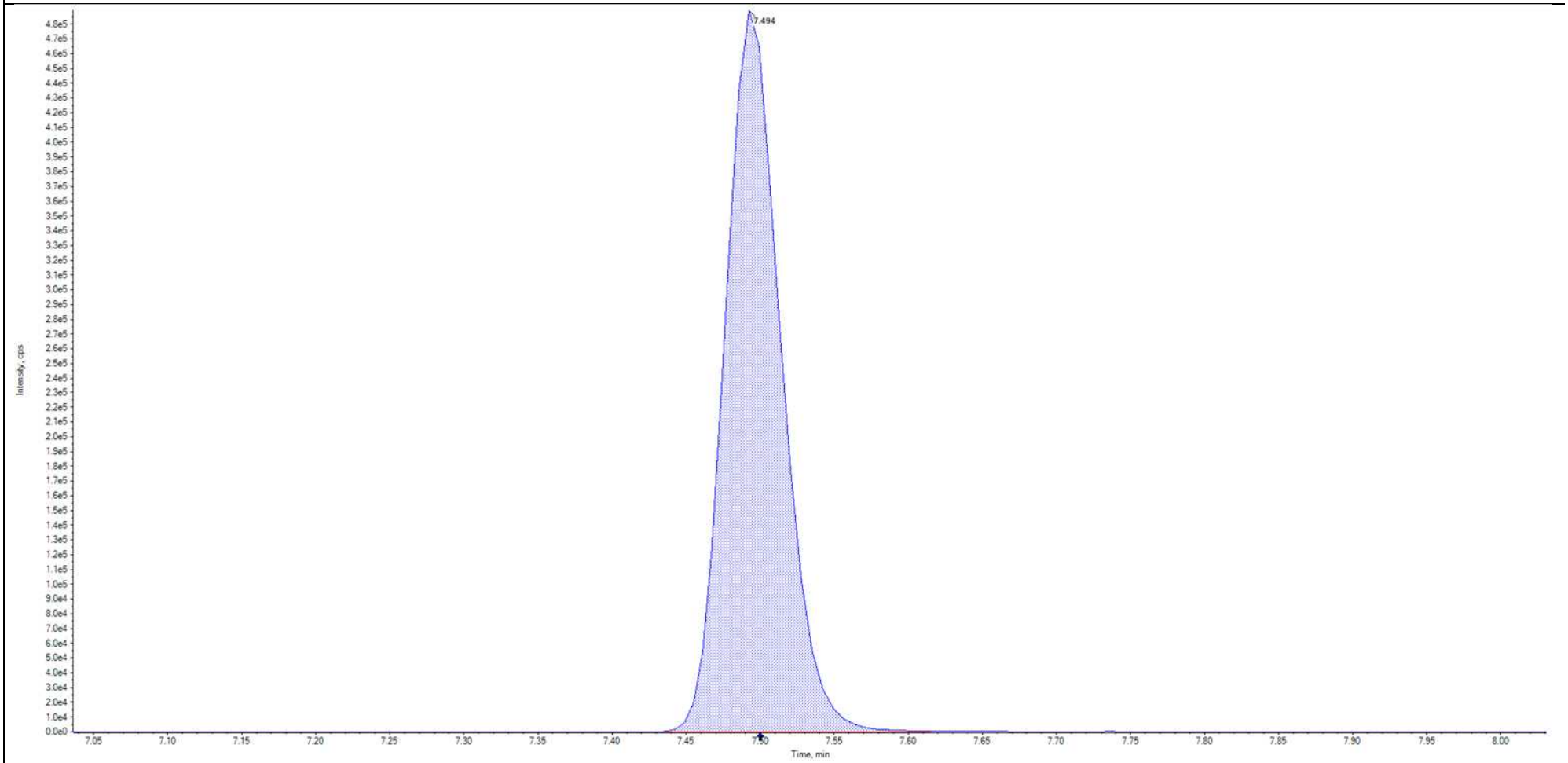


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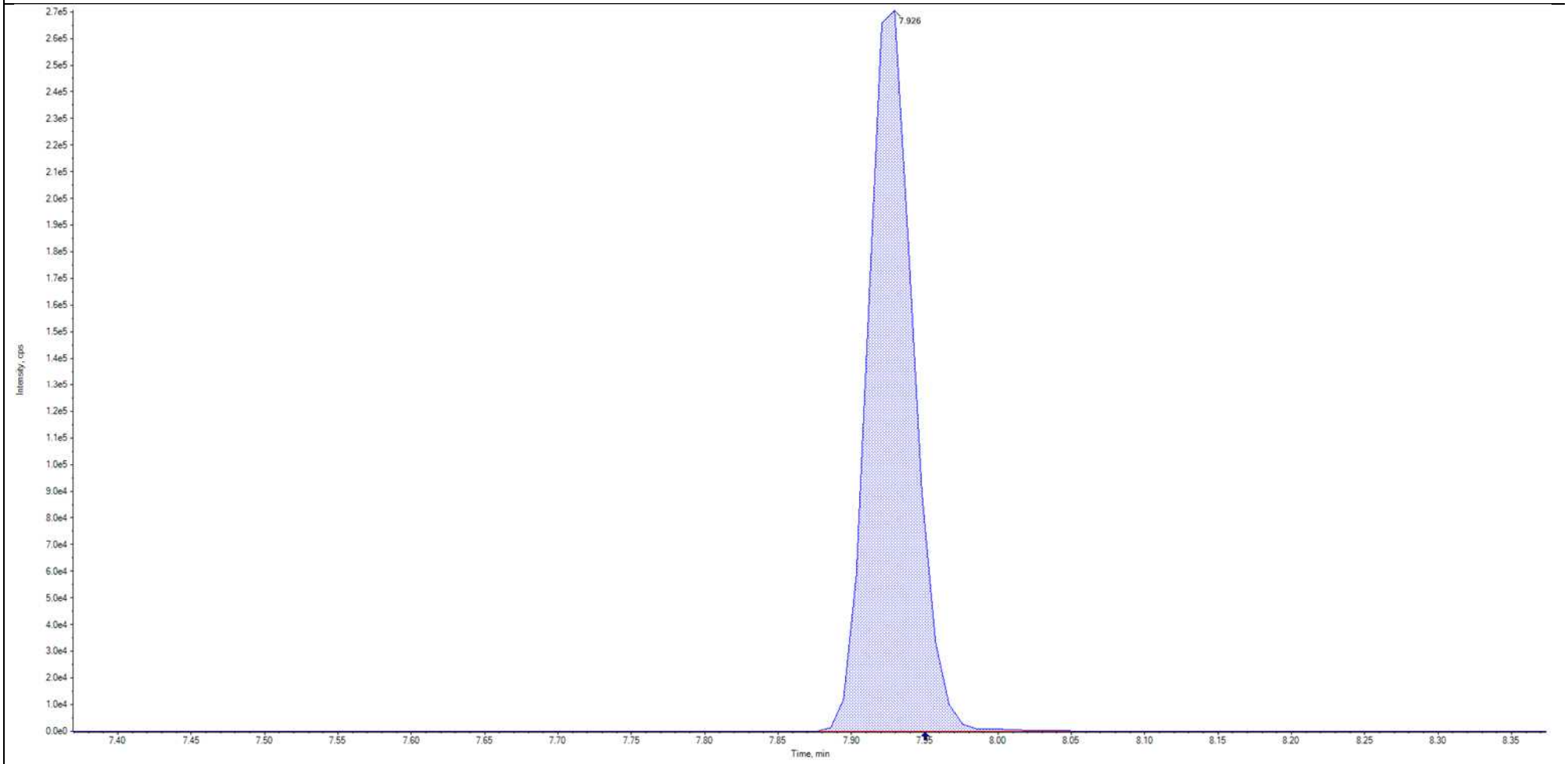
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Sample: WG1972760-1



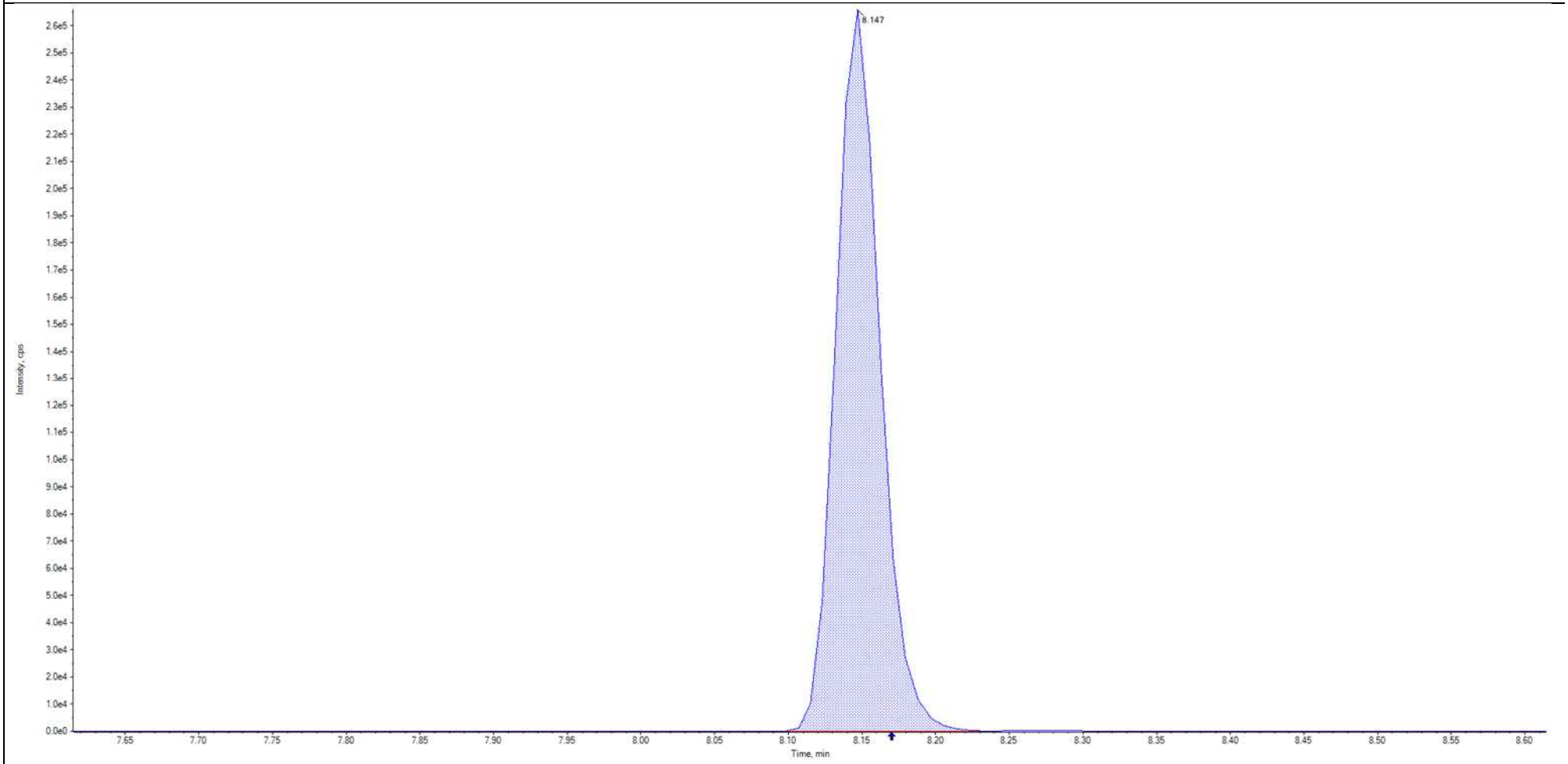
13C8-PFOA
Sample: WG1972760-1



13C9-PFNA
Sample: WG1972760-1

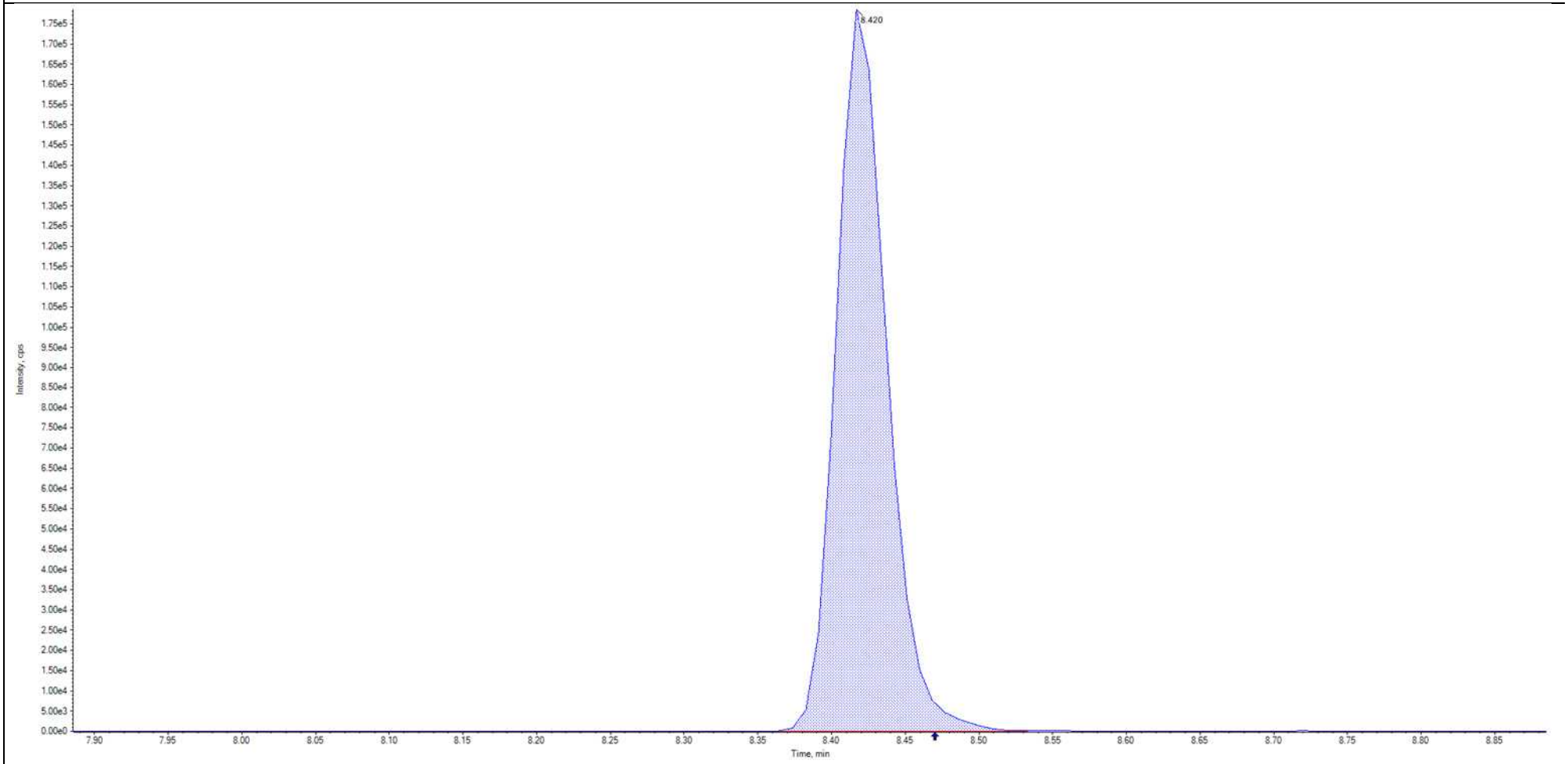


13C6-PFDA
Sample: WG1972760-1



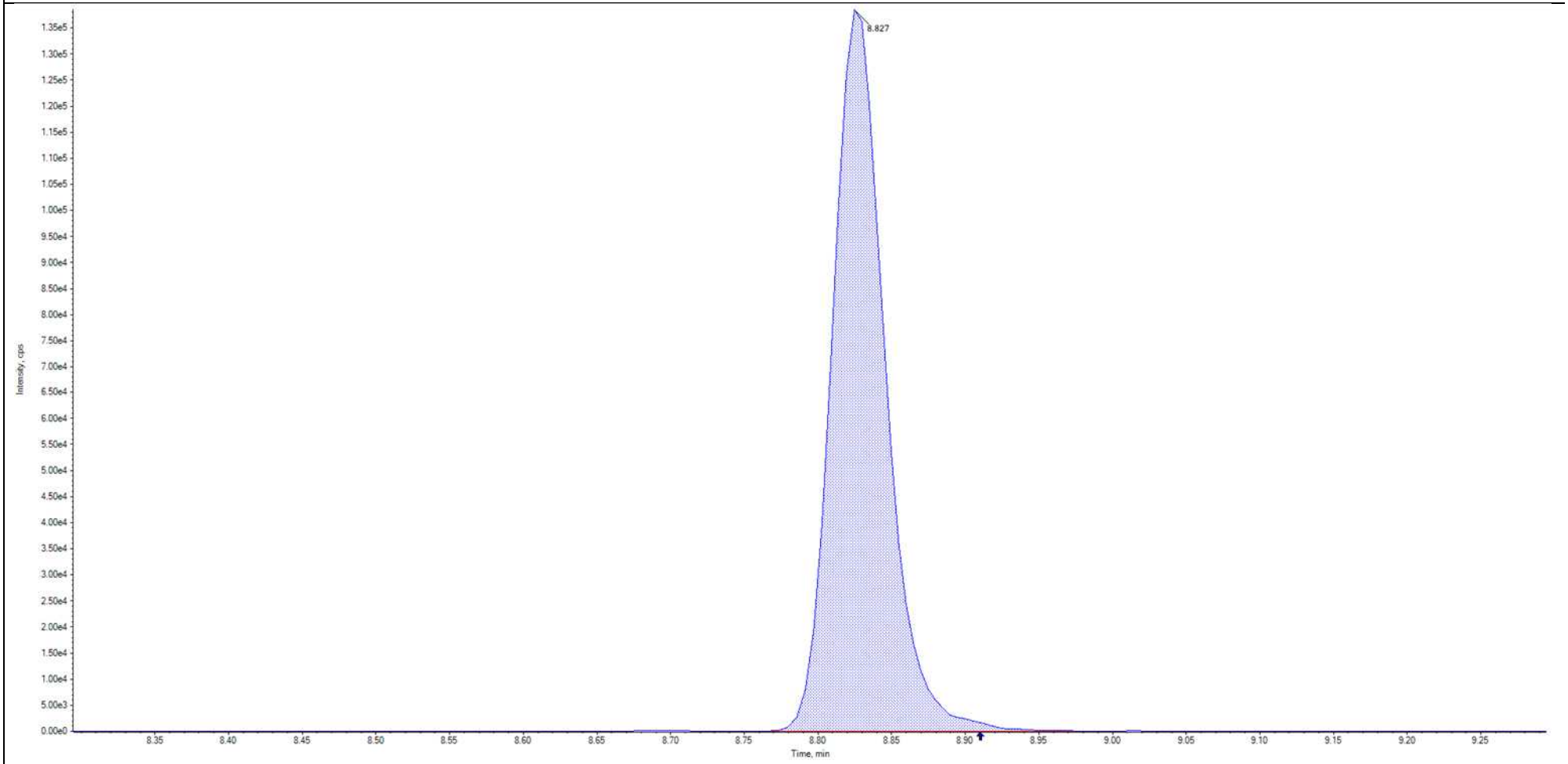
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13C7-PFUnA
Sample: WG1972760-1



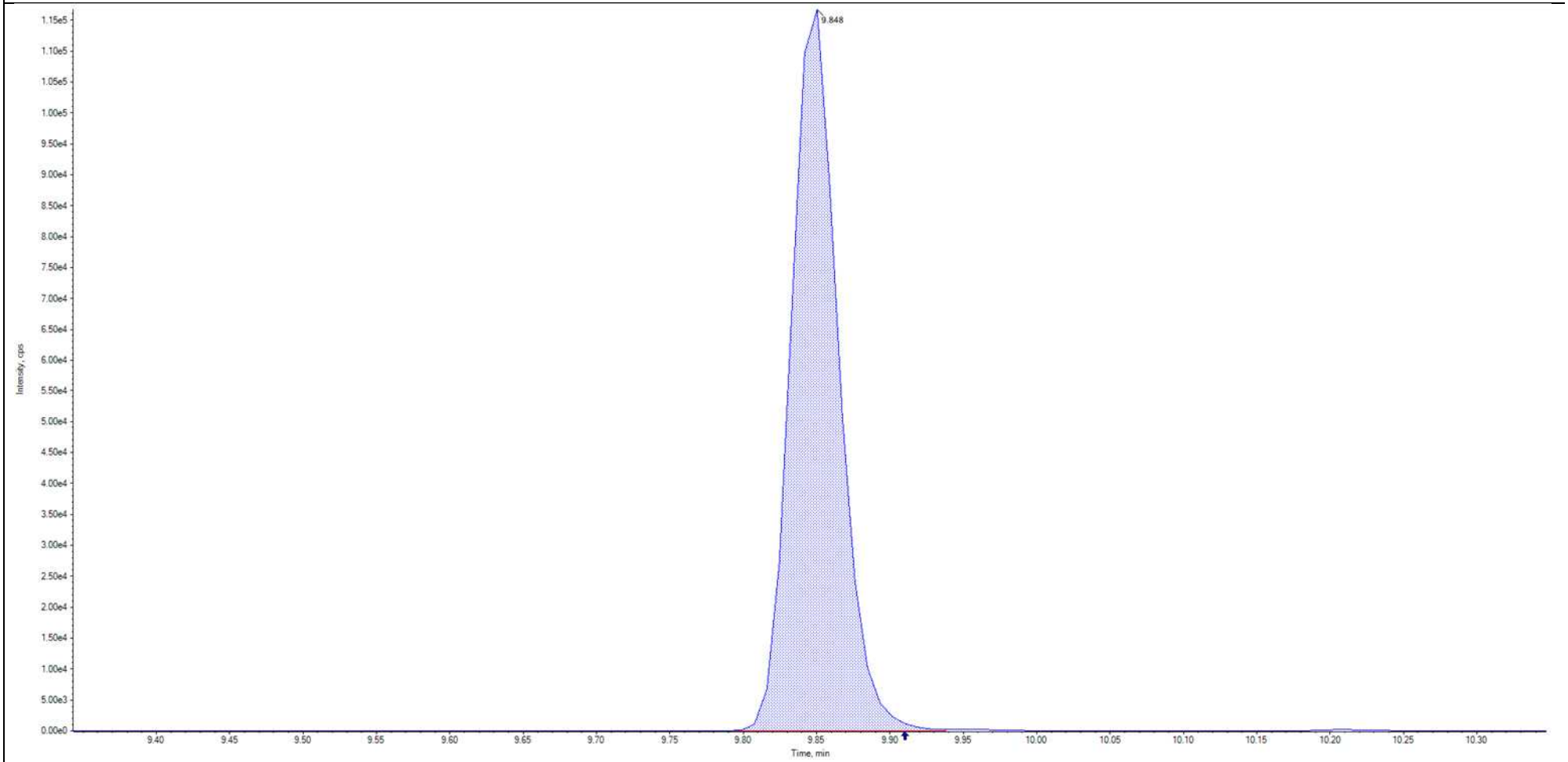
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13C2-PFDoA
Sample: WG1972760-1



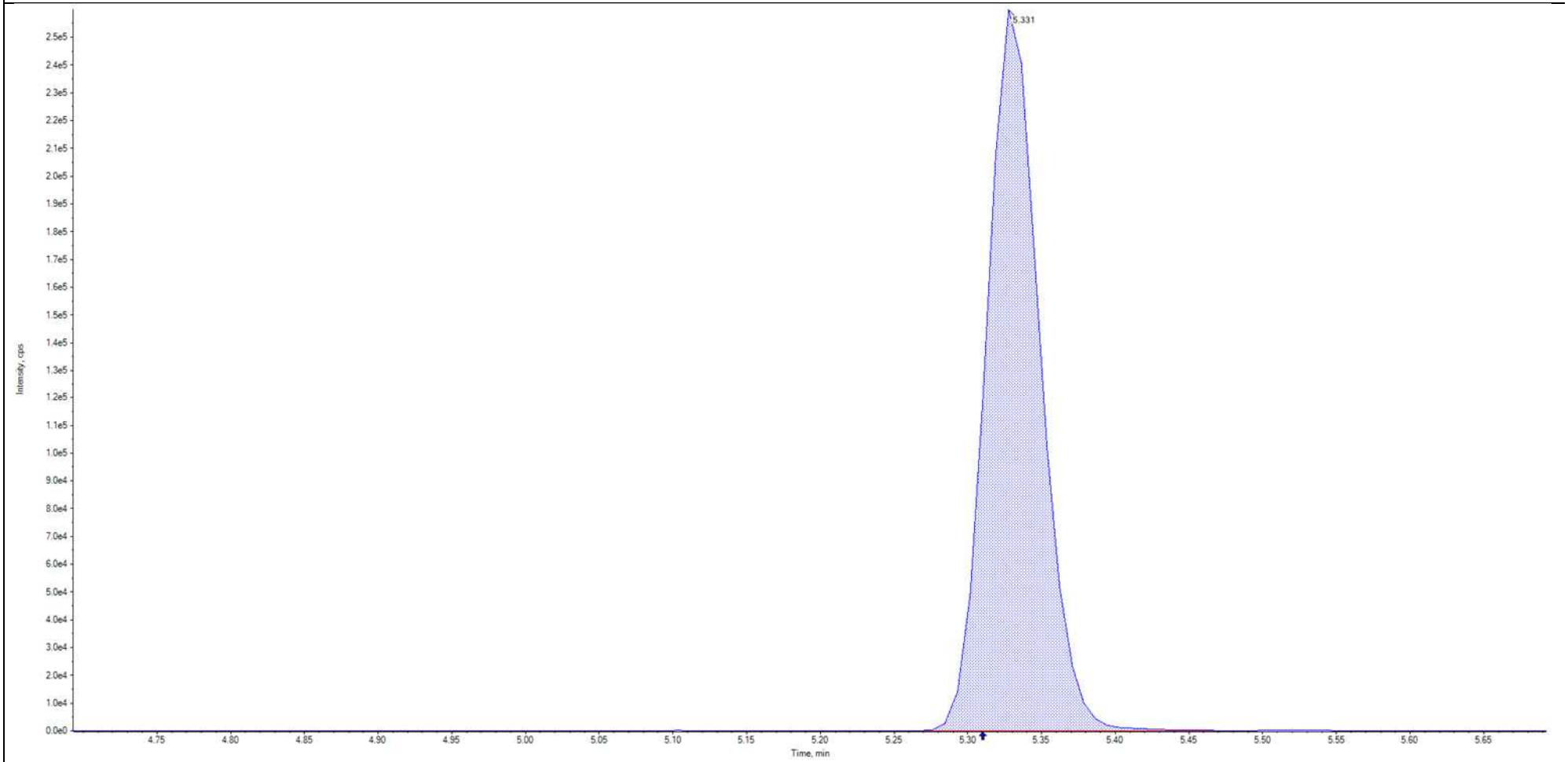
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13C2-PFTeDA
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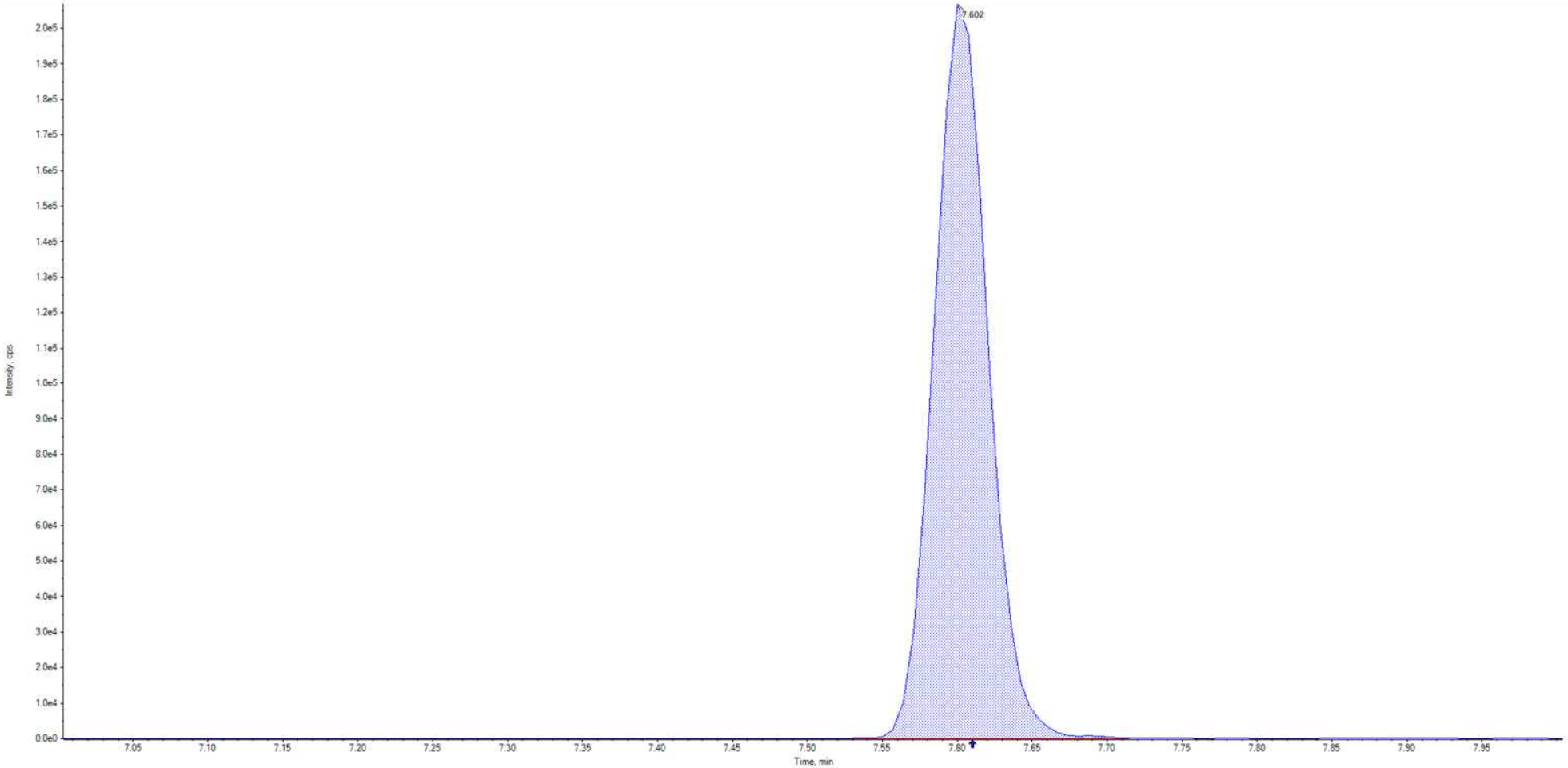
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13C3-PFBS
Sample: WG1972760-1

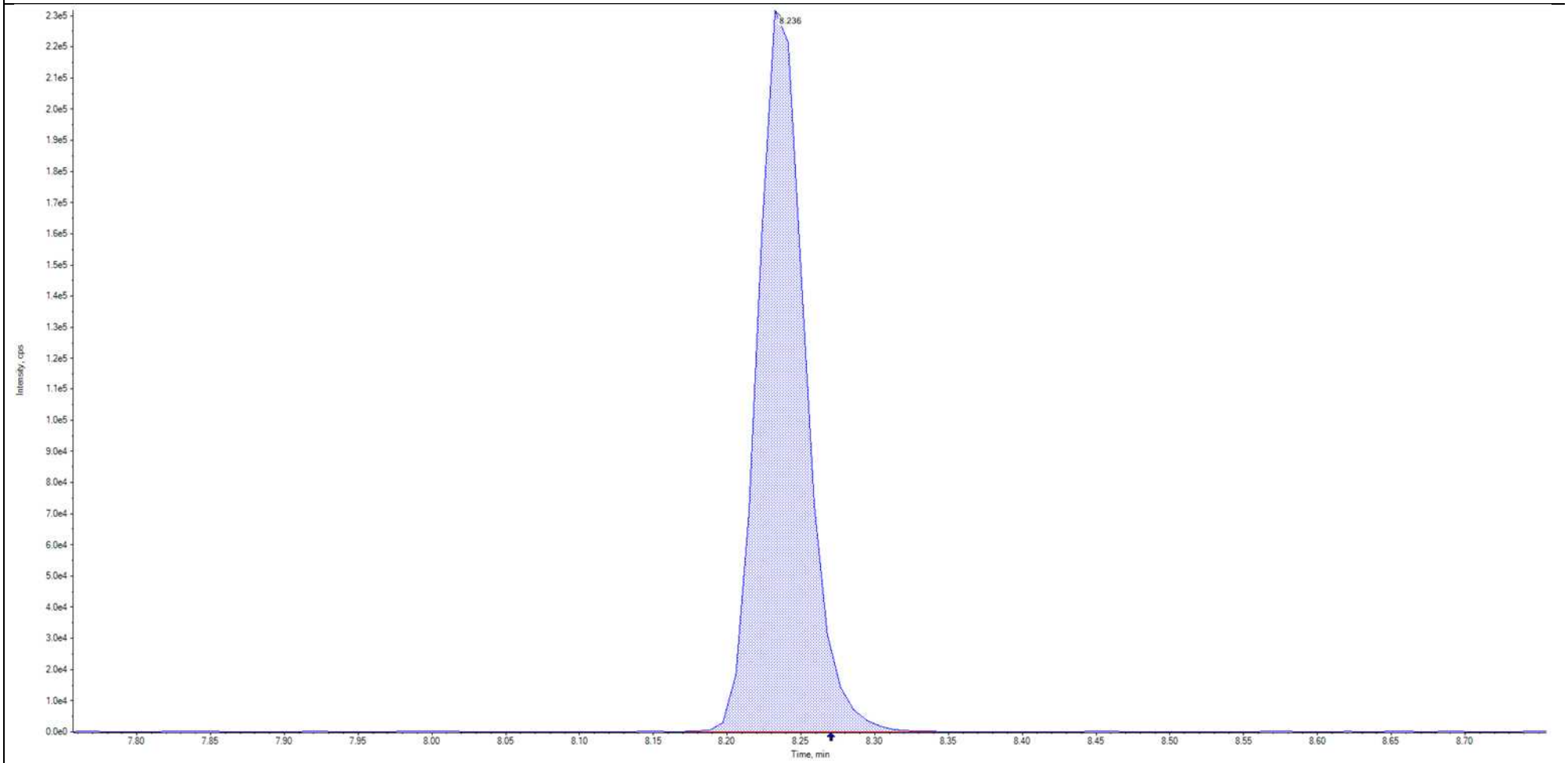


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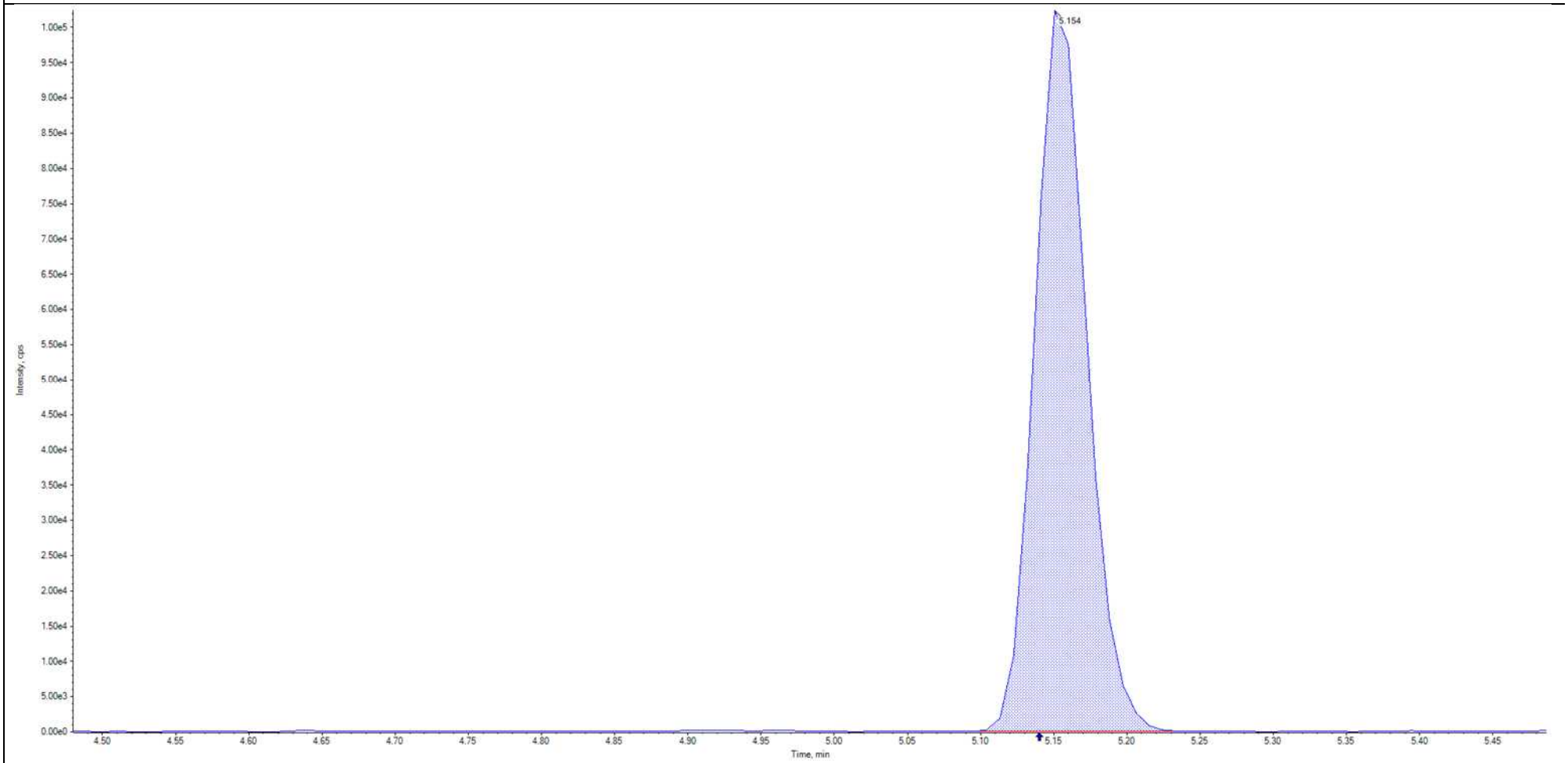
13C3-PFHxS
Sample: WG1972760-1



13C8-PFOS
Sample: WG1972760-1

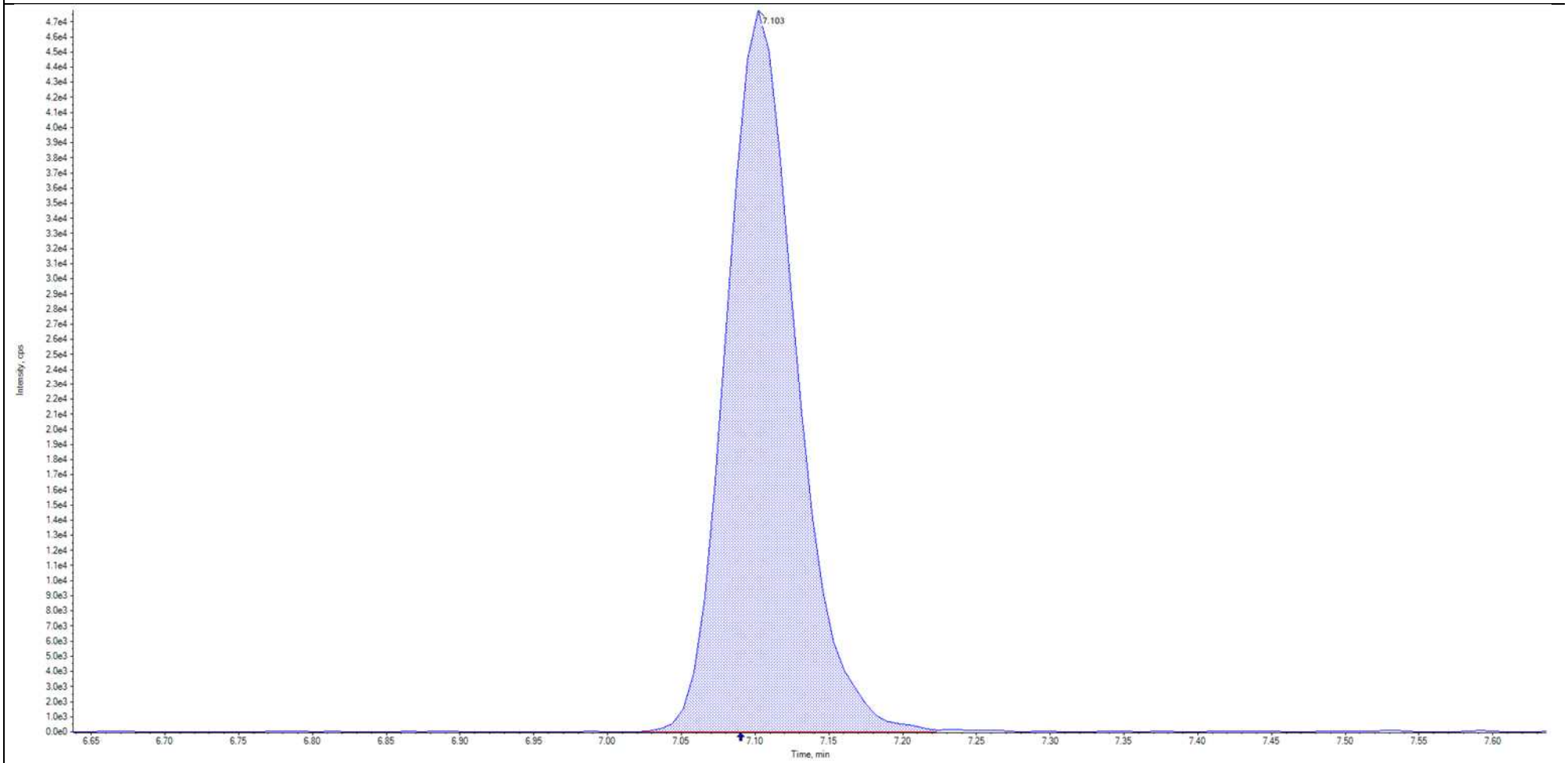


13C2-4:2FTS
Sample: WG1972760-1



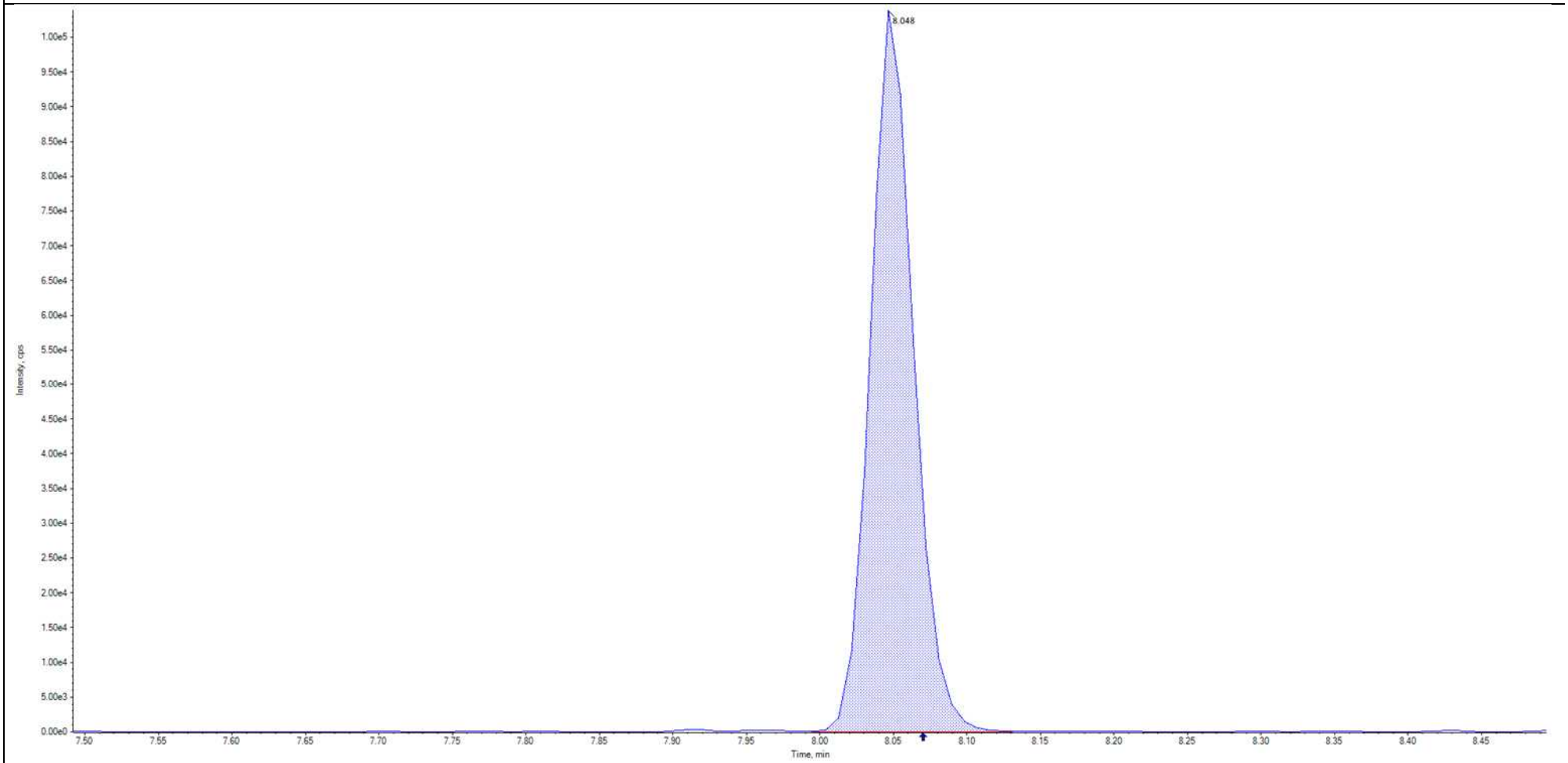
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13C2-6:2FTS
Sample: WG1972760-1

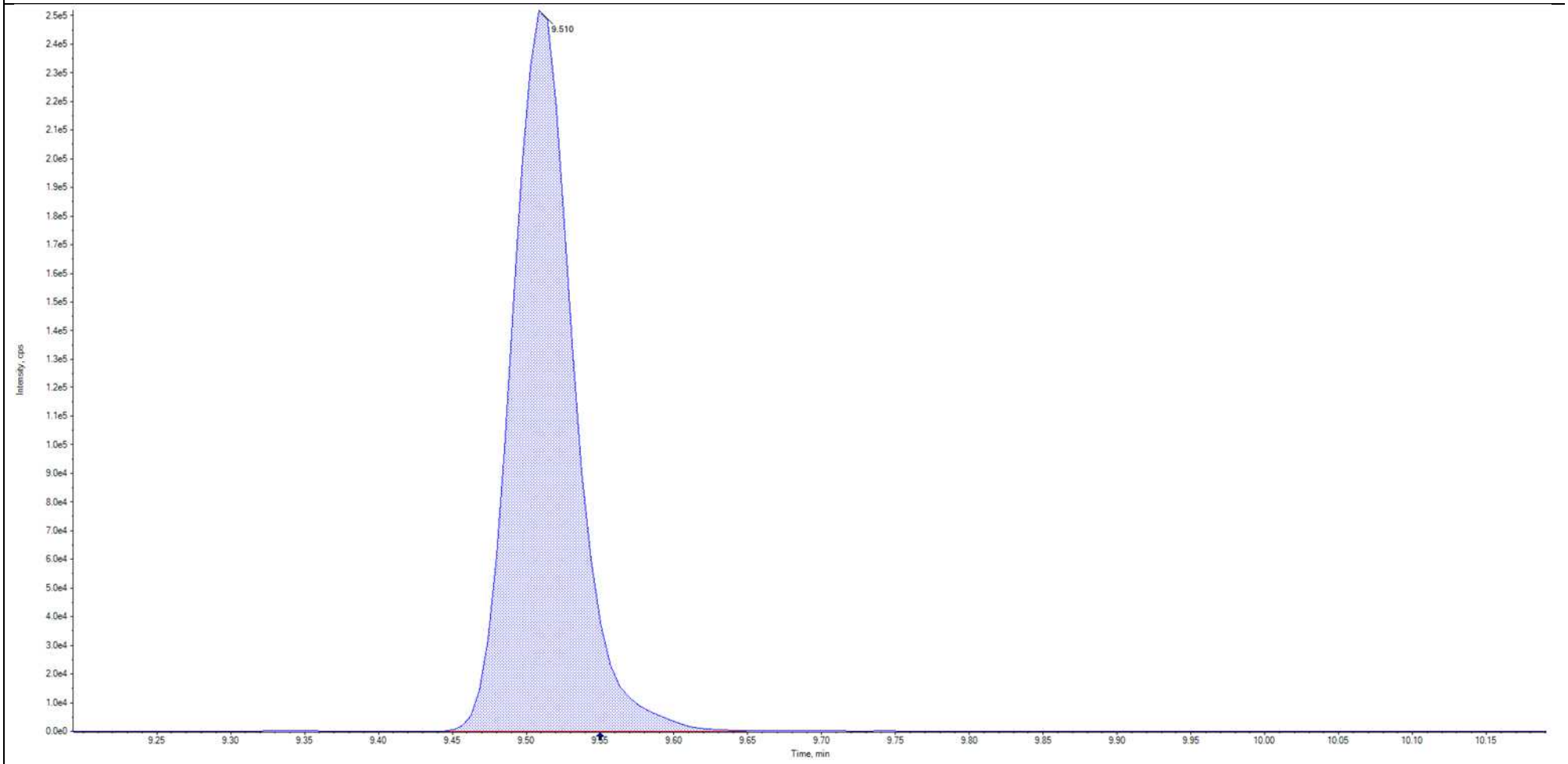


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13C2-8:2FTS
Sample: WG1972760-1

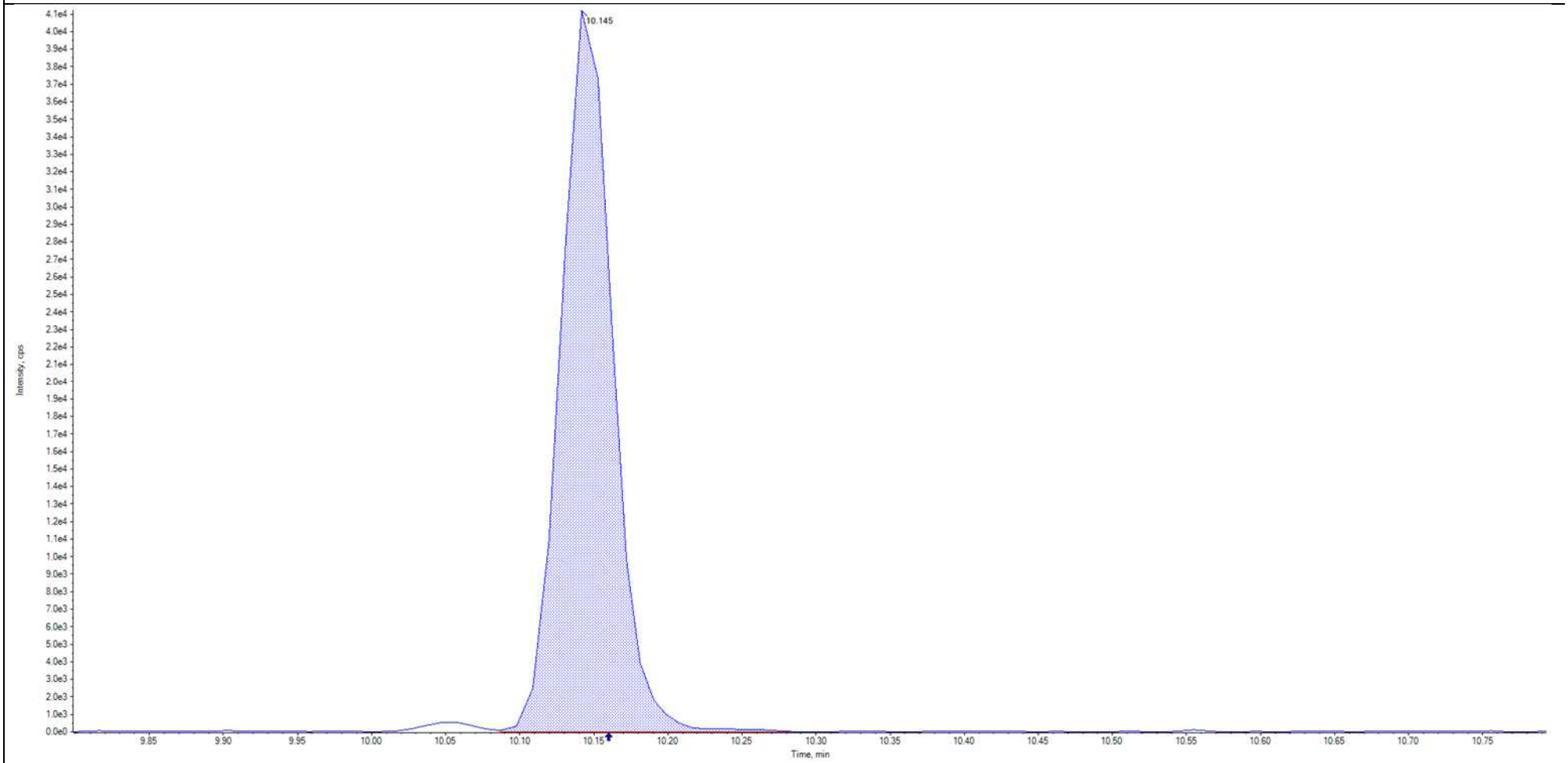


13C8-PFOSA
Sample: WG1972760-1

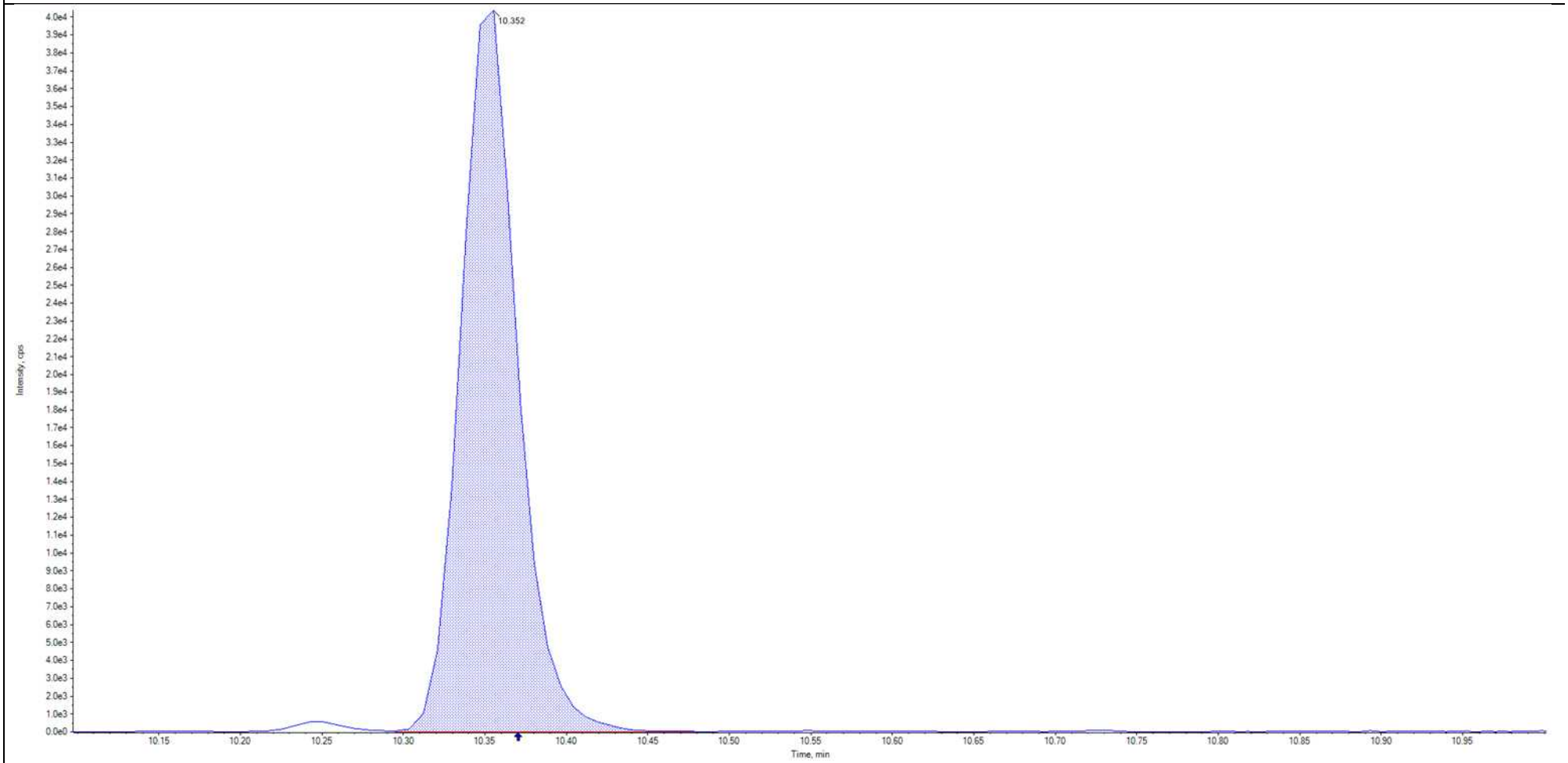


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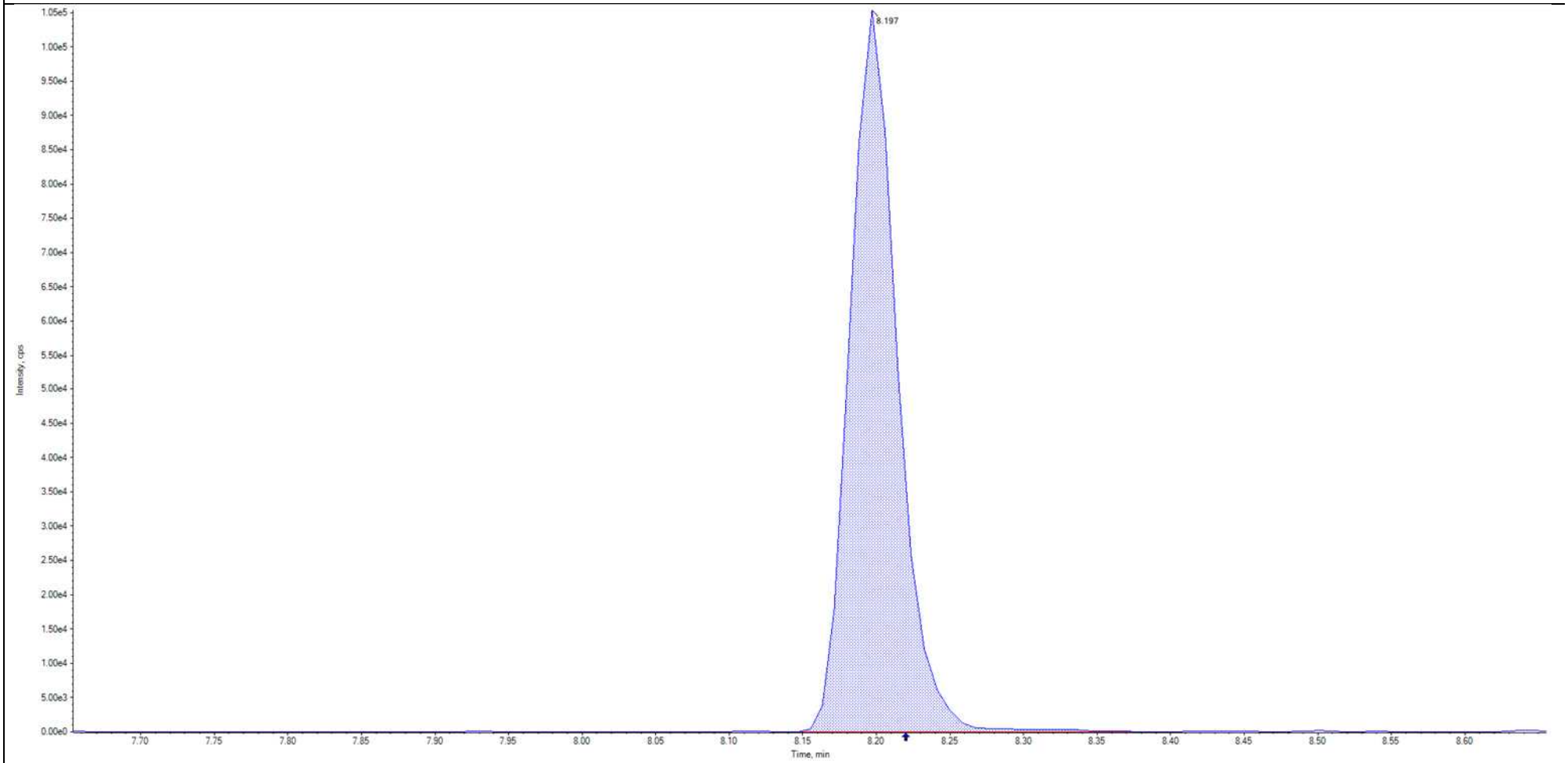
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Sample: WG1972760-1



d5-NEtFOSA
Sample: WG1972760-1

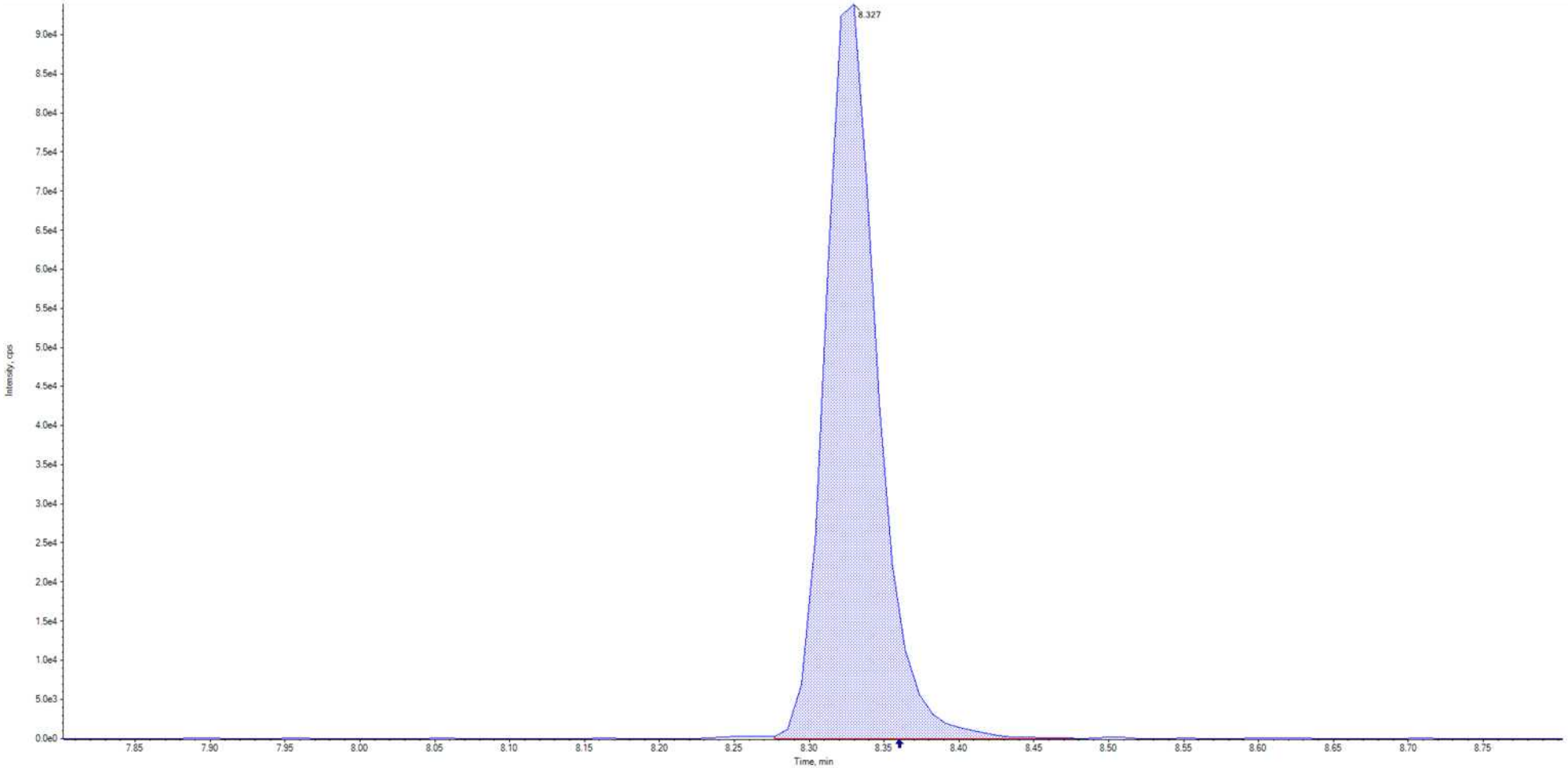


d3-NMeFOSAA
Sample: WG1972760-1

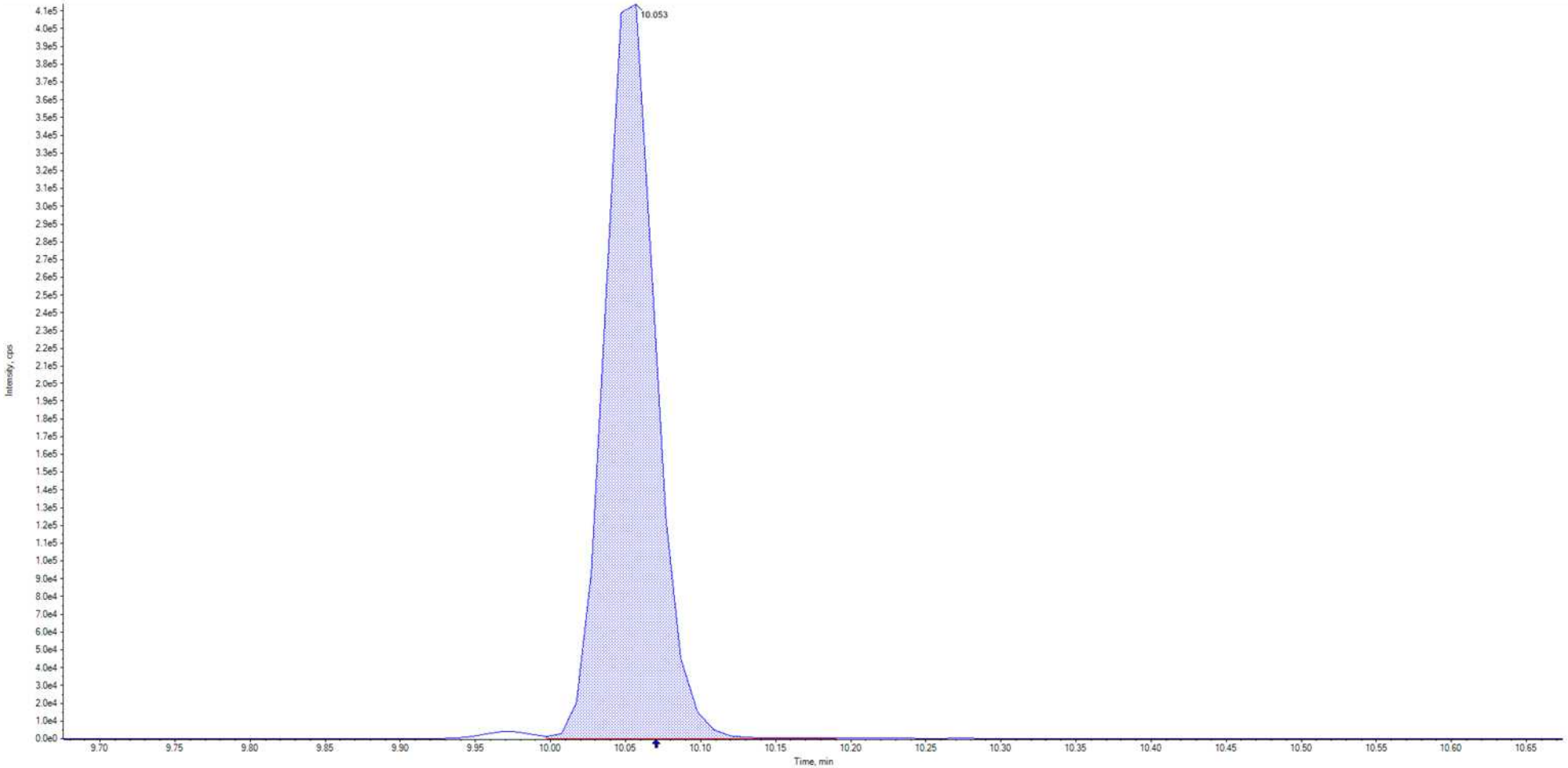


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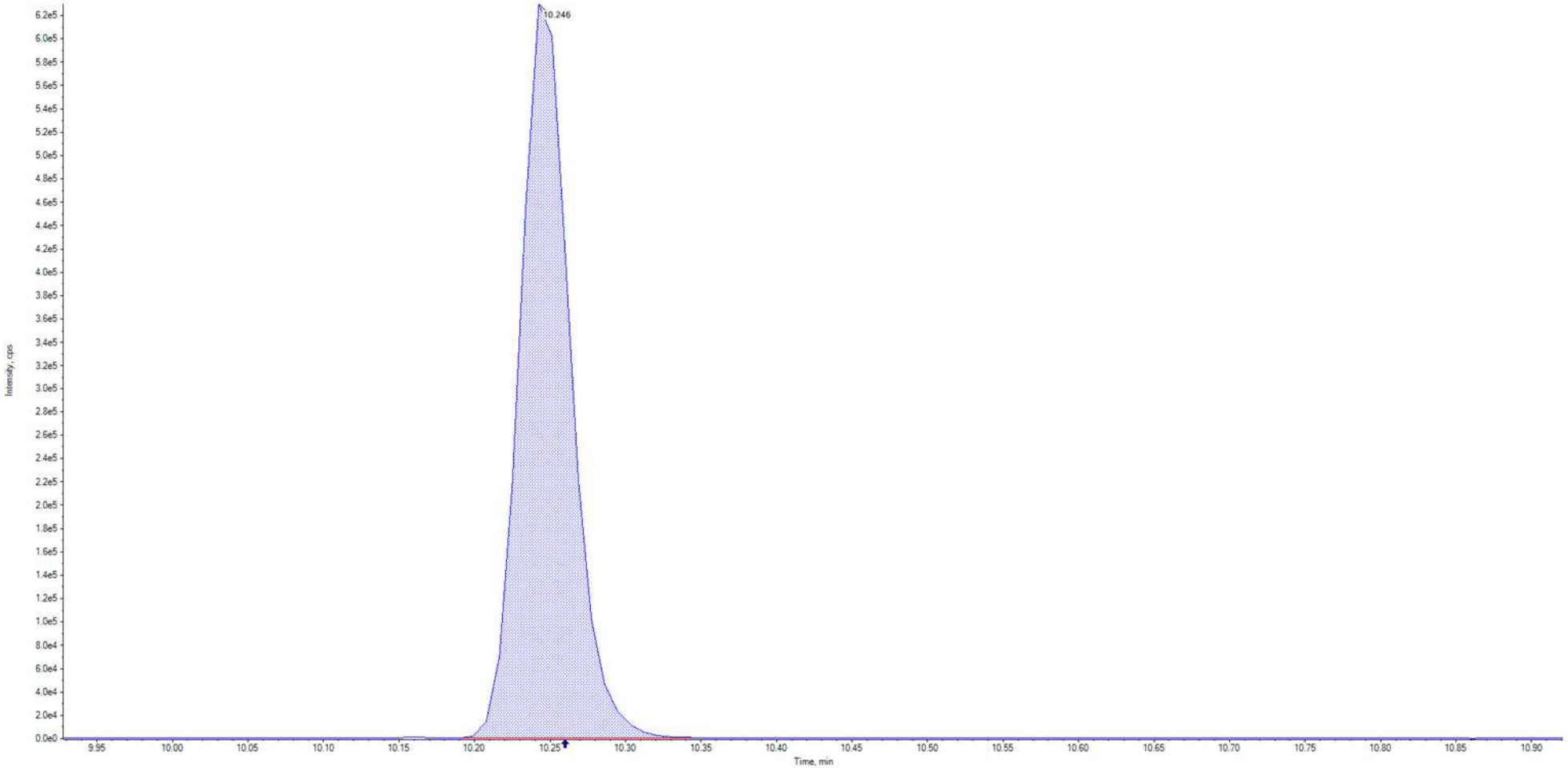
d5-NEtFOSAA
Sample: WG1972760-1



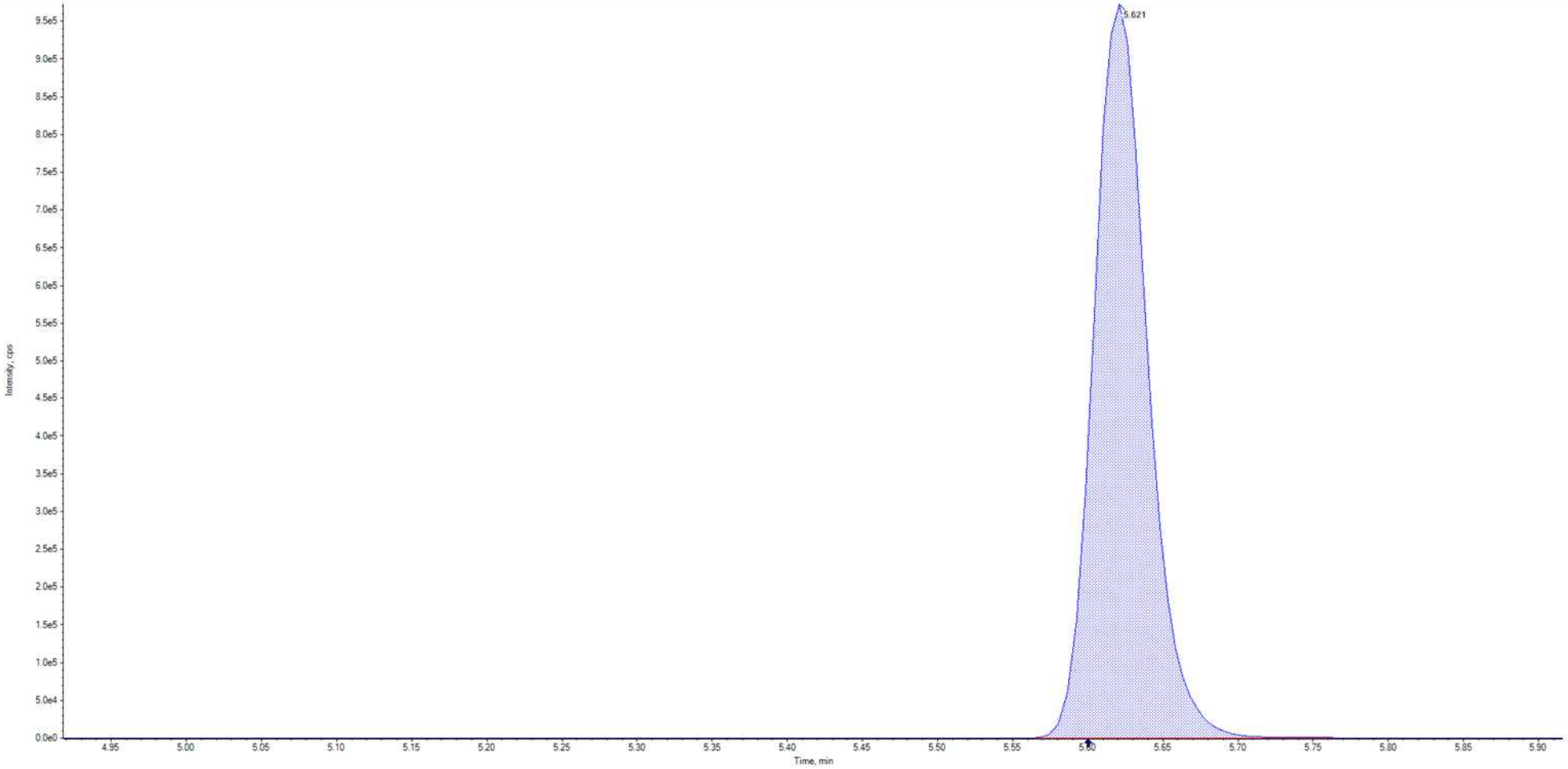
d7-NMeFOSE
Sample: WG1972760-1



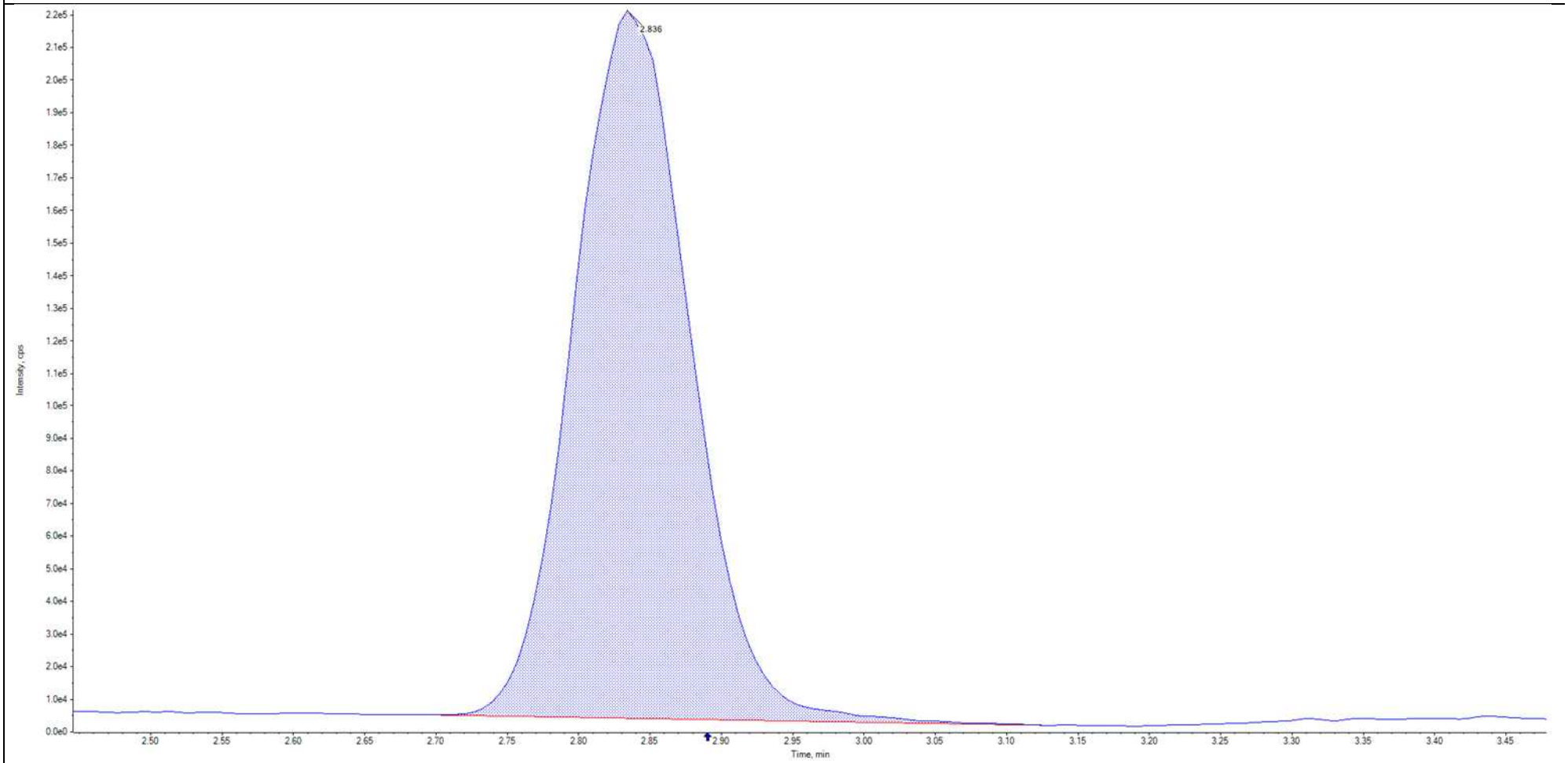
d9-NEtFOSE
Sample: WG1972760-1



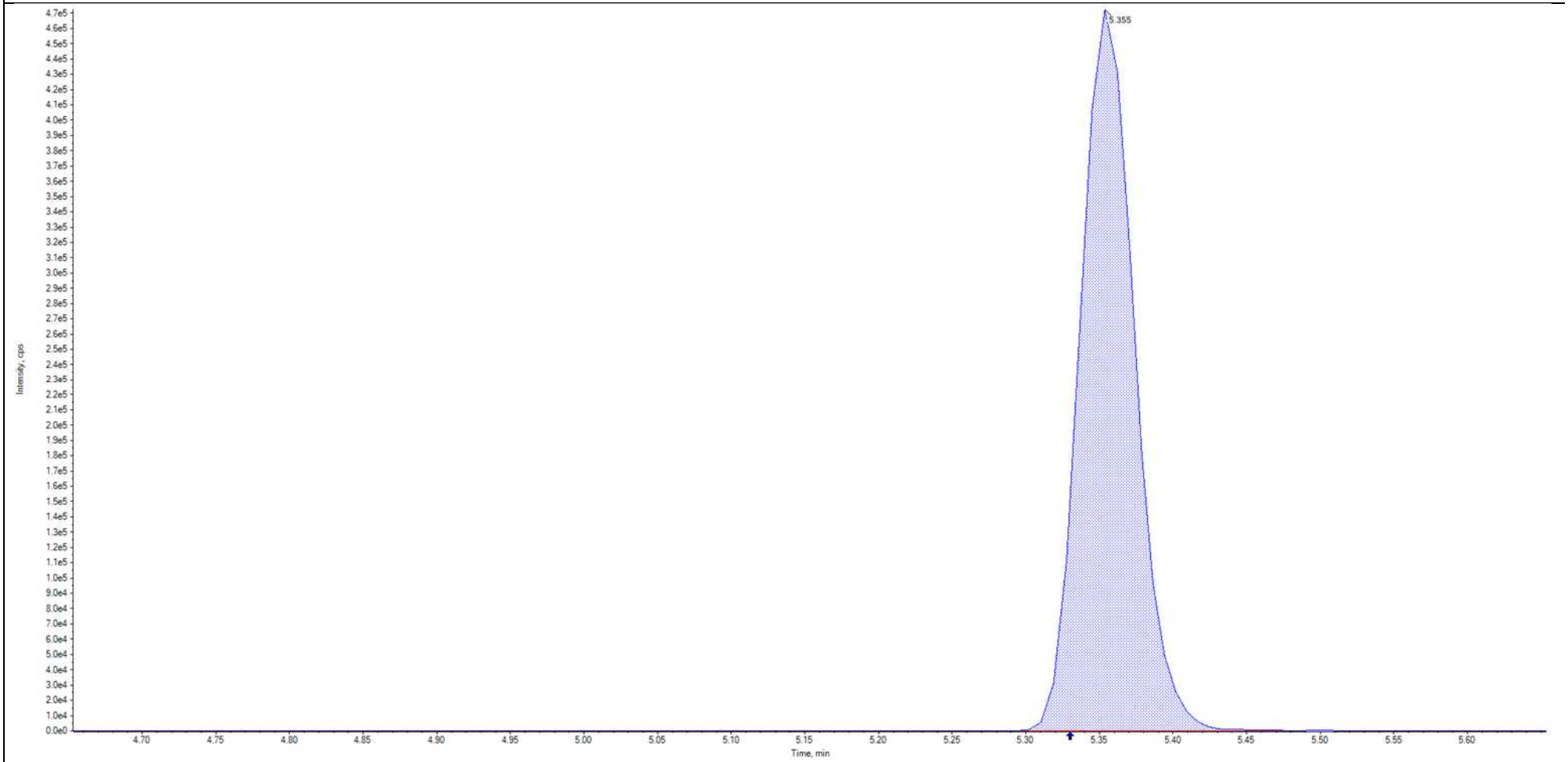
13C3-HFPO-DA
Sample: WG1972760-1



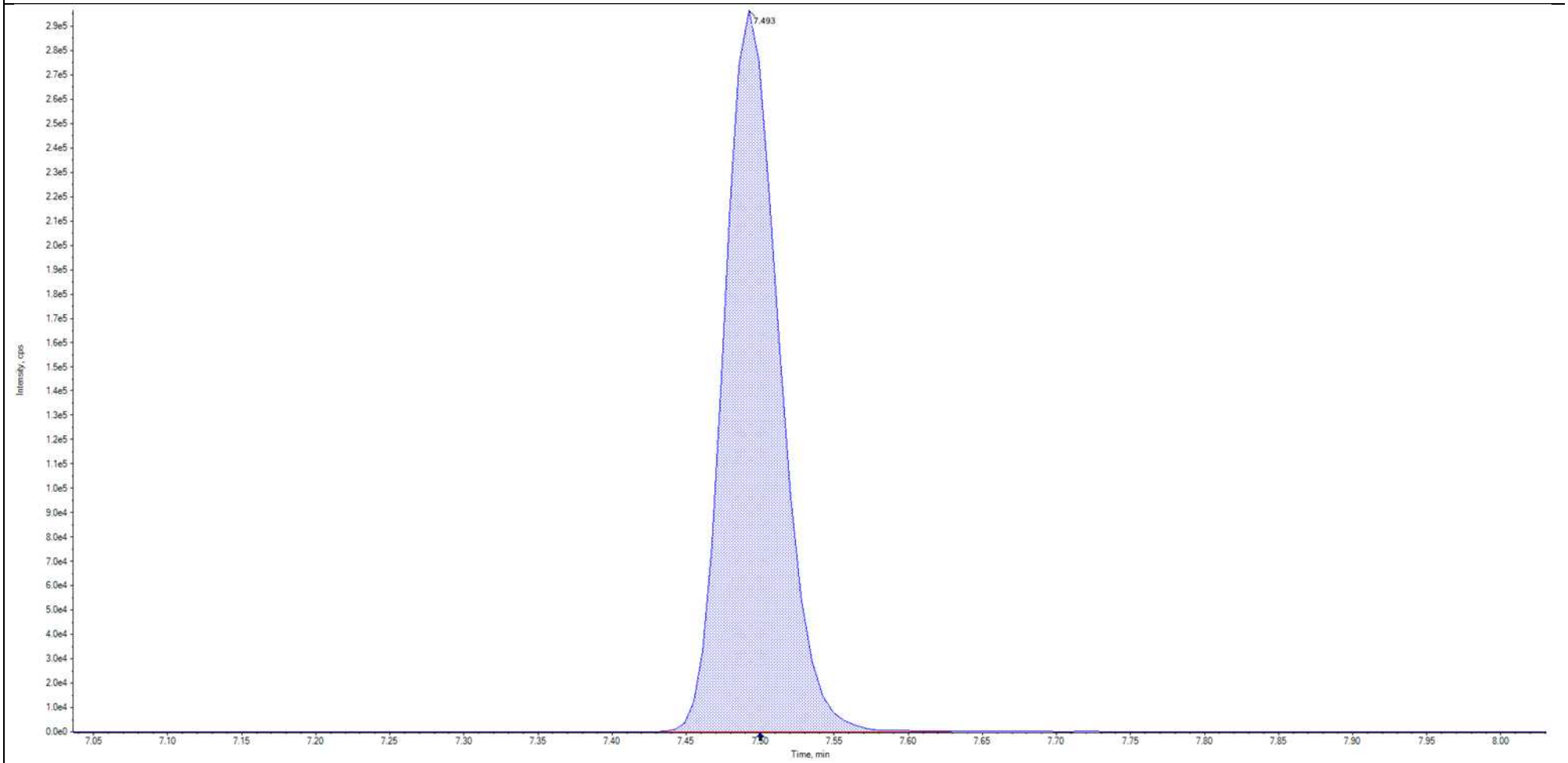
13C3-PFBA
Sample: WG1972760-1



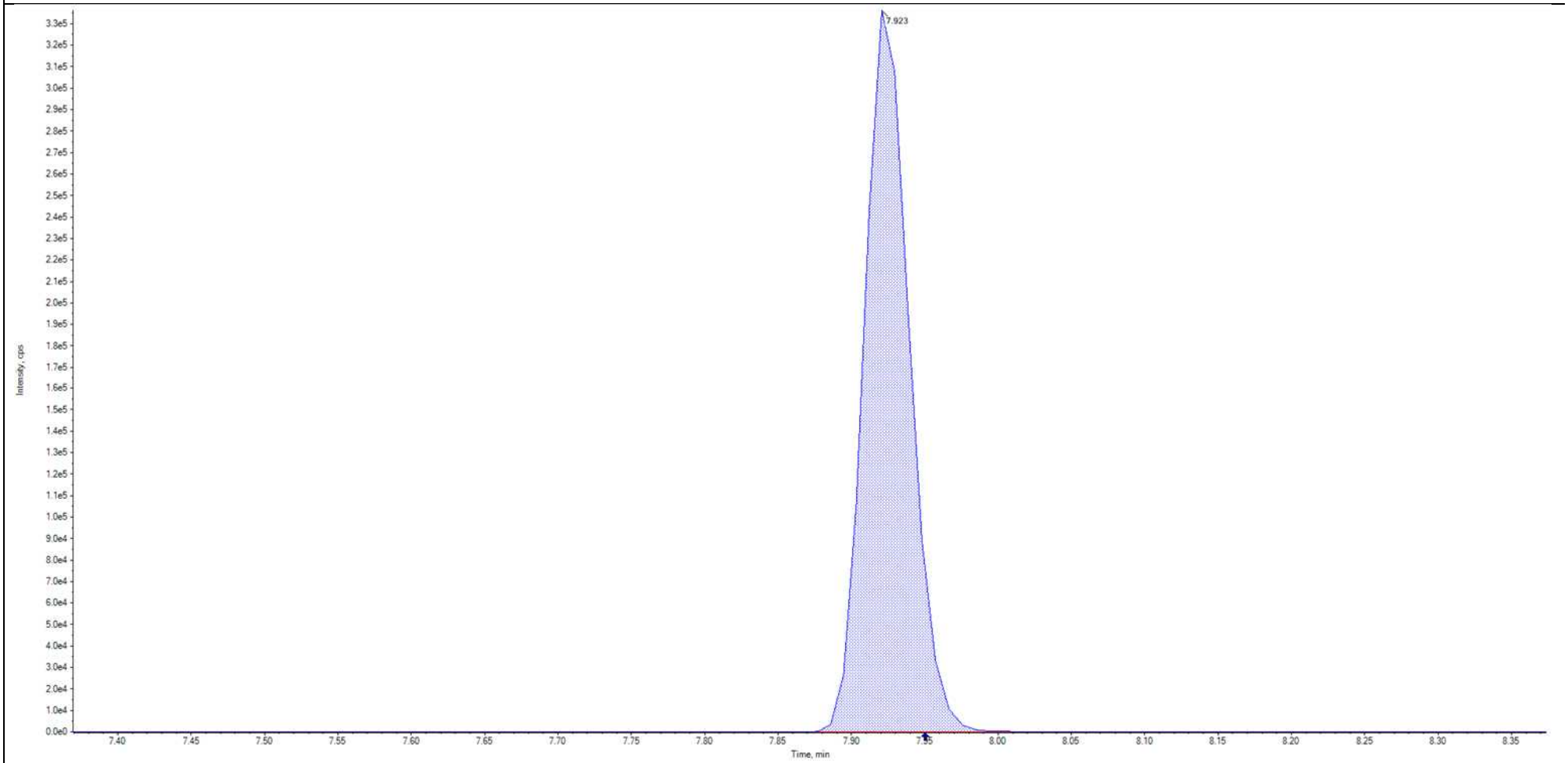
13C2-PFHxA
Sample: WG1972760-1



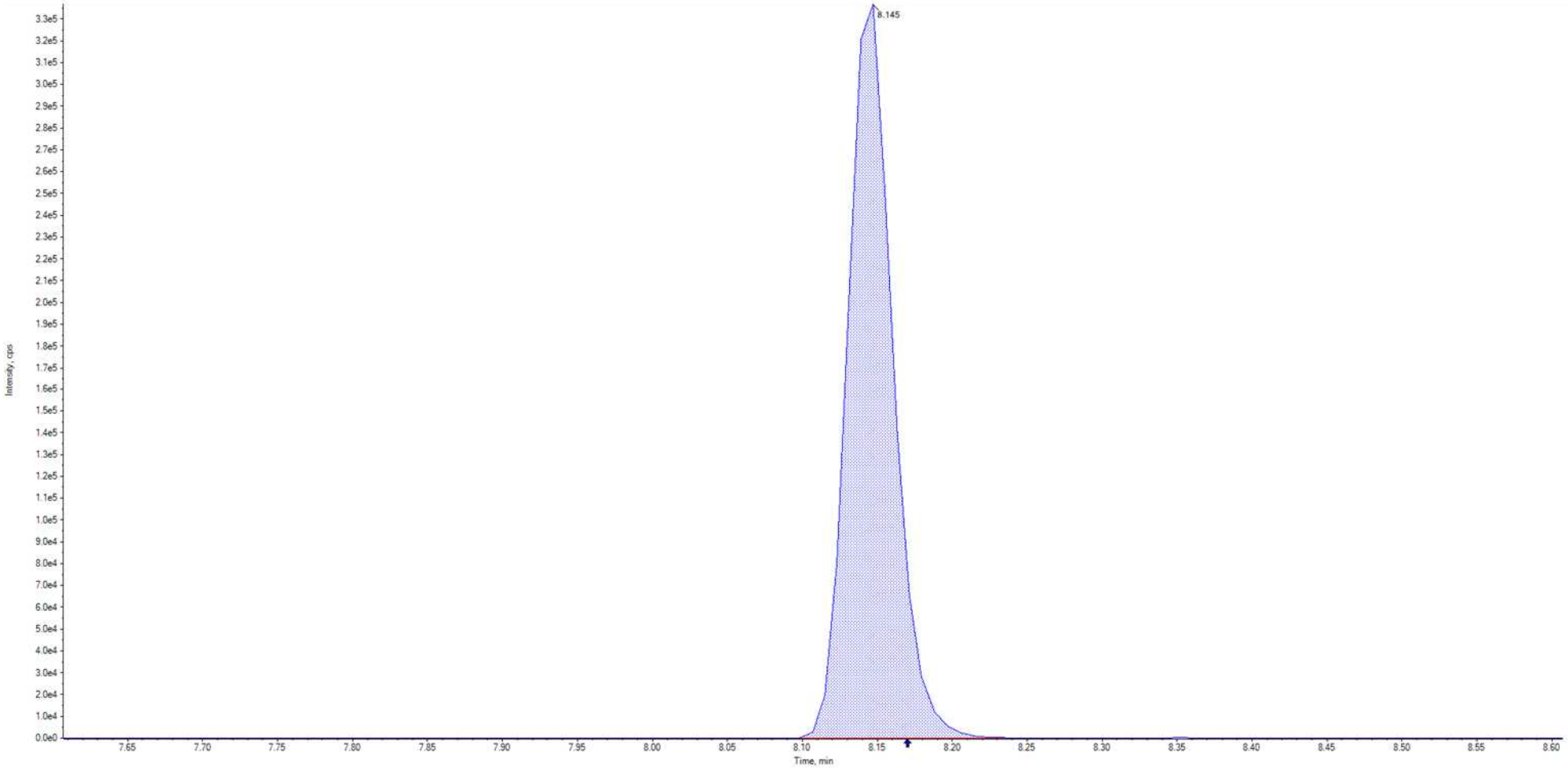
13C4-PFOA
Sample: WG1972760-1



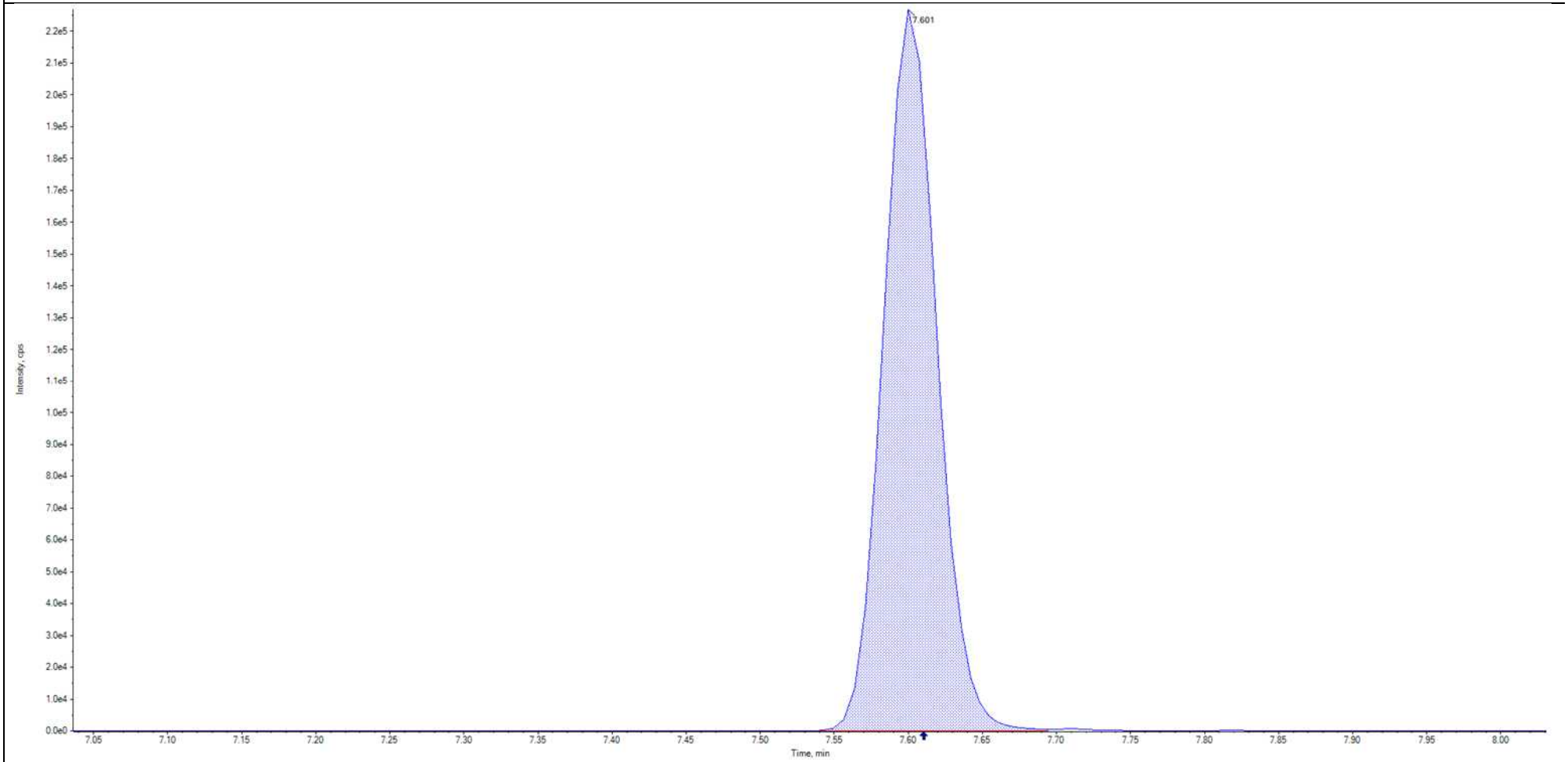
13C5-PFNA
Sample: WG1972760-1



13C2-PFDA
Sample: WG1972760-1

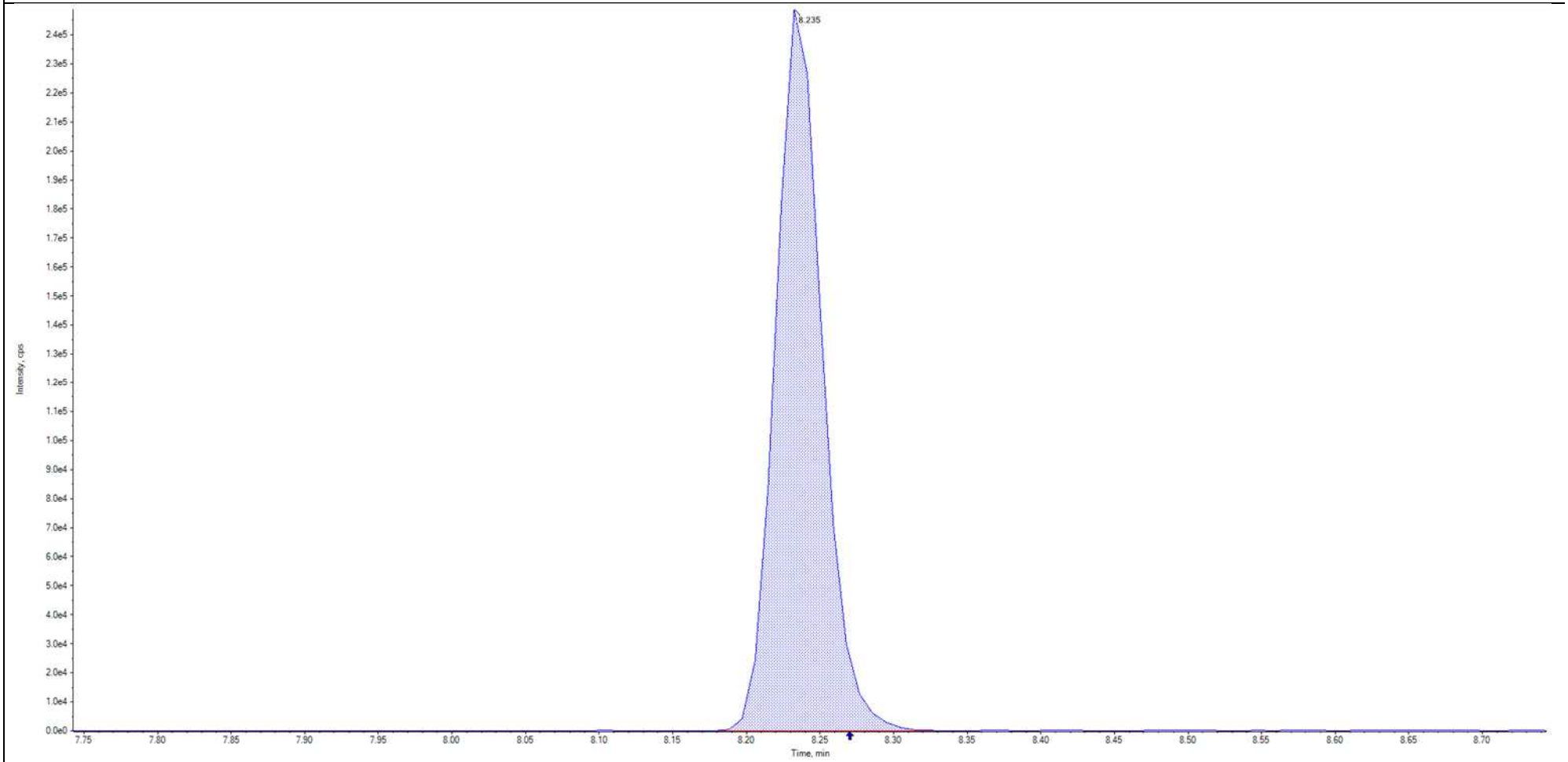


18O2-PFHxS
Sample: WG1972760-1



Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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13C4-PFOS
Sample: WG1972760-1



Quantity Sample Summary Report SCIEX OS Version 3.0.0.3339
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Method: EPA1633_NIS_CALC.qmethod
Calibration: 240813_1633_ICAL

ID: WG1972760-2
Name: SCI05_240918_16.wiff
Date & Time: 2024-09-18T08:43:07
Description: WG1972930,WG1972760,ICAL21391
Instrument: Triple Quad 5500+
User: LCMS05:AC

LC/MS-MS Method:EPA_1633.dam

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
1	PFBA	375-22-4	2.84	213.0 / 169.0	338918		1.782	N/A	N/A	N/A	111.4
2	PFPeA	2706-90-3	4.66	263.0 / 219.0	283378		0.962	0.006	0.007	N/A	120.3
3	PFPeA_2	2706-90-3	4.66	263.0 / 68.9	1749		0.841	0.006	0.007	N/A	105.1
4	PFHxA	307-24-4	5.36	313.0 / 269.0	205463		0.475	0.065	0.072	Pass	118.7
5	PFHxA_2	307-24-4	5.36	313.0 / 119.0	13401		0.419	0.065	0.072	Pass	104.8
6	PFHpA	375-85-9	6.28	363.1 / 319.0	184725		0.442	0.326	0.297	Pass	110.4
7	PFHpA_2	375-85-9	6.27	363.1 / 169.0	60240		0.471	0.326	0.297	Pass	117.7

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
8	PFOA	335-67-1	7.50	413.1 / 369.1	118084	M5	0.422	0.526	0.586	Pass	105.6
9	PFOA_2	335-67-1	7.49	413.1 / 169.0	62145	M7	0.406	0.526	0.586	Pass	101.4
10	PFNA	375-95-1	7.93	462.8 / 418.9	166376	M5	0.466	0.331	0.313	Pass	116.5
11	PFNA_2	375-95-1	7.93	462.8 / 218.9	55137	M7	0.505	0.331	0.313	Pass	126.4
12	PFDA	335-76-2	8.15	513.1 / 469.1	193810		0.480	0.138	0.142	Pass	119.9
13	PFDA_2	335-76-2	8.15	513.1 / 219.0	26793		0.443	0.138	0.142	Pass	110.6
14	PFUnA	2058-94-8	8.42	563.1 / 519.1	142335		0.505	0.197	0.194	Pass	126.2
15	PFUnA_2	2058-94-8	8.42	563.1 / 269.0	28071		0.514	0.197	0.194	Pass	128.5
16	PFDoA	307-55-1	8.83	613.1 / 569.1	123633		0.322	0.167	0.167	Pass	80.5
17	PFDoA_2	307-55-1	8.83	613.1 / 319.0	20617		0.318	0.167	0.167	Pass	79.5
18	PFTrDA	72629-94-8	9.39	663.1 / 619.1	77187		0.337	0.205	0.228	Pass	84.4
19	PFTrDA_2	72629-94-8	9.39	663.1 / 169.0	15827		0.311	0.205	0.228	Pass	77.7
20	PFTeDA	376-06-7	9.85	713.1 / 669.1	121279		0.440	0.144	0.137	Pass	110.1
21	PFTeDA_2	376-06-7	9.85	713.1 / 169.0	17480		0.464	0.144	0.137	Pass	116.0
22	PFBS	375-73-5	5.33	299.1 / 80.1	115048		0.388	0.401	0.396	Pass	109.5

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
23	PFBS_2	375-73-5	5.33	299.1 / 99.1	46144		0.391	0.401	0.396	Pass	110.2
24	PFPeS	2706-91-4	6.36	349.1 / 80.1	95181		0.413	0.310	0.299	Pass	109.7
25	PFPeS_2	2706-91-4	6.36	349.1 / 99.1	29465		0.424	0.310	0.299	Pass	112.6
26	PFHxS	355-46-4	7.60	399.1 / 80.1	91366	M5	0.424	0.298	0.315	Pass	115.9
27	PFHxS_2	355-46-4	7.60	399.1 / 99.1	27188	M7	0.406	0.298	0.315	Pass	111.0
28	PFHpS	375-92-8	7.99	449.1 / 80.1	90473		0.402	0.283	0.287	Pass	105.5
29	PFHpS_2	375-92-8	7.99	449.1 / 99.1	25645		0.389	0.283	0.287	Pass	102.1
30	PFOS	1763-23-1	8.24	499.1 / 80.1	91167	M5	0.381	0.245	0.238	Pass	102.6
31	PFOS_2	1763-23-1	8.24	499.1 / 99.1	22377	M7	0.381	0.245	0.238	Pass	102.8
32	PFNS	68259-12-1	8.57	549.1 / 80.1	65866		0.428	0.305	0.301	Pass	111.4
33	PFNS_2	68259-12-1	8.57	549.1 / 99.1	20118		0.432	0.305	0.301	Pass	112.3
34	PFDS	335-77-3	9.05	599.1 / 80.1	54161		0.358	0.283	0.275	Pass	92.7
35	PFDS_2	335-77-3	9.05	599.1 / 99.1	15301		0.367	0.283	0.275	Pass	95.0
36	PFDoS	79780-39-5	9.95	699.2 / 80.1	50858		0.367	0.270	0.274	Pass	94.5
37	PFDoS_2	79780-39-5	9.95	699.2 / 99.1	13716		0.360	0.270	0.274	Pass	92.8

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
38	4:2FTS	757124-72-4	5.16	327.1 / 307.1	165539		1.541	0.505	0.516	Pass	102.7
39	4:2FTS_2	757124-72-4	5.15	327.1 / 81.1	83544		1.453	0.505	0.516	Pass	96.9
40	6:2FTS	27619-97-2	7.11	427.2 / 407.2	99944		1.746	0.532	0.565	Pass	114.9
41	6:2FTS_2	27619-97-2	7.11	427.2 / 81.1	53169		1.717	0.532	0.565	Pass	113.0
42	8:2FTS	39108-34-4	8.05	527.2 / 507.2	131378		1.957	0.713	0.662	Pass	127.4
43	8:2FTS_2	39108-34-4	8.05	527.2 / 81.1	93649		2.057	0.713	0.662	Pass	133.9
44	PFOSA	754-91-6	9.51	498.1 / 78.1	87813	M5	0.434	0.028	0.025	Pass	108.6
45	PFOSA_2	754-91-6	9.51	498.1 / 478.0	2453	M7	0.462	0.028	0.025	Pass	115.6
46	NMeFOSA	31506-32-8	10.15	512.2 / 219.0	20901	M5	0.453	1.456	1.551	Pass	113.2
47	NMeFOSA_2	31506-32-8	10.11	512.2 / 169.0	30430	M7	0.425	1.456	1.551	Pass	106.3
48	NEtFOSA	4151-50-2	10.36	526.2 / 219.0	20465	M5	0.460	1.255	1.285	Pass	114.9
49	NEtFOSA_2	4151-50-2	10.32	526.2 / 169.0	25691	M7	0.431	1.255	1.285	Pass	107.8
50	NMeFOSAA	2355-31-9	8.20	570.2 / 419.1	18951	M4	0.550	0.777	0.700	Pass	137.5
51	NMeFOSAA_2	2355-31-9	8.20	570.2 / 483.0	14721		0.672	0.777	0.700	Pass	167.9
52	NEtFOSAA	2991-50-6	8.33	584.2 / 419.1	20988	M4	0.439	0.460	0.487	Pass	109.7

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
53	NEtFOSAA_2	2991-50-6	8.33	584.2 / 526.2	9663	M7	0.439	0.460	0.487	Pass	109.8
54	NMeFOSE	24448-09-7	10.06	616.1 / 58.9	396812	M5	4.244	N/A	N/A	N/A	106.1
55	NEtFOSE	1691-99-2	10.26	630.0 / 58.9	715709	M5	4.268	N/A	N/A	N/A	106.7
56	HFPO-DA	13252-13-6	5.62	285.0 / 169.0	416796		1.880	0.480	0.464	Pass	117.5
57	HFPO-DA_2	13252-13-6	5.62	285.0 / 184.9	200026		1.940	0.480	0.464	Pass	121.3
58	ADONA	919005-14-4	6.74	377.1 / 251.0	853050		1.692	0.649	0.634	Pass	111.9
59	ADONA_2	919005-14-4	6.74	377.1 / 84.8	553294		1.696	0.649	0.634	Pass	112.2
60	9Cl-PF3ONS	756426-58-1	8.45	530.8 / 351.1	871041		1.752	0.317	0.322	Pass	117.1
61	9Cl-PF3ONS_2	756426-58-1	8.45	532.8 / 353.0	276160		1.706	0.317	0.322	Pass	114.0
62	11Cl-PF3OUdS	763051-92-9	9.47	630.9 / 451.0	482691		1.537	0.322	0.331	Pass	101.7
63	11Cl-PF3OUdS_2	763051-92-9	9.47	632.9 / 452.9	155205		1.468	0.322	0.331	Pass	97.1
64	3:3FTCA	356-02-5	4.95	241.1 / 177.1	61518		2.408	0.851	1.074	Pass	120.4
65	3:3FTCA_2	356-02-5	4.94	241.1 / 117.0	52323		2.045	0.851	1.074	Pass	102.3
66	5:3FTCA	914637-49-3	7.20	341.1 / 237.1	854940		10.889	0.947	0.953	Pass	108.9
67	5:3FTCA_2	914637-49-3	7.20	341.1 / 217.0	809965		10.902	0.947	0.953	Pass	109.0

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
68	7:3FTCA	812-70-4	8.19	441.1 / 316.9	531405		6.080	2.046	1.558	Pass	60.8
69	7:3FTCA_2	812-70-4	8.19	441.1 / 337.1	1087282		8.572	2.046	1.558	Pass	85.7
70	PFEESA	113507-82-7	5.73	315.1 / 135.0	585118		0.779	0.088	0.087	Pass	109.4
71	PFEESA_2	113507-82-7	5.73	315.1 / 82.9	51541		0.795	0.088	0.087	Pass	111.6
72	PFMPA	377-73-1	3.90	229.0 / 85.0	31256		0.877	N/A	N/A	N/A	109.6
73	PFMBA	863090-89-5	4.89	279.0 / 85.0	374505		0.779	N/A	N/A	N/A	97.4
74	NFDHA	151772-58-6	5.27	295.0 / 201.0	72612		0.919	1.084	0.910	Pass	114.8
75	NFDHA_2	151772-58-6	5.27	295.0 / 84.9	78699		1.086	1.084	0.910	Pass	135.8
76	TDCA	516-50-7	N/A	499.1 / 124.1	N/A		N/A	N/A	40.716	N/A	N/A
77	TDCA_2	516-50-7	N/A	499.1 / 79.9	N/A		N/A	N/A	40.716	N/A	N/A
78	13C2D4-4:2FTS	Surr	N/A	333.2 / 312.1	N/A		N/A	N/A	N/A	N/A	N/A
79	13C2-PFOA	Surr	N/A	415.0 / 370.0	N/A		N/A	N/A	N/A	N/A	N/A

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C4-PFBA	EIS	2.84	217.0 / 172.0	2344800		8.849	NA	NA	NA	88.5

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C5-PFPeA	EIS	4.66	268.0 / 223.0	1597132		4.878	NA	NA	NA	97.6
	13C5-PFHxA	EIS	5.35	318.0 / 273.0	888033		2.065	NA	NA	NA	82.6
	13C4-PFHpA	EIS	6.27	367.0 / 322.0	892994		2.074	NA	NA	NA	83.0
	13C8-PFOA	EIS	7.49	421.0 / 376.0	1343319		2.287	NA	NA	NA	91.5
	13C9-PFNA	EIS	7.92	472.0 / 427.0	609515		1.071	NA	NA	NA	85.6
	13C6-PFDA	EIS	8.14	519.0 / 474.0	585980		0.998	NA	NA	NA	79.8
	13C7-PFUnA	EIS	8.42	570.0 / 525.0	446016		0.938	NA	NA	NA	75.1

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C2-PFDoA	EIS	8.82	615.1 / 570.0	369024		1.194	NA	NA	NA	95.5
	13C2-PFTeDA	EIS	9.85	715.1 / 670.1	274791		0.819	NA	NA	NA	65.5
	13C3-PFBS	EIS	5.33	302.1 / 80.1	705842		1.966	NA	NA	NA	84.4
	13C3-PFHxS	EIS	7.60	402.1 / 80.1	540334		1.895	NA	NA	NA	80.0
	13C8-PFOS	EIS	8.23	507.1 / 80.1	582902		1.952	NA	NA	NA	81.5
	13C2-4:2FTS	EIS	5.15	329.1 / 81.1	257155		4.014	NA	NA	NA	85.6
	13C2-6:2FTS	EIS	7.10	429.2 / 81.1	165930		3.534	NA	NA	NA	74.3
	13C2-8:2FTS	EIS	8.05	529.2 / 81.1	254228		3.700	NA	NA	NA	77.1

Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
13C8-PFOSA	EIS	9.51	506.1 / 78.1	756499		1.906	NA	NA	NA	76.2
d3-NMeFOSA	EIS	10.14	515.2 / 219.0	107790		1.613	NA	NA	NA	64.5
d5-NEtFOSA	EIS	10.35	531.2 / 219.0	101350		1.552	NA	NA	NA	62.1
d3-NMeFOSAA	EIS	8.19	573.2 / 419.1	261882		1.733	NA	NA	NA	34.7
d5-NEtFOSAA	EIS	8.32	589.3 / 419.1	256428		3.230	NA	NA	NA	64.6
d7-NMeFOSE	EIS	10.05	623.2 / 58.9	947511		18.360	NA	NA	NA	73.4
d9-NEtFOSE	EIS	10.24	639.2 / 58.9	1428449		18.773	NA	NA	NA	75.1

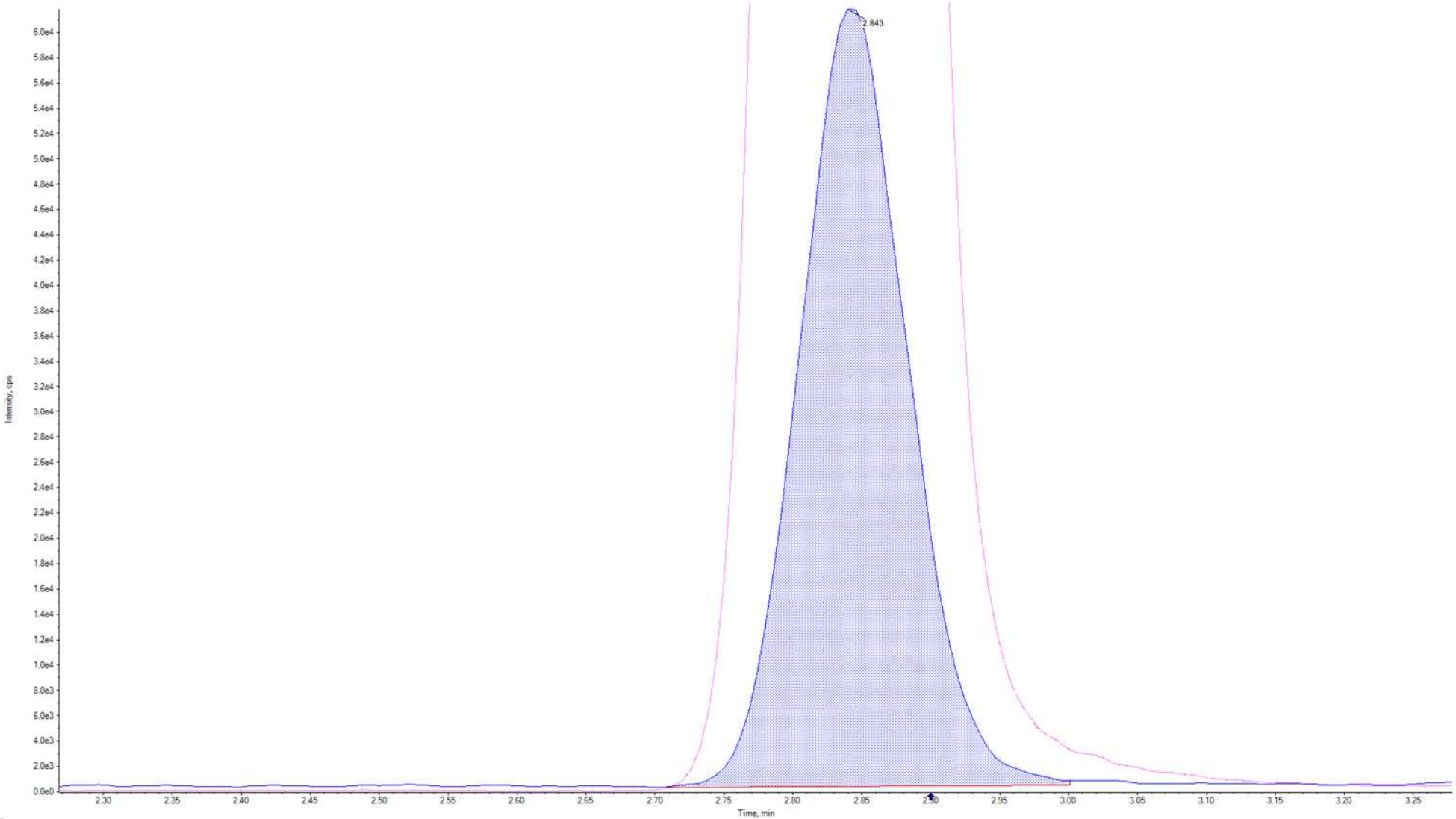
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	13C3-HFPO-DA	EIS	5.62	287.0 / 169.0	2418538		8.485	NA	NA	NA	84.9
	13C3-PFBA	NIS	2.84	216.0 / 172.0	1159152		5.421	NA	NA	NA	108.4
	13C2-PFHxA	NIS	5.35	315.0 / 270.0	1277044		2.608	NA	NA	NA	104.3
	13C4-PFOA	NIS	7.49	417.0 / 372.0	768502		2.455	NA	NA	NA	98.2
	13C5-PFNA	NIS	7.92	468.0 / 423.0	693605		1.266	NA	NA	NA	101.3
	13C2-PFDA	NIS	8.14	515.1 / 470.1	689966		1.346	NA	NA	NA	107.7
	18O2-PFHxS	NIS	7.60	403.1 / 84.1	579558		2.474	NA	NA	NA	104.4
	13C4-PFOS	NIS	8.23	503.1 / 80.1	528212		2.509	NA	NA	NA	104.8

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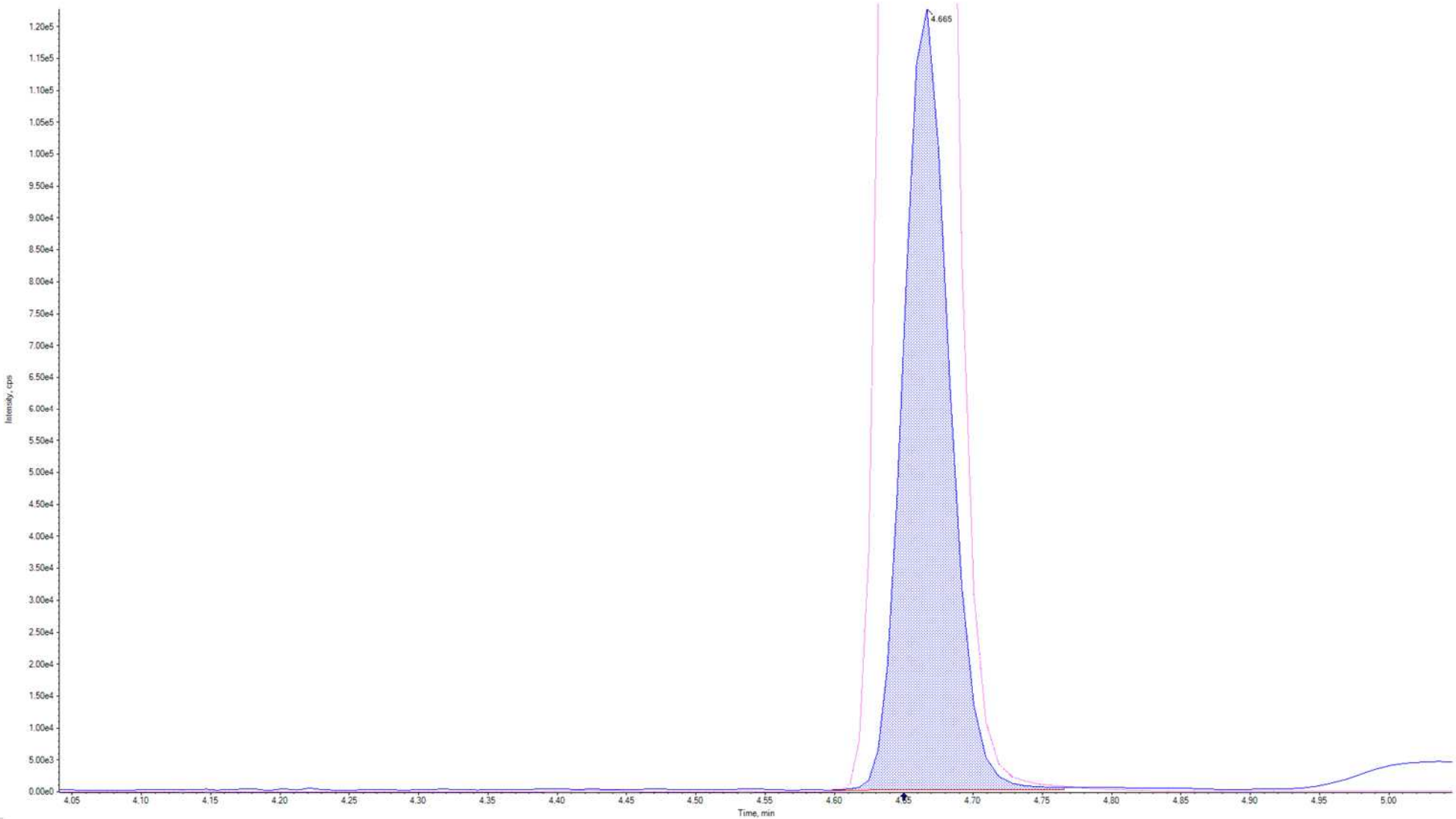
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PFBA
Sample: WG1972760-2 S/N:1280.1 Points Across peak:51



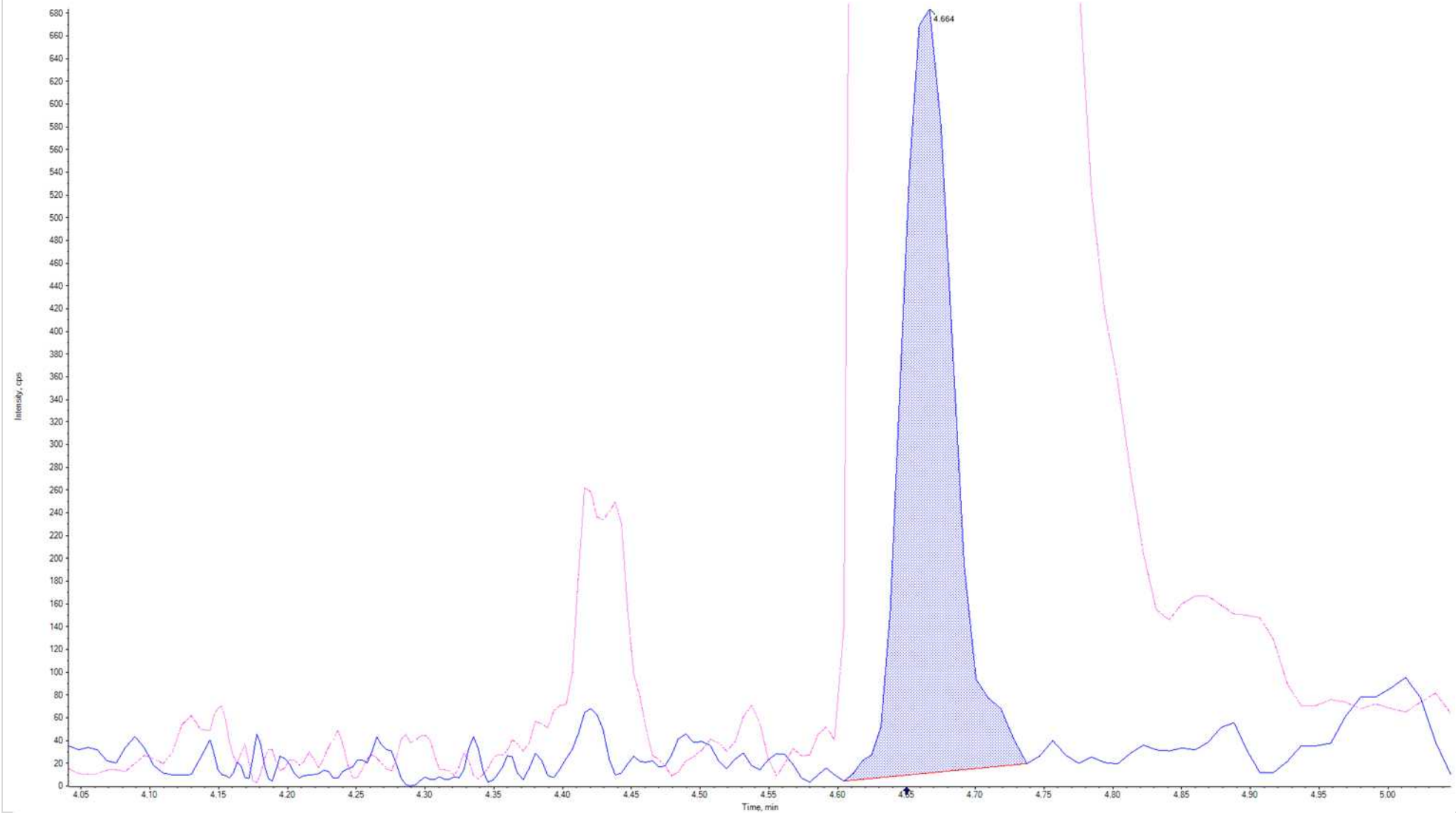
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PFPeA
Sample: WG1972760-2 S/N:1024.3 Points Across peak:22



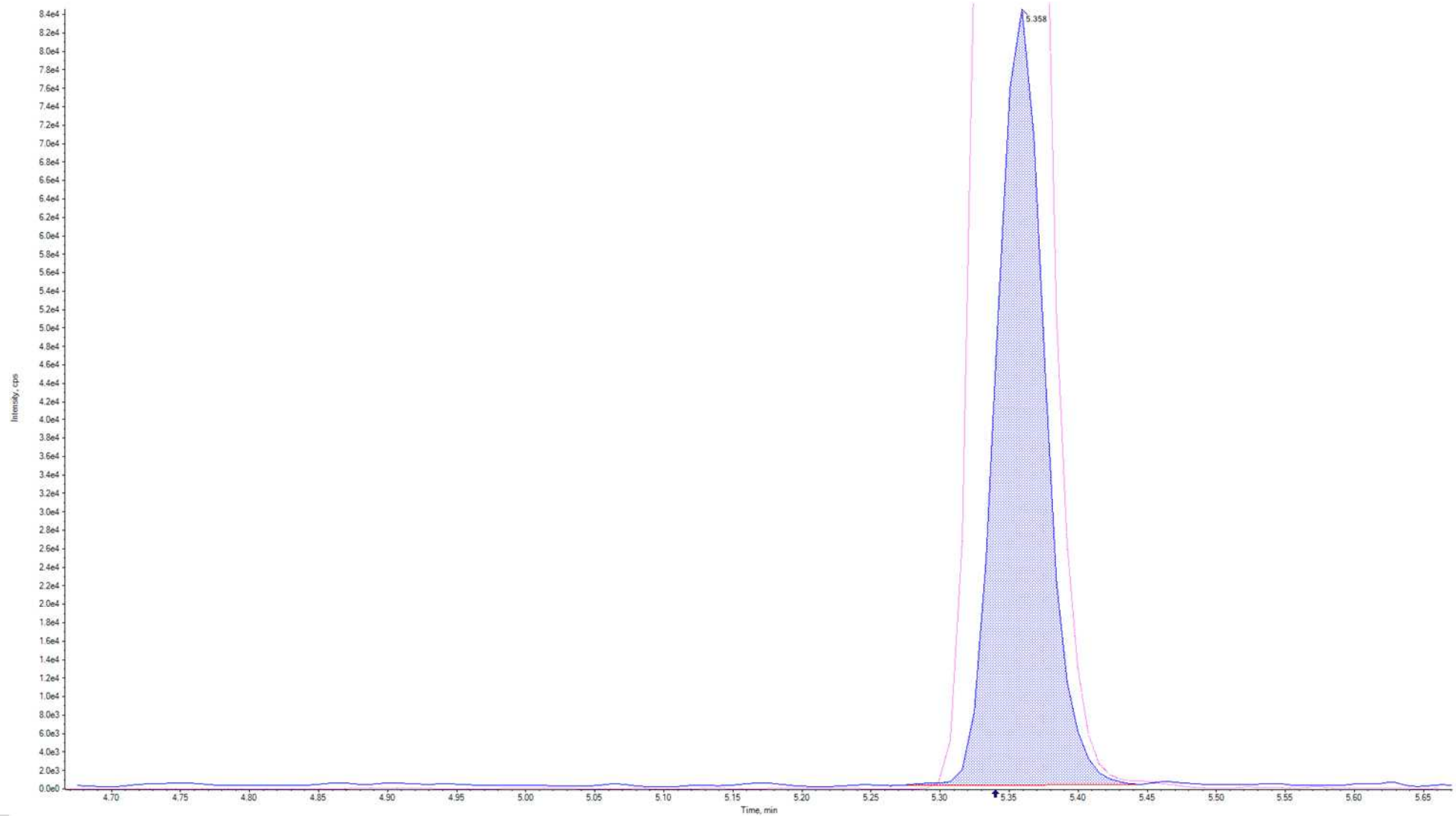
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PFPeA_2
Sample: WG1972760-2 S/N:400.4 Points Across peak:18



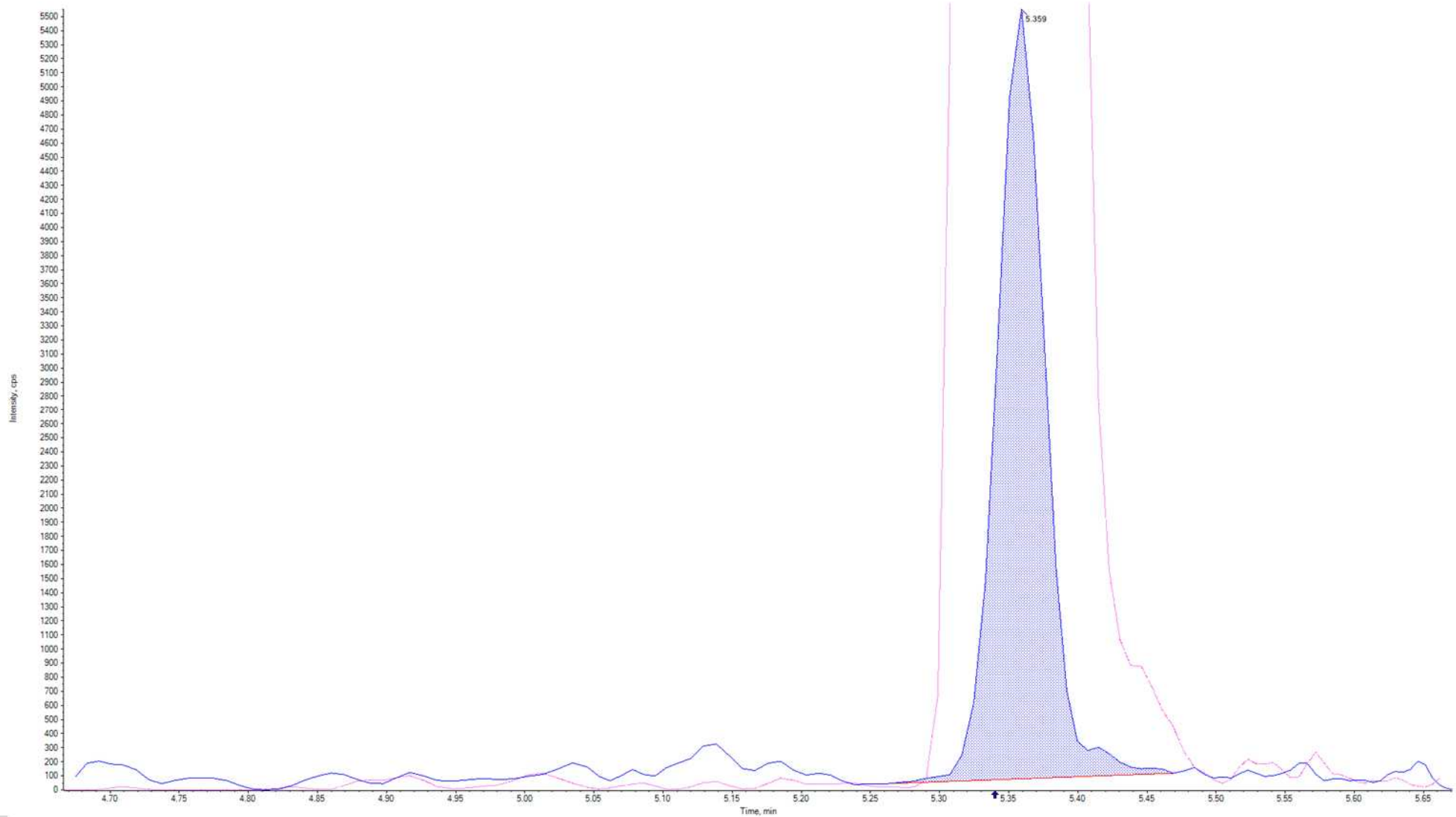
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PFHxA
Sample: WG1972760-2 S/N:605.7 Points Across peak:23



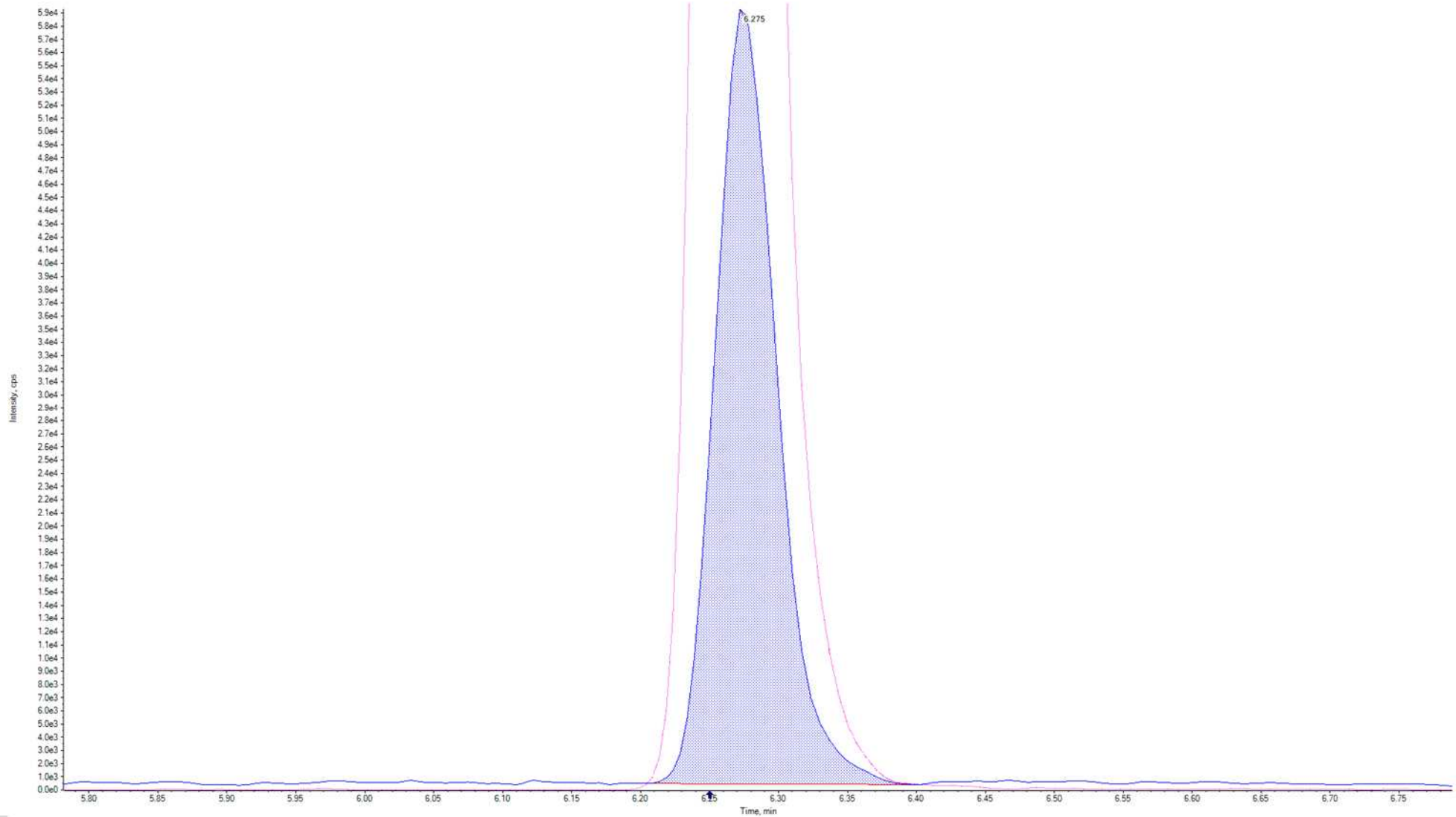
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PFHxA_2
Sample: WG1972760-2 S/N:1020.2 Points Across peak:26



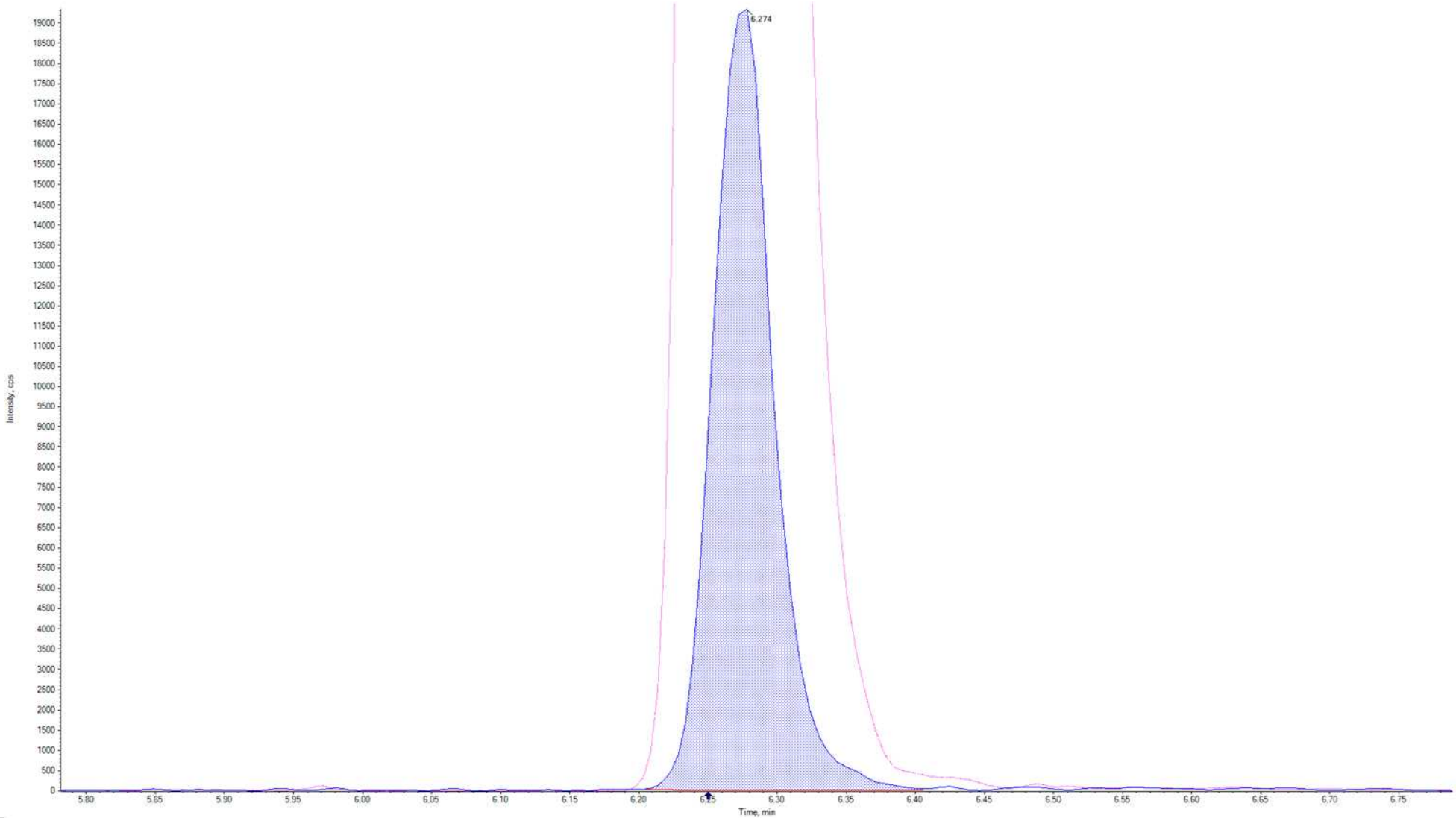
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PFHpA
Sample: WG1972760-2 S/N:817.7 Points Across peak:33



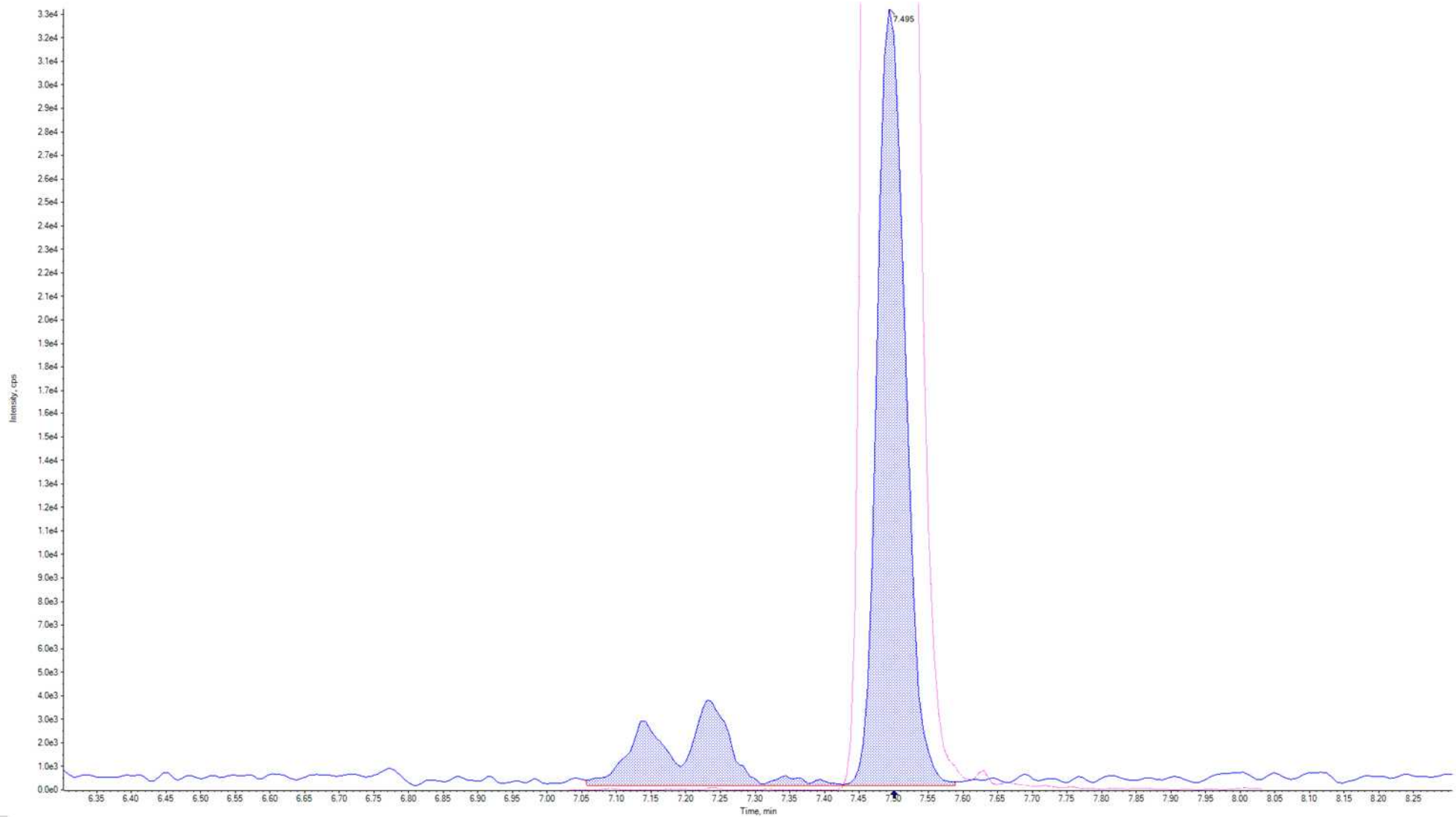
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Generated: 9/18/2024 6:35:36 AM

PFHpA_2
Sample: WG1972760-2 S/N:3422.2 Points Across peak:38



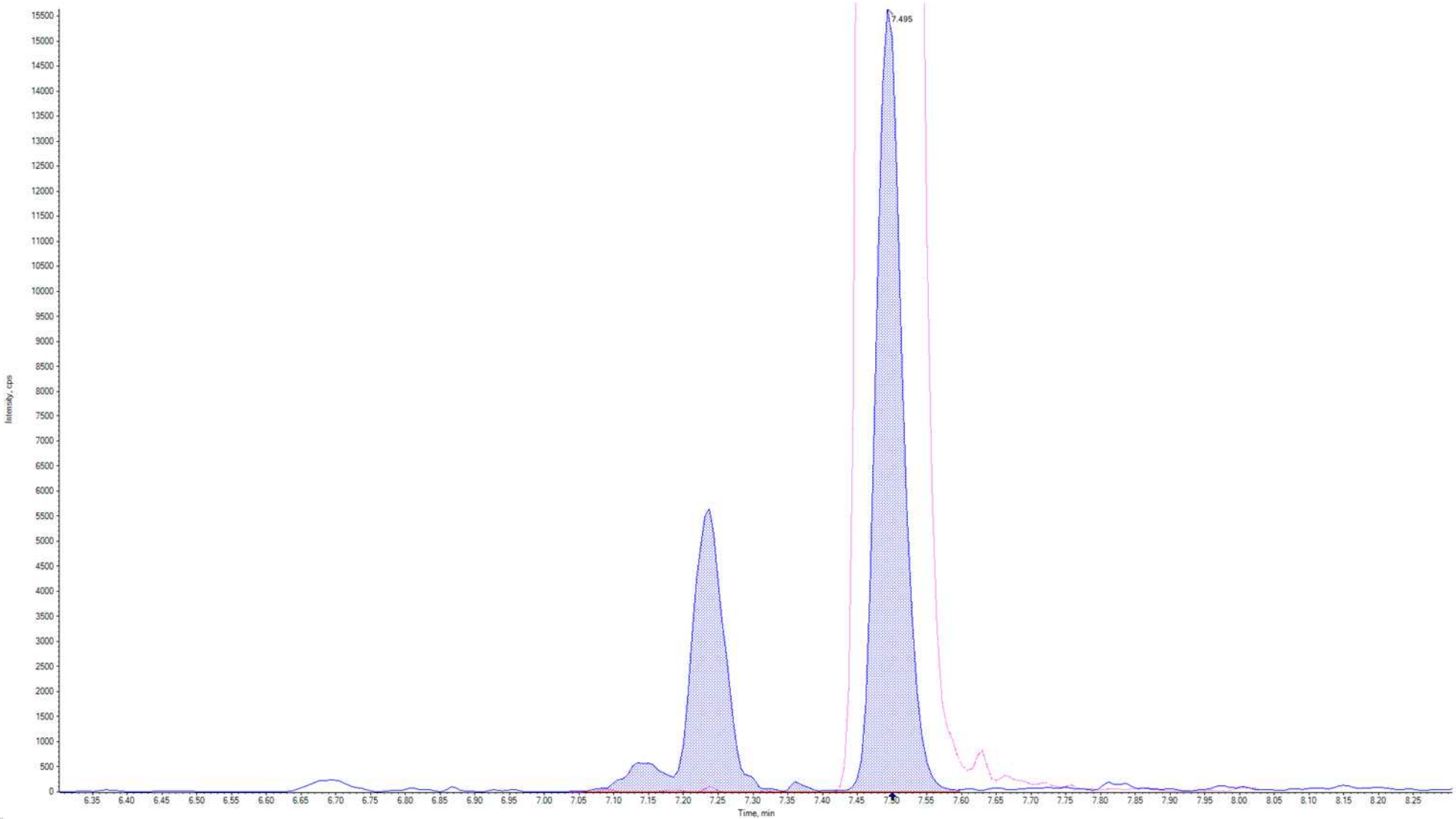
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFOA
Sample: WG1972760-2 S/N:563.0 Points Across peak:86



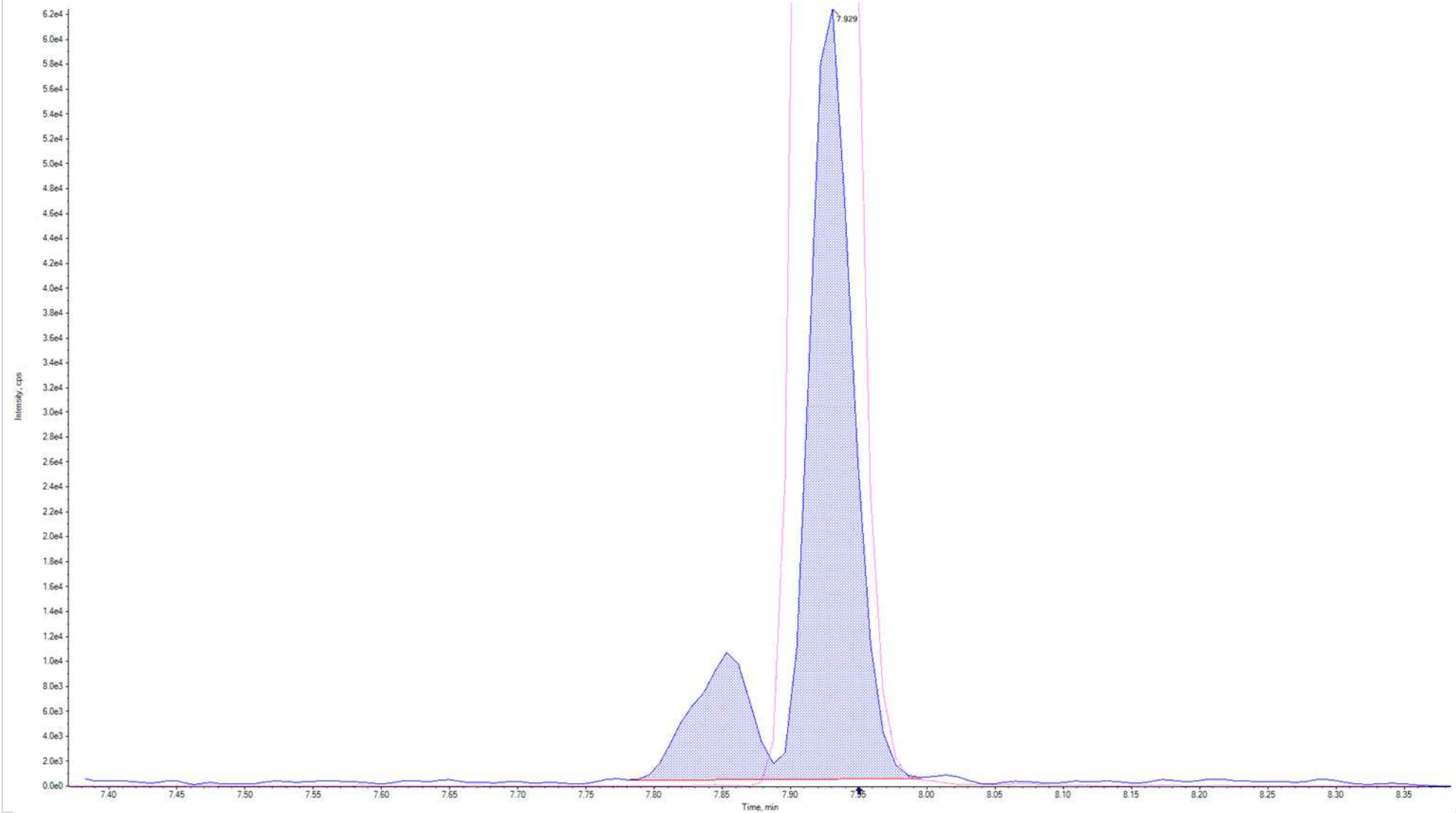
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFOA_2
Sample: WG1972760-2 S/N:748.4 Points Across peak:87



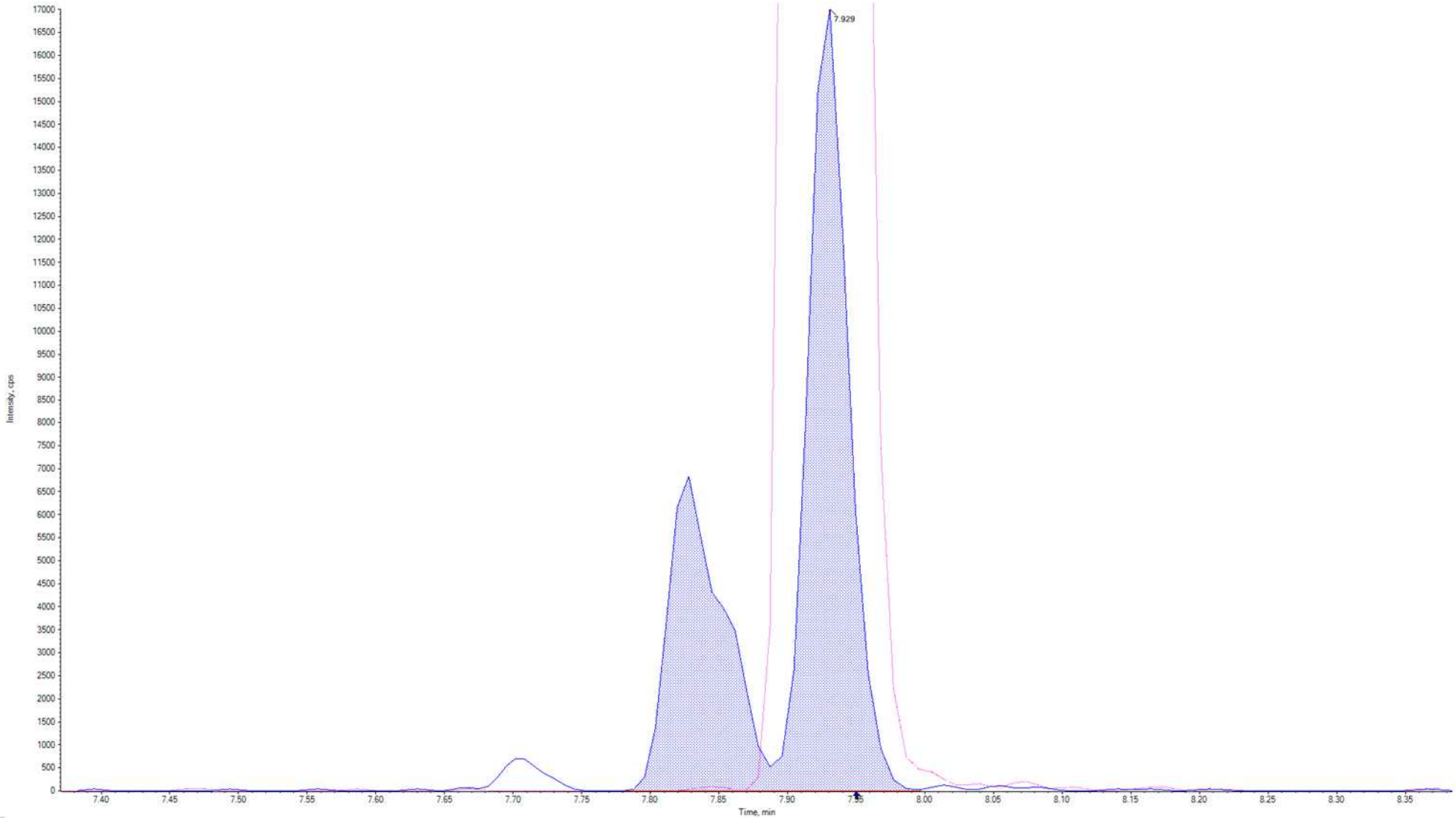
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Last Altered: 9/18/2024 12:41:54 PM
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PFNA
Sample: WG1972760-2 S/N:2799.6 Points Across peak:27



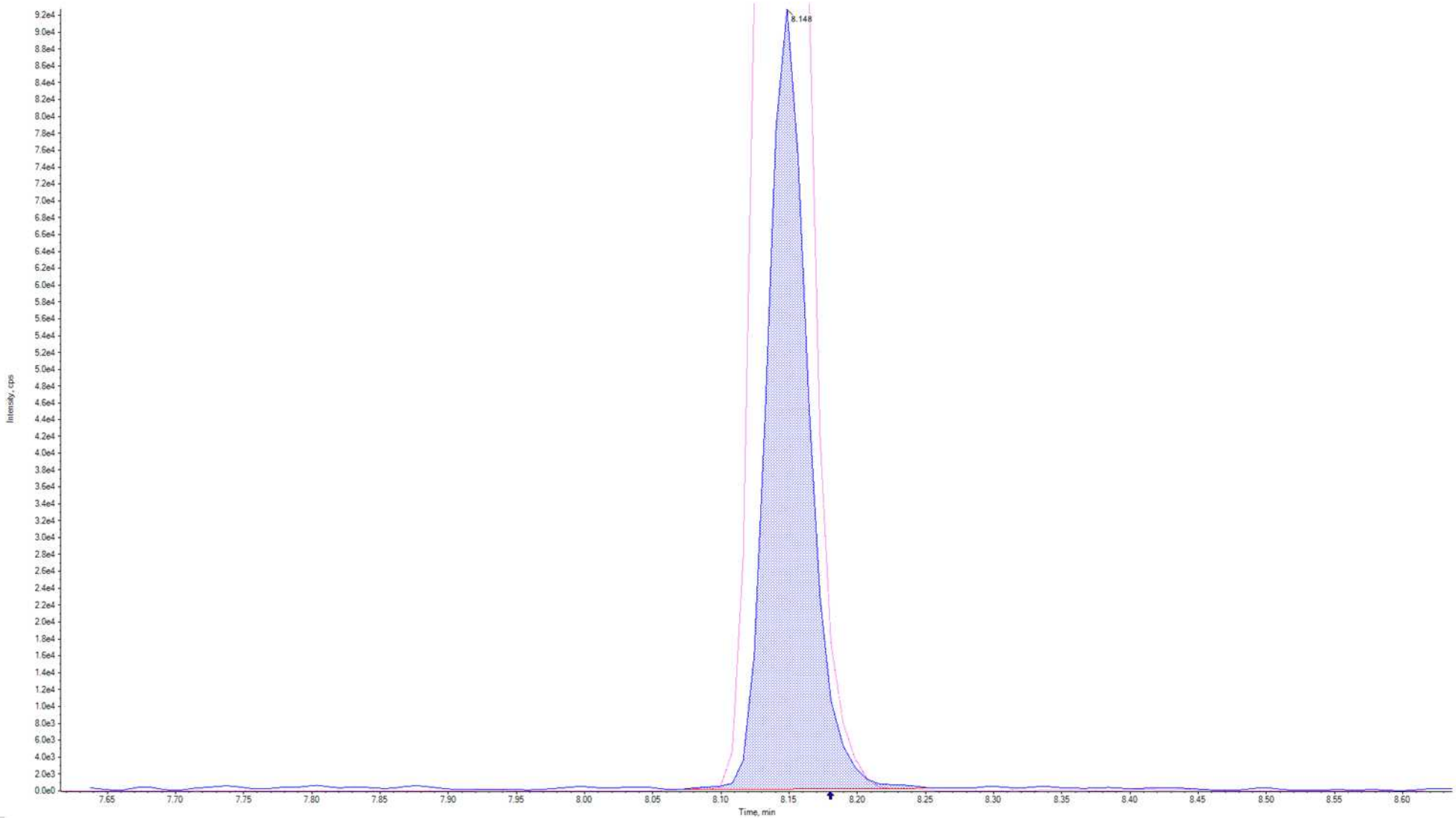
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFNA_2
Sample: WG1972760-2 S/N:560.2 Points Across peak:28



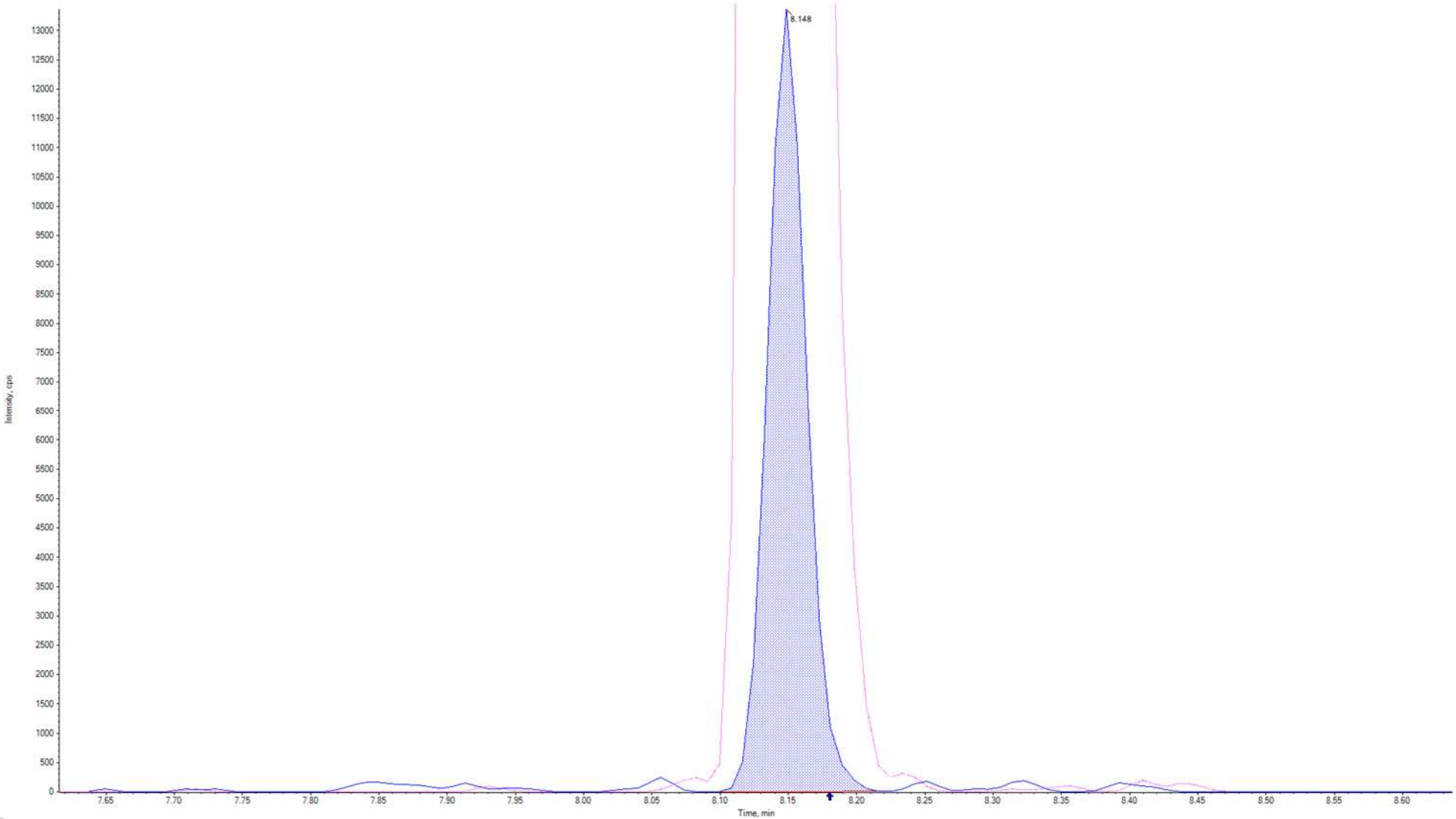
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Alpha Analytical Inc.
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PFDA
Sample: WG1972760-2 S/N:1437.5 Points Across peak:24



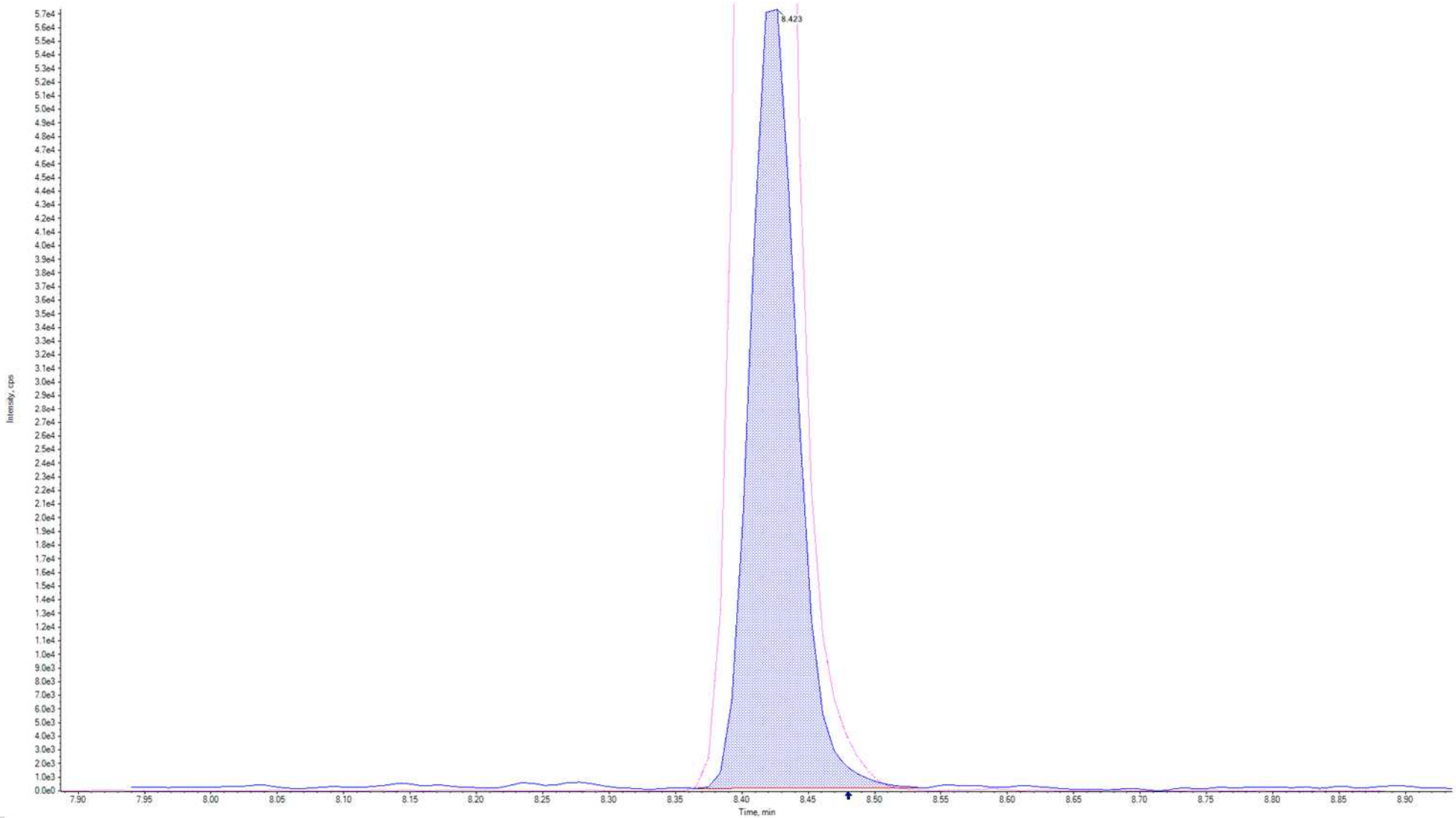
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Last Altered: 9/18/2024 12:41:54 PM
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PFDA_2
Sample: WG1972760-2 S/N:493.7 Points Across peak:17



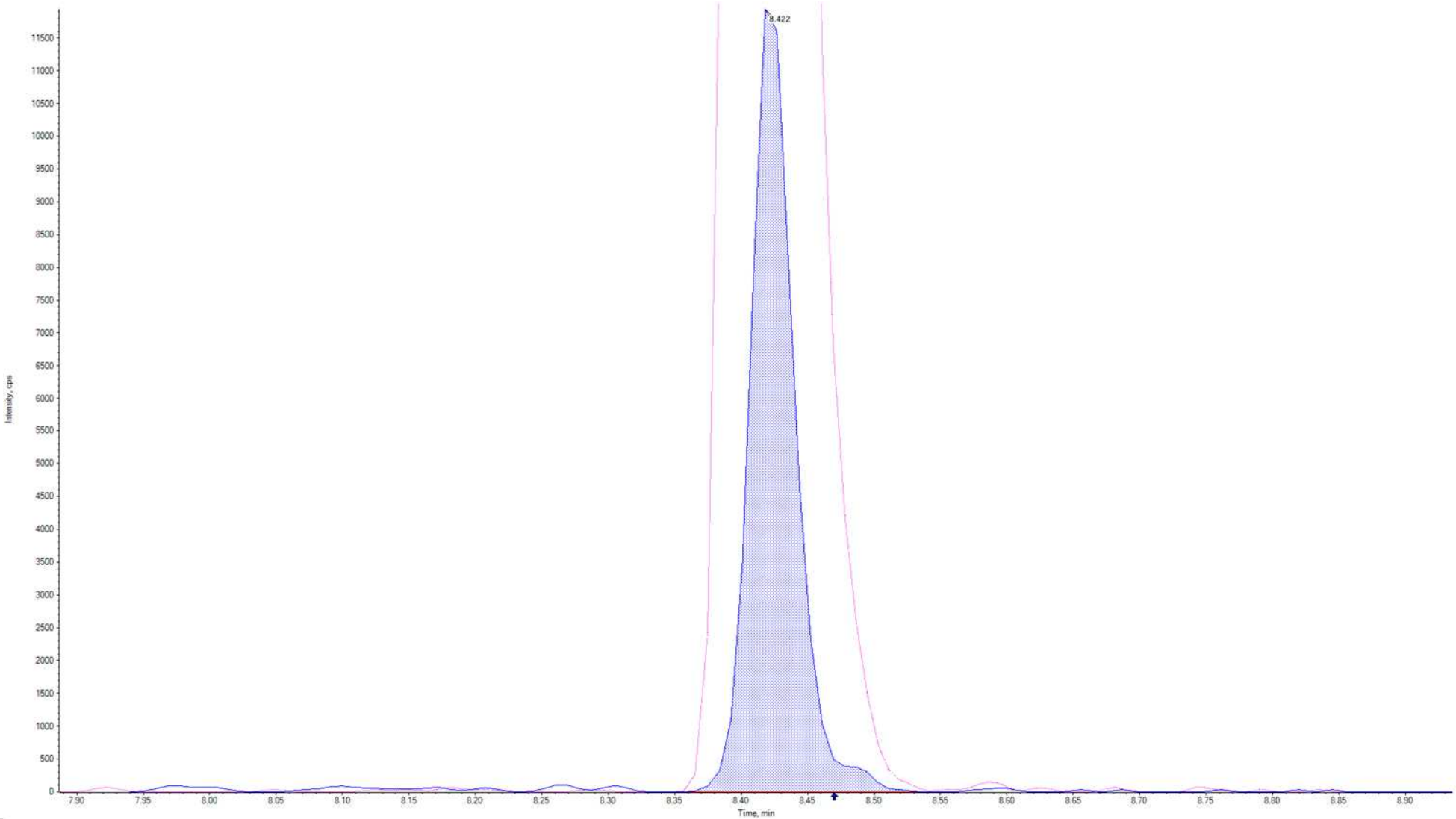
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Alpha Analytical Inc.
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PFUnA
Sample: WG1972760-2 S/N:1586.3 Points Across peak:22



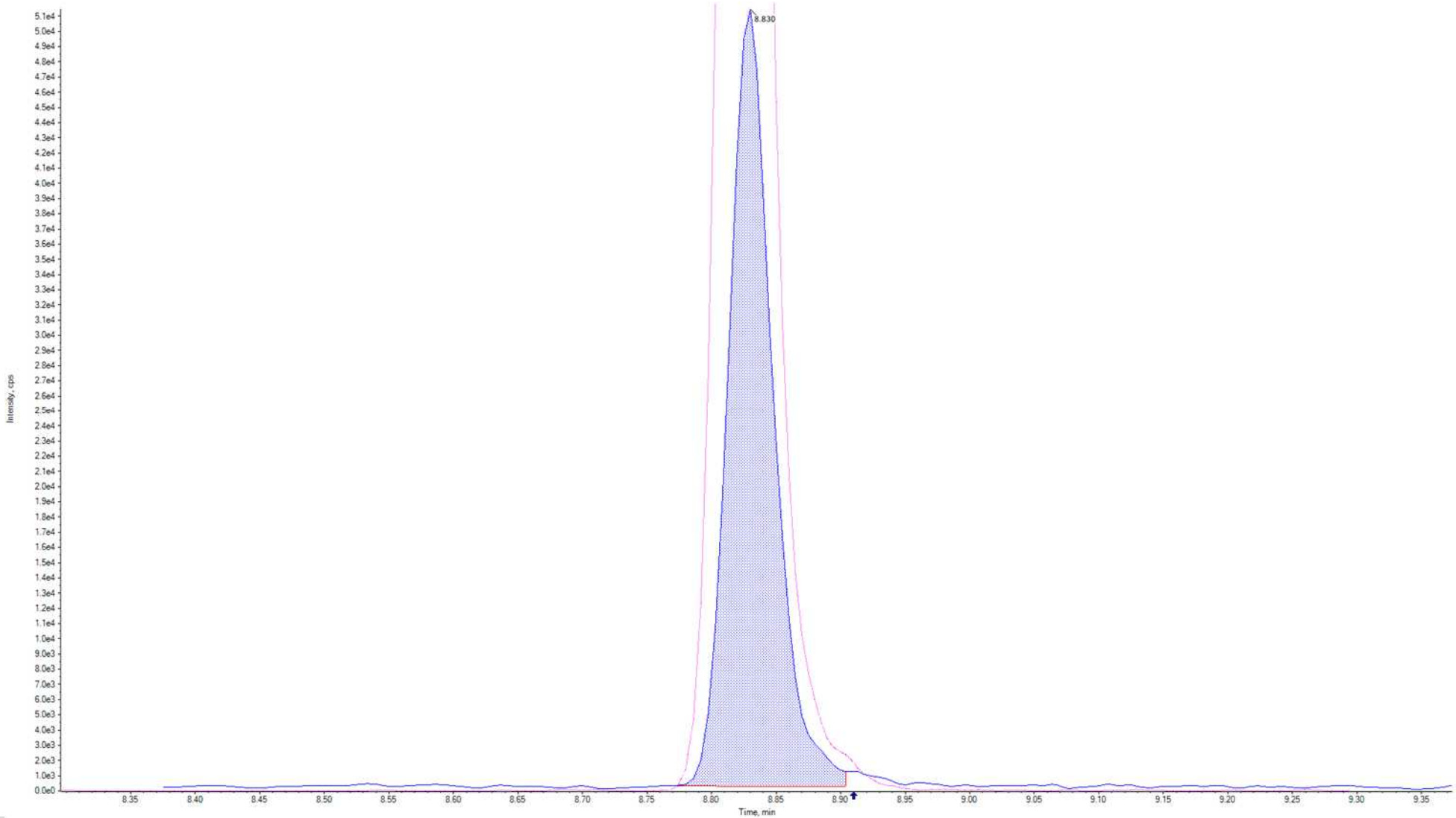
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFUnA_2
Sample: WG1972760-2 S/N:674.7 Points Across peak:26



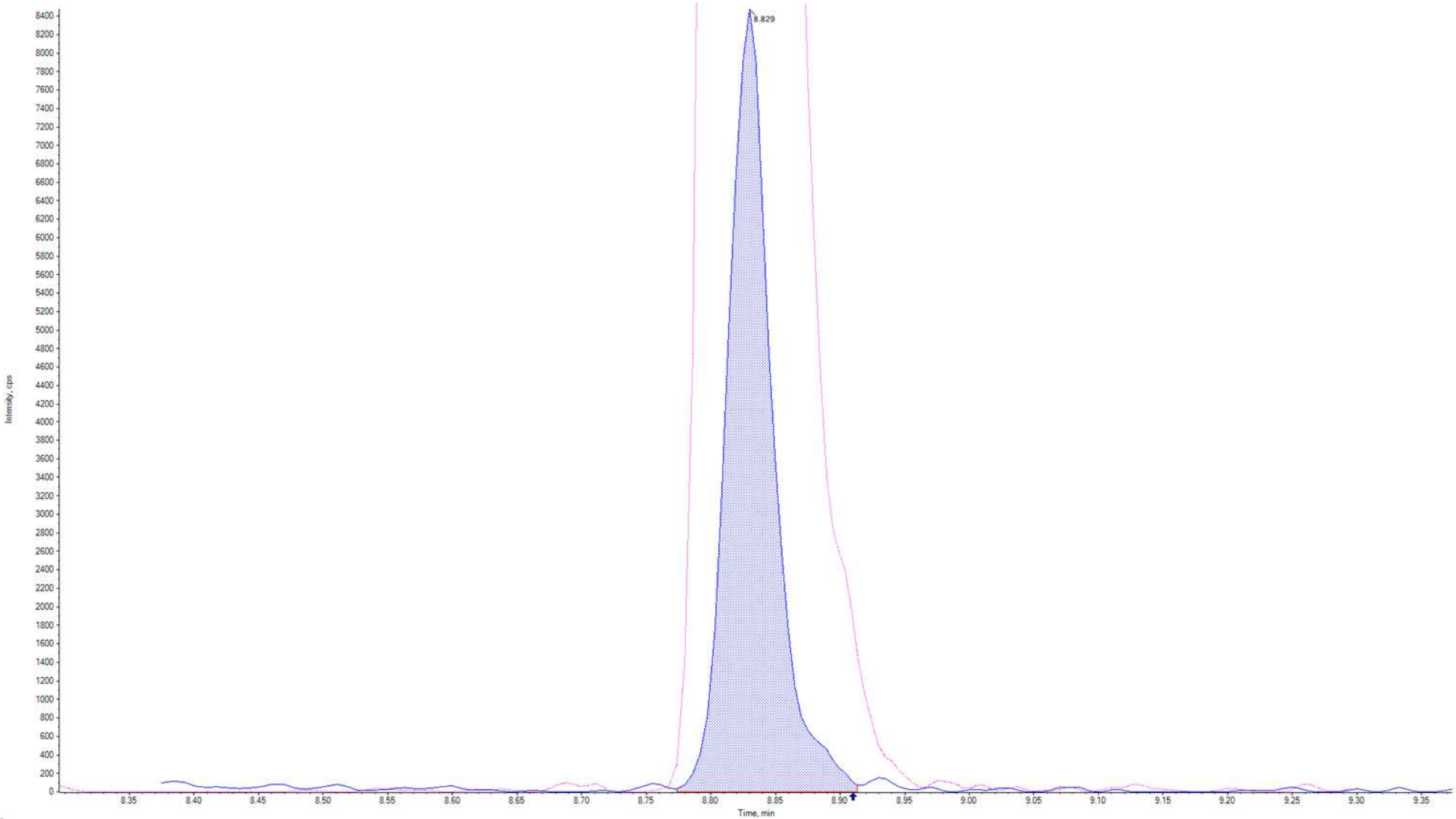
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDoA
Sample: WG1972760-2 S/N:1102.6 Points Across peak:27



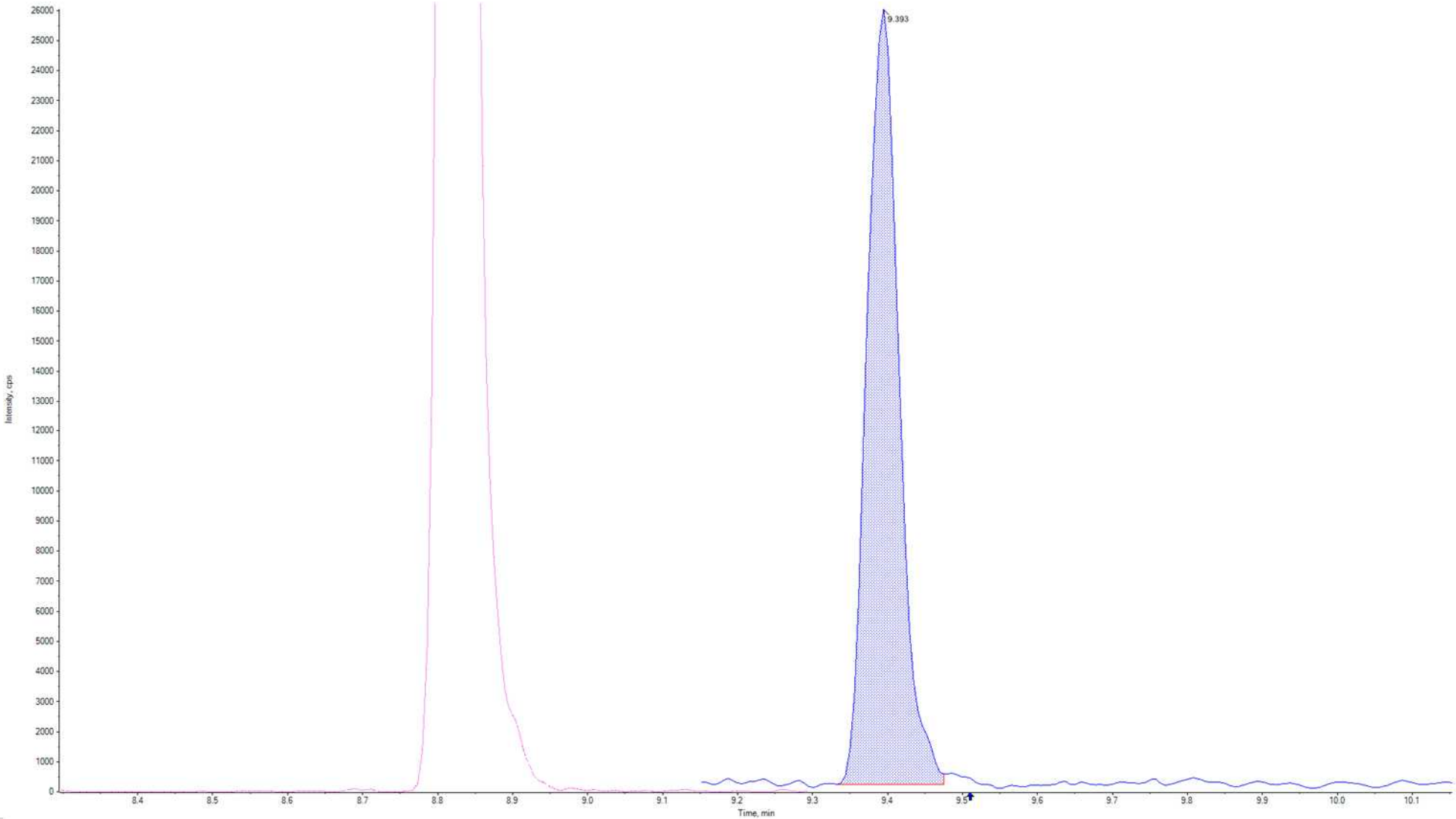
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Last Altered: 9/18/2024 12:41:54 PM
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PFDoA_2
Sample: WG1972760-2 S/N:584.0 Points Across peak:28



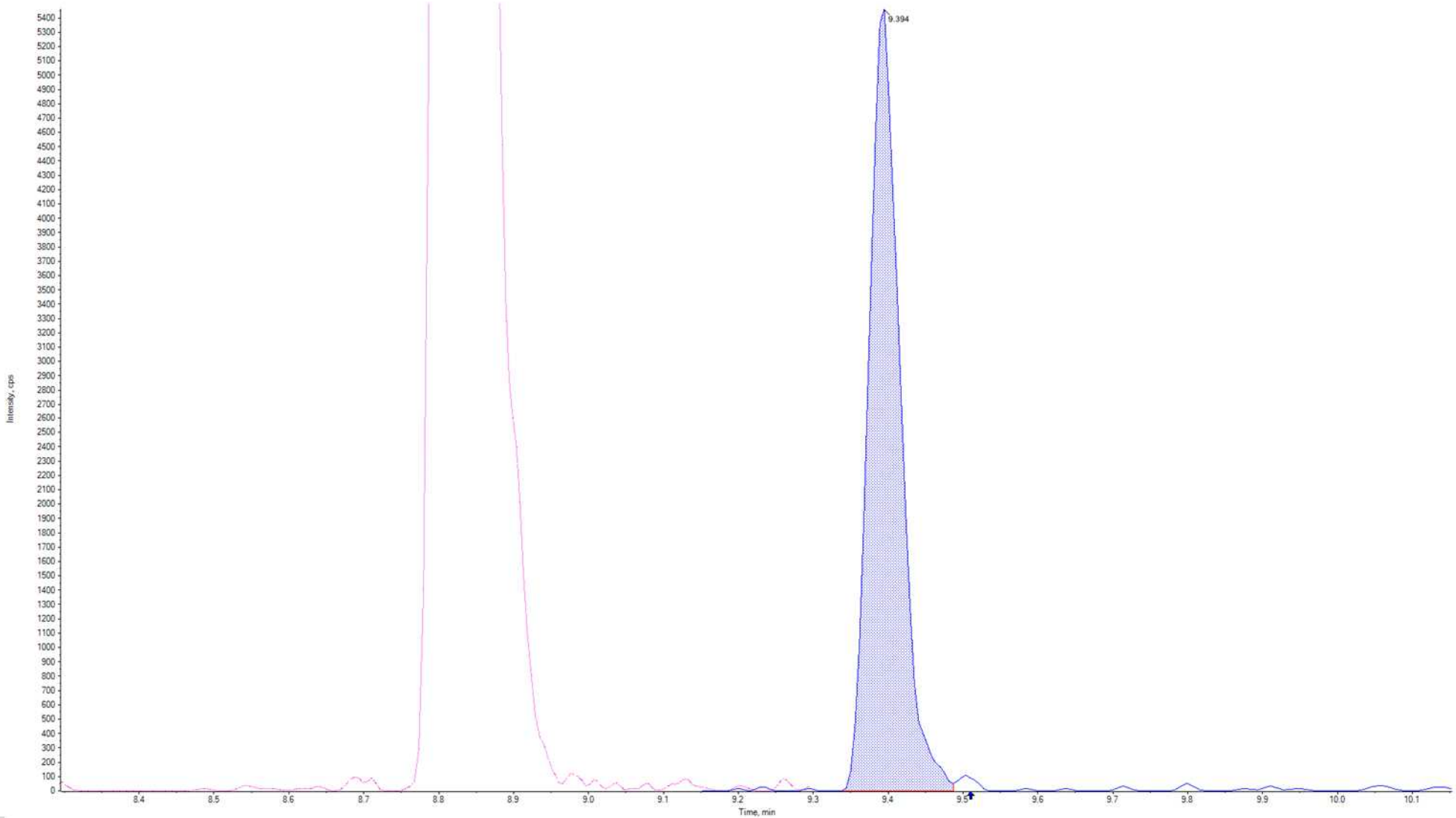
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFTrDA
Sample: WG1972760-2 S/N:630.5 Points Across peak:26



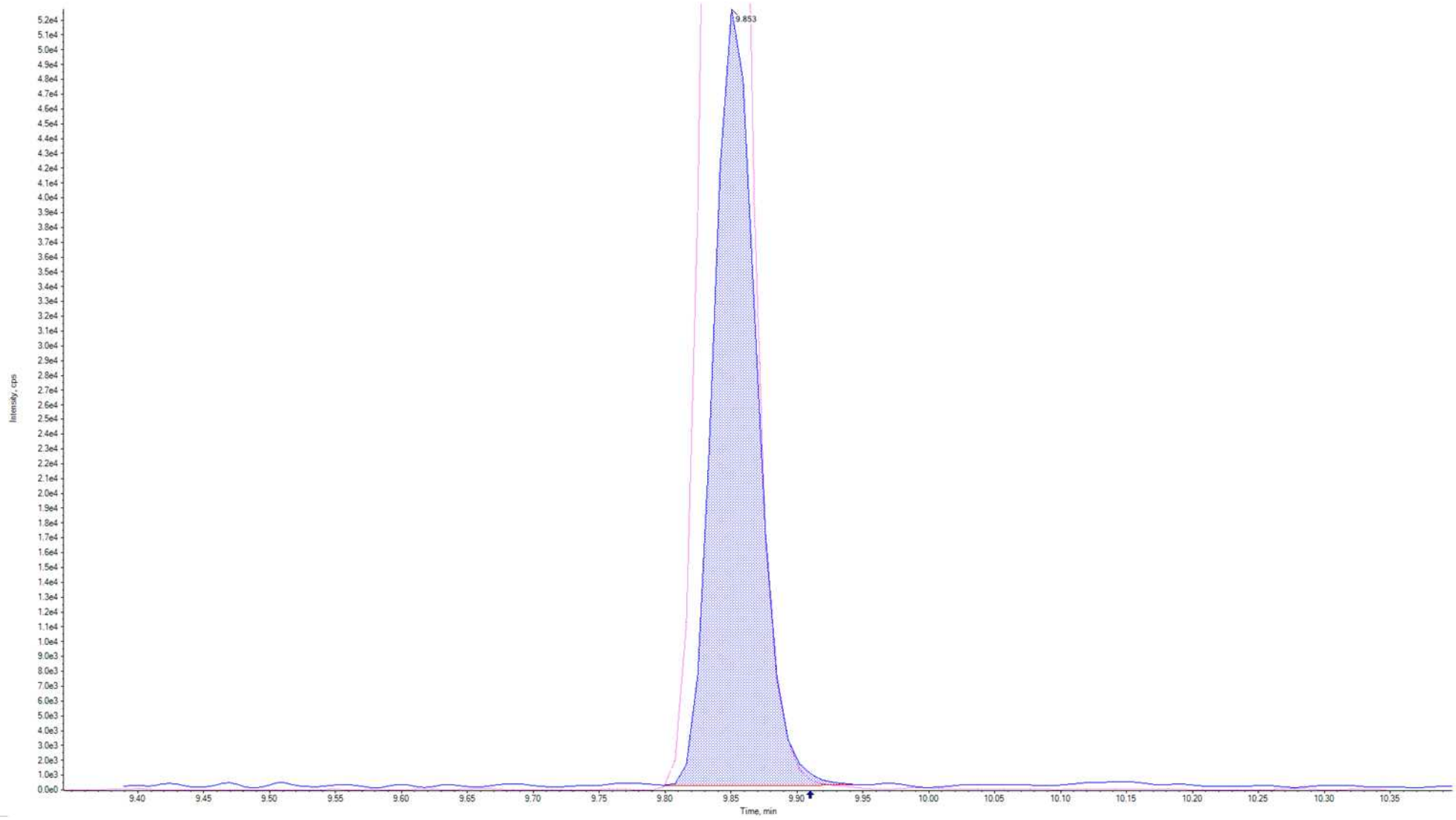
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFTrDA_2
Sample: WG1972760-2 S/N:741.5 Points Across peak:30



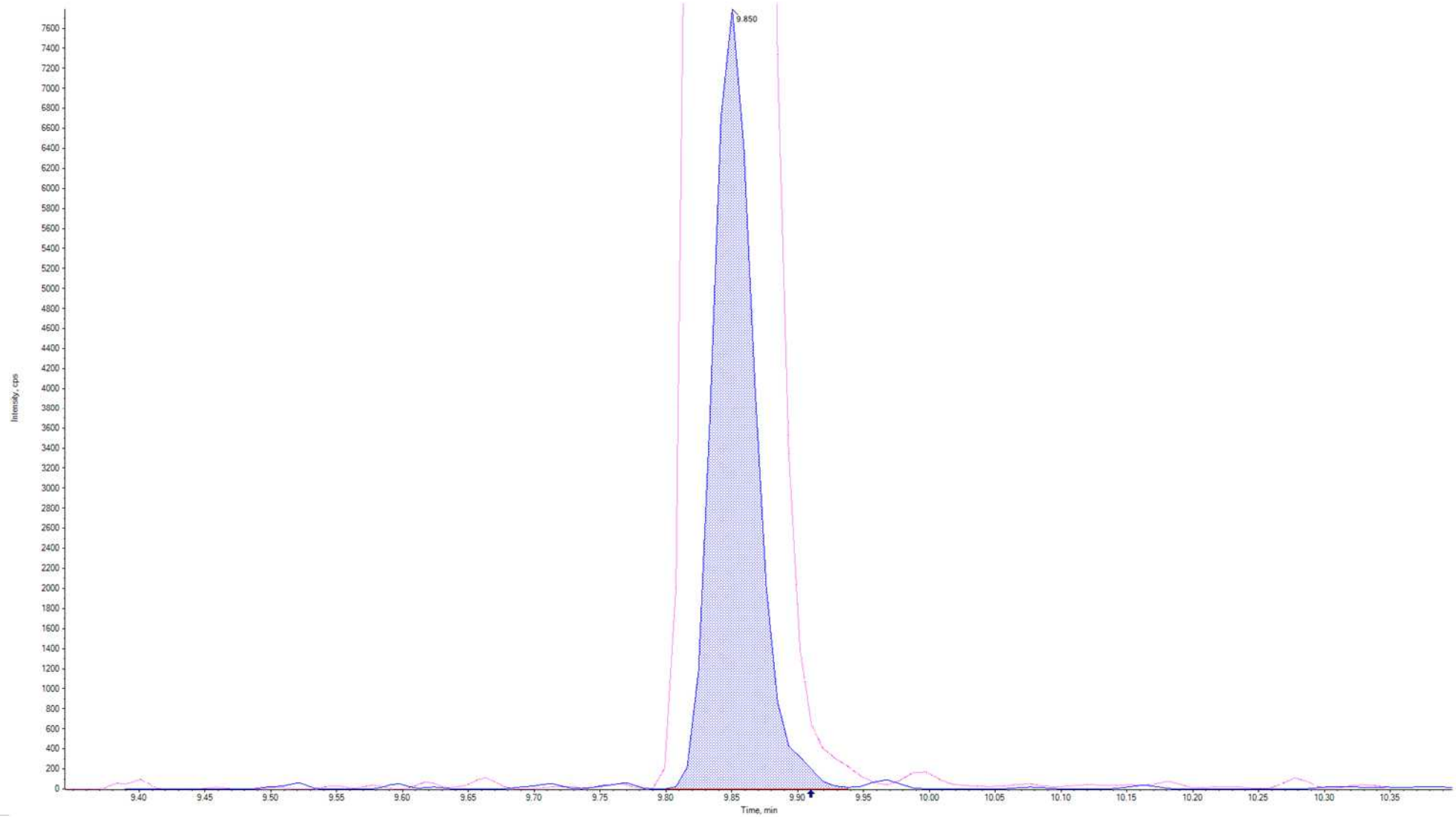
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Last Altered: 9/18/2024 12:41:54 PM
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PFTeDA
Sample: WG1972760-2 S/N:610.9 Points Across peak:18



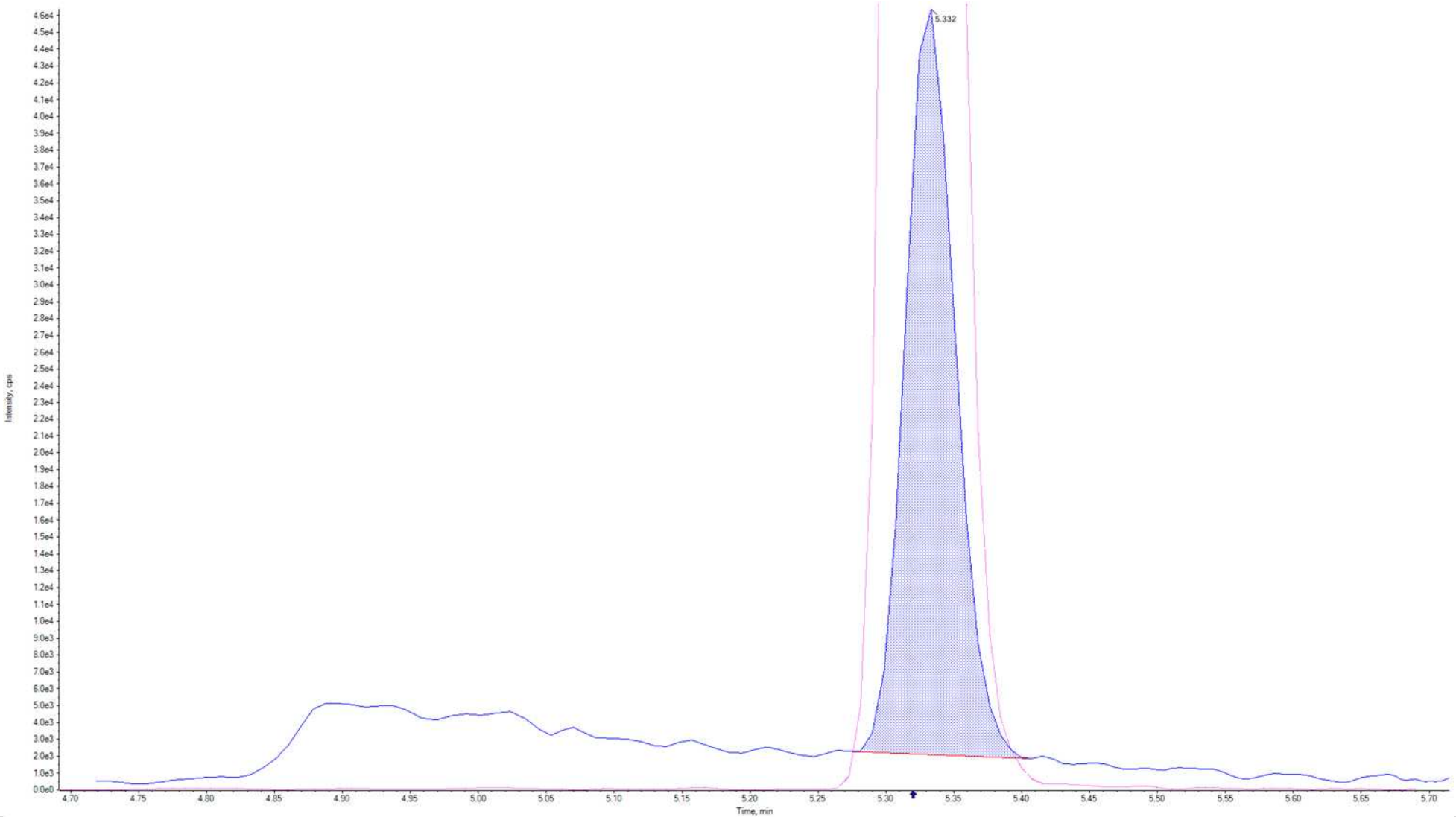
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Last Altered: 9/18/2024 12:41:54 PM
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PFTeDA_2
Sample: WG1972760-2 S/N:741.0 Points Across peak:18



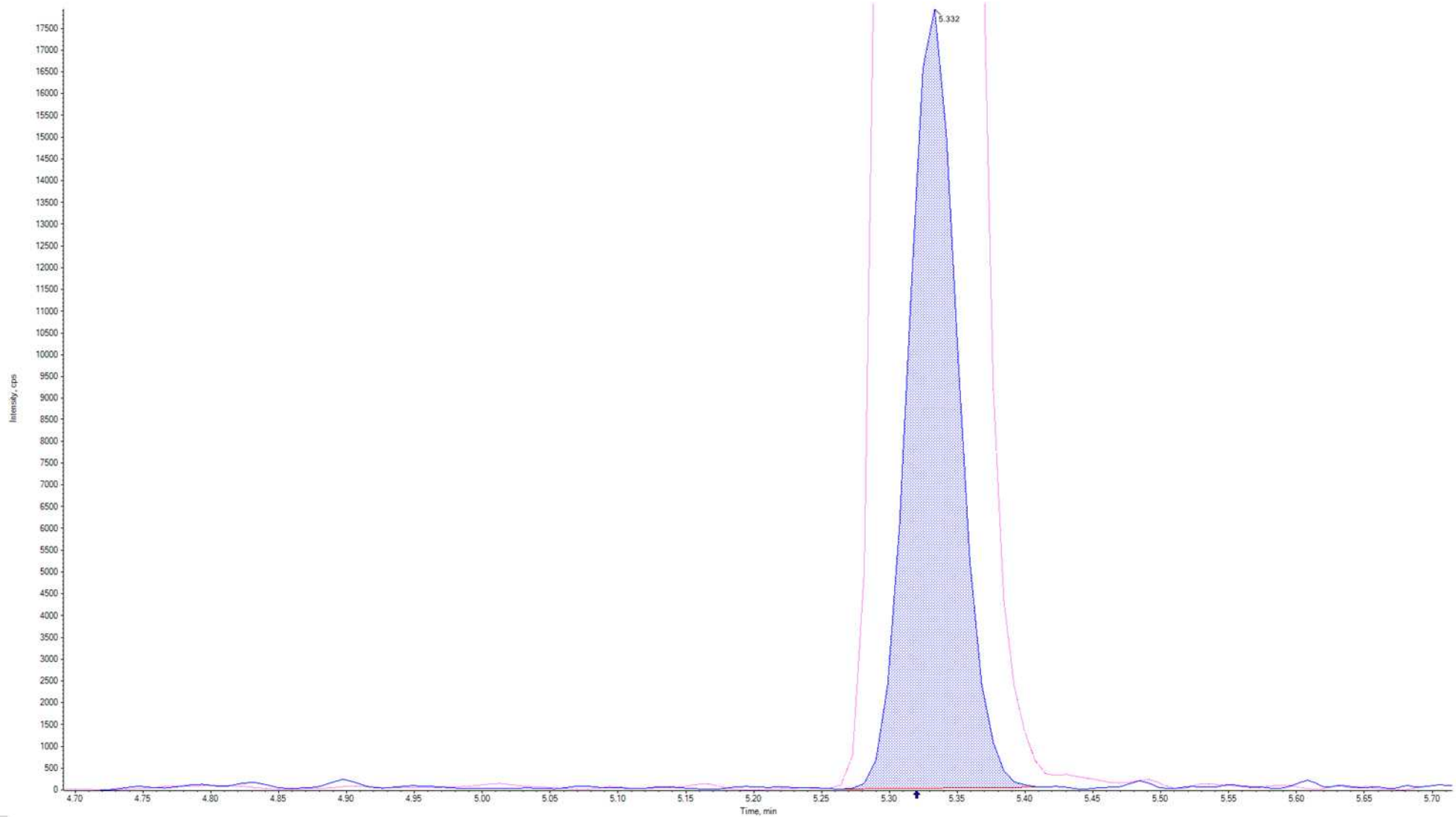
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Generated: 9/18/2024 6:35:36 AM

PFBS
Sample: WG1972760-2 S/N:57.7 Points Across peak:17



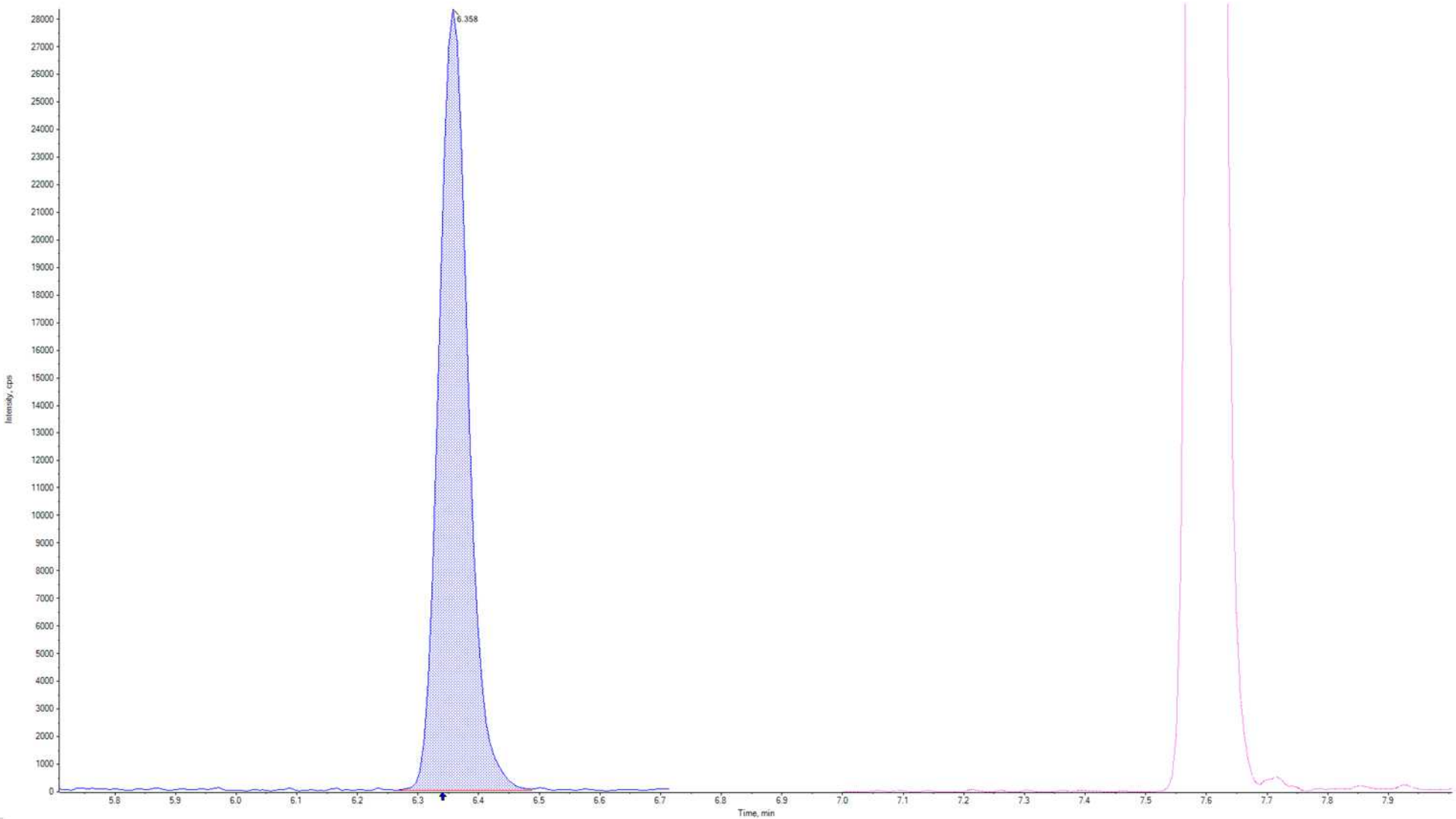
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Last Altered: 9/18/2024 12:41:54 PM
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PFBS_2
Sample: WG1972760-2 S/N:1122.7 Points Across peak:19



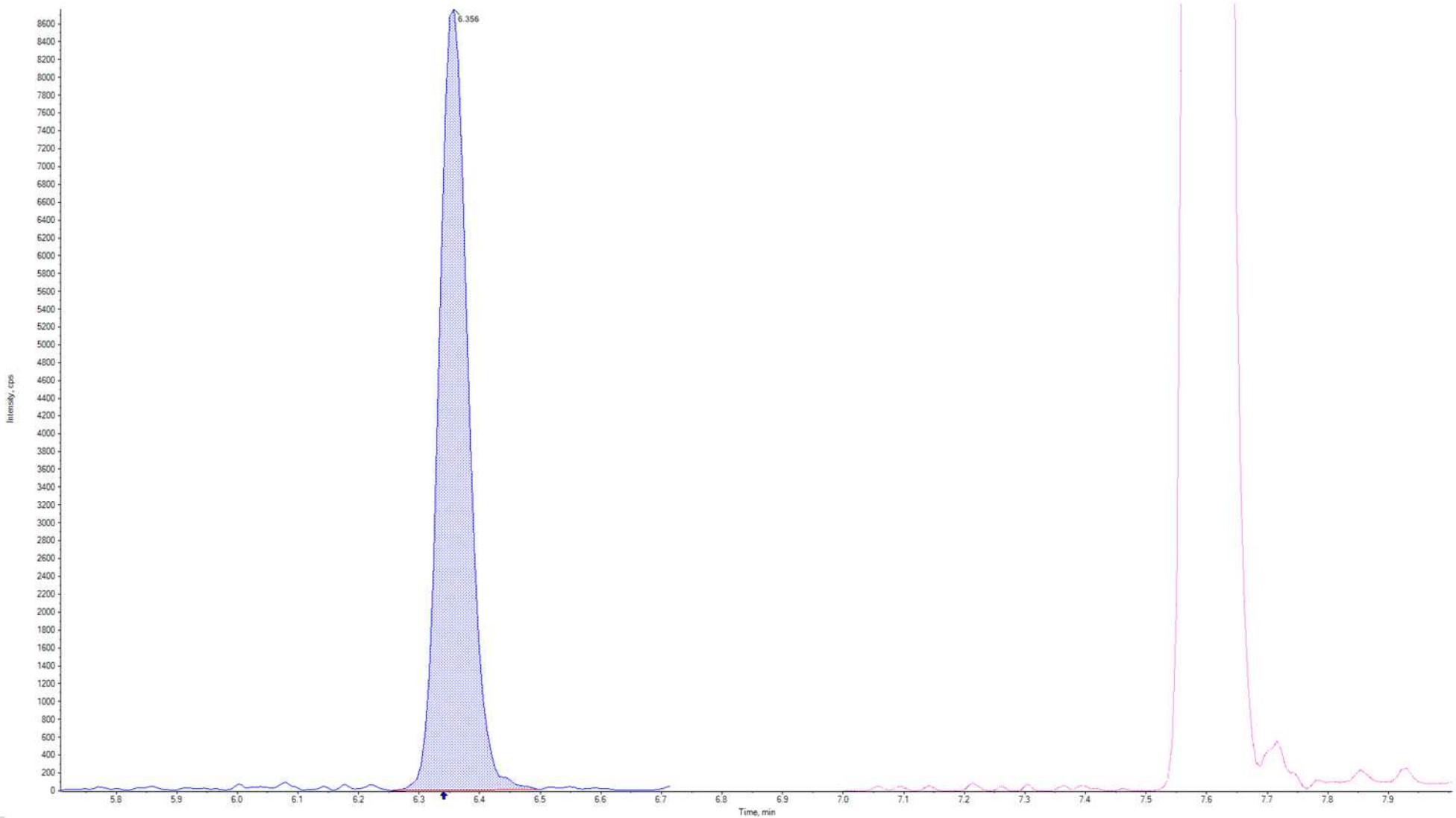
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFPeS
Sample: WG1972760-2 S/N:1677.3 Points Across peak:34



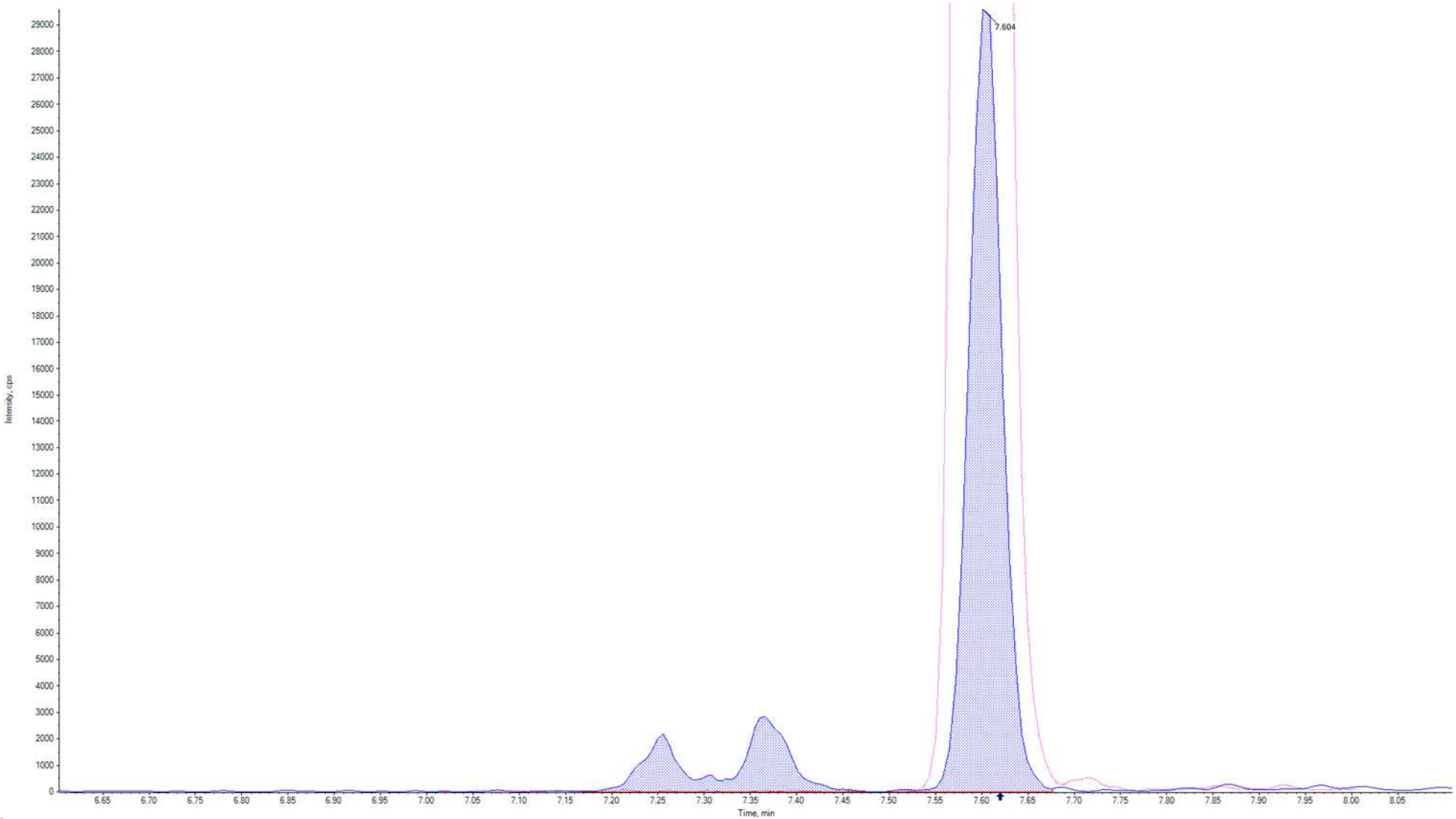
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFPeS_2
Sample: WG1972760-2 S/N:1814.4 Points Across peak:38



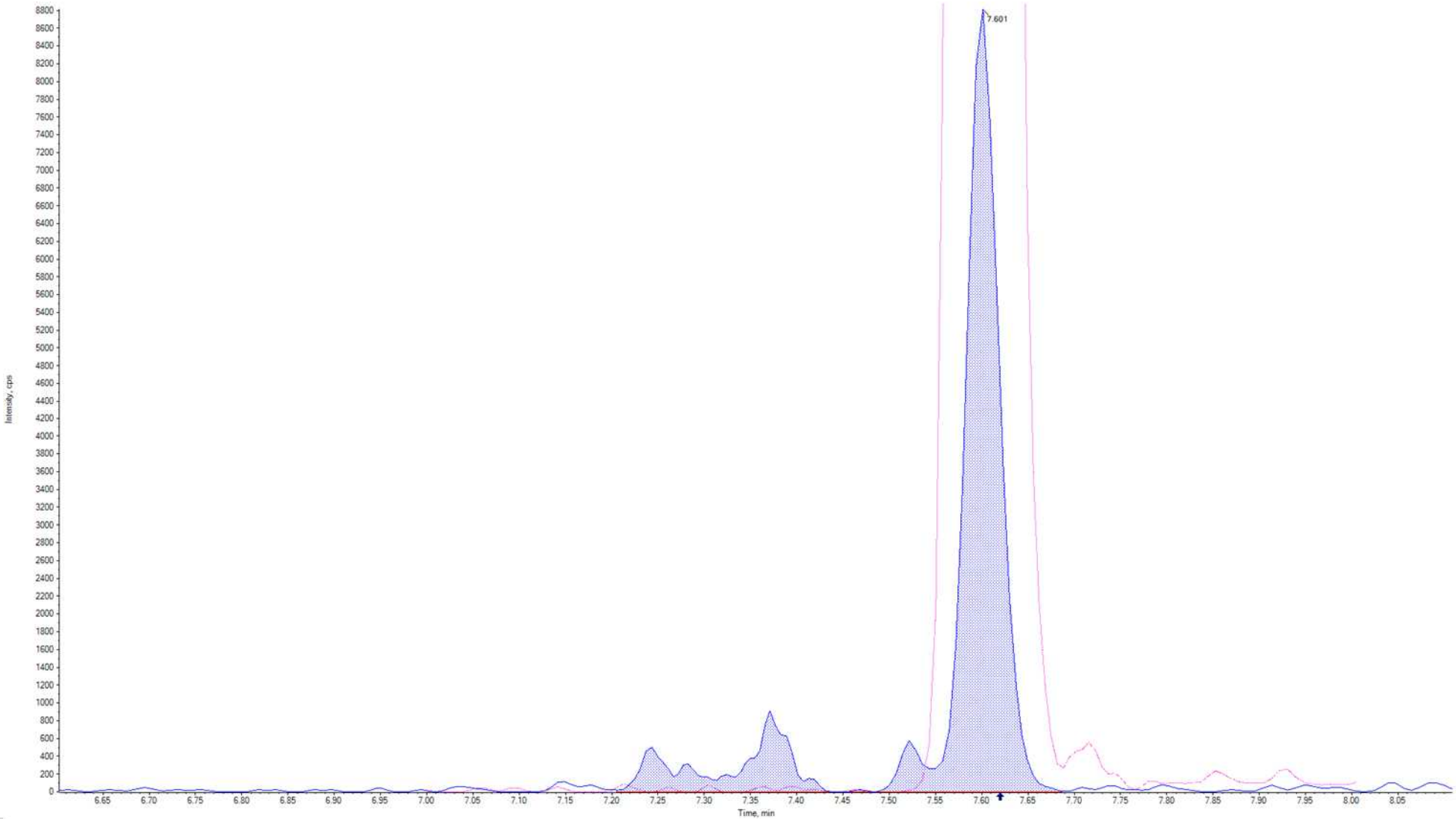
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFHxS
Sample: WG1972760-2 S/N:54965.9 Points Across peak:84



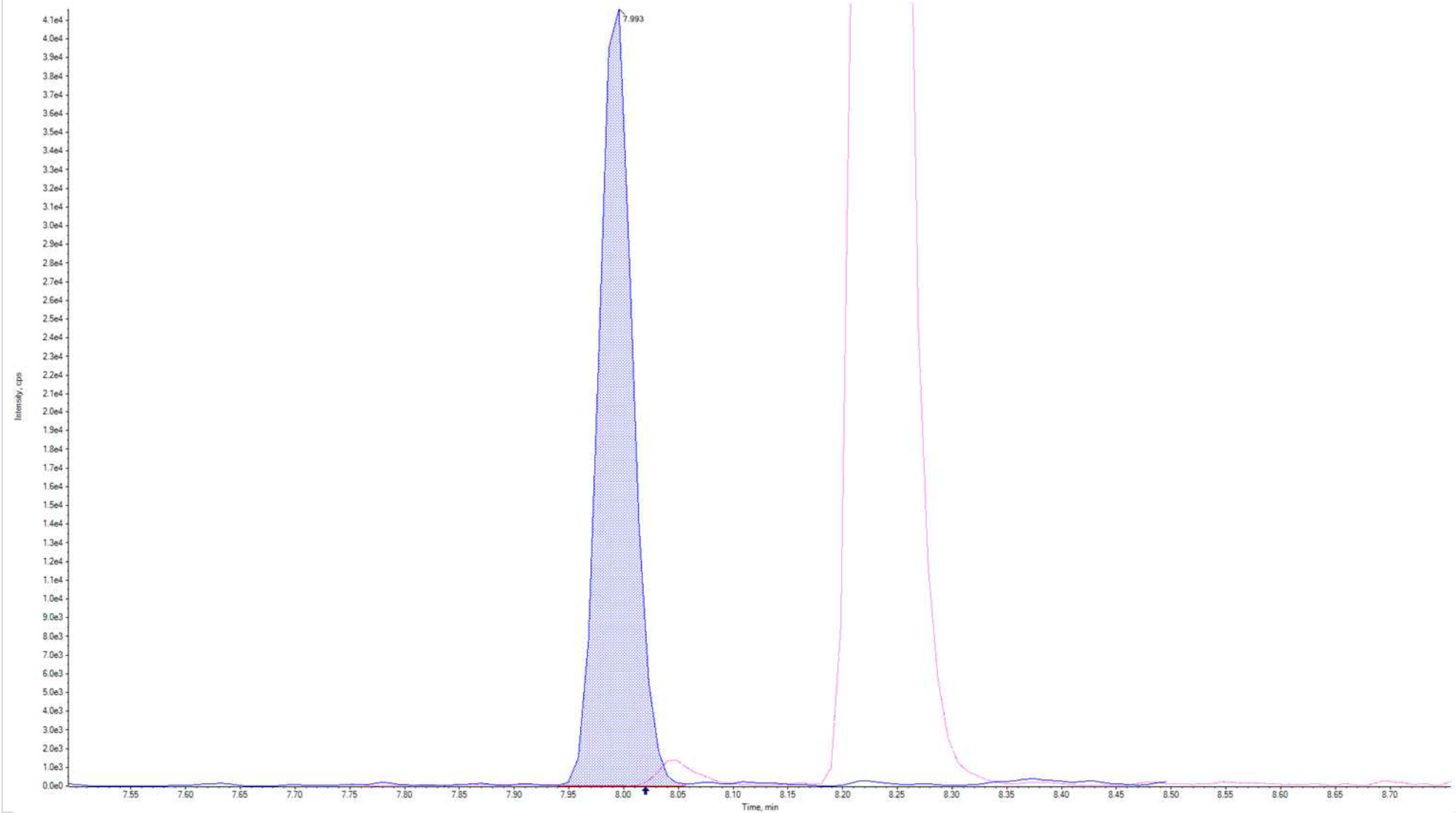
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Last Altered: 9/18/2024 12:41:54 PM
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PFHxS_2
Sample: WG1972760-2 S/N:29104.7 Points Across peak:80



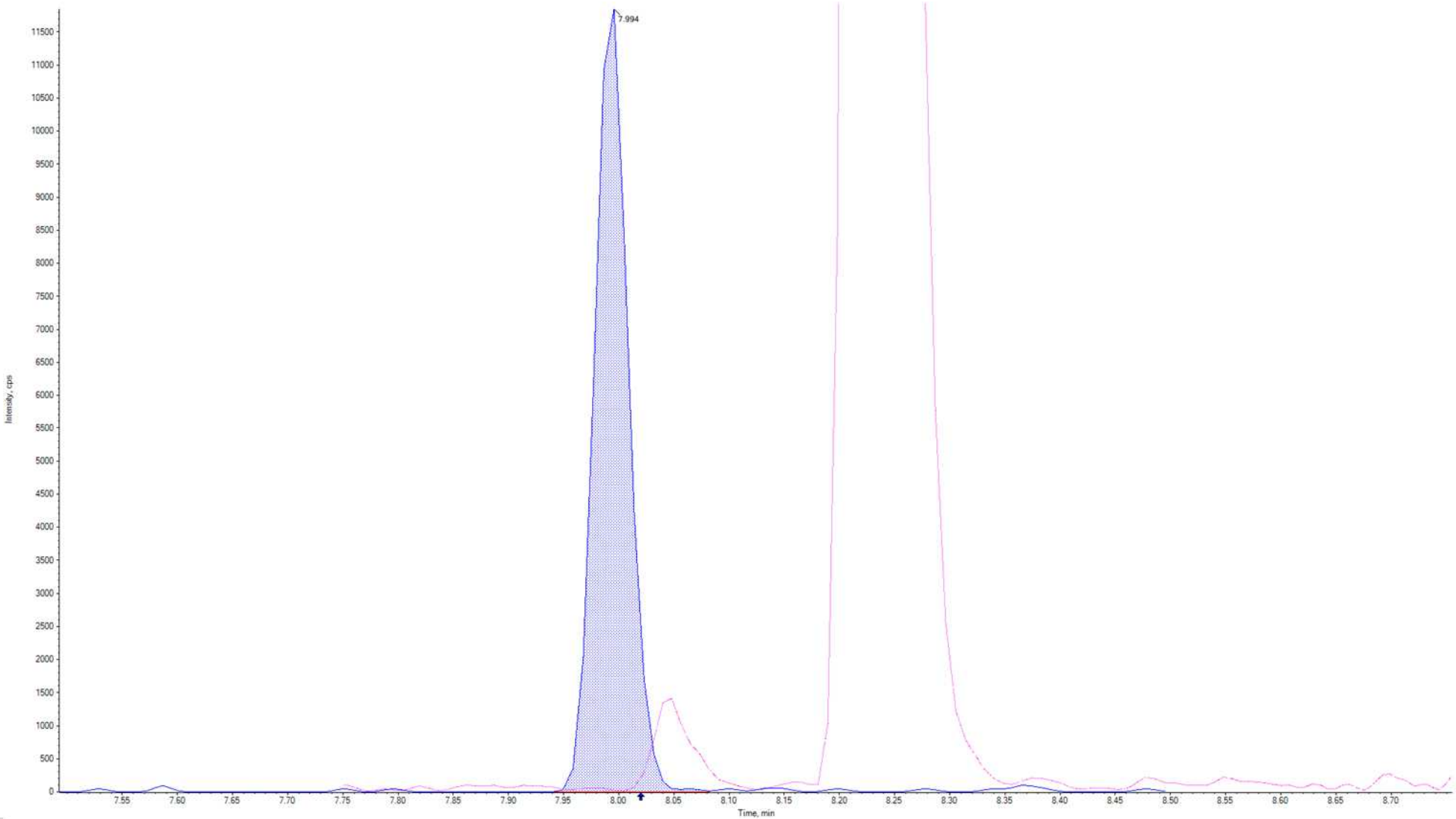
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFHpS
Sample: WG1972760-2 S/N:7918308.9 Points Across peak:15



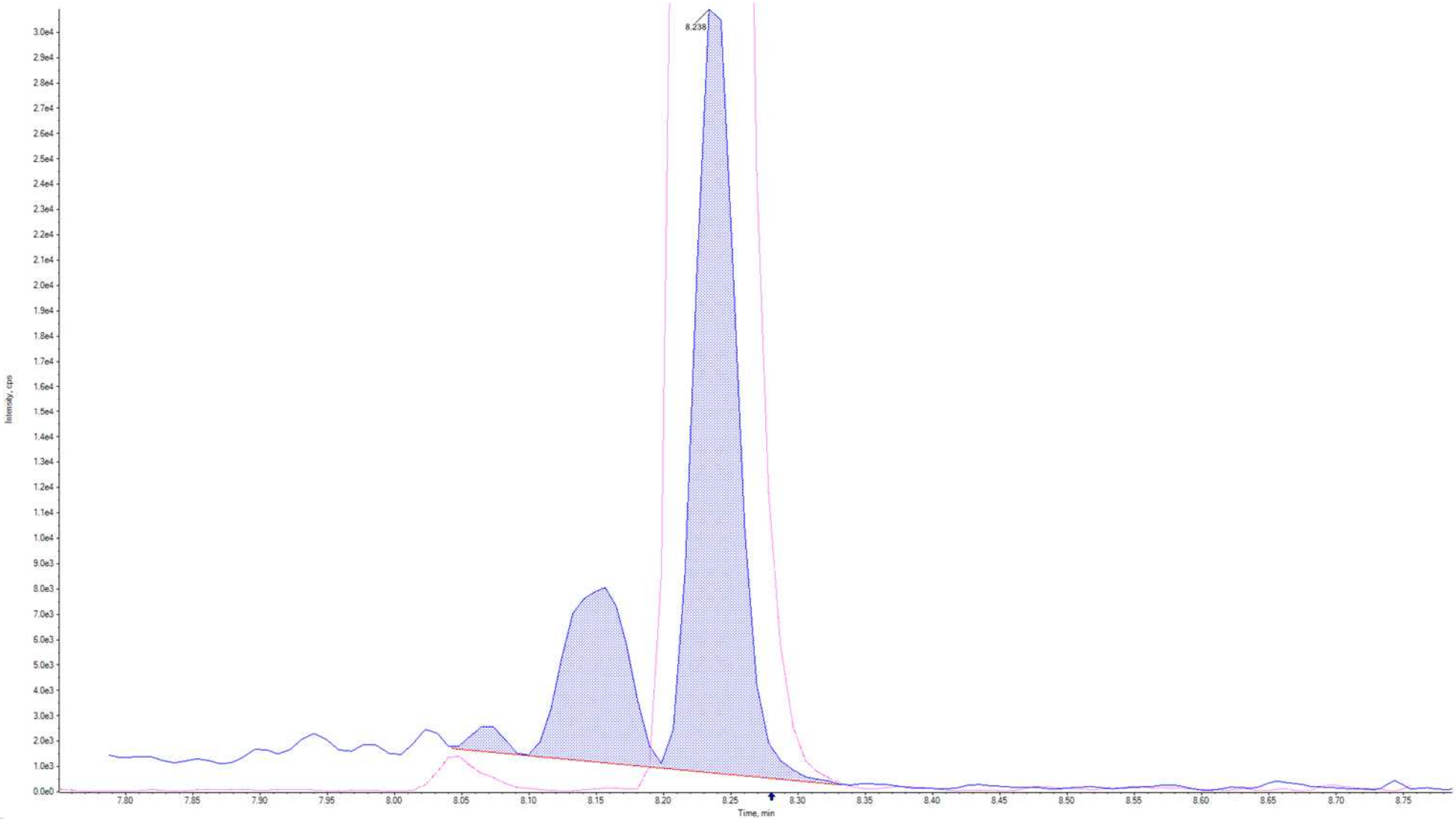
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFHpS_2
Sample: WG1972760-2 S/N:1109.8 Points Across peak:18



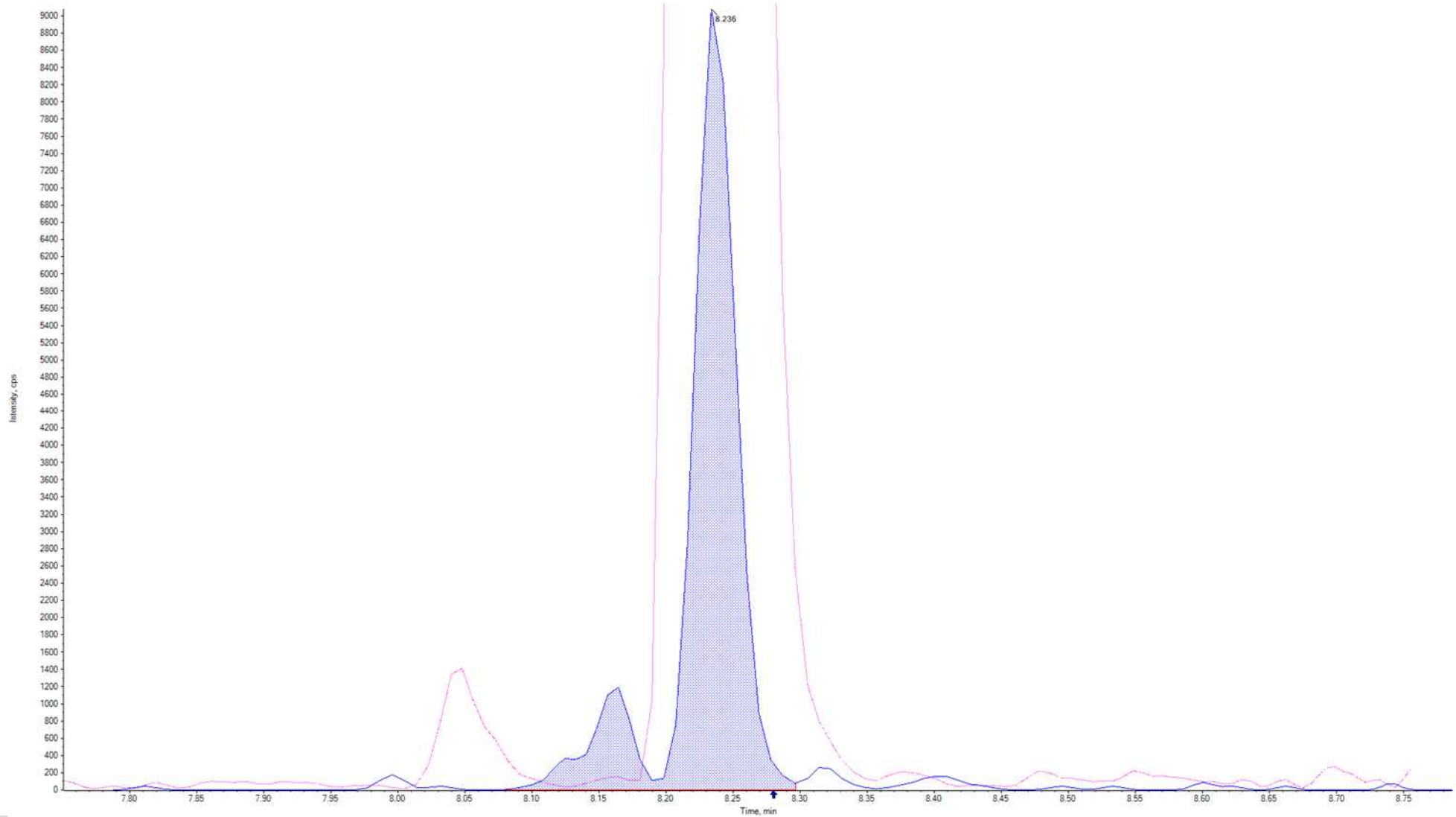
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFOS
Sample: WG1972760-2 S/N:458.8 Points Across peak:36



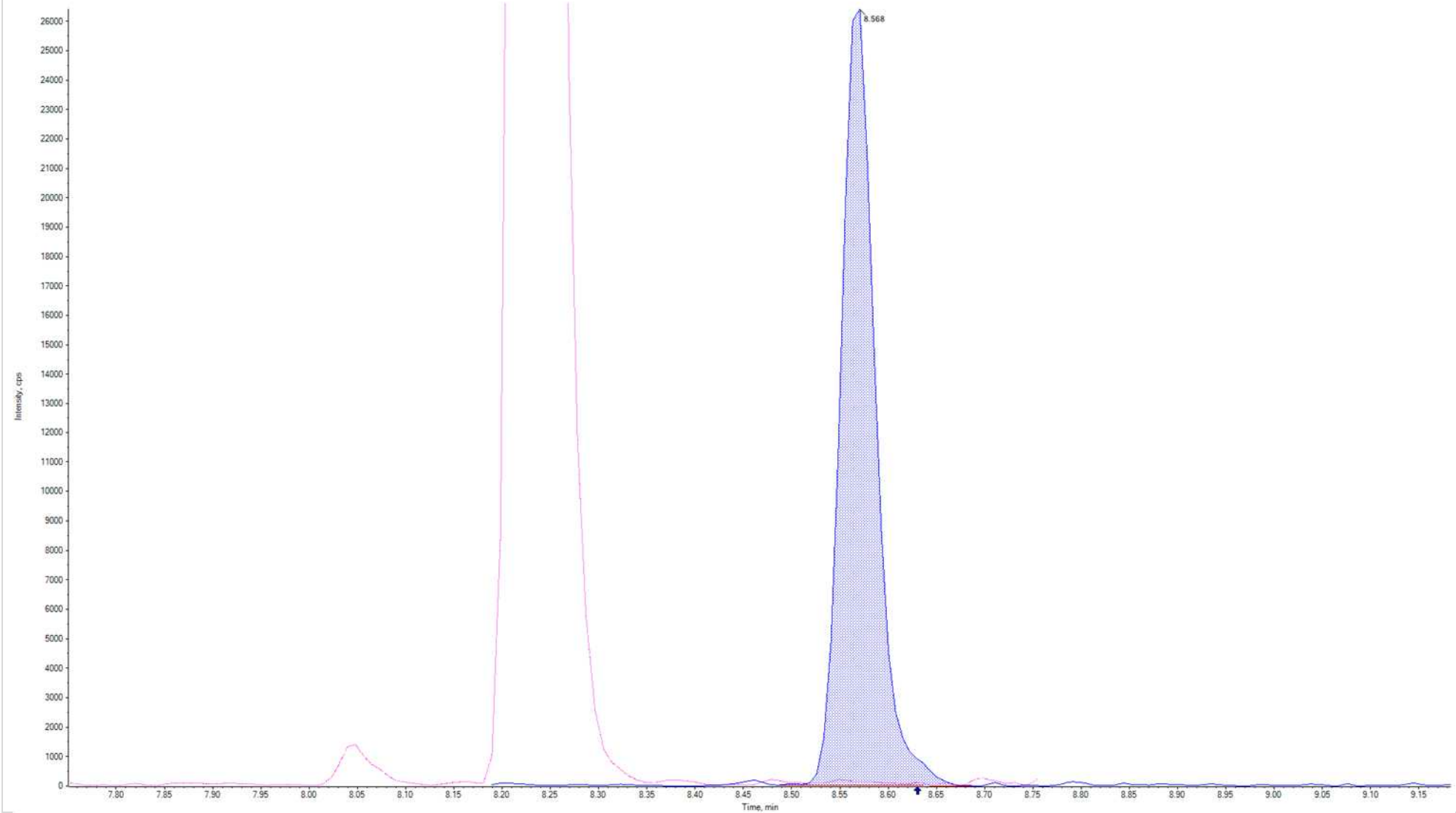
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Last Altered: 9/18/2024 12:41:54 PM
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PFOS_2
Sample: WG1972760-2 S/N:367.4 Points Across peak:28



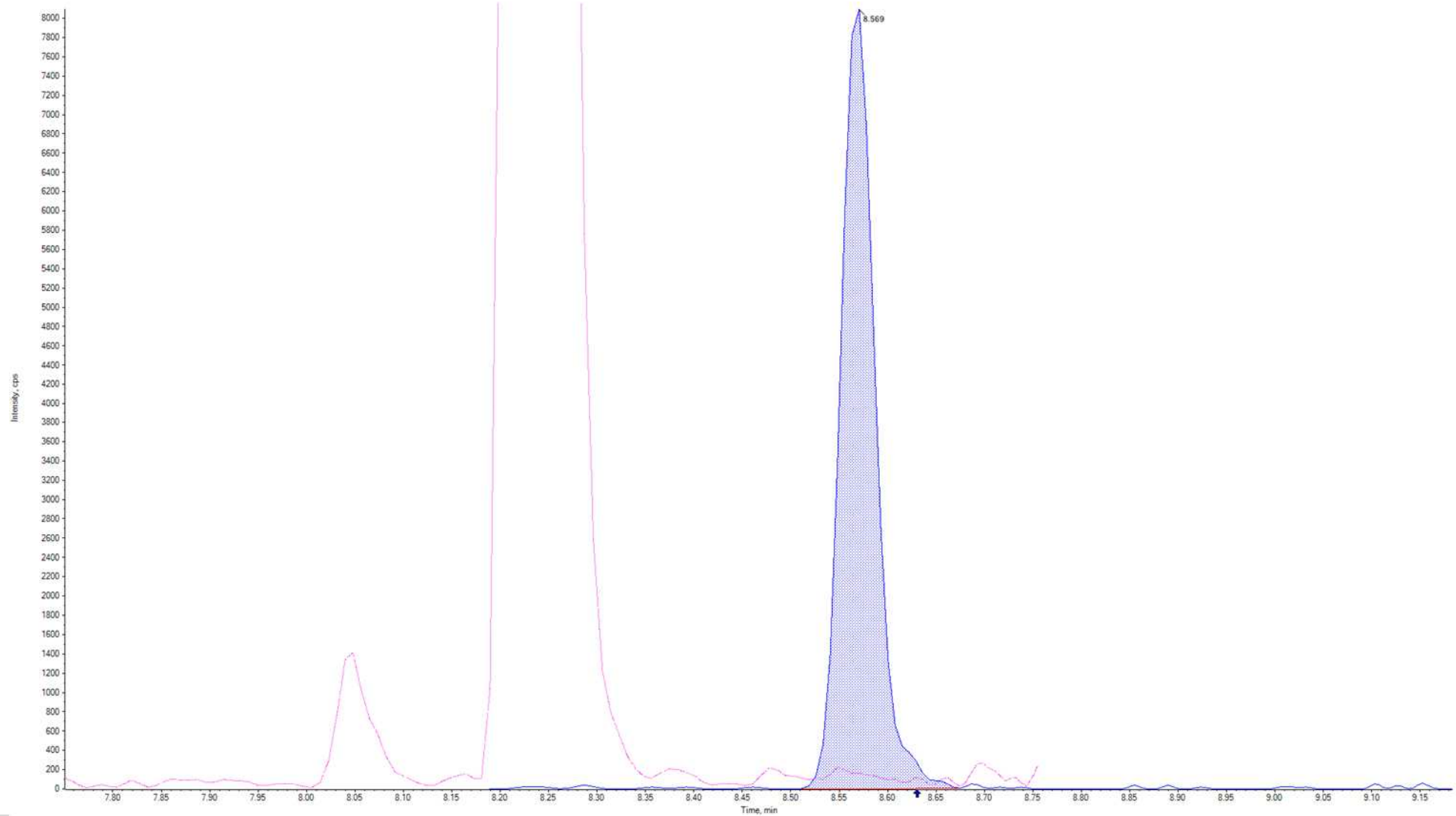
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Alpha Analytical Inc.
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Generated: 9/18/2024 6:35:36 AM

PFNS
Sample: WG1972760-2 S/N:13633.4 Points Across peak:30



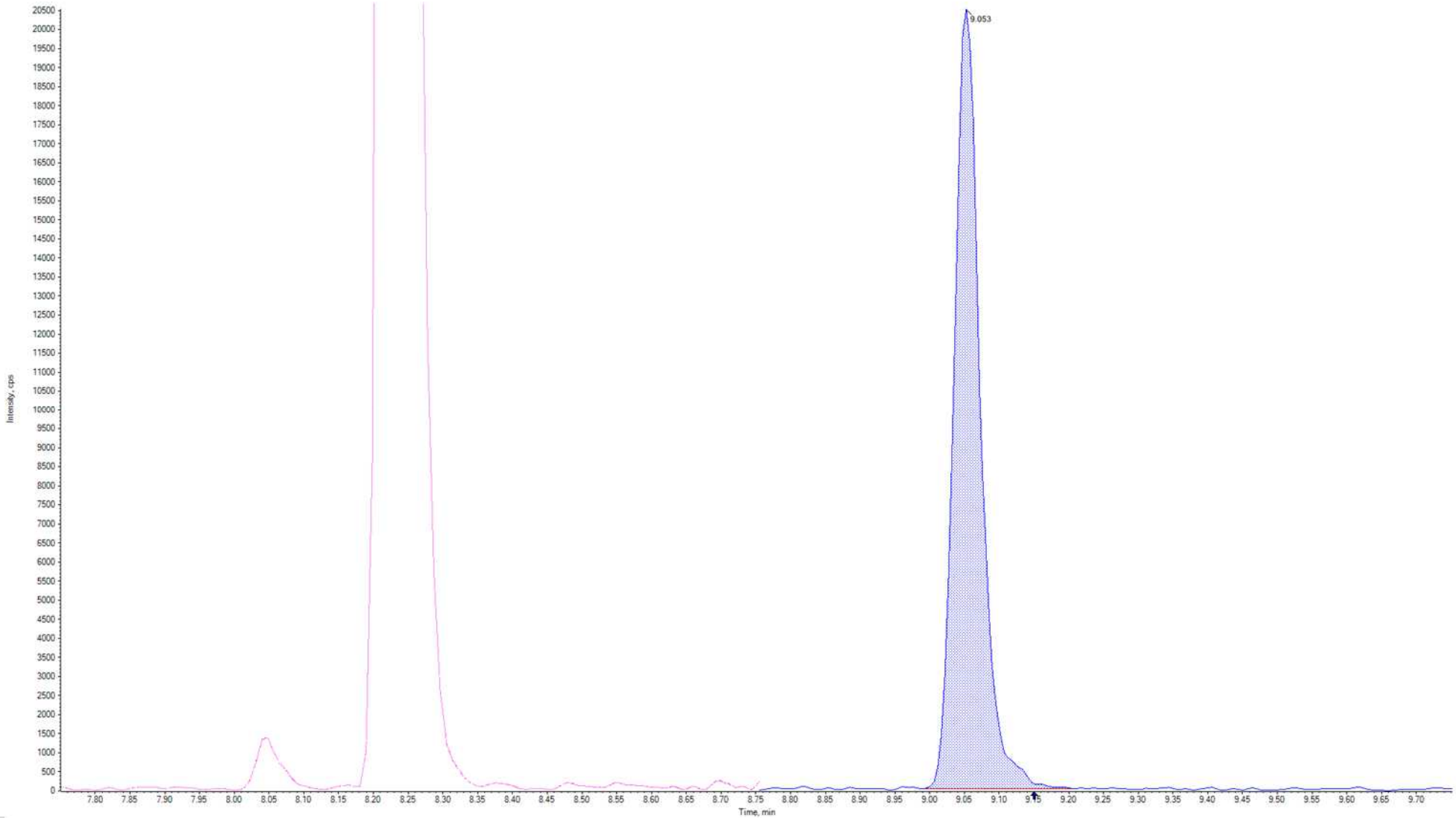
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFNS_2
Sample: WG1972760-2 S/N:1049.7 Points Across peak:26



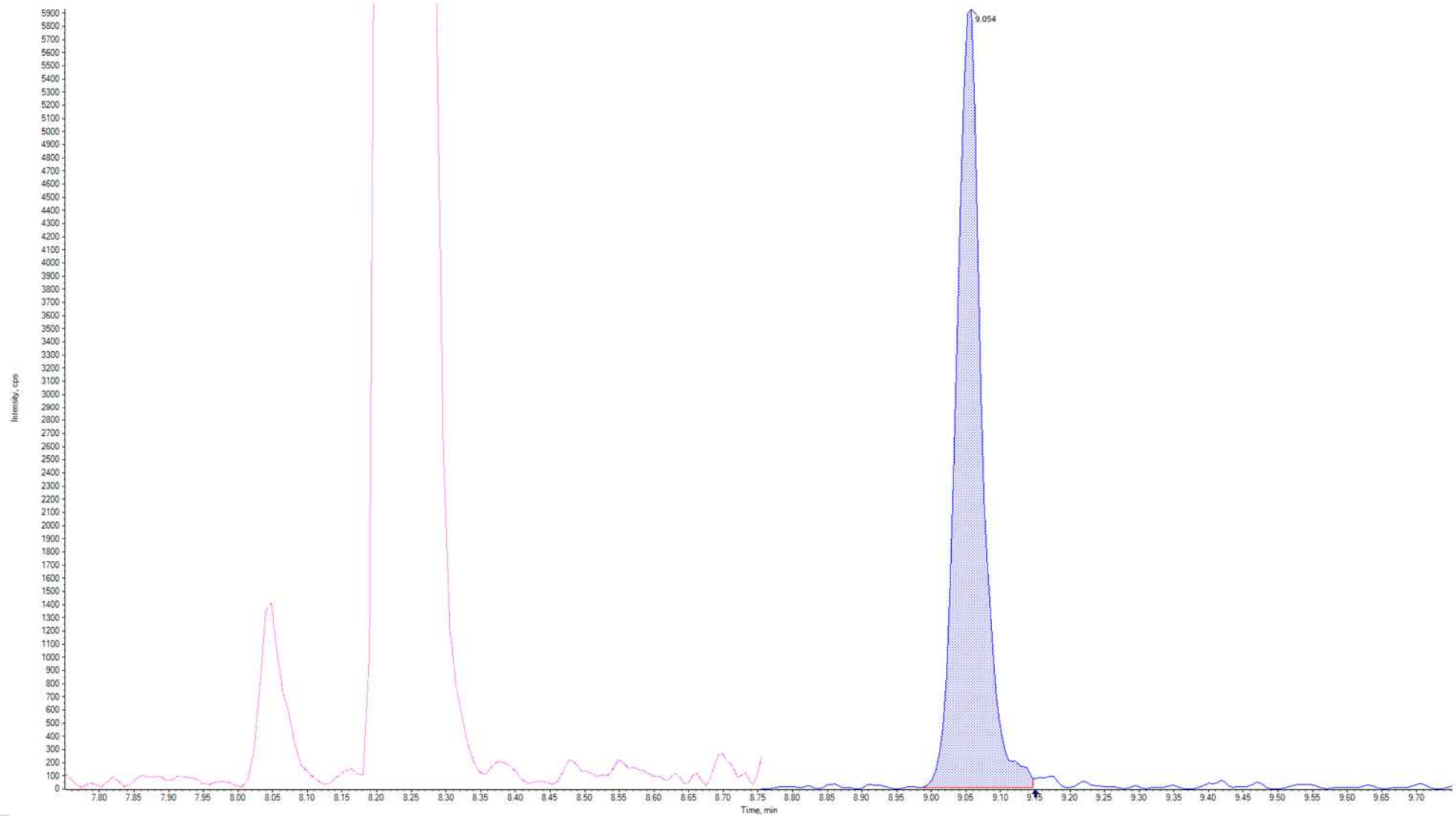
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDS
Sample: WG1972760-2 S/N:2252.1 Points Across peak:44



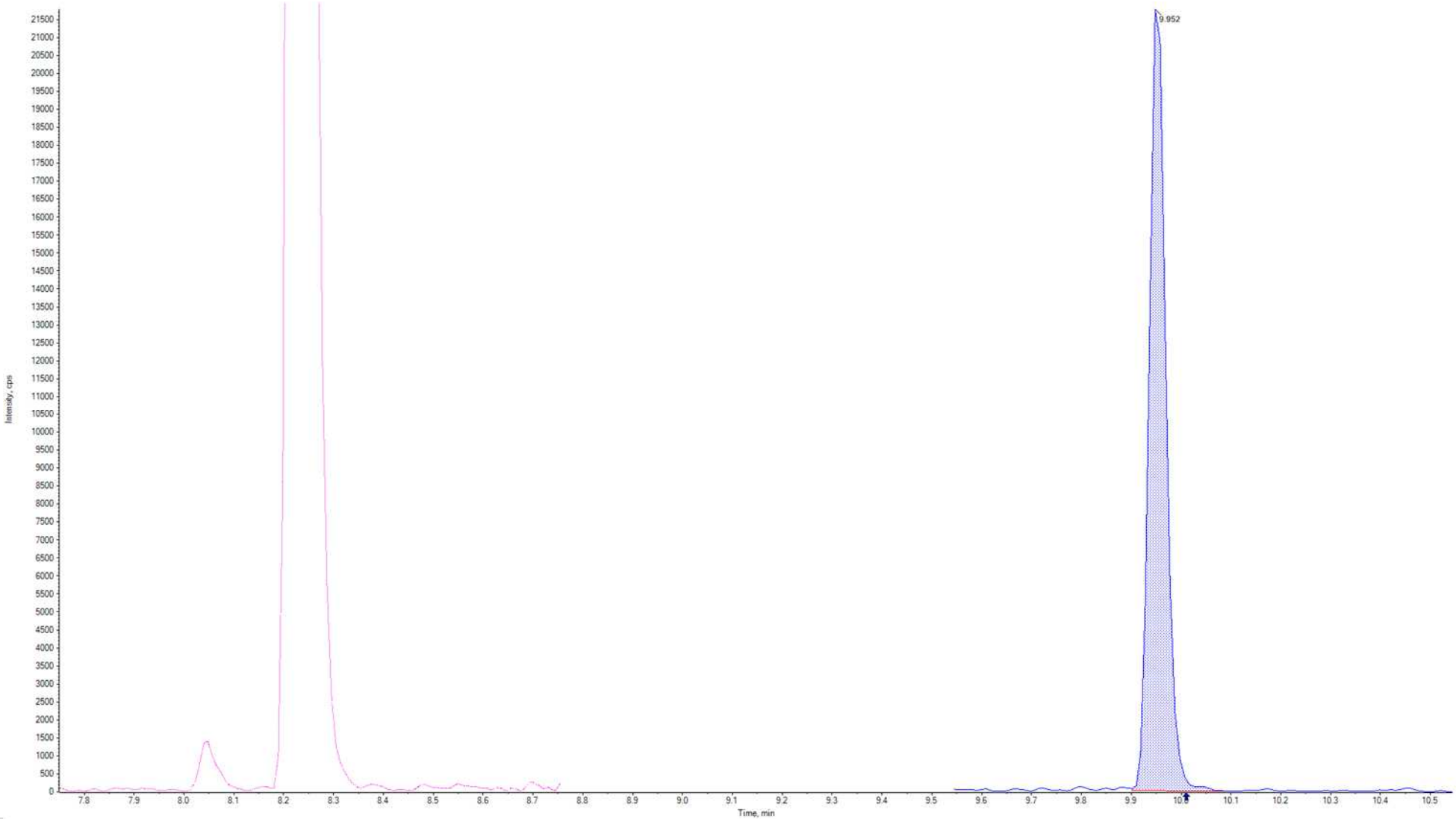
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDS_2
Sample: WG1972760-2 S/N:7247.2 Points Across peak:36



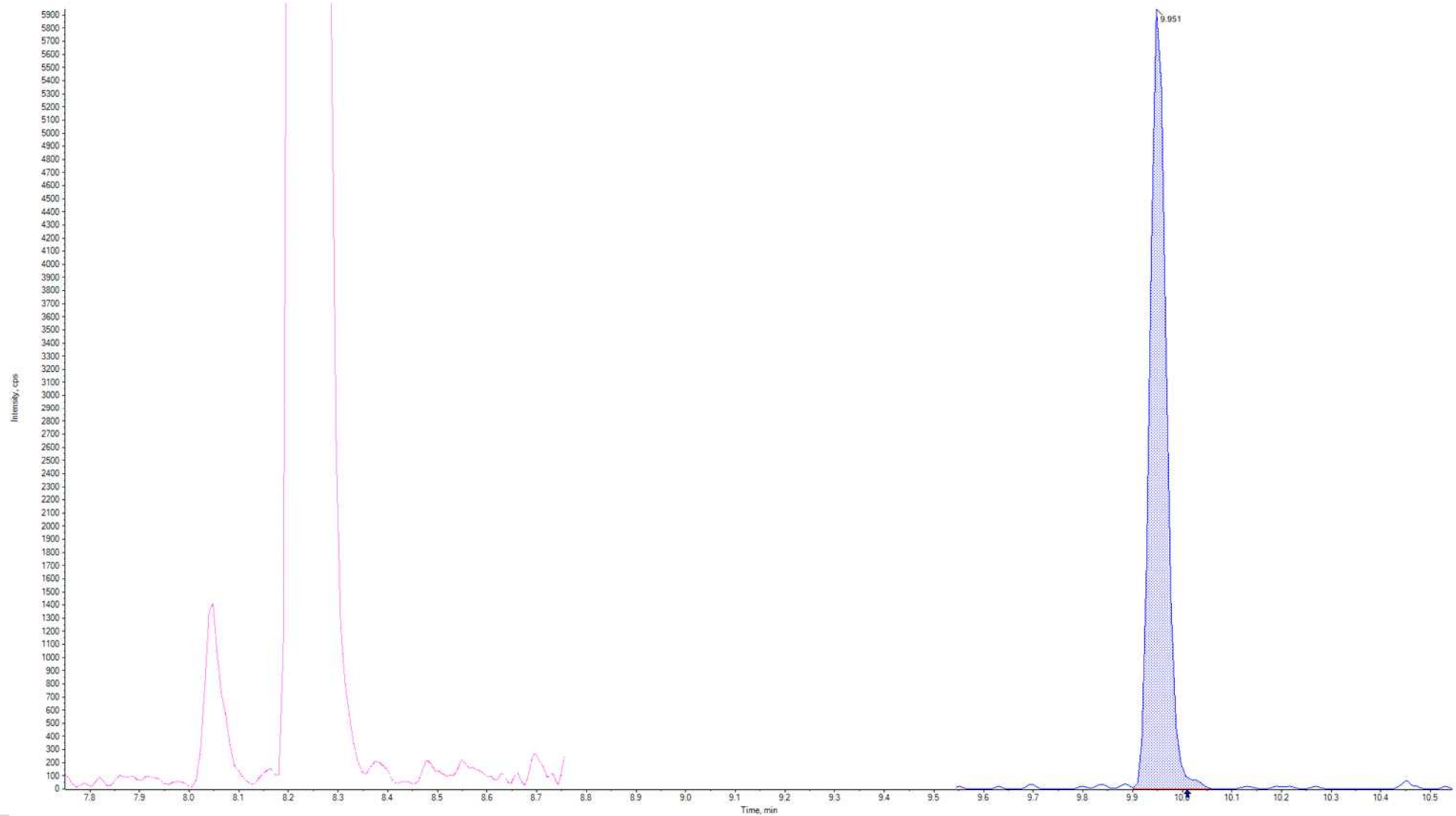
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDoS
Sample: WG1972760-2 S/N:5569.5 Points Across peak:21



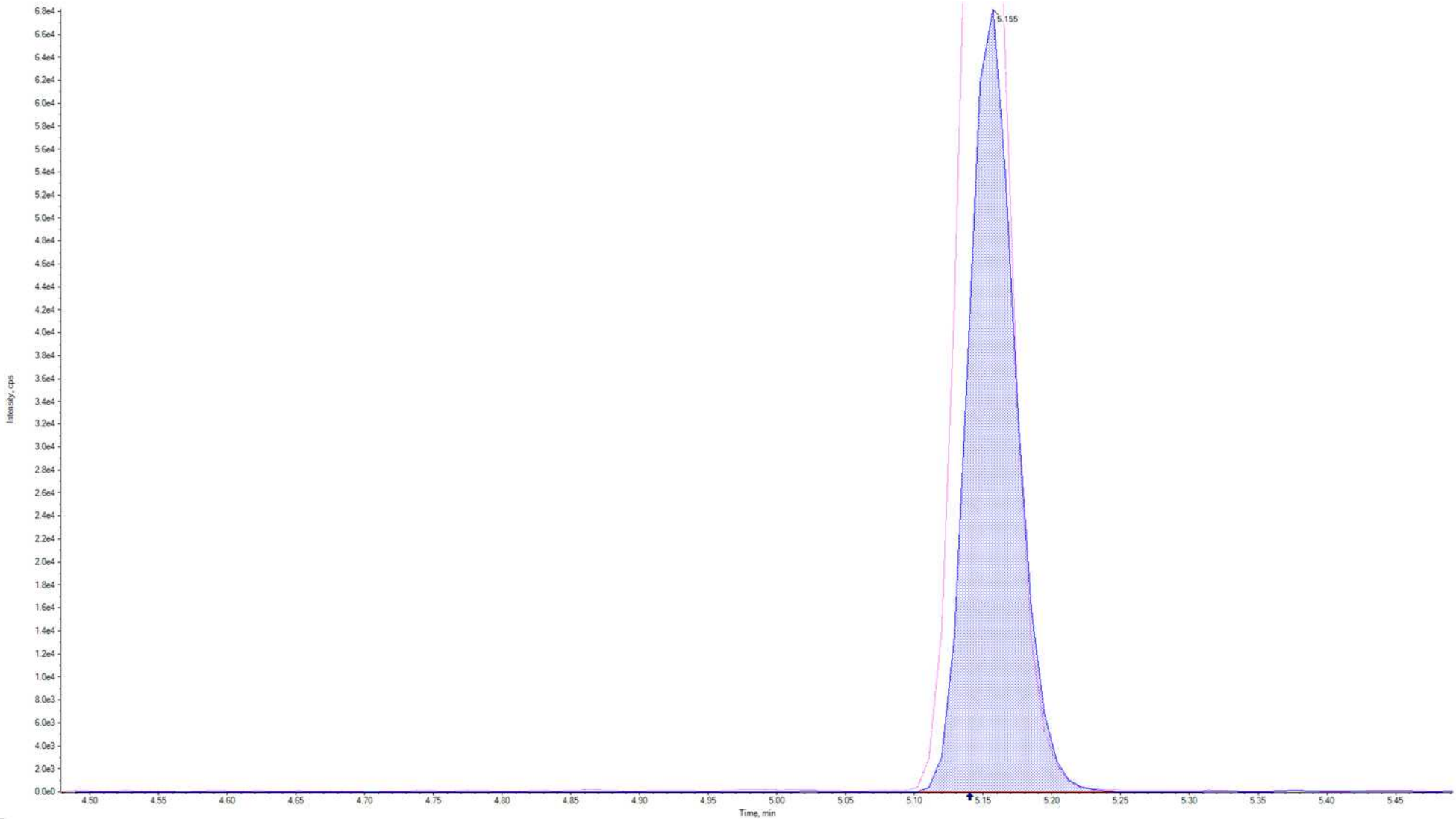
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDoS_2
Sample: WG1972760-2 S/N:1146.3 Points Across peak:20



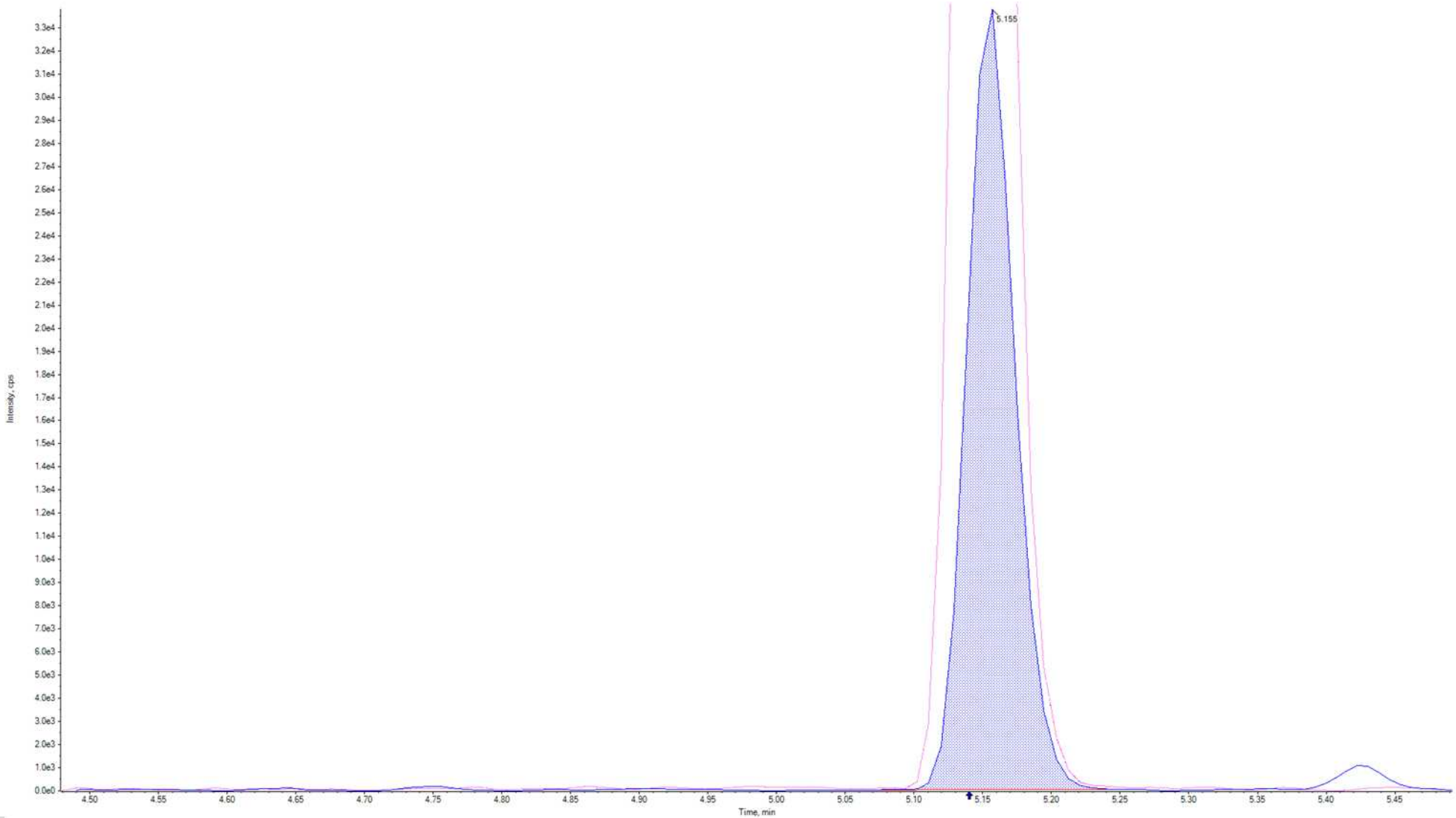
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_16.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

4:2FTS
Sample: WG1972760-2 S/N:2168.0 Points Across peak:21



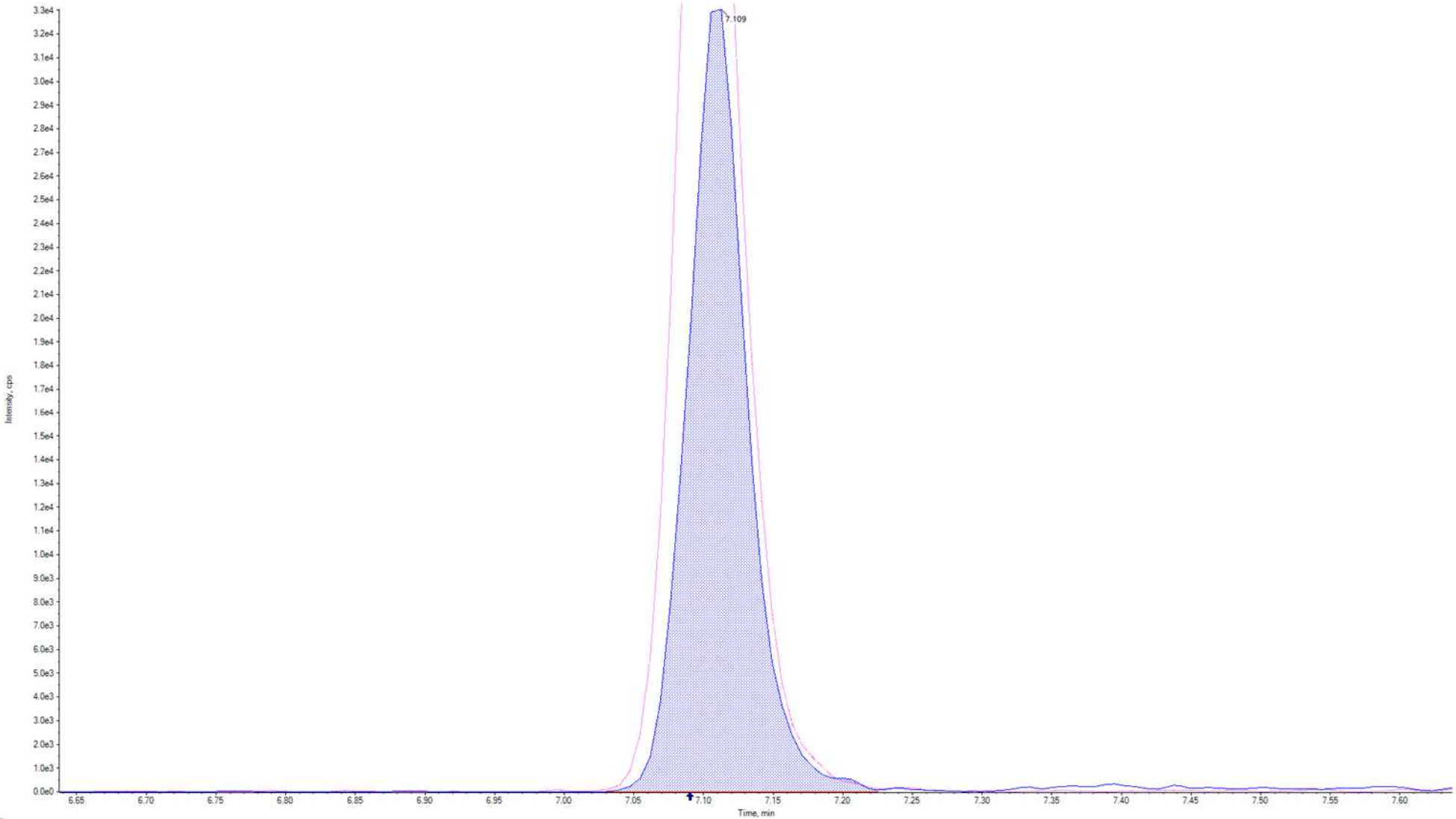
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_16.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

4:2FTS_2
Sample: WG1972760-2 S/N:2086.1 Points Across peak:22



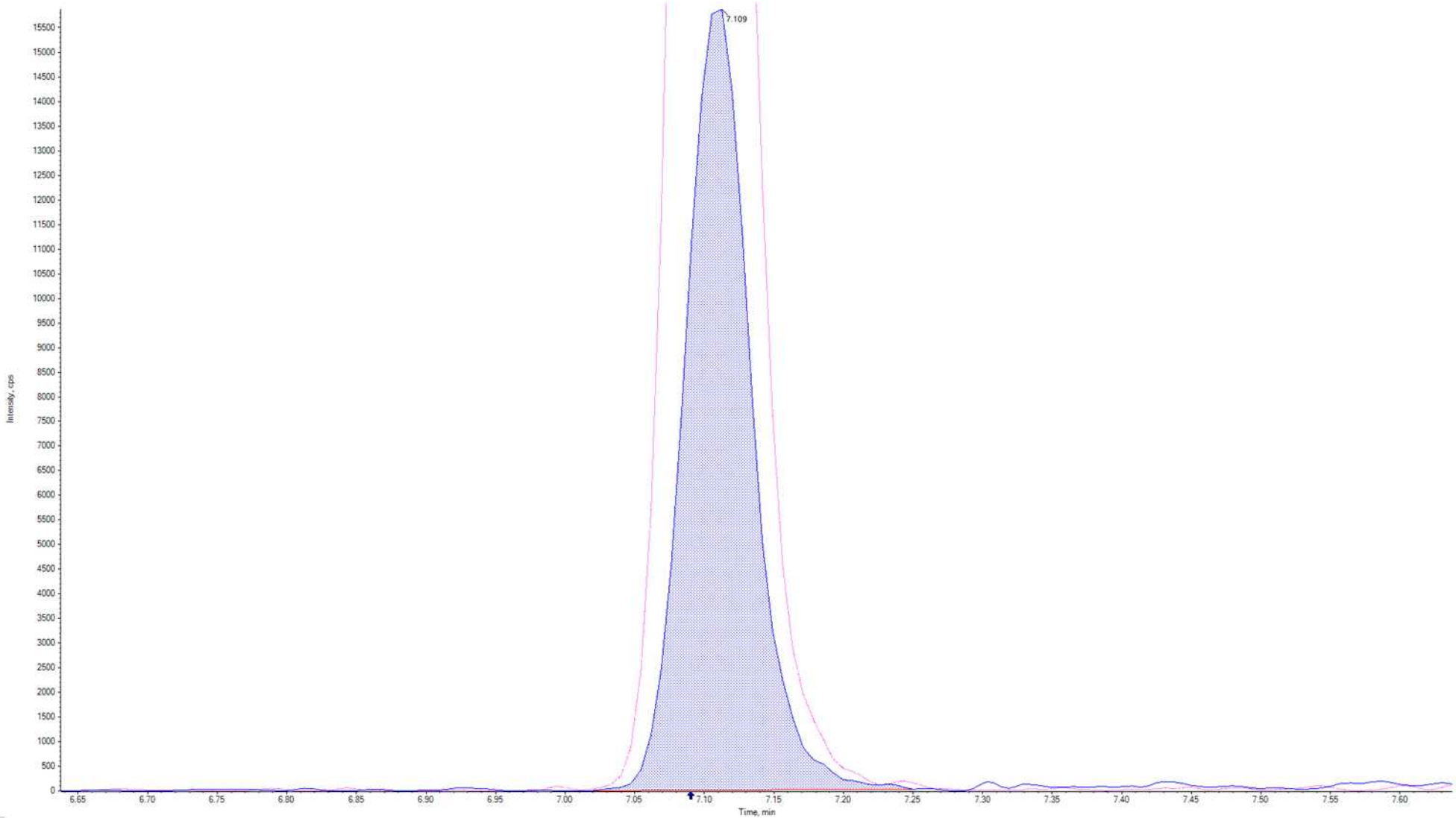
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

6:2FTS
Sample: WG1972760-2 S/N:829.2 Points Across peak:30



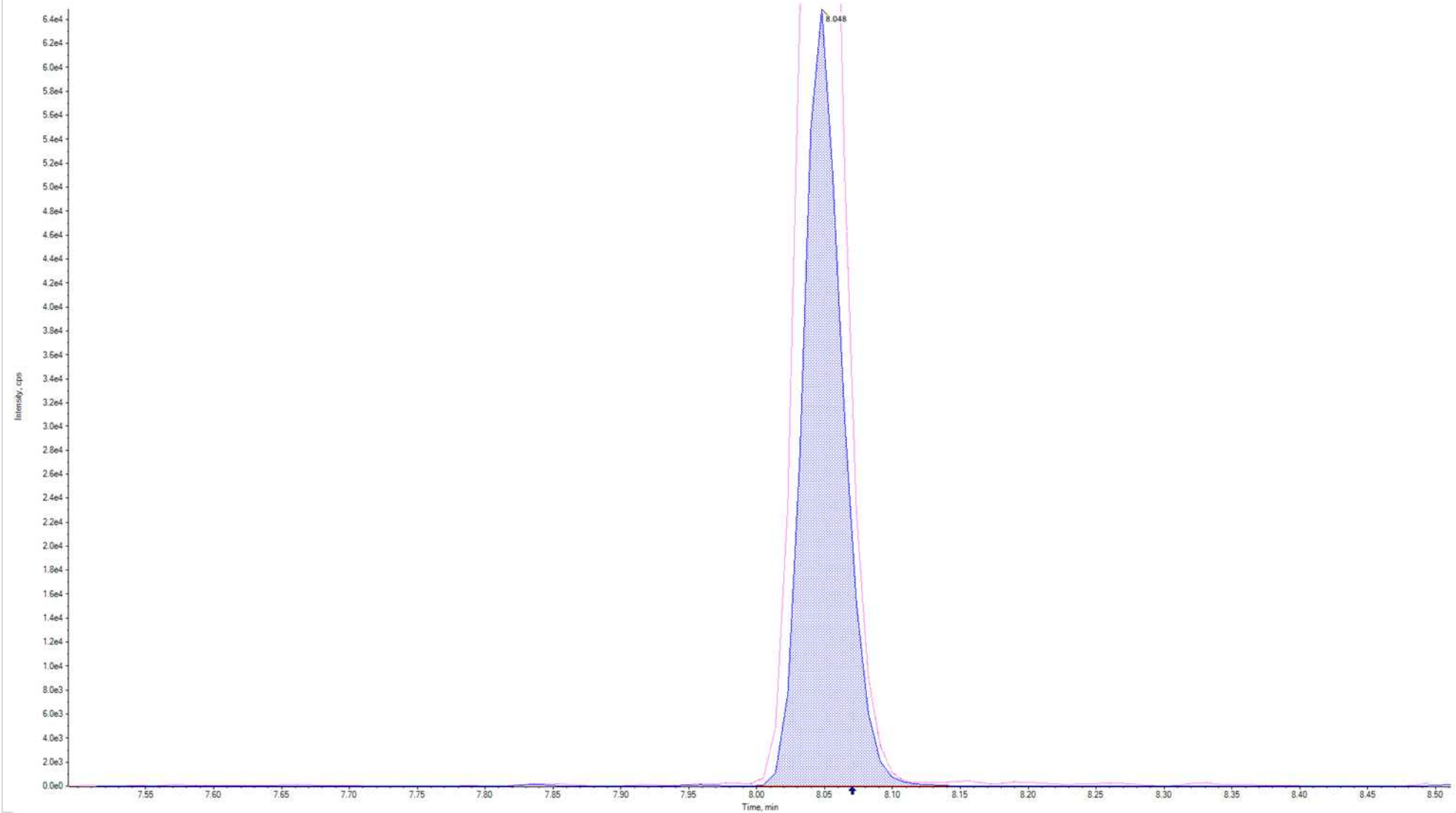
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

6:2FTS_2
Sample: WG1972760-2 S/N:9919.7 Points Across peak:35



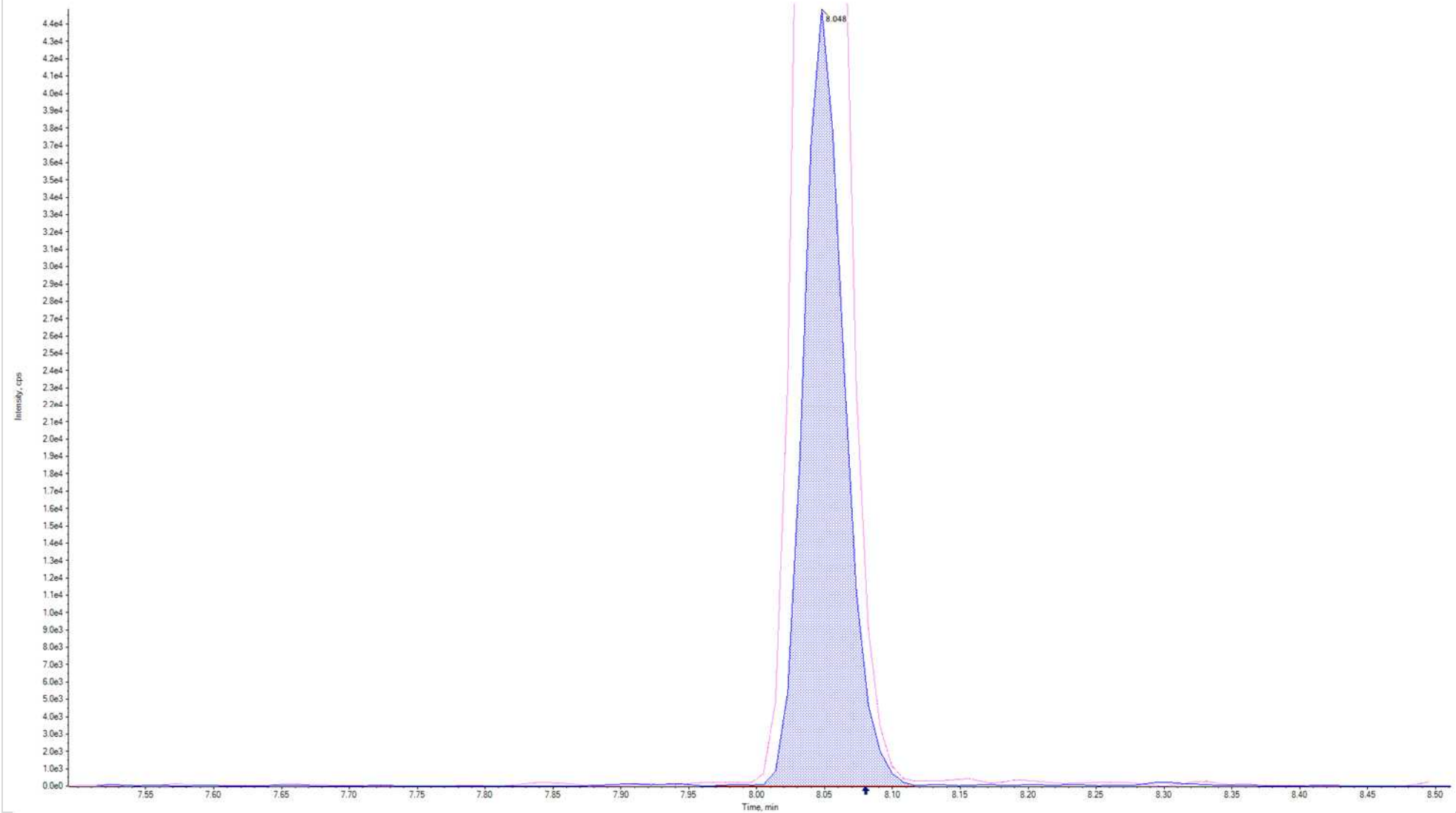
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

8:2FTS
Sample: WG1972760-2 S/N:2498.0 Points Across peak:26



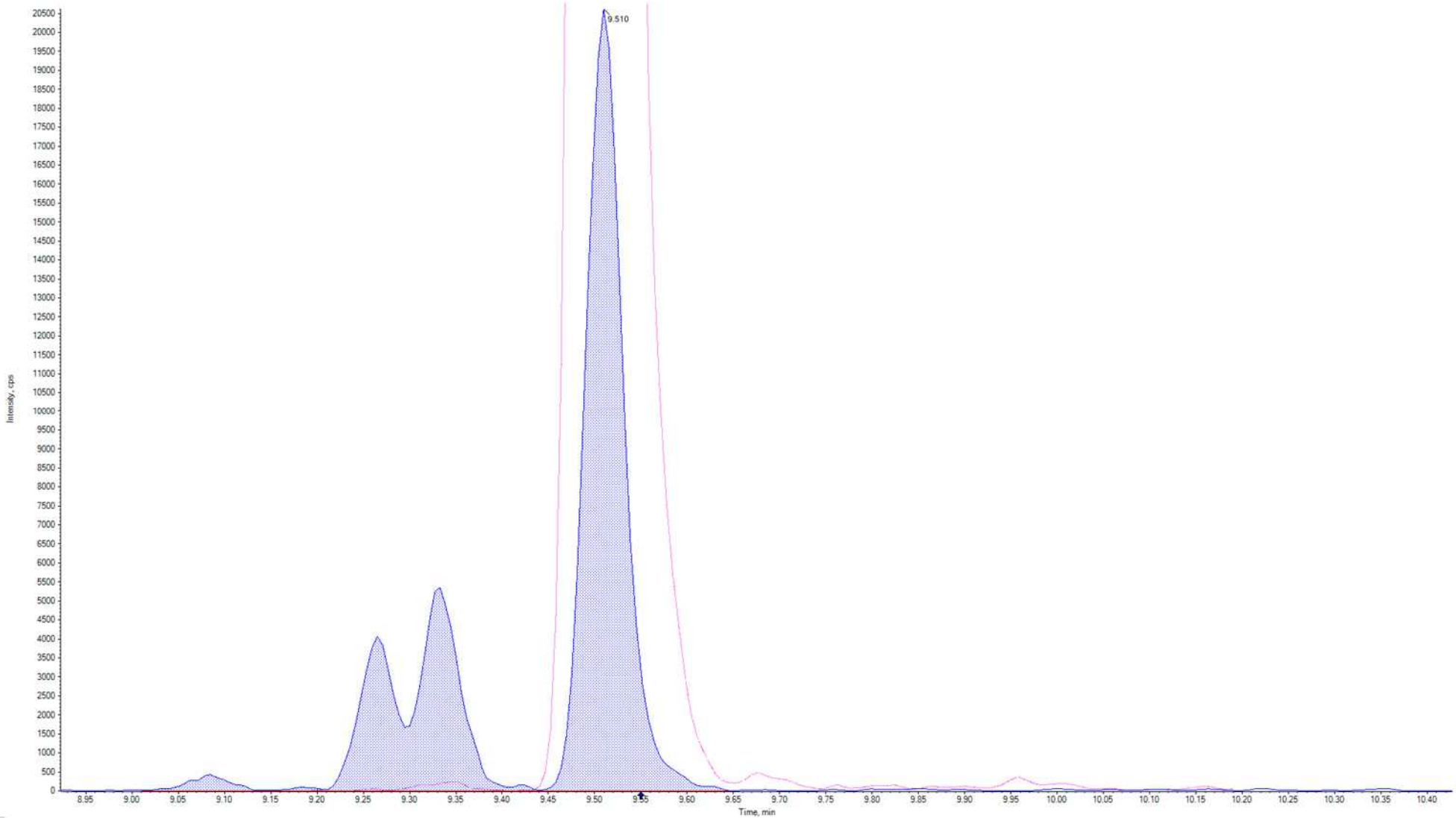
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

8:2FTS_2
Sample: WG1972760-2 S/N:1040.5 Points Across peak:18



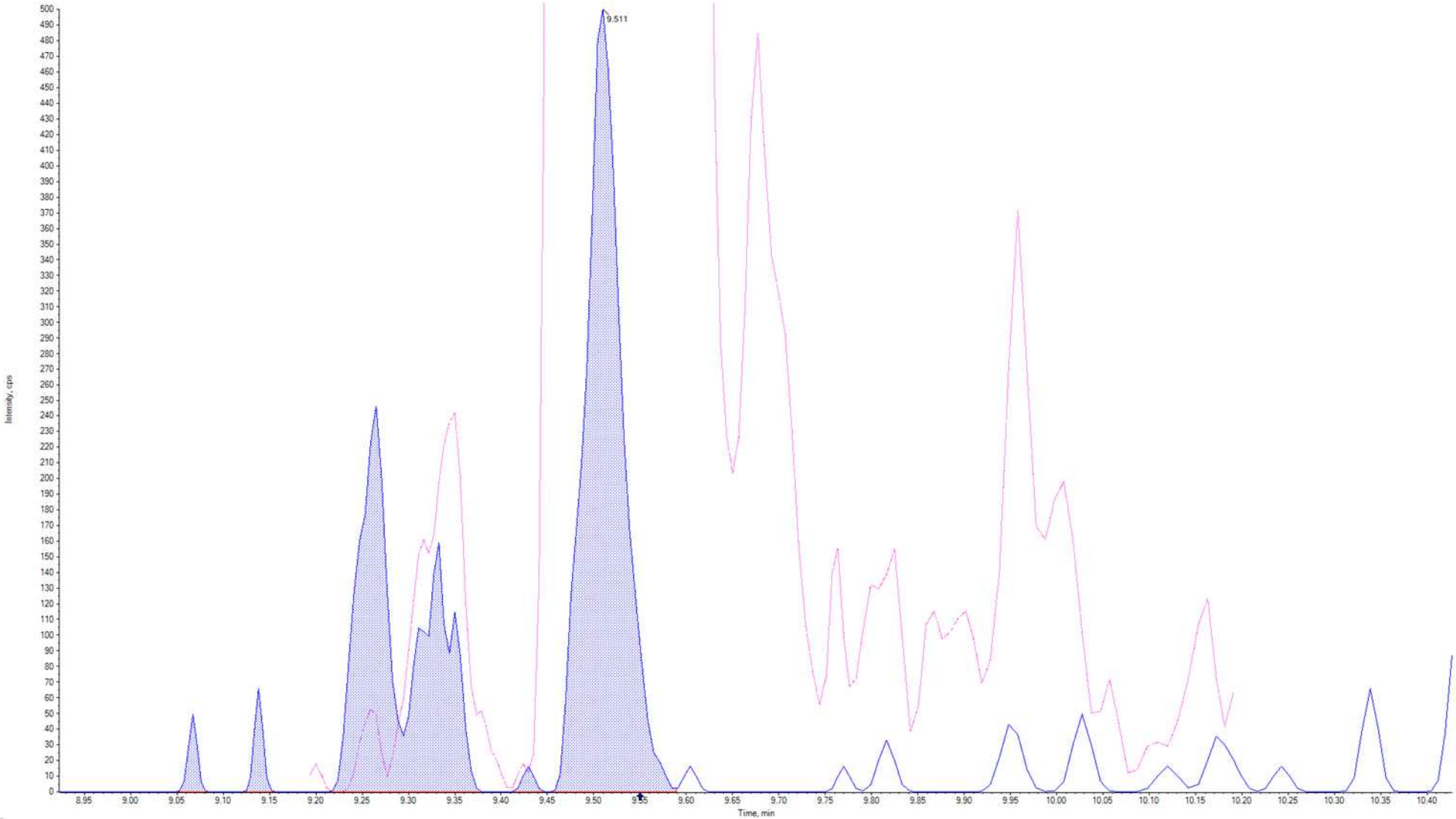
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFOSA
Sample: WG1972760-2 S/N:866.4 Points Across peak:117



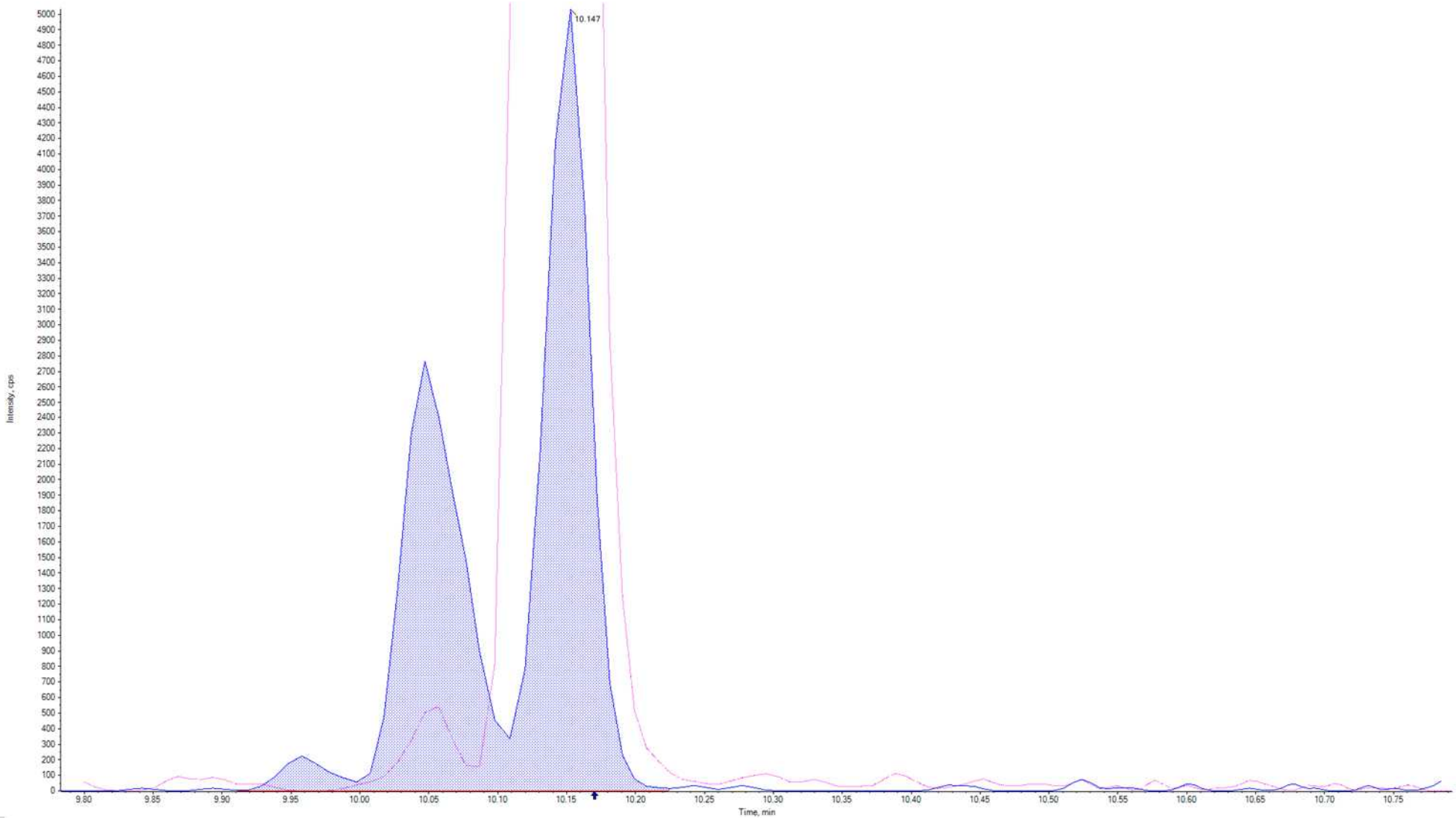
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFOSA_2
Sample: WG1972760-2 S/N:183.7 Points Across peak:99



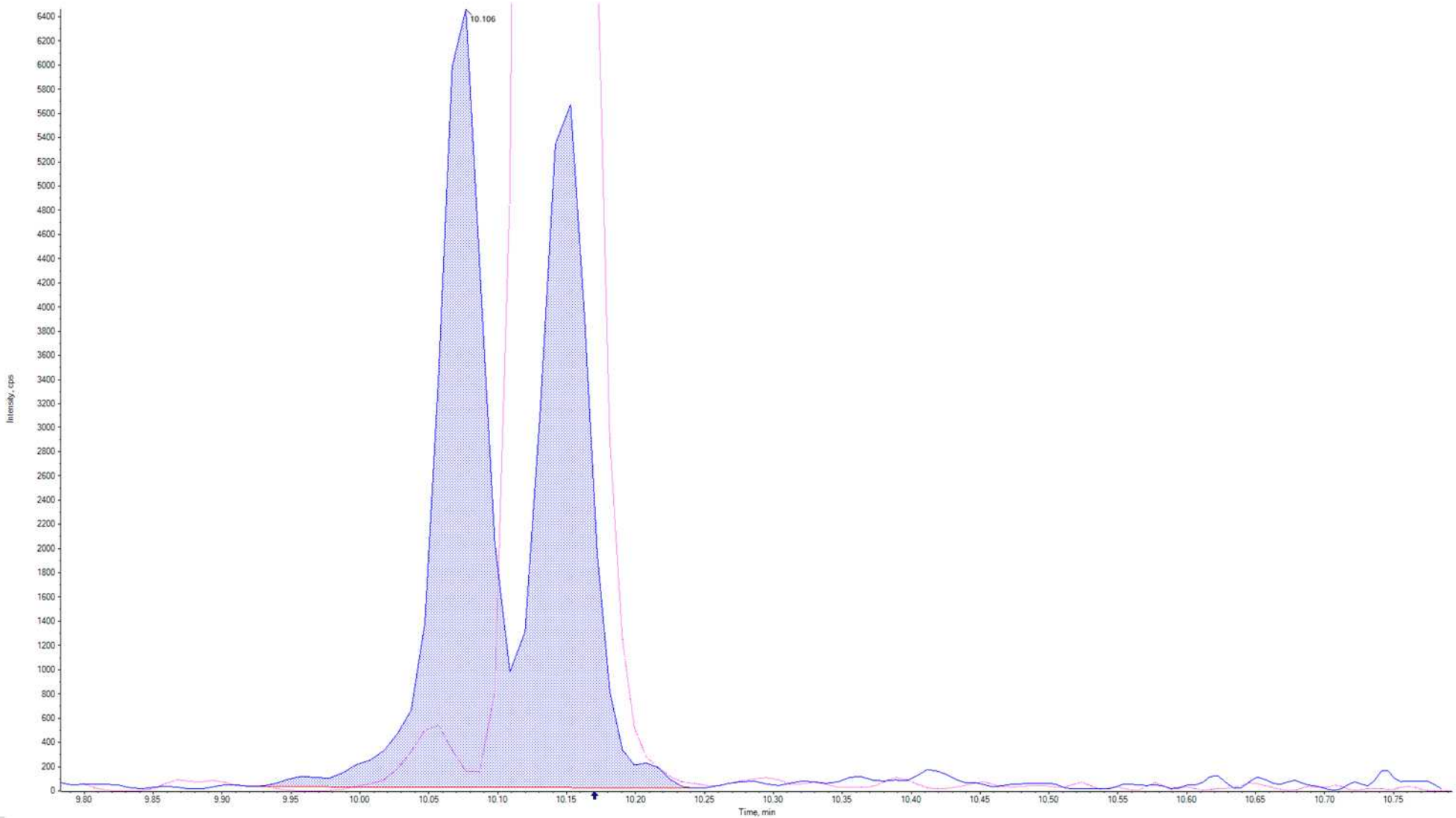
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Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_16.wiff
Last Altered: 9/18/2024 12:41:54 PM
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NMeFOSA
Sample: WG1972760-2 S/N:374.0 Points Across peak:33



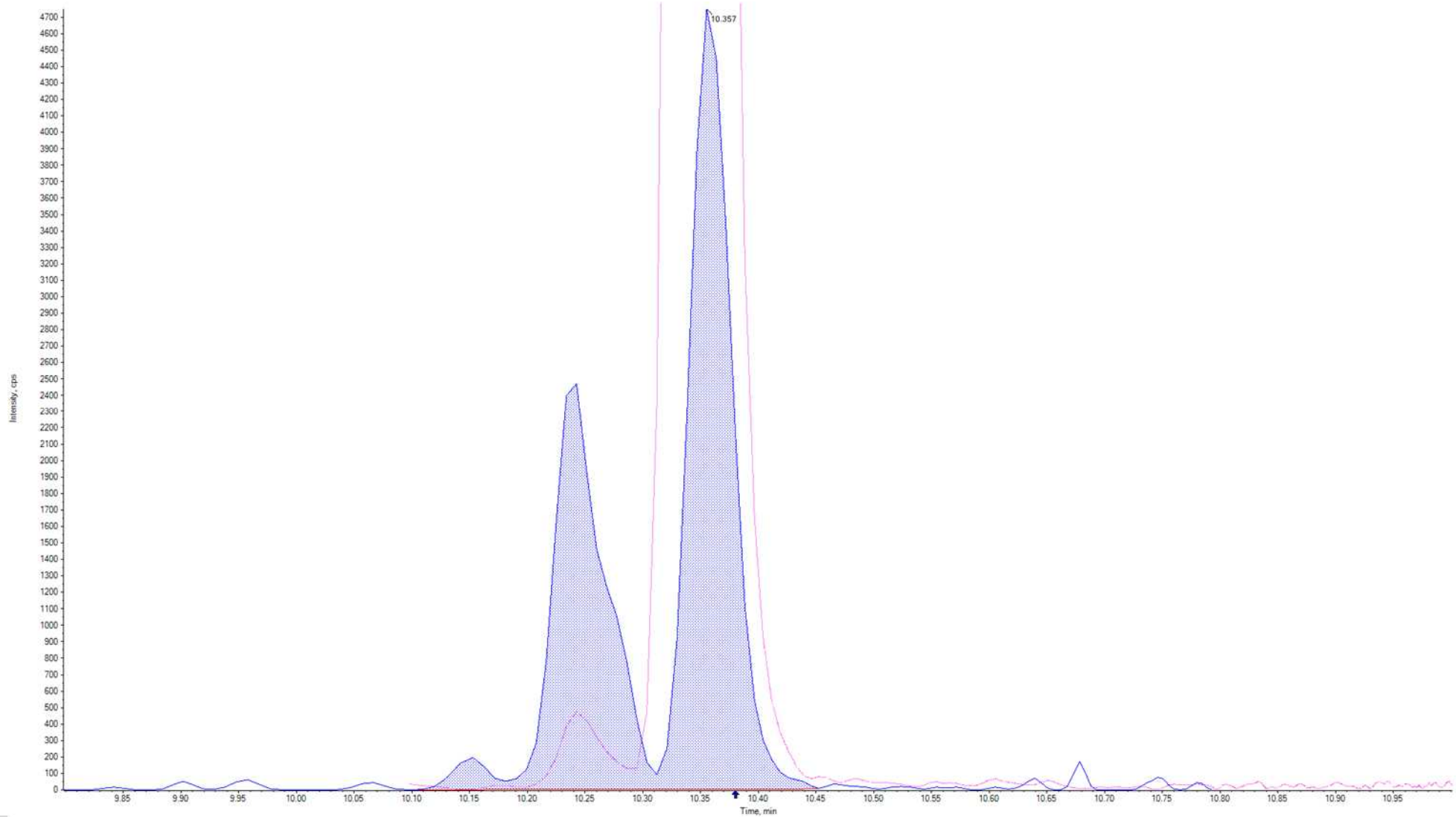
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_16.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NMeFOSA_2
Sample: WG1972760-2 S/N:499.3 Points Across peak:34



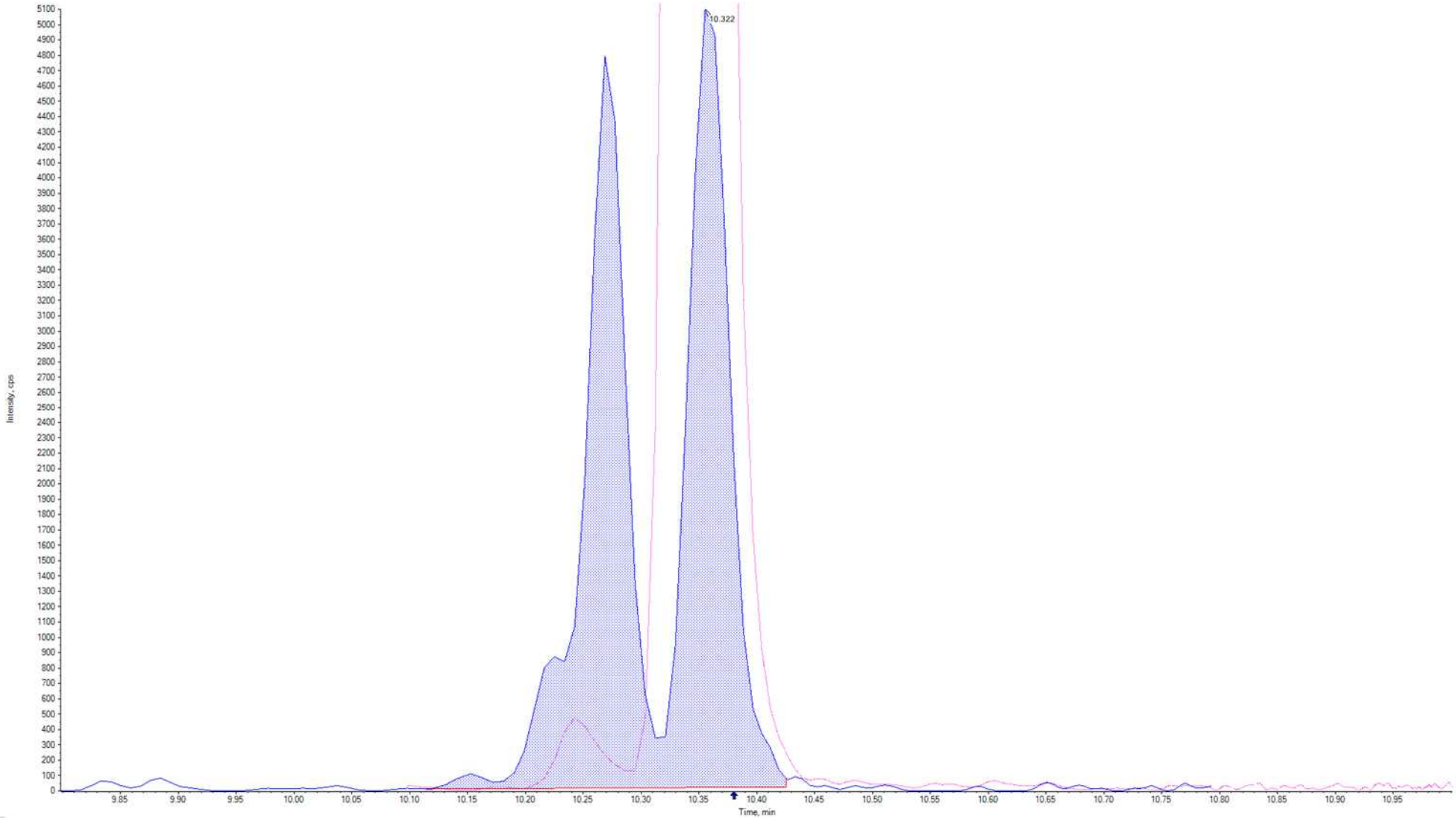
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NEtFOSA
Sample: WG1972760-2 S/N:147705.5 Points Across peak:43



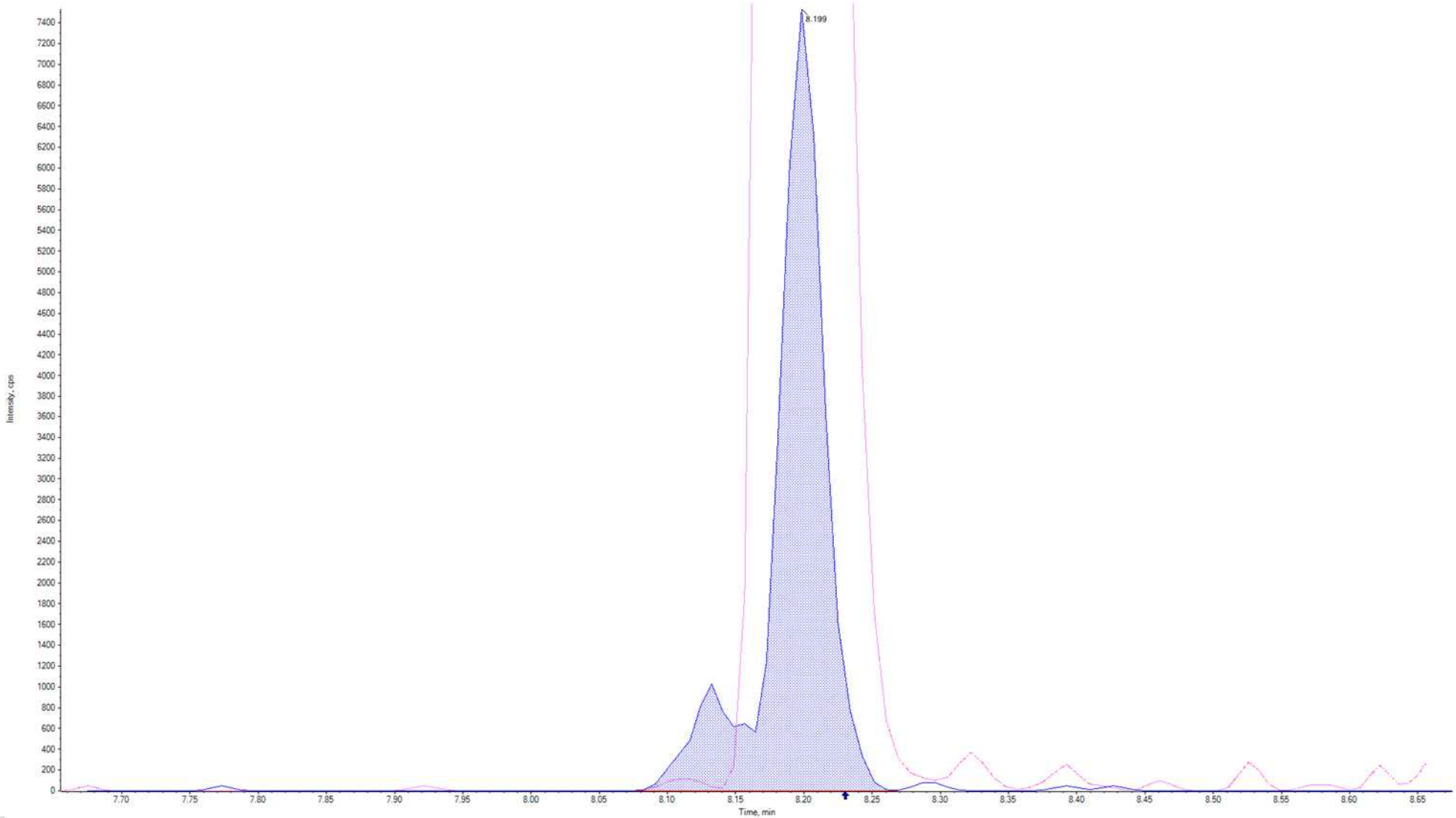
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NEtFOSA_2
Sample: WG1972760-2 S/N:175974.6 Points Across peak:37



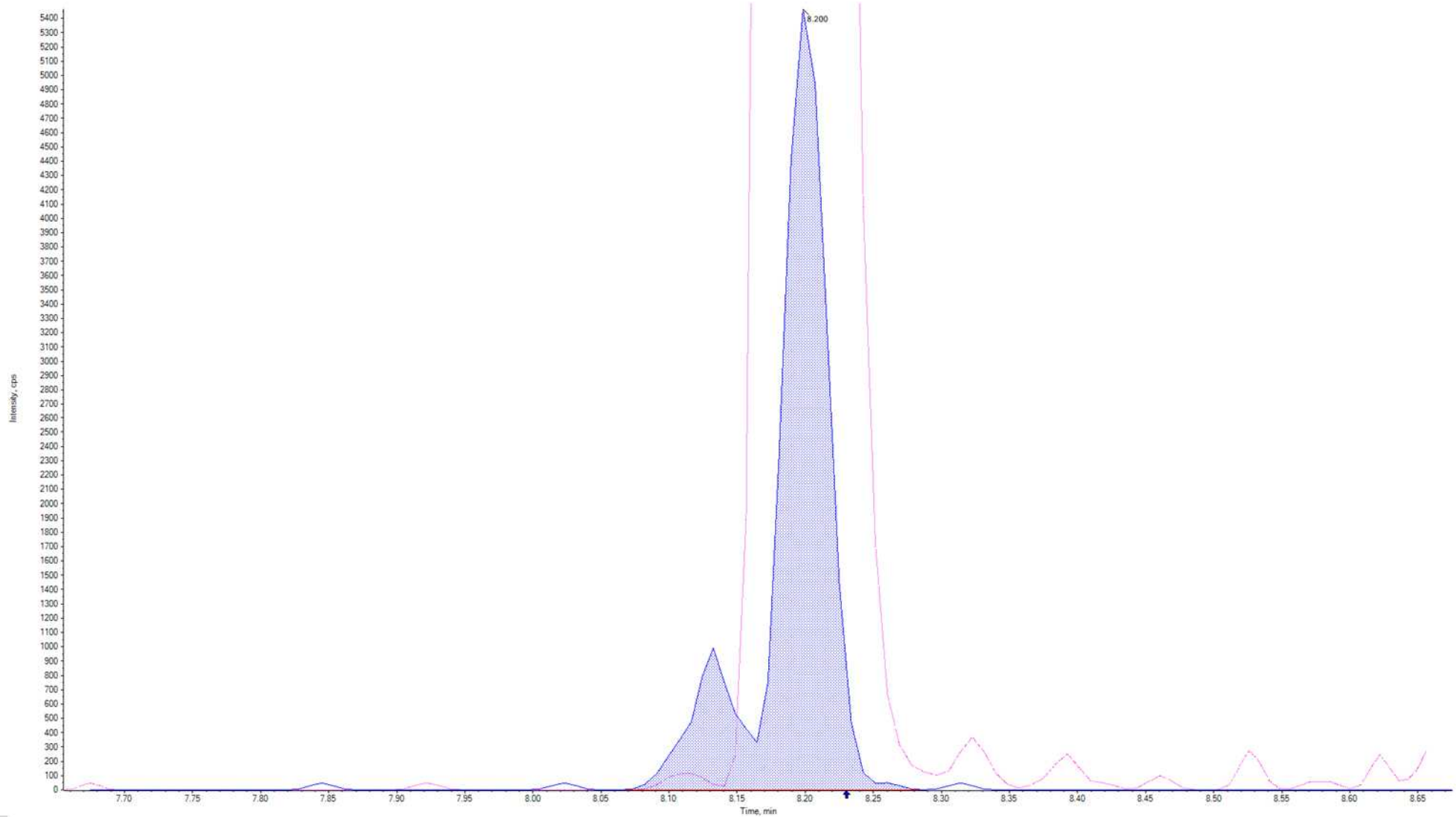
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NMeFOSAA
Sample: WG1972760-2 S/N:841.8 Points Across peak:24



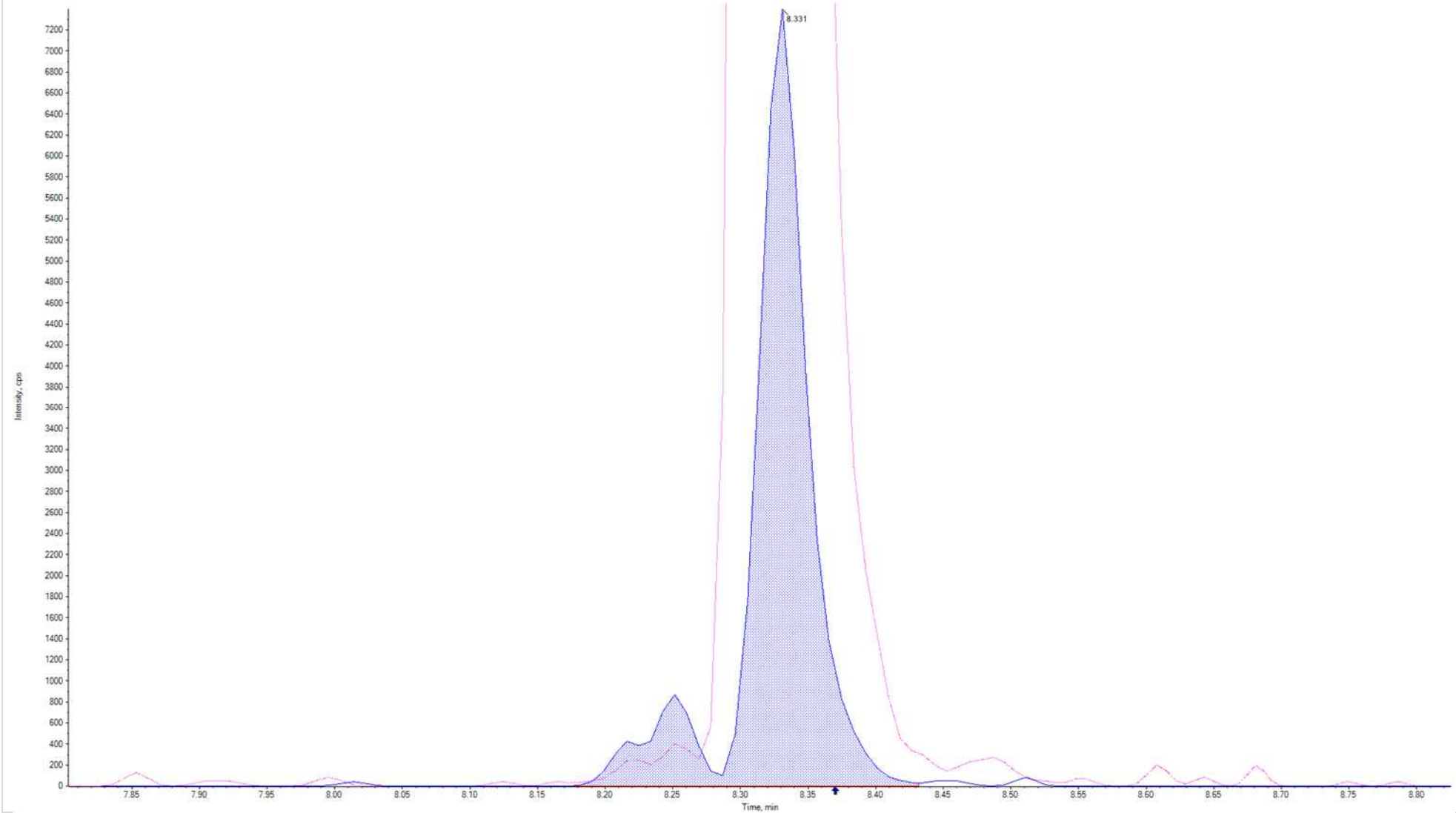
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NMeFOSAA_2
Sample: WG1972760-2 S/N:544.4 Points Across peak:28



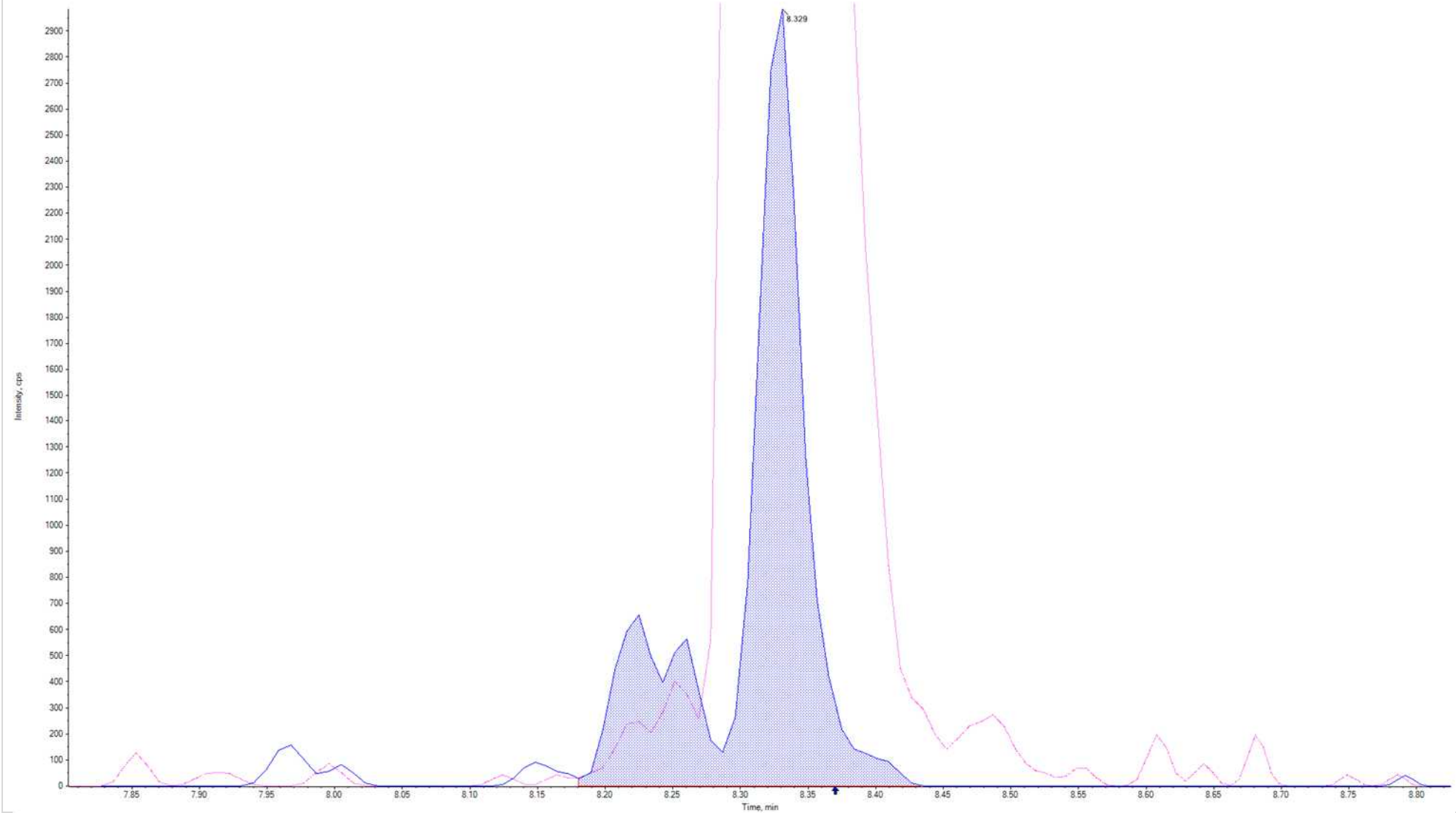
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NEtFOSAA
Sample: WG1972760-2 S/N:373.6 Points Across peak:31



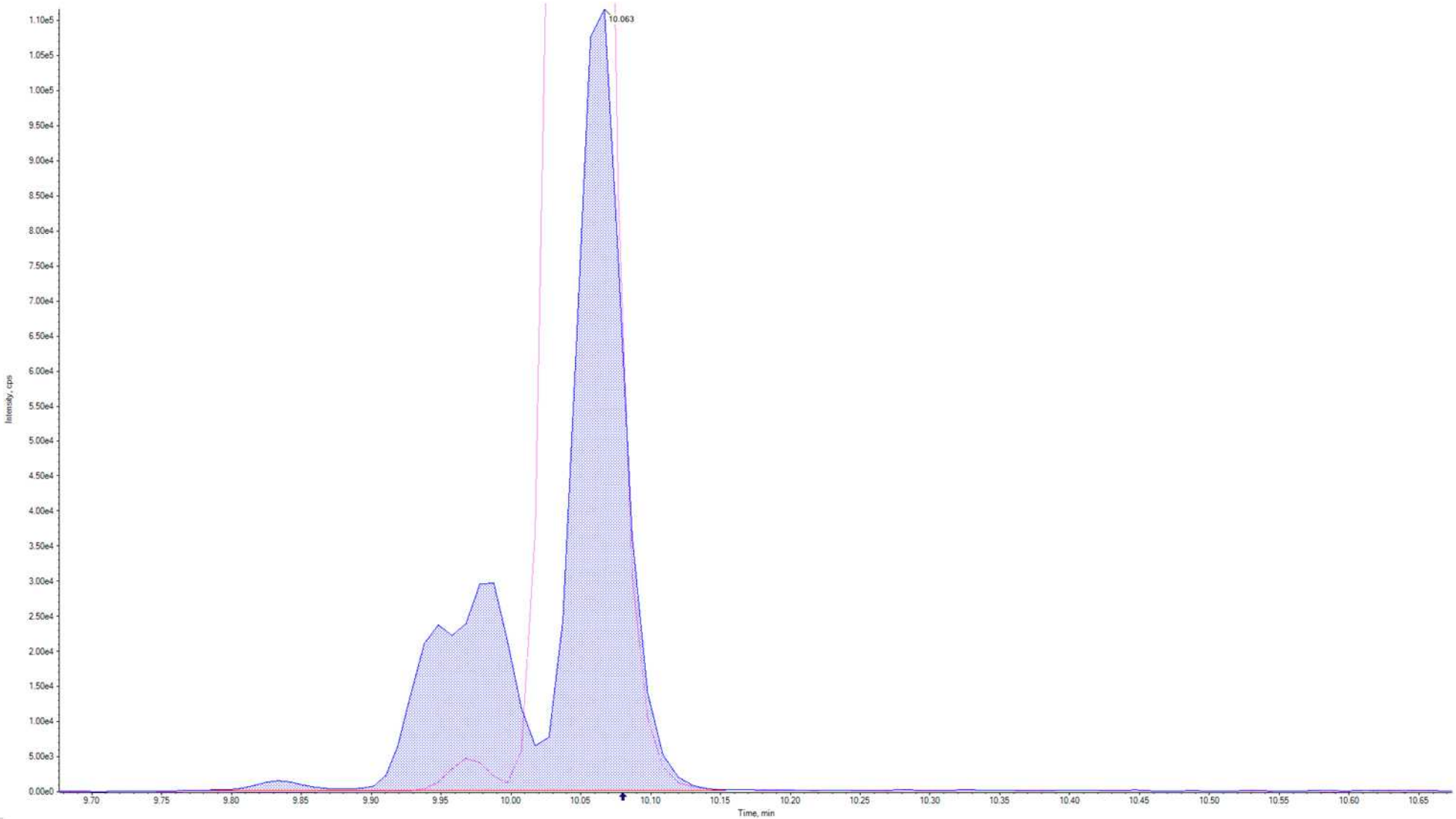
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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NEtFOSAA_2
Sample: WG1972760-2 S/N:129.4 Points Across peak:31



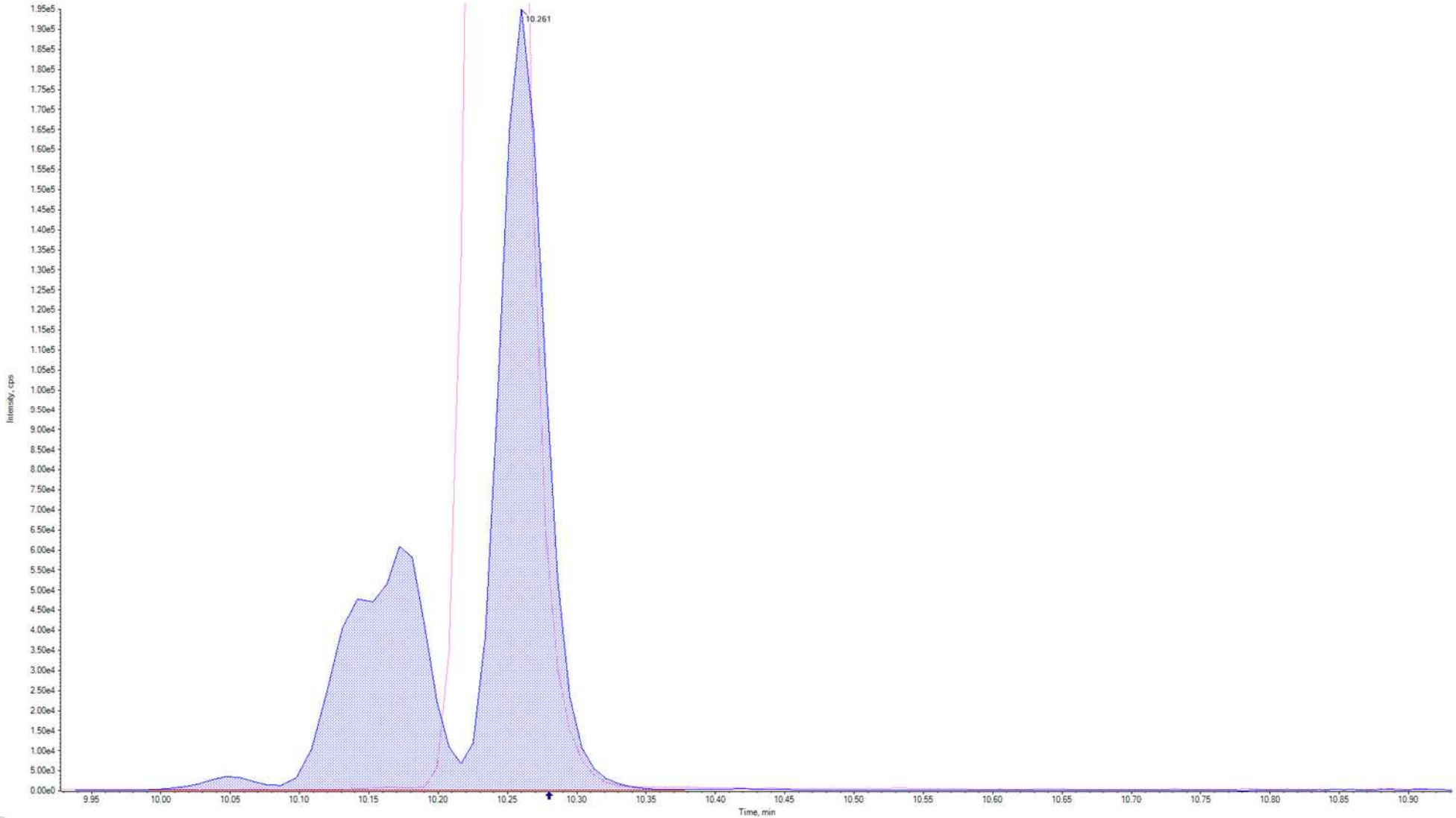
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NMeFOSE
Sample: WG1972760-2 S/N:991.9 Points Across peak:41



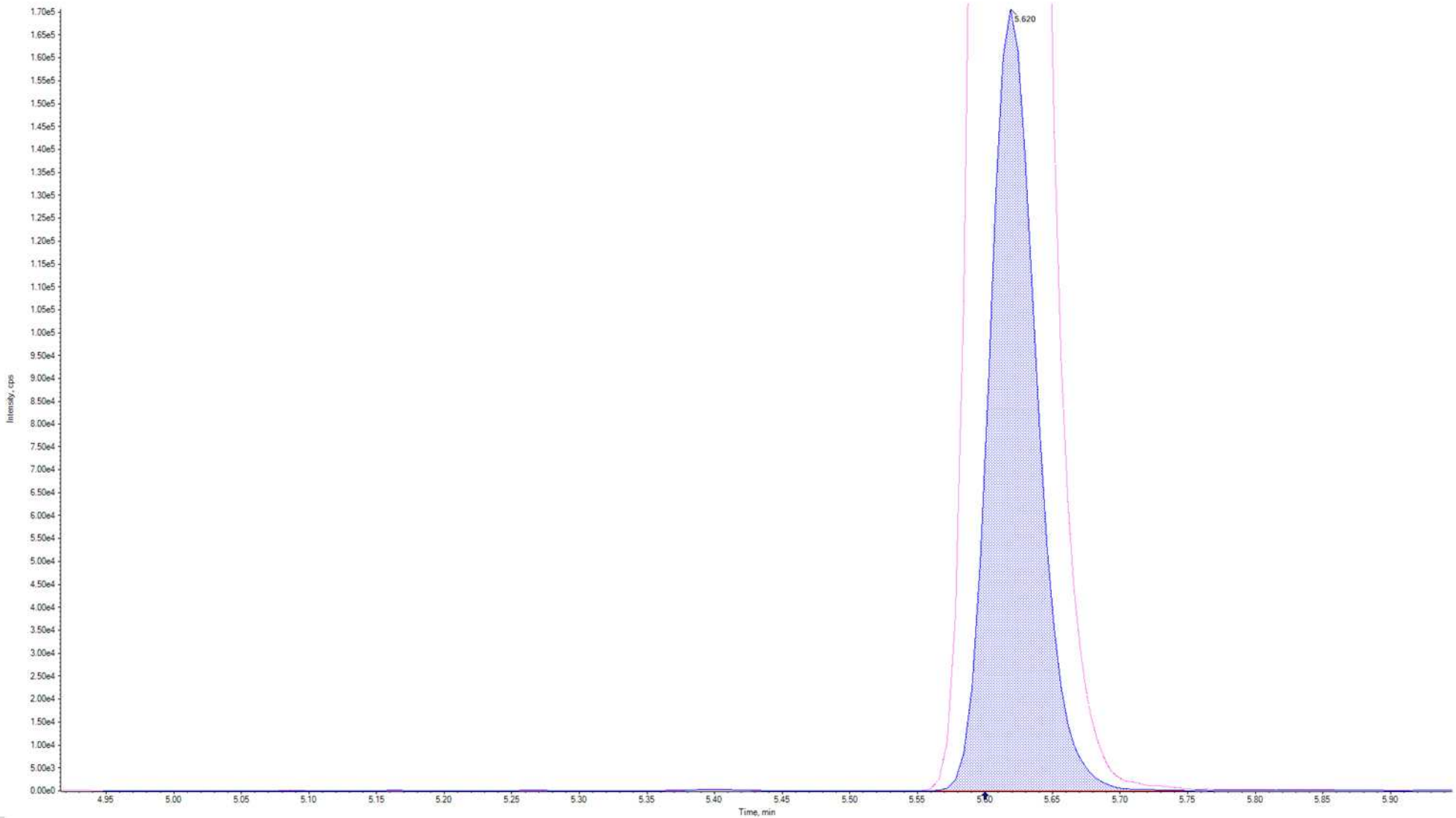
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NEtFOSE
Sample: WG1972760-2 S/N:1626.9 Points Across peak:45



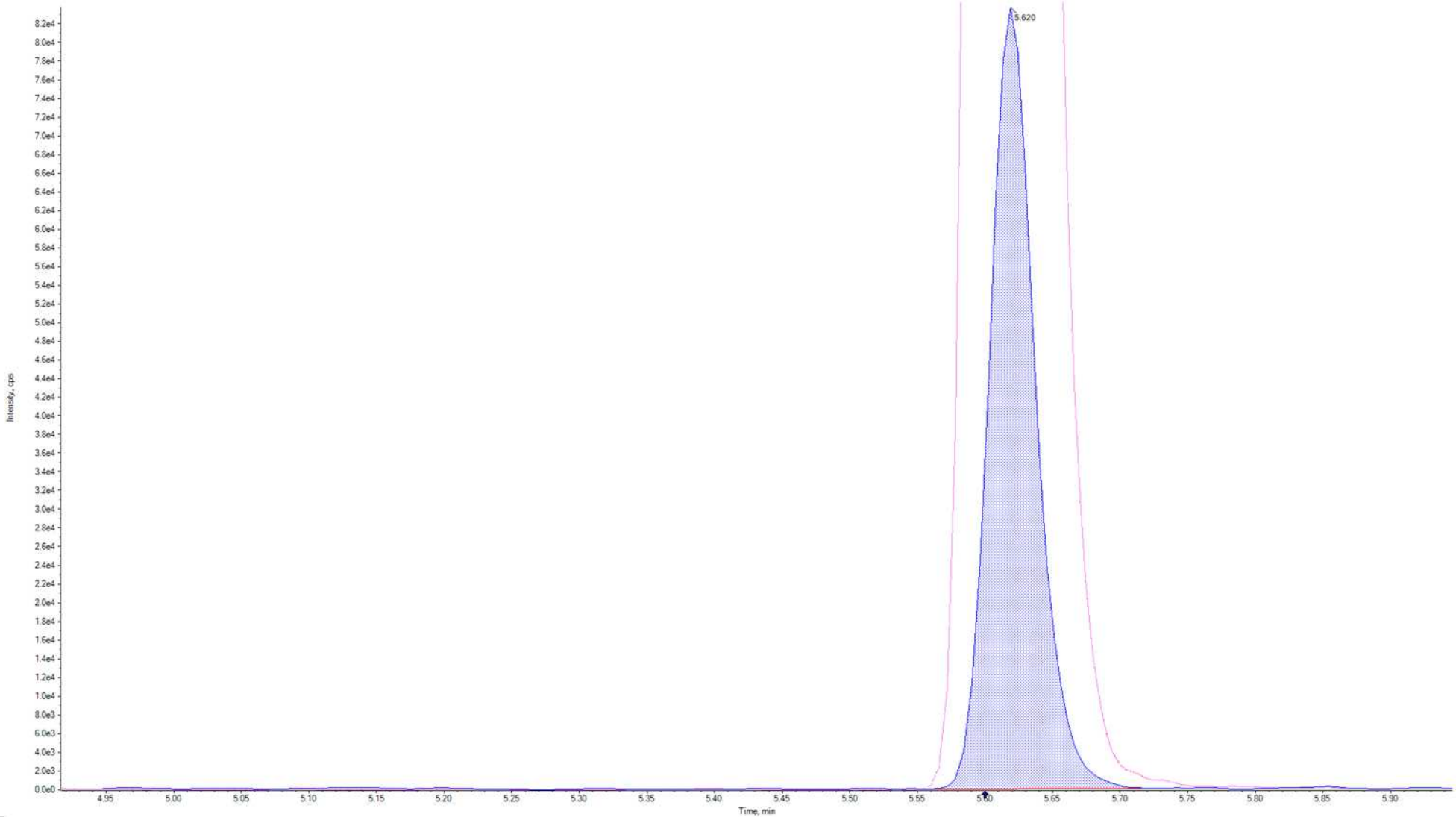
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

HFPO-DA
Sample: WG1972760-2 S/N:8774.7 Points Across peak:41



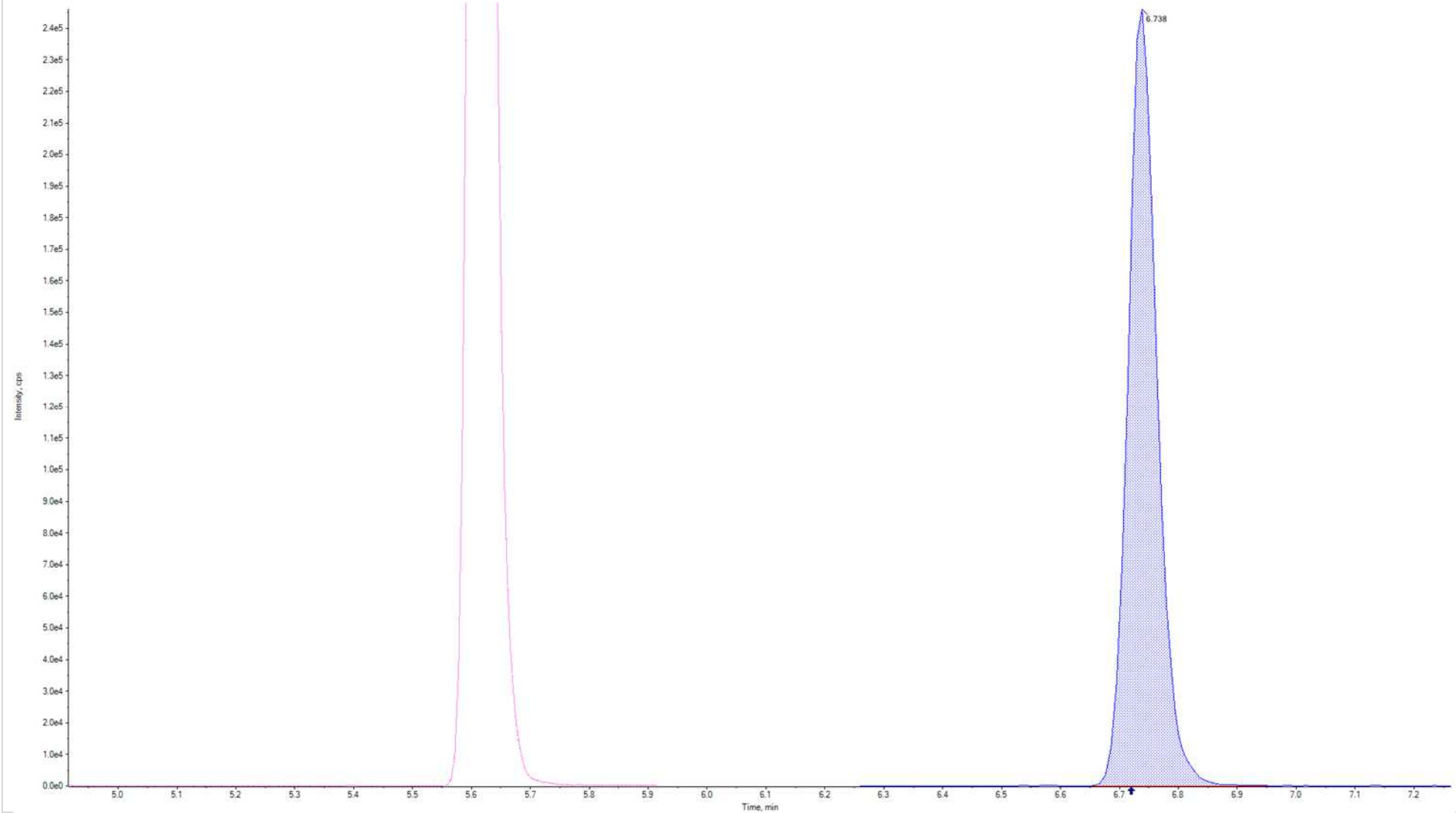
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

HFPO-DA_2
Sample: WG1972760-2 S/N:1818.6 Points Across peak:35



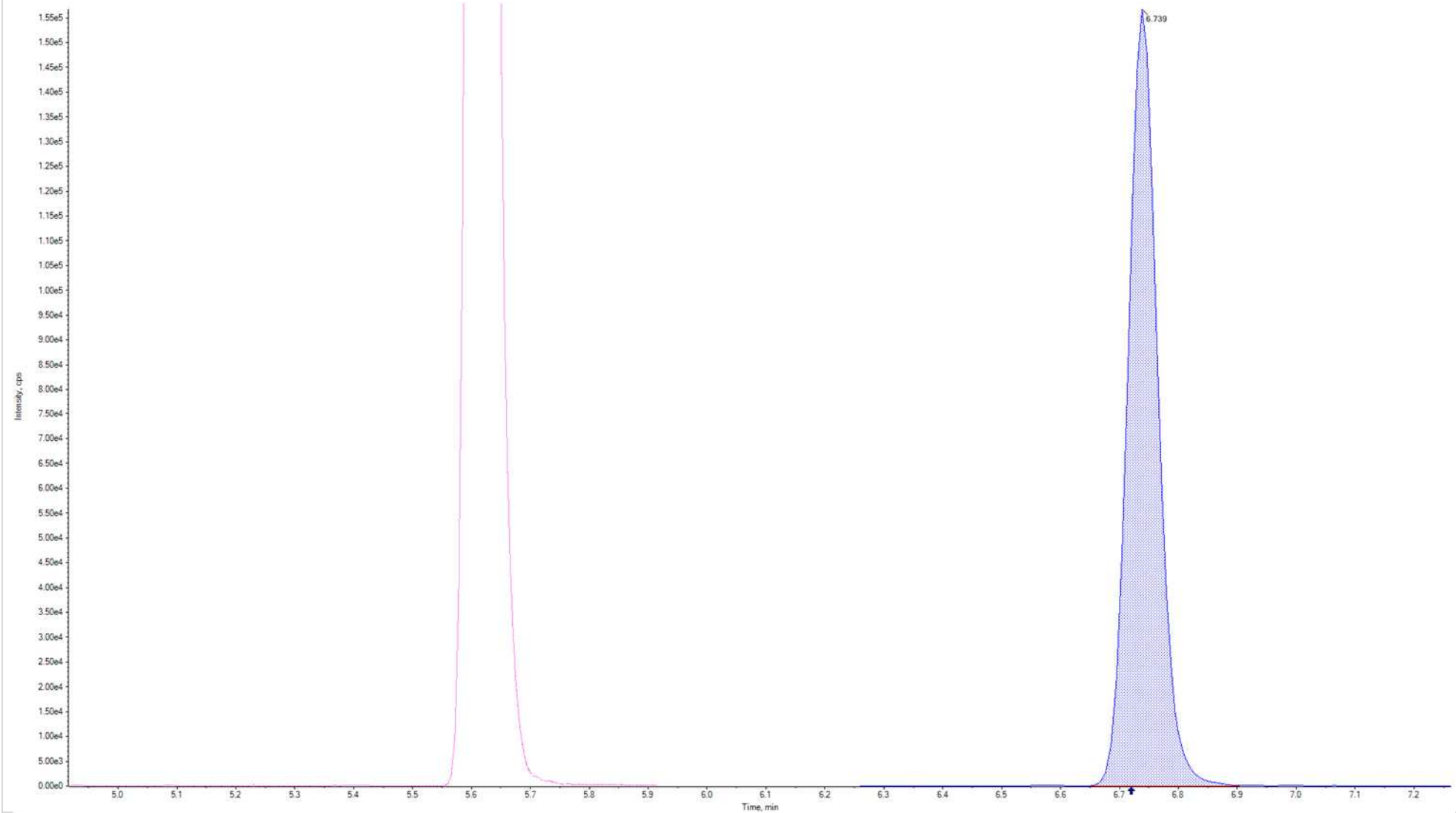
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Alpha Analytical Inc.
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ADONA
Sample: WG1972760-2 S/N:10642.0 Points Across peak:48



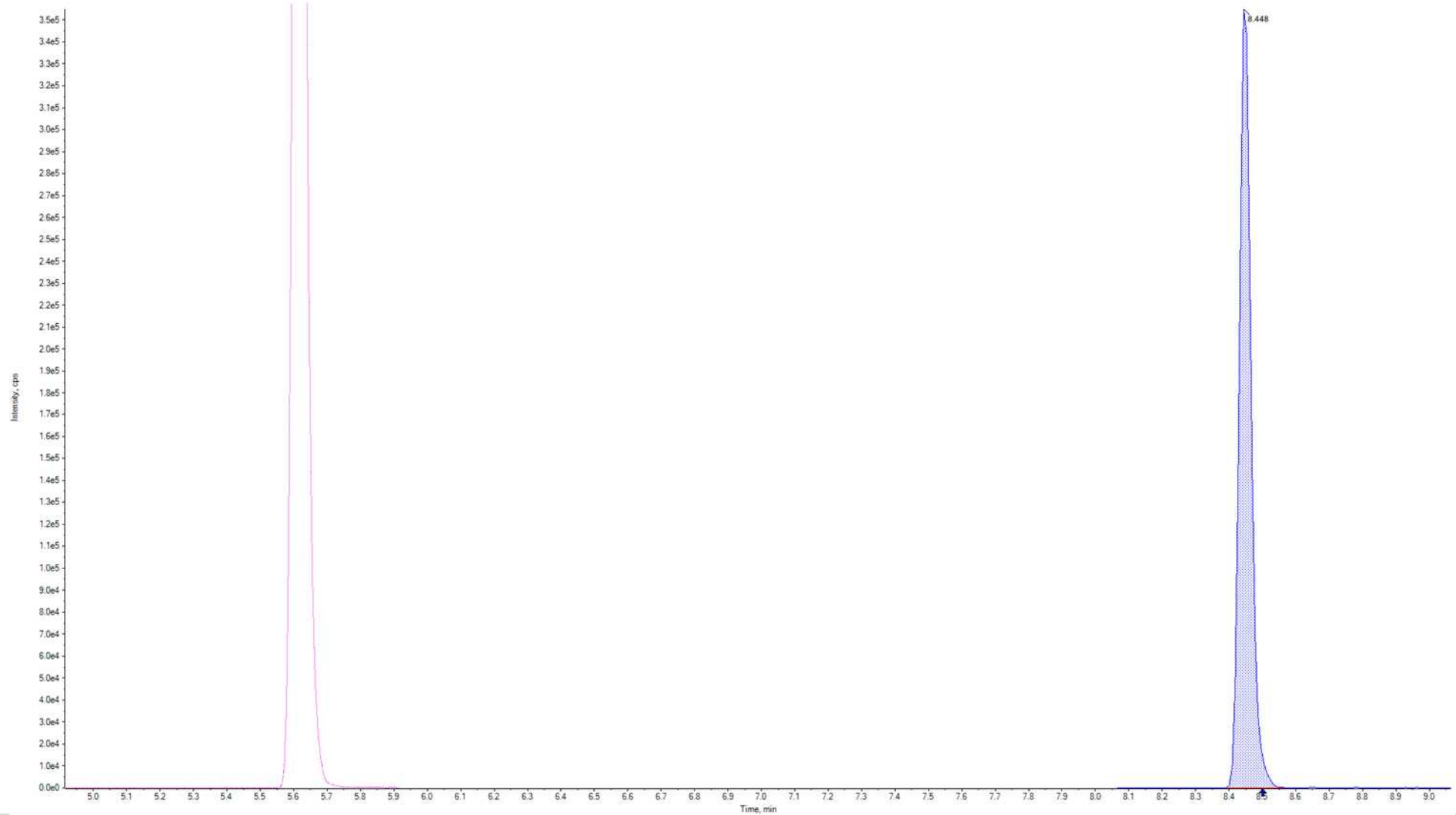
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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ADONA_2
Sample: WG1972760-2 S/N:8664.8 Points Across peak:38



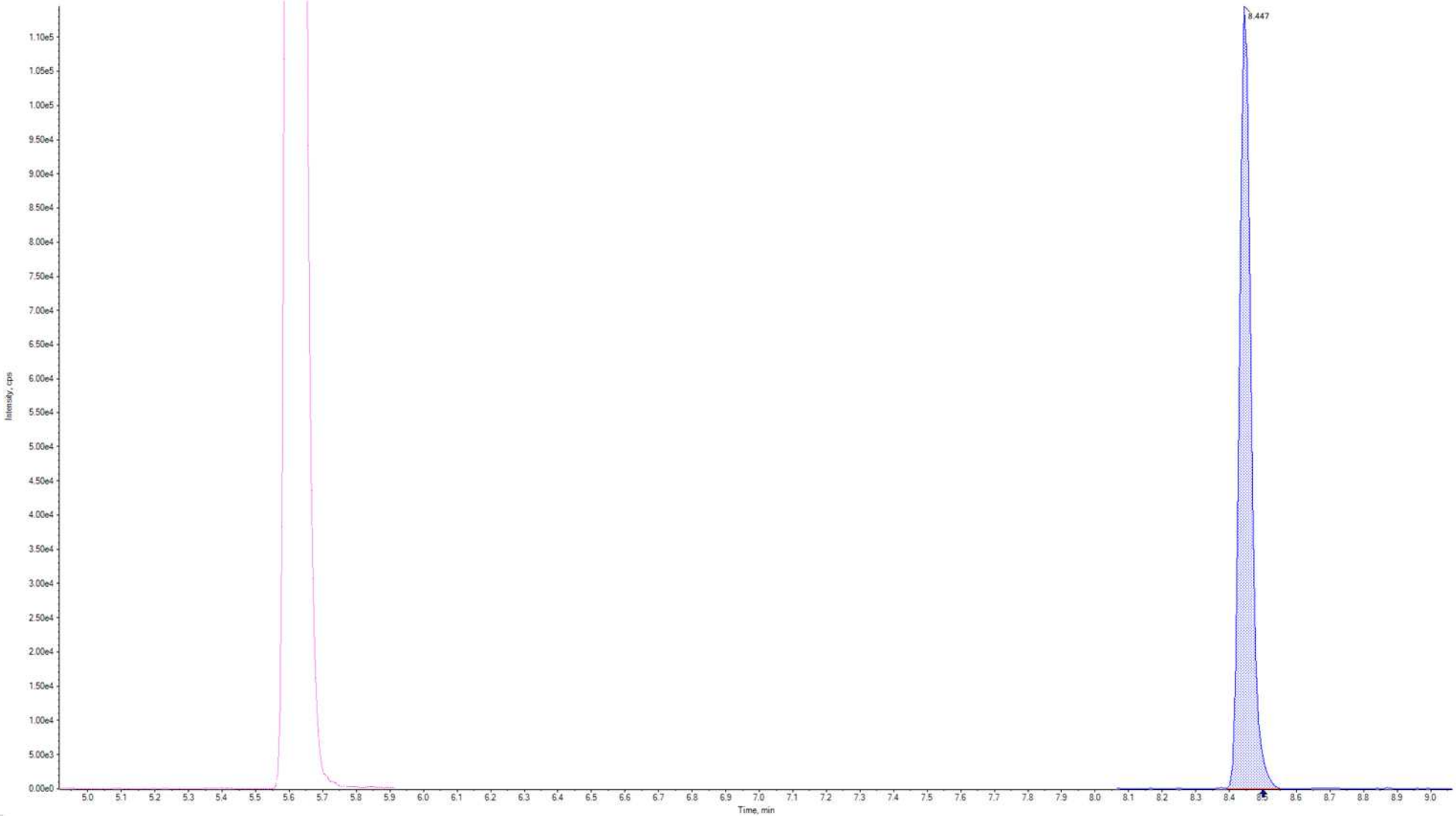
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

9Cl-PF3ONS
Sample: WG1972760-2 S/N:27941449.7 Points Across peak:31



Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_16.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

9Cl-PF3ONS_2
Sample: WG1972760-2 S/N:2341.6 Points Across peak:21



Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_16.wiff
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Generated: 9/18/2024 6:35:36 AM

11Cl-PF3OUdS
Sample: WG1972760-2 S/N:295981.7 Points Across peak:35



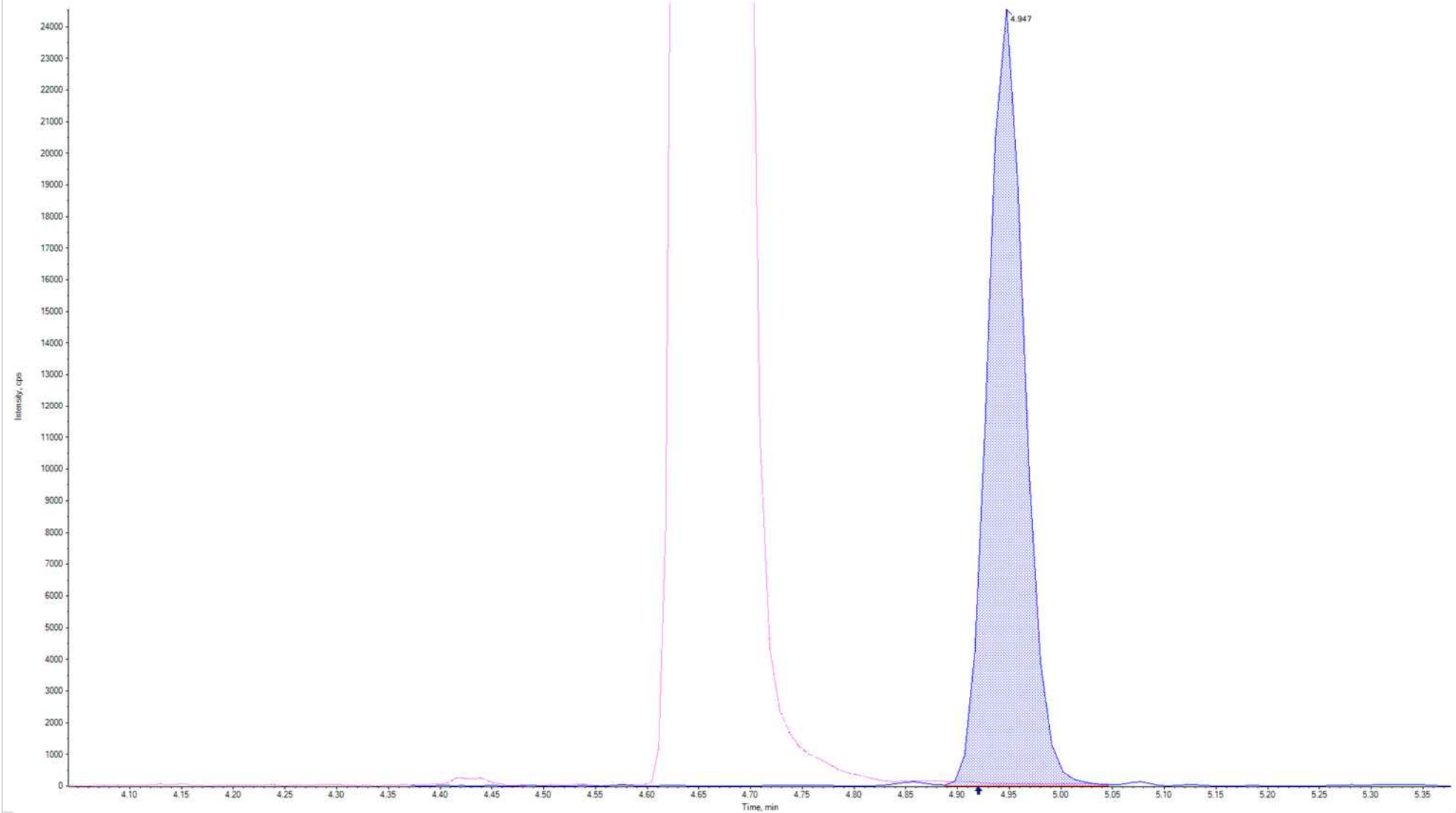
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Alpha Analytical Inc.
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11Cl-PF3OUdS_2
Sample: WG1972760-2 S/N:1939.7 Points Across peak:33



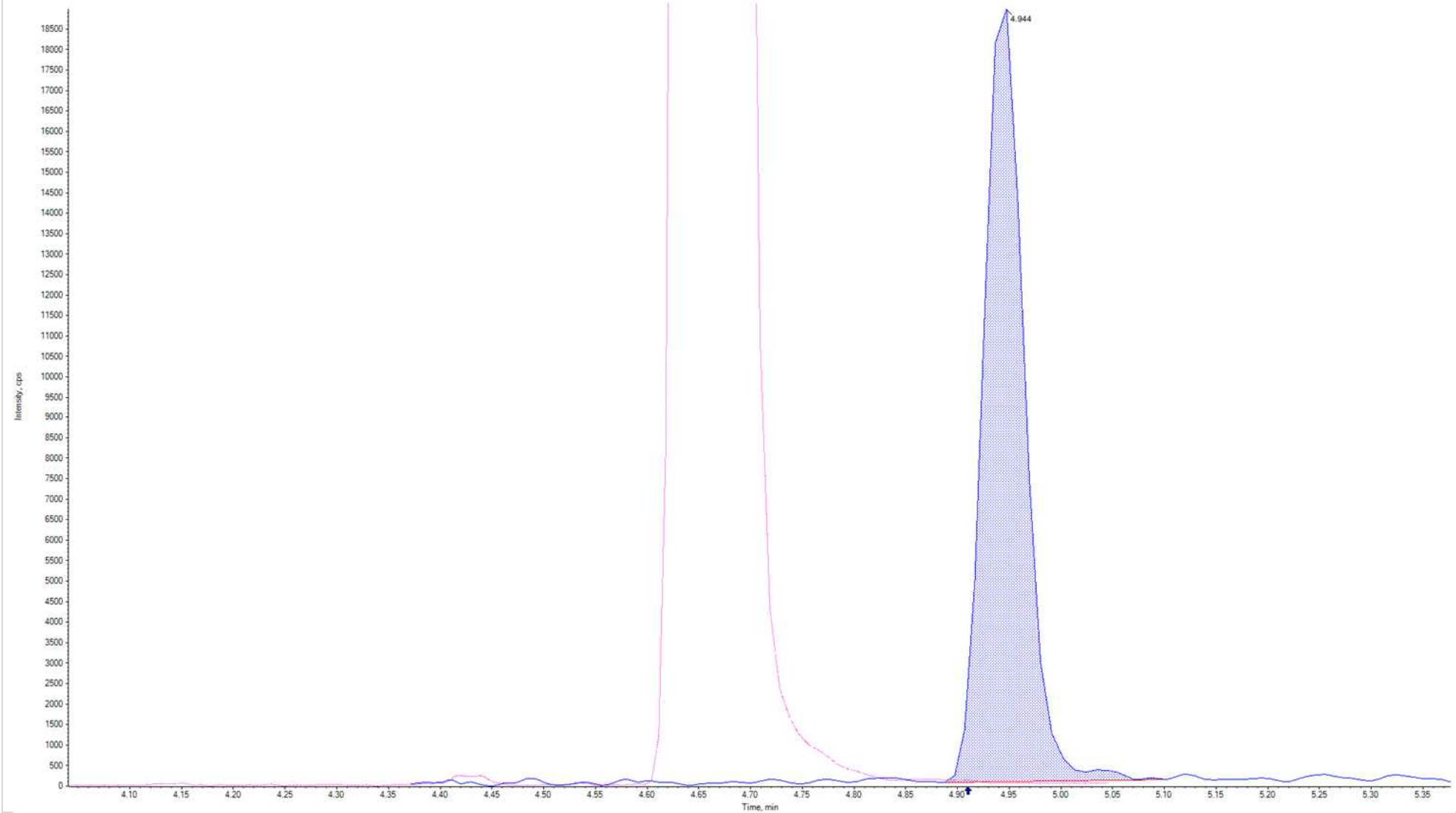
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

3:3FTCA
Sample: WG1972760-2 S/N:734706.5 Points Across peak:16



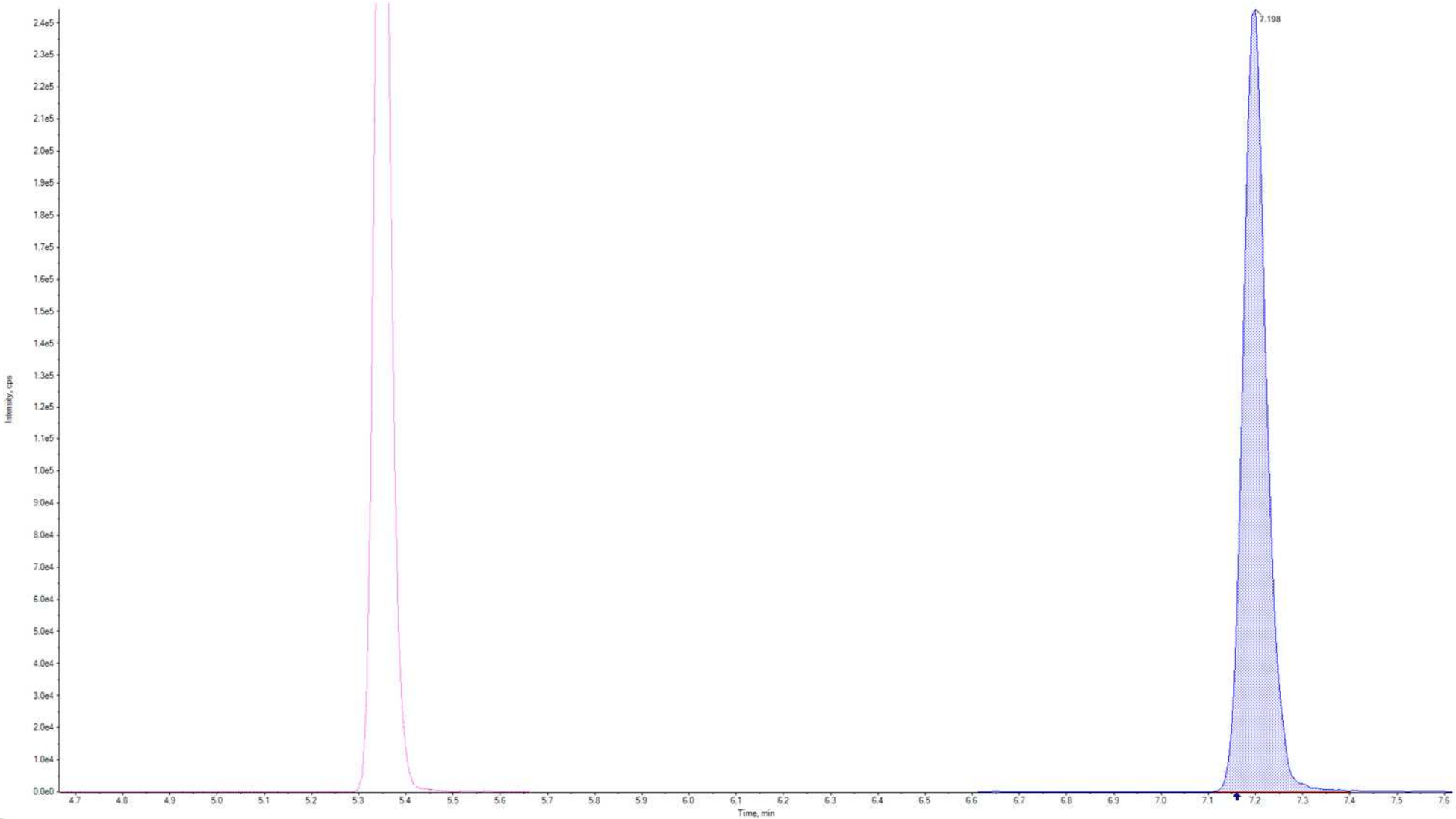
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_16.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

3:3FTCA_2
Sample: WG1972760-2 S/N:1643.9 Points Across peak:23



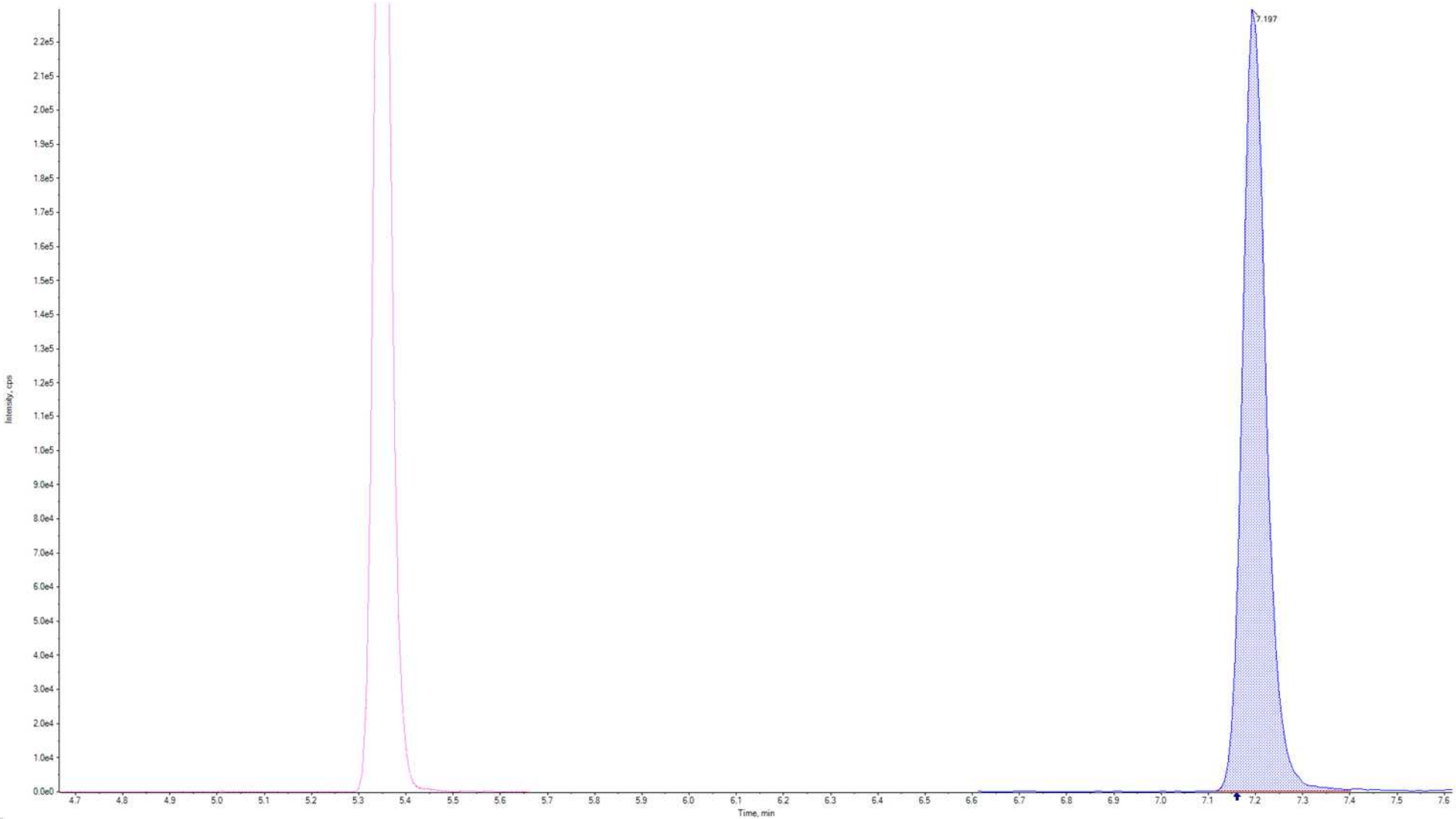
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

5:3FTCA
Sample: WG1972760-2 S/N:25770.7 Points Across peak:52



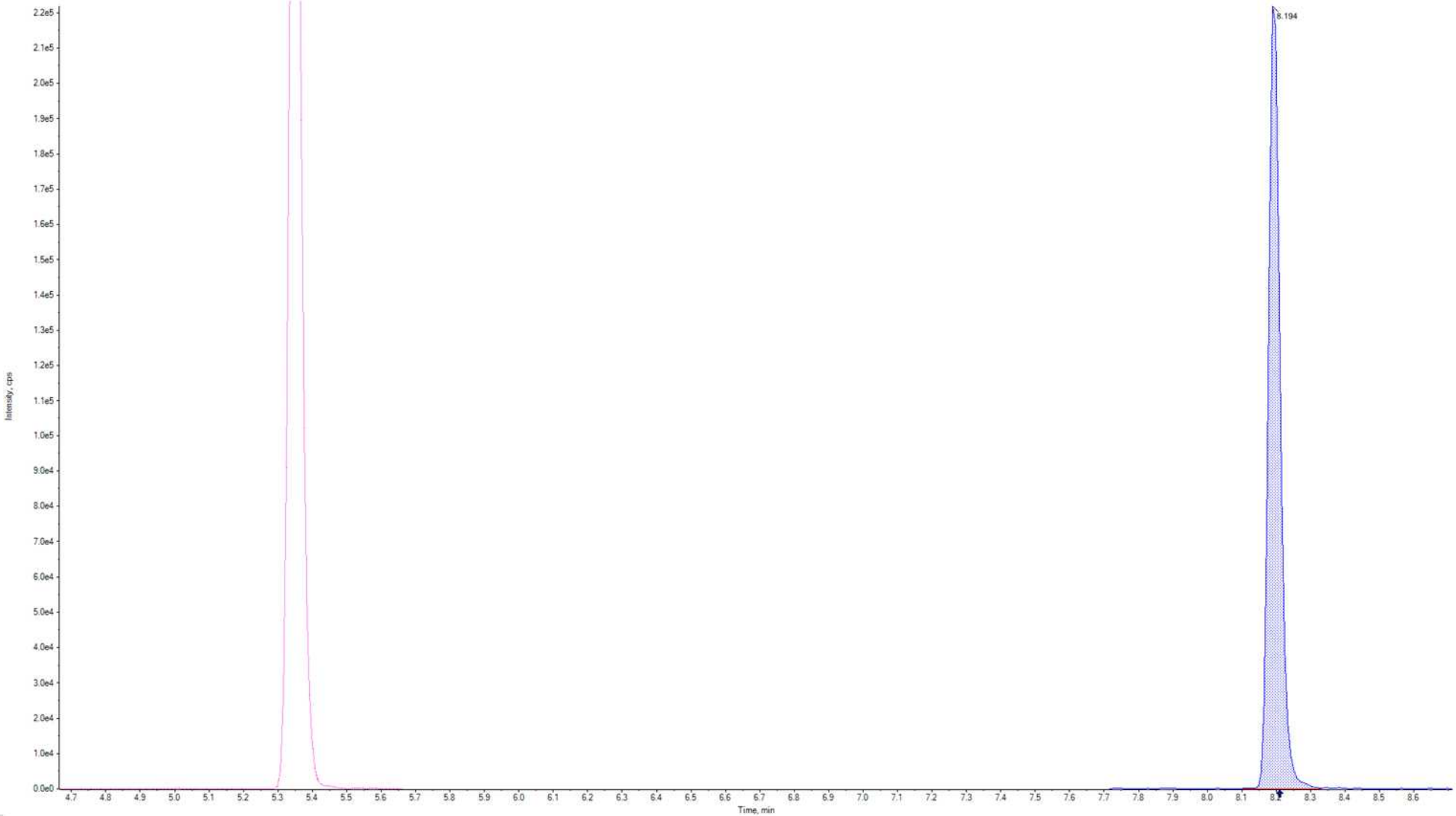
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_16.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

5:3FTCA_2
Sample: WG1972760-2 S/N:5818.7 Points Across peak:49



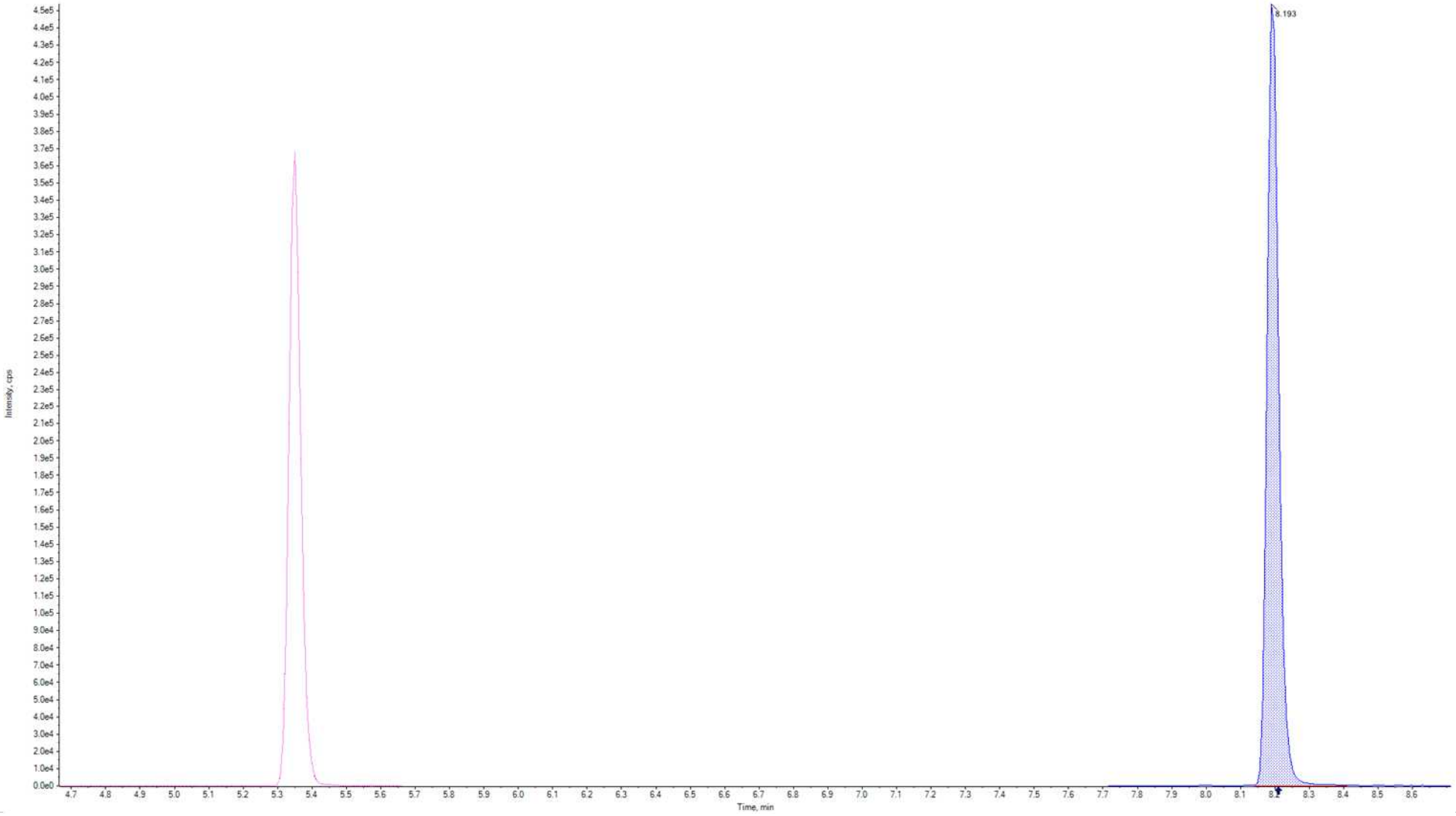
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_16.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

7:3FTCA
Sample: WG1972760-2 S/N:14330.2 Points Across peak:31



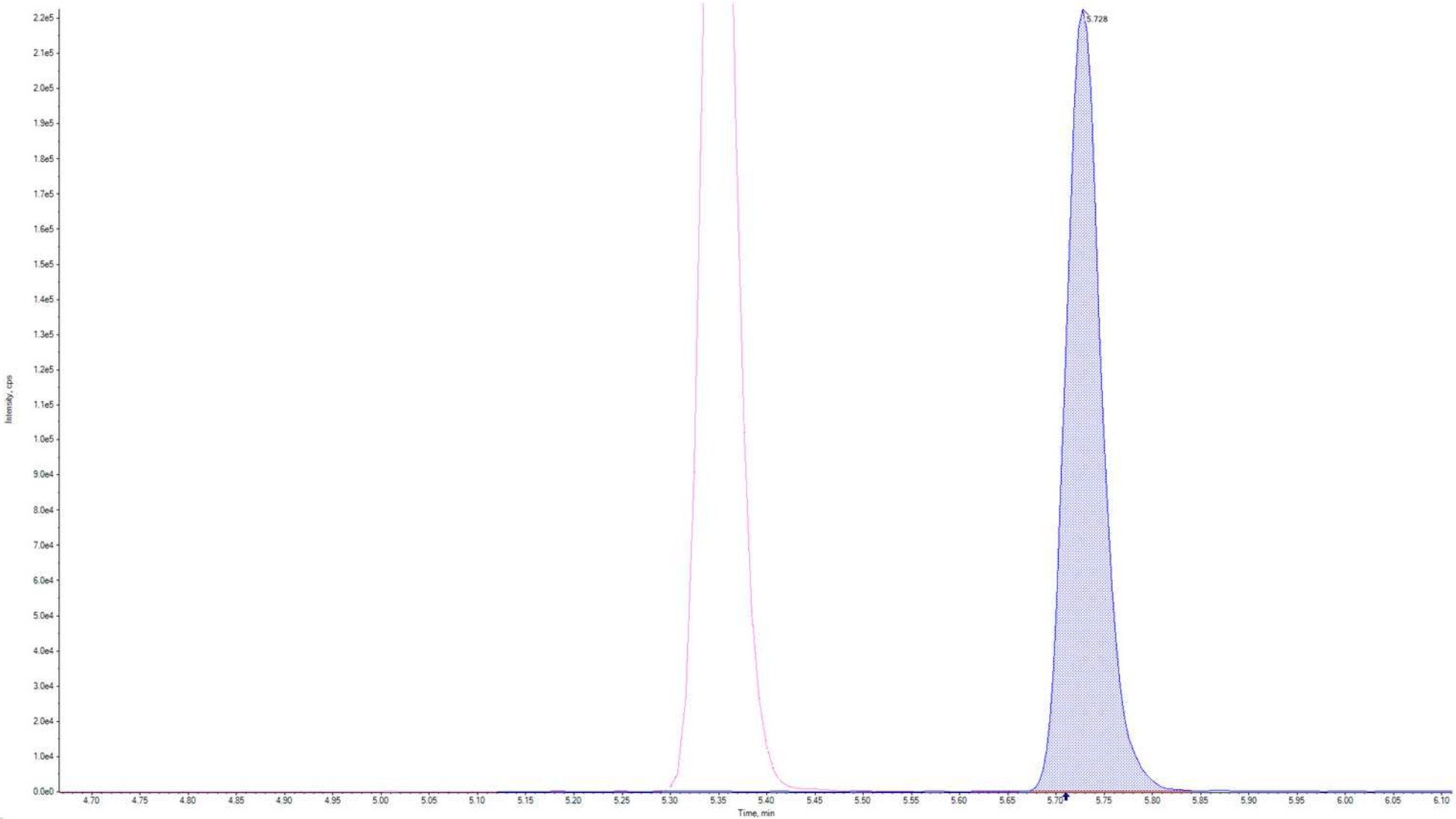
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_16.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

7:3FTCA_2
Sample: WG1972760-2 S/N:1575.1 Points Across peak:32



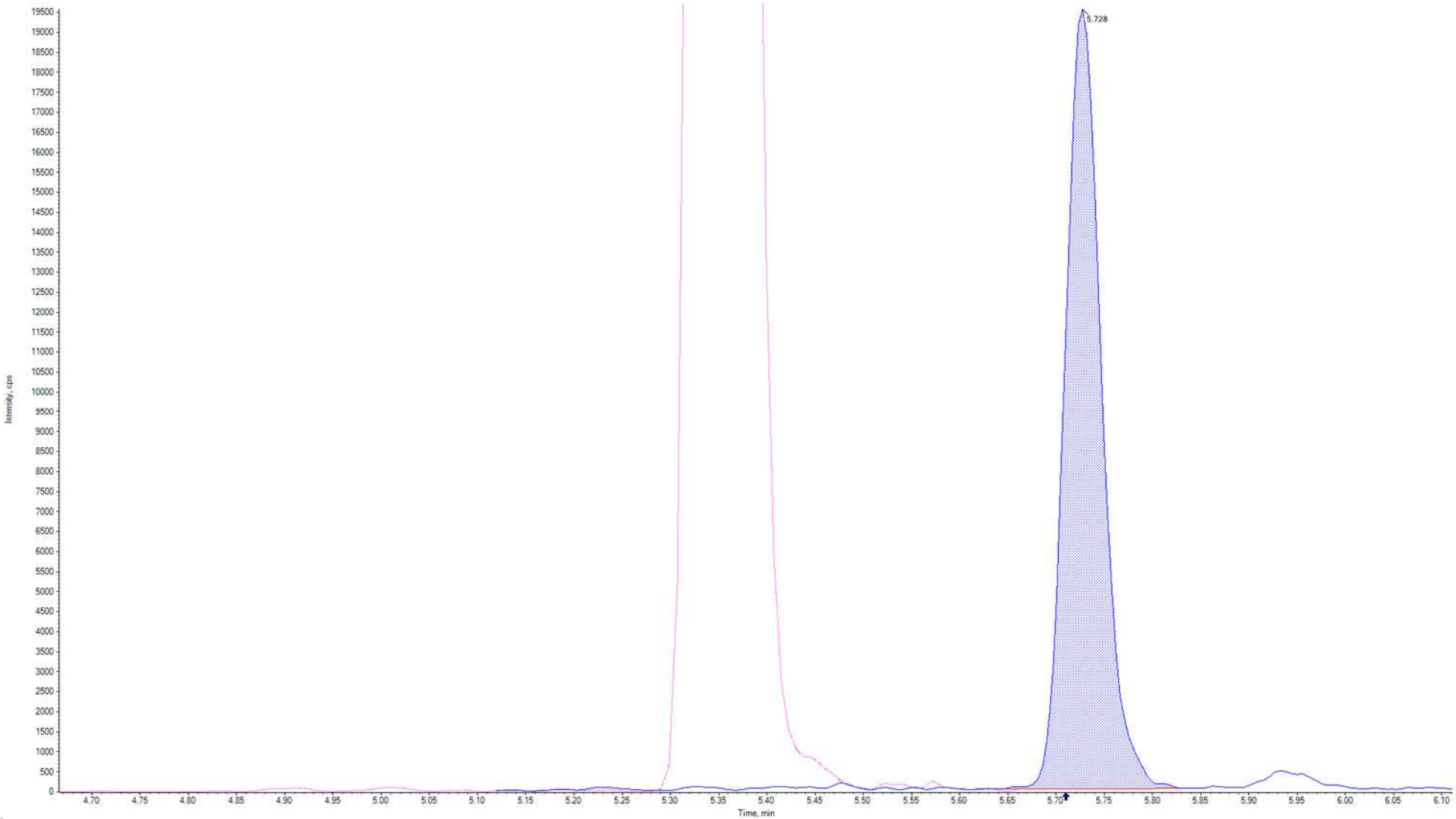
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFEESA
Sample: WG1972760-2 S/N:4791.5 Points Across peak:38



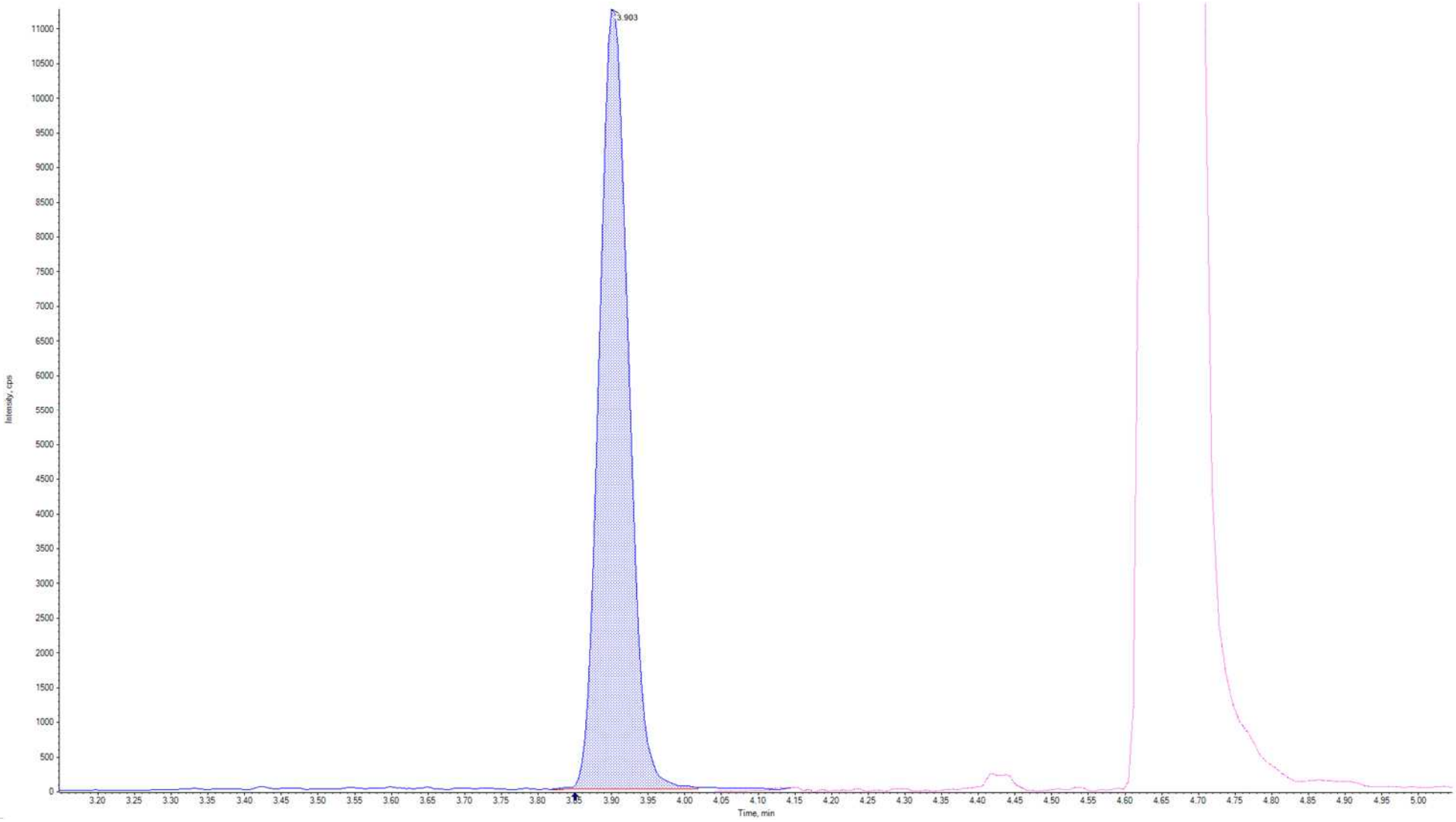
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PFEESA_2
Sample: WG1972760-2 S/N:1273.2 Points Across peak:40



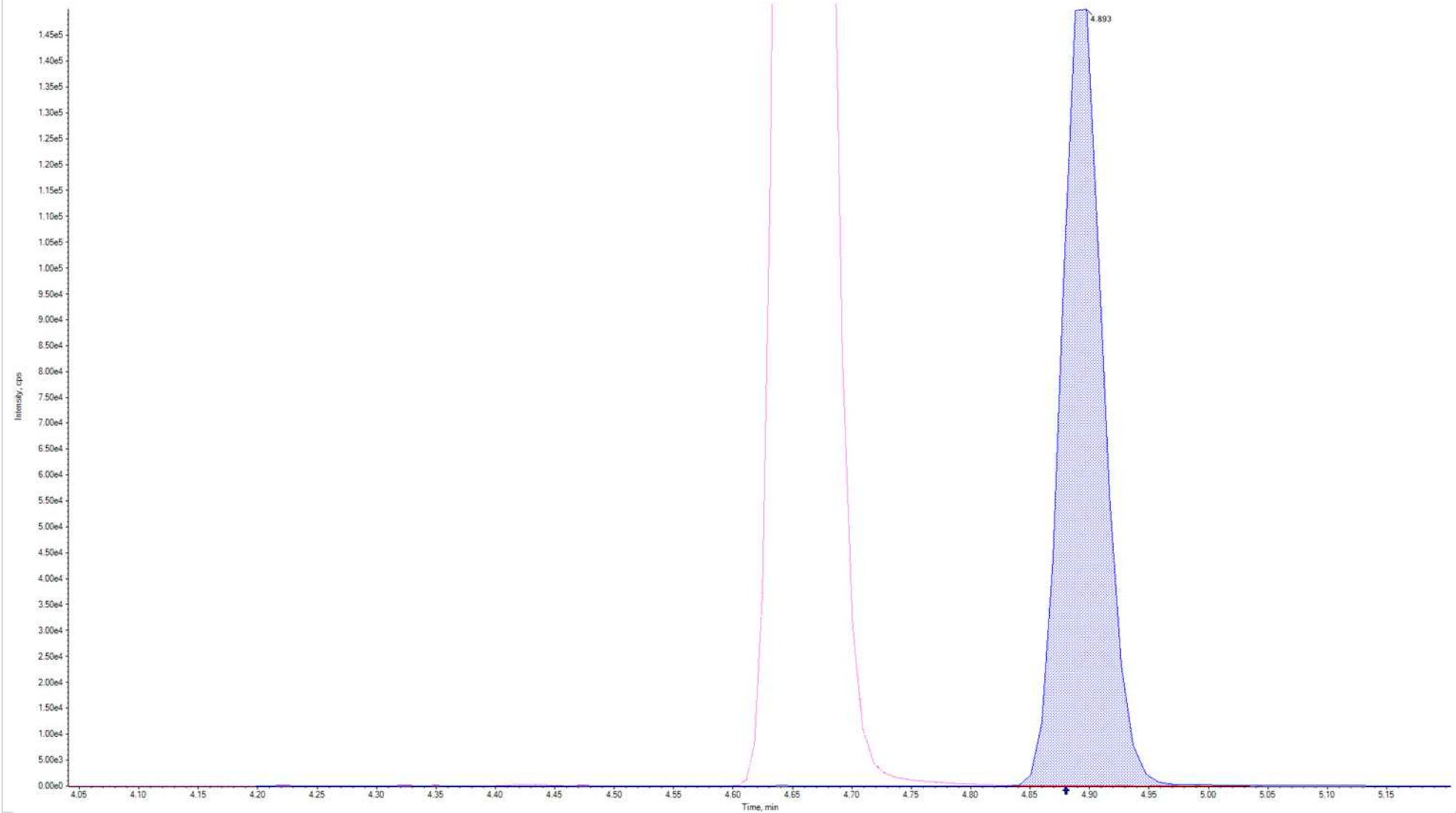
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PFMPA
Sample: WG1972760-2 S/N:1940.6 Points Across peak:51



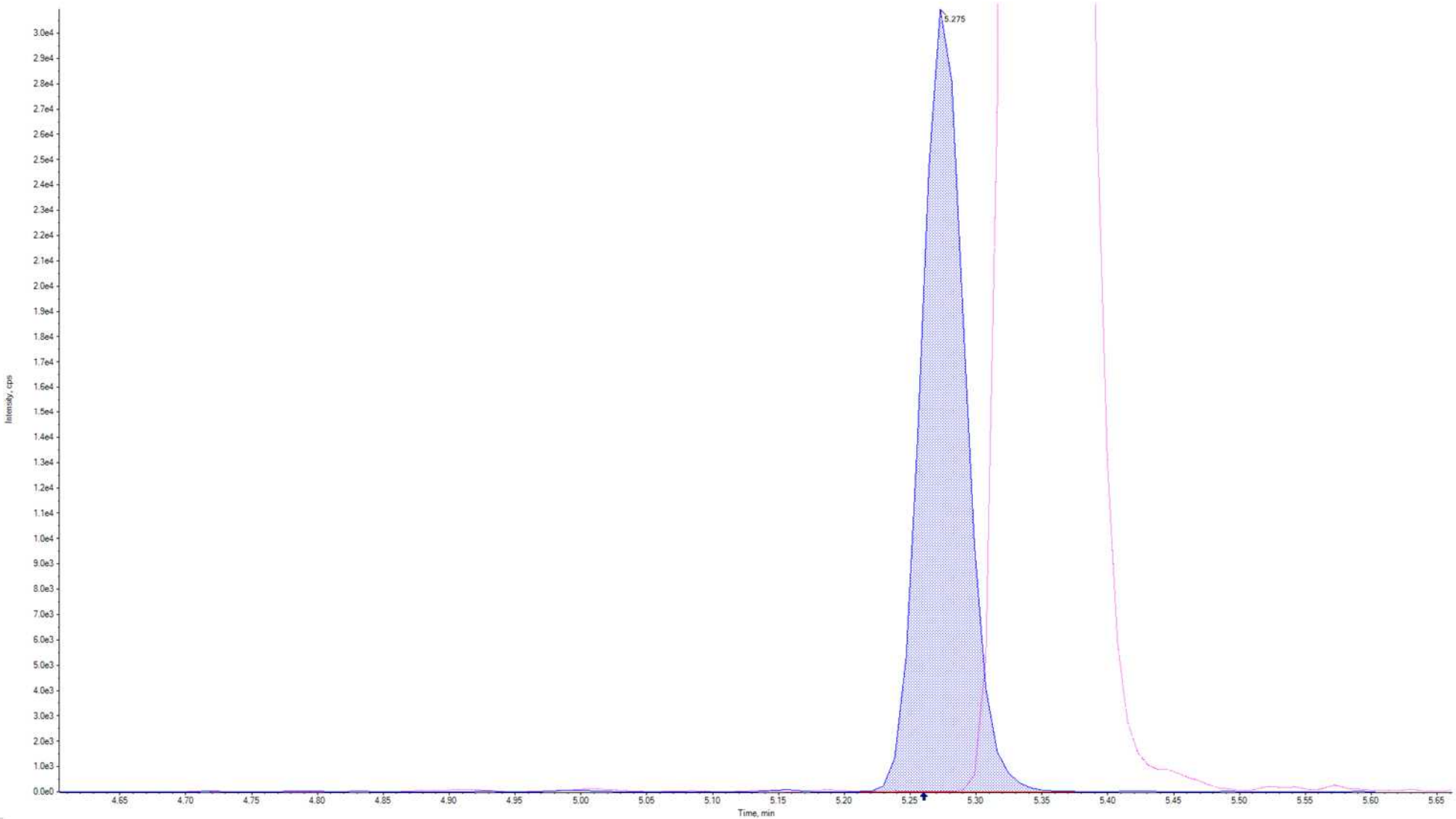
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Alpha Analytical Inc.
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PFMBA
Sample: WG1972760-2 S/N:4062.4 Points Across peak:22



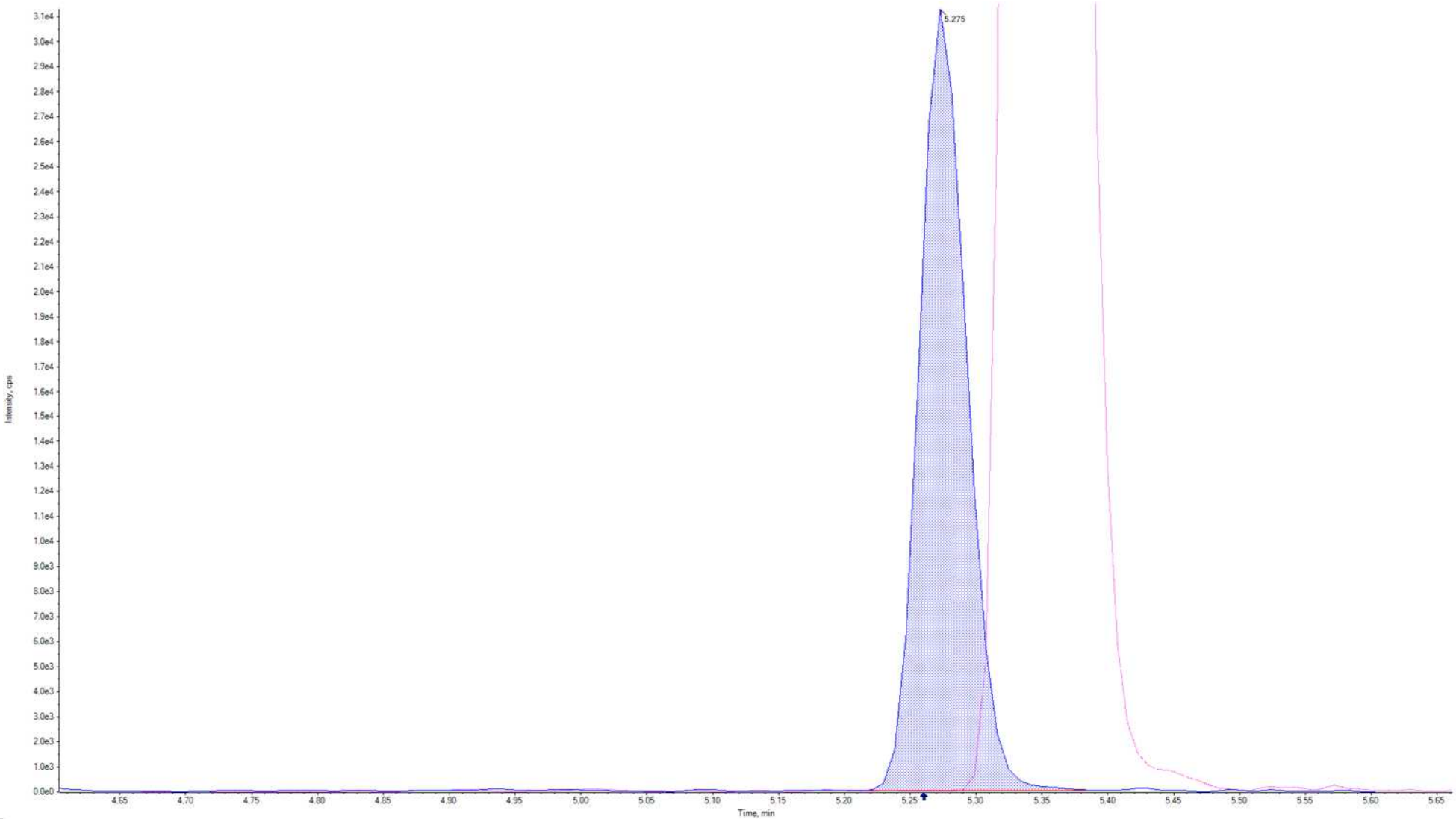
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Alpha Analytical Inc.
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NFDHA
Sample: WG1972760-2 S/N:3424.6 Points Across peak:24



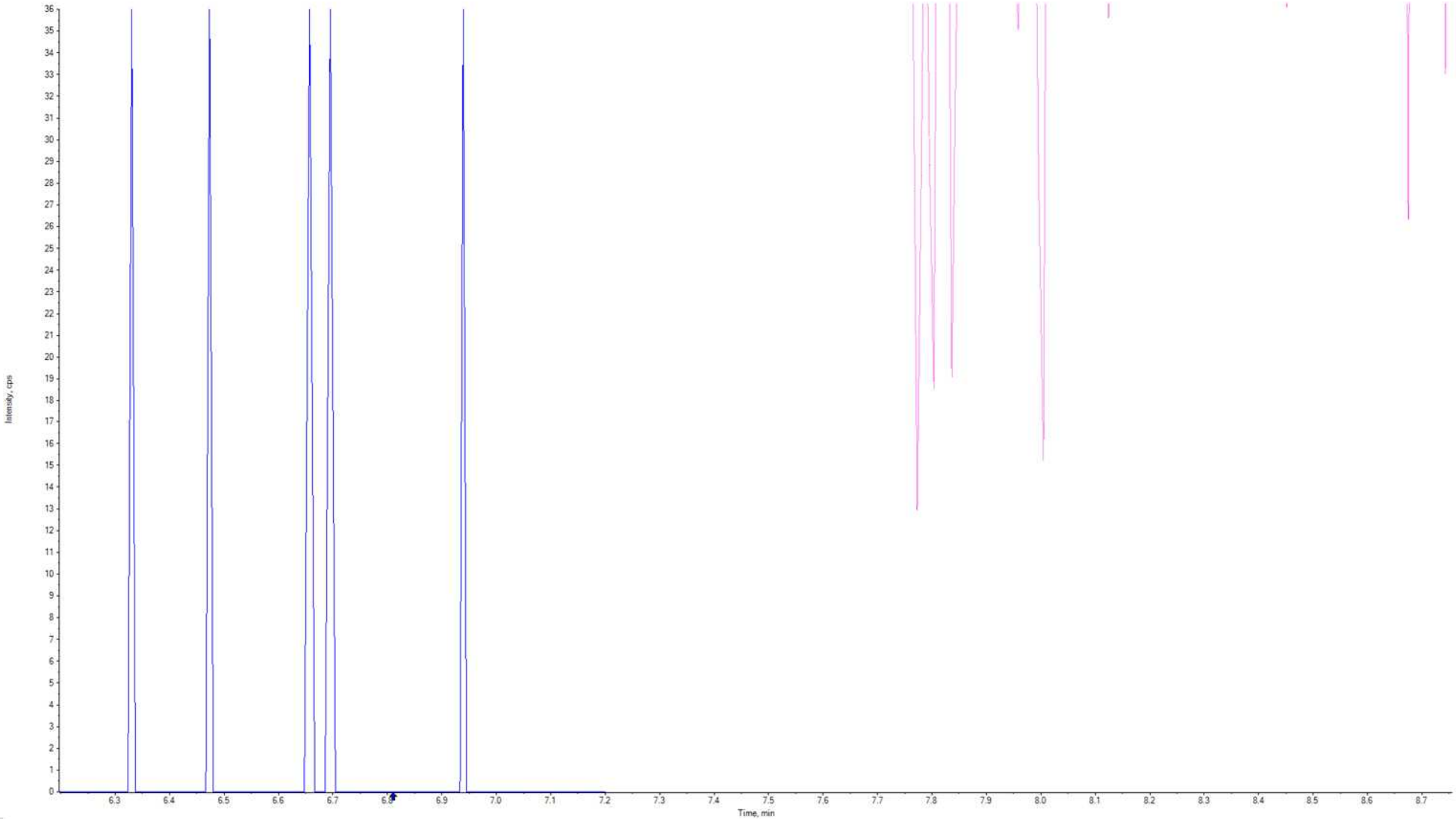
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Alpha Analytical Inc.
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NFDHA_2
Sample: WG1972760-2 S/N:3225.9 Points Across peak:24



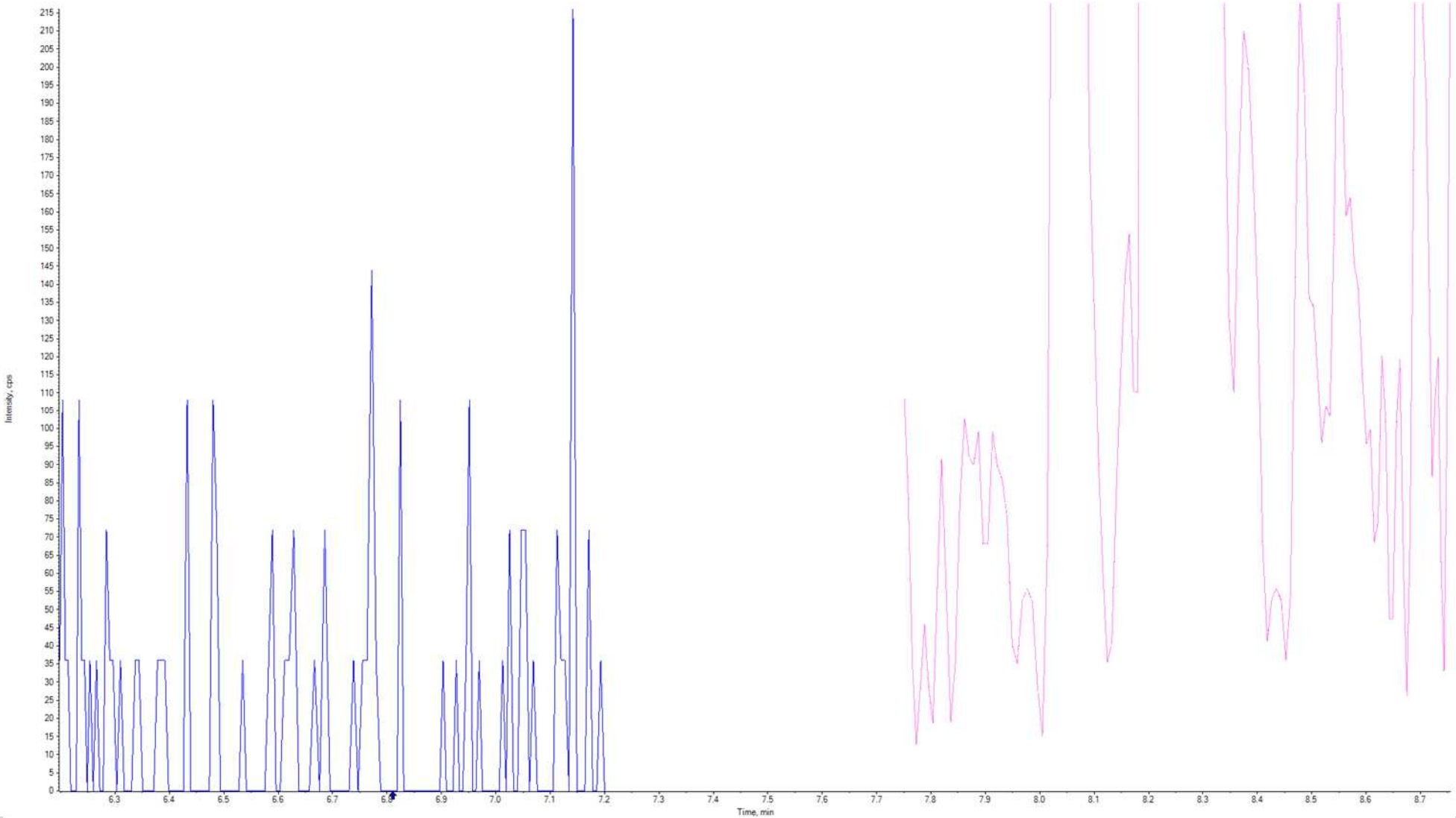
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Alpha Analytical Inc.
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TDCA
Sample: WG1972760-2 S/N:N/A Points Across peak:N/A



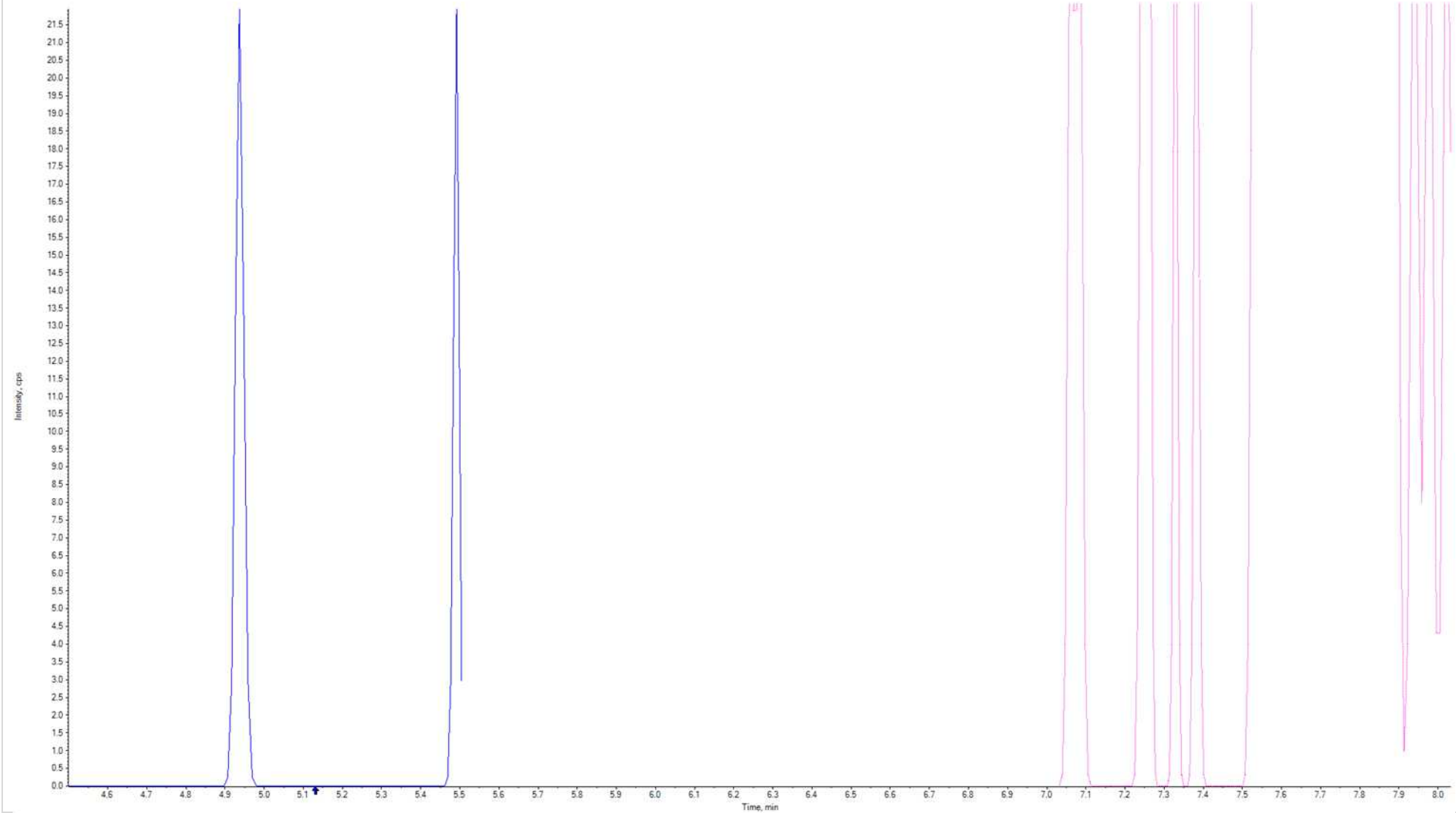
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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TDCA_2
Sample: WG1972760-2 S/N:N/A Points Across peak:N/A



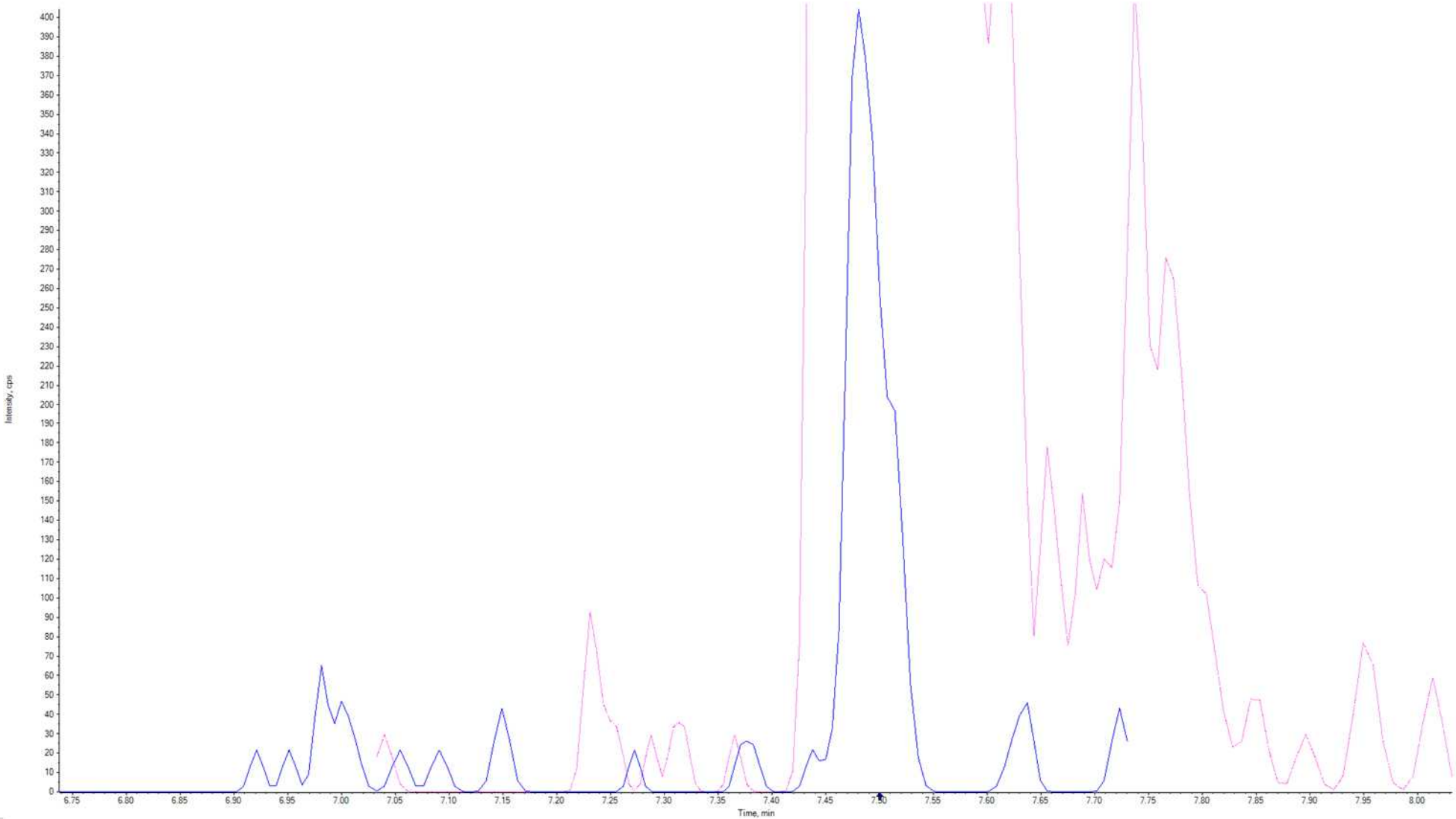
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

13C2D4-4:2FTS
Sample: WG1972760-2 S/N:N/A Points Across peak:N/A

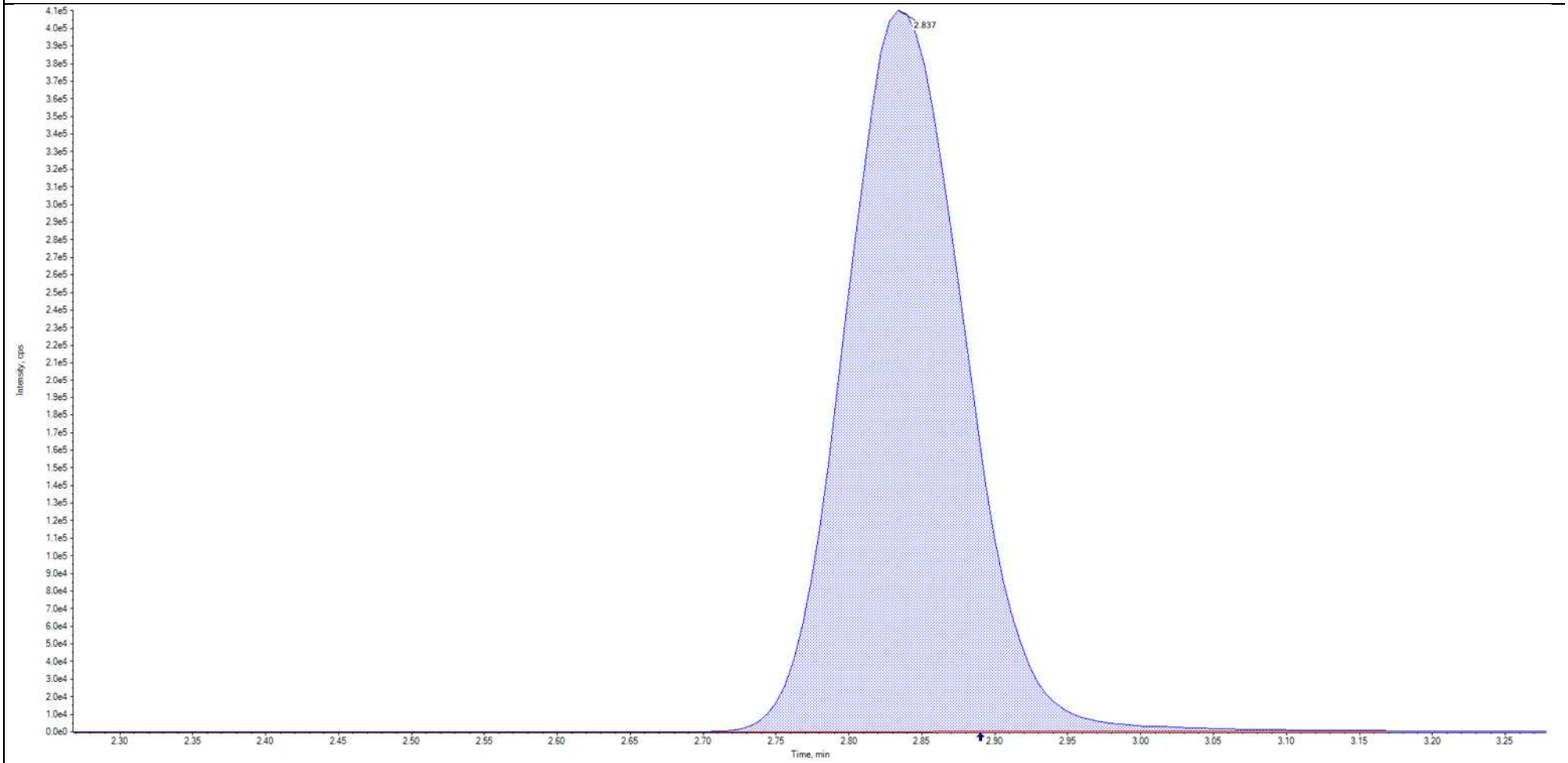


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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13C2-PFOA
Sample: WG1972760-2 S/N:N/A Points Across peak:N/A

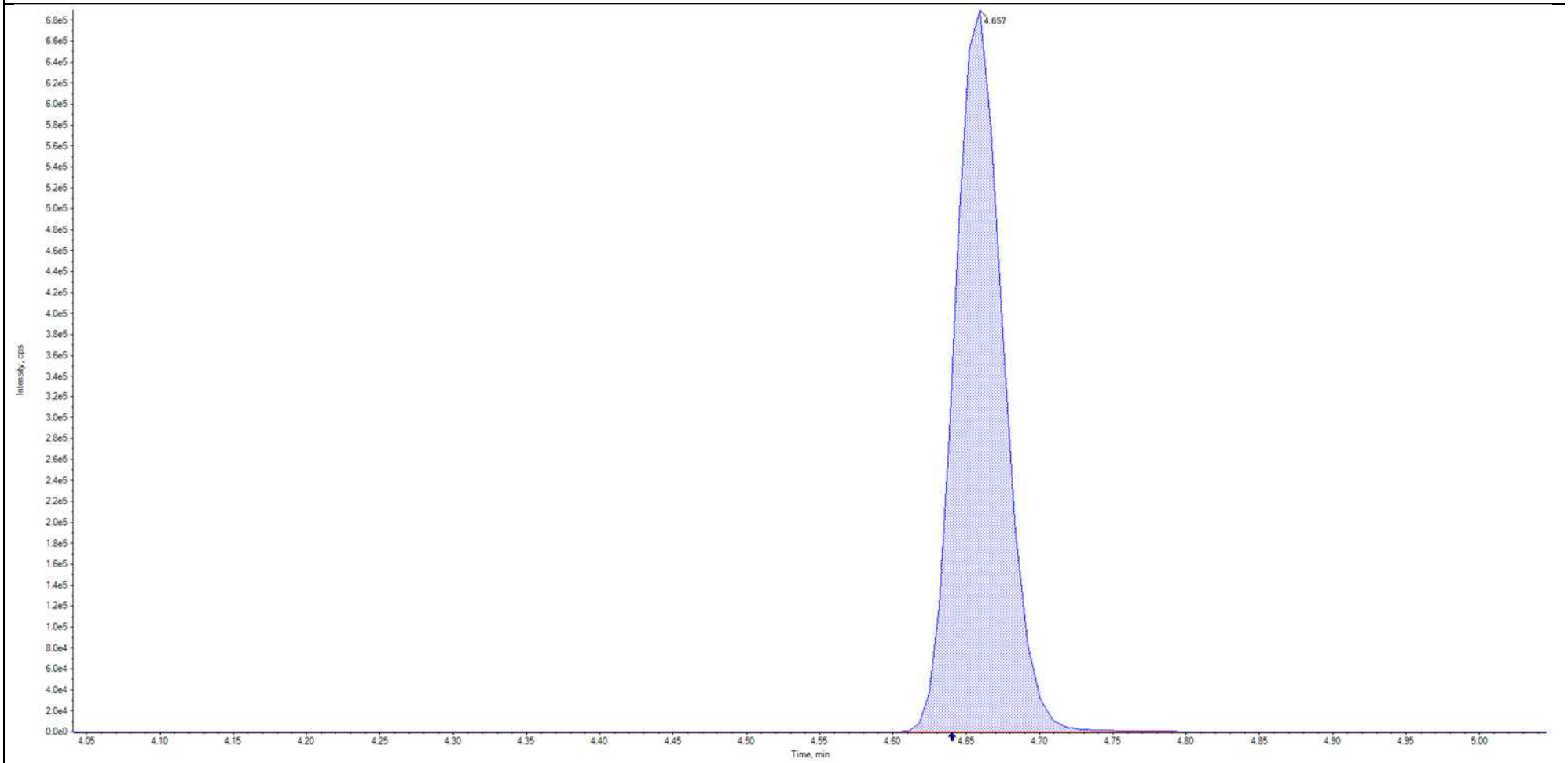


13C4-PFBA
Sample: WG1972760-2

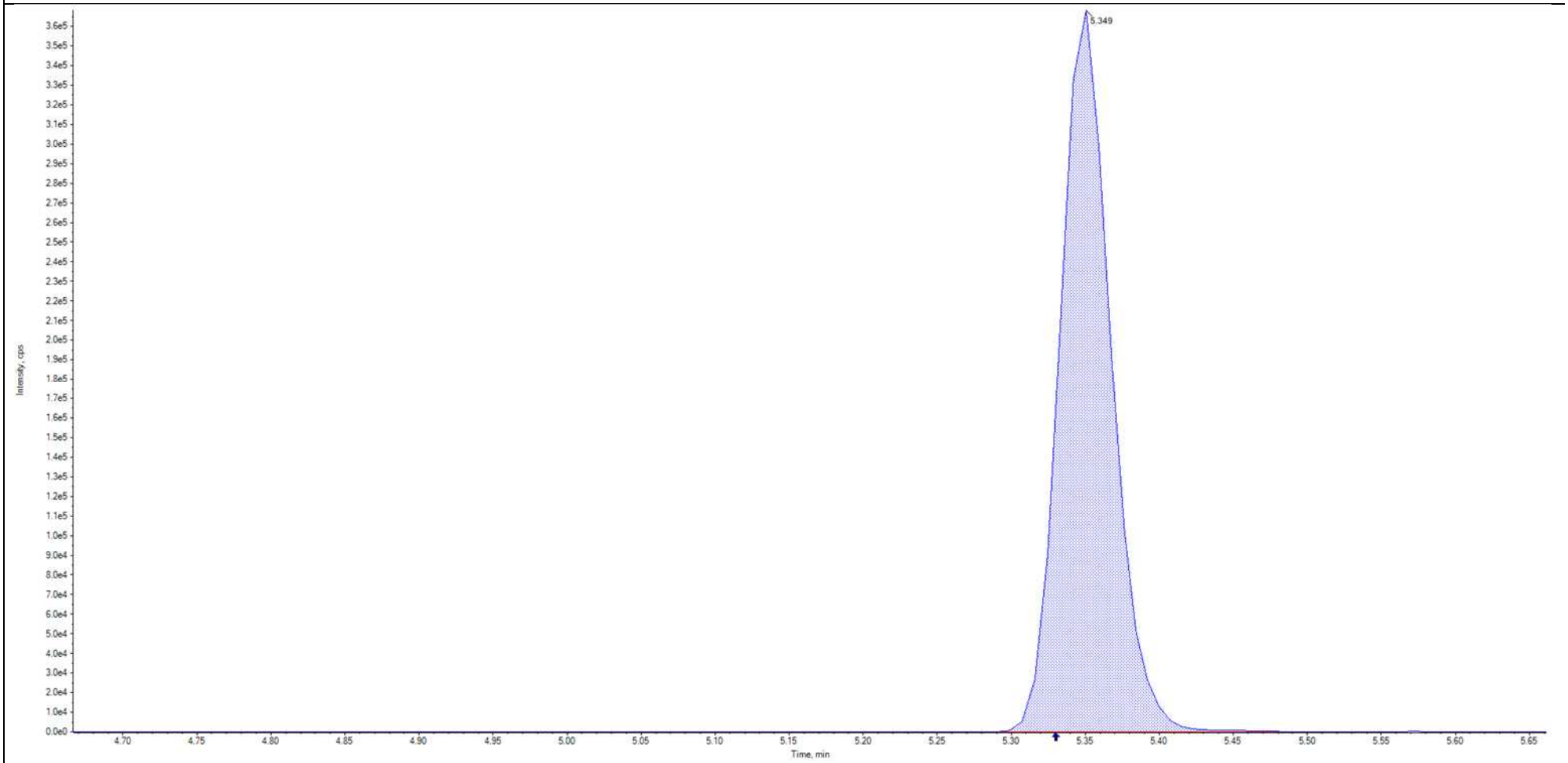


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
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13C5-PFPeA
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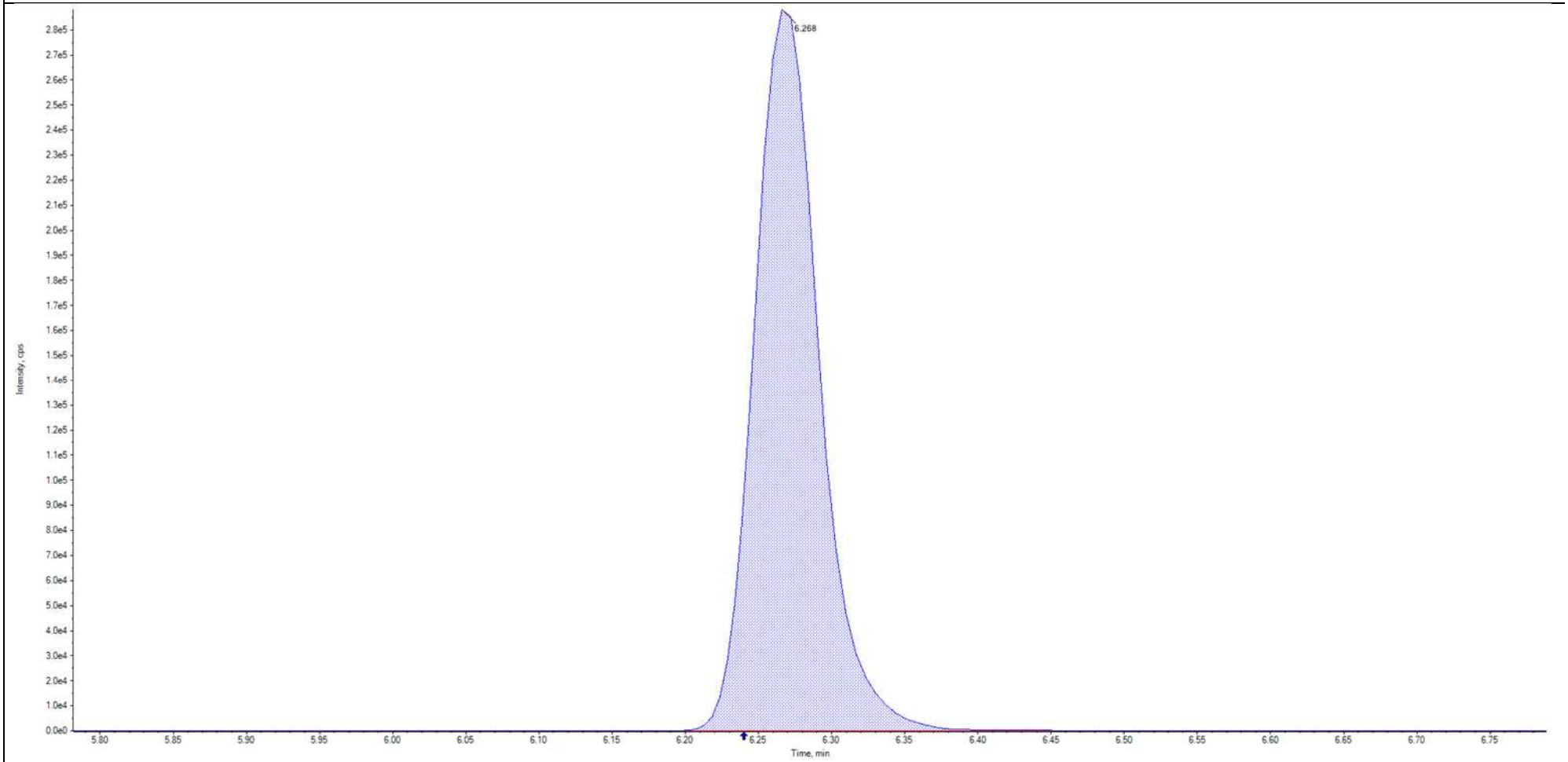


13C5-PFHxA
Sample: WG1972760-2

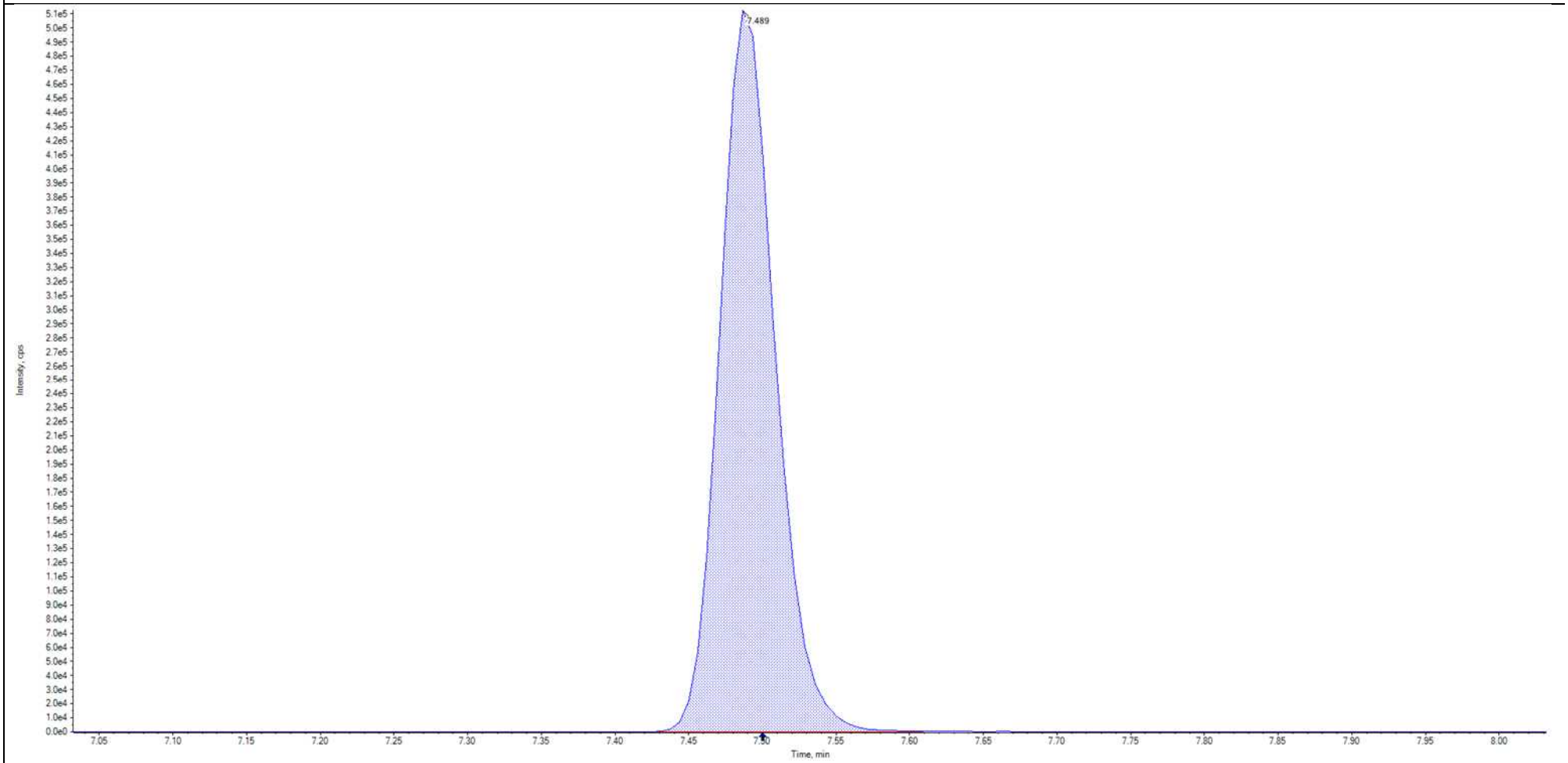


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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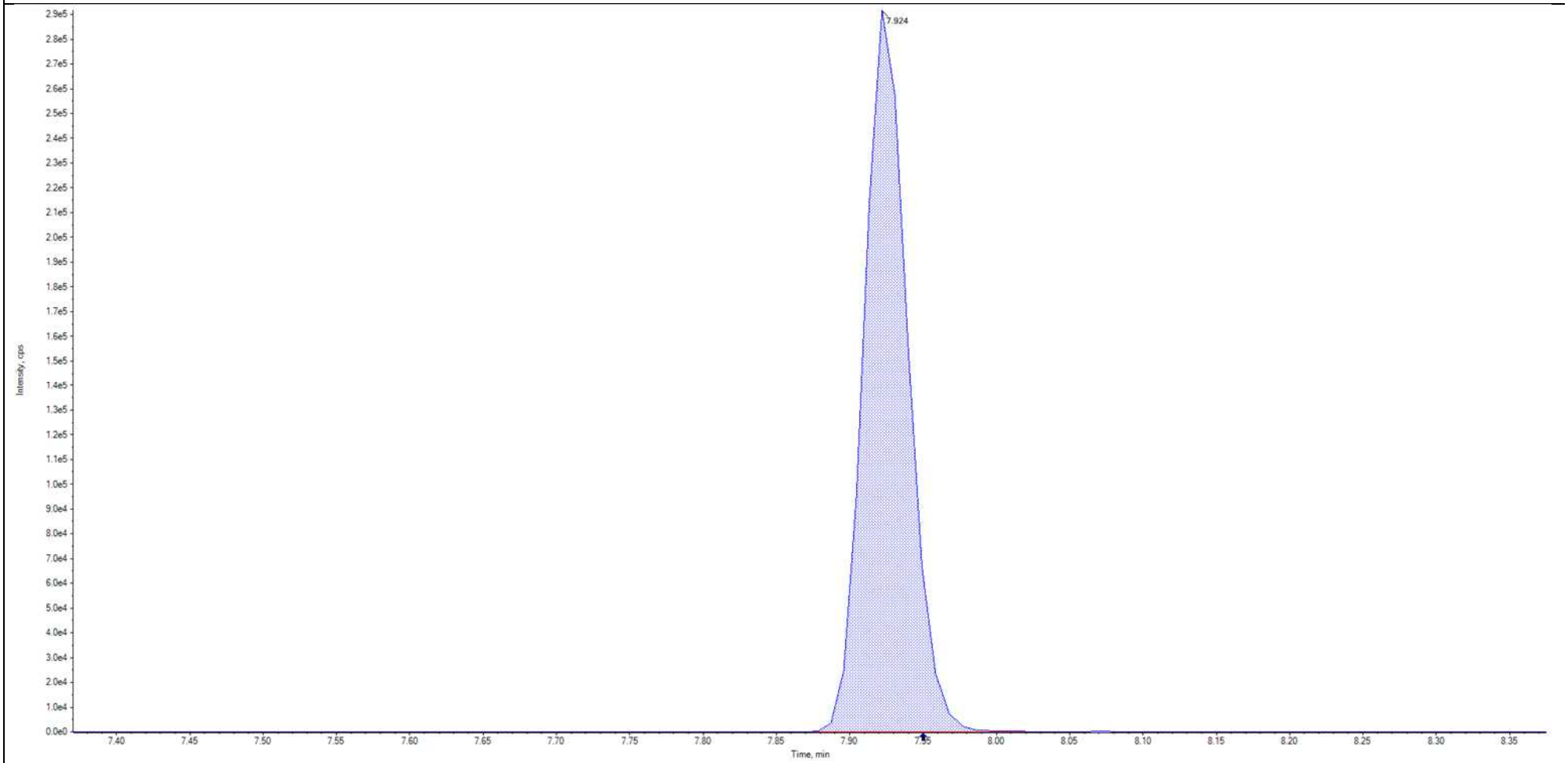
13C4-PFHpA
Sample: WG1972760-2



13C8-PFOA
Sample: WG1972760-2

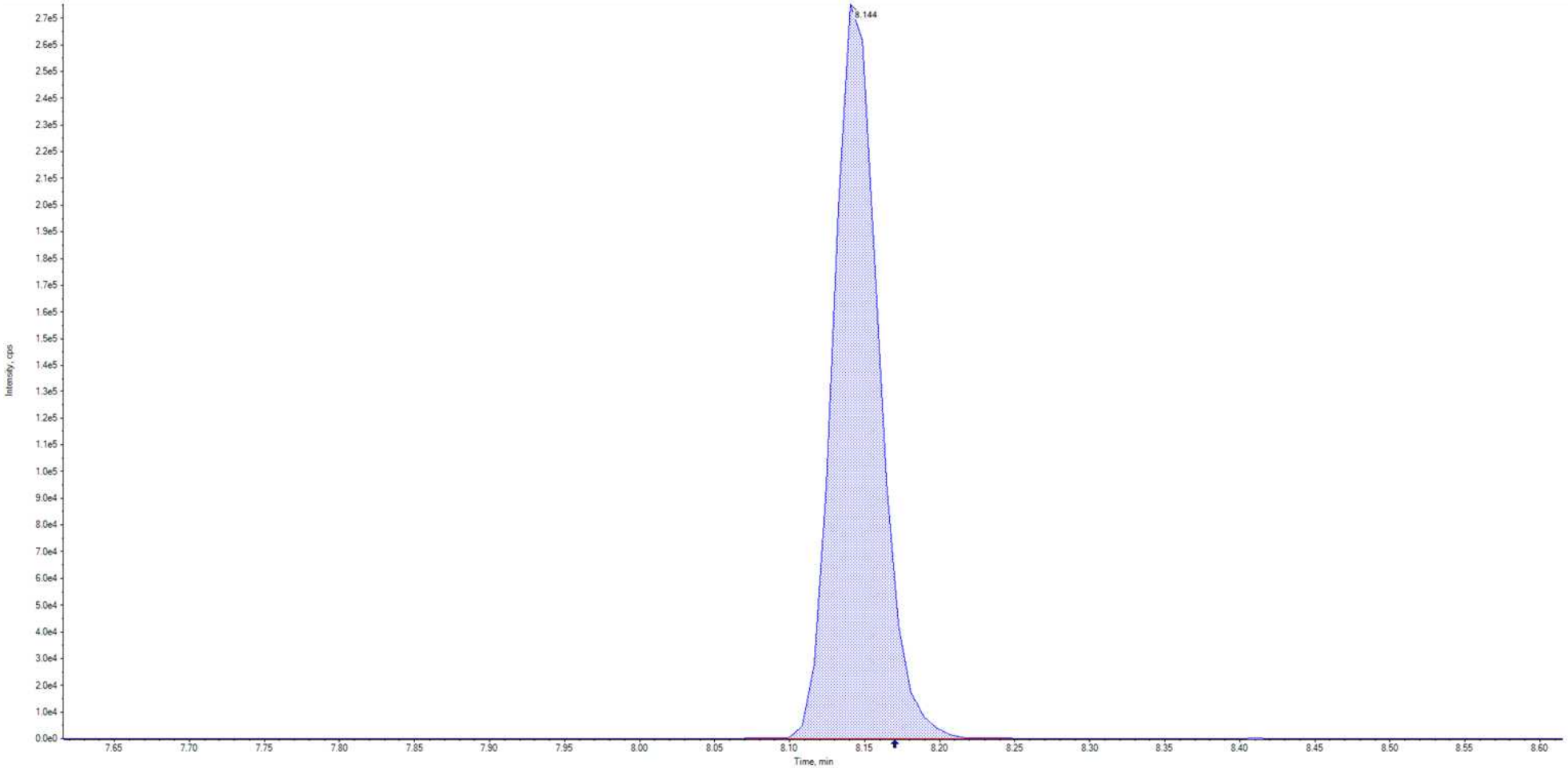


13C9-PFNA
Sample: WG1972760-2



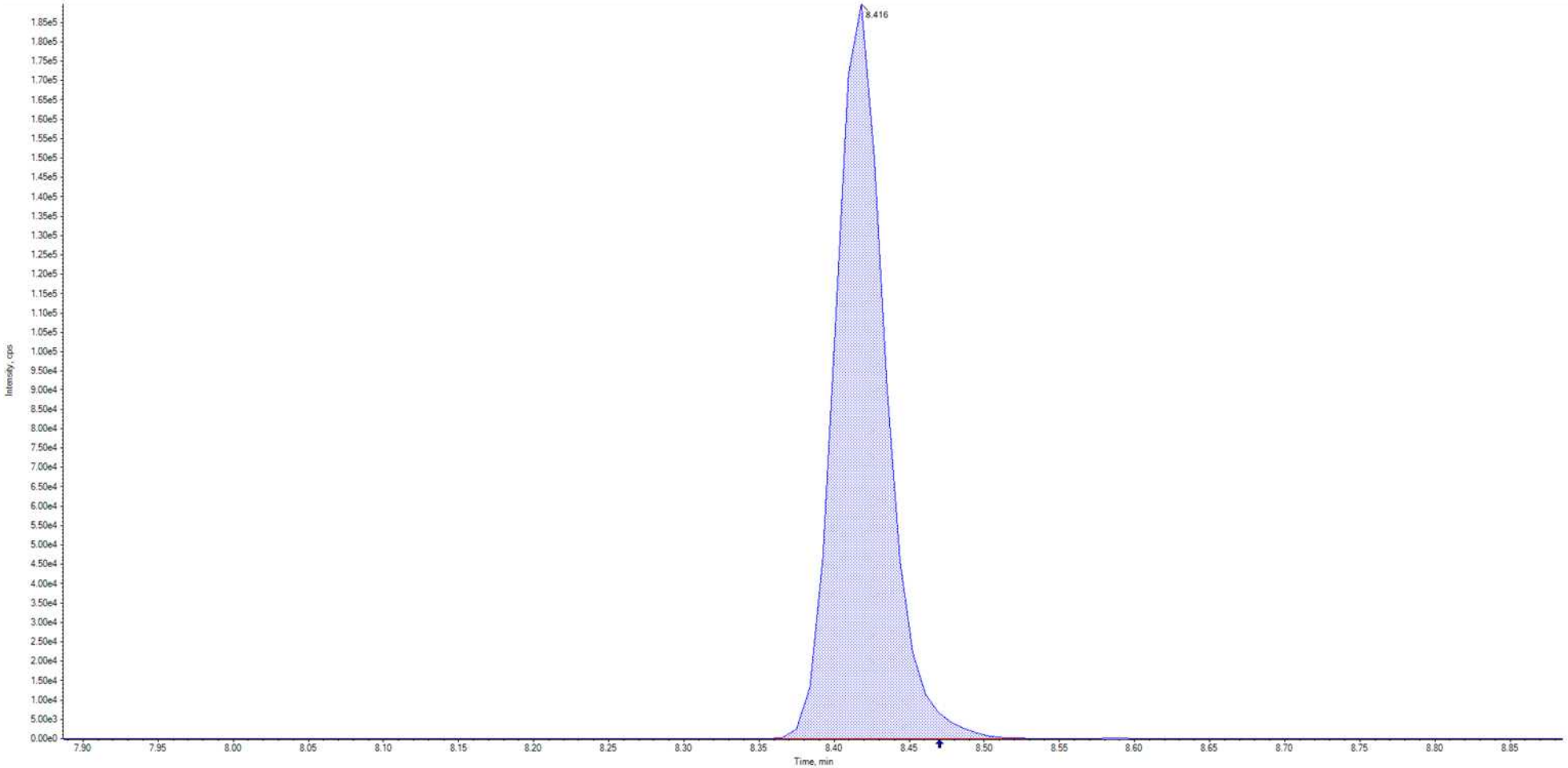
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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13C6-PFDA
Sample: WG1972760-2



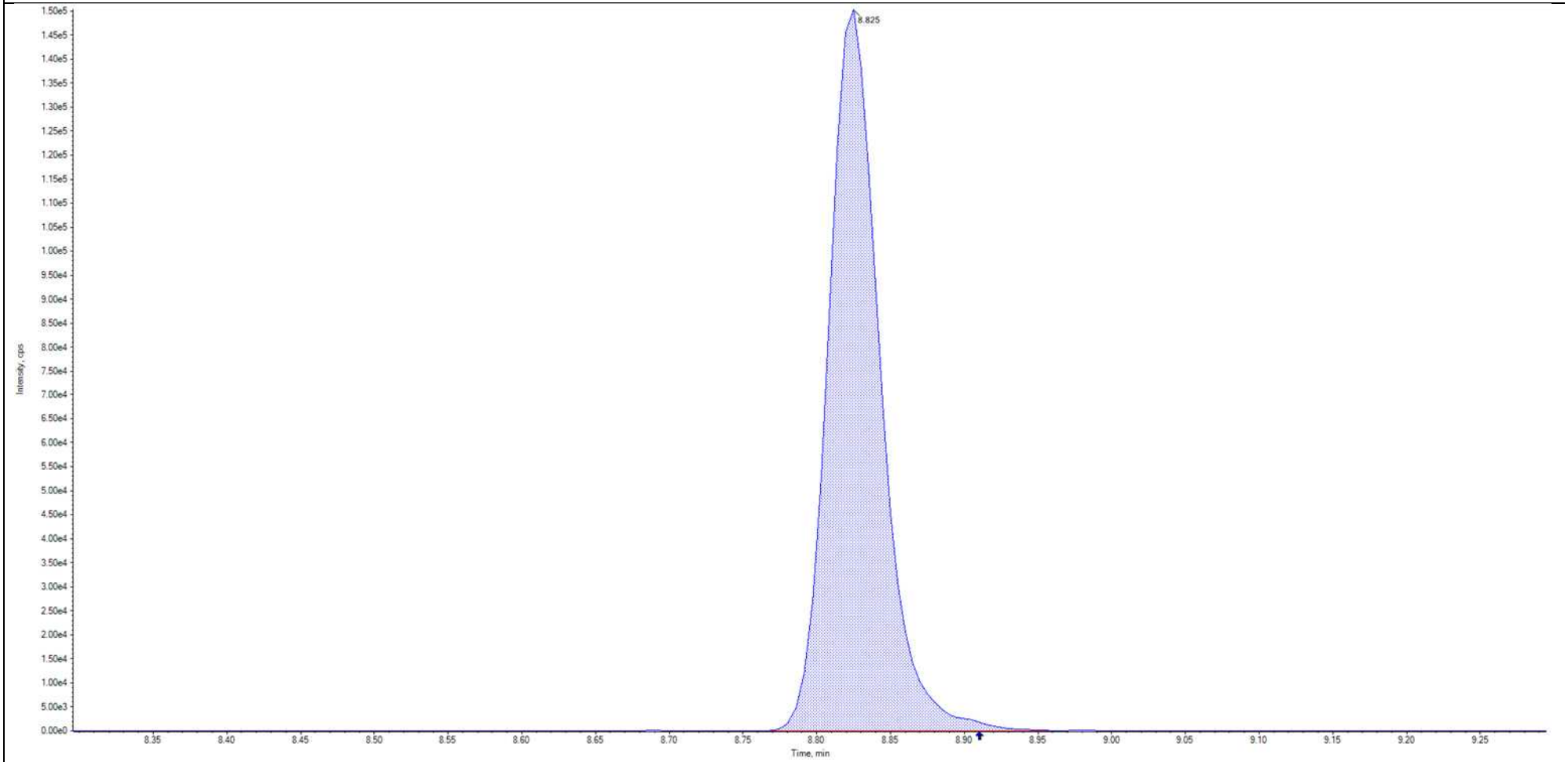
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13C7-PFUnA
Sample: WG1972760-2



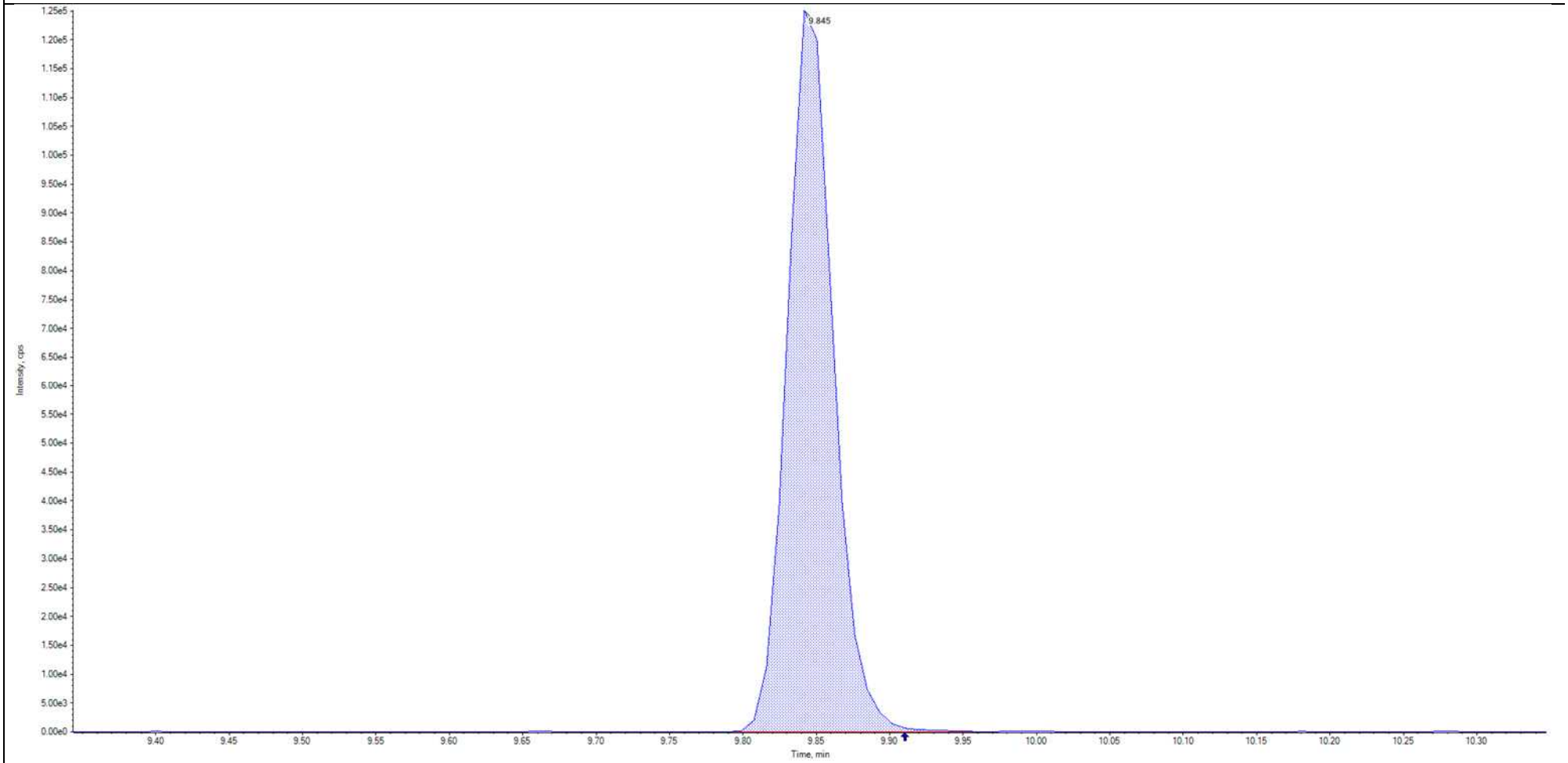
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13C2-PFDoA
Sample: WG1972760-2

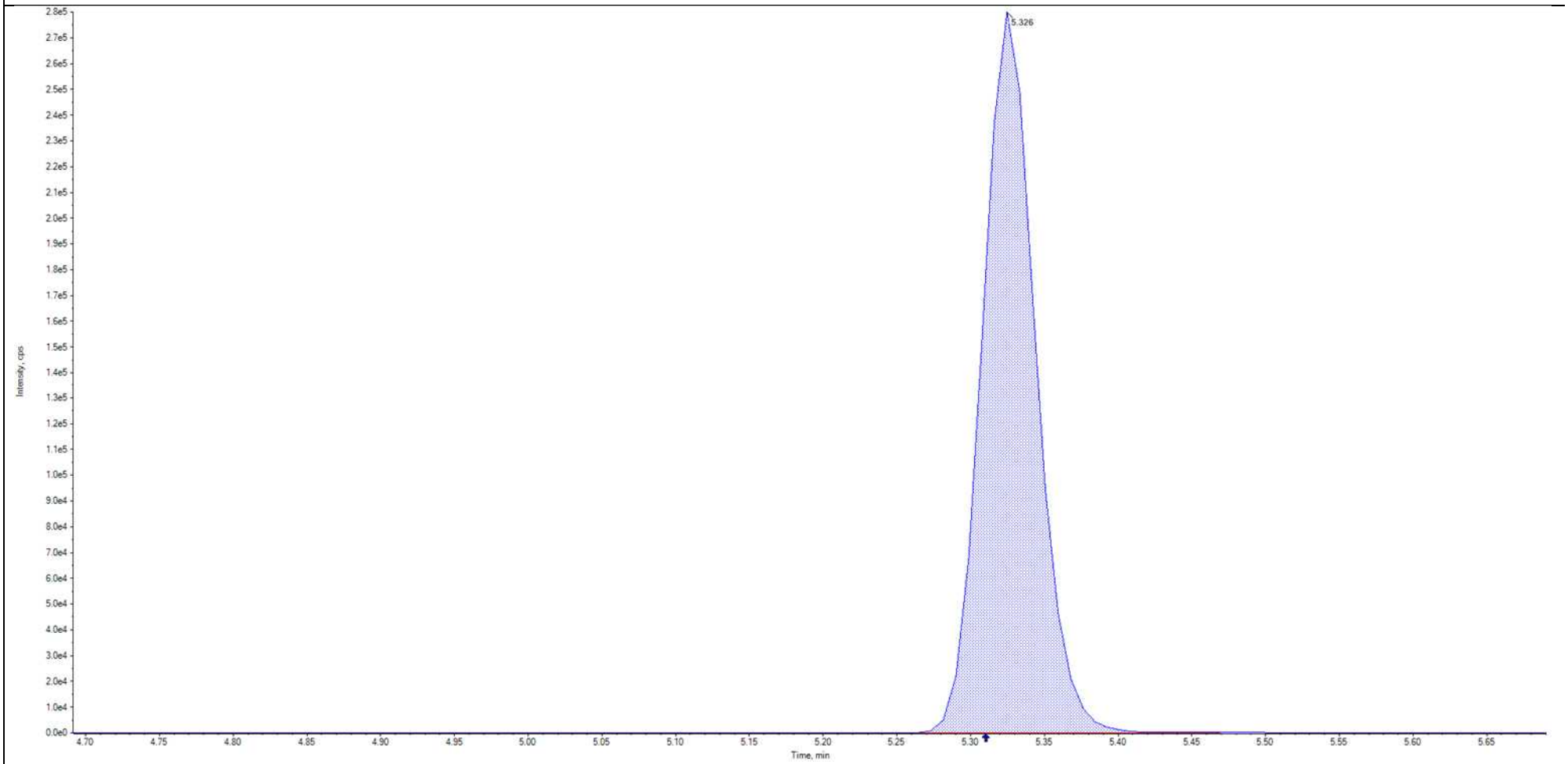


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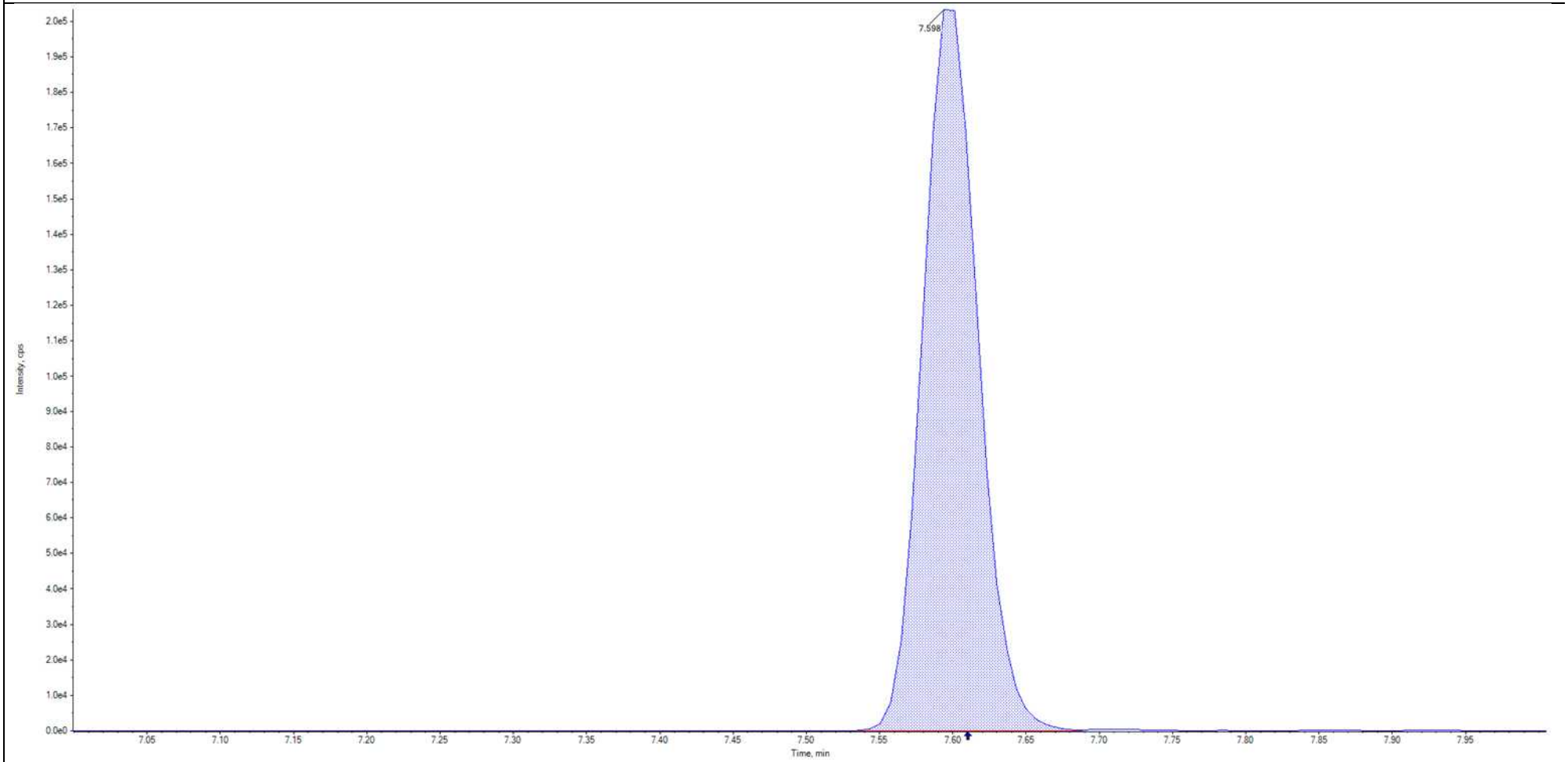
13C2-PFTeDA
Sample: WG1972760-2



13C3-PFBS
Sample: WG1972760-2

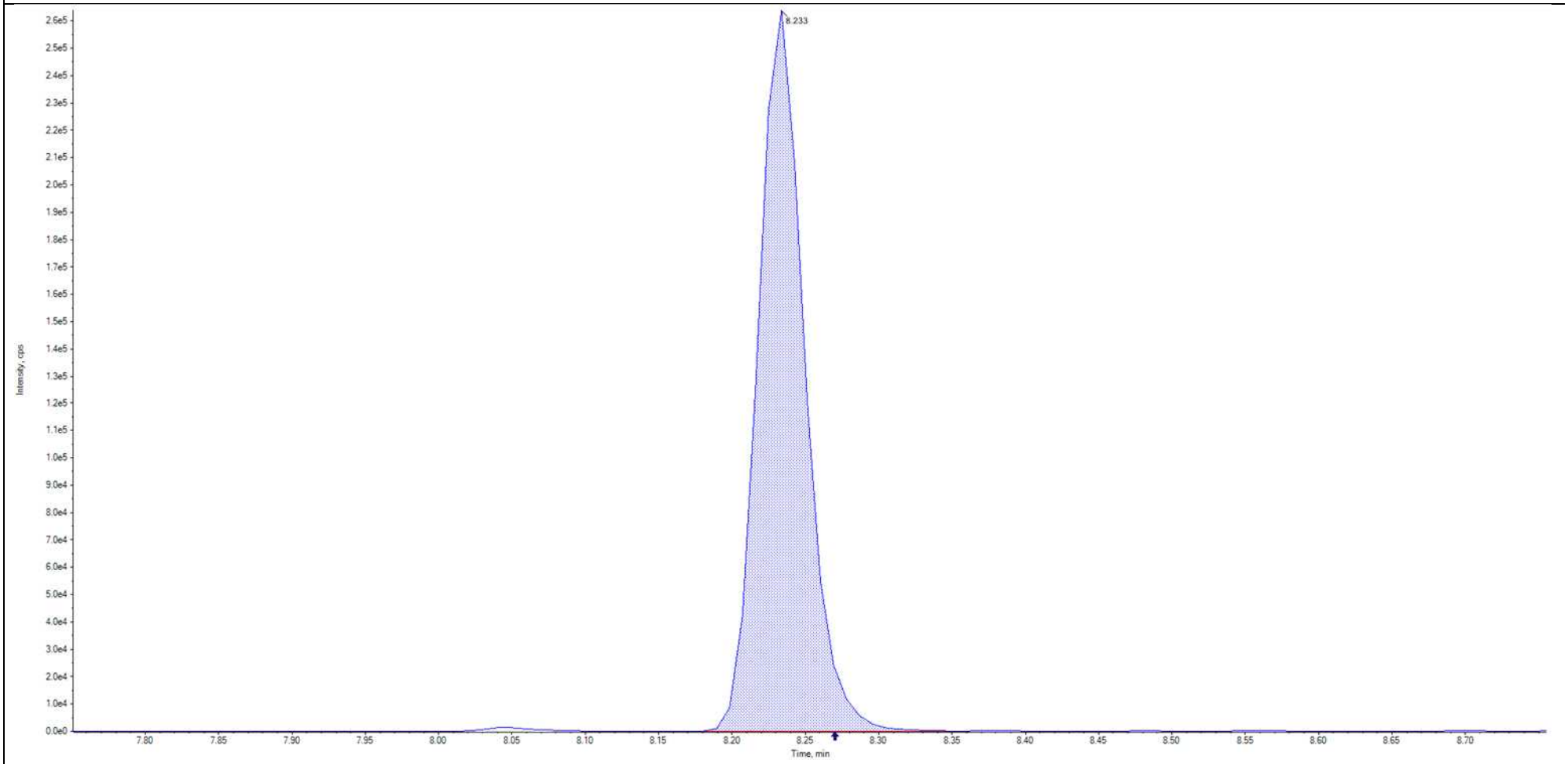


13C3-PFHxS
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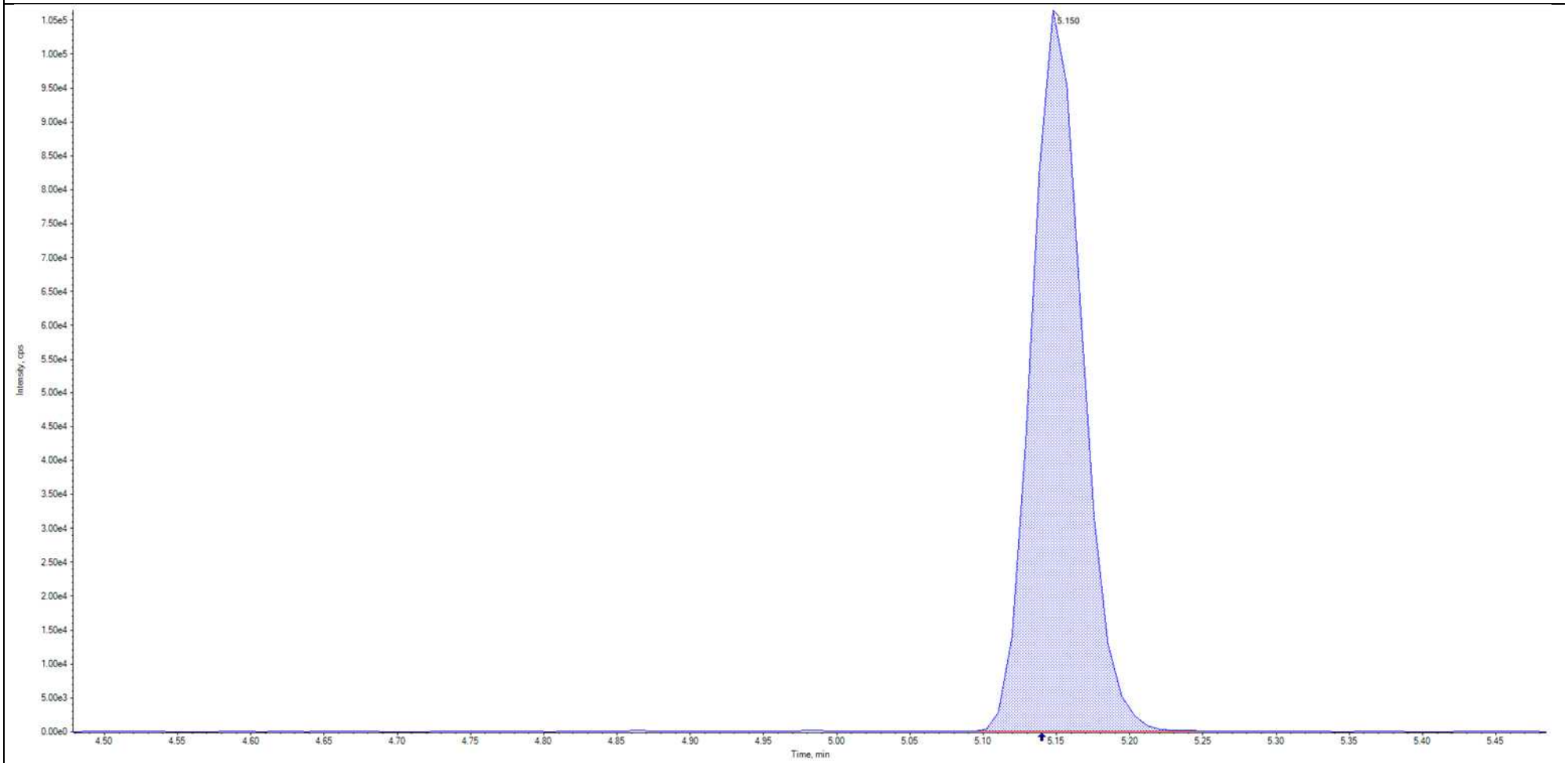


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13C8-PFOS
Sample: WG1972760-2

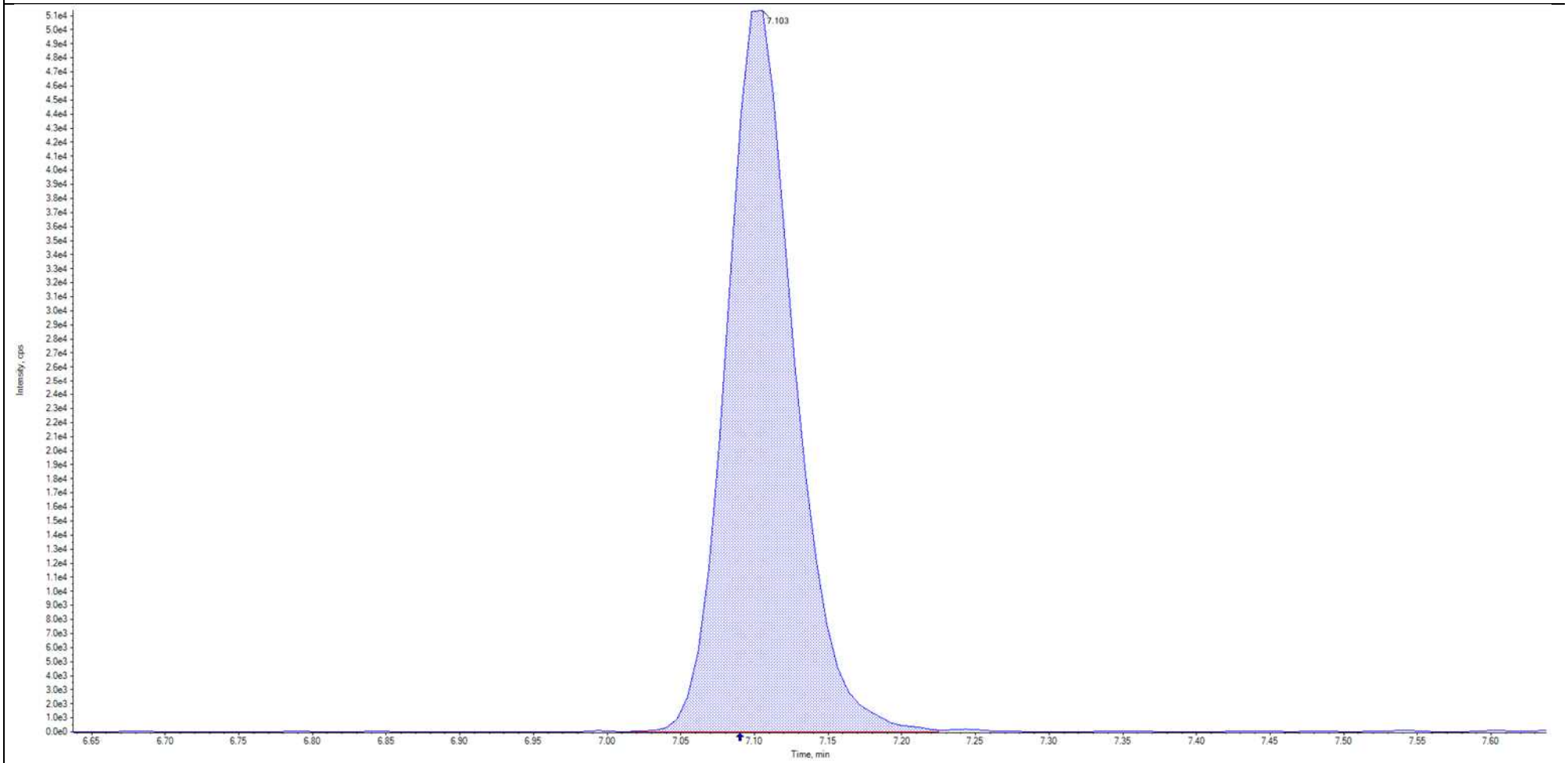


13C2-4:2FTS
Sample: WG1972760-2



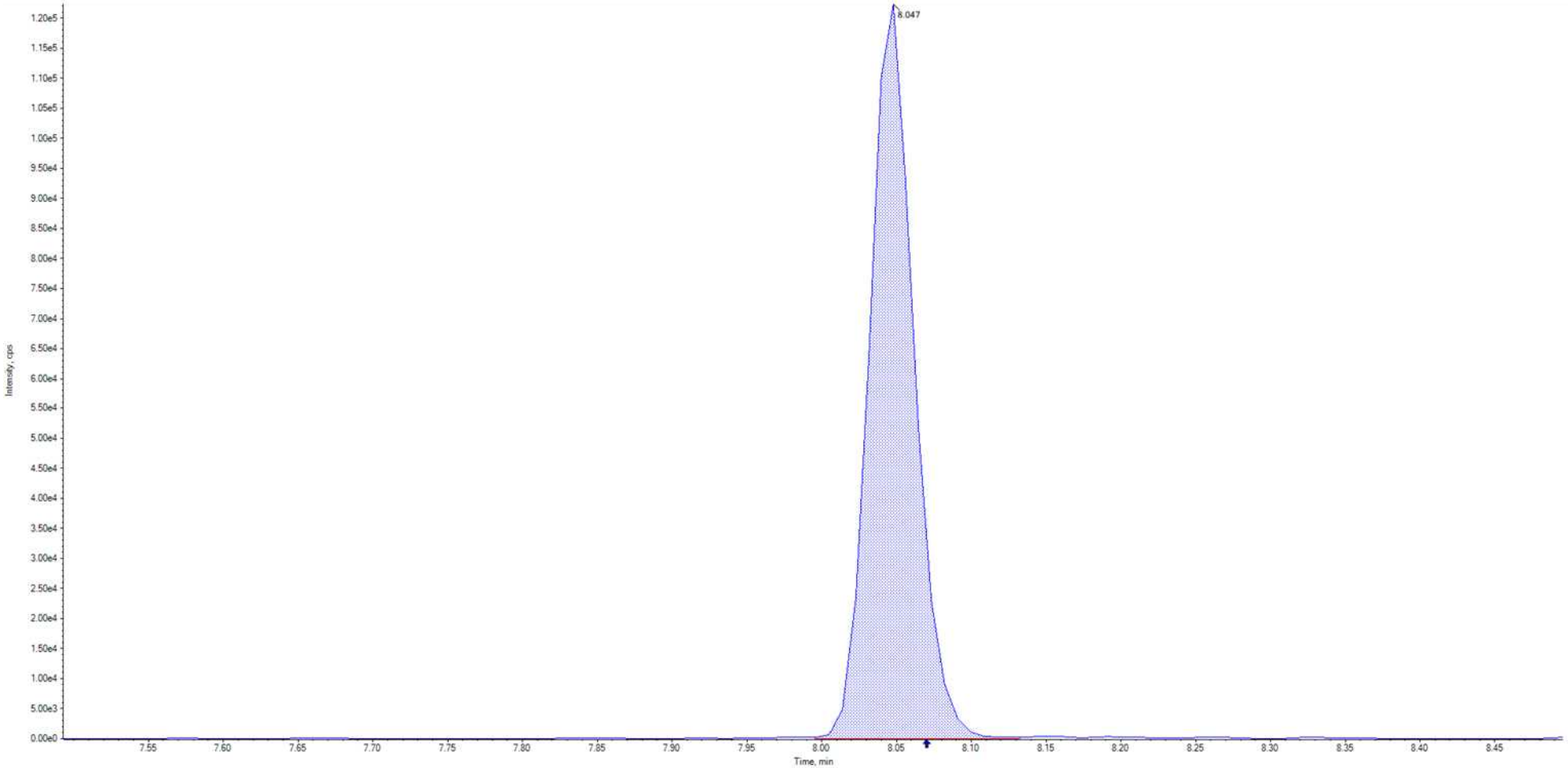
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13C2-6:2FTS
Sample: WG1972760-2



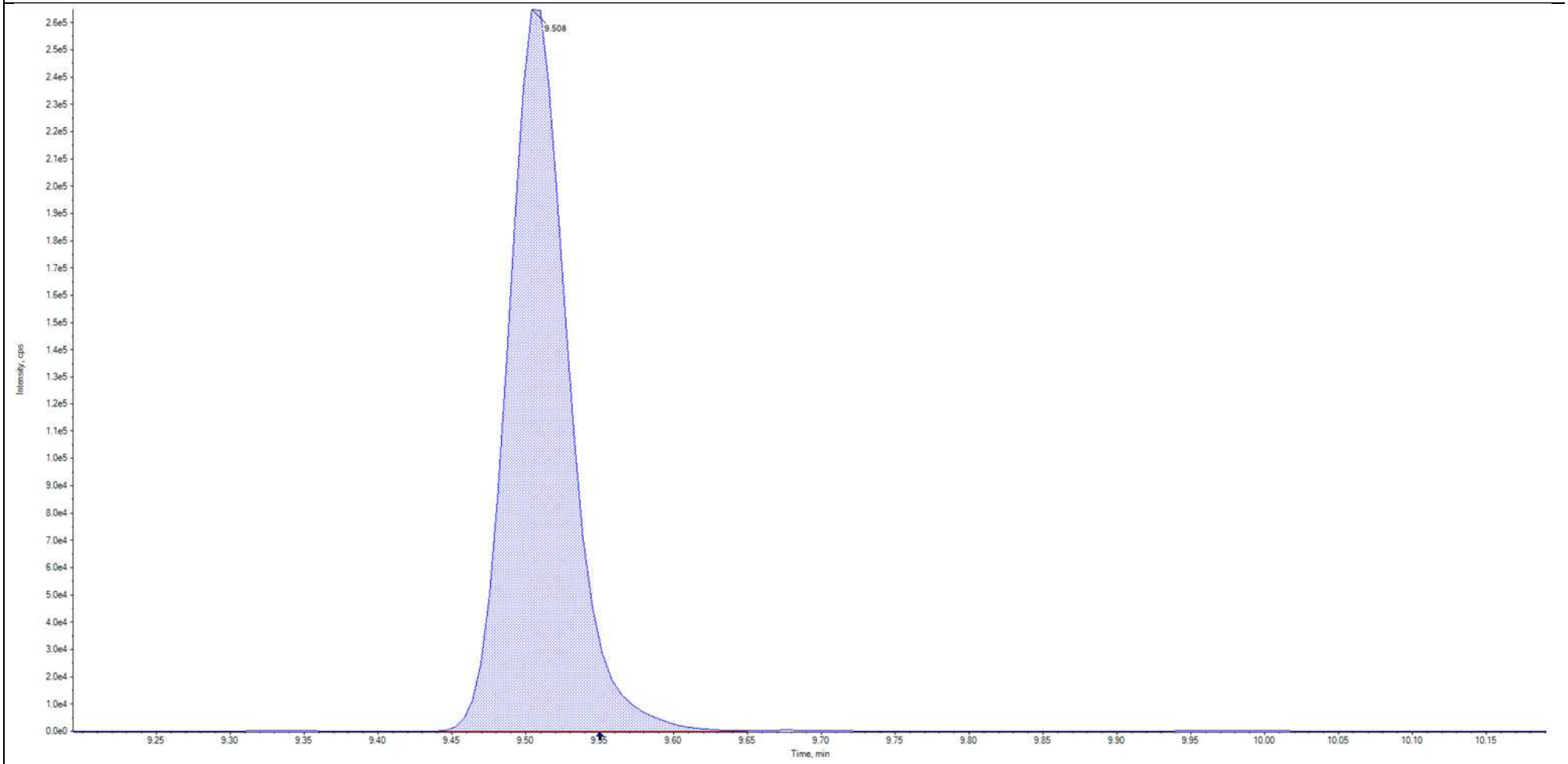
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13C2-8:2FTS
Sample: WG1972760-2

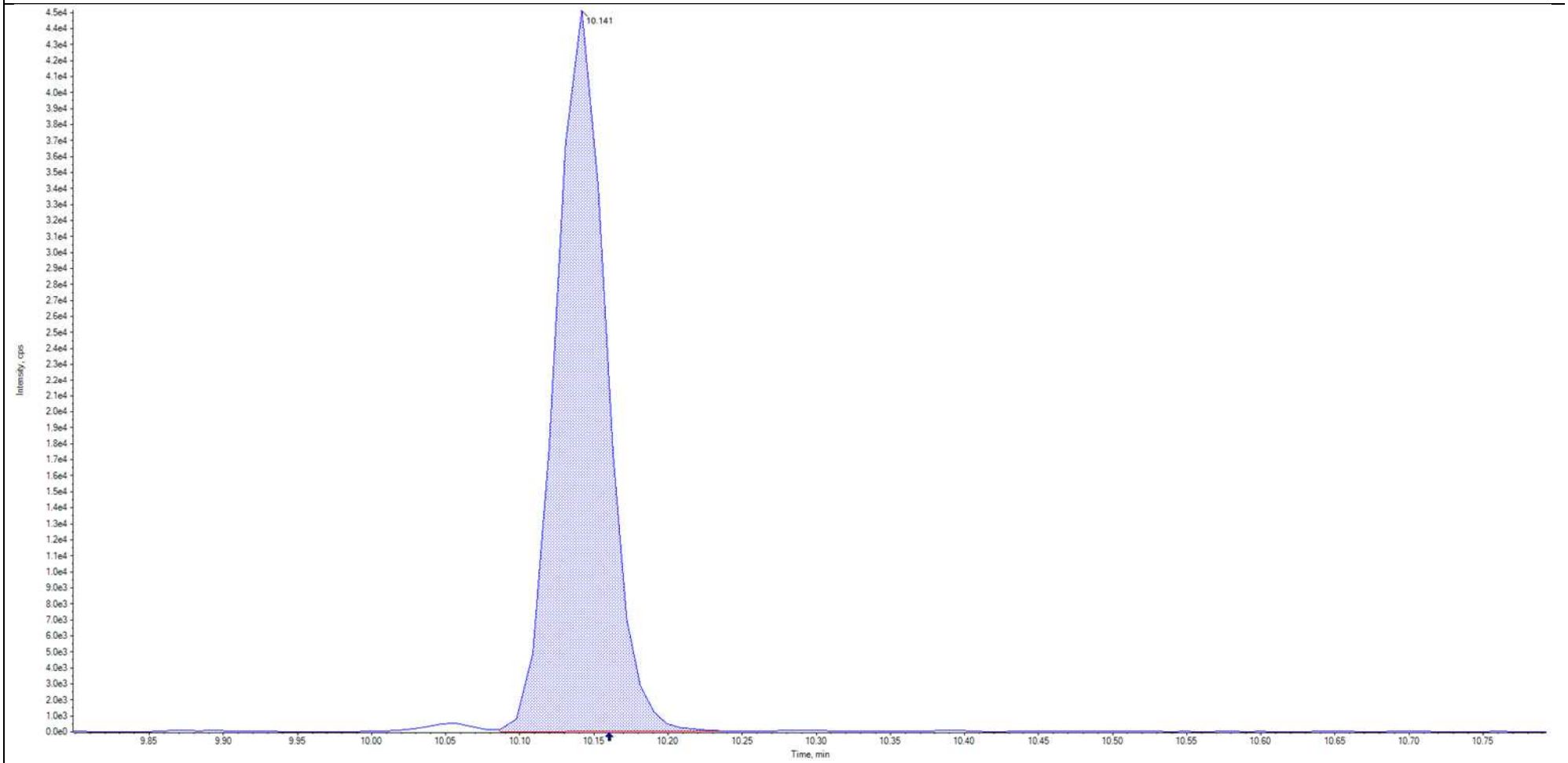


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
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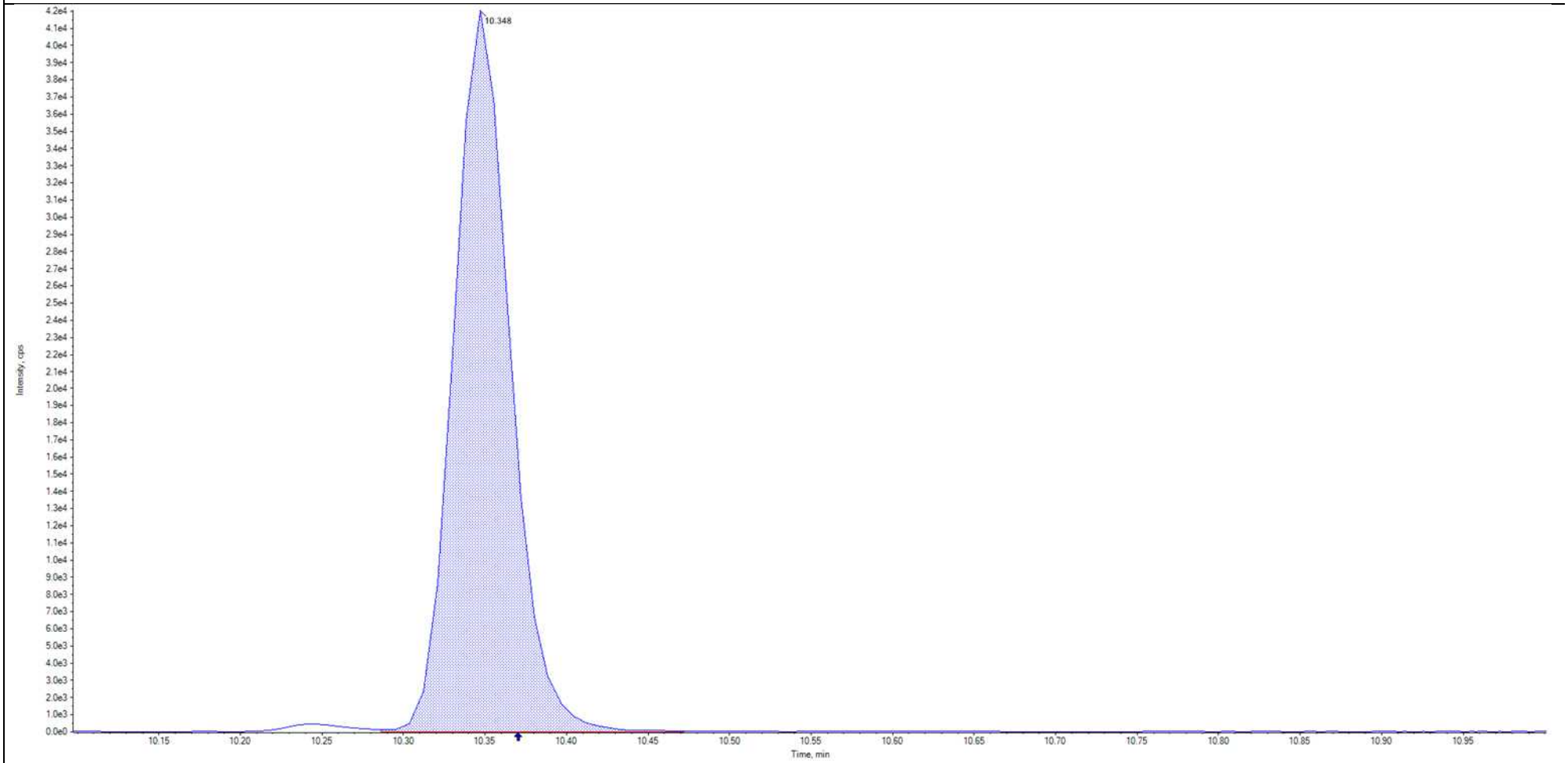
13C8-PFOSA
Sample: WG1972760-2



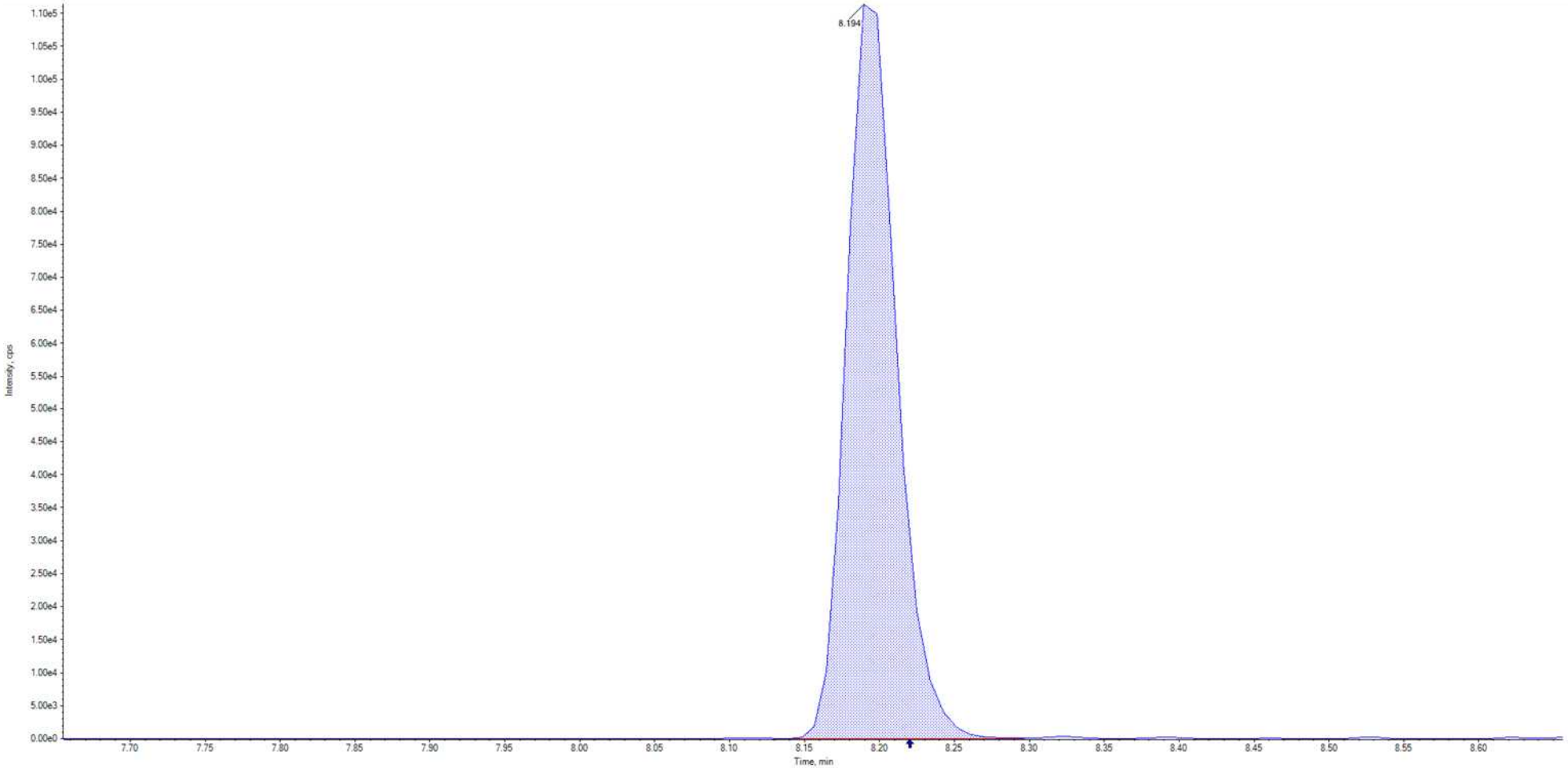
d3-NMeFOSA
Sample: WG1972760-2



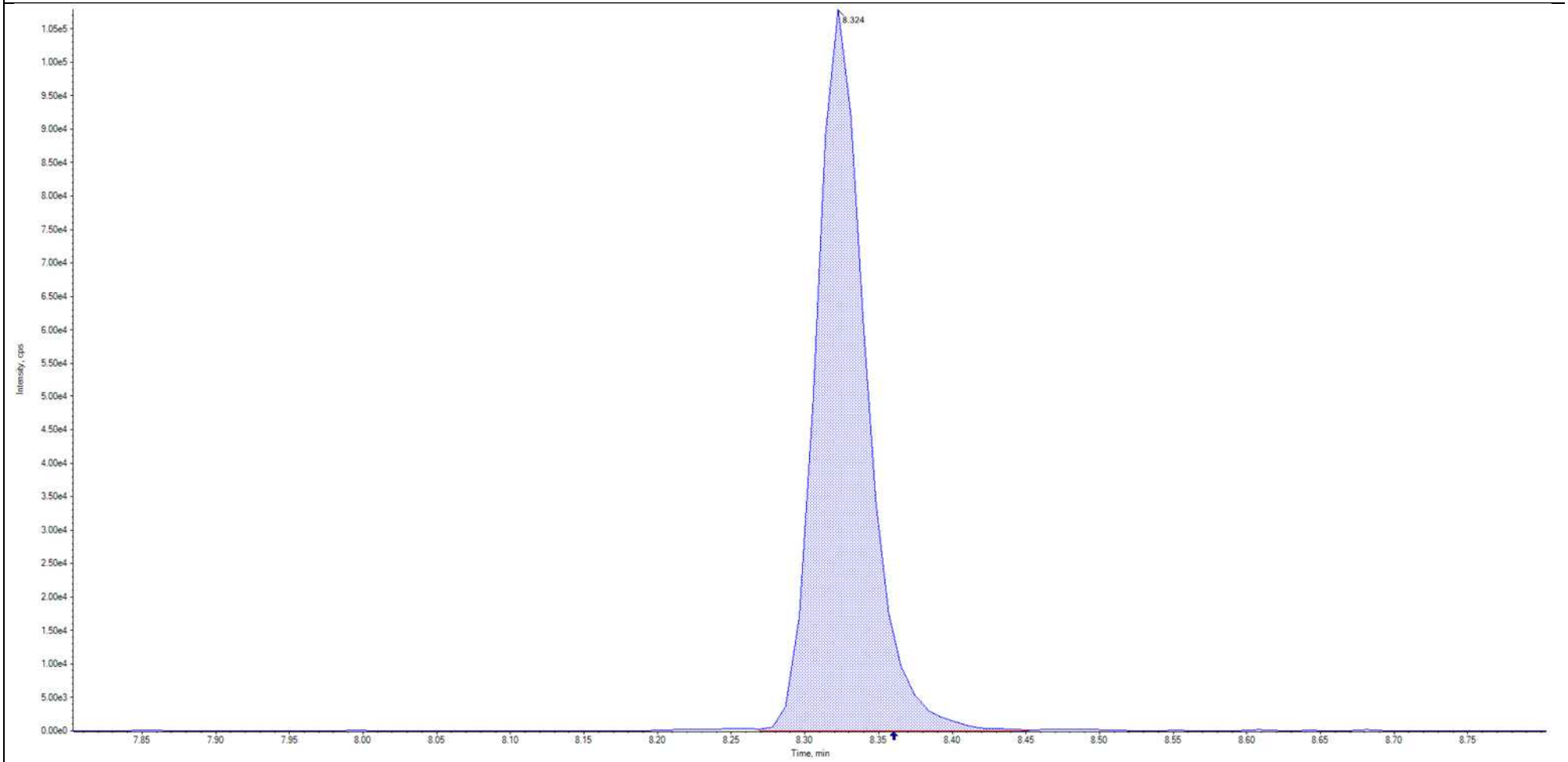
d5-NEtFOSA
Sample: WG1972760-2



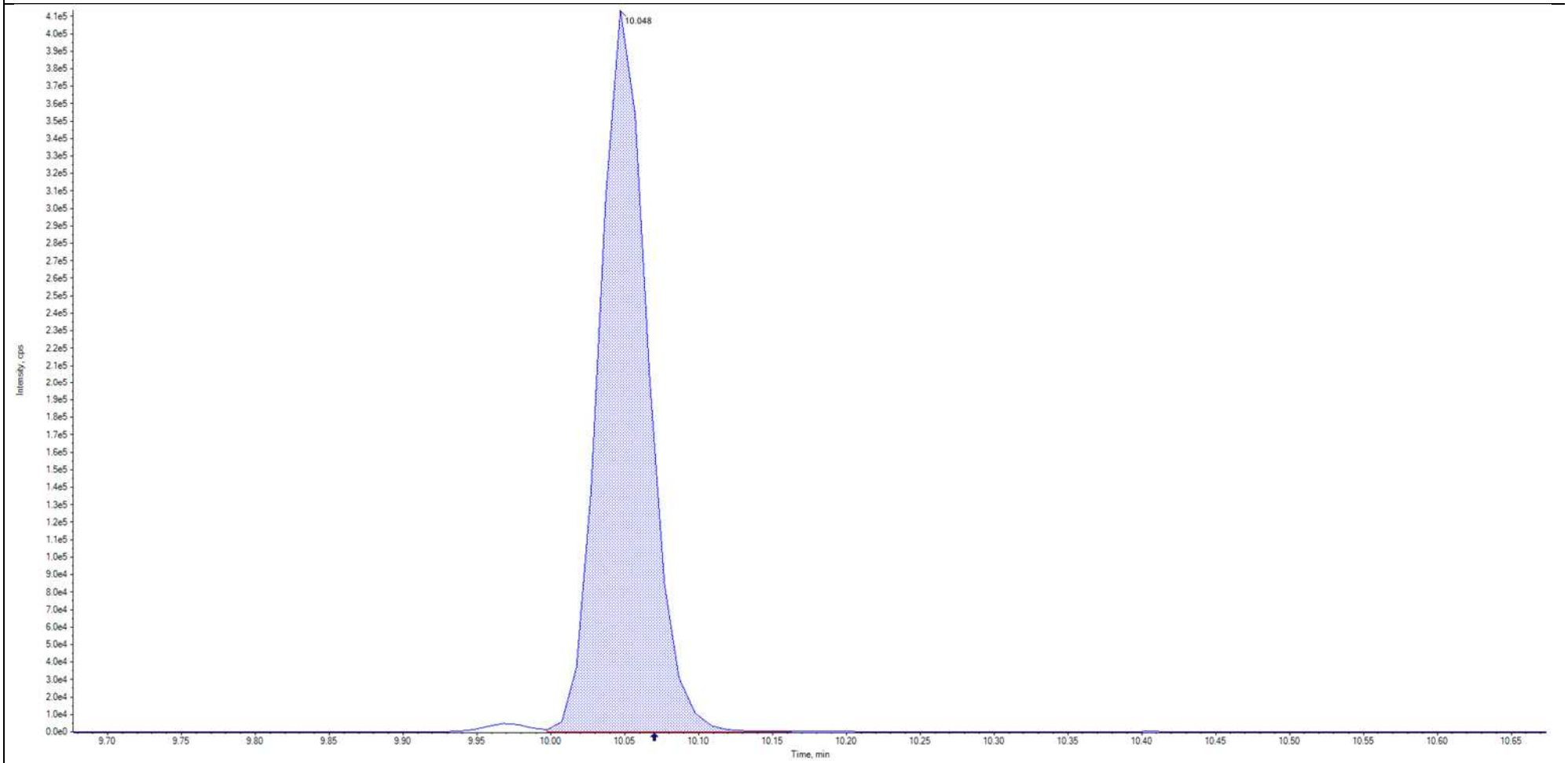
d3-NMeFOSAA
Sample: WG1972760-2



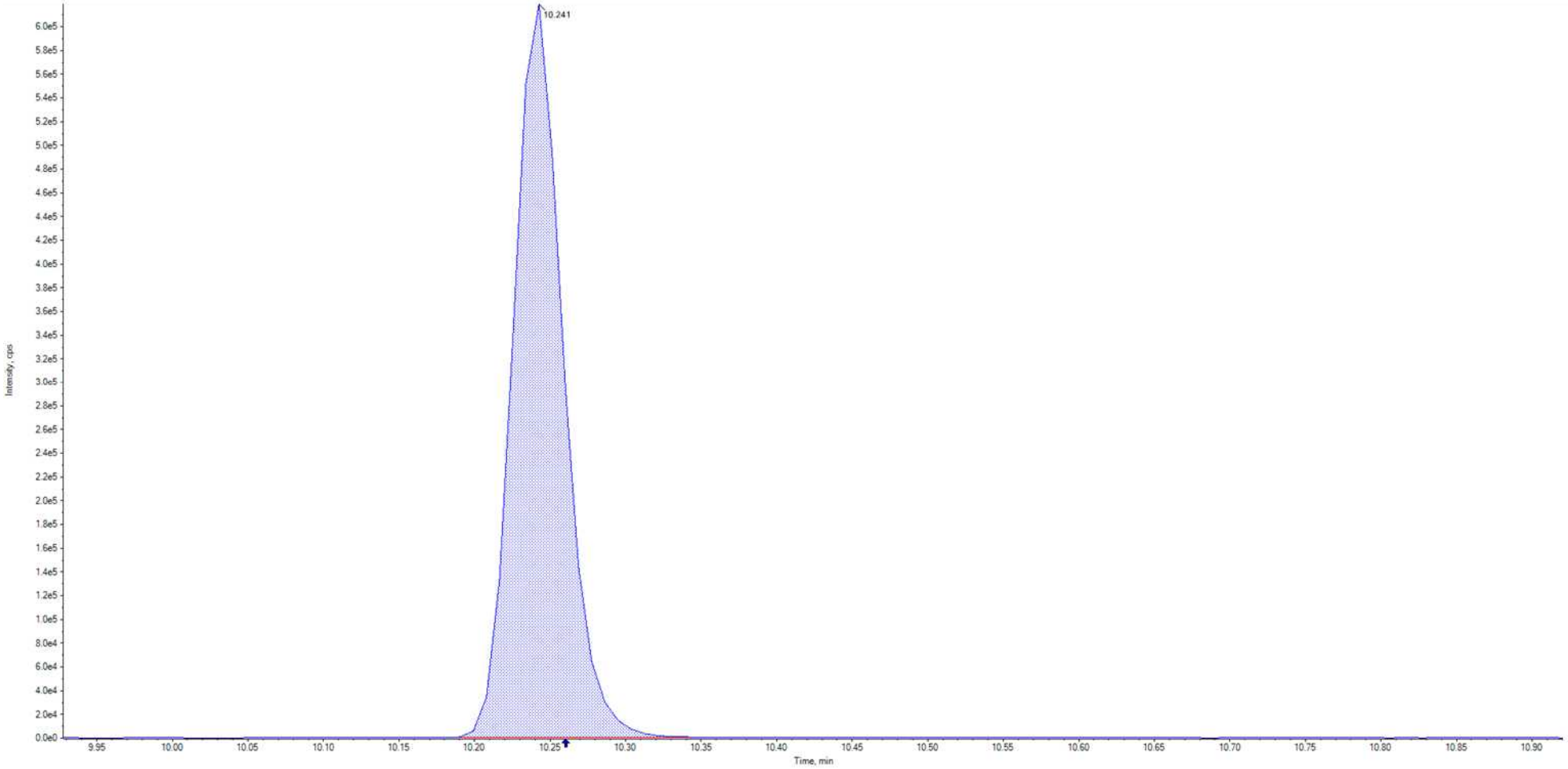
d5-NEtFOSAA
Sample: WG1972760-2



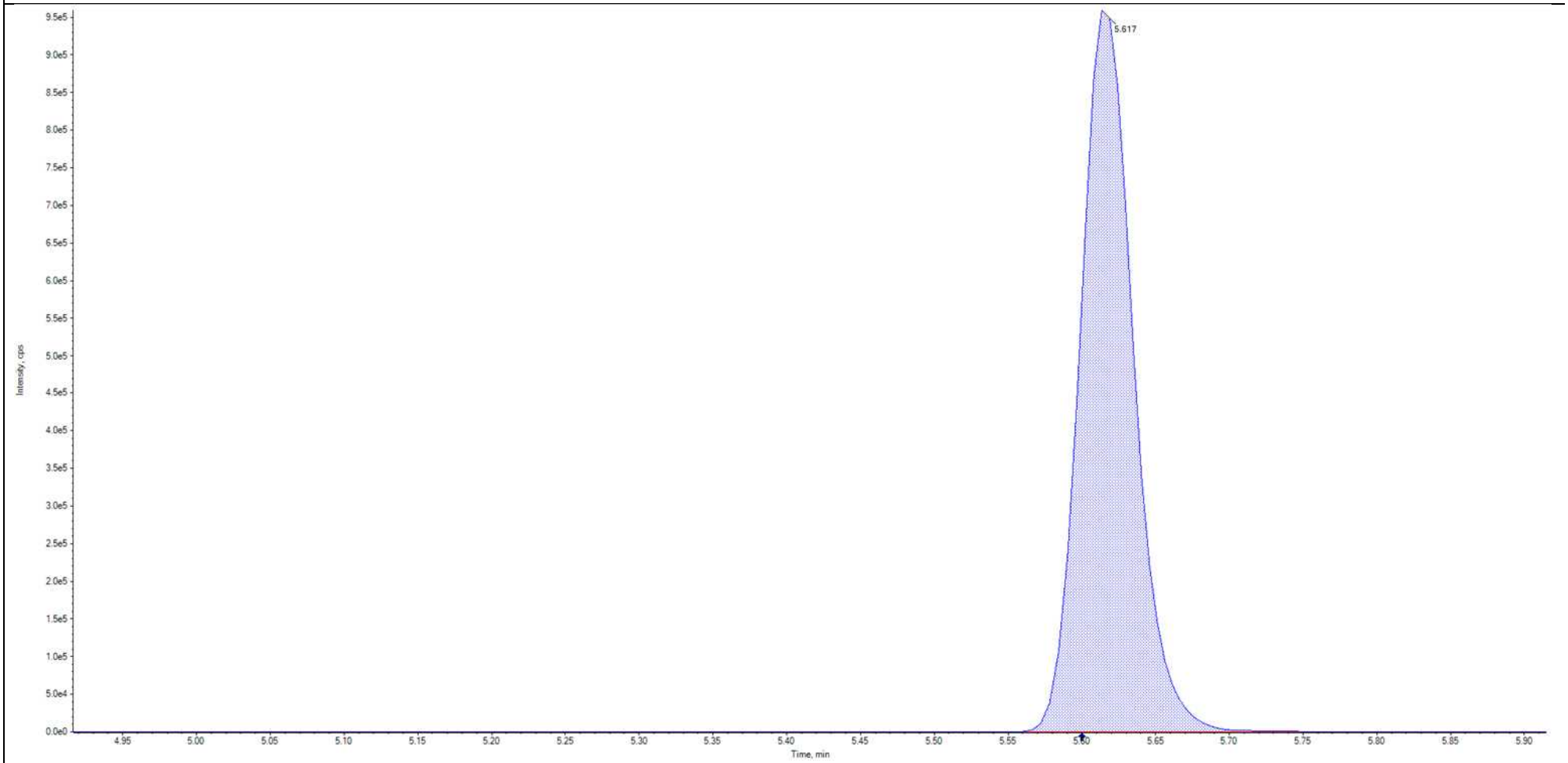
d7-NMeFOSE
Sample: WG1972760-2



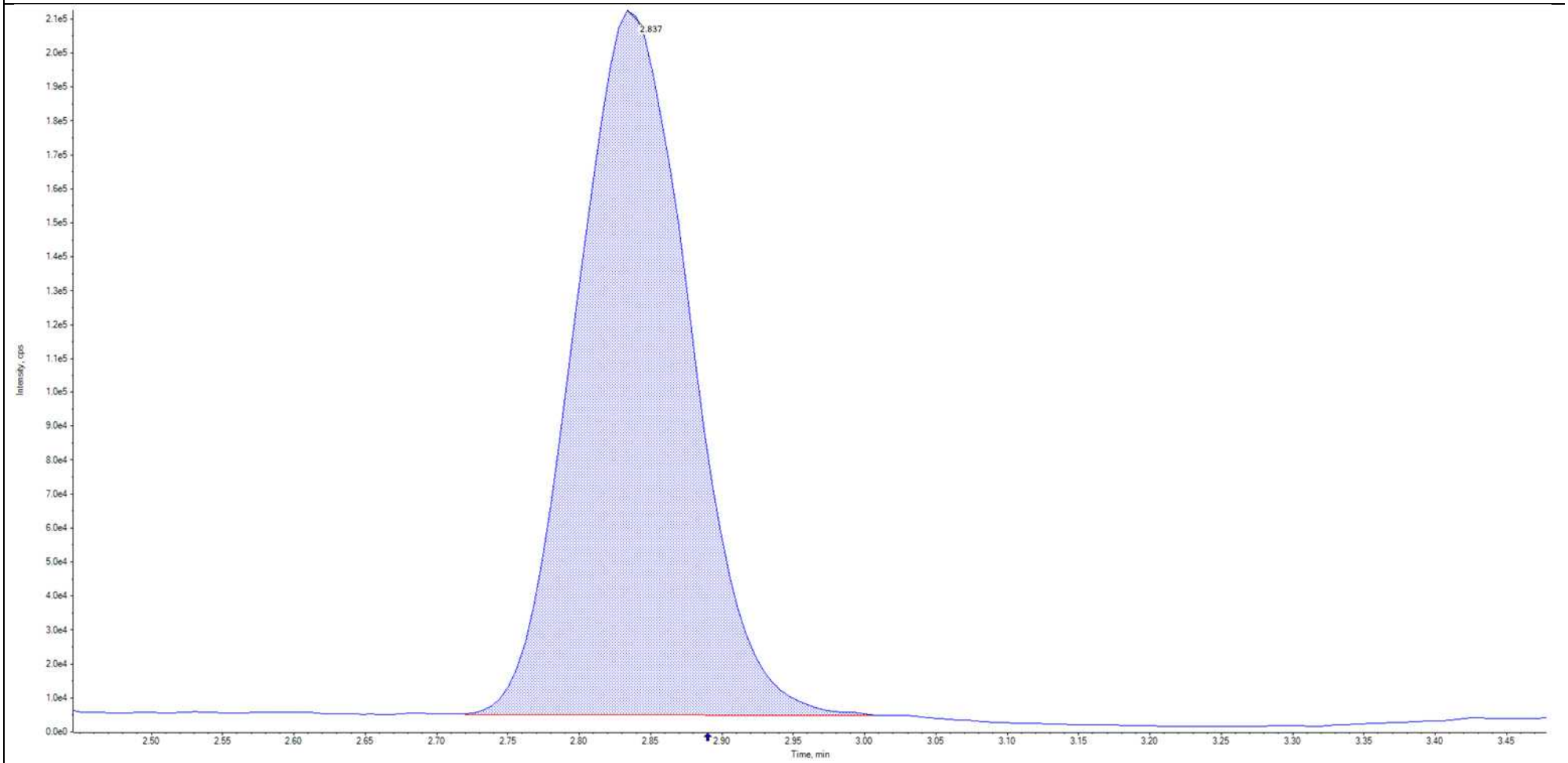
d9-NEtFOSE
Sample: WG1972760-2



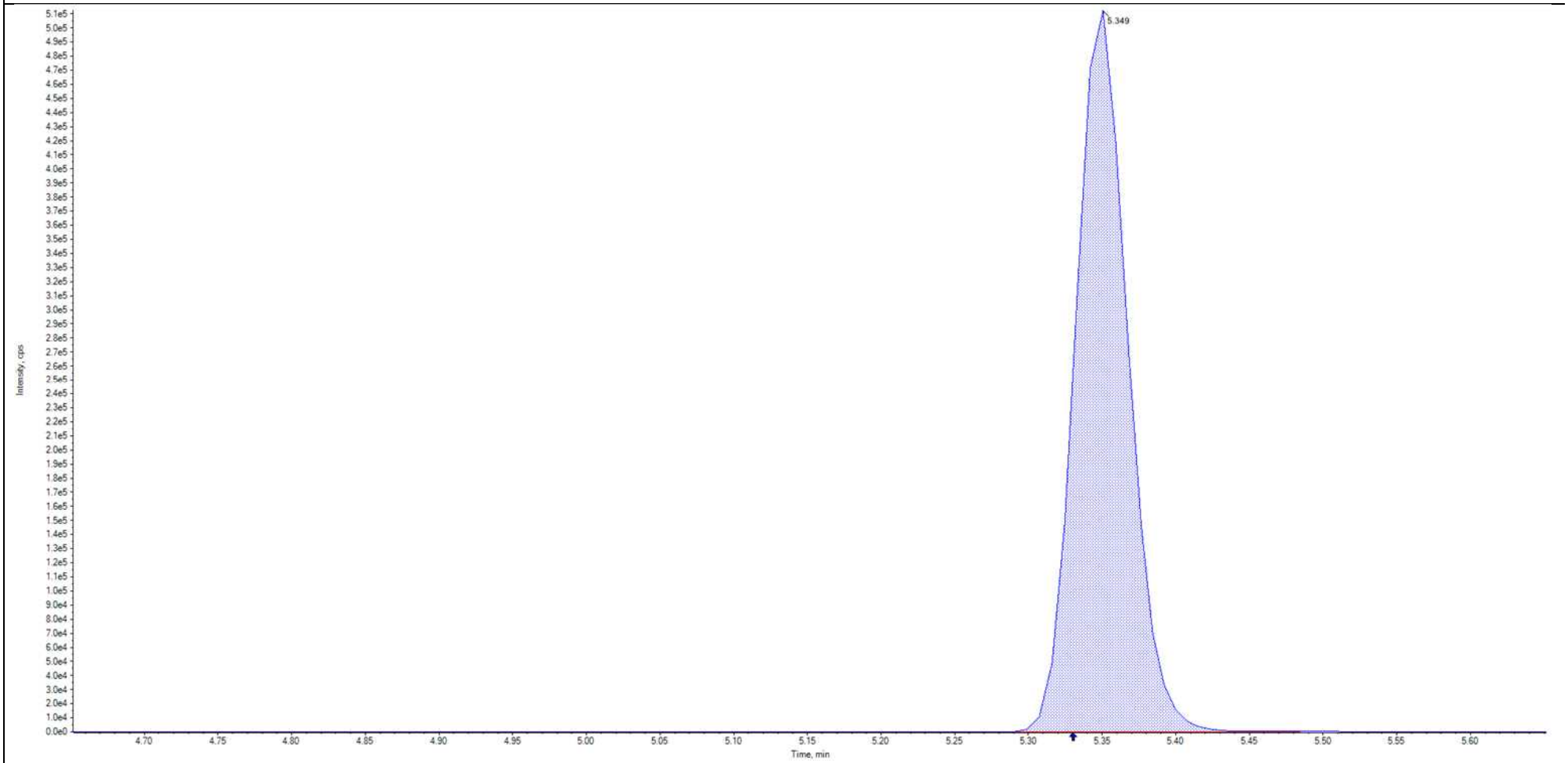
13C3-HFPO-DA
Sample: WG1972760-2



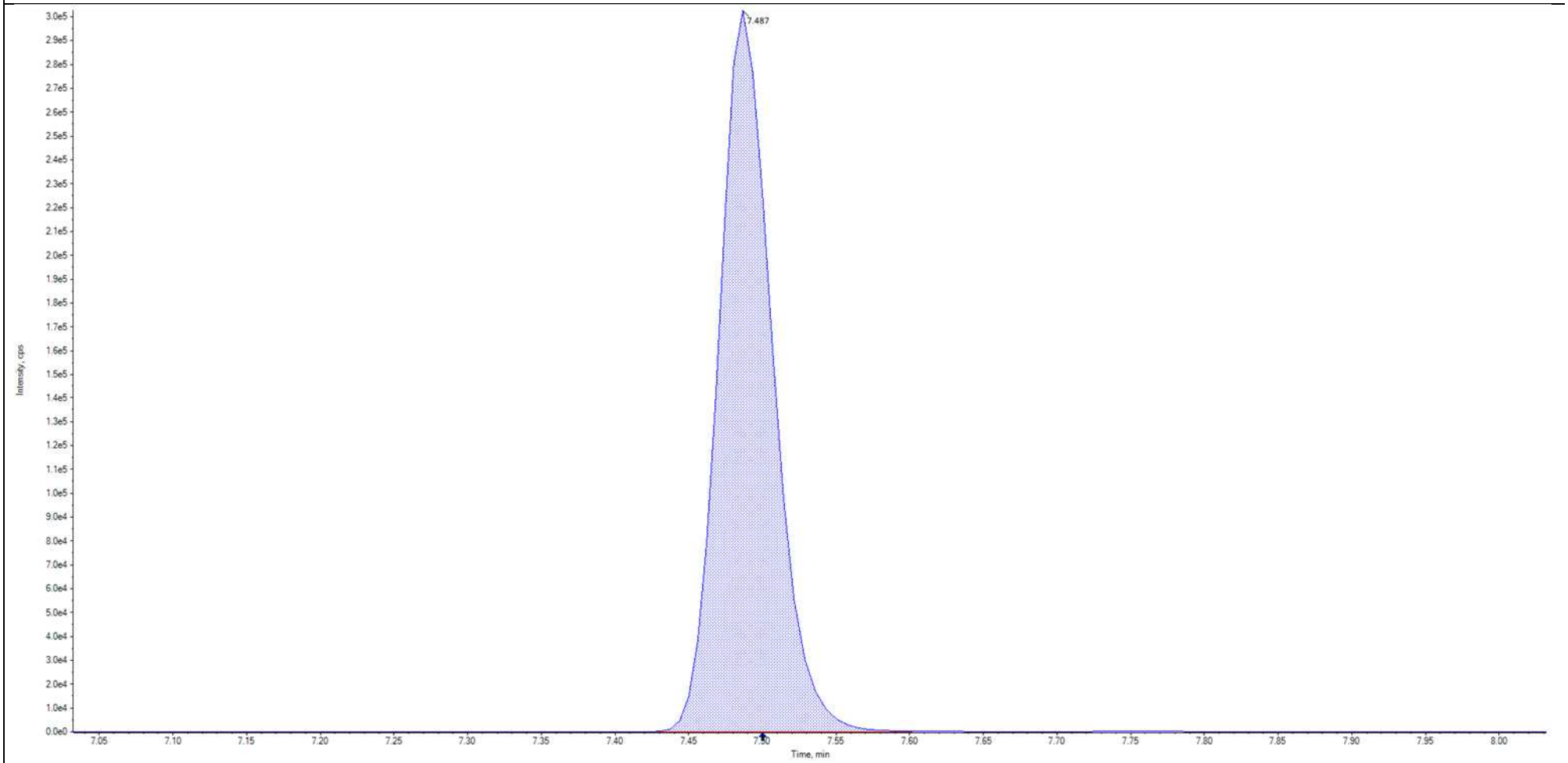
13C3-PFBA
Sample: WG1972760-2



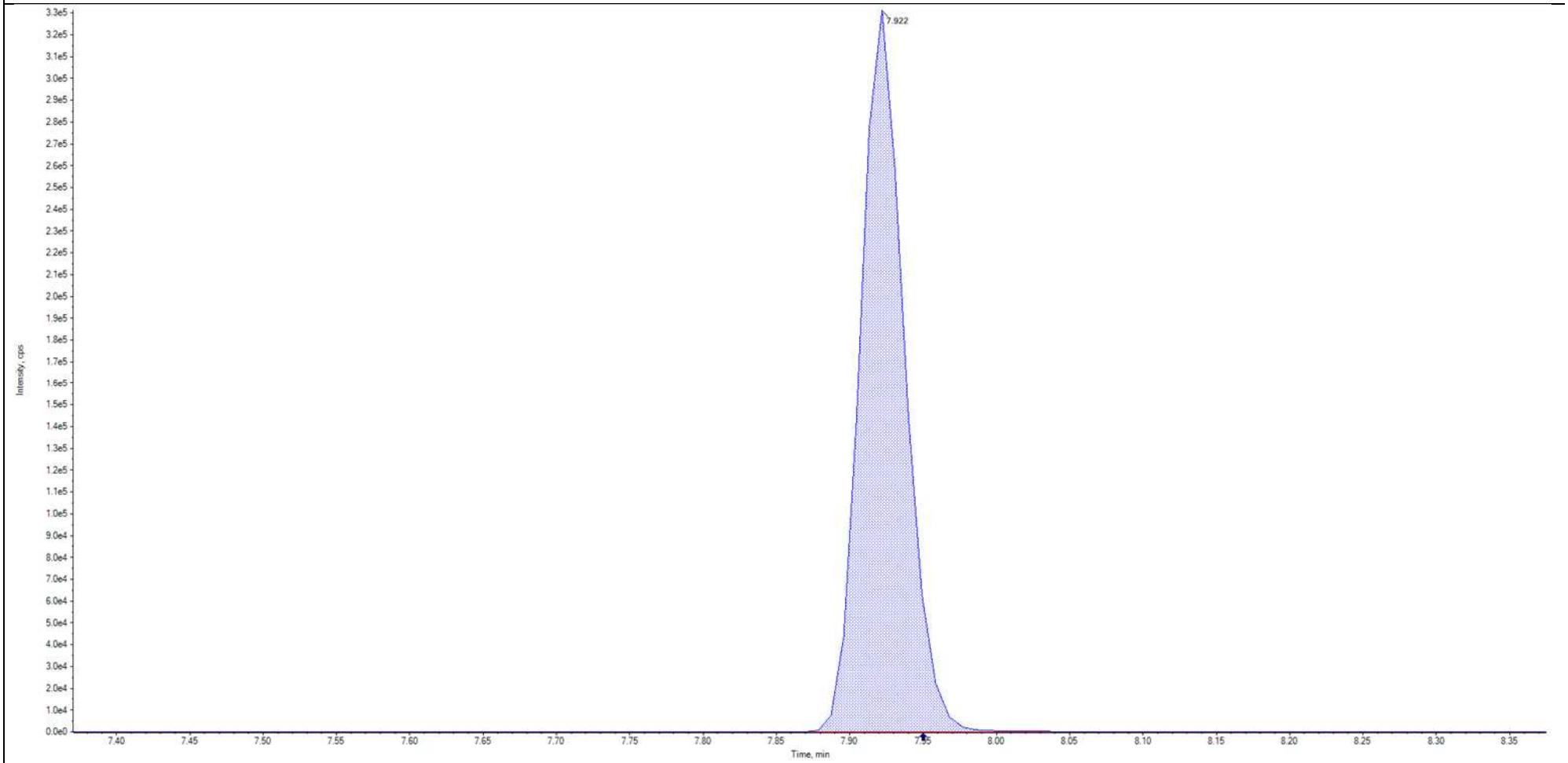
13C2-PFHxA
Sample: WG1972760-2



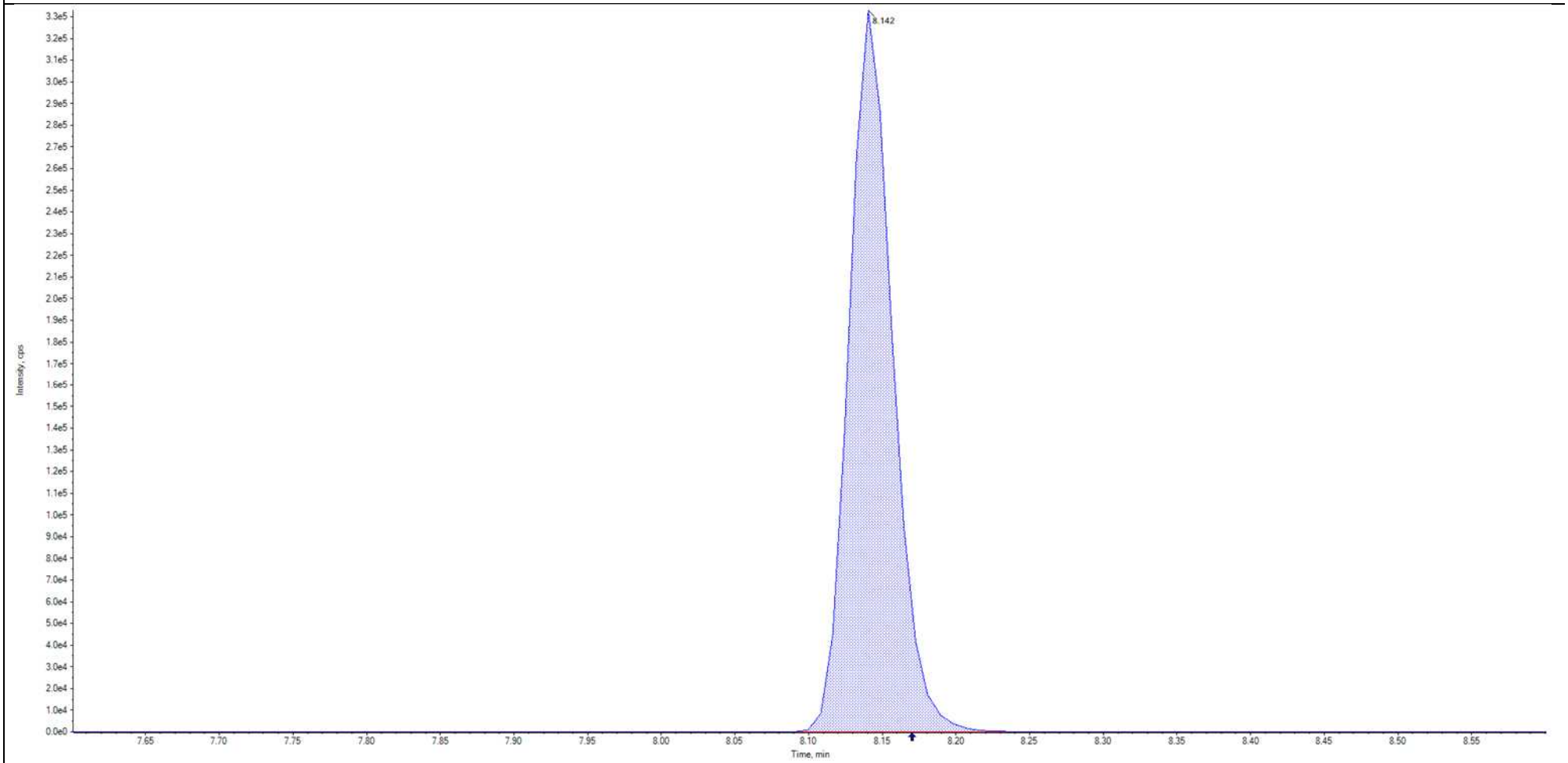
13C4-PFOA
Sample: WG1972760-2



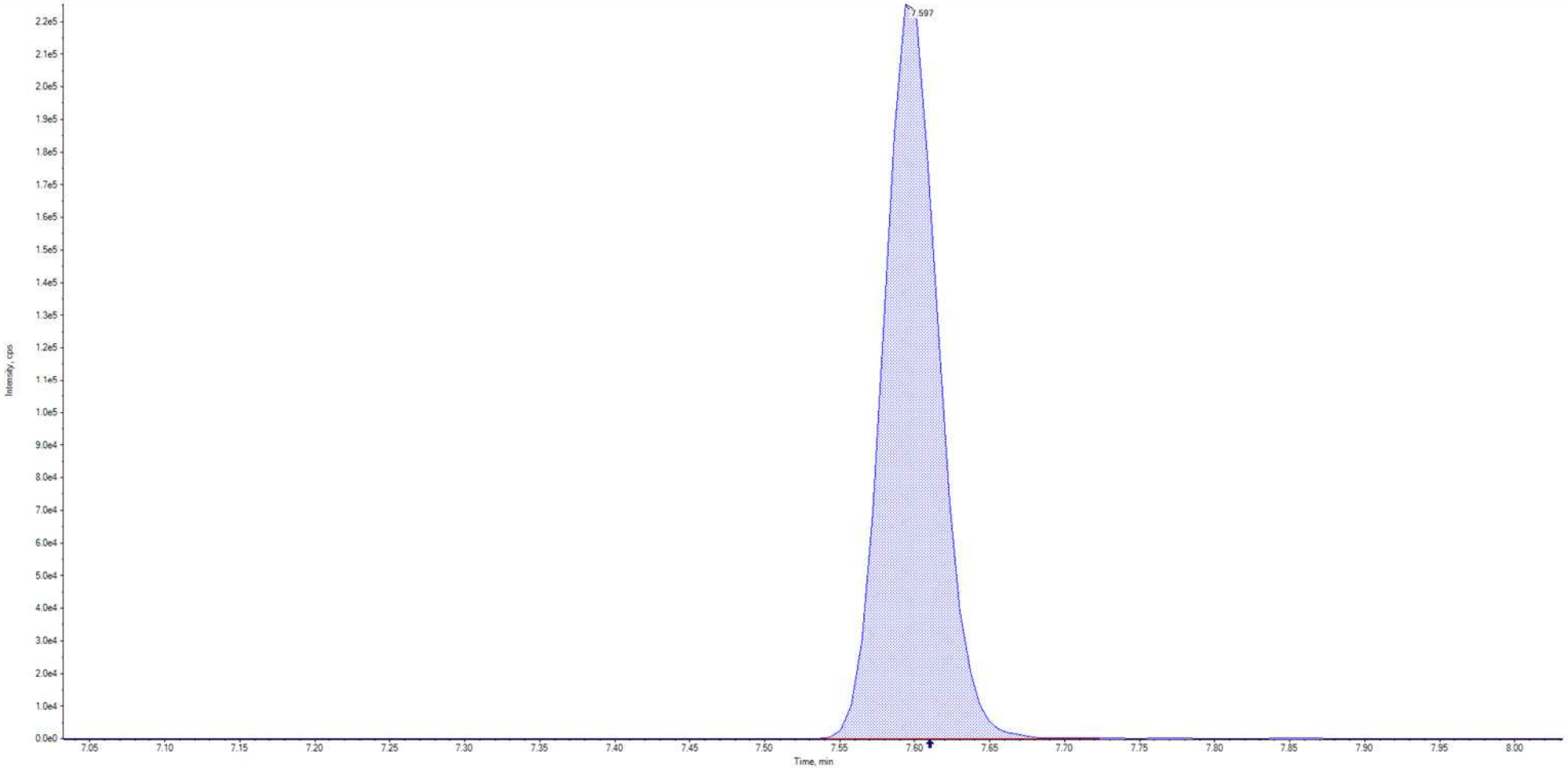
13C5-PFNA
Sample: WG1972760-2



13C2-PFDA
Sample: WG1972760-2

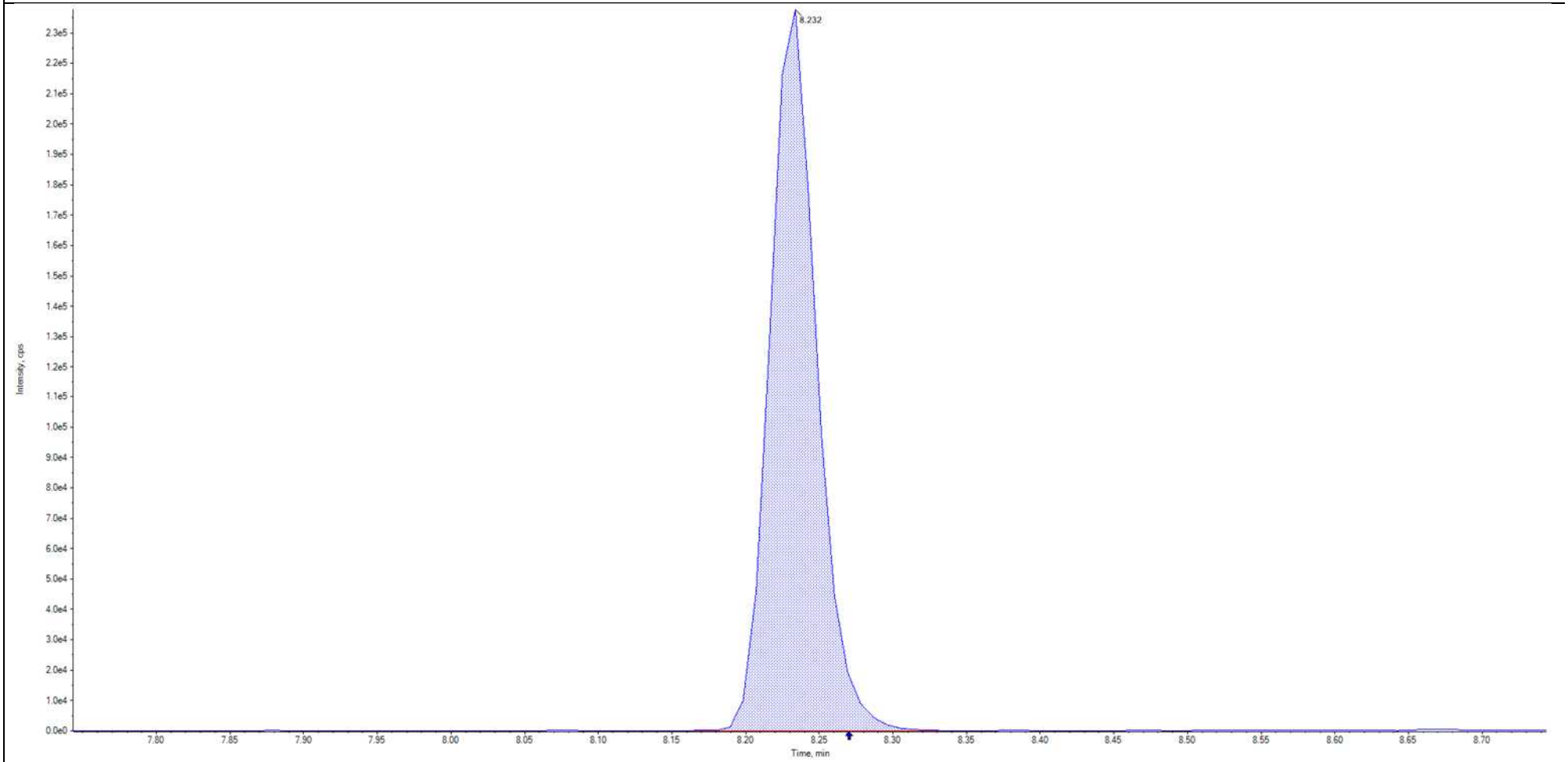


18O2-PFHxS
Sample: WG1972760-2



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13C4-PFOS
Sample: WG1972760-2



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Method: EPA1633_NIS_CALC.qmethod
Calibration: 240813_1633_ICAL

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Description: WG1972930,WG1972760,ICAL21391
Instrument: Triple Quad 5500+
User: LCMS05:AC

LC/MS-MS Method:EPA_1633.dam

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
1	PFBA	375-22-4	2.84	213.0 / 169.0	2240152		12.194	N/A	N/A	N/A	121.9
2	PFPeA	2706-90-3	4.67	263.0 / 219.0	1866633		6.832	0.006	0.007	N/A	136.6
3	PFPeA_2	2706-90-3	4.67	263.0 / 68.9	12113		6.278	0.006	0.007	N/A	125.6
4	PFHxA	307-24-4	5.36	313.0 / 269.0	1290605		3.328	0.071	0.072	Pass	133.1
5	PFHxA_2	307-24-4	5.36	313.0 / 119.0	91771		3.203	0.071	0.072	Pass	128.1
6	PFHpA	375-85-9	6.27	363.1 / 319.0	1238880		3.077	0.310	0.297	Pass	123.1
7	PFHpA_2	375-85-9	6.27	363.1 / 169.0	384231		3.118	0.310	0.297	Pass	124.7

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
8	PFOA	335-67-1	7.49	413.1 / 369.1	761026	M5	2.833	0.566	0.586	Pass	113.3
9	PFOA_2	335-67-1	7.49	413.1 / 169.0	430508	M7	2.925	0.566	0.586	Pass	117.0
10	PFNA	375-95-1	7.93	462.8 / 418.9	1147771	M5	3.220	0.299	0.313	Pass	128.8
11	PFNA_2	375-95-1	7.93	462.8 / 218.9	343453	M7	3.153	0.299	0.313	Pass	126.1
12	PFDA	335-76-2	8.15	513.1 / 469.1	1263457		3.083	0.147	0.142	Pass	123.3
13	PFDA_2	335-76-2	8.15	513.1 / 219.0	186066		3.030	0.147	0.142	Pass	121.2
14	PFUnA	2058-94-8	8.42	563.1 / 519.1	943458		3.161	0.187	0.194	Pass	126.5
15	PFUnA_2	2058-94-8	8.42	563.1 / 269.0	176224		3.048	0.187	0.194	Pass	121.9
16	PFDoA	307-55-1	8.83	613.1 / 569.1	923142		2.327	0.169	0.167	Pass	93.1
17	PFDoA_2	307-55-1	8.83	613.1 / 319.0	156130		2.330	0.169	0.167	Pass	93.2
18	PFTrDA	72629-94-8	9.40	663.1 / 619.1	551408		2.333	0.218	0.228	Pass	93.3
19	PFTrDA_2	72629-94-8	9.40	663.1 / 169.0	119972		2.279	0.218	0.228	Pass	91.1
20	PFTeDA	376-06-7	9.85	713.1 / 669.1	898718		2.949	0.142	0.137	Pass	118.0
21	PFTeDA_2	376-06-7	9.85	713.1 / 169.0	127791		3.066	0.142	0.137	Pass	122.6
22	PFBS	375-73-5	5.33	299.1 / 80.1	716298		2.519	0.402	0.396	Pass	113.6

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
23	PFBS_2	375-73-5	5.33	299.1 / 99.1	287971		2.540	0.402	0.396	Pass	114.5
24	PFPeS	2706-91-4	6.35	349.1 / 80.1	640664		2.845	0.306	0.299	Pass	120.9
25	PFPeS_2	2706-91-4	6.35	349.1 / 99.1	196126		2.888	0.306	0.299	Pass	122.7
26	PFHxS	355-46-4	7.60	399.1 / 80.1	589985	M5	2.800	0.310	0.315	Pass	122.5
27	PFHxS_2	355-46-4	7.60	399.1 / 99.1	182784	M7	2.793	0.310	0.315	Pass	122.2
28	PFHpS	375-92-8	7.99	449.1 / 80.1	629397		2.960	0.311	0.287	Pass	124.2
29	PFHpS_2	375-92-8	7.99	449.1 / 99.1	195490		3.137	0.311	0.287	Pass	131.6
30	PFOS	1763-23-1	8.24	499.1 / 80.1	619380	M5	2.736	0.239	0.238	Pass	117.9
31	PFOS_2	1763-23-1	8.24	499.1 / 99.1	147732		2.663	0.239	0.238	Pass	114.8
32	PFNS	68259-12-1	8.57	549.1 / 80.1	433702		2.984	0.301	0.301	Pass	124.1
33	PFNS_2	68259-12-1	8.57	549.1 / 99.1	130635		2.967	0.301	0.301	Pass	123.4
34	PFDS	335-77-3	9.05	599.1 / 80.1	381908		2.667	0.279	0.275	Pass	110.5
35	PFDS_2	335-77-3	9.05	599.1 / 99.1	106427		2.696	0.279	0.275	Pass	111.7
36	PFDoS	79780-39-5	9.95	699.2 / 80.1	338780		2.583	0.275	0.274	Pass	106.5
37	PFDoS_2	79780-39-5	9.95	699.2 / 99.1	93306		2.589	0.275	0.274	Pass	106.8

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
38	4:2FTS	757124-72-4	5.16	327.1 / 307.1	962031		9.648	0.573	0.516	Pass	102.9
39	4:2FTS_2	757124-72-4	5.16	327.1 / 81.1	551516		10.339	0.573	0.516	Pass	110.3
40	6:2FTS	27619-97-2	7.10	427.2 / 407.2	667687		12.076	0.556	0.565	Pass	127.1
41	6:2FTS_2	27619-97-2	7.10	427.2 / 81.1	371475		12.422	0.556	0.565	Pass	130.8
42	8:2FTS	39108-34-4	8.05	527.2 / 507.2	829644		12.900	0.679	0.662	Pass	134.4
43	8:2FTS_2	39108-34-4	8.05	527.2 / 81.1	563434		12.916	0.679	0.662	Pass	134.6
44	PFOSA	754-91-6	9.51	498.1 / 78.1	616589	M5	2.966	0.026	0.025	Pass	118.7
45	PFOSA_2	754-91-6	9.51	498.1 / 478.0	16207	M7	2.972	0.026	0.025	Pass	118.9
46	NMeFOSA	31506-32-8	10.15	512.2 / 219.0	141224	M5	2.827	1.516	1.551	Pass	113.1
47	NMeFOSA_2	31506-32-8	10.11	512.2 / 169.0	214152	M7	2.766	1.516	1.551	Pass	110.7
48	NEtFOSA	4151-50-2	10.35	526.2 / 219.0	136687	M5	3.115	1.272	1.285	Pass	124.6
49	NEtFOSA_2	4151-50-2	10.32	526.2 / 169.0	173883	M7	2.960	1.272	1.285	Pass	118.4
50	NMeFOSAA	2355-31-9	8.20	570.2 / 419.1	124747	M4	3.113	0.845	0.700	Pass	124.5
51	NMeFOSAA_2	2355-31-9	8.20	570.2 / 483.0	105439		4.138	0.845	0.700	Pass	165.5
52	NEtFOSAA	2991-50-6	8.33	584.2 / 419.1	154906	M4	3.075	0.488	0.487	Pass	123.0

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
53	NEtFOSAA_2	2991-50-6	8.33	584.2 / 526.2	75551		3.259	0.488	0.487	Pass	130.4
54	NMeFOSE	24448-09-7	10.06	616.1 / 58.9	3020407	M5	28.052	N/A	N/A	N/A	112.2
55	NEtFOSE	1691-99-2	10.26	630.0 / 58.9	5529594	M5	29.685	N/A	N/A	N/A	118.7
56	HFPO-DA	13252-13-6	5.62	285.0 / 169.0	2772678		12.566	0.473	0.464	Pass	125.7
57	HFPO-DA_2	13252-13-6	5.62	285.0 / 184.9	1310517		12.772	0.473	0.464	Pass	127.7
58	ADONA	919005-14-4	6.73	377.1 / 251.0	5688607		11.336	0.663	0.634	Pass	120.0
59	ADONA_2	919005-14-4	6.73	377.1 / 84.8	3773788		11.623	0.663	0.634	Pass	123.0
60	9Cl-PF3ONS	756426-58-1	8.45	530.8 / 351.1	5923919		11.972	0.309	0.322	Pass	128.1
61	9Cl-PF3ONS_2	756426-58-1	8.45	532.8 / 353.0	1833192		11.377	0.309	0.322	Pass	121.7
62	11Cl-PF3OUdS	763051-92-9	9.47	630.9 / 451.0	3219798		10.302	0.334	0.331	Pass	109.0
63	11Cl-PF3OUdS_2	763051-92-9	9.47	632.9 / 452.9	1074242		10.213	0.334	0.331	Pass	108.1
64	3:3FTCA	356-02-5	4.95	241.1 / 177.1	399516		16.857	0.722	1.074	Pass	134.9
65	3:3FTCA_2	356-02-5	4.95	241.1 / 117.0	288501		12.154	0.722	1.074	Pass	97.2
66	5:3FTCA	914637-49-3	7.19	341.1 / 237.1	5755384		81.812	0.965	0.953	Pass	130.9
67	5:3FTCA_2	914637-49-3	7.19	341.1 / 217.0	5556471		83.472	0.965	0.953	Pass	133.6

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
68	7:3FTCA	812-70-4	8.19	441.1 / 316.9	3909017		49.913	1.872	1.558	Pass	79.9
69	7:3FTCA_2	812-70-4	8.19	441.1 / 337.1	7317232		64.385	1.872	1.558	Pass	103.0
70	PFEESA	113507-82-7	5.73	315.1 / 135.0	3951113		5.873	0.087	0.087	Pass	132.0
71	PFEESA_2	113507-82-7	5.73	315.1 / 82.9	343866		5.916	0.087	0.087	Pass	133.0
72	PFMPA	377-73-1	3.89	229.0 / 85.0	223534		6.759	N/A	N/A	N/A	135.2
73	PFMBA	863090-89-5	4.90	279.0 / 85.0	2505567		5.619	N/A	N/A	N/A	112.4
74	NFDHA	151772-58-6	5.27	295.0 / 201.0	426184		6.017	1.035	0.910	Pass	120.3
75	NFDHA_2	151772-58-6	5.27	295.0 / 84.9	441266		6.796	1.035	0.910	Pass	135.9
76	TDCA	516-50-7	N/A	499.1 / 124.1	N/A		N/A	N/A	40.716	N/A	N/A
77	TDCA_2	516-50-7	N/A	499.1 / 79.9	N/A		N/A	N/A	40.716	N/A	N/A
78	13C2D4-4:2FTS	Surr	N/A	333.2 / 312.1	N/A		N/A	N/A	N/A	N/A	N/A
79	13C2-PFOA	Surr	N/A	415.0 / 370.0	N/A		N/A	N/A	N/A	N/A	N/A

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C4-PFBA	EIS	2.83	217.0 / 172.0	2265269		8.957	NA	NA	NA	89.6

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C5-PFPeA	EIS	4.66	268.0 / 223.0	1481753		4.935	NA	NA	NA	98.7
	13C5-PFHxA	EIS	5.35	318.0 / 273.0	795674		2.017	NA	NA	NA	80.7
	13C4-PFHpA	EIS	6.26	367.0 / 322.0	859568		2.177	NA	NA	NA	87.1
	13C8-PFOA	EIS	7.48	421.0 / 376.0	1290620		2.256	NA	NA	NA	90.3
	13C9-PFNA	EIS	7.92	472.0 / 427.0	608716		1.027	NA	NA	NA	82.1
	13C6-PFDA	EIS	8.14	519.0 / 474.0	594391		1.078	NA	NA	NA	86.2
	13C7-PFUnA	EIS	8.42	570.0 / 525.0	472111		1.058	NA	NA	NA	84.6

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C2-PFDoA	EIS	8.82	615.1 / 570.0	381356		1.314	NA	NA	NA	105.1
	13C2-PFTeDA	EIS	9.85	715.1 / 670.1	303994		0.965	NA	NA	NA	77.2
	13C3-PFBS	EIS	5.33	302.1 / 80.1	677684		2.061	NA	NA	NA	88.4
	13C3-PFHxS	EIS	7.59	402.1 / 80.1	527933		2.021	NA	NA	NA	85.3
	13C8-PFOS	EIS	8.23	507.1 / 80.1	551213		1.934	NA	NA	NA	80.8
	13C2-4:2FTS	EIS	5.15	329.1 / 81.1	238633		4.066	NA	NA	NA	86.7
	13C2-6:2FTS	EIS	7.10	429.2 / 81.1	160260		3.726	NA	NA	NA	78.4
	13C2-8:2FTS	EIS	8.05	529.2 / 81.1	243554		3.869	NA	NA	NA	80.6

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C8-PFOSA	EIS	9.51	506.1 / 78.1	777508		2.052	NA	NA	NA	82.1
	d3-NMeFOSA	EIS	10.14	515.2 / 219.0	116640		1.829	NA	NA	NA	73.2
	d5-NEtFOSA	EIS	10.35	531.2 / 219.0	99892		1.603	NA	NA	NA	64.1
	d3-NMeFOSAA	EIS	8.19	573.2 / 419.1	304496		2.112	NA	NA	NA	42.2
	d5-NEtFOSAA	EIS	8.32	589.3 / 419.1	270210		3.566	NA	NA	NA	71.3
	d7-NMeFOSE	EIS	10.05	623.2 / 58.9	1091151		22.156	NA	NA	NA	88.6
	d9-NEtFOSE	EIS	10.24	639.2 / 58.9	1586812		21.854	NA	NA	NA	87.4

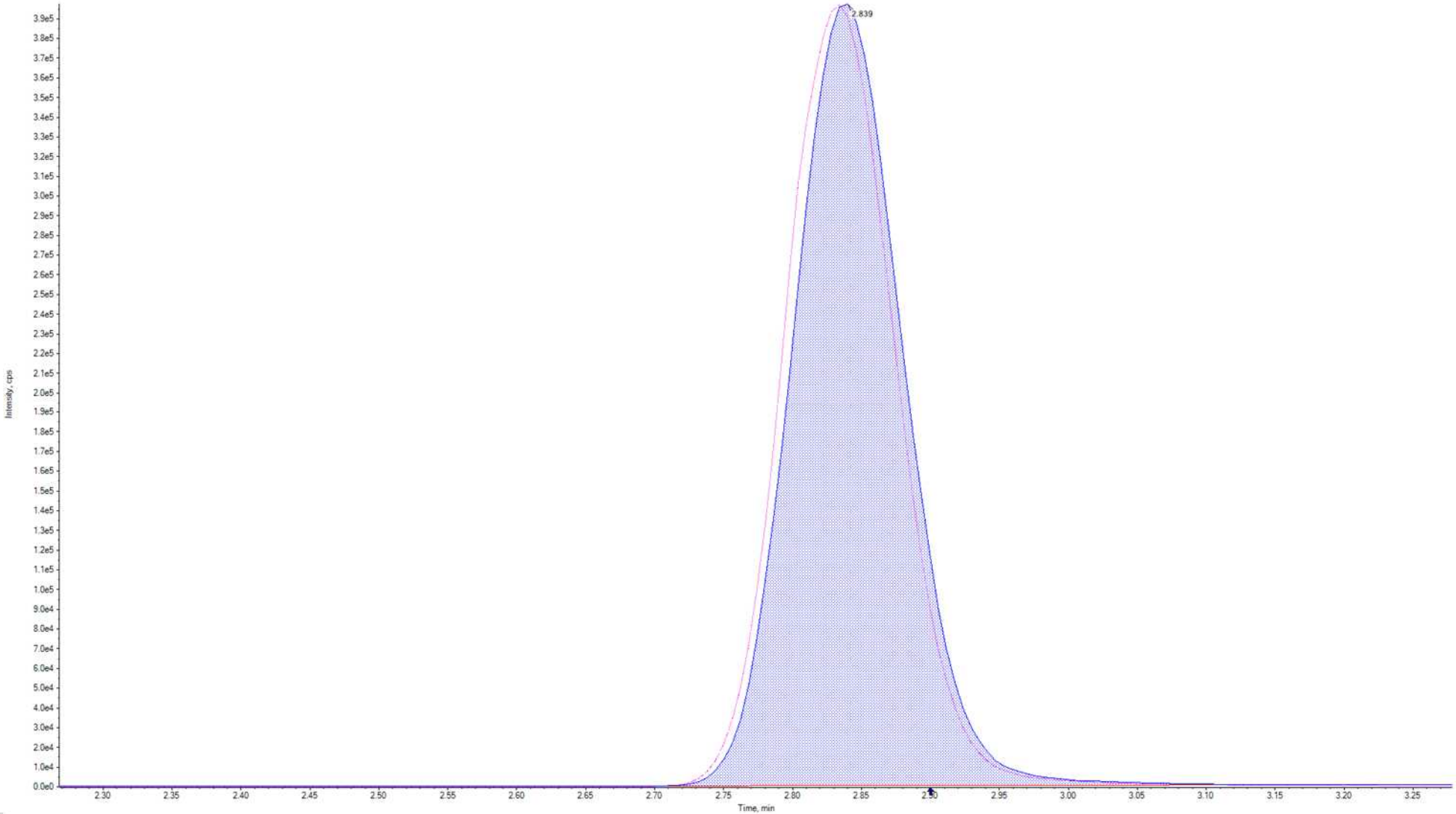
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	13C3-HFPO-DA	EIS	5.62	287.0 / 169.0	2407024		9.209	NA	NA	NA	92.1
	13C3-PFBA	NIS	2.83	216.0 / 172.0	1106366		5.174	NA	NA	NA	103.5
	13C2-PFHxA	NIS	5.35	315.0 / 270.0	1170998		2.392	NA	NA	NA	95.7
	13C4-PFOA	NIS	7.48	417.0 / 372.0	748318		2.390	NA	NA	NA	95.6
	13C5-PFNA	NIS	7.92	468.0 / 423.0	722425		1.319	NA	NA	NA	105.5
	13C2-PFDA	NIS	8.14	515.1 / 470.1	647984		1.265	NA	NA	NA	101.2
	18O2-PFHxS	NIS	7.59	403.1 / 84.1	530892		2.266	NA	NA	NA	95.6
	13C4-PFOS	NIS	8.23	503.1 / 80.1	504059		2.394	NA	NA	NA	100.0

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	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec

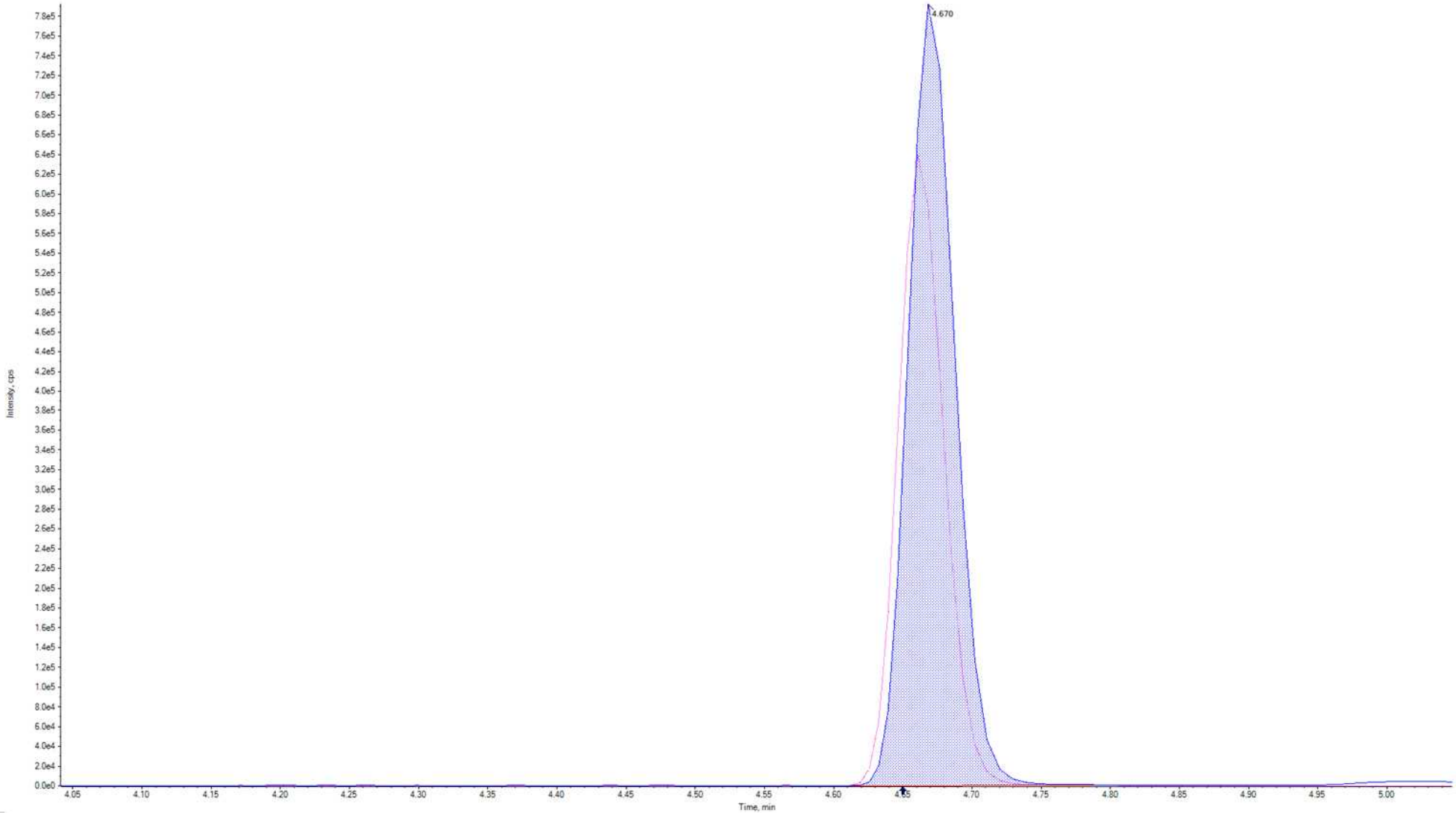
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PFBA
Sample: WG1972760-3 S/N:3095.3 Points Across peak:76



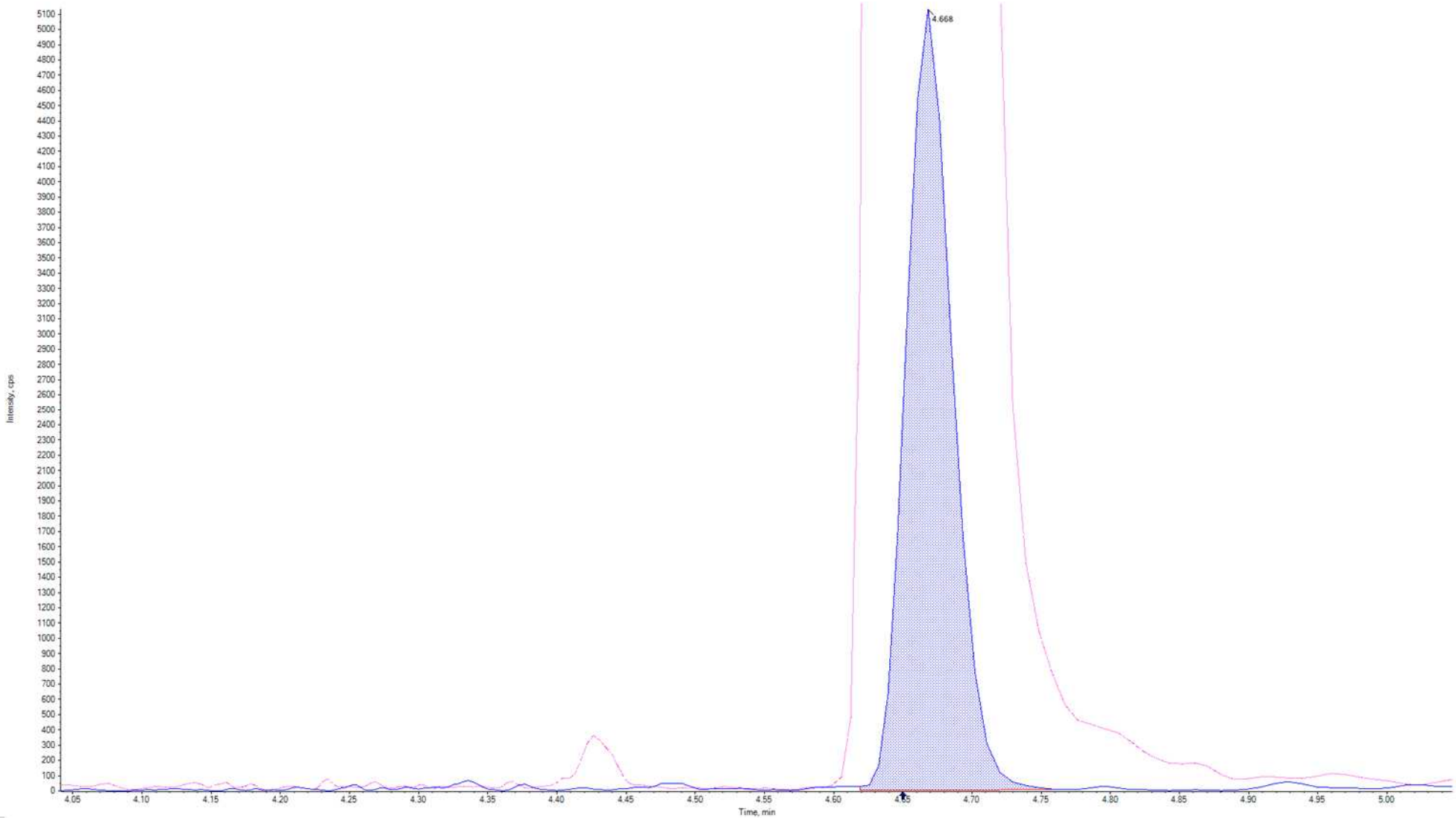
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PFPeA
Sample: WG1972760-3 S/N:3127.6 Points Across peak:32



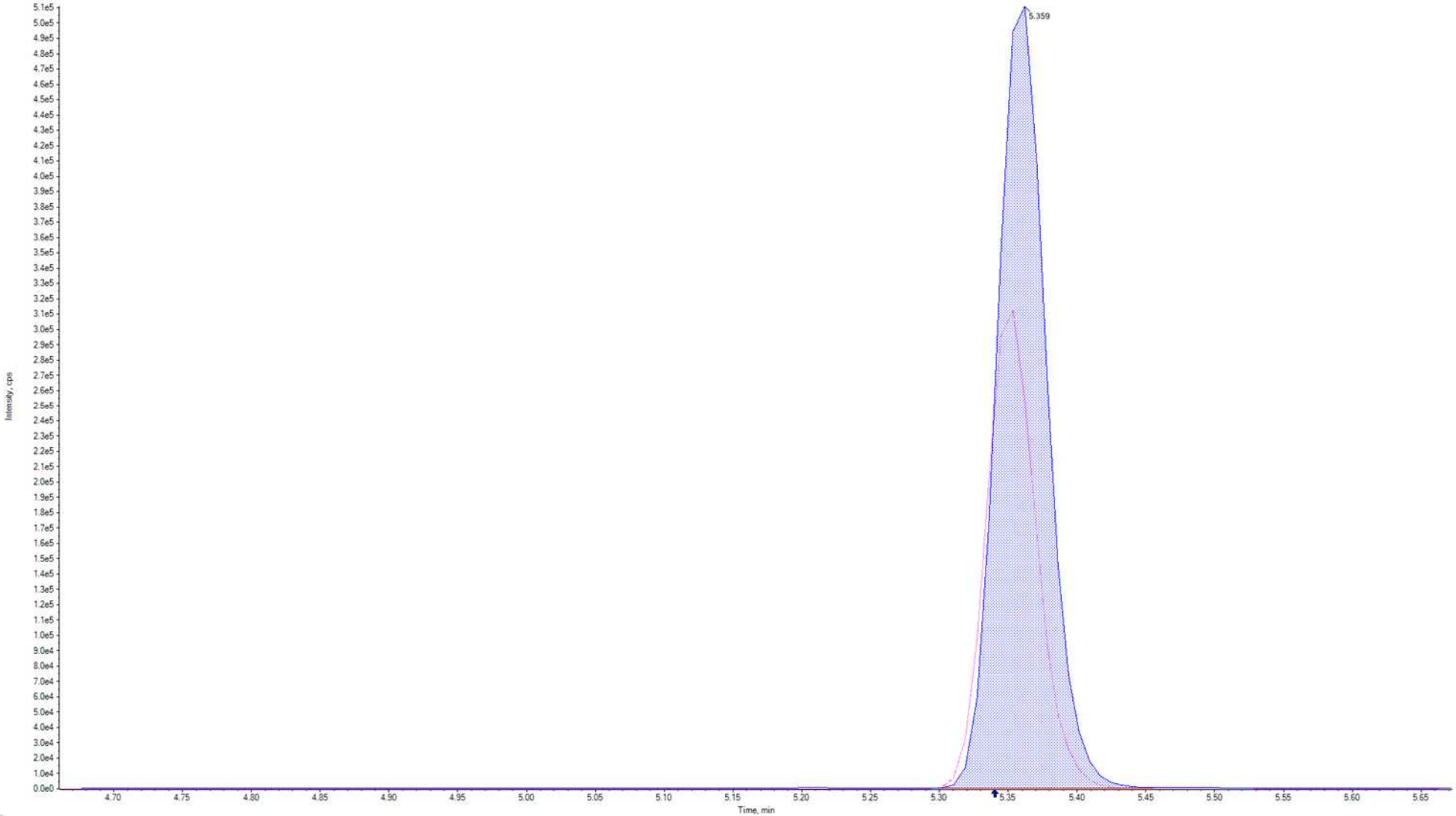
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PFPeA_2
Sample: WG1972760-3 S/N:4956.9 Points Across peak:20



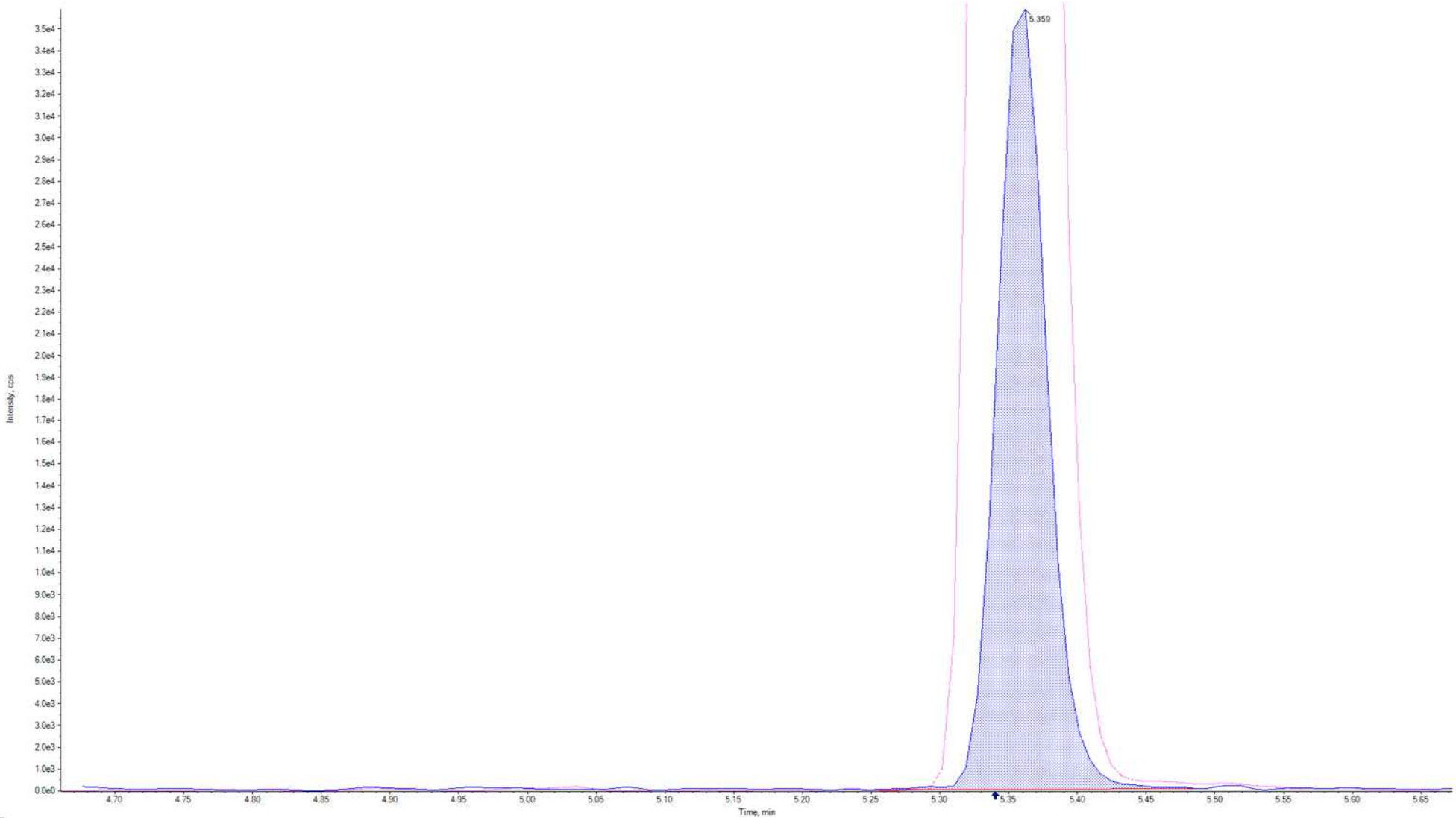
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PFHxA
Sample: WG1972760-3 S/N:1297.2 Points Across peak:26



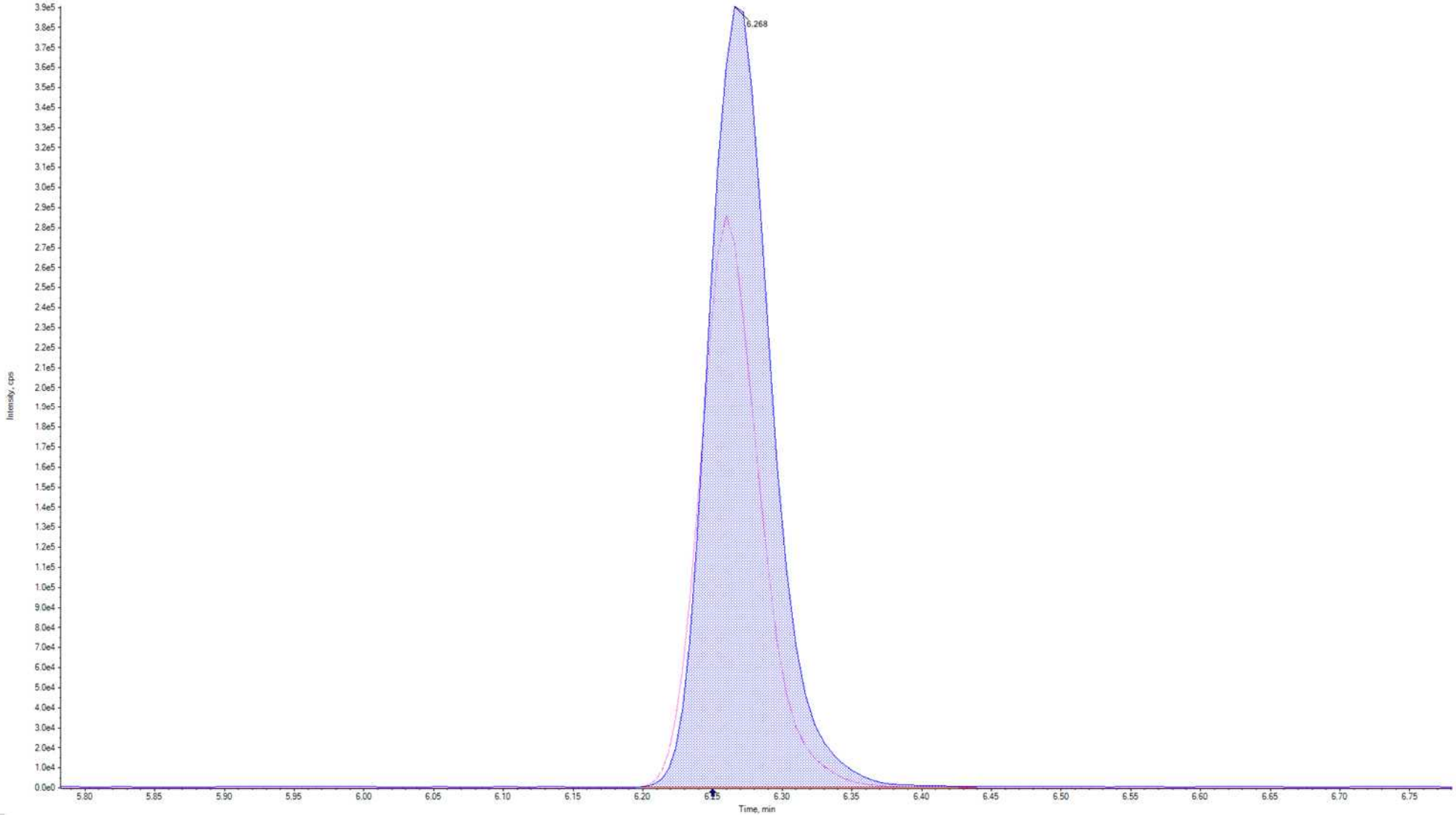
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PFHxA_2
Sample: WG1972760-3 S/N:1313.8 Points Across peak:31



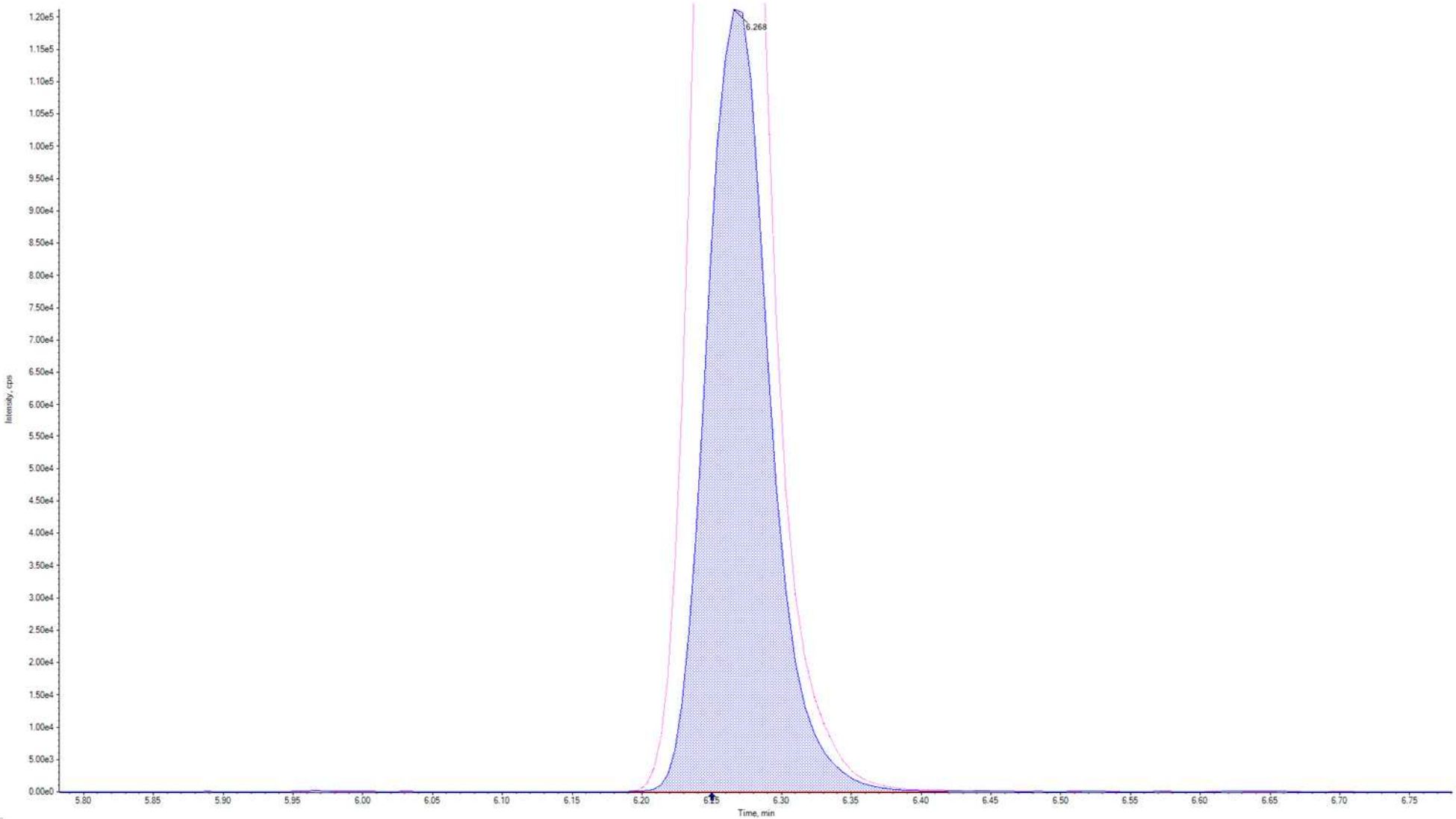
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFHpA
Sample: WG1972760-3 S/N:1972.2 Points Across peak:43



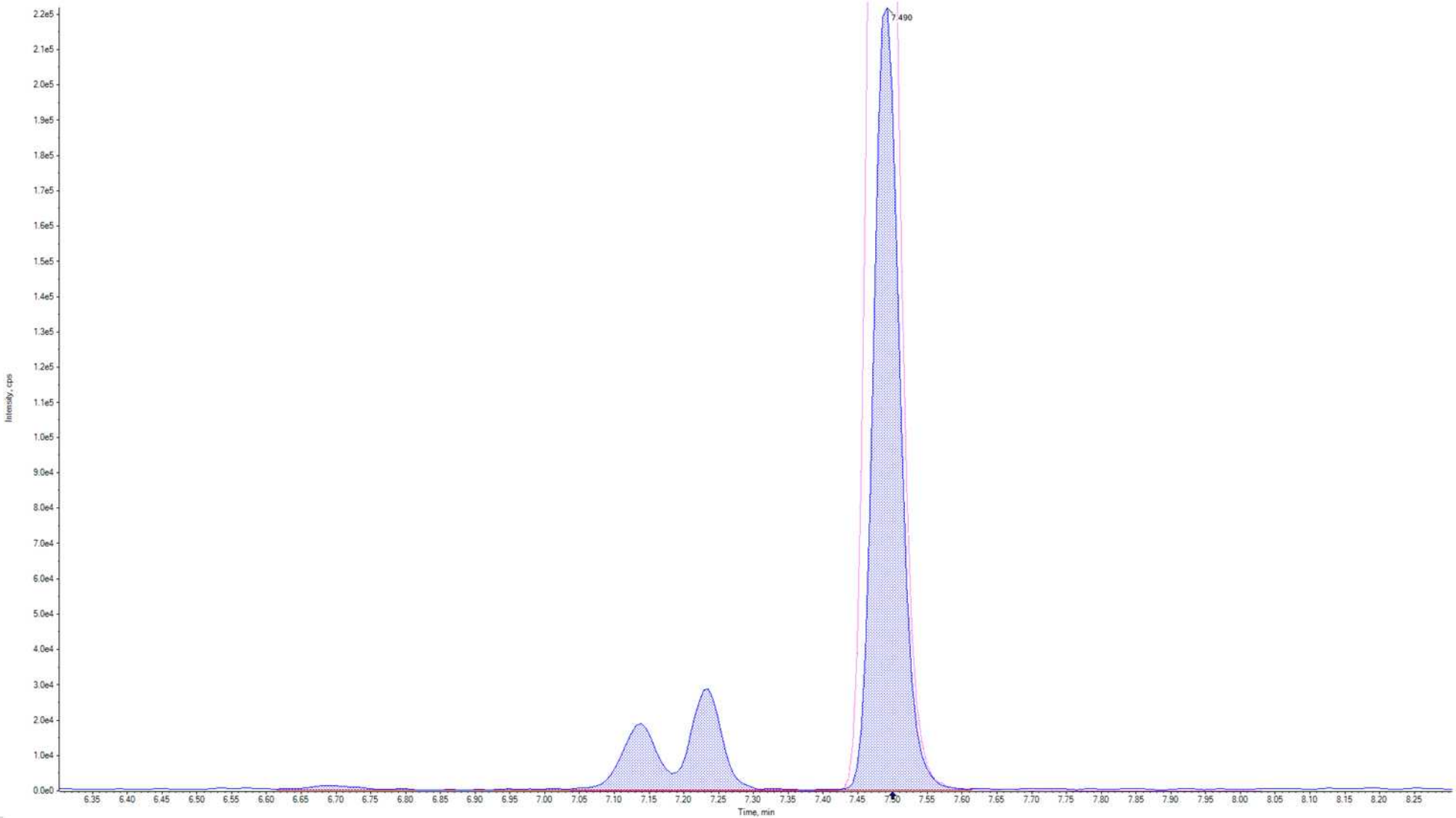
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Last Altered: 9/18/2024 12:41:54 PM
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PFHpA_2
Sample: WG1972760-3 S/N:7867.9 Points Across peak:41



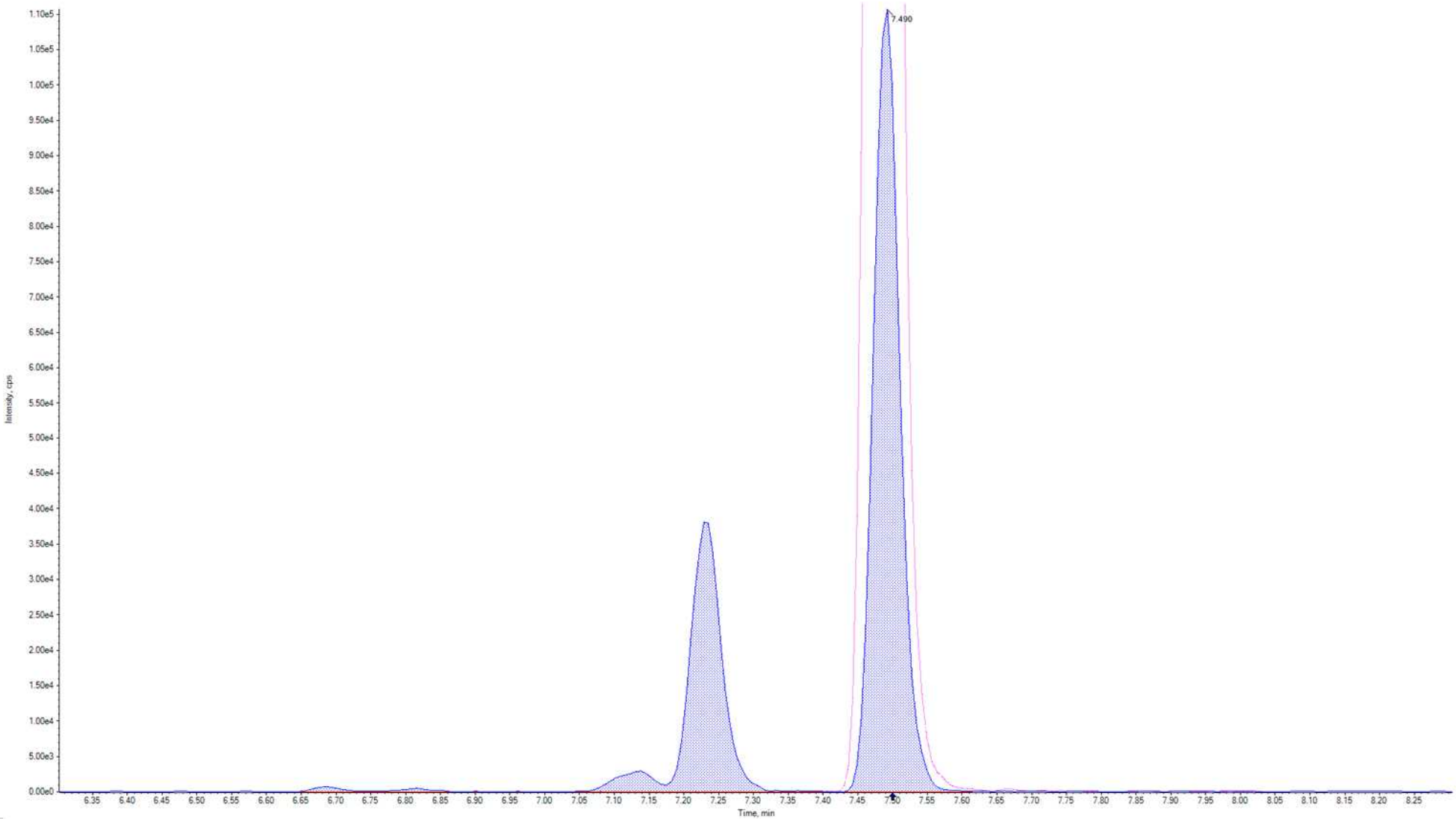
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PFOA
Sample: WG1972760-3 S/N:1763.0 Points Across peak:152



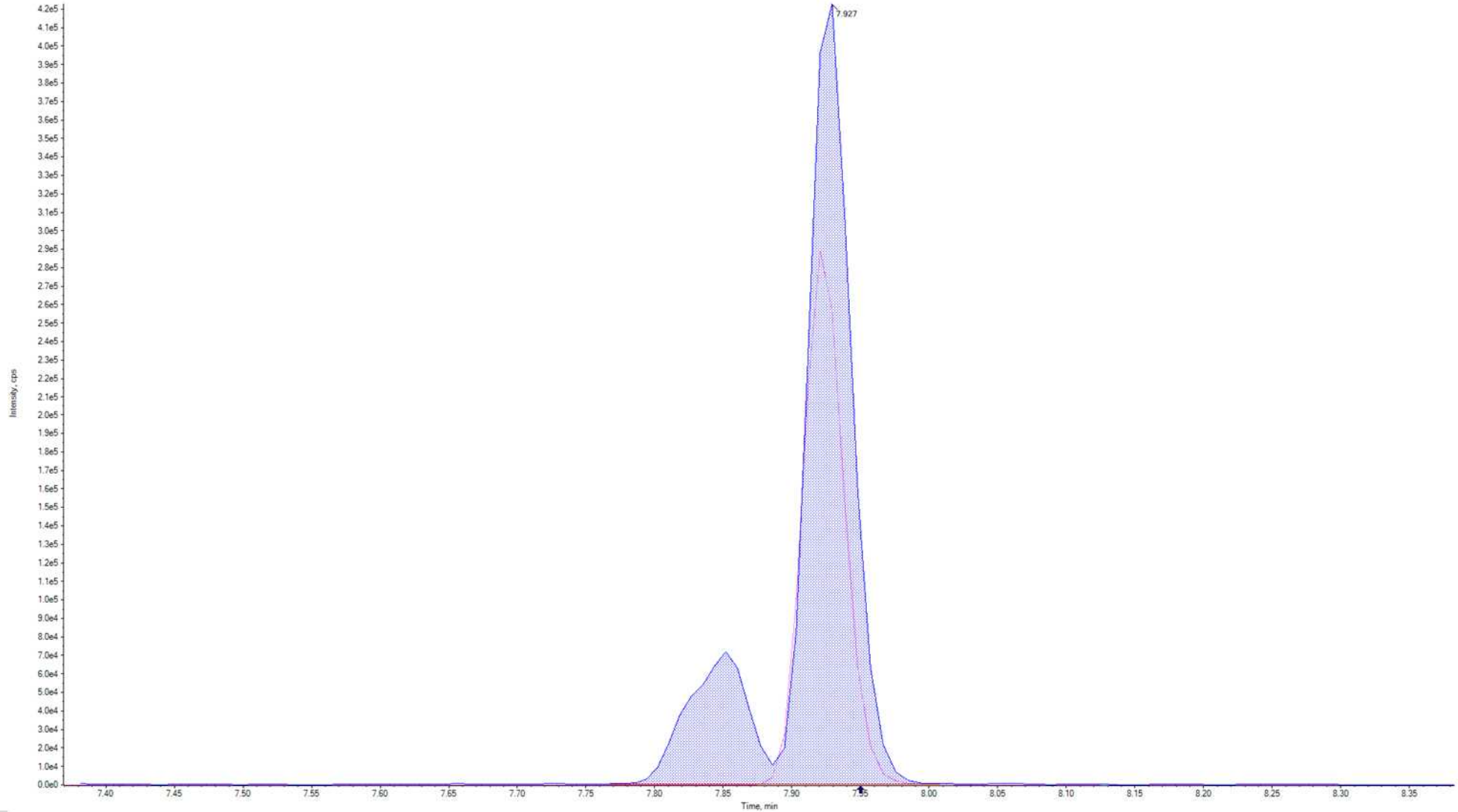
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PFOA_2
Sample: WG1972760-3 S/N:788237.1 Points Across peak:150



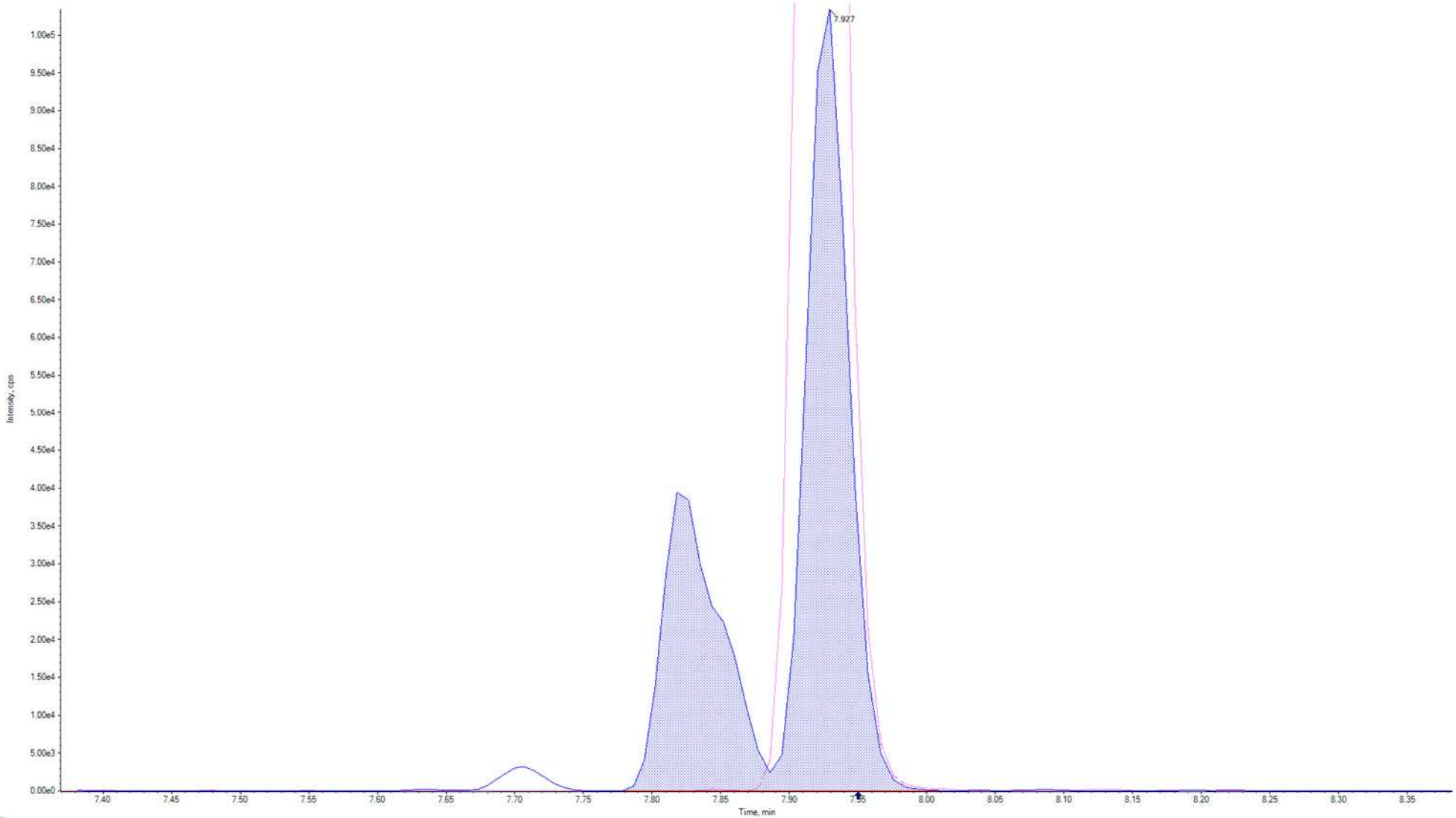
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFNA
Sample: WG1972760-3 S/N:2058.0 Points Across peak:33



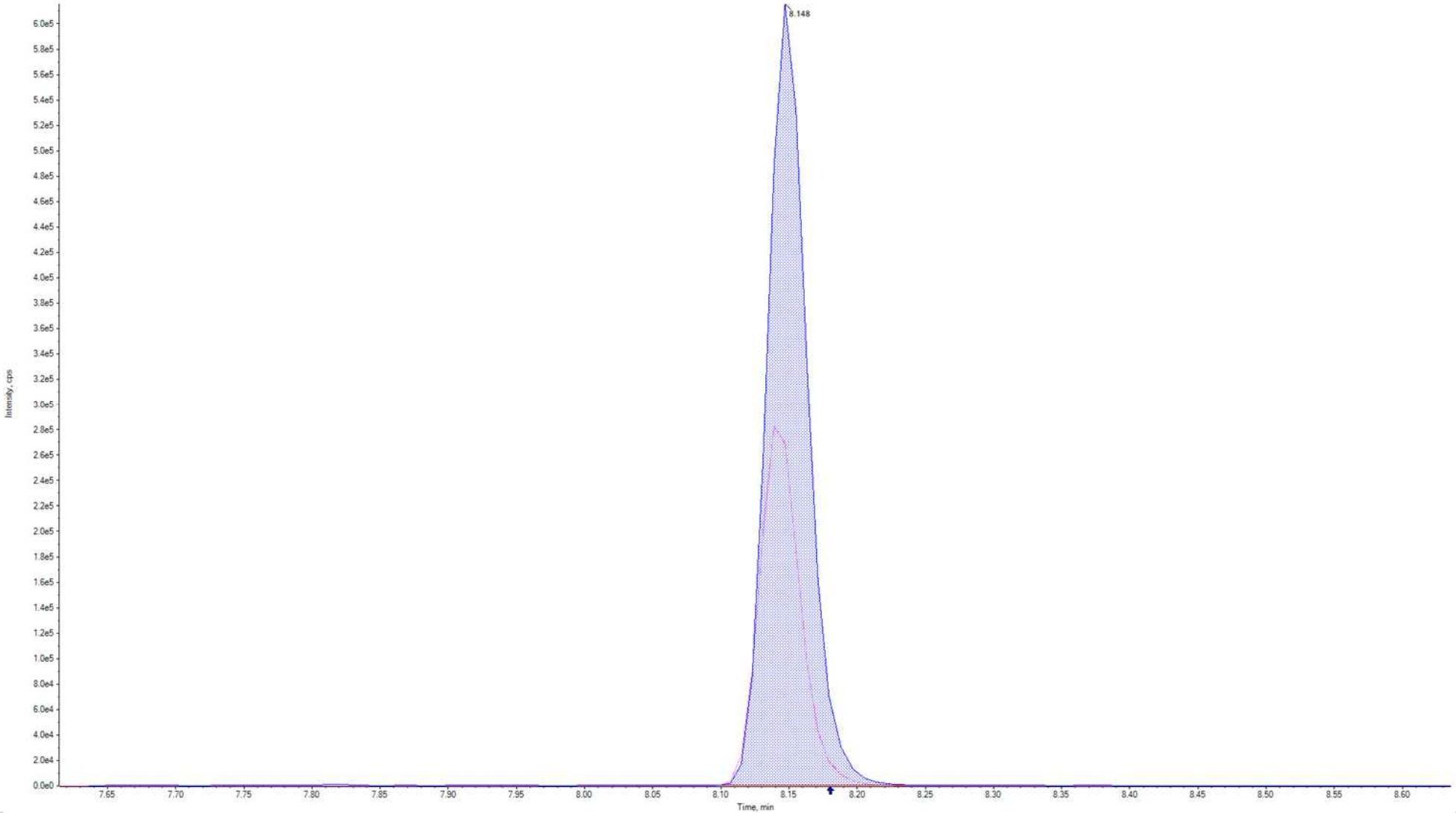
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFNA_2
Sample: WG1972760-3 S/N:994.5 Points Across peak:30



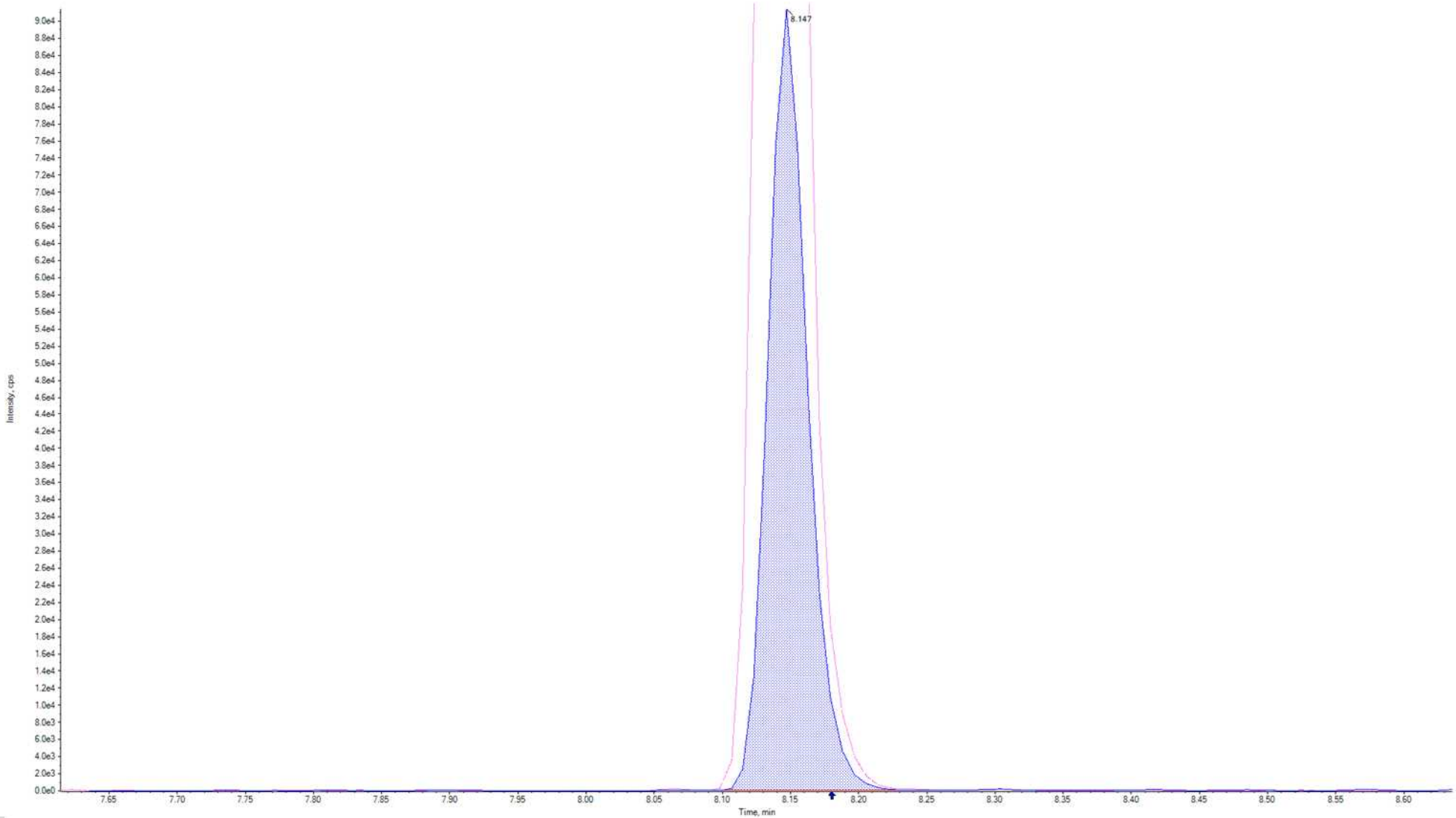
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PFDA
Sample: WG1972760-3 S/N:3589.4 Points Across peak:18



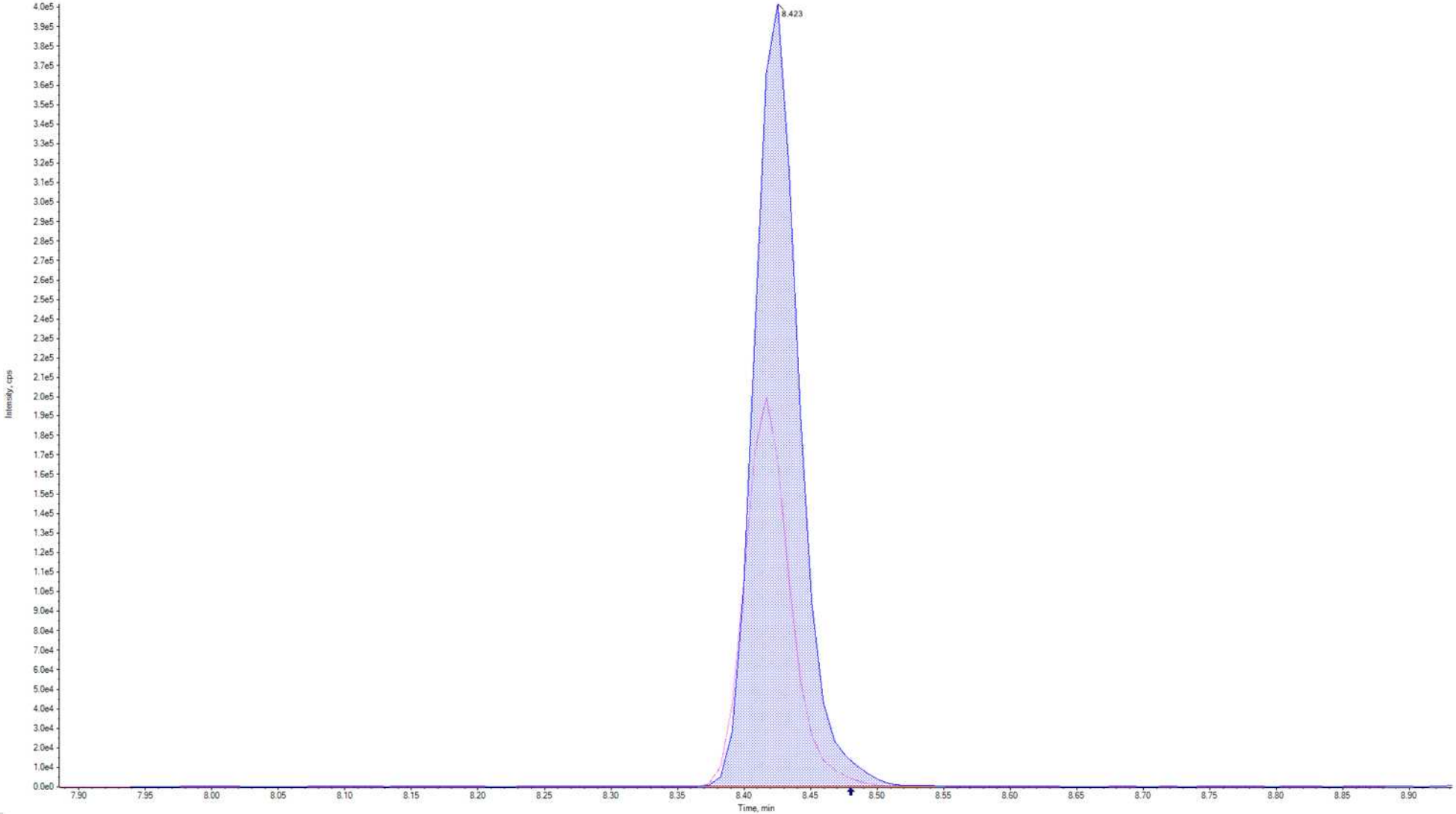
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Last Altered: 9/18/2024 12:41:54 PM
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PFDA_2
Sample: WG1972760-3 S/N:1120.8 Points Across peak:20



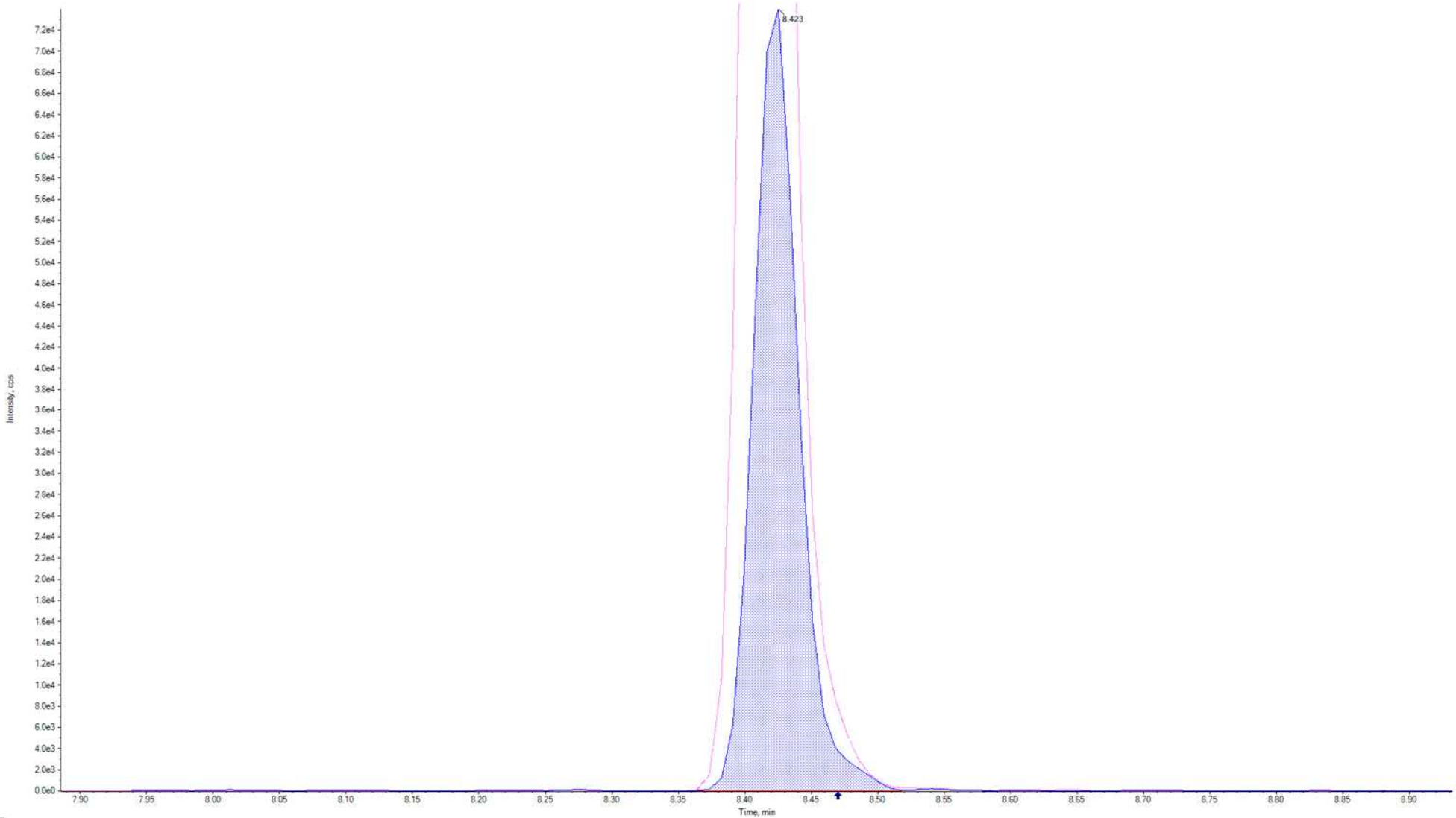
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFUnA
Sample: WG1972760-3 S/N:2758.7 Points Across peak:26



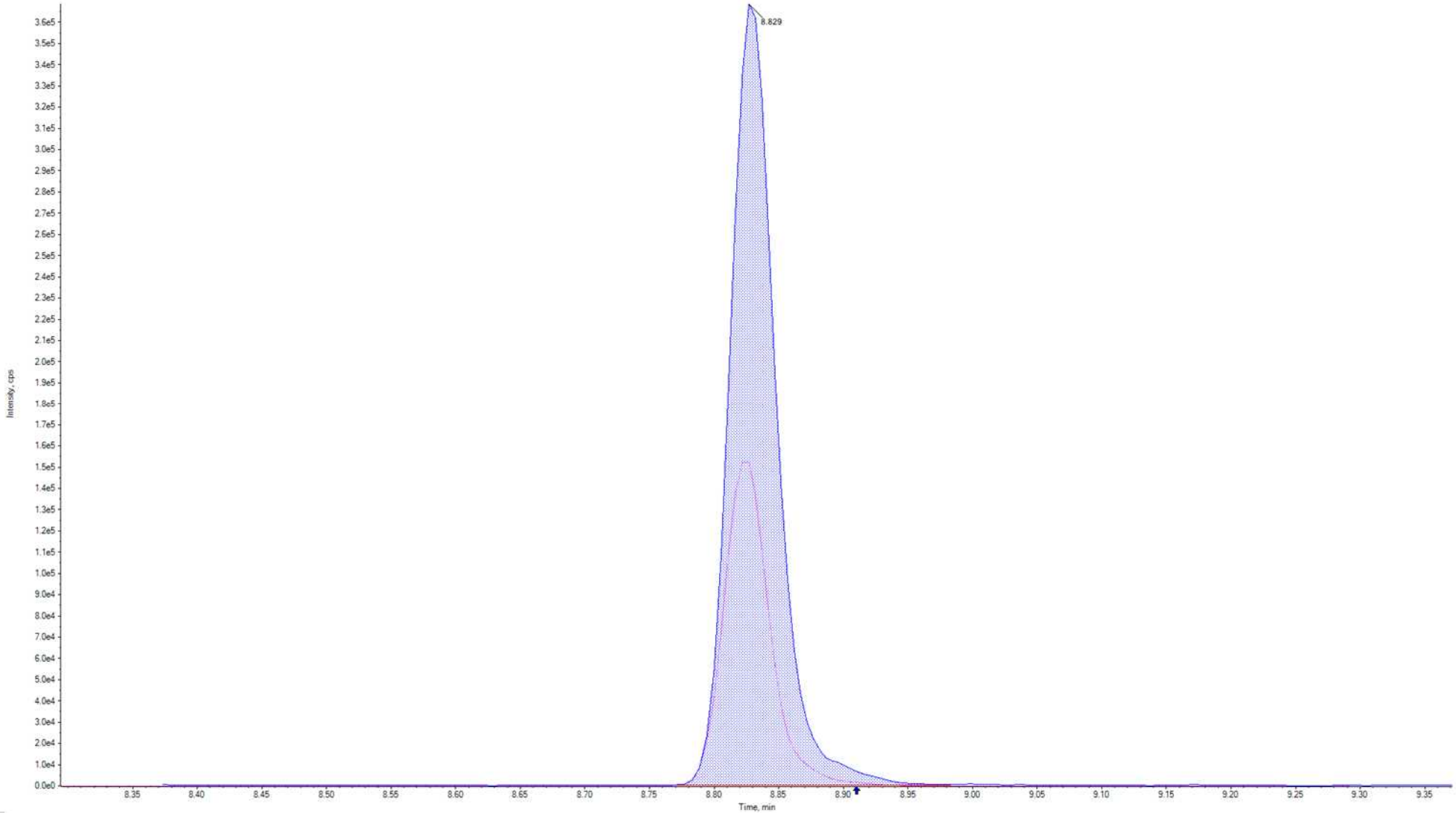
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Last Altered: 9/18/2024 12:41:54 PM
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PFUnA_2
Sample: WG1972760-3 S/N:1637.0 Points Across peak:21



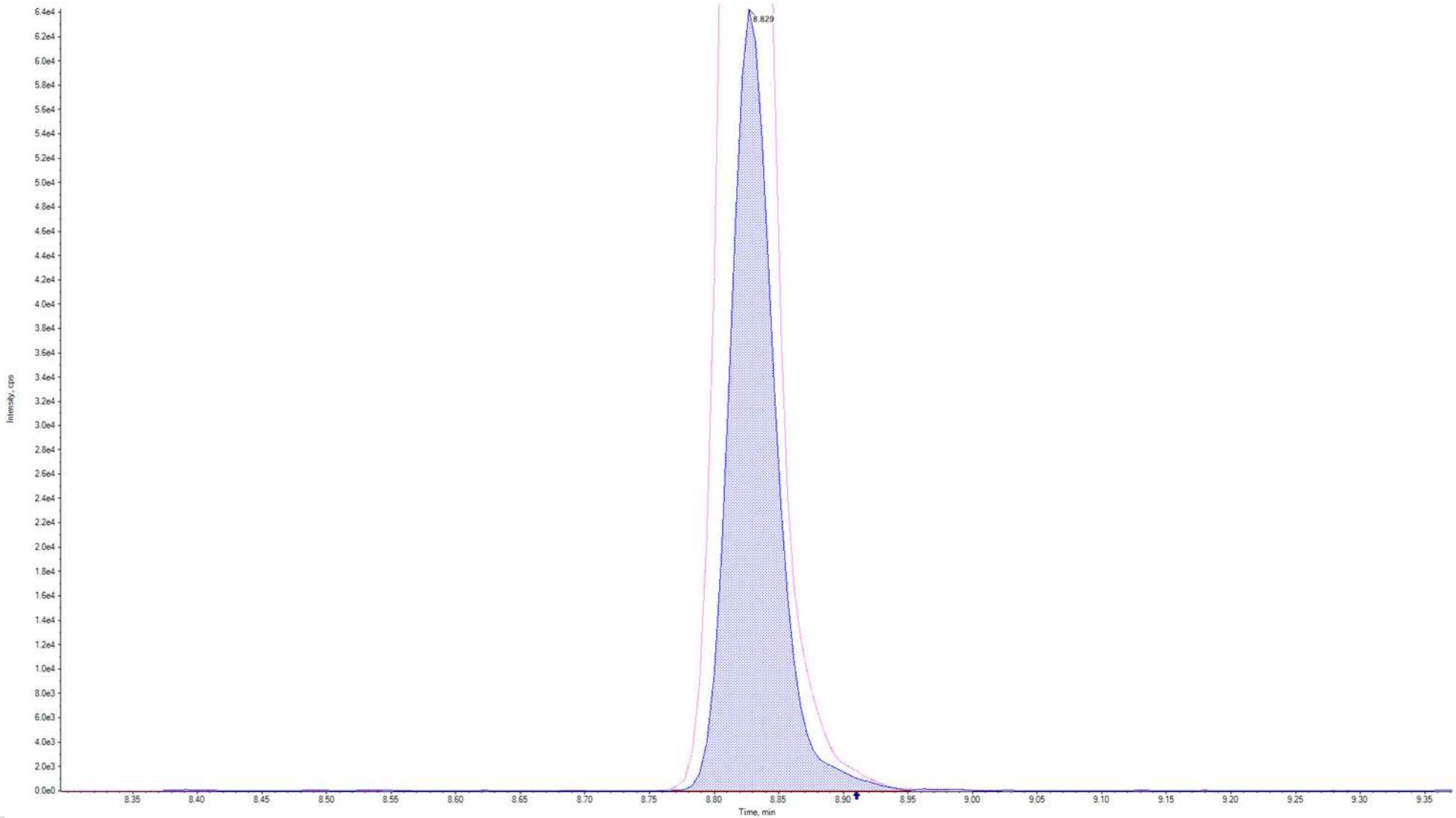
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDoA
Sample: WG1972760-3 S/N:4020.6 Points Across peak:46



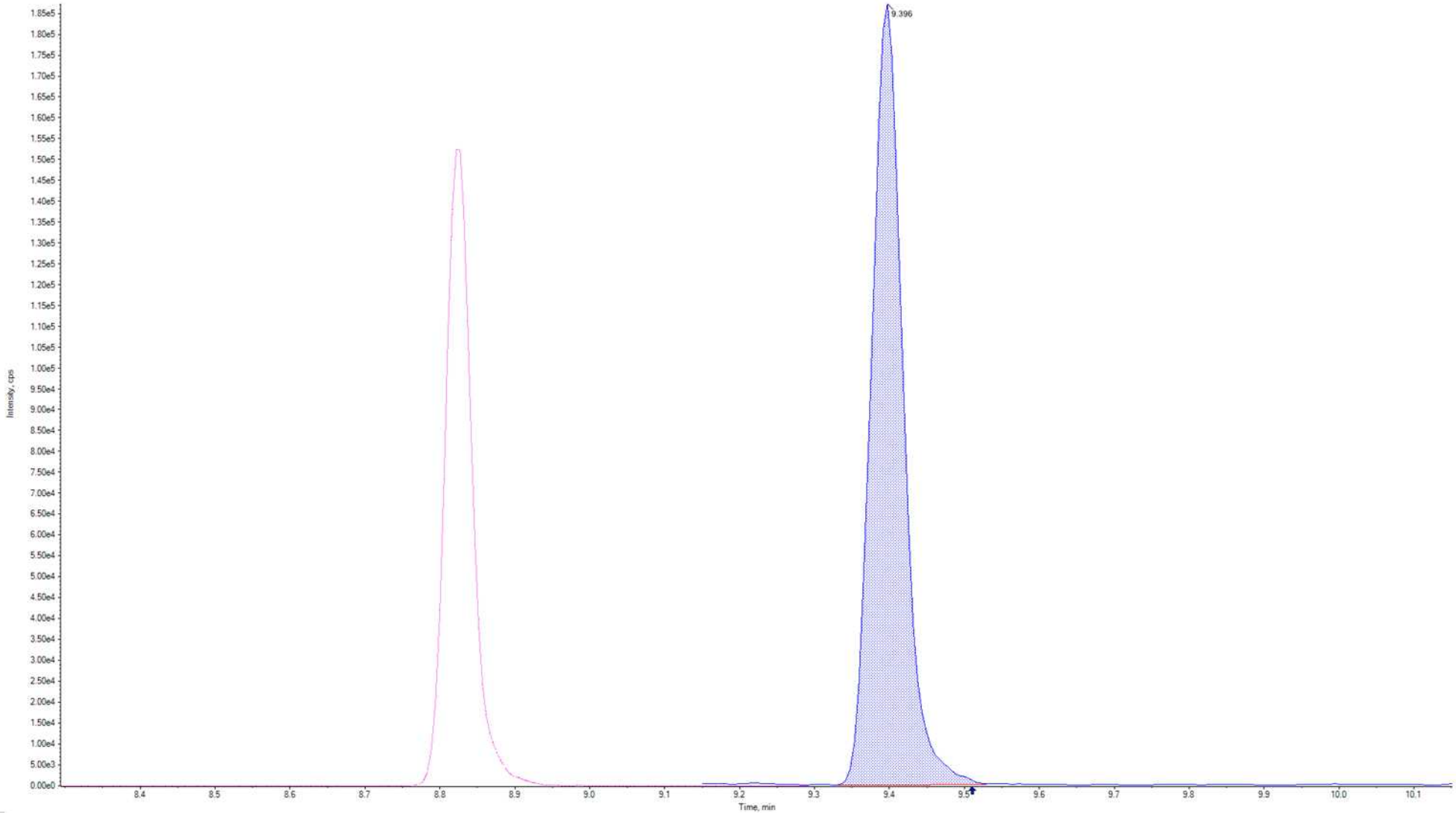
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDoA_2
Sample: WG1972760-3 S/N:27865631.4 Points Across peak:38



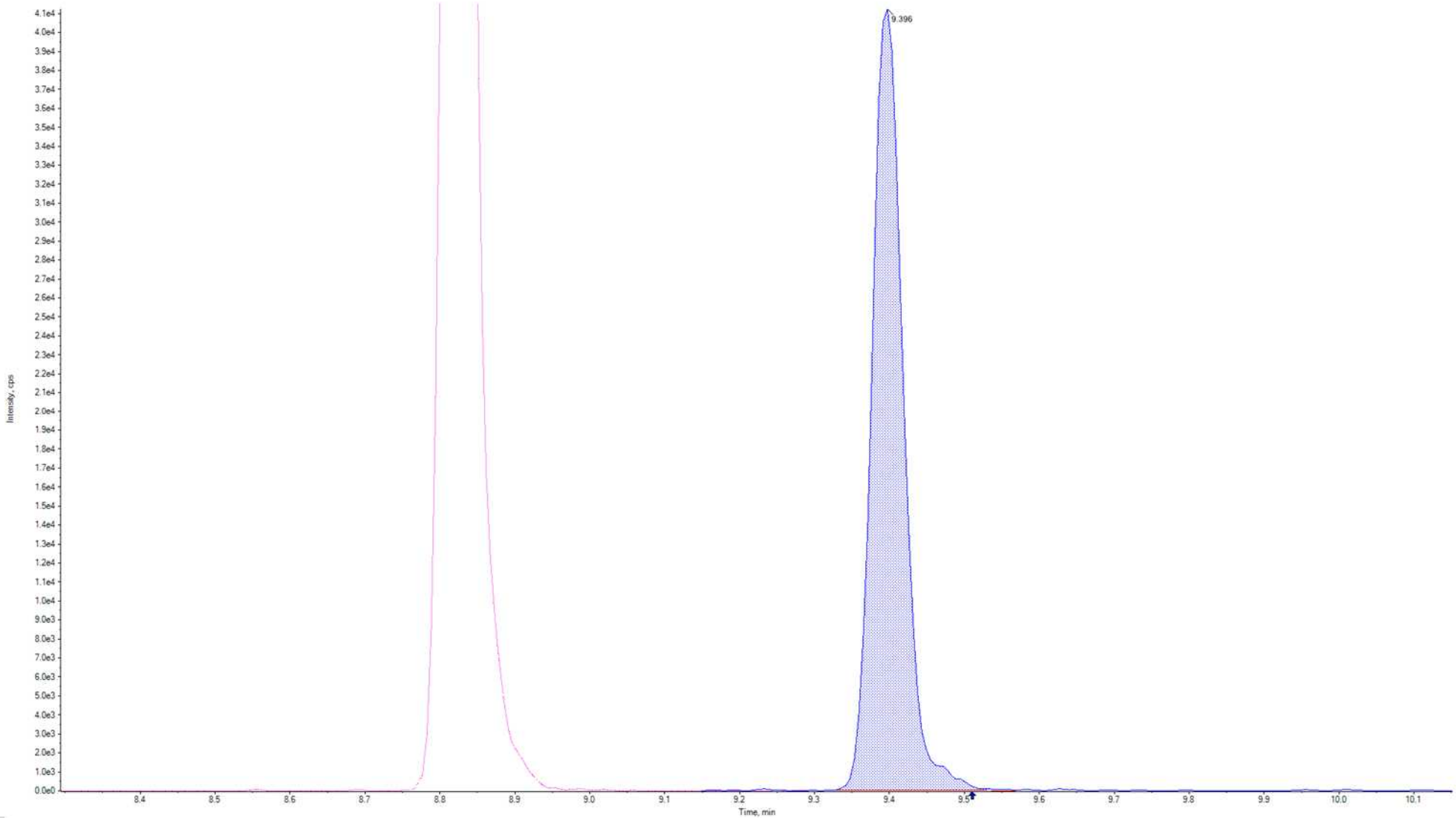
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Last Altered: 9/18/2024 12:41:54 PM
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PFTrDA
Sample: WG1972760-3 S/N:1825.9 Points Across peak:37



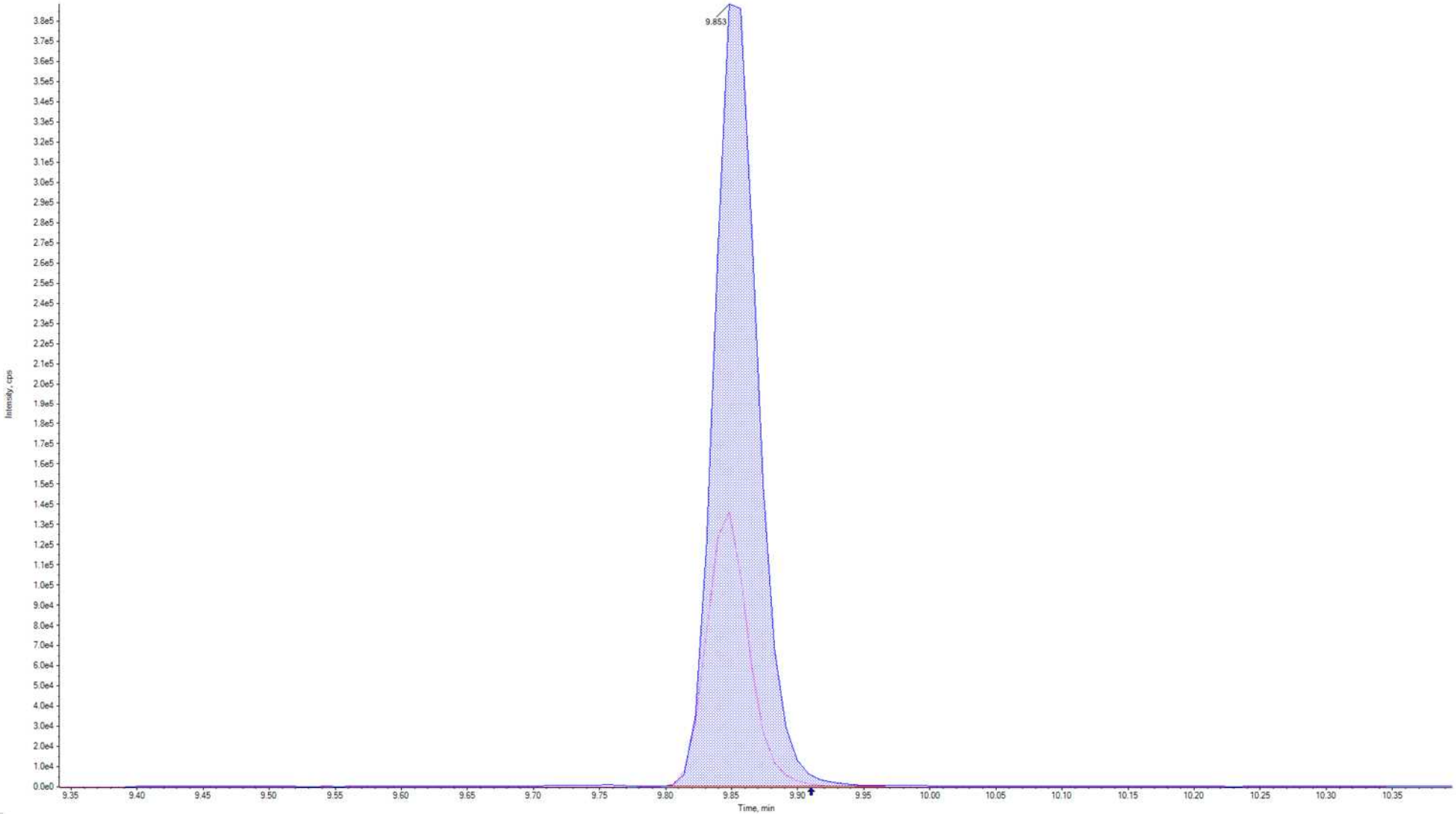
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PFTrDA_2
Sample: WG1972760-3 S/N:123797.3 Points Across peak:43



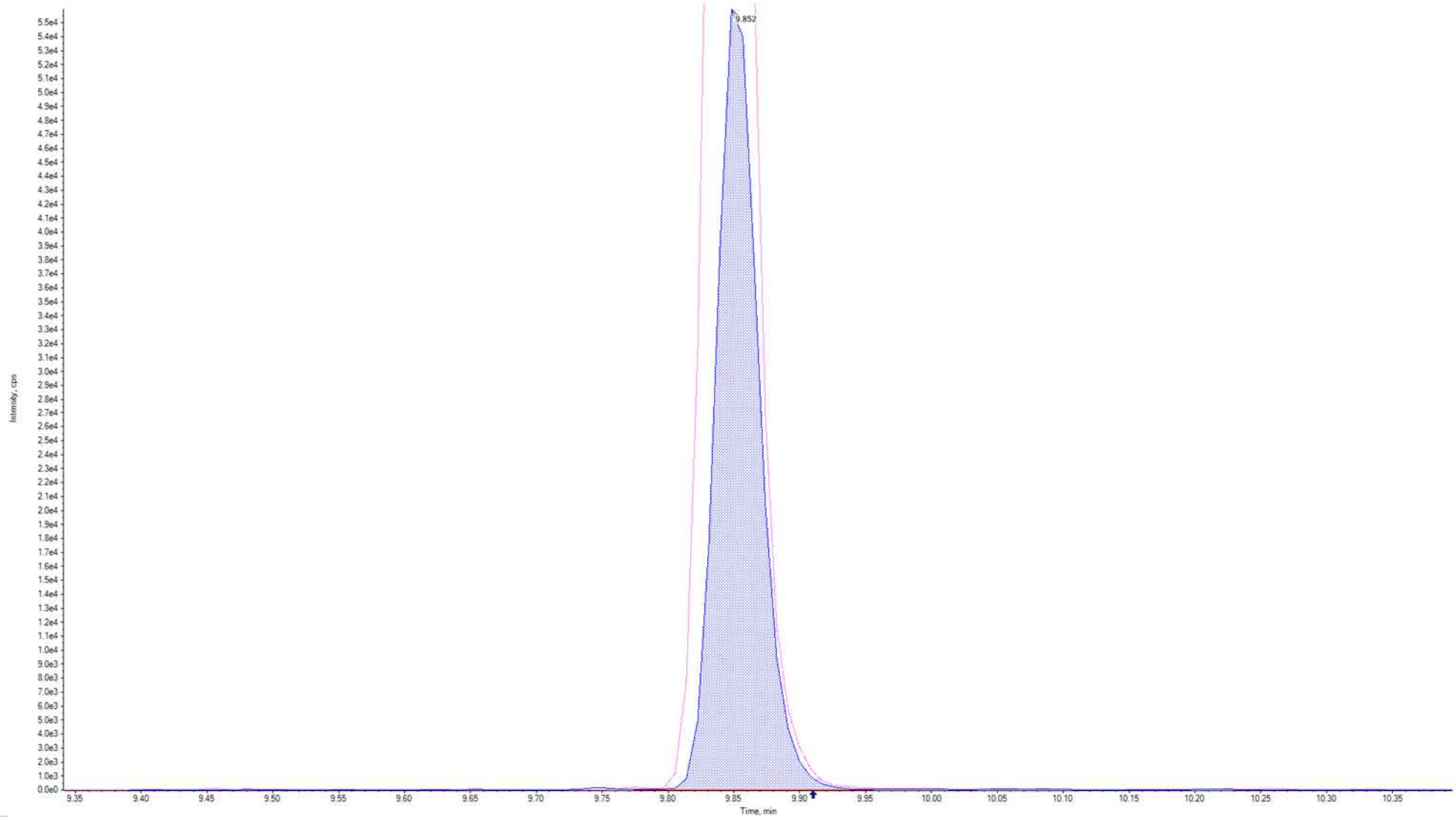
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PFTeDA
Sample: WG1972760-3 S/N:1652.8 Points Across peak:20



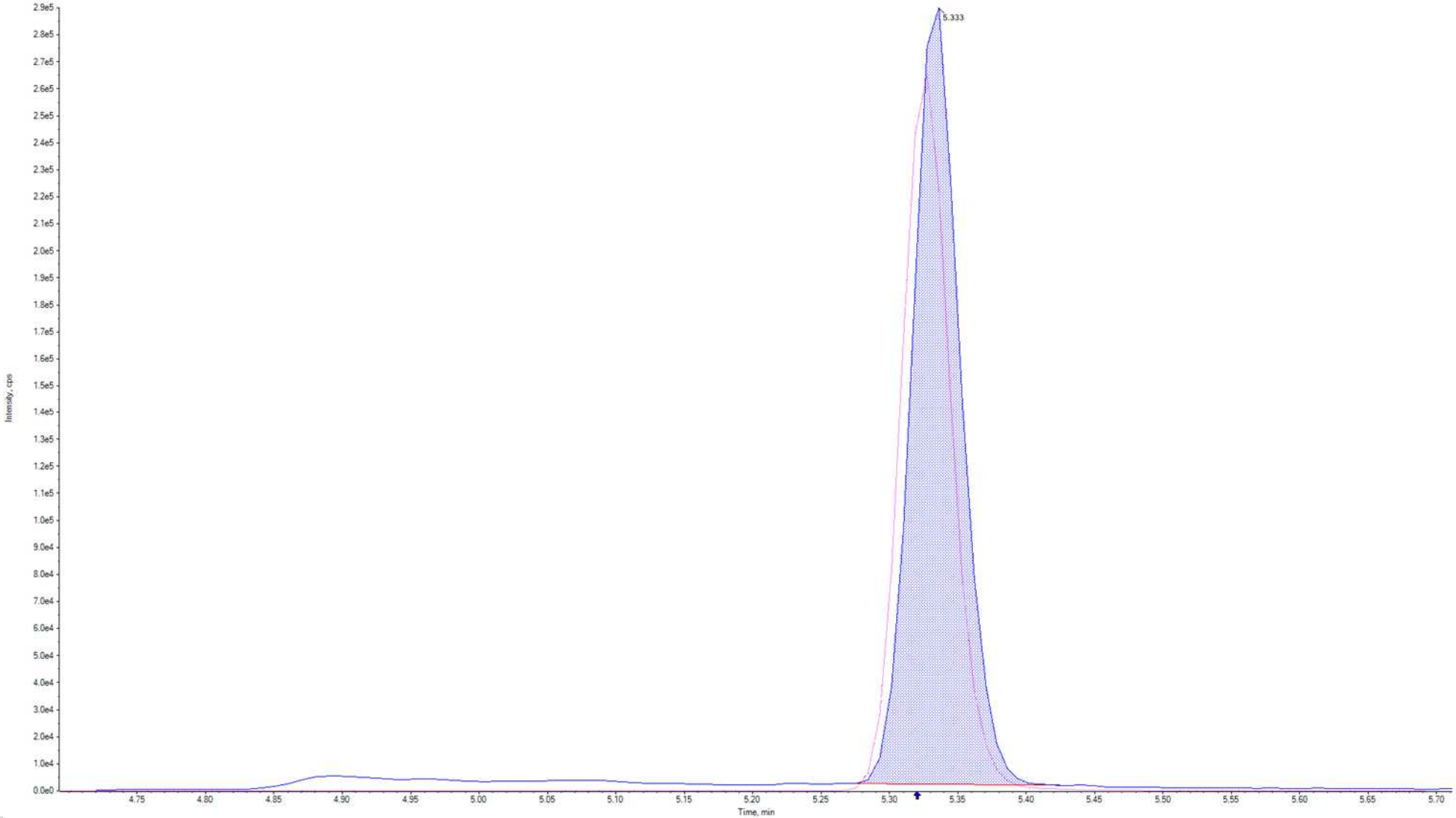
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFTeDA_2
Sample: WG1972760-3 S/N:1607.8 Points Across peak:22



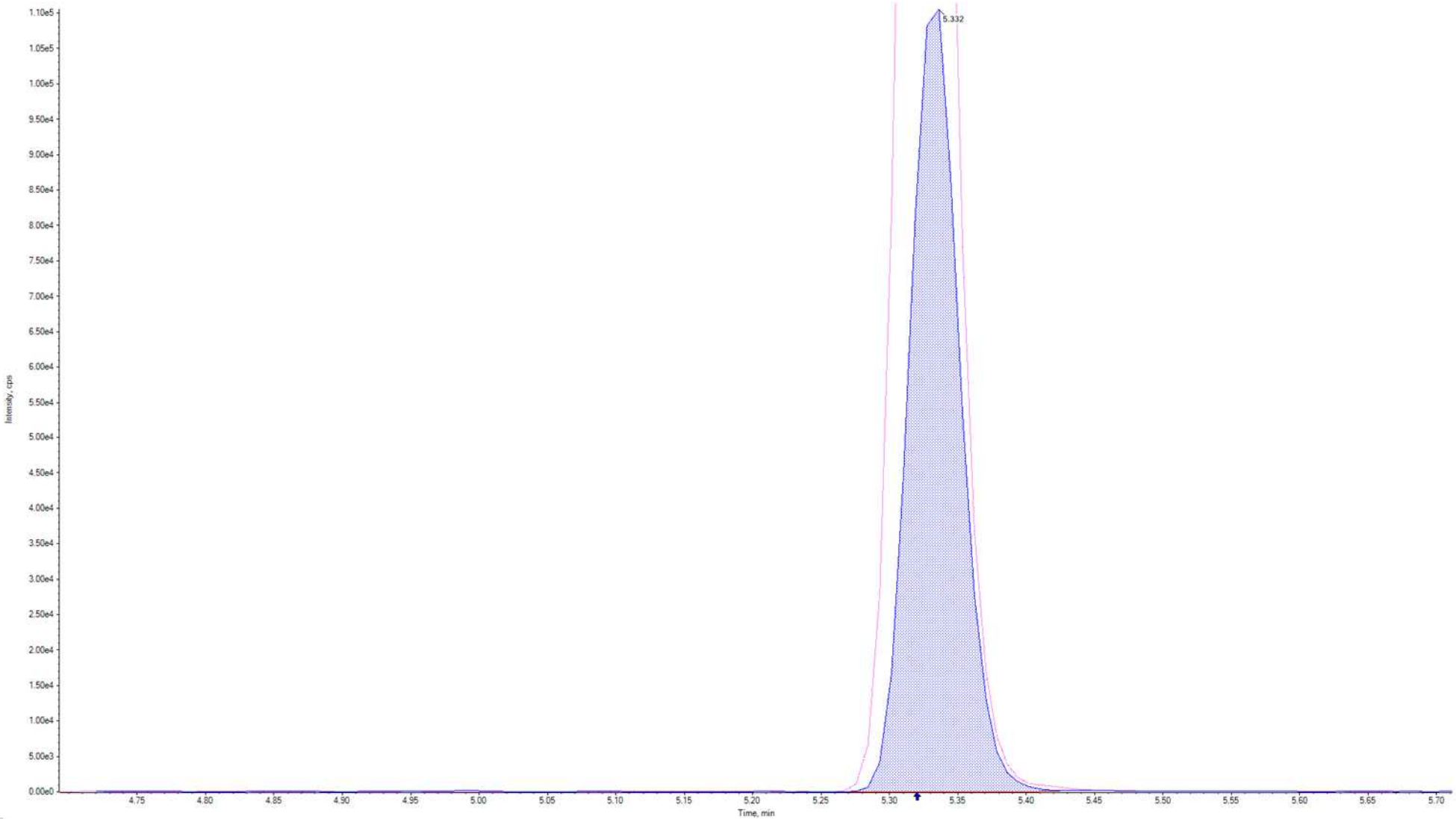
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PFBS
Sample: WG1972760-3 S/N:63.0 Points Across peak:20



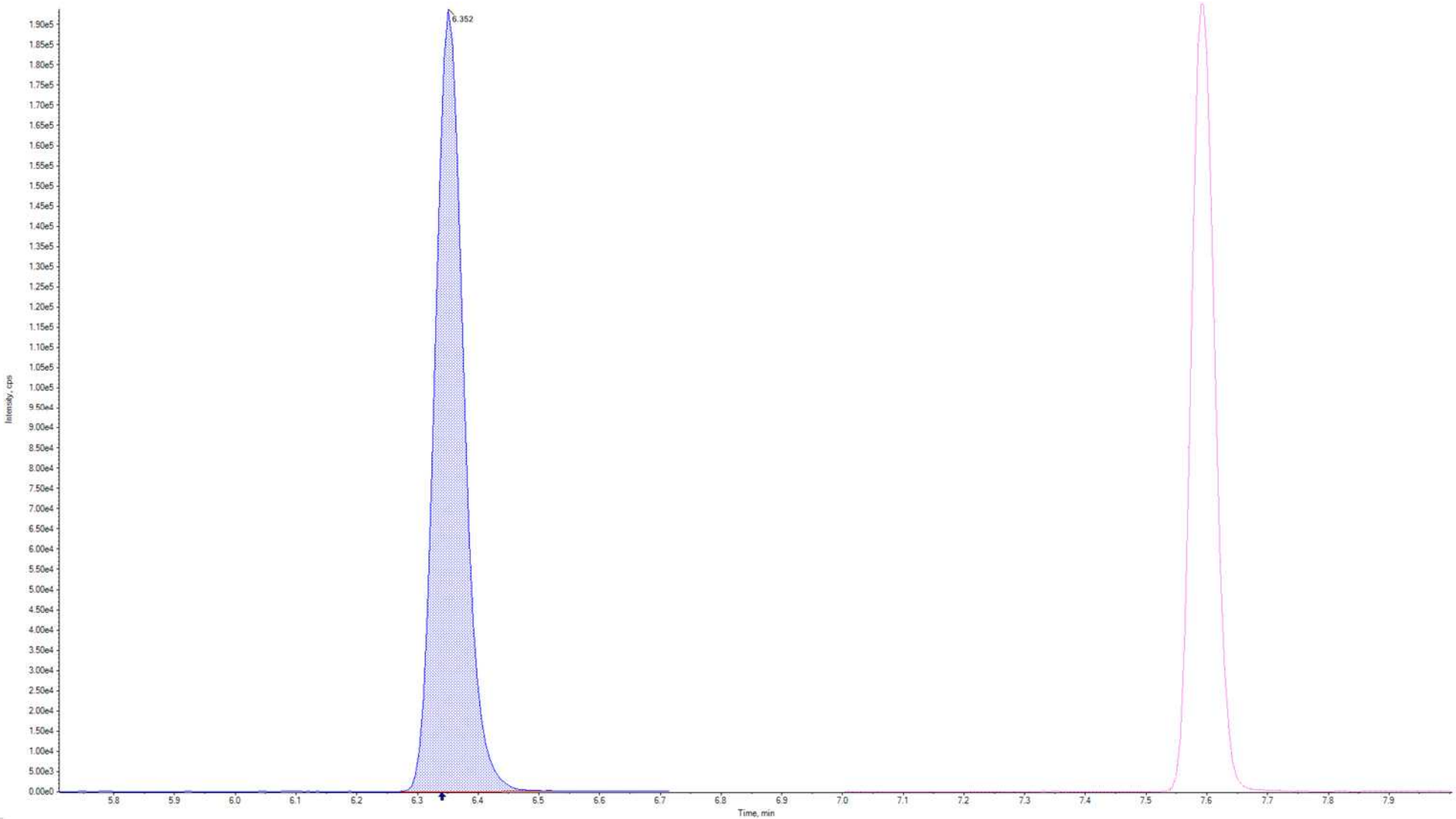
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PFBS_2
Sample: WG1972760-3 S/N:8405.2 Points Across peak:20



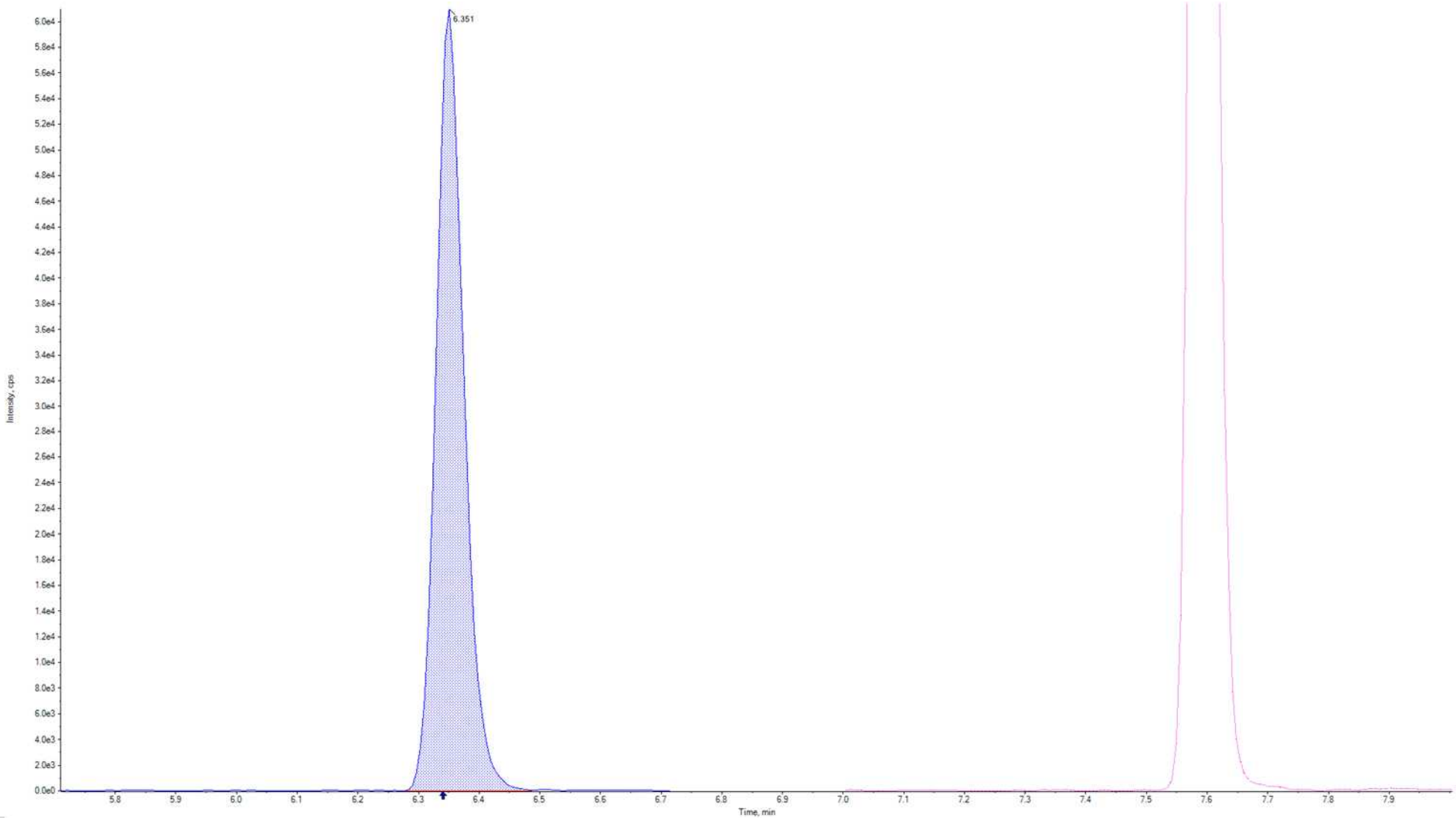
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PFPeS
Sample: WG1972760-3 S/N:5240.3 Points Across peak:47



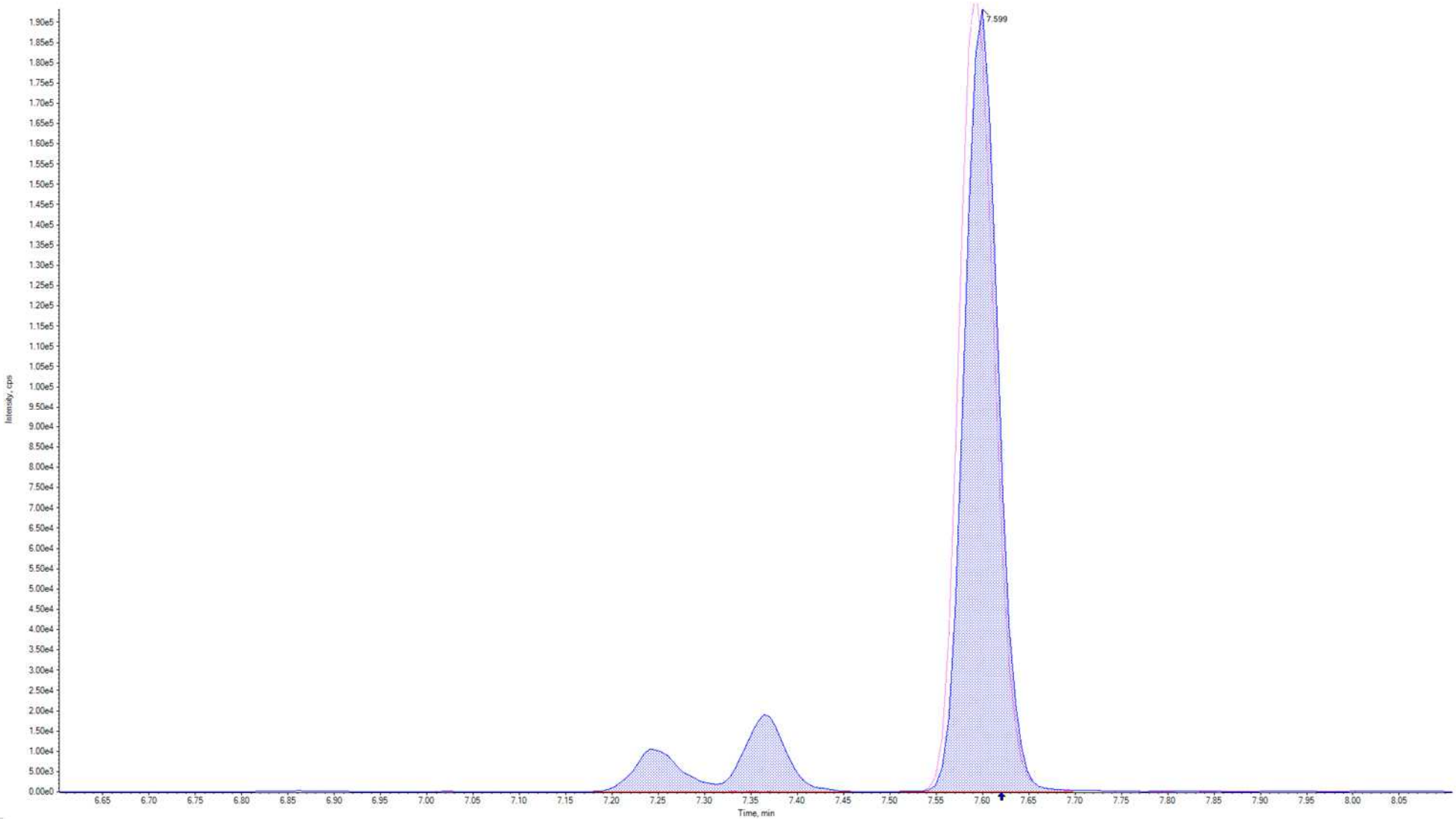
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PFPeS_2
Sample: WG1972760-3 S/N:38321.3 Points Across peak:33



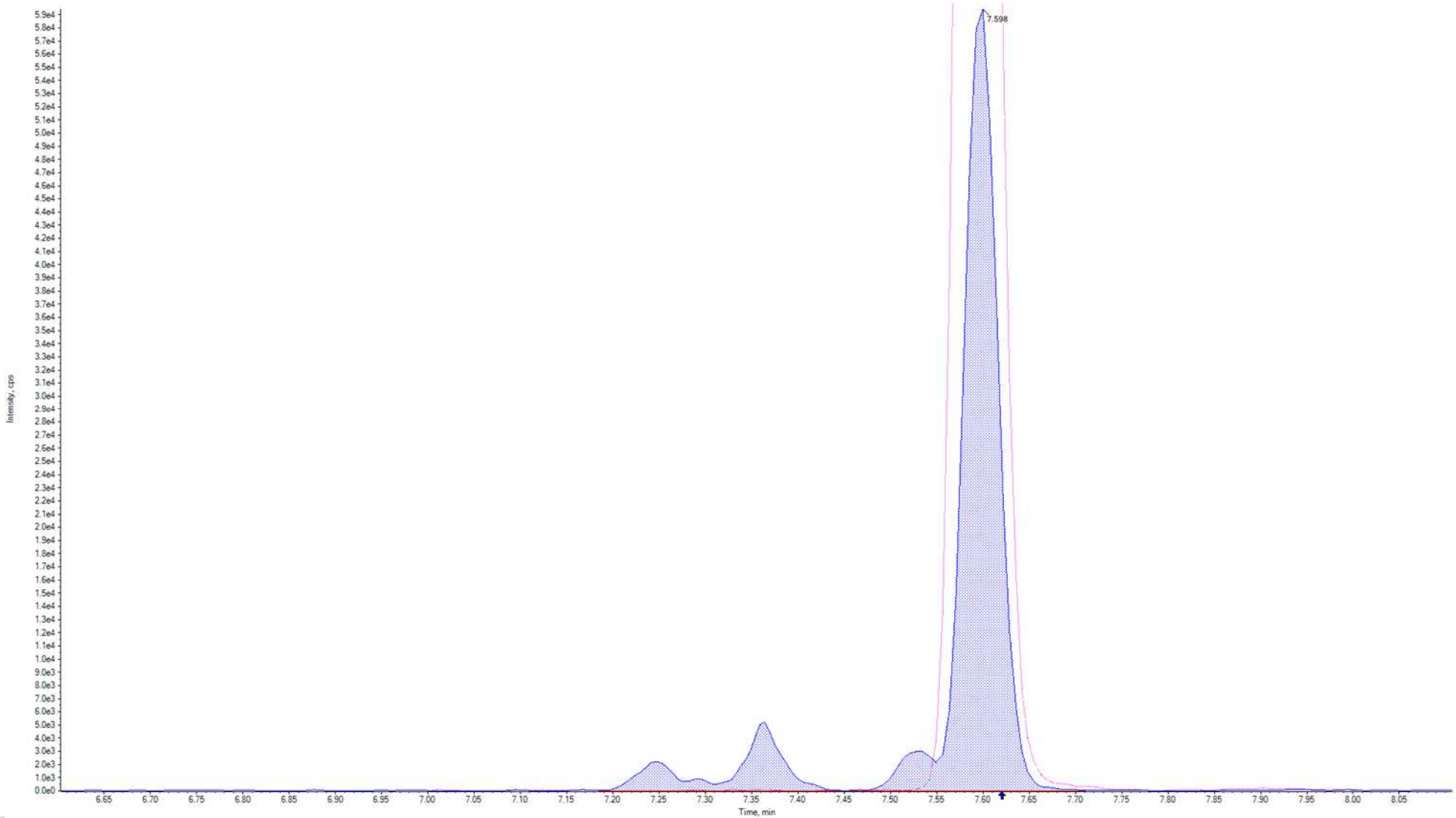
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PFHxS
Sample: WG1972760-3 S/N:12710.3 Points Across peak:86



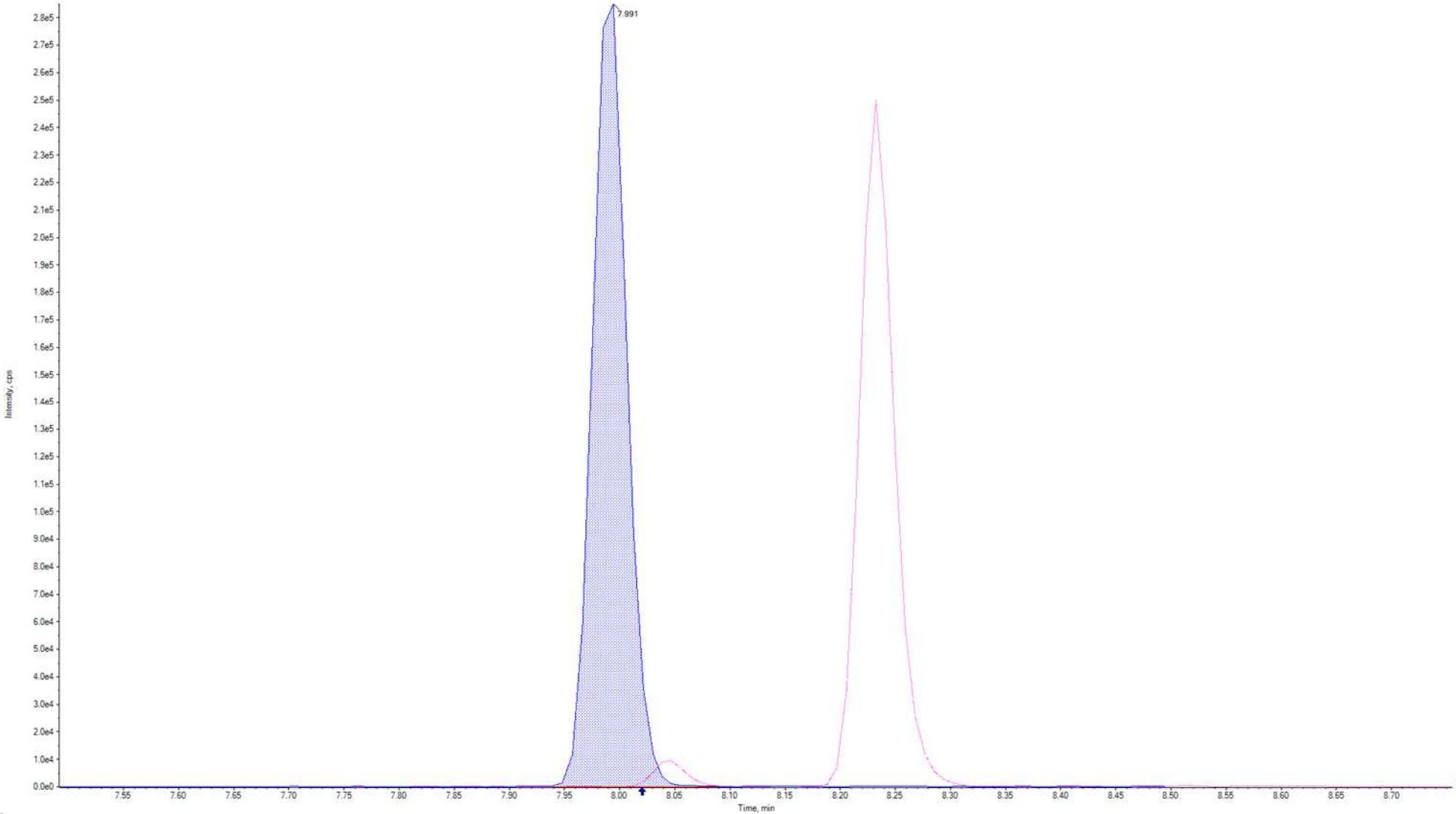
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Alpha Analytical Inc.
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Generated: 9/18/2024 6:35:36 AM

PFHxS_2
Sample: WG1972760-3 S/N:62945.1 Points Across peak:86



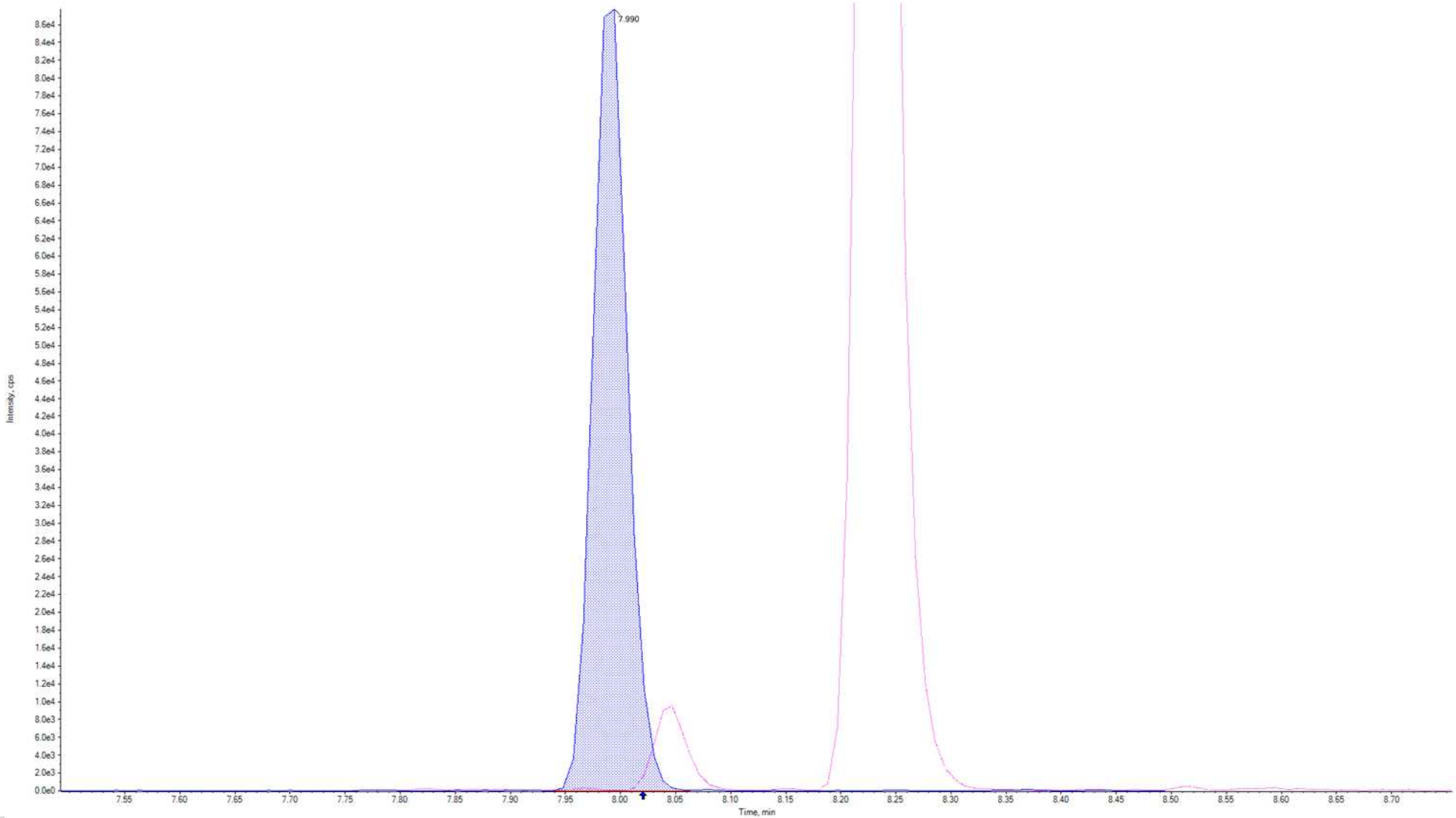
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFHpS
Sample: WG1972760-3 S/N:127072.1 Points Across peak:20



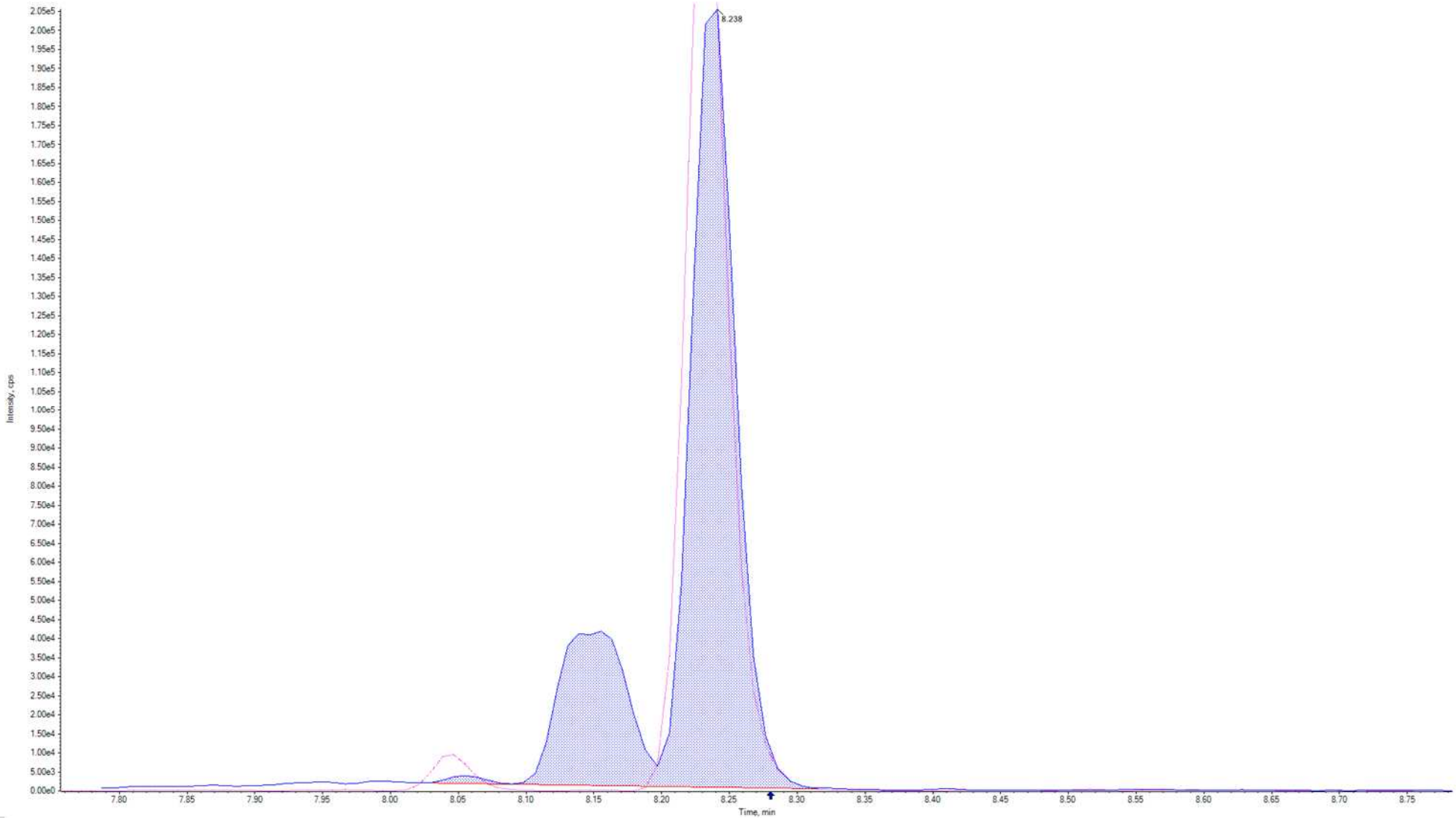
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFHpS_2
Sample: WG1972760-3 S/N:1615.9 Points Across peak:15



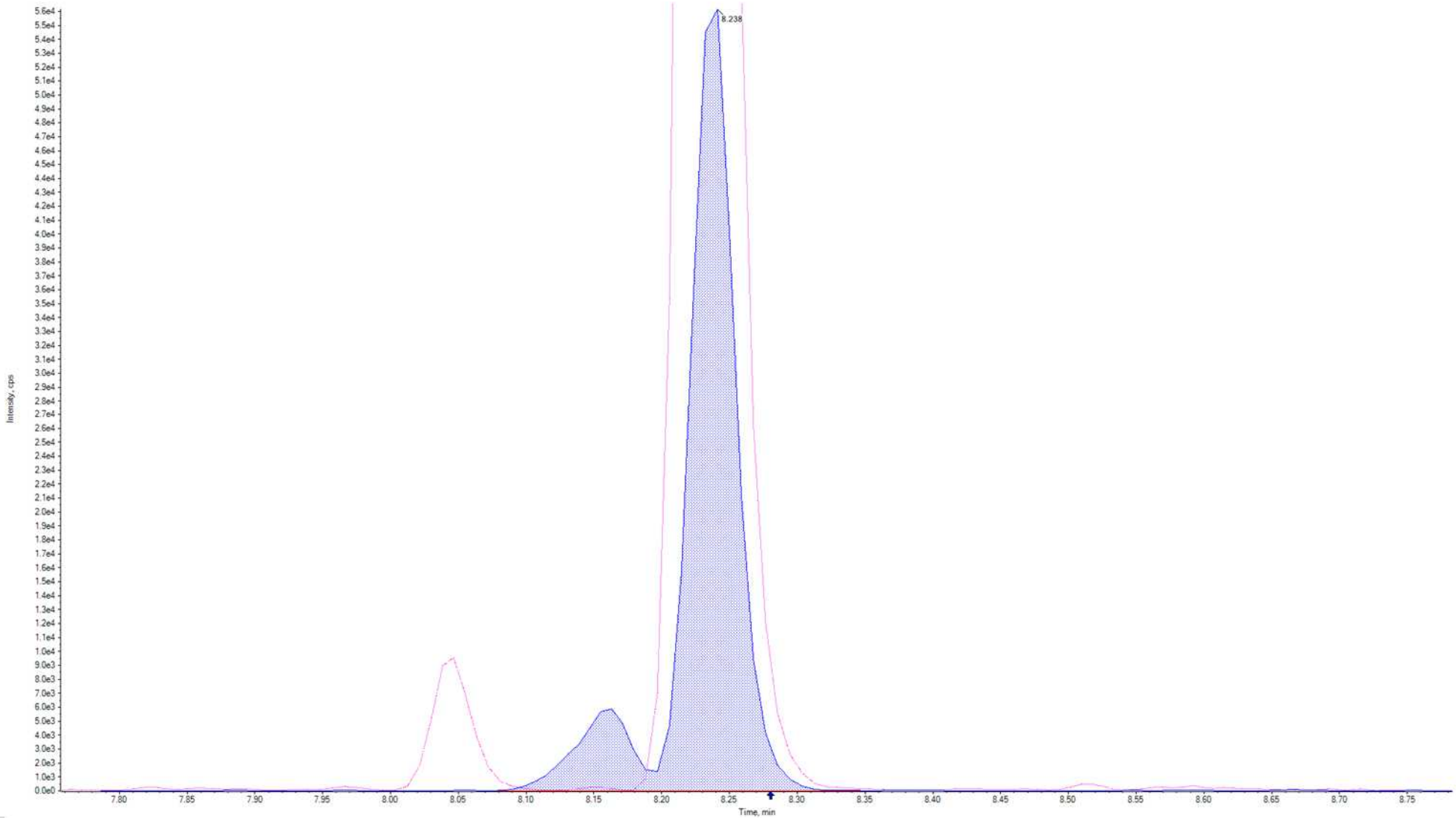
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Generated: 9/18/2024 6:35:36 AM

PFOS
Sample: WG1972760-3 S/N:1353.2 Points Across peak:36



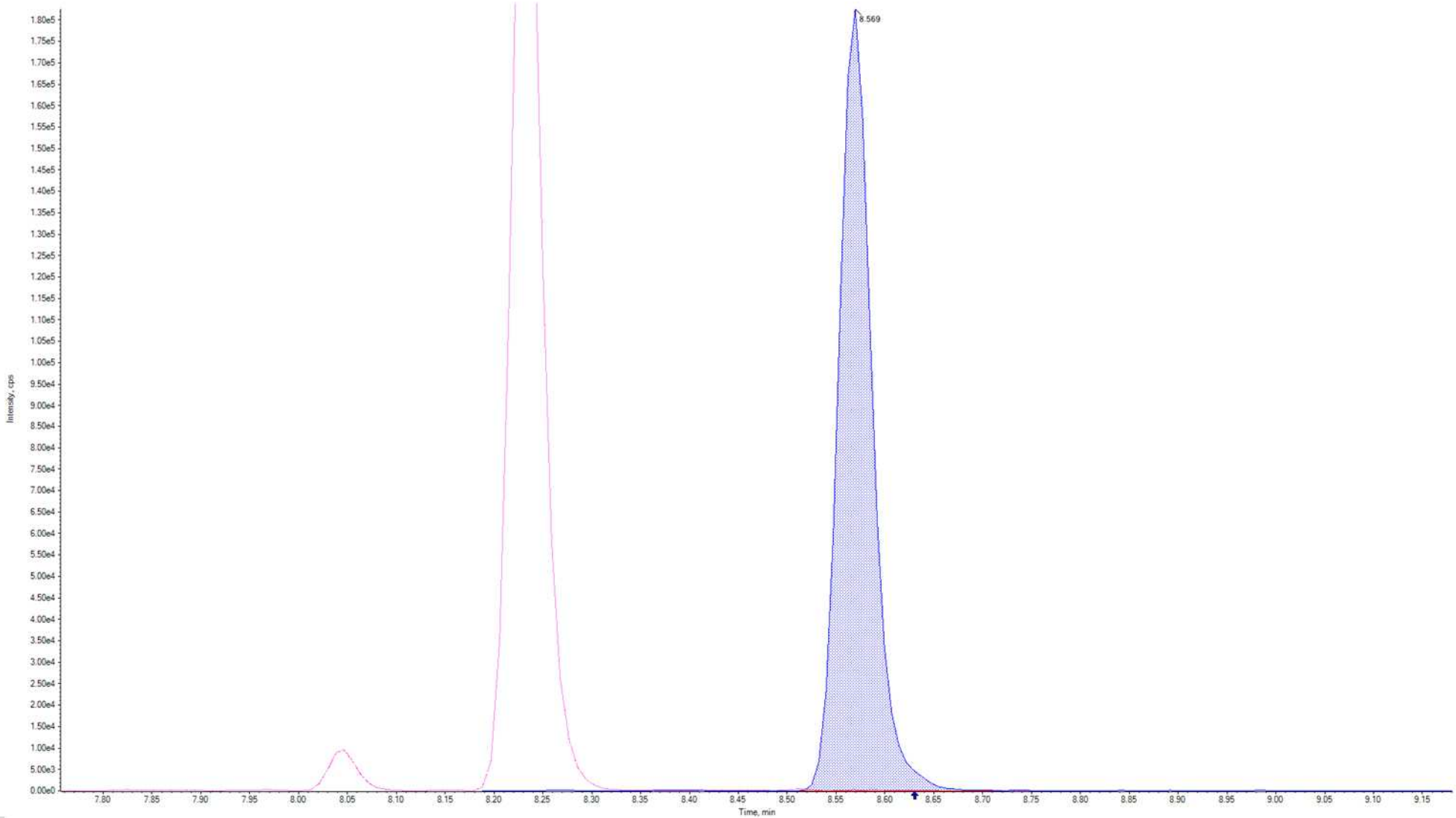
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Alpha Analytical Inc.
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PFOS_2
Sample: WG1972760-3 S/N:1291.0 Points Across peak:34



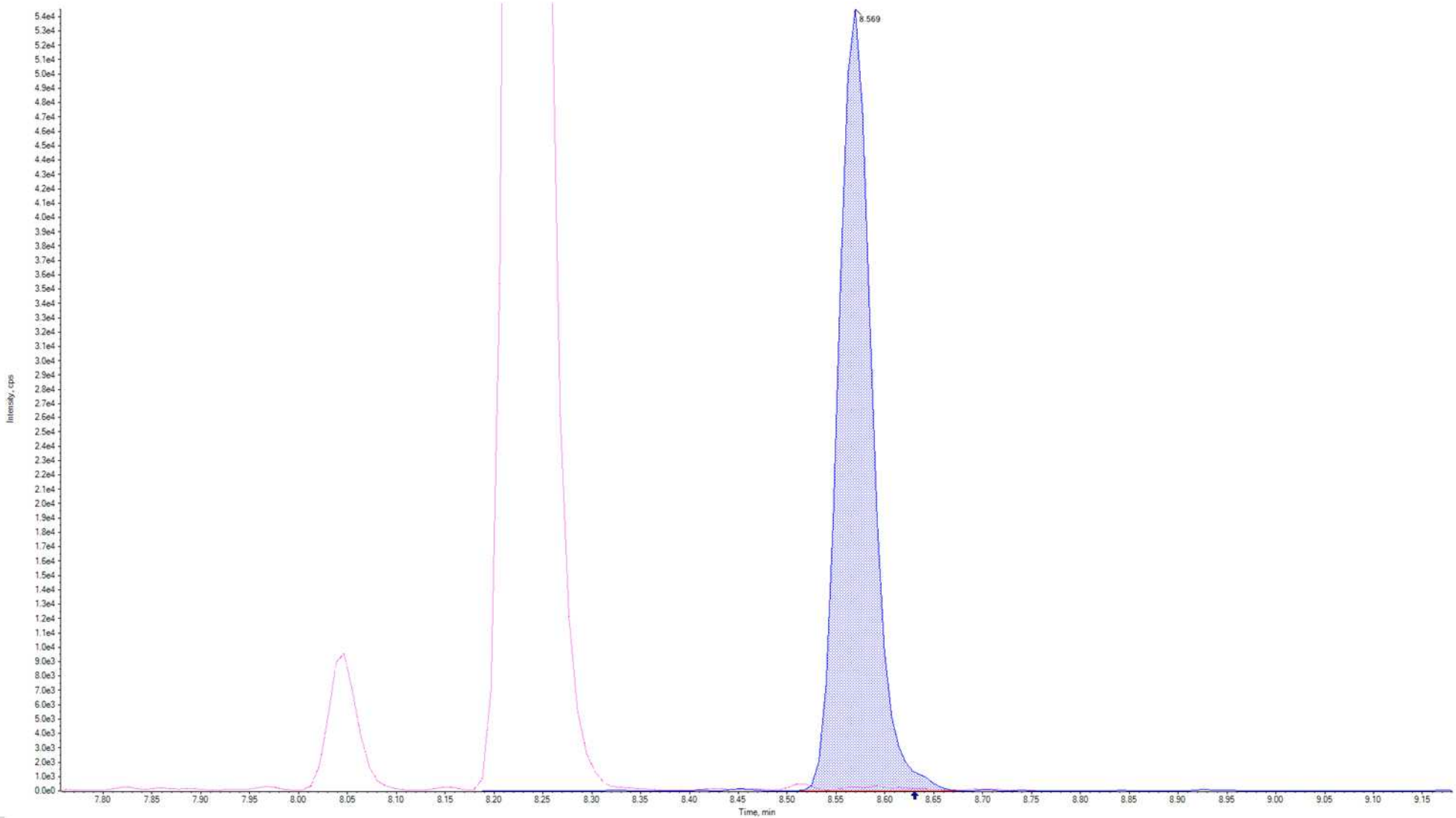
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Alpha Analytical Inc.
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PFNS
Sample: WG1972760-3 S/N:9799.0 Points Across peak:33



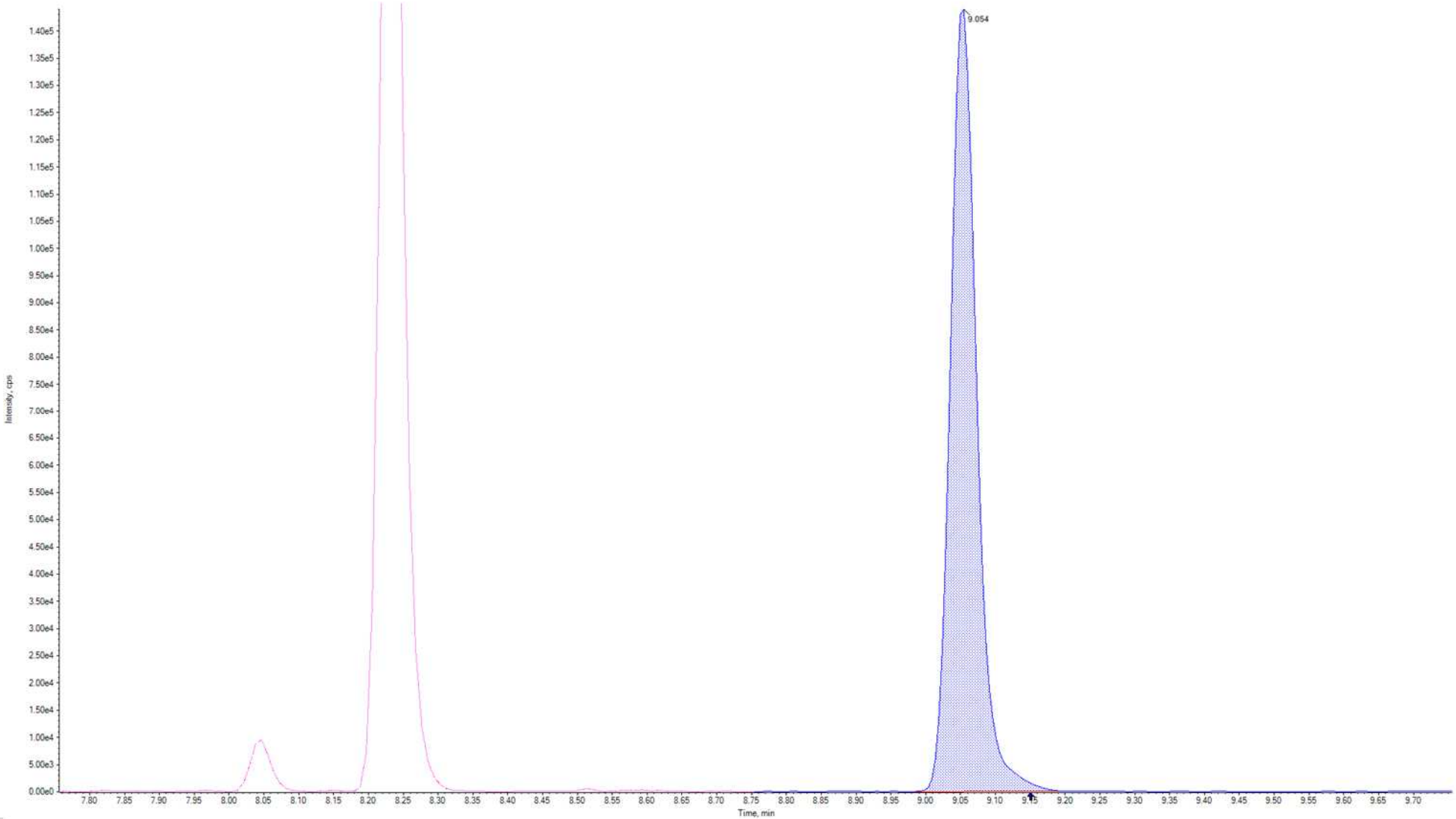
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Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_17.wiff
Last Altered: 9/18/2024 12:41:54 PM
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PFNS_2
Sample: WG1972760-3 S/N:2393.3 Points Across peak:27



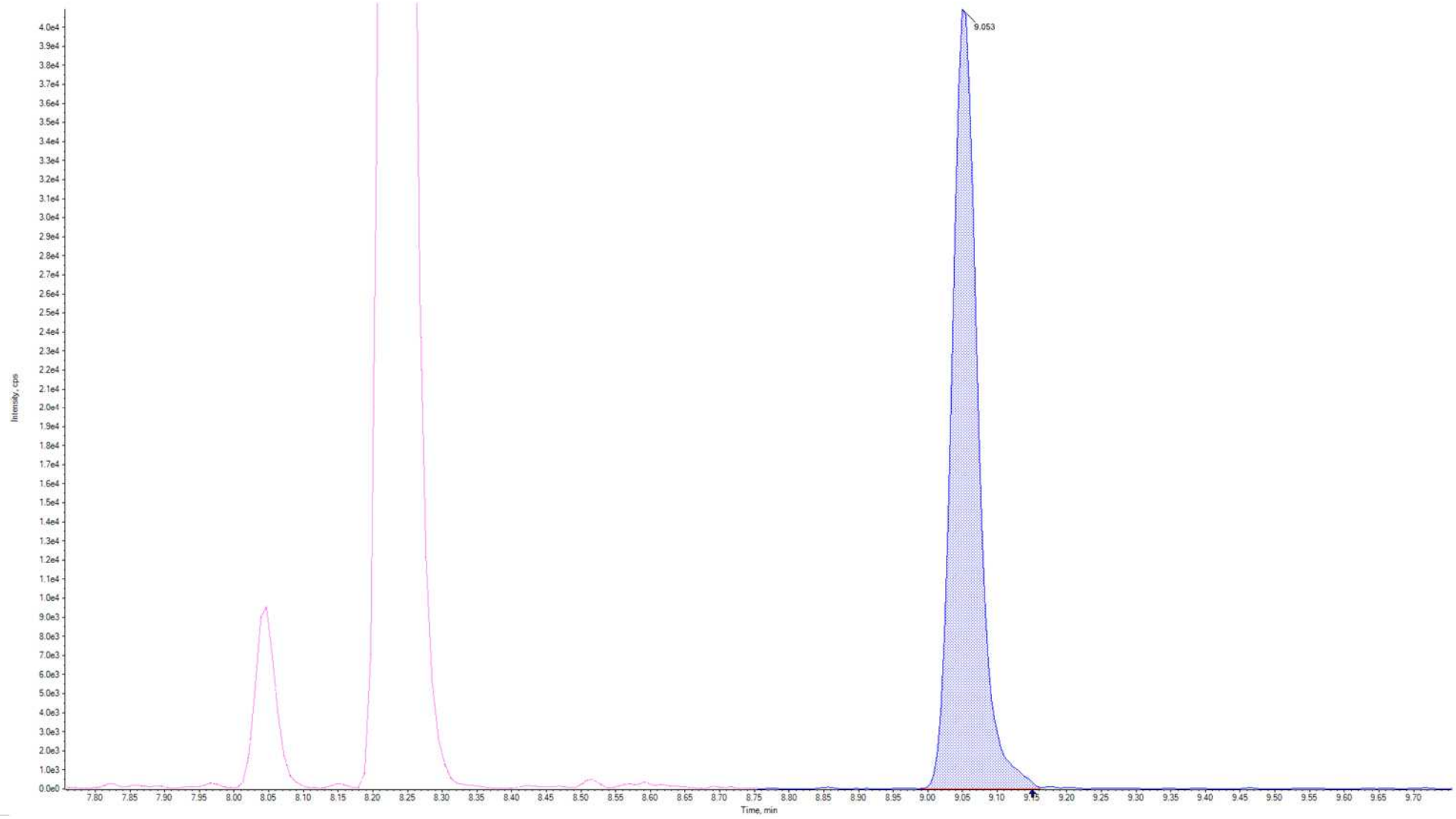
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Alpha Analytical Inc.
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PFDS
Sample: WG1972760-3 S/N:7949.1 Points Across peak:46



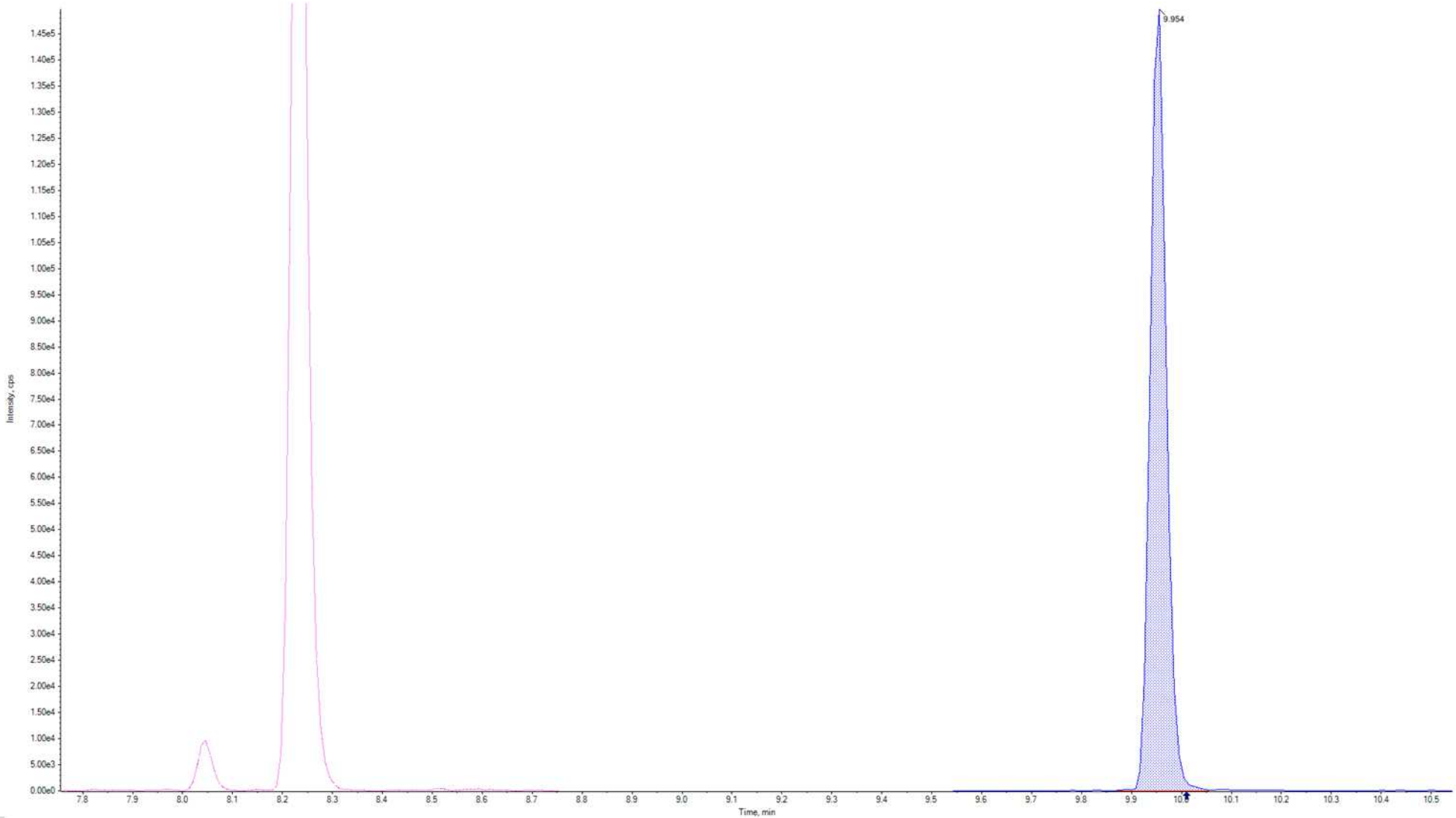
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDS_2
Sample: WG1972760-3 S/N:1132744.0 Points Across peak:37



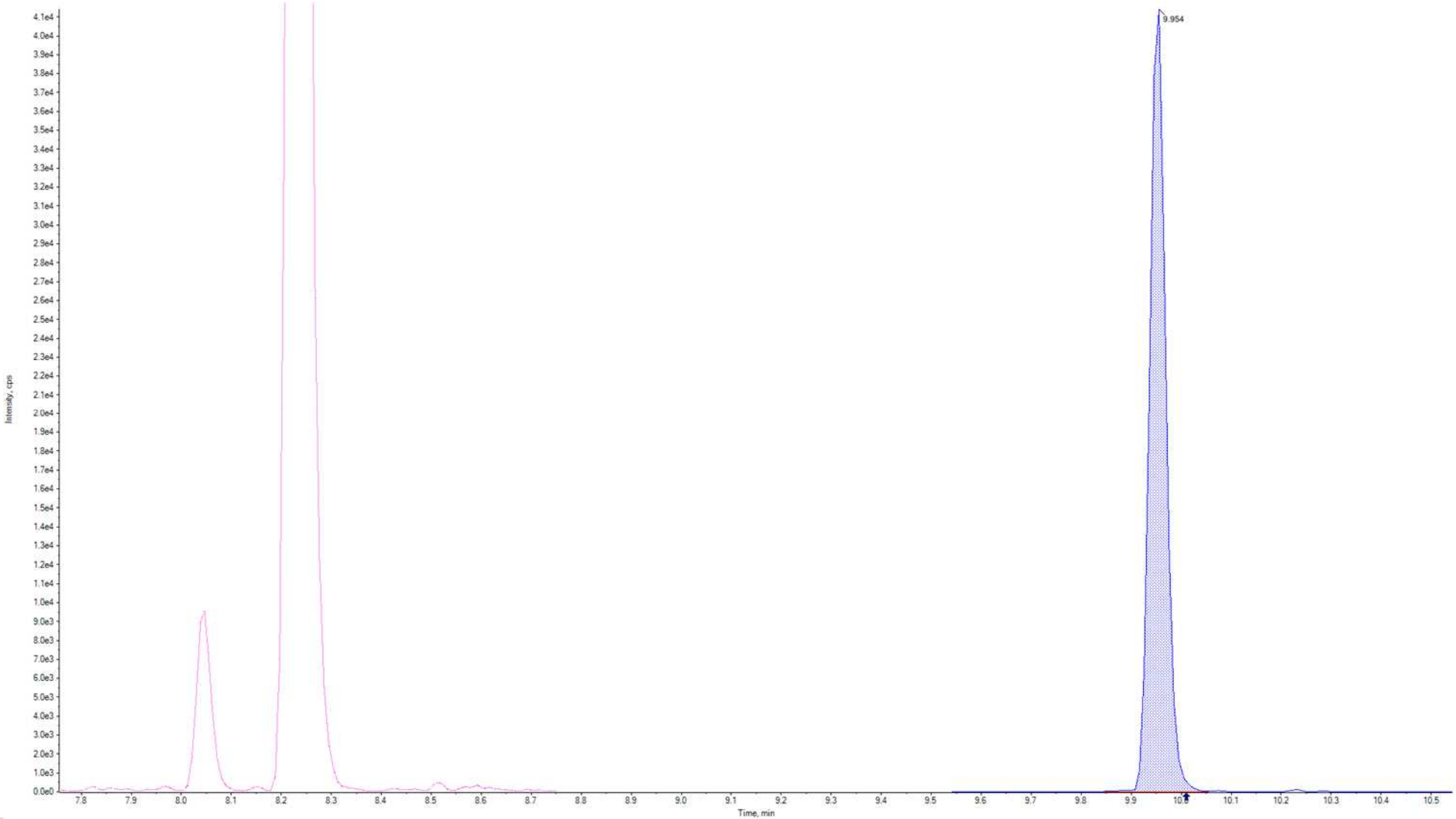
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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PFDoS
Sample: WG1972760-3 S/N:18937.5 Points Across peak:22



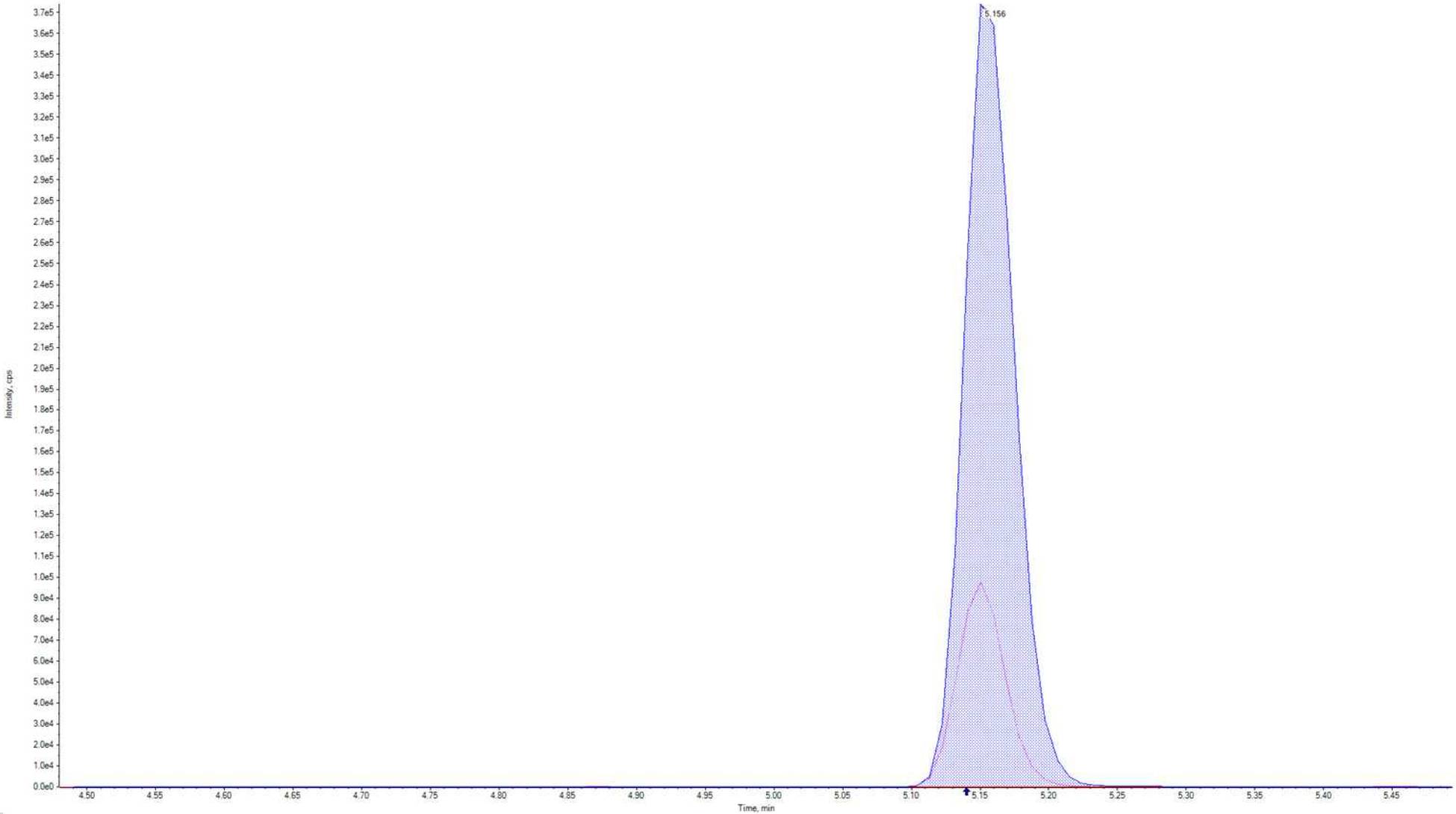
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Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_17.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDoS_2
Sample: WG1972760-3 S/N:755051.4 Points Across peak:27



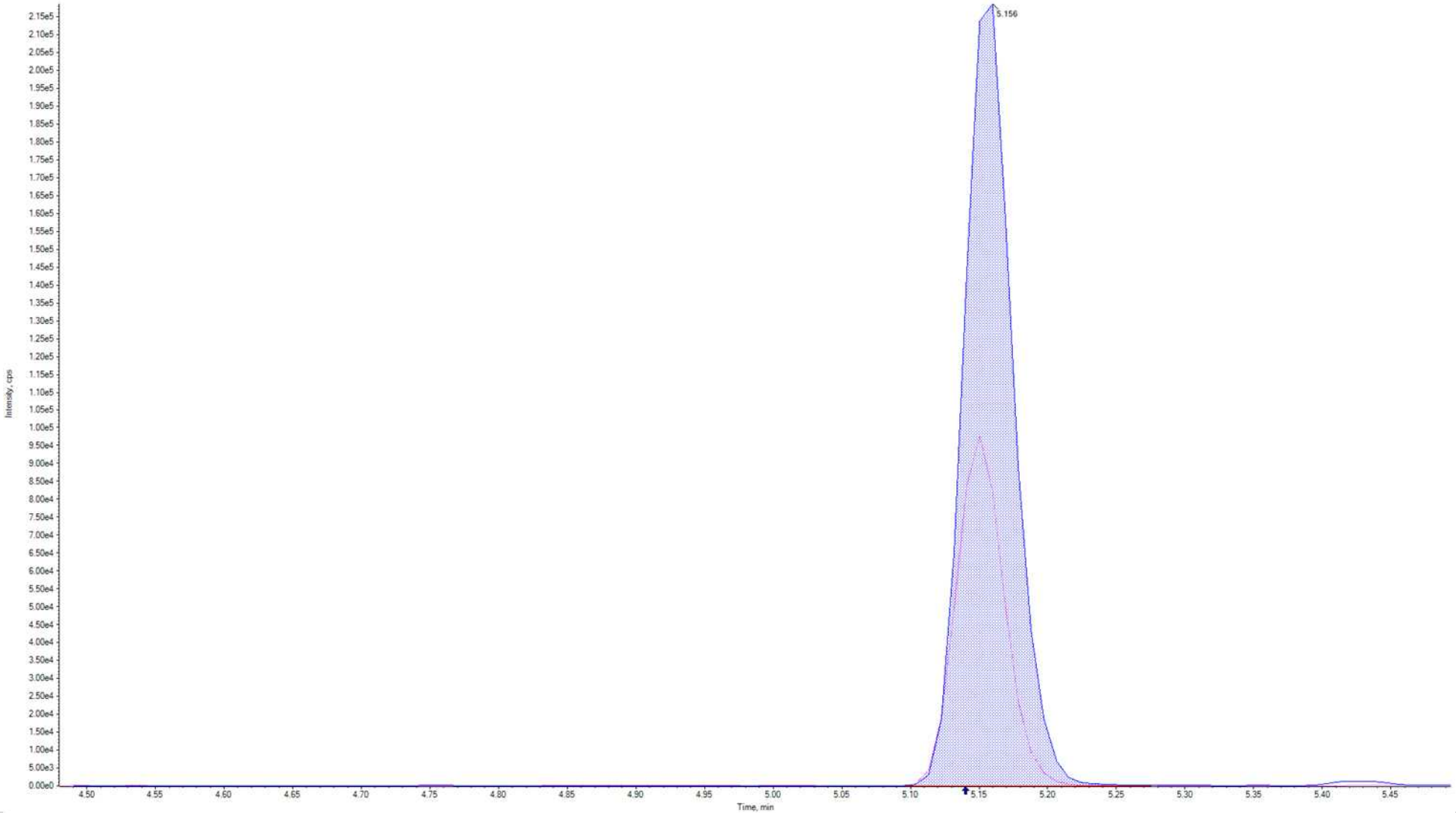
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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4:2FTS
Sample: WG1972760-3 S/N:222477.3 Points Across peak:26



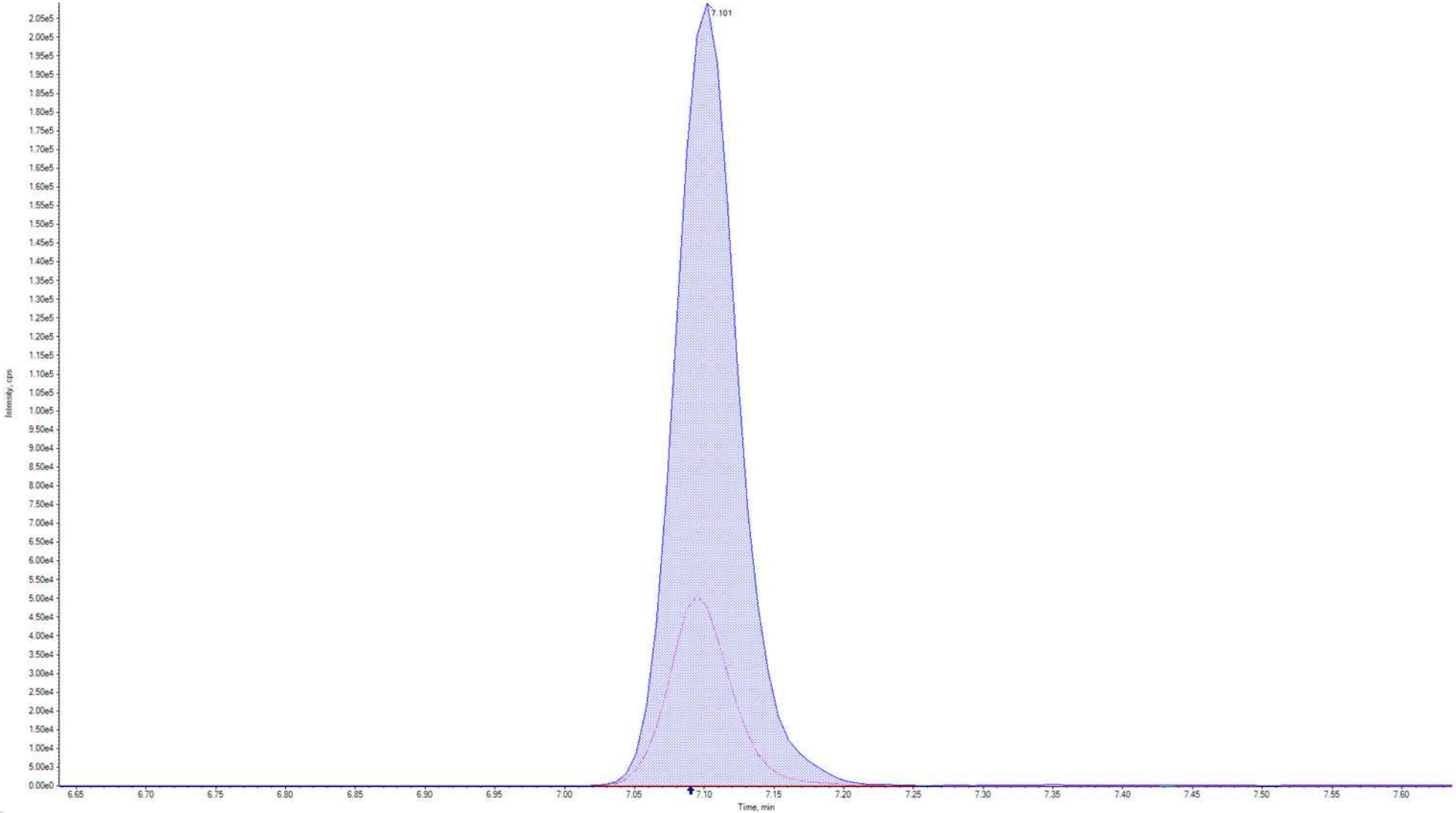
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Last Altered: 9/18/2024 12:41:54 PM
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4:2FTS_2
Sample: WG1972760-3 S/N:5298.1 Points Across peak:26



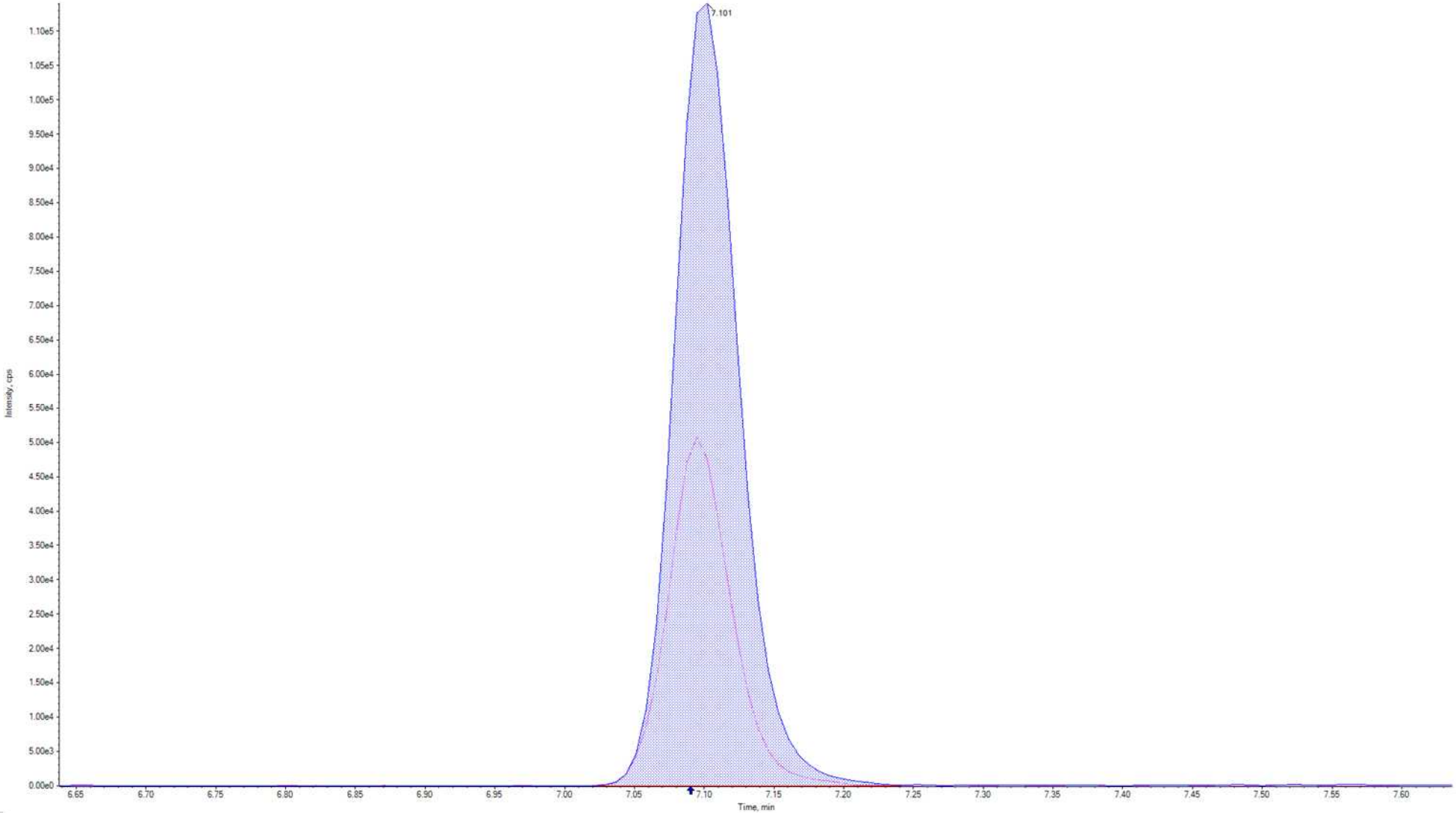
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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6:2FTS
Sample: WG1972760-3 S/N:2510036.9 Points Across peak:38



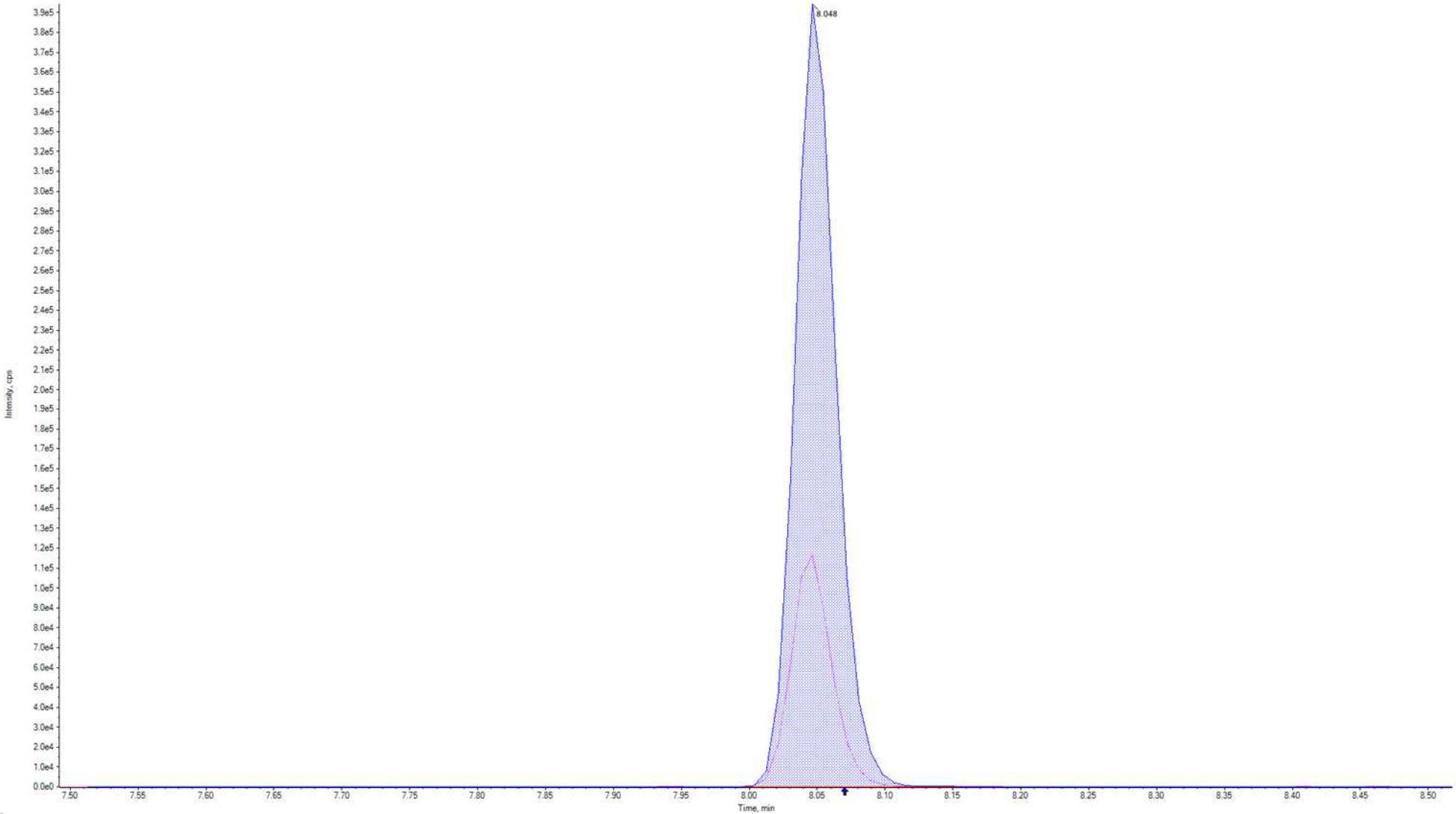
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6:2FTS_2
Sample: WG1972760-3 S/N:133763.5 Points Across peak:39



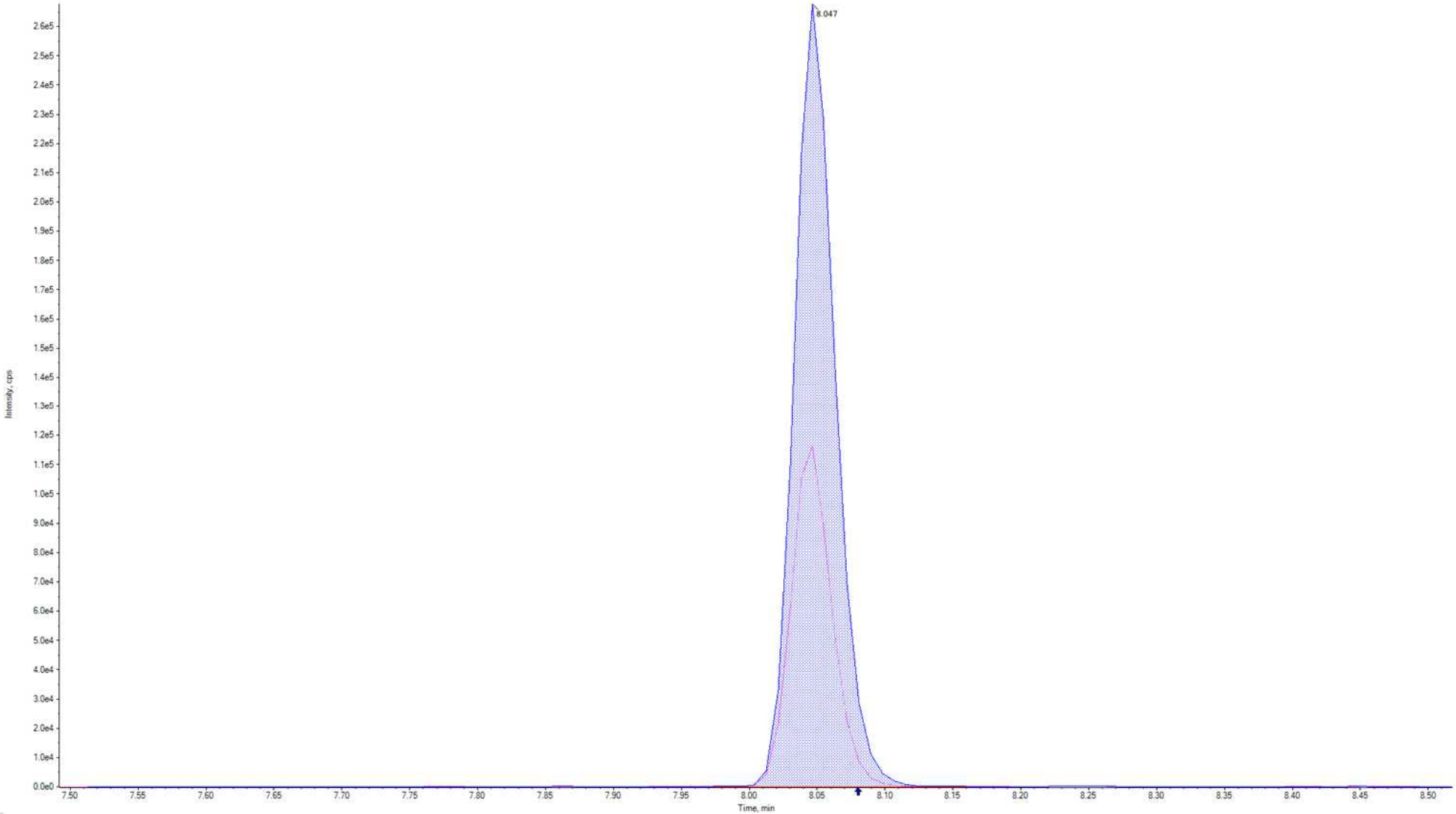
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Last Altered: 9/18/2024 12:41:54 PM
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8:2FTS
Sample: WG1972760-3 S/N:19038.0 Points Across peak:29



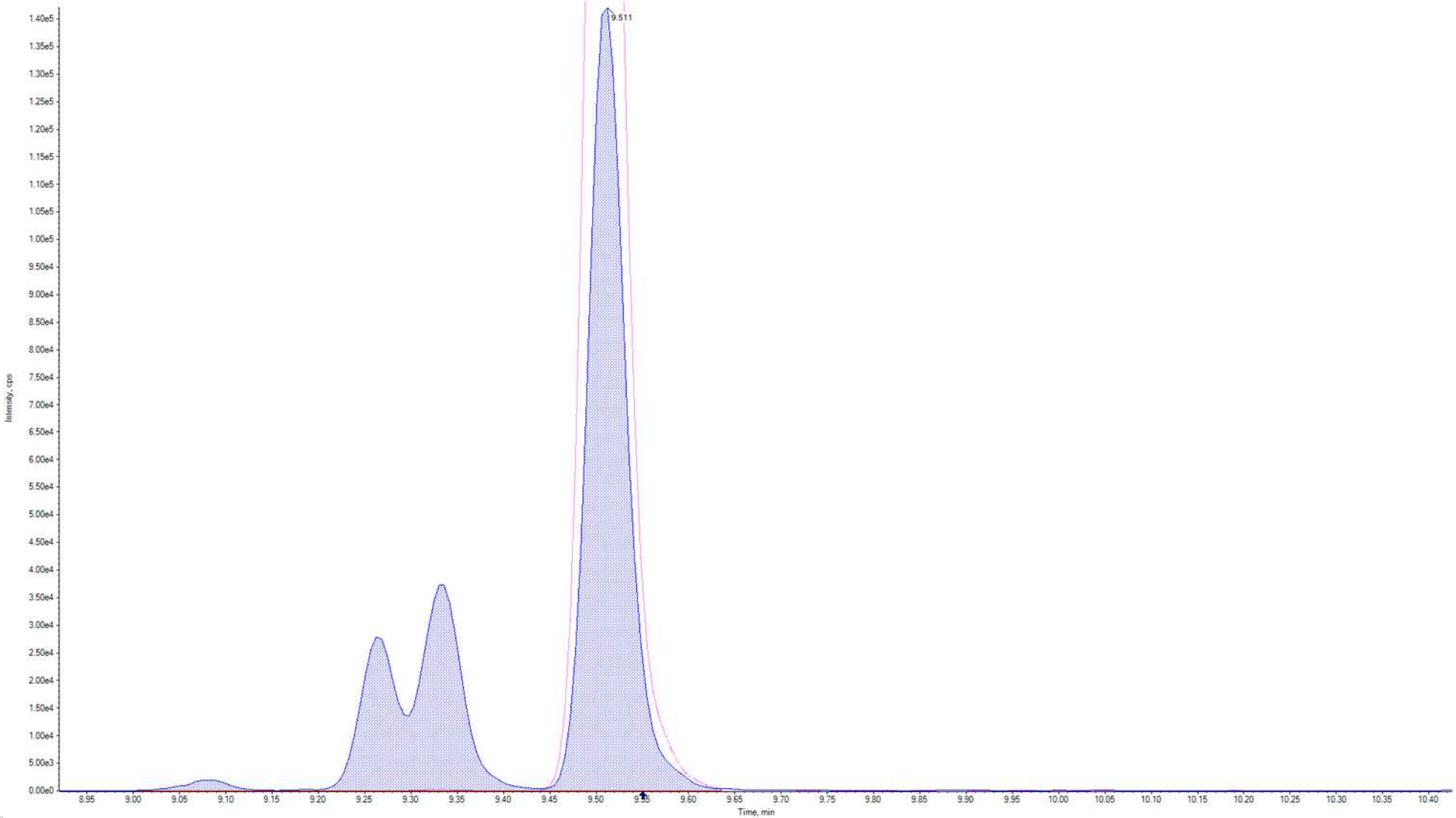
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8:2FTS_2
Sample: WG1972760-3 S/N:2596.8 Points Across peak:30



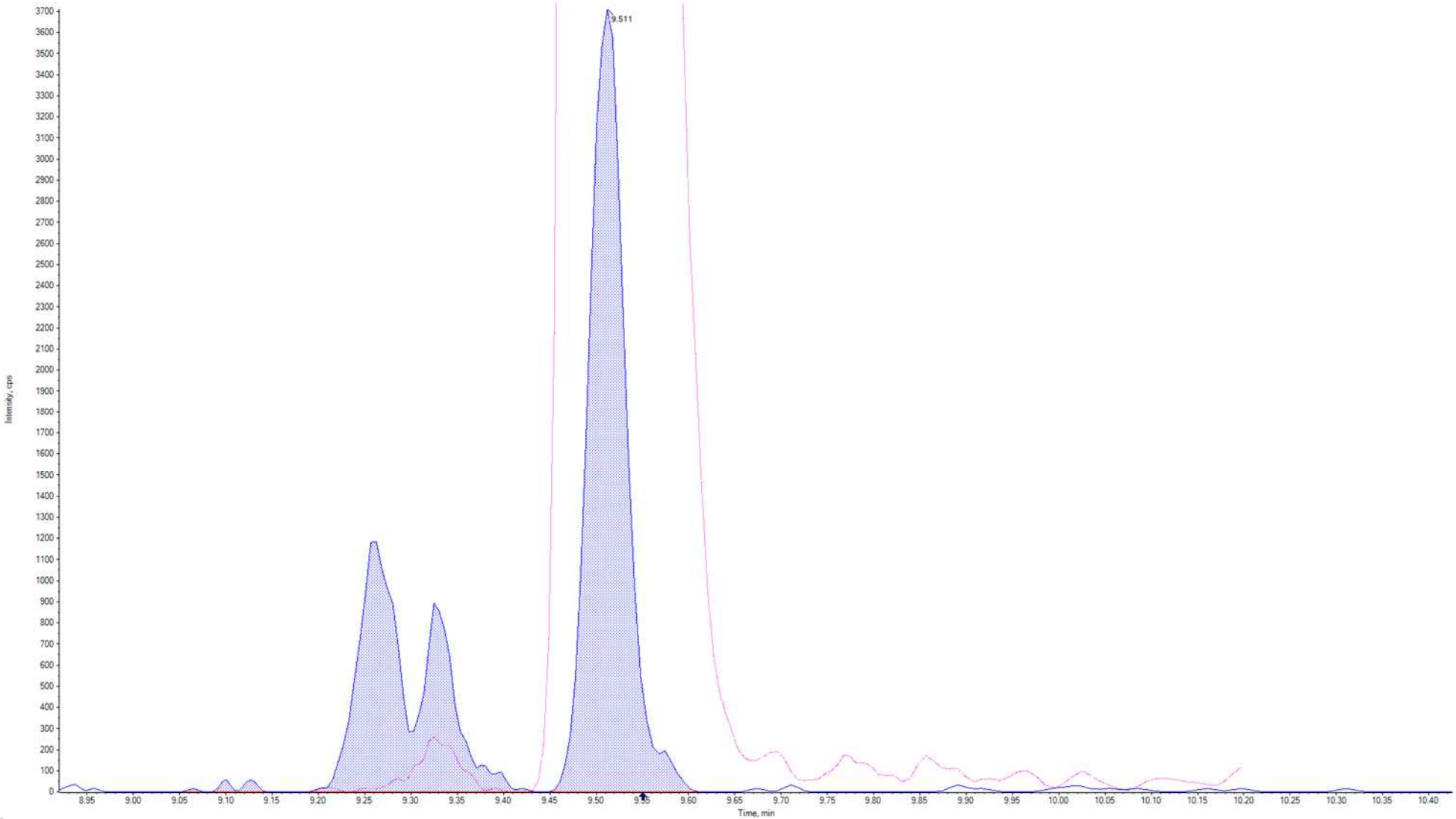
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PFOSA
Sample: WG1972760-3 S/N:1195.9 Points Across peak:119



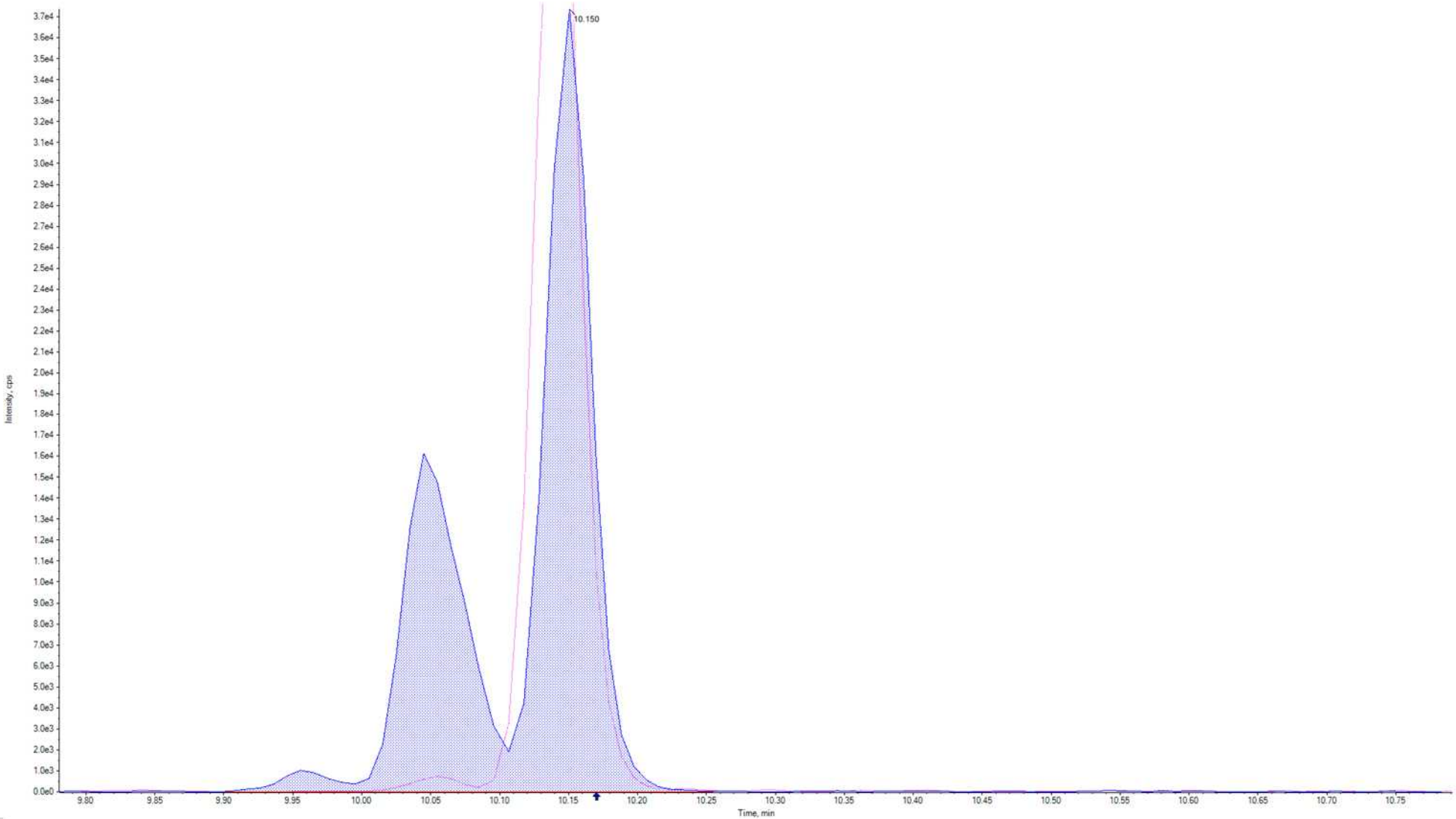
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Alpha Analytical Inc.
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PFOSA_2
Sample: WG1972760-3 S/N:554.6 Points Across peak:102



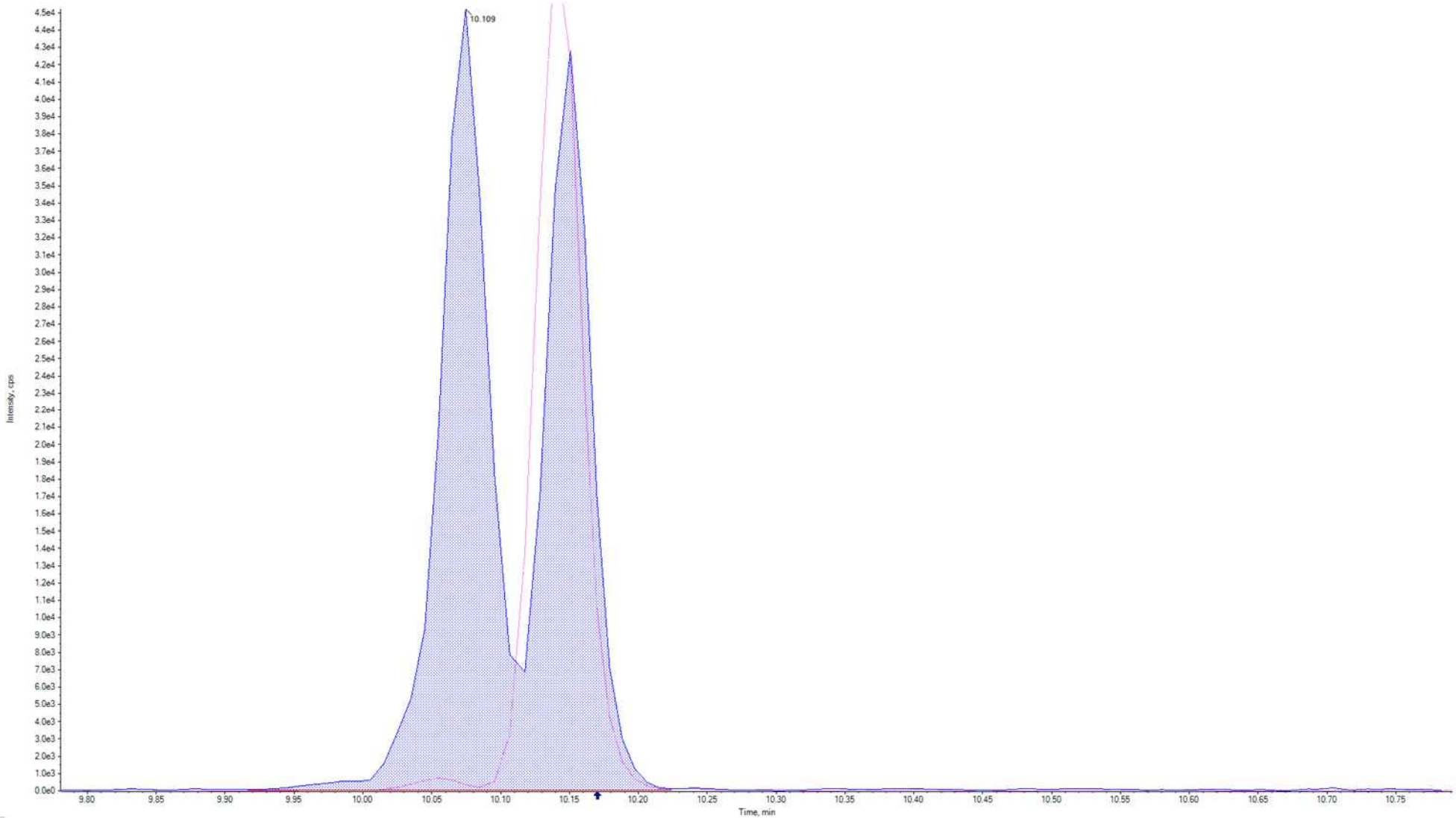
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NMeFOSA
Sample: WG1972760-3 S/N:888.9 Points Across peak:39



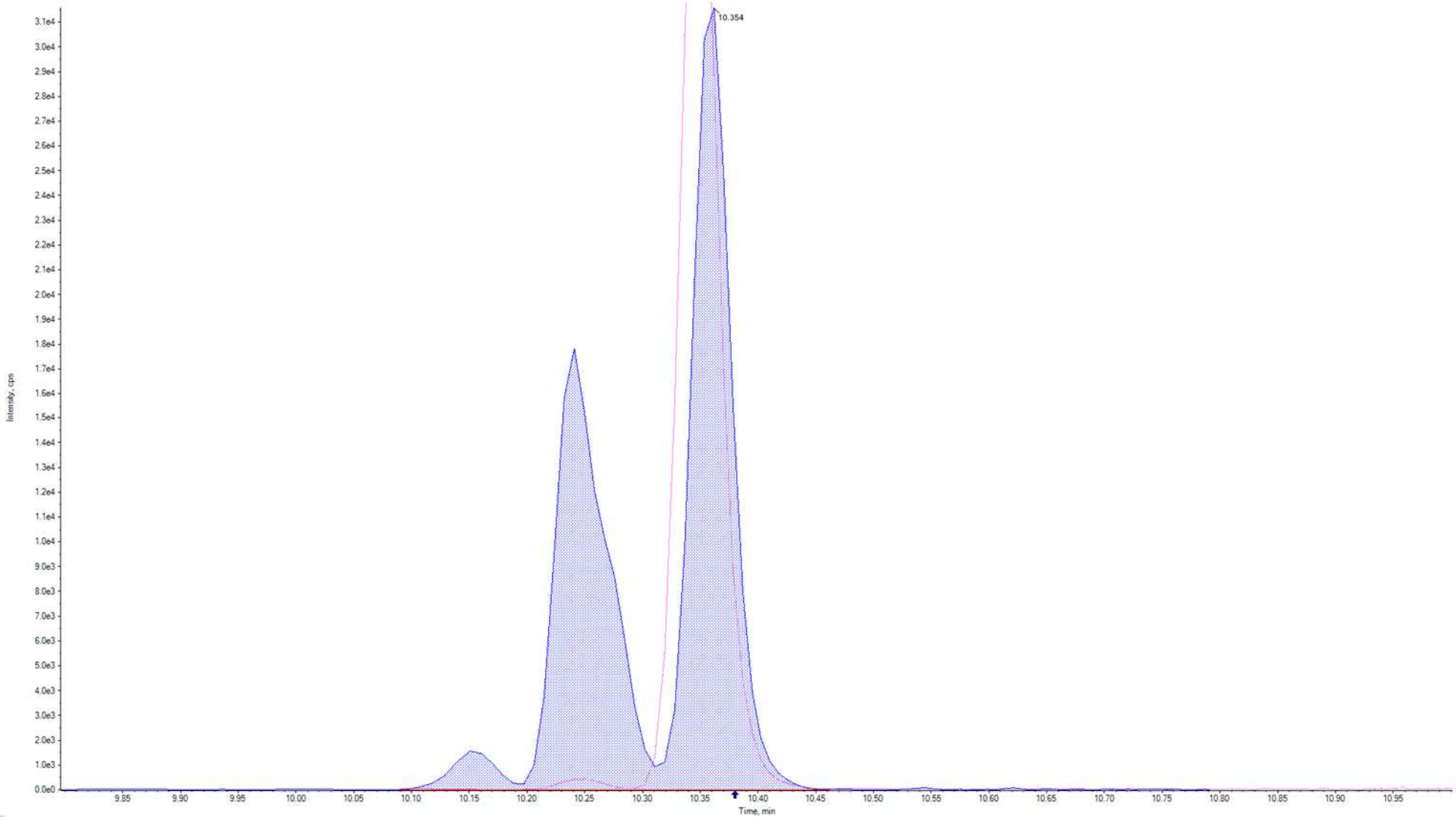
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NMeFOSA_2
Sample: WG1972760-3 S/N:1642.0 Points Across peak:34



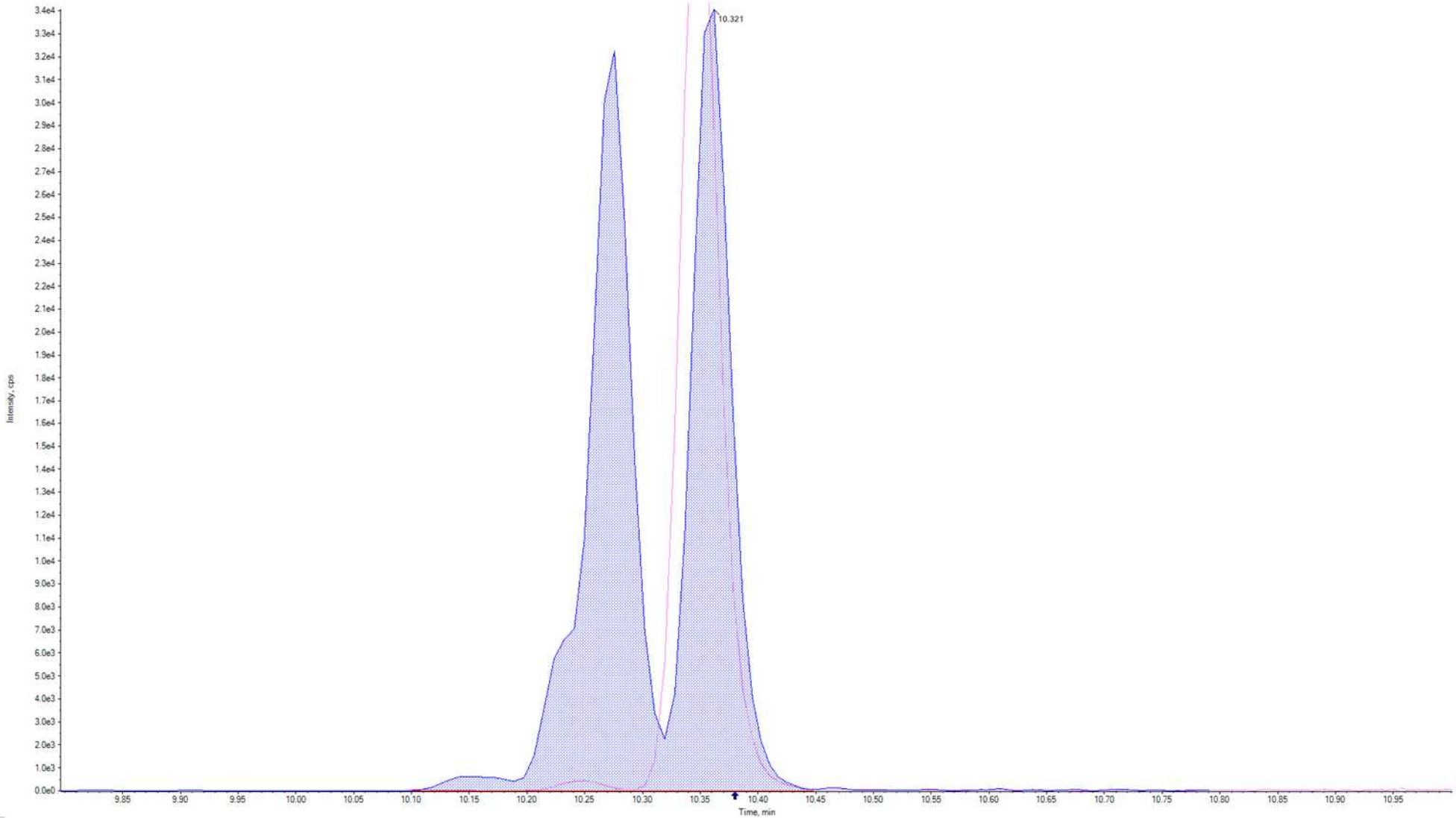
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Last Altered: 9/18/2024 12:41:54 PM
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NEtFOSA
Sample: WG1972760-3 S/N:32608.2 Points Across peak:46



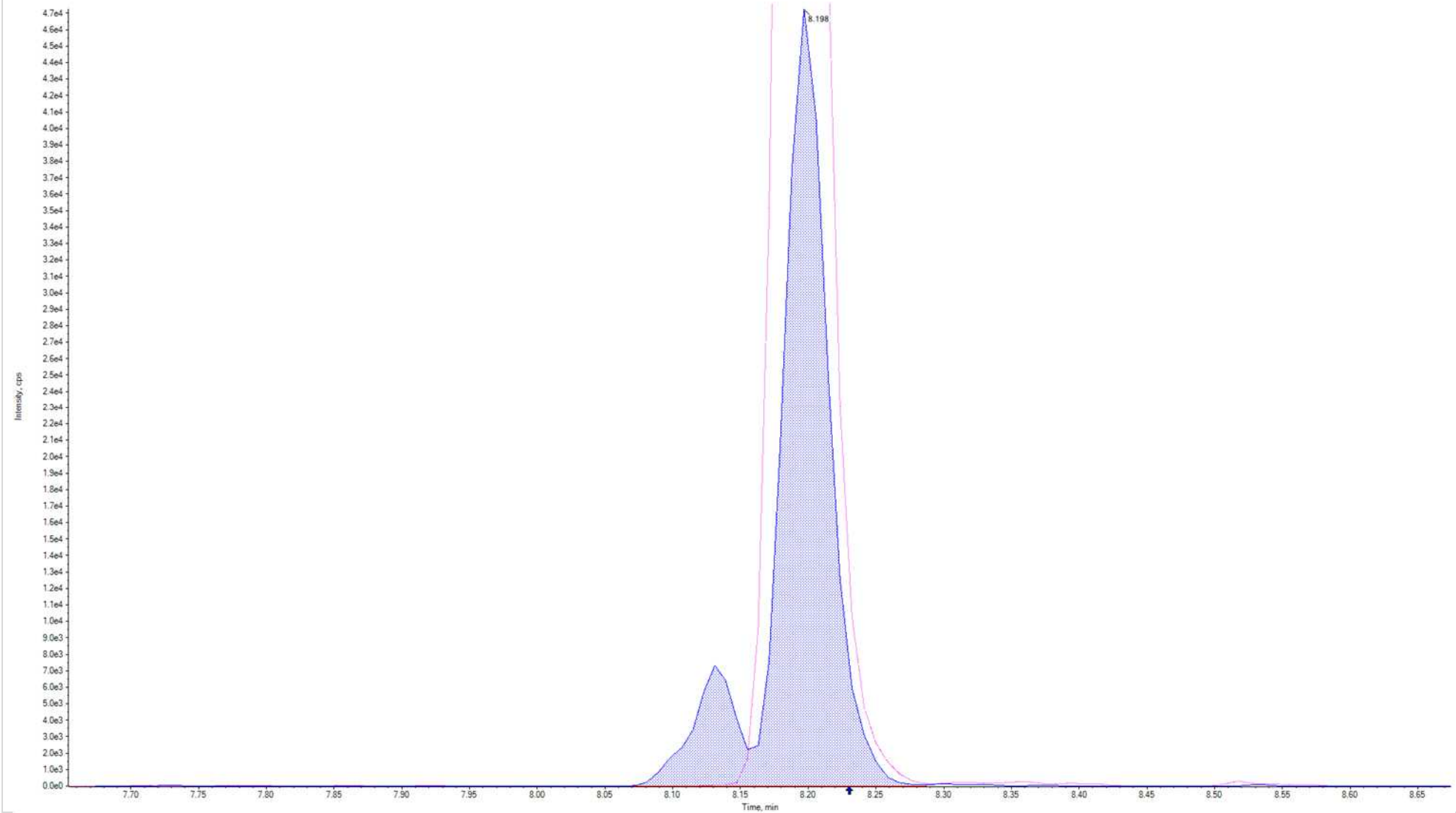
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NEtFOSA_2
Sample: WG1972760-3 S/N:619.2 Points Across peak:43



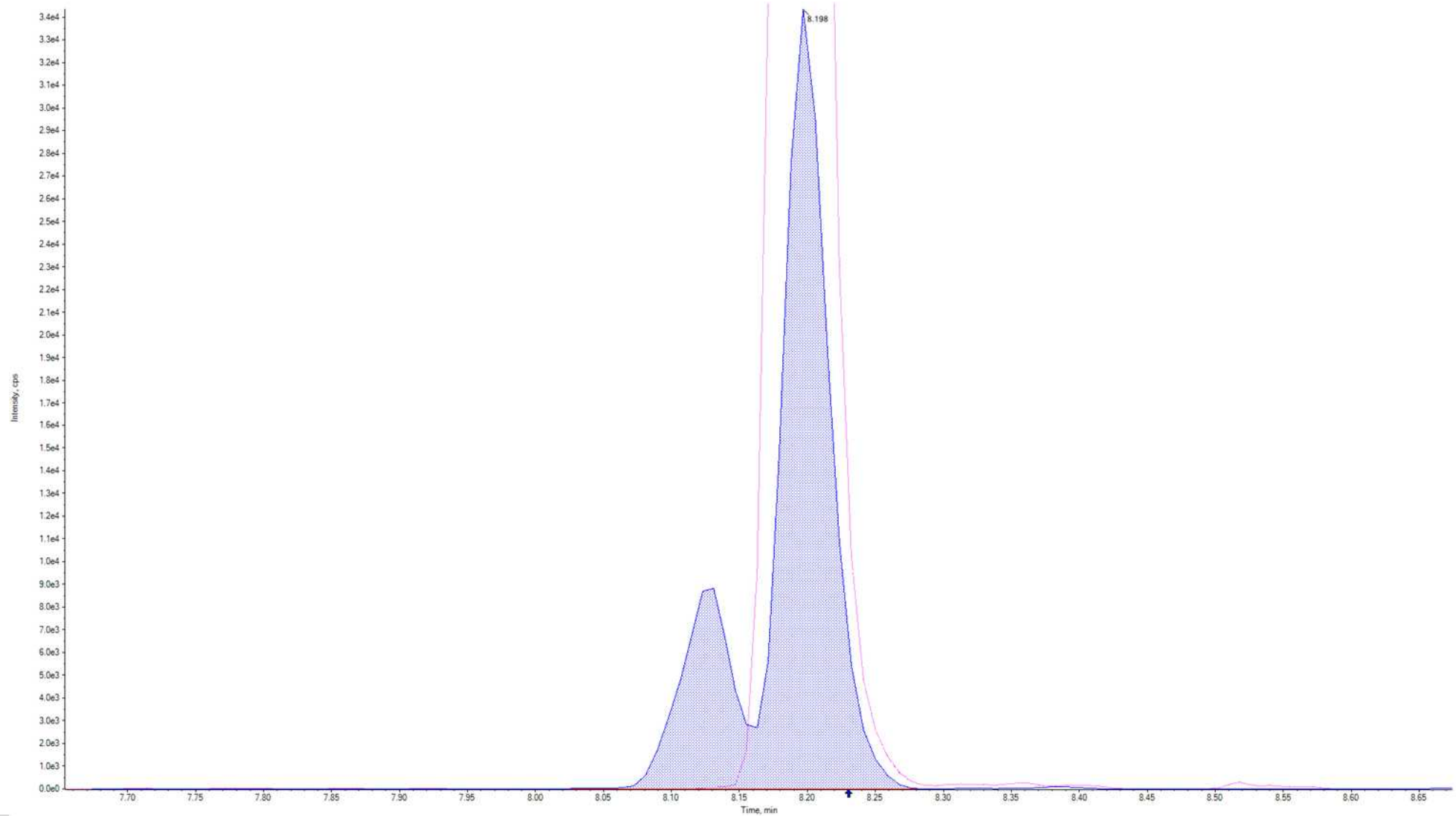
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NMeFOSAA
Sample: WG1972760-3 S/N:1054.1 Points Across peak:28



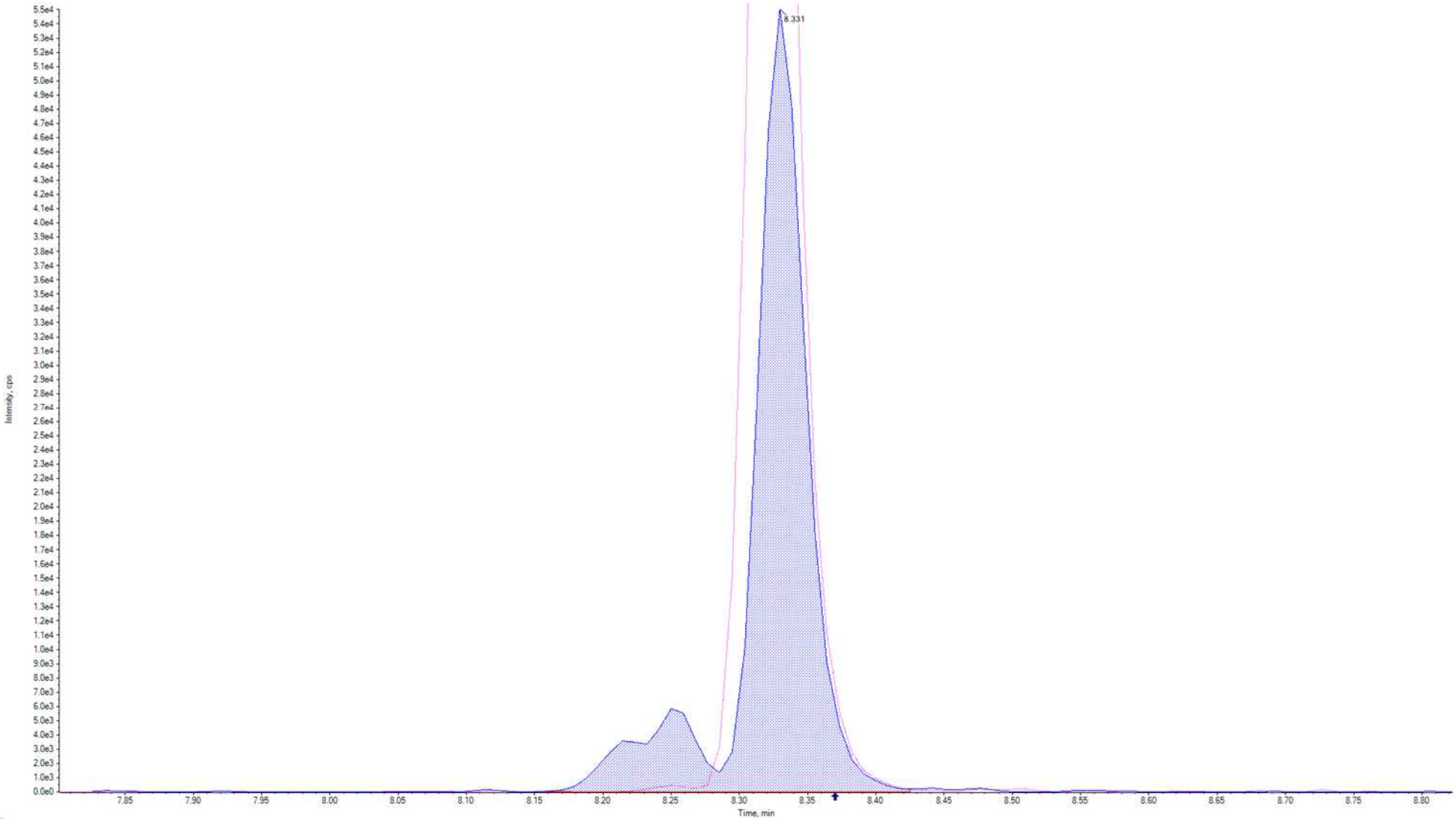
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NMeFOSAA_2
Sample: WG1972760-3 S/N:715.0 Points Across peak:35



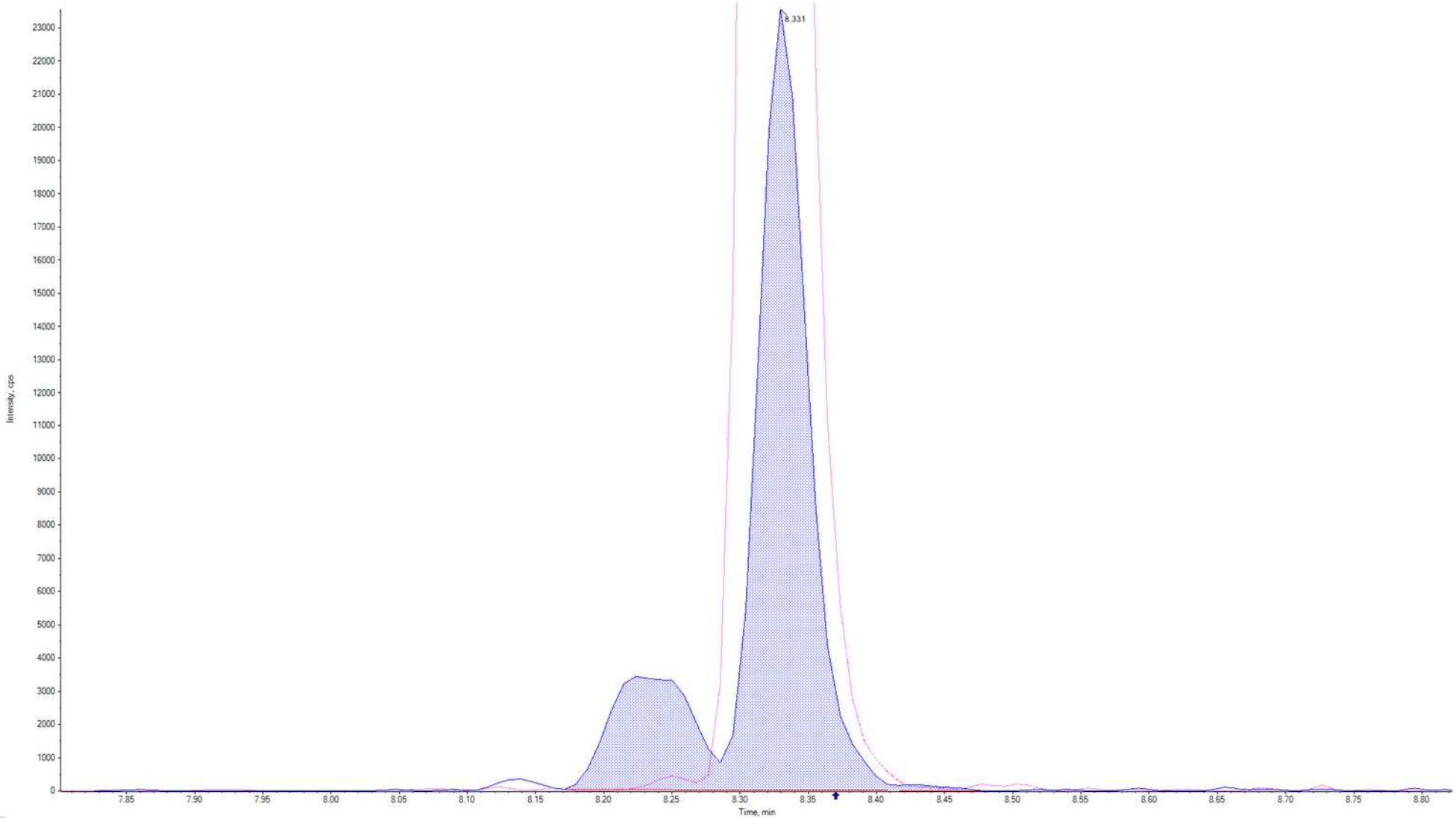
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Alpha Analytical Inc.
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NEtFOSAA
Sample: WG1972760-3 S/N:651.6 Points Across peak:34



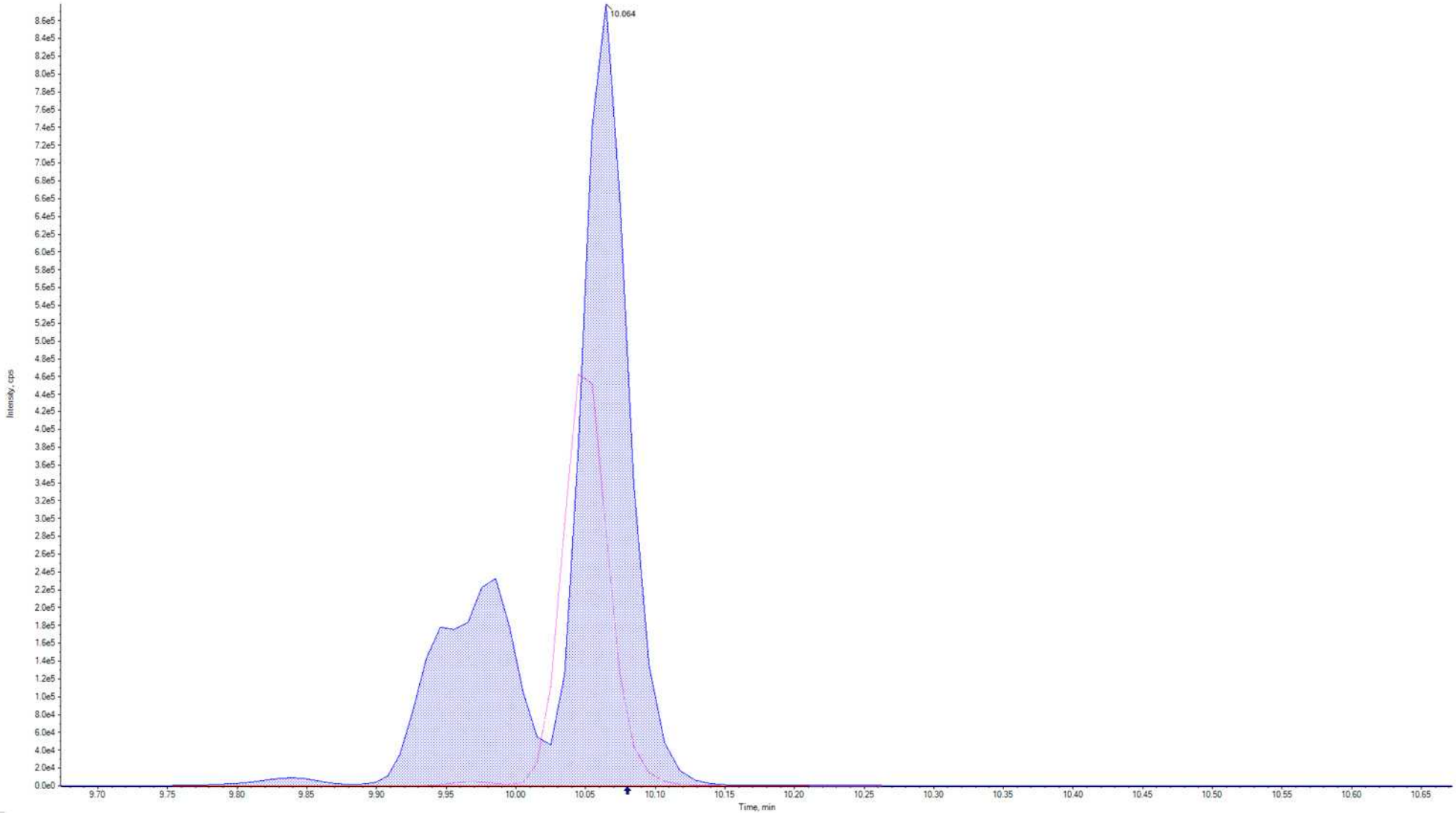
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NEtFOSAA_2
Sample: WG1972760-3 S/N:377.2 Points Across peak:37



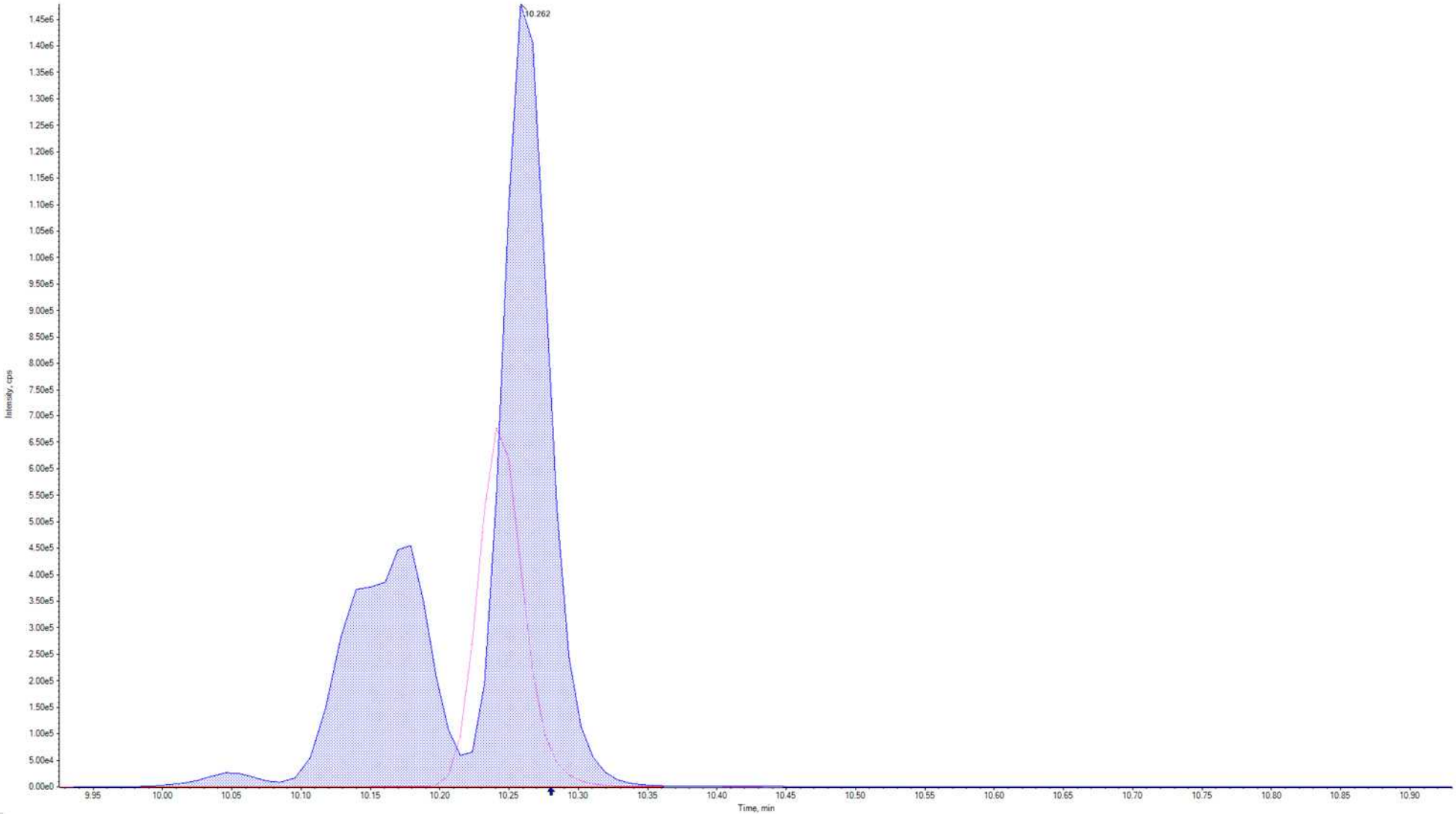
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NMeFOSE
Sample: WG1972760-3 S/N:3524.0 Points Across peak:53



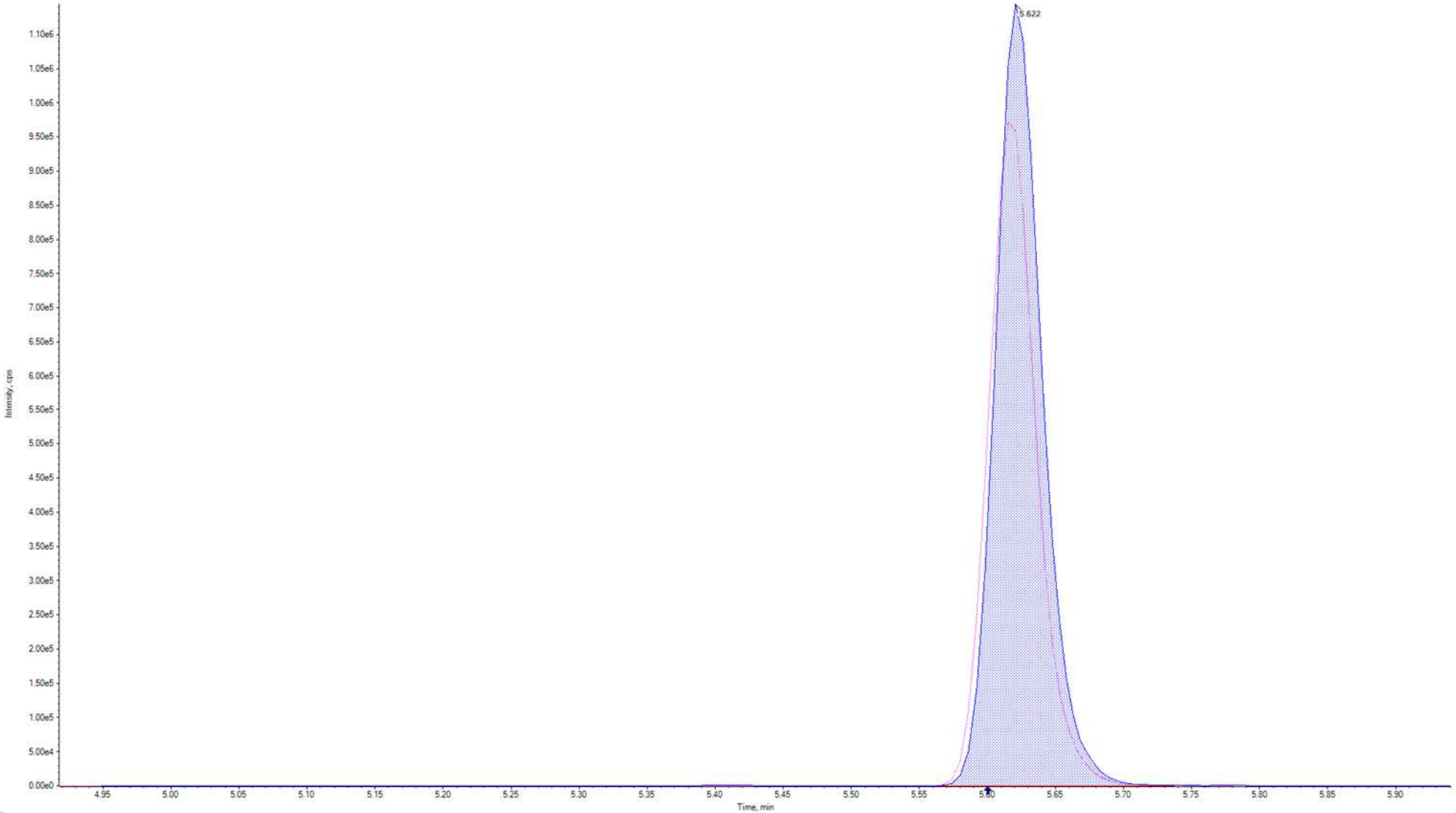
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NEtFOSE
Sample: WG1972760-3 S/N:2988.1 Points Across peak:47



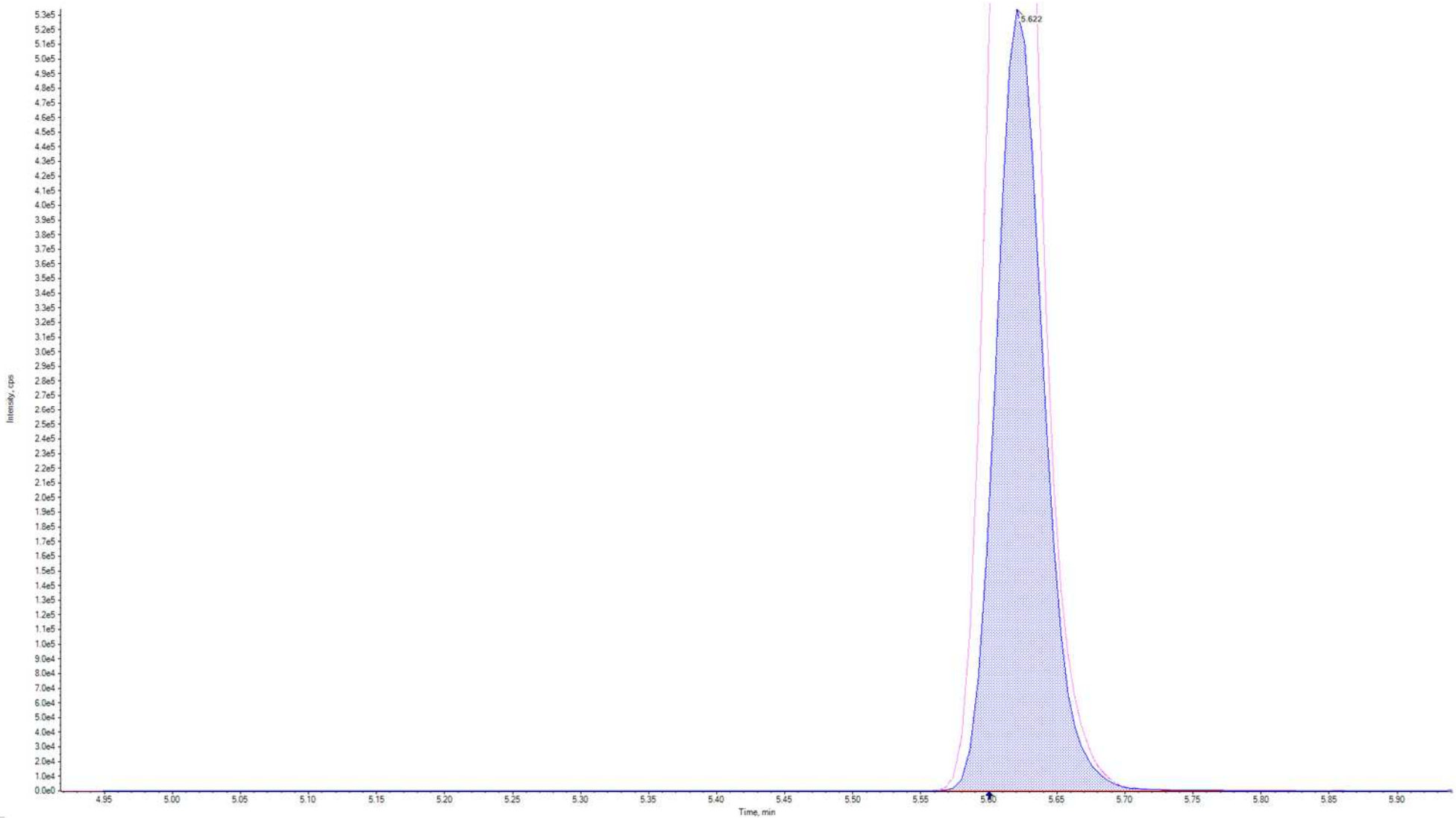
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HFPO-DA
Sample: WG1972760-3 S/N:85963.7 Points Across peak:38



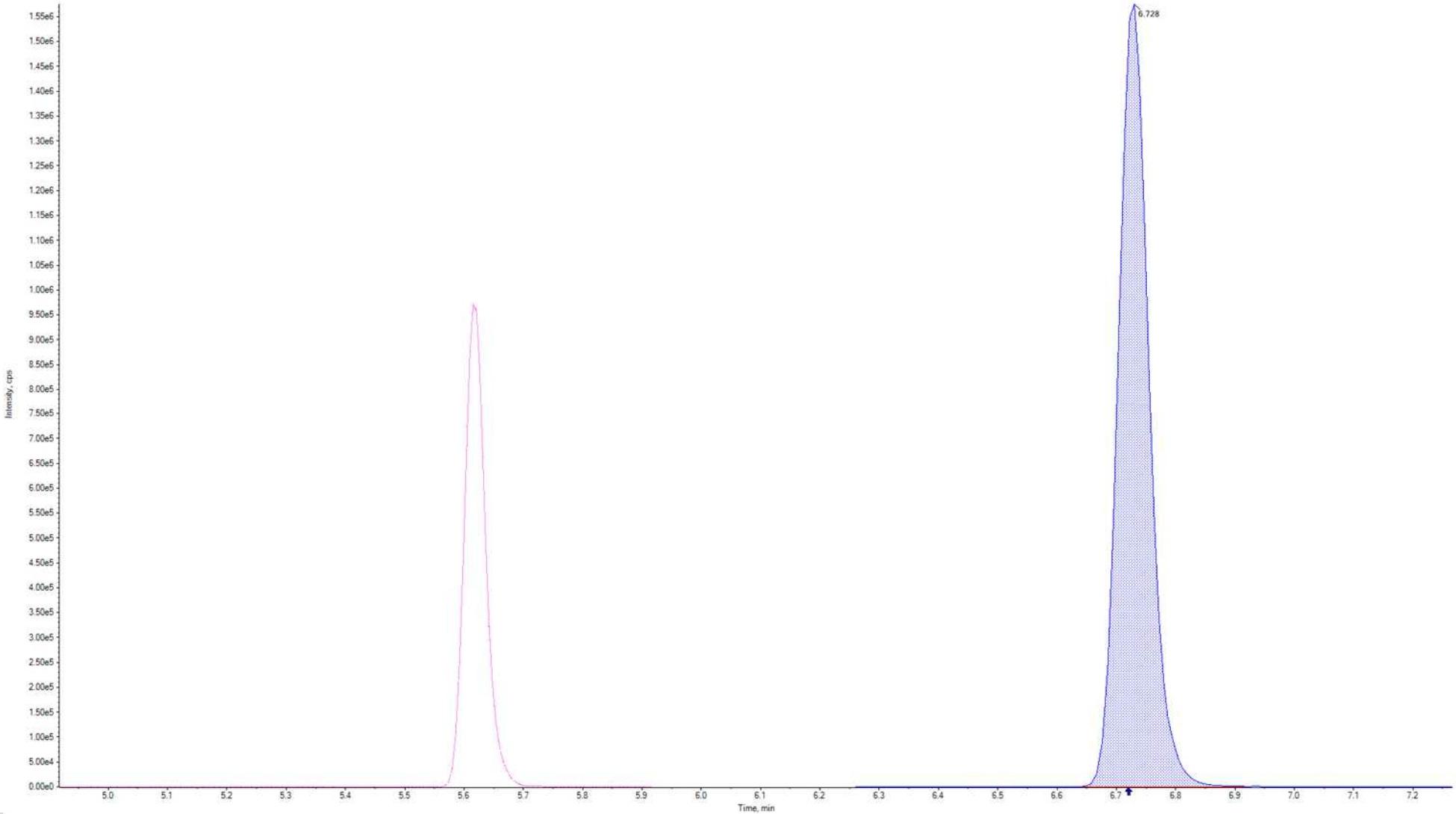
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HFPO-DA_2
Sample: WG1972760-3 S/N:6083.2 Points Across peak:49



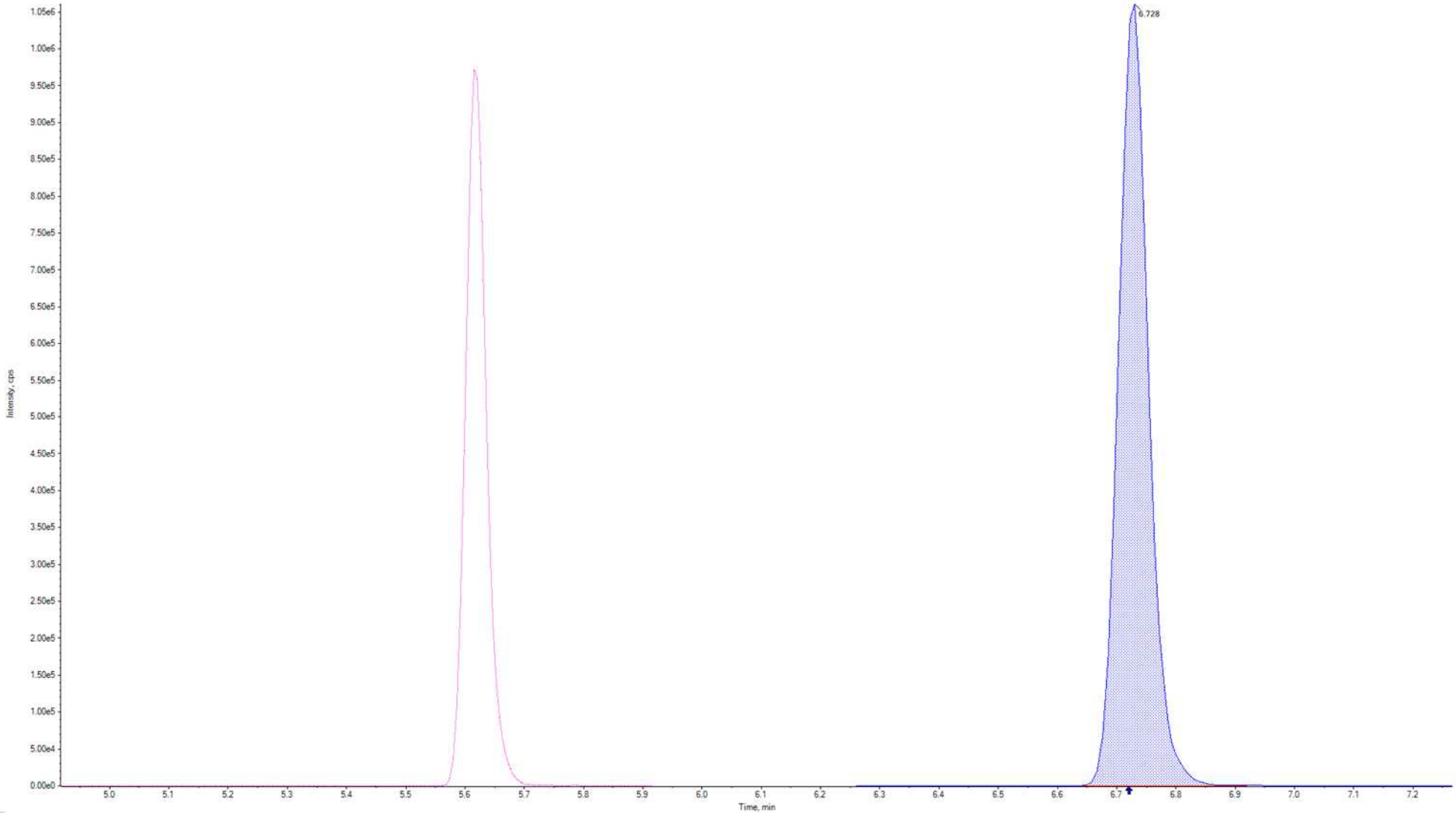
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Alpha Analytical Inc.
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ADONA
Sample: WG1972760-3 S/N:15350.8 Points Across peak:42



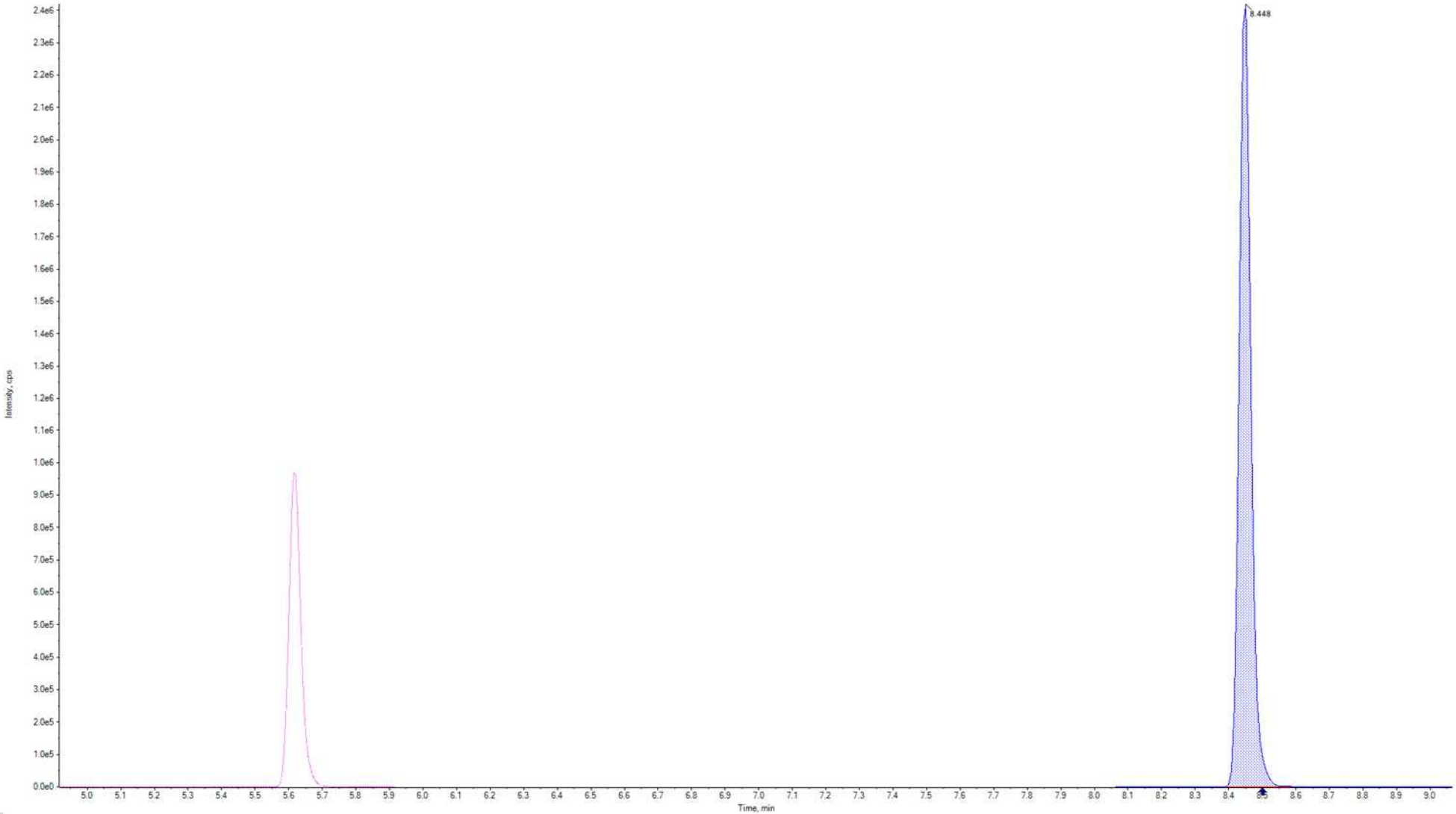
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ADONA_2
Sample: WG1972760-3 S/N:24510.7 Points Across peak:41



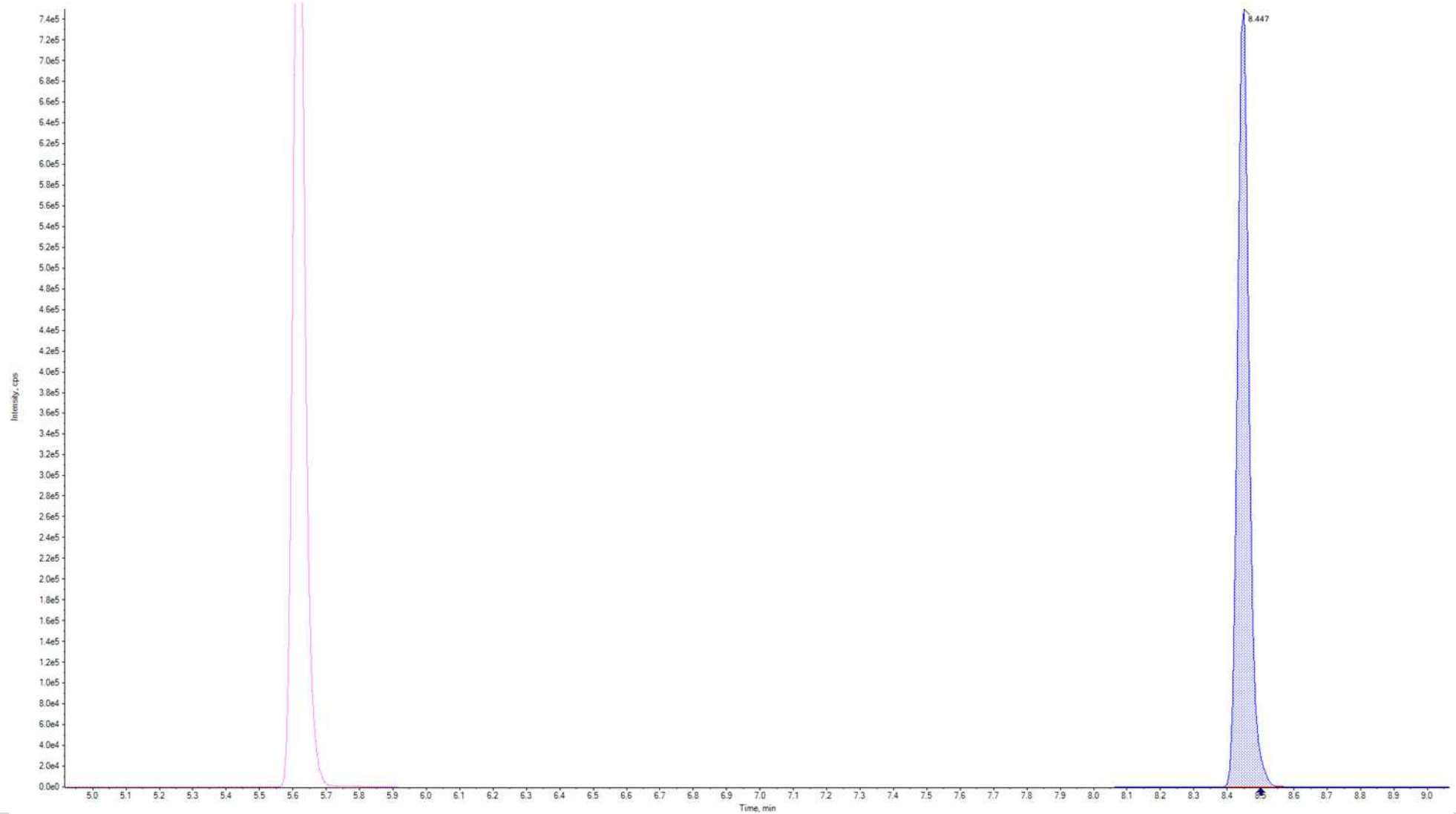
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Generated: 9/18/2024 6:35:36 AM

9Cl-PF3ONS
Sample: WG1972760-3 S/N:772729.8 Points Across peak:32



Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_17.wiff
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Generated: 9/18/2024 6:35:36 AM

9Cl-PF3ONS_2
Sample: WG1972760-3 S/N:310945.5 Points Across peak:30



Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_17.wiff
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11Cl-PF3OUdS
Sample: WG1972760-3 S/N:3812.3 Points Across peak:40



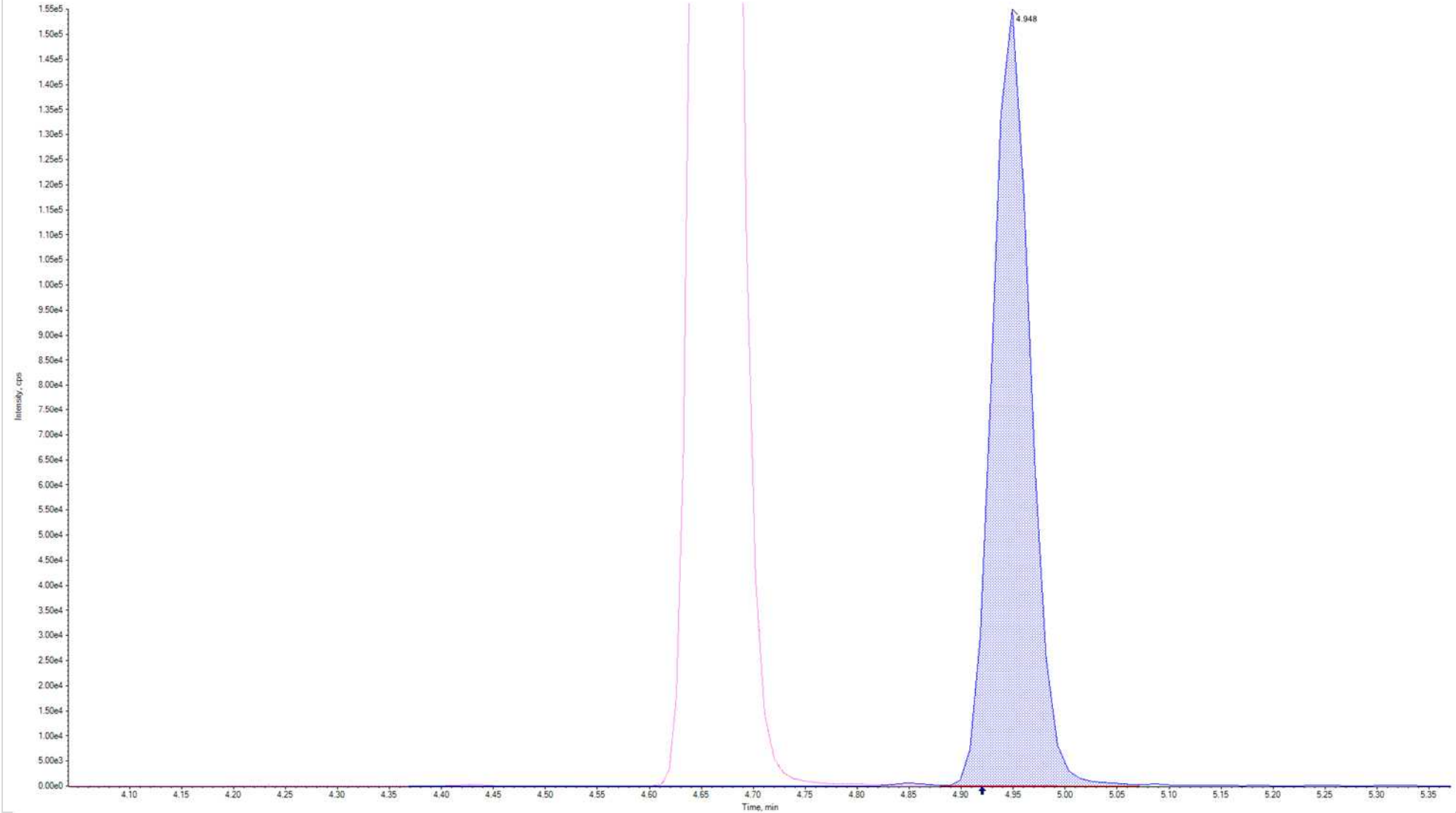
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11Cl-PF3OUdS_2
Sample: WG1972760-3 S/N:289370.2 Points Across peak:43



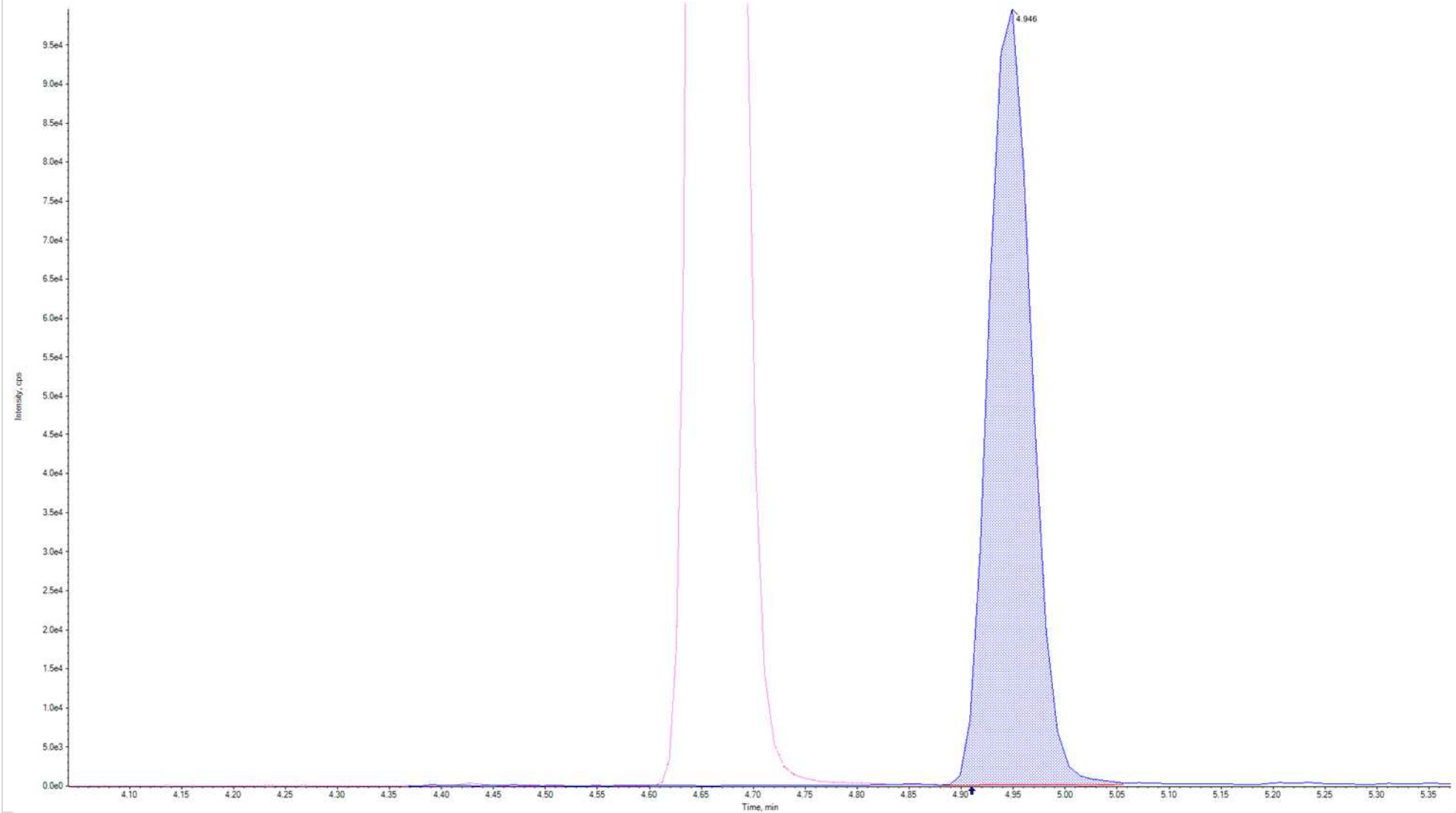
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Alpha Analytical Inc.
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3:3FTCA
Sample: WG1972760-3 S/N:3705.1 Points Across peak:20



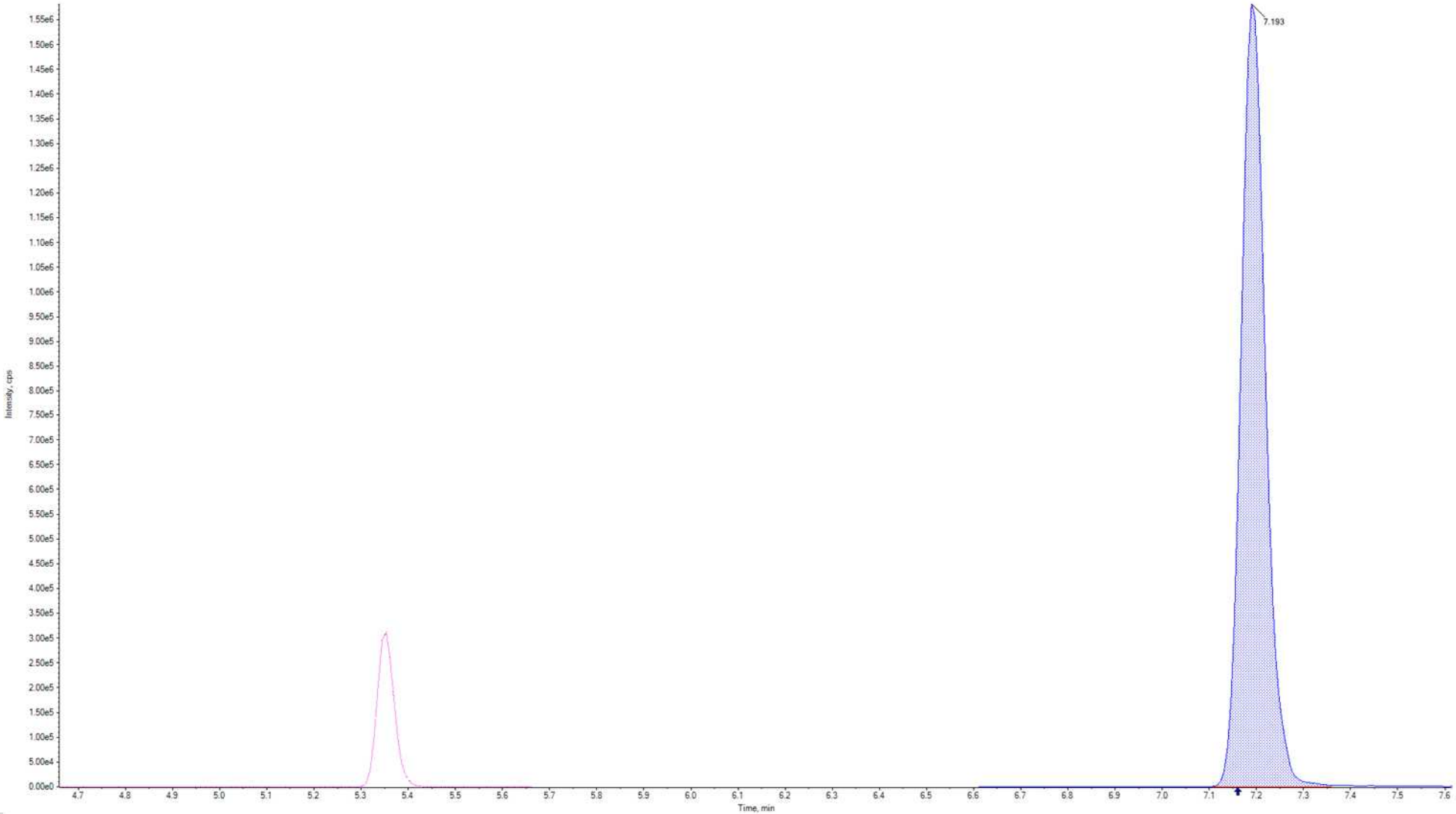
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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3:3FTCA_2
Sample: WG1972760-3 S/N:2303.9 Points Across peak:18



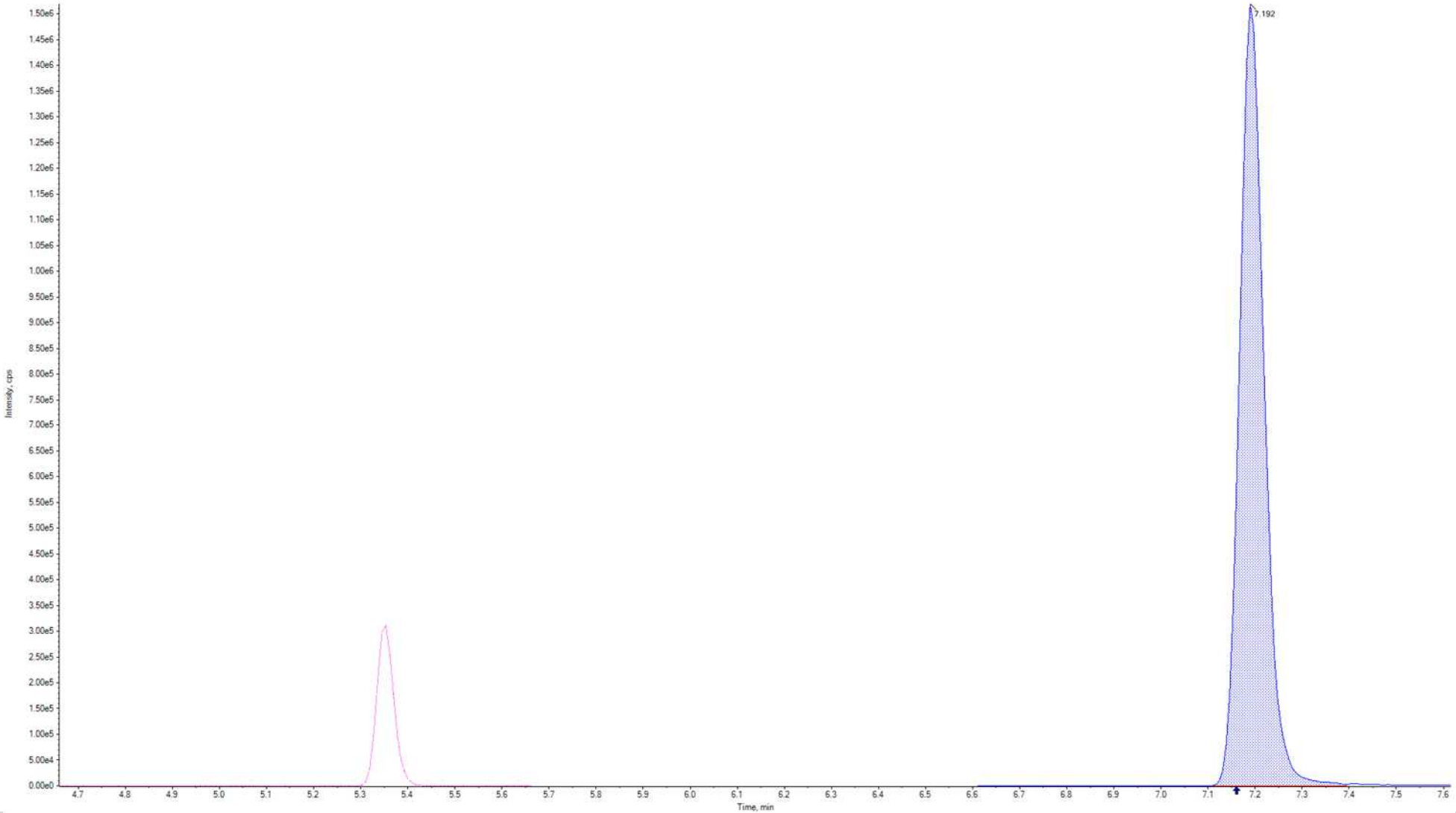
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

5:3FTCA
Sample: WG1972760-3 S/N:38540.9 Points Across peak:45



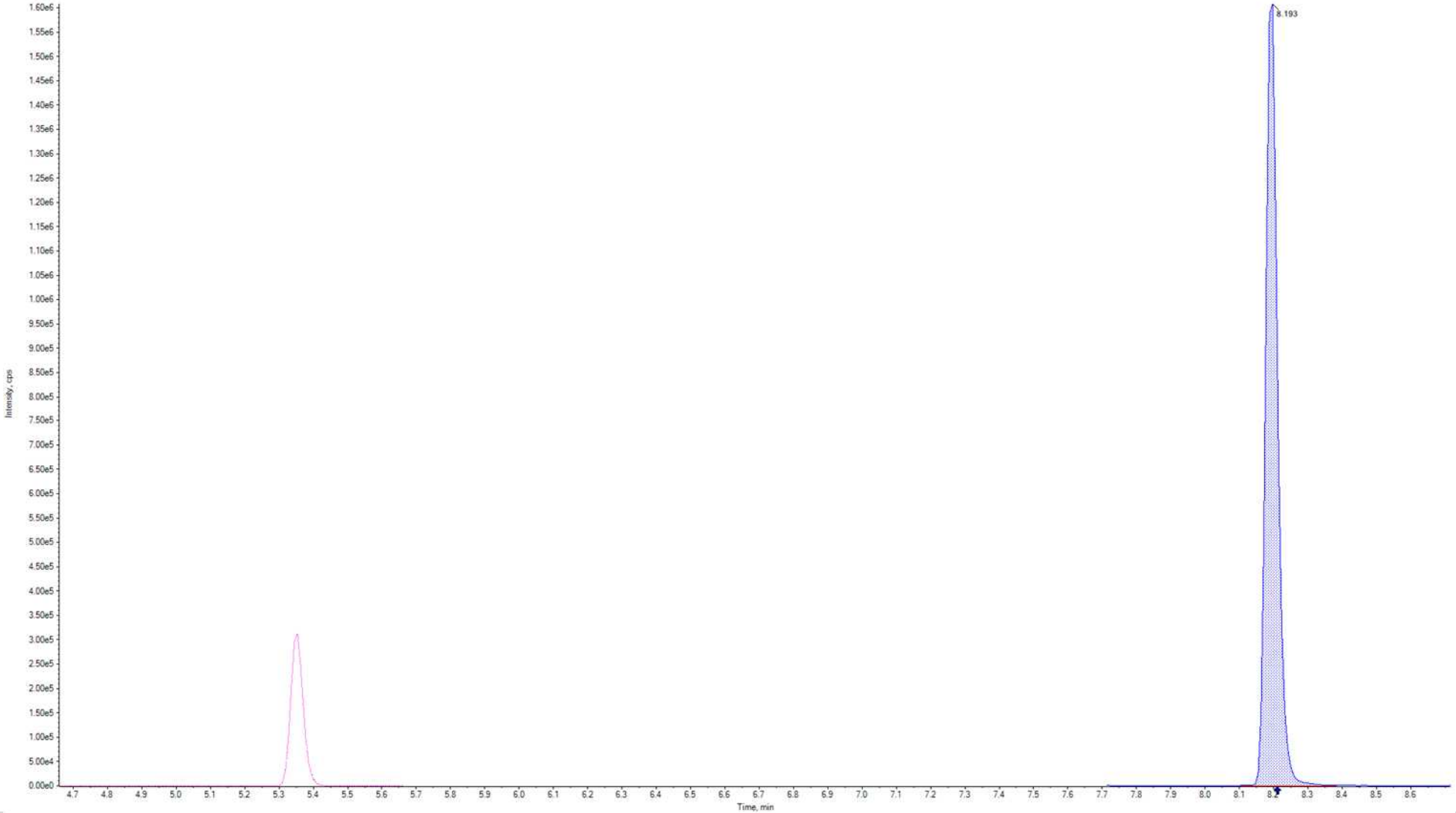
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

5:3FTCA_2
Sample: WG1972760-3 S/N:26258.3 Points Across peak:51



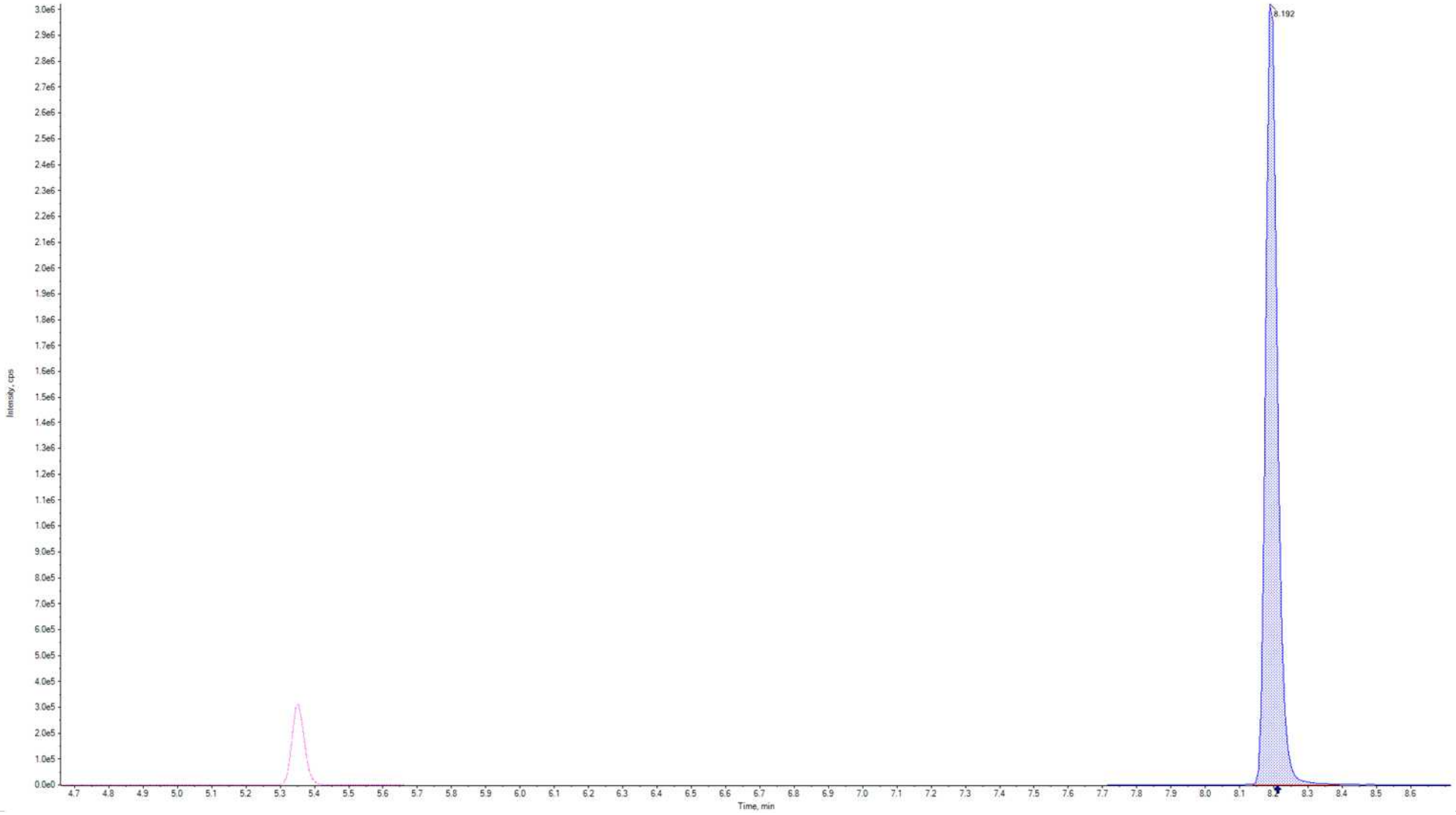
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_17.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

7:3FTCA
Sample: WG1972760-3 S/N:304207.6 Points Across peak:40



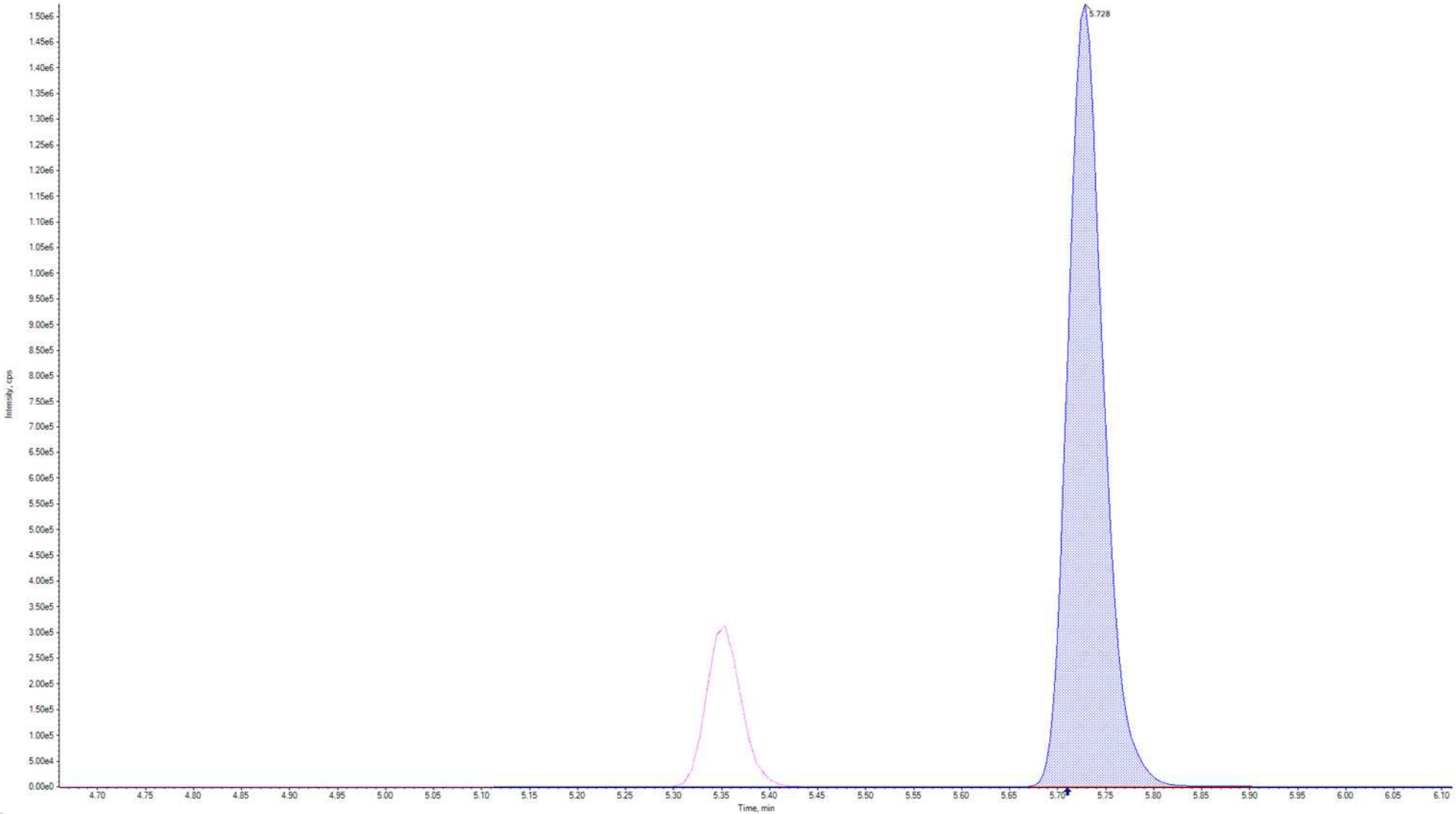
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

7:3FTCA_2
Sample: WG1972760-3 S/N:306093.5 Points Across peak:30



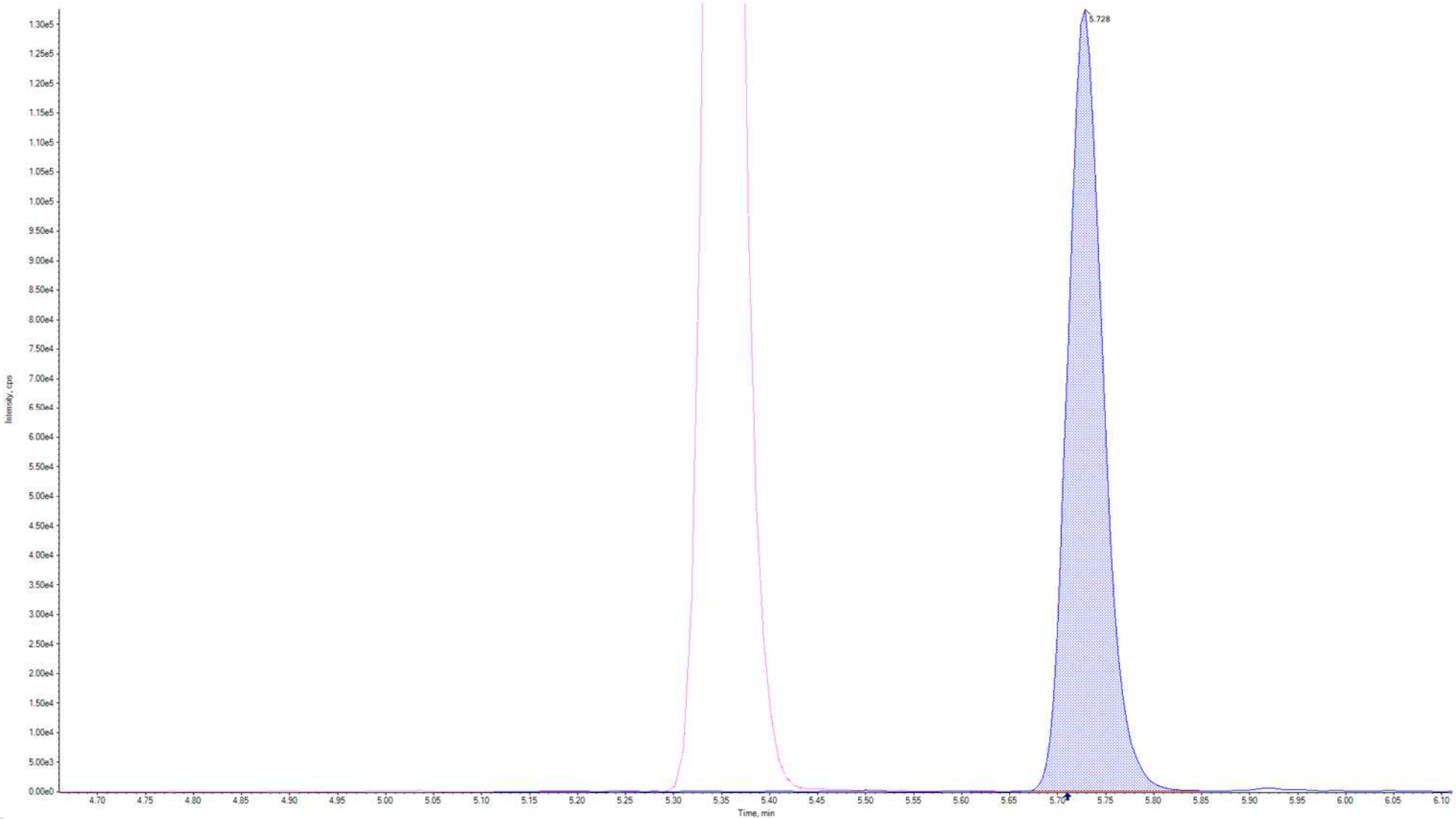
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFEESA
Sample: WG1972760-3 S/N:12646.4 Points Across peak:62



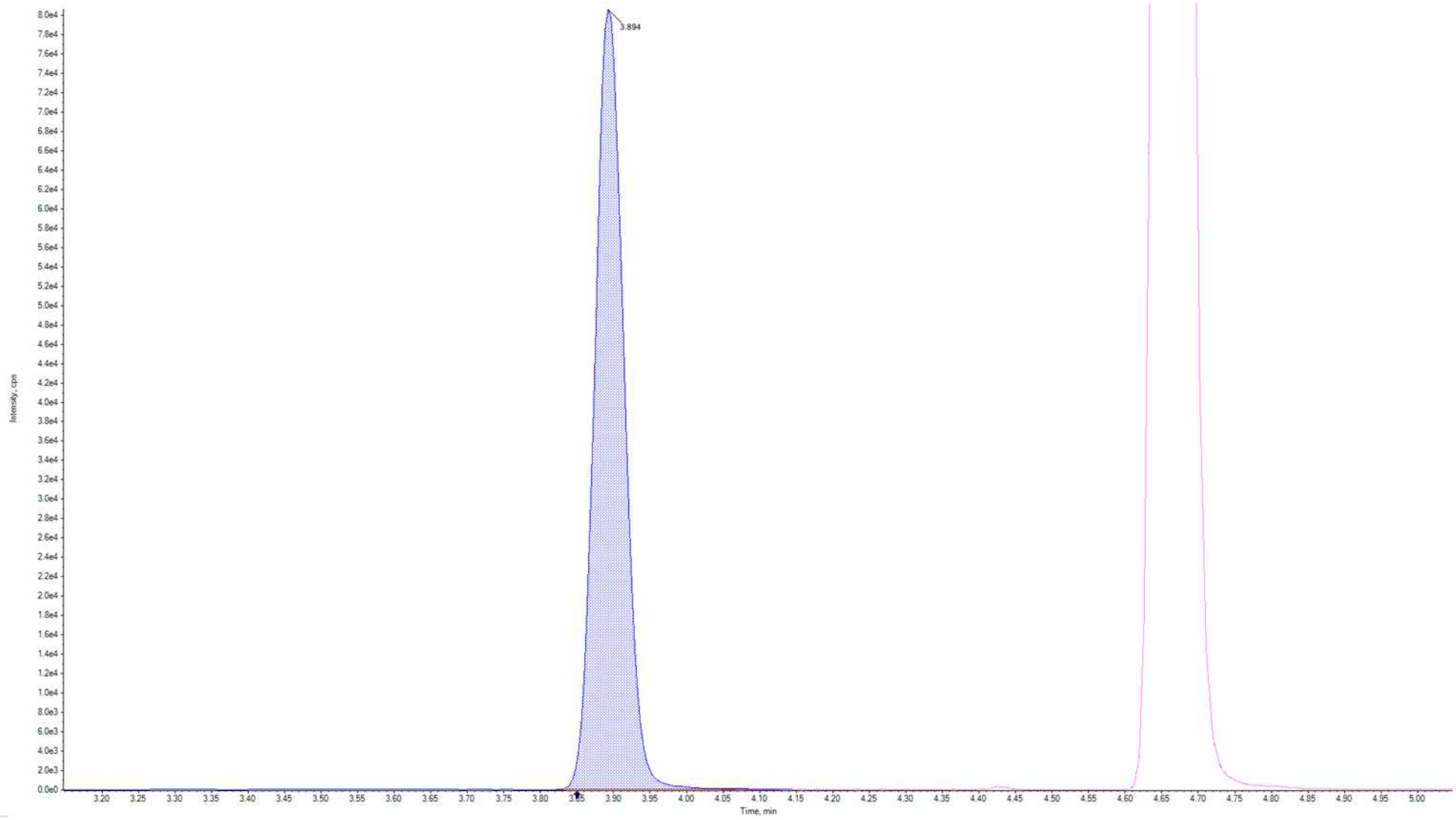
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFEESA_2
Sample: WG1972760-3 S/N:3730.6 Points Across peak:42



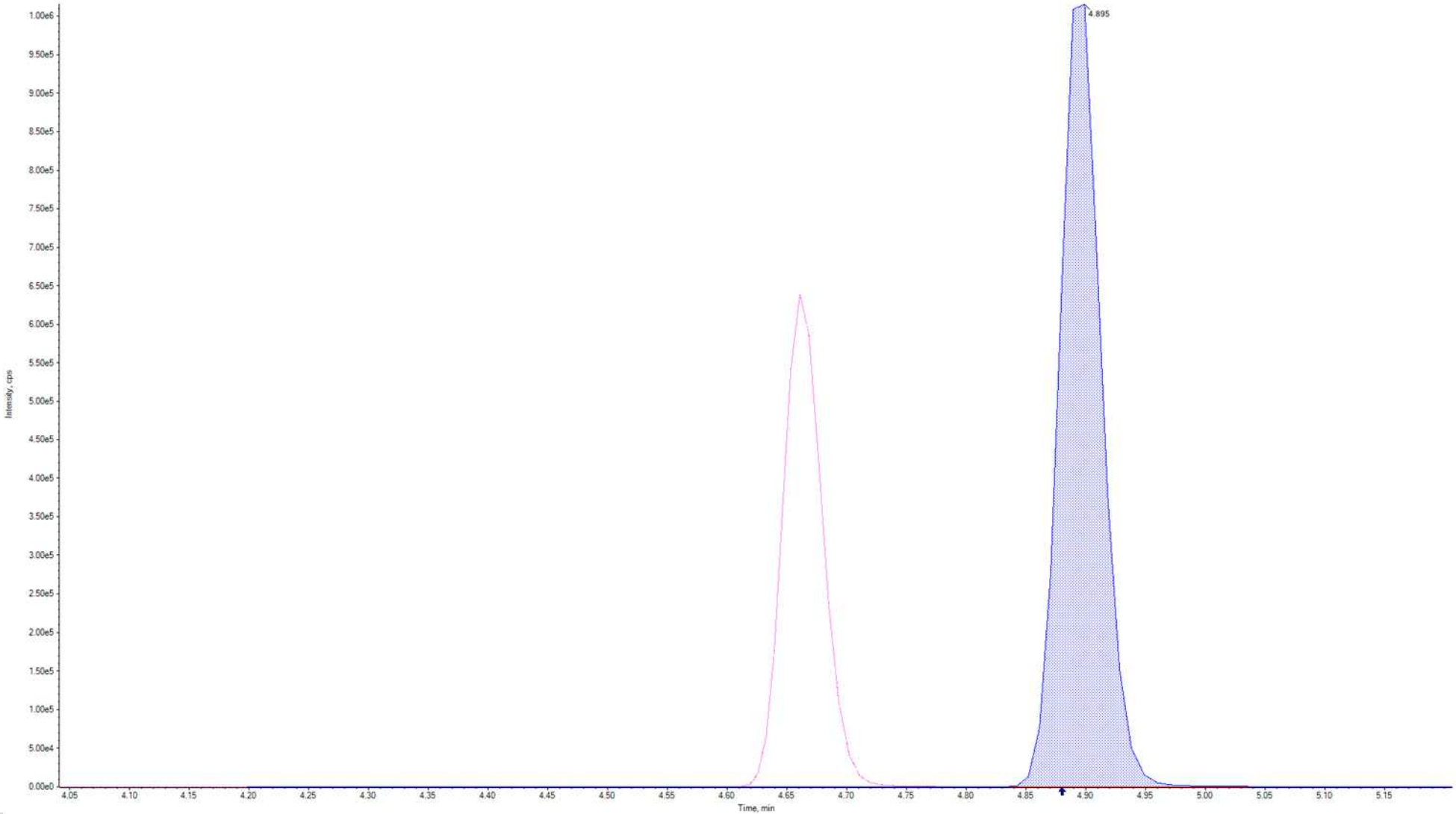
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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PFMPA
Sample: WG1972760-3 S/N:6401.6 Points Across peak:63



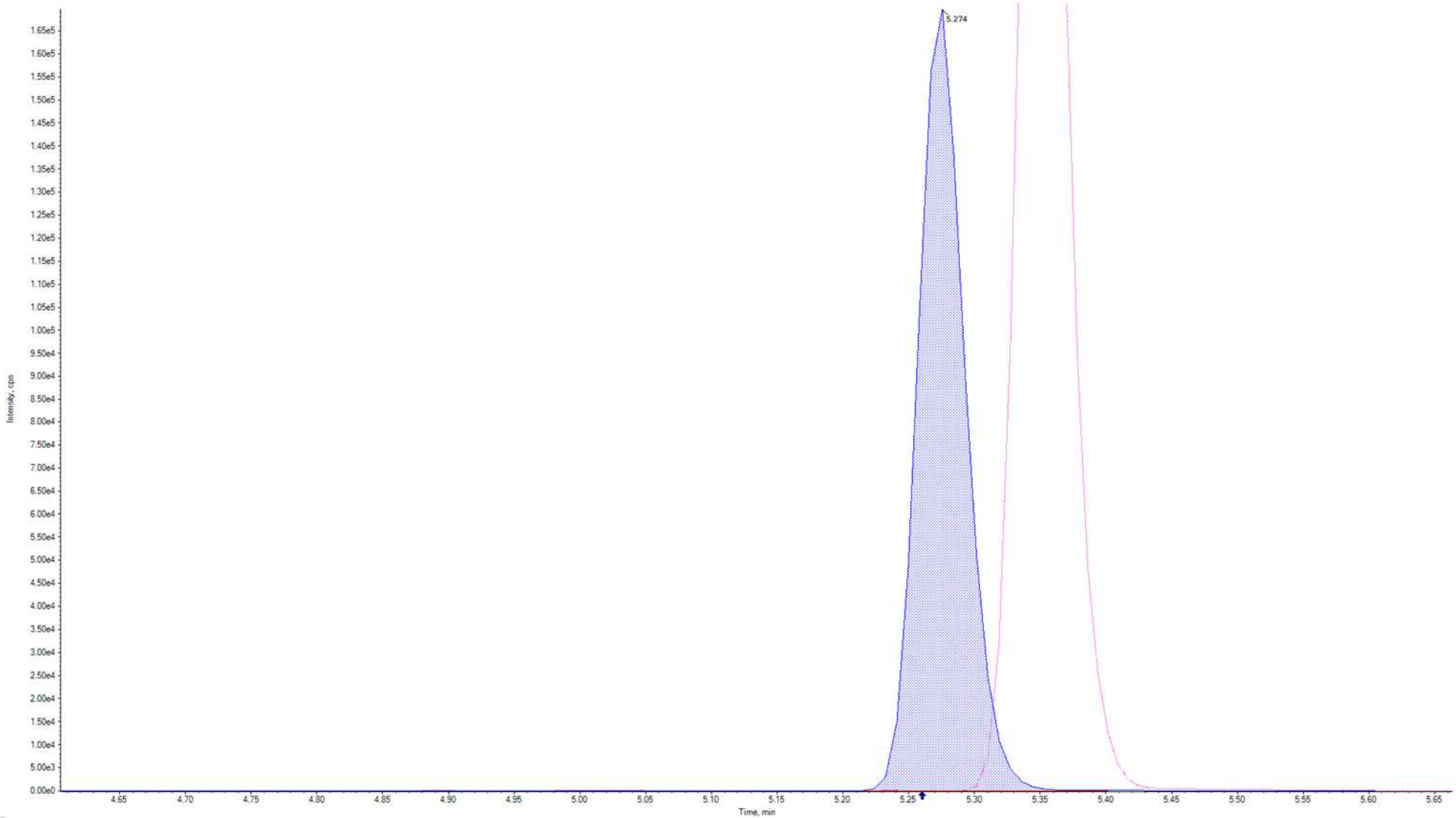
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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PFMBA
Sample: WG1972760-3 S/N:29537.0 Points Across peak:29



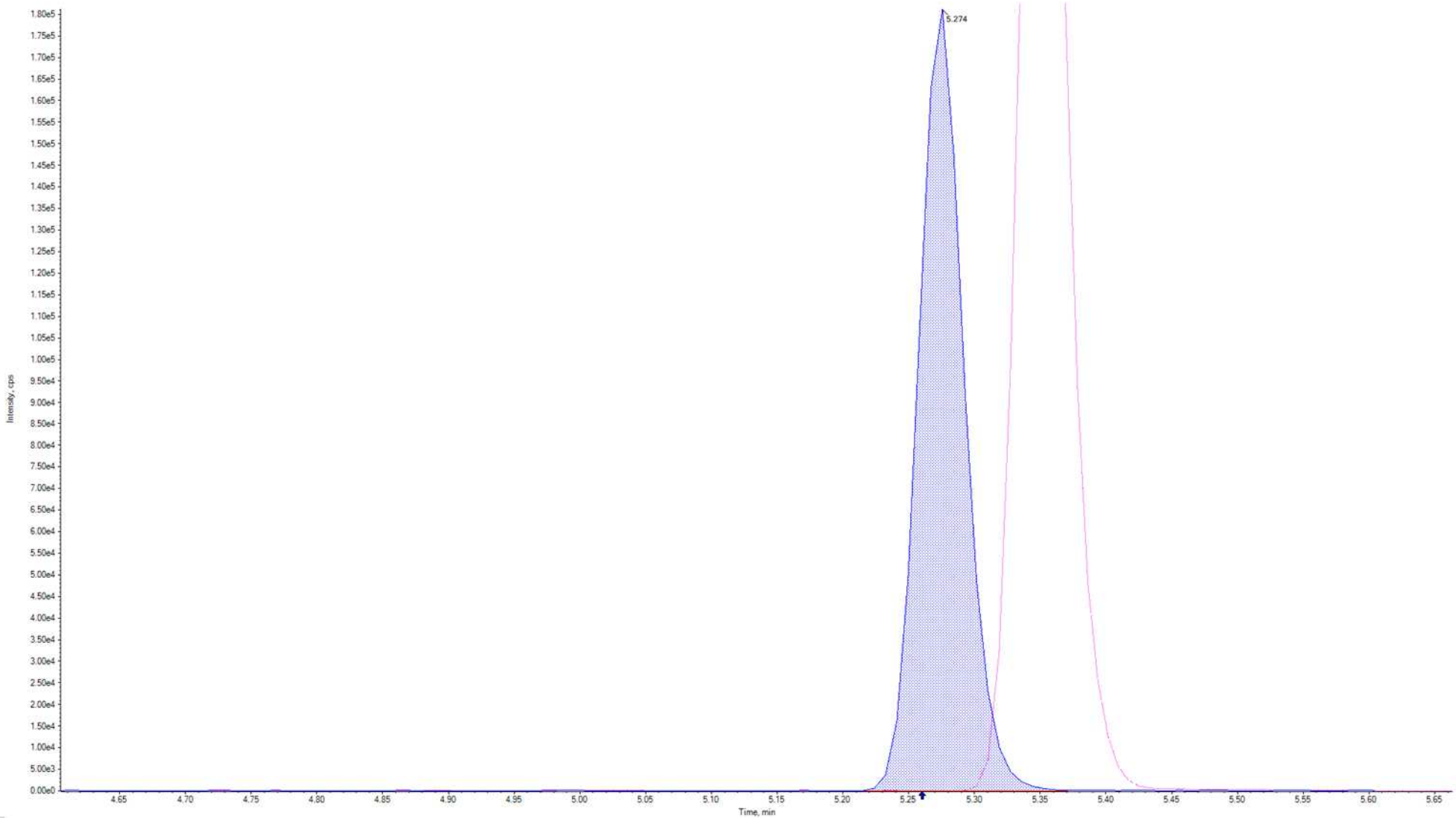
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Alpha Analytical Inc.
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NFDHA
Sample: WG1972760-3 S/N:3310.5 Points Across peak:30



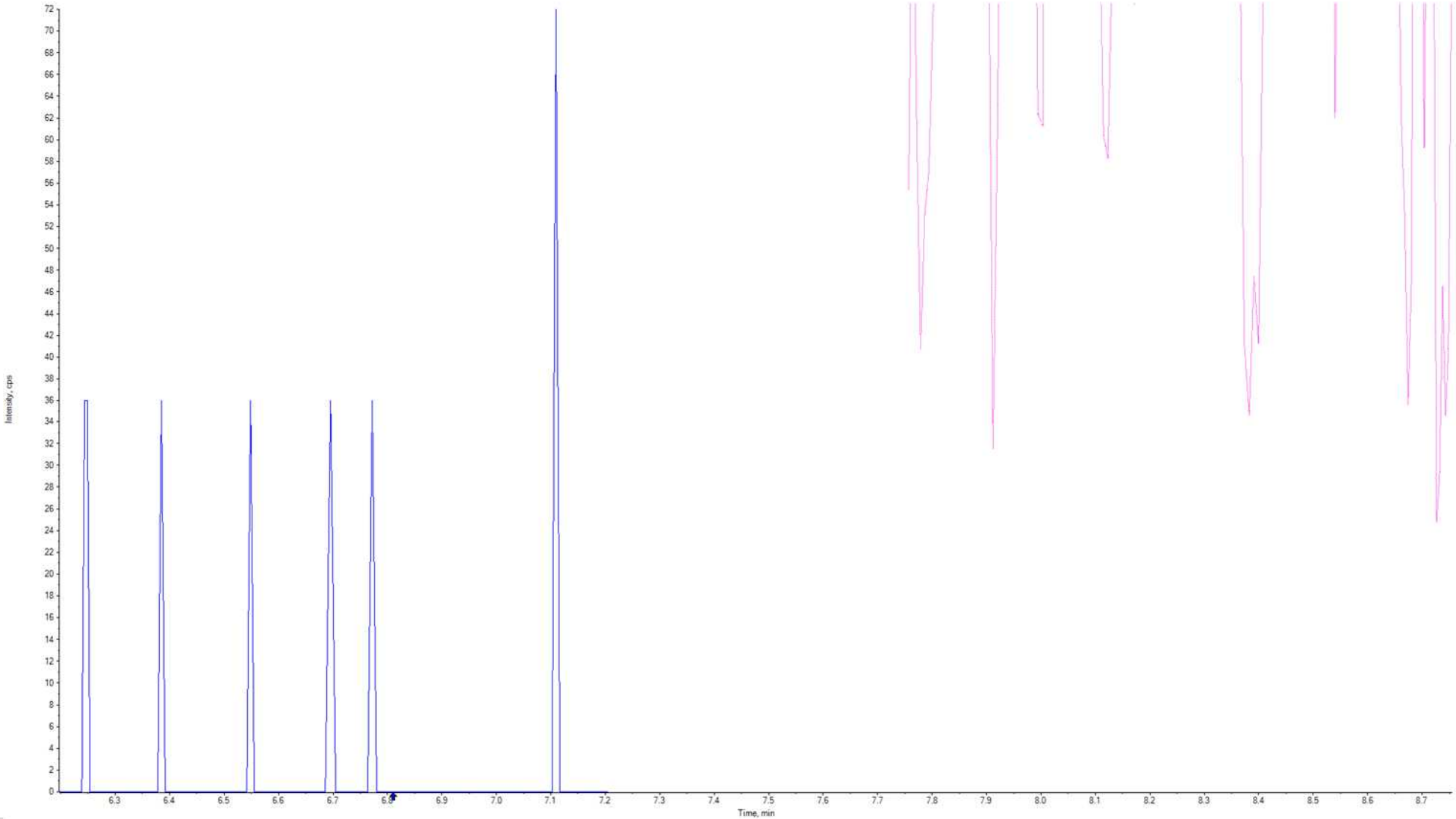
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Alpha Analytical Inc.
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NFDHA_2
Sample: WG1972760-3 S/N:7120.1 Points Across peak:21



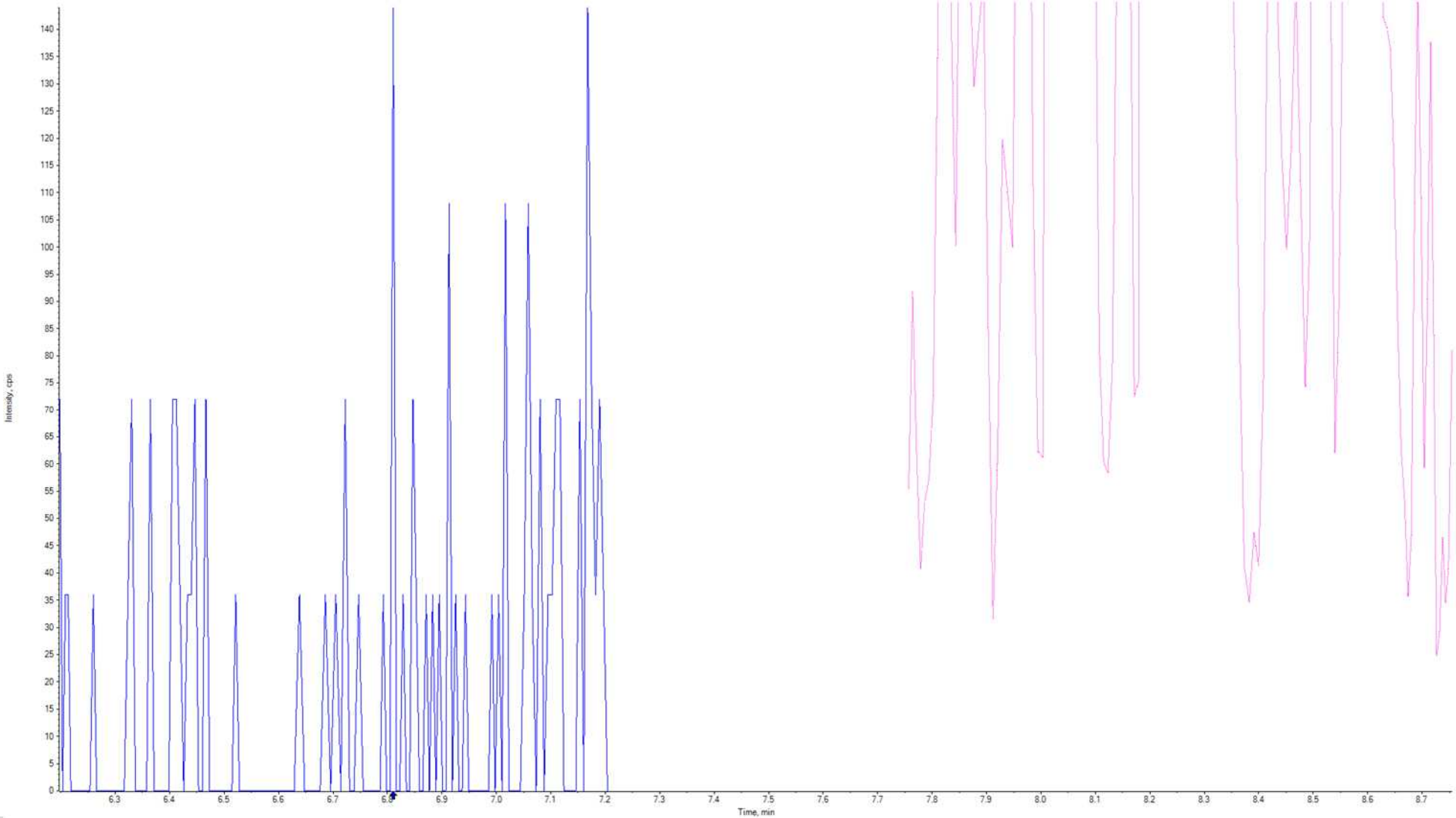
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Alpha Analytical Inc.
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TDCA
Sample: WG1972760-3 S/N:N/A Points Across peak:N/A



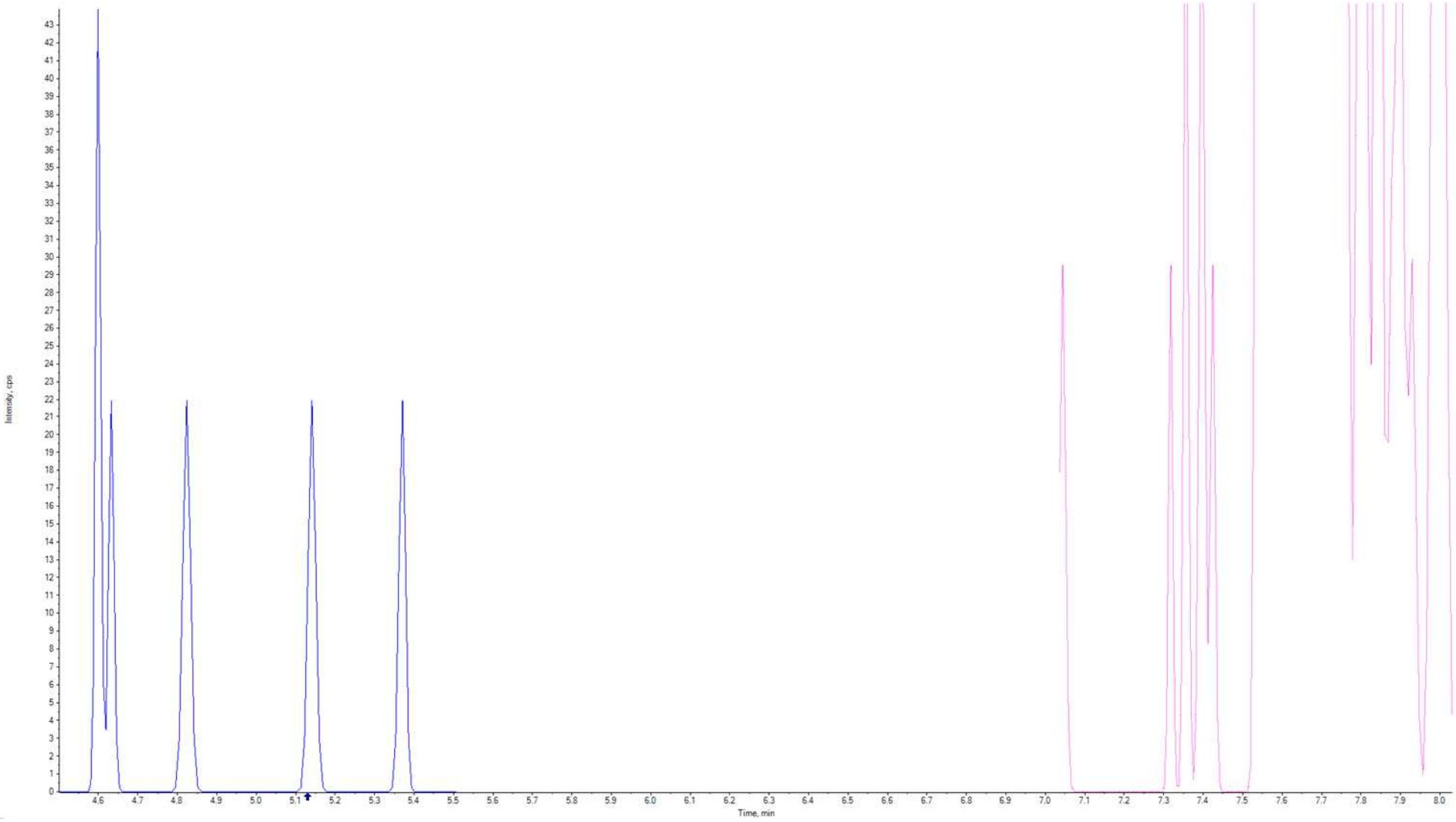
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_17.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

TDCA_2
Sample: WG1972760-3 S/N:N/A Points Across peak:N/A



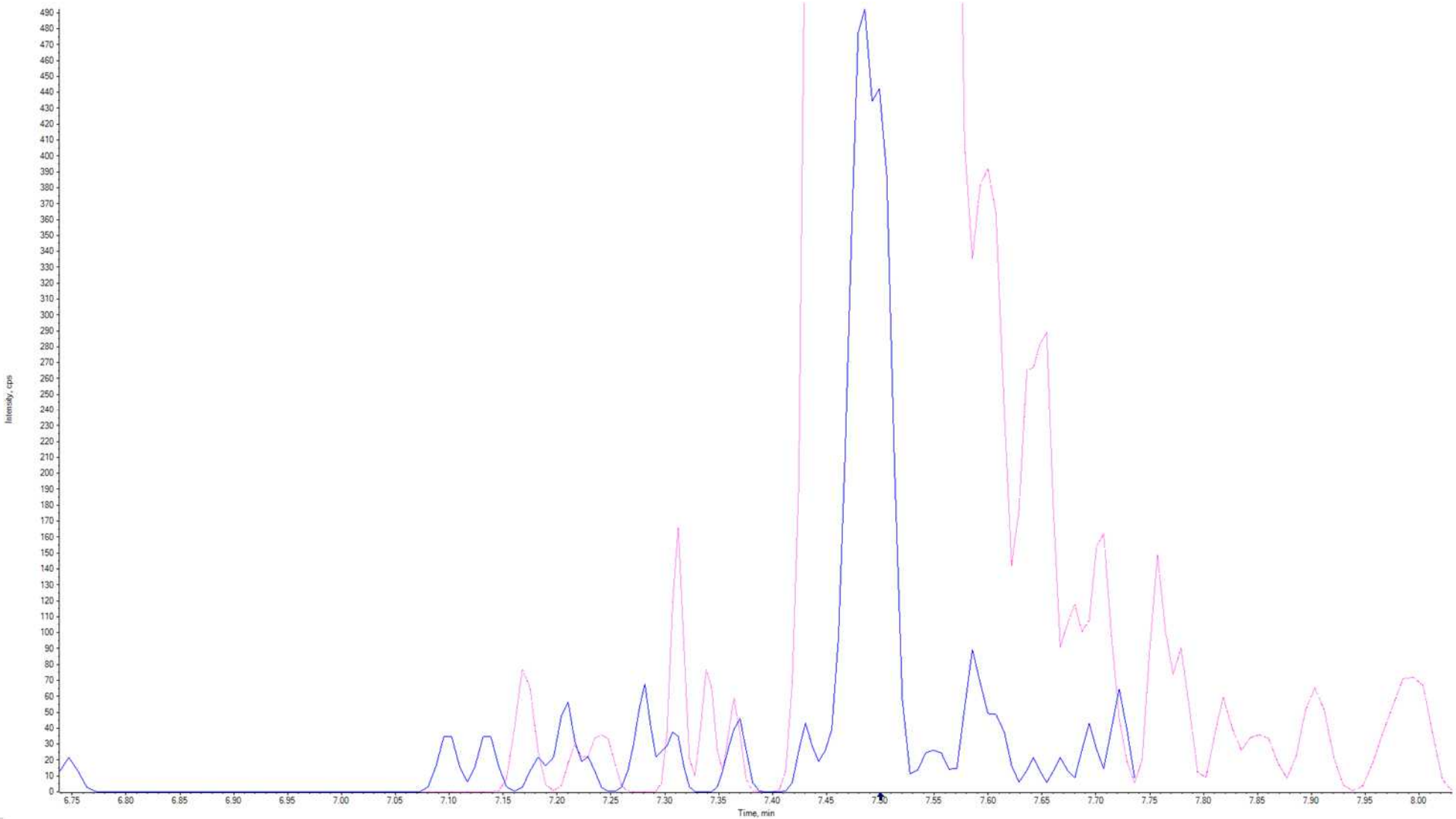
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

13C2D4-4:2FTS
Sample: WG1972760-3 S/N:N/A Points Across peak:N/A

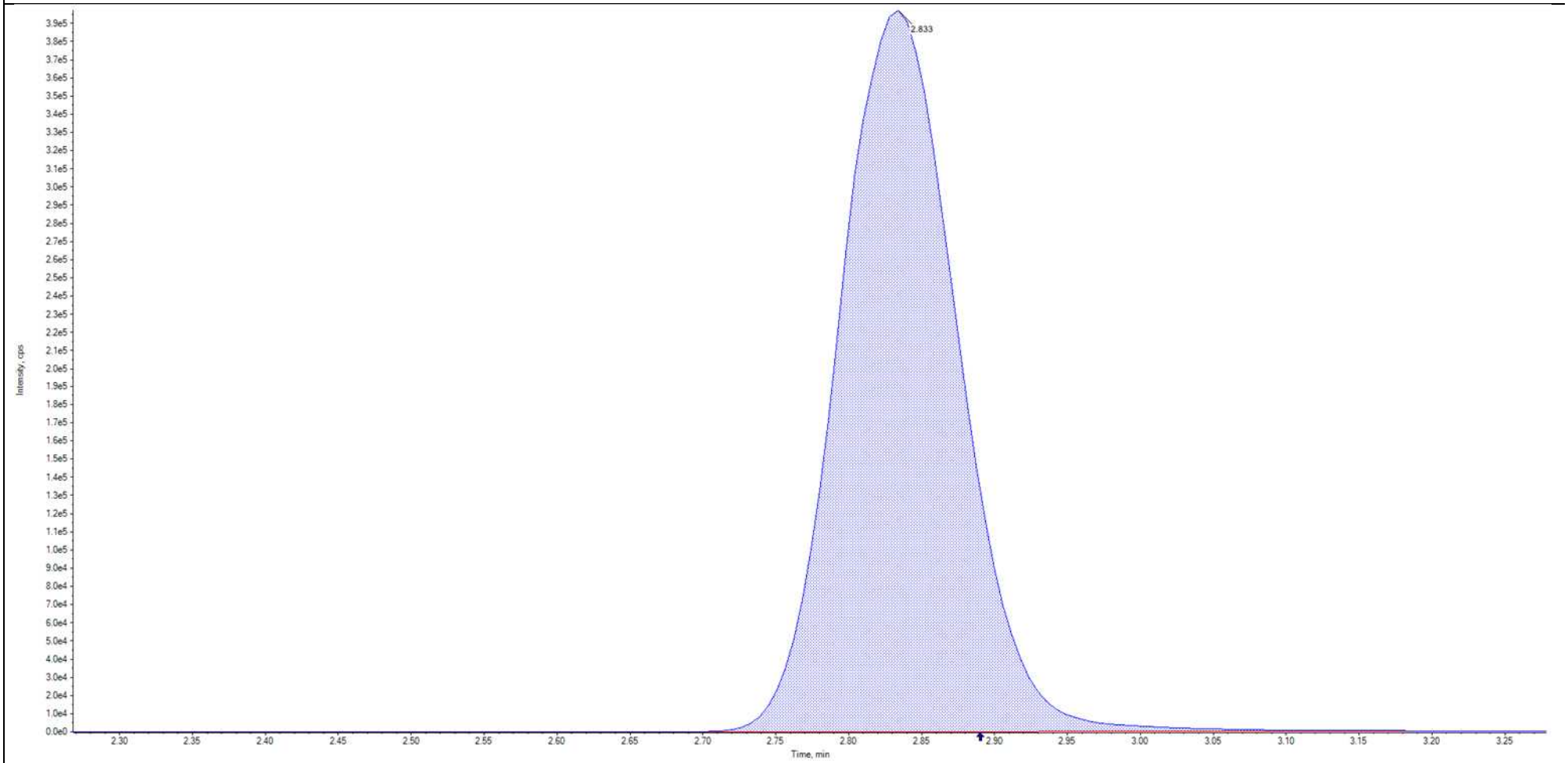


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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13C2-PFOA
Sample: WG1972760-3 S/N:N/A Points Across peak:N/A

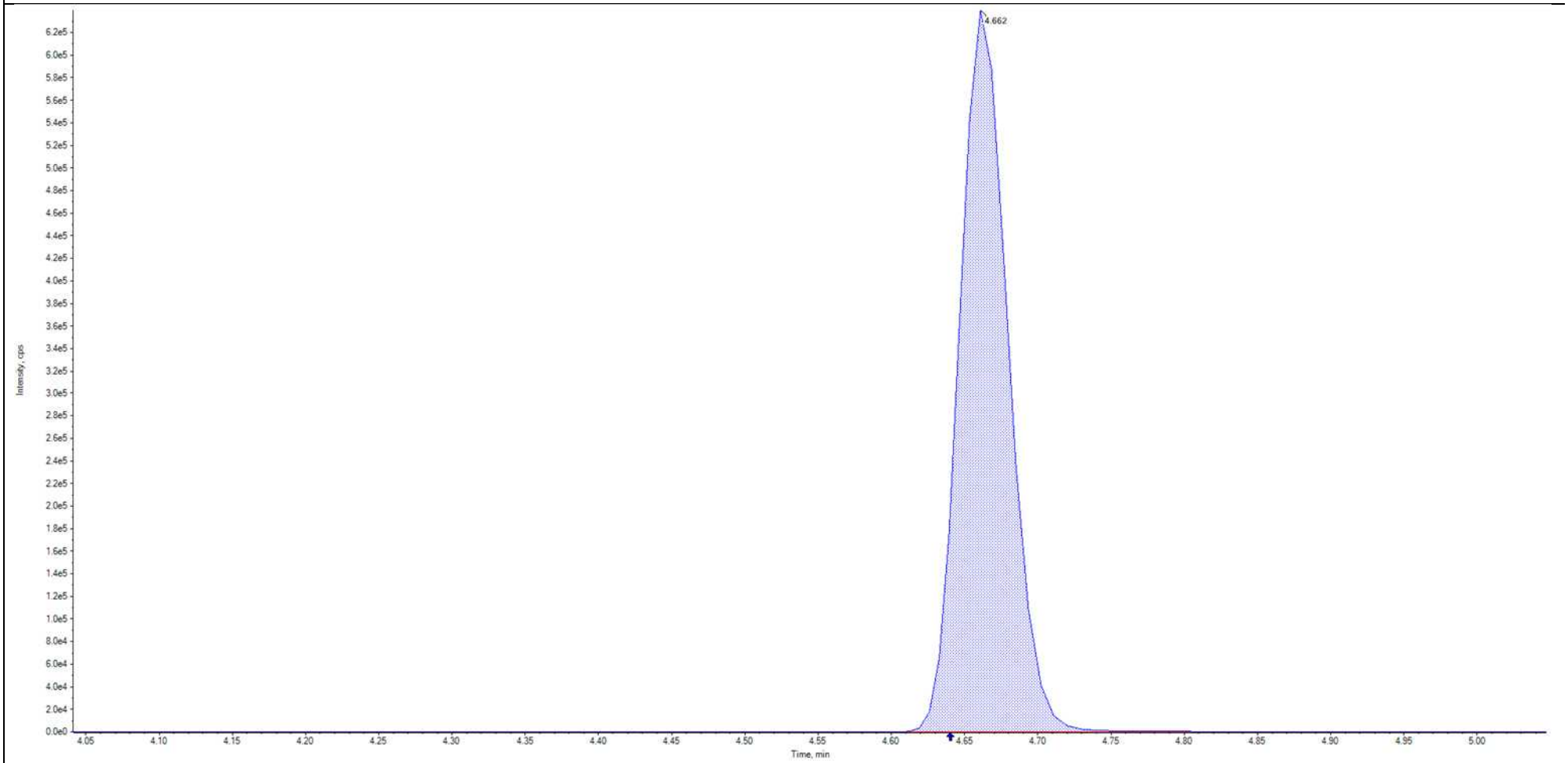


13C4-PFBA
Sample: WG1972760-3

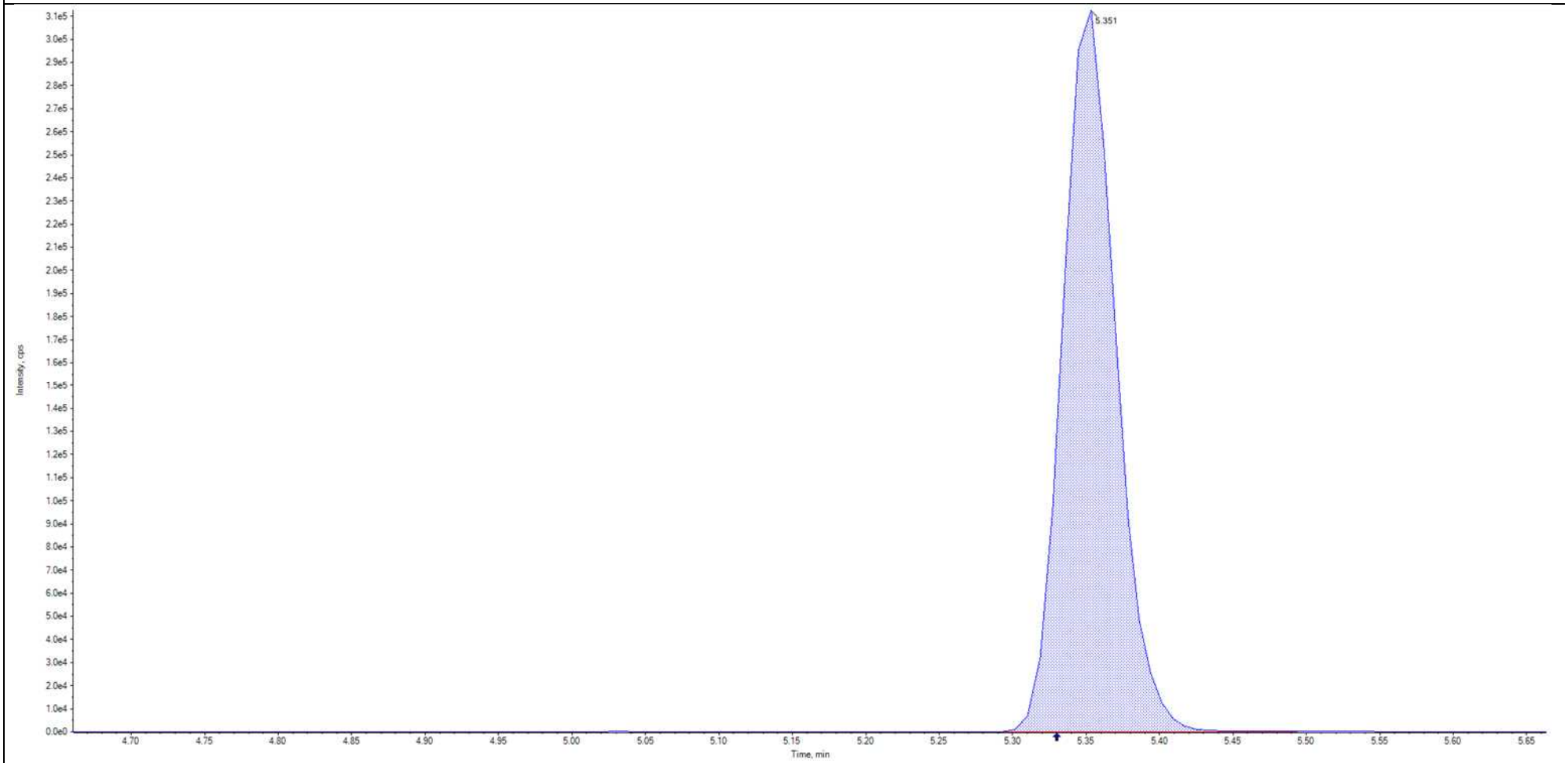


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
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13C5-PFPeA
Sample: WG1972760-3

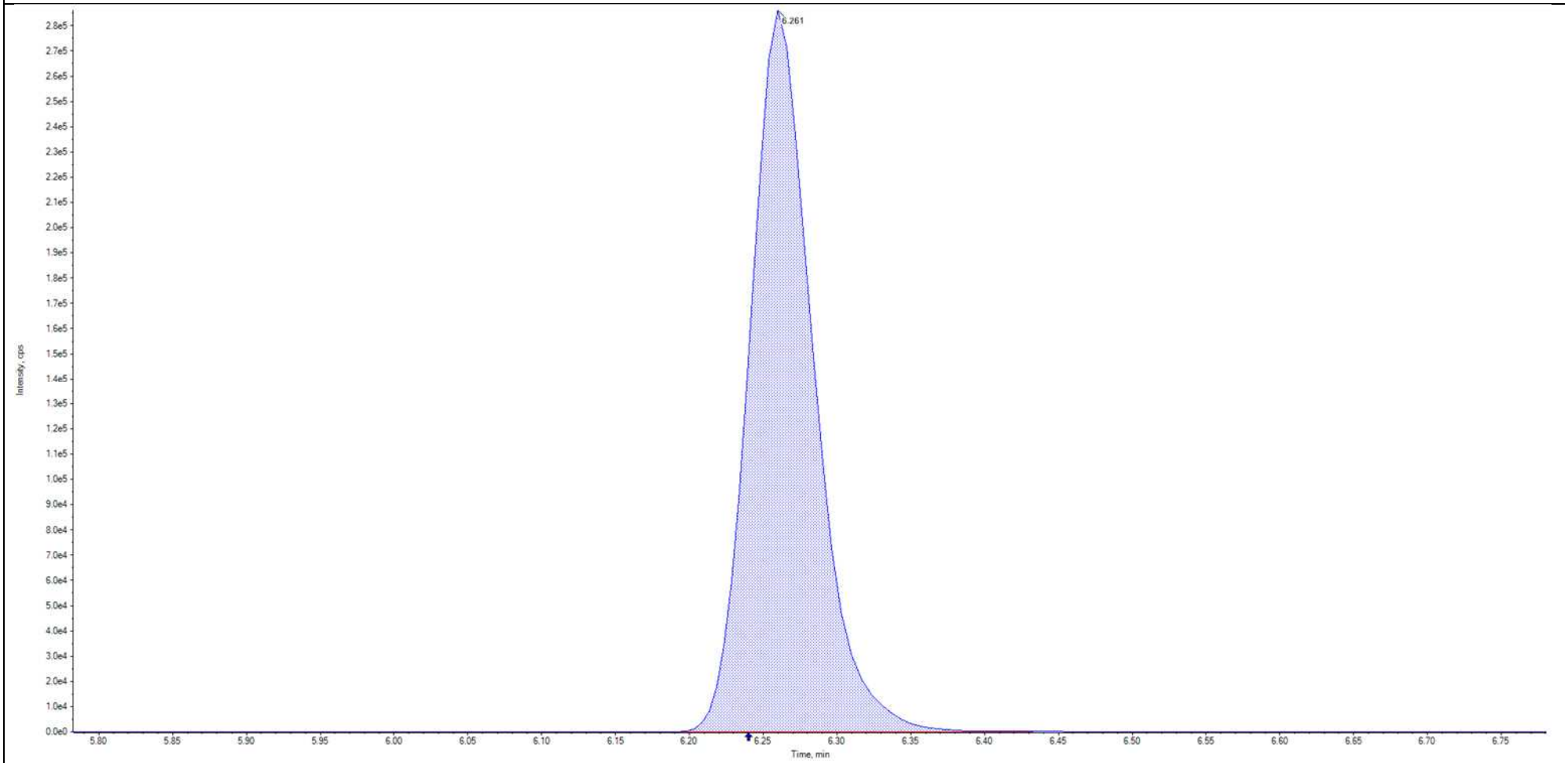


13C5-PFHxA
Sample: WG1972760-3

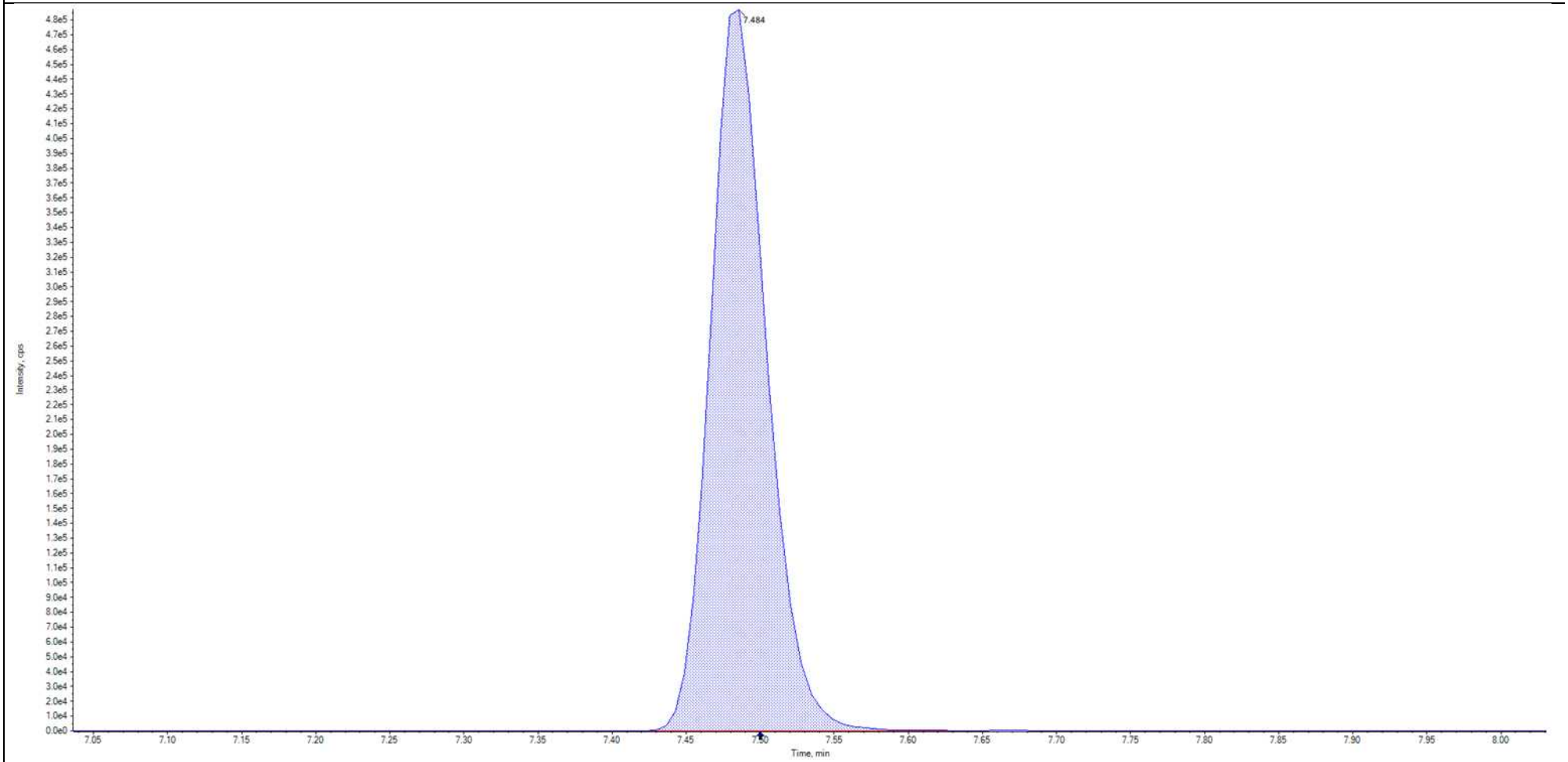


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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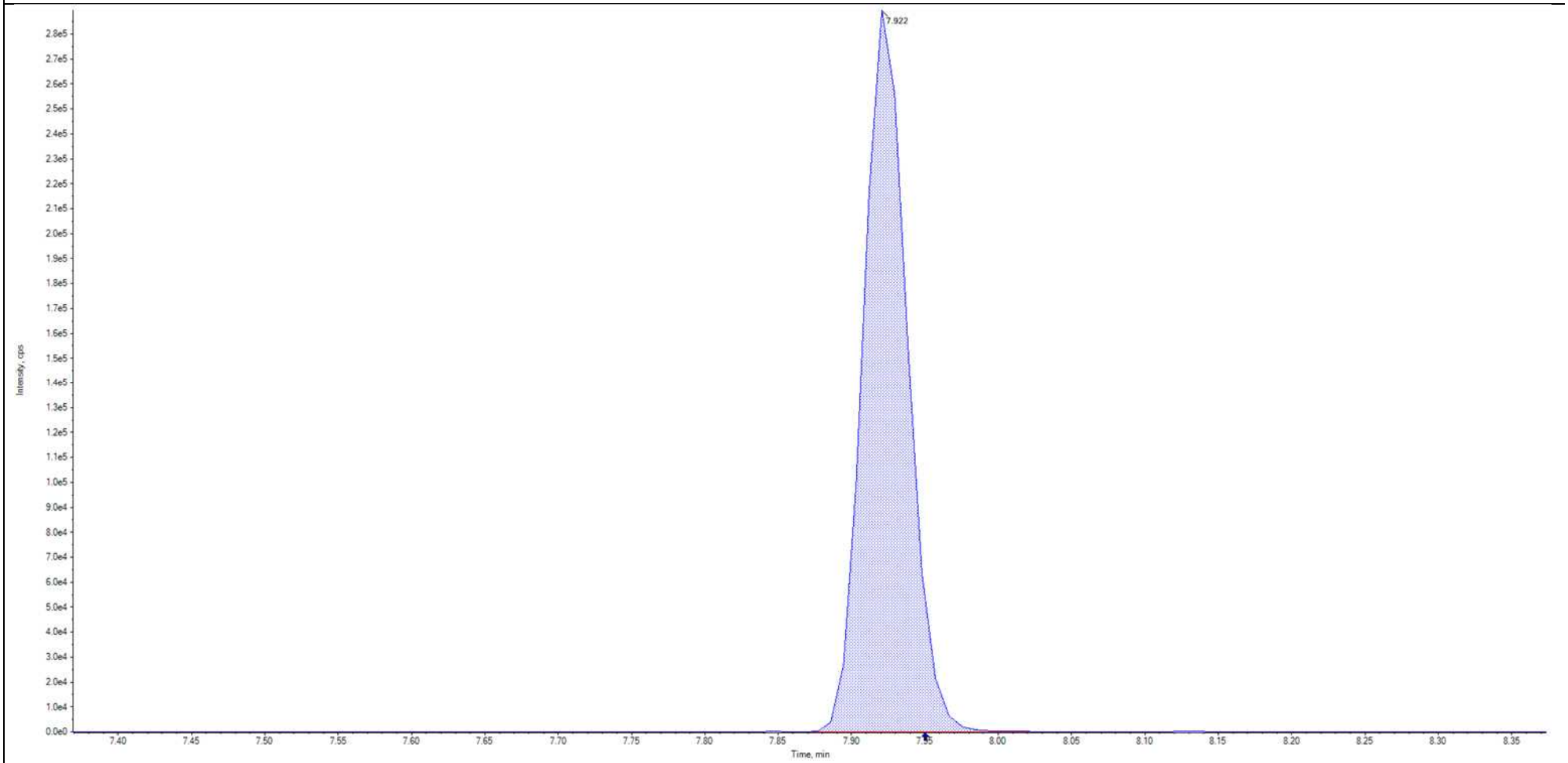
13C4-PFHpA
Sample: WG1972760-3



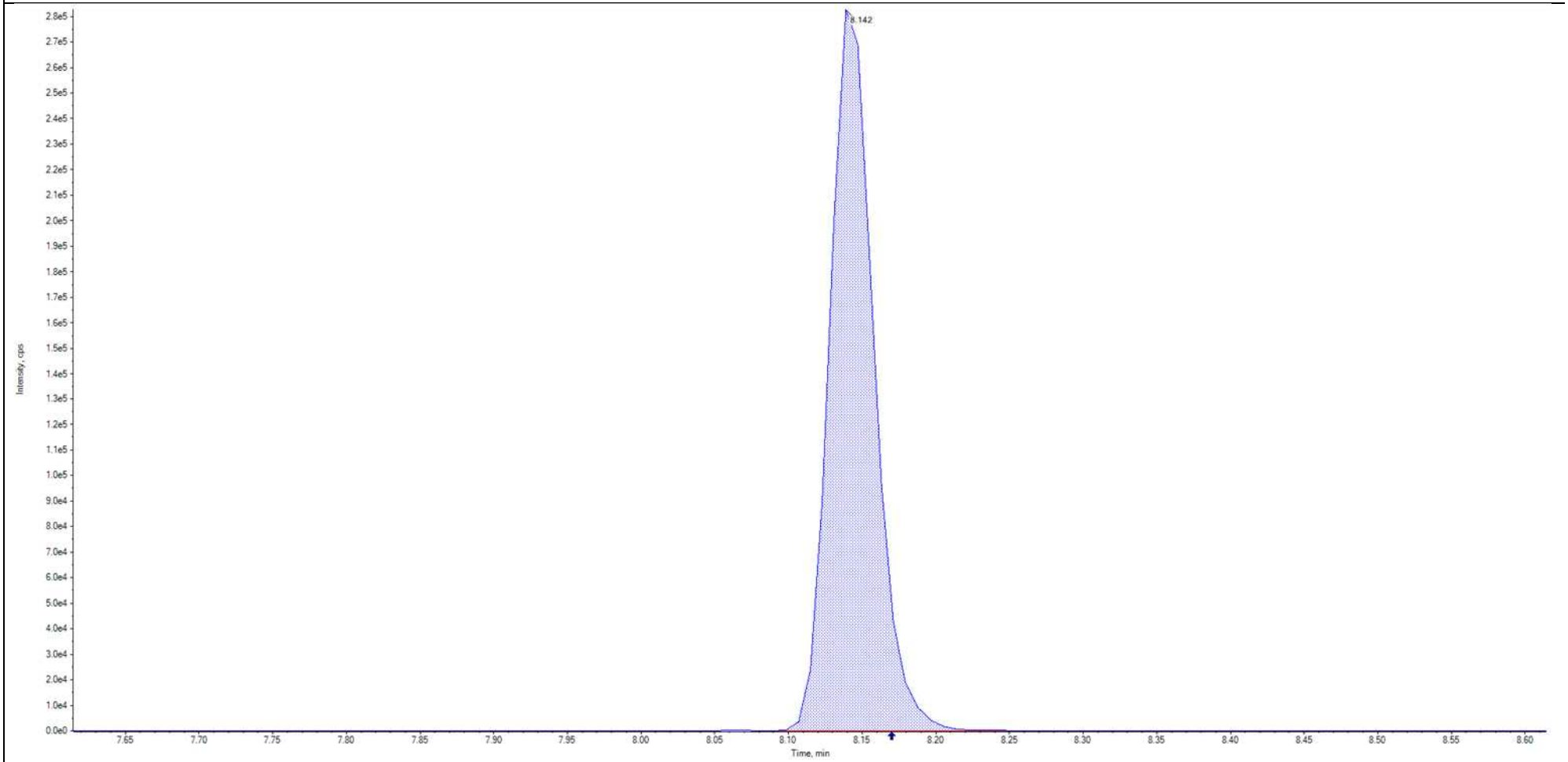
13C8-PFOA
Sample: WG1972760-3



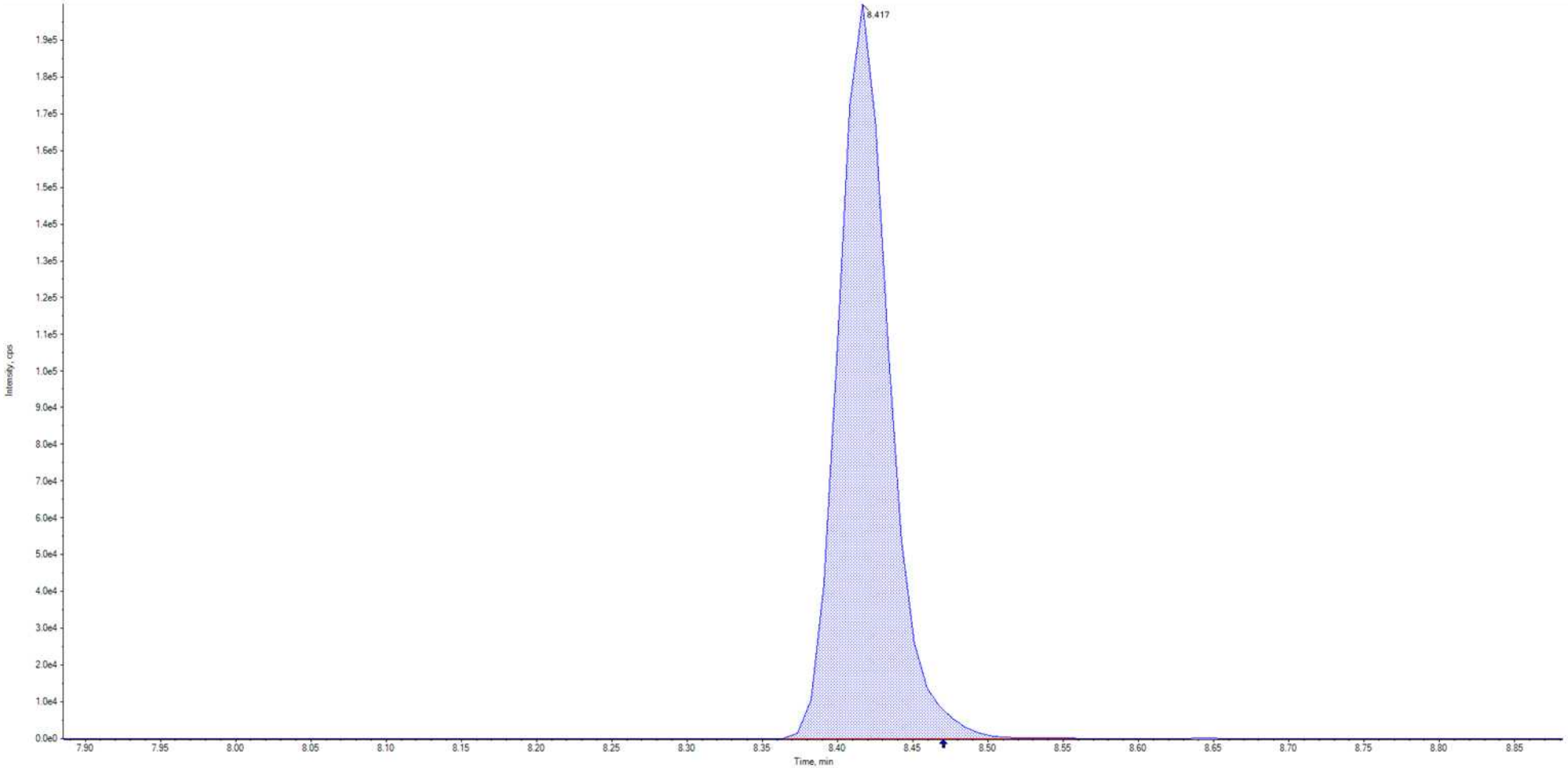
13C9-PFNA
Sample: WG1972760-3



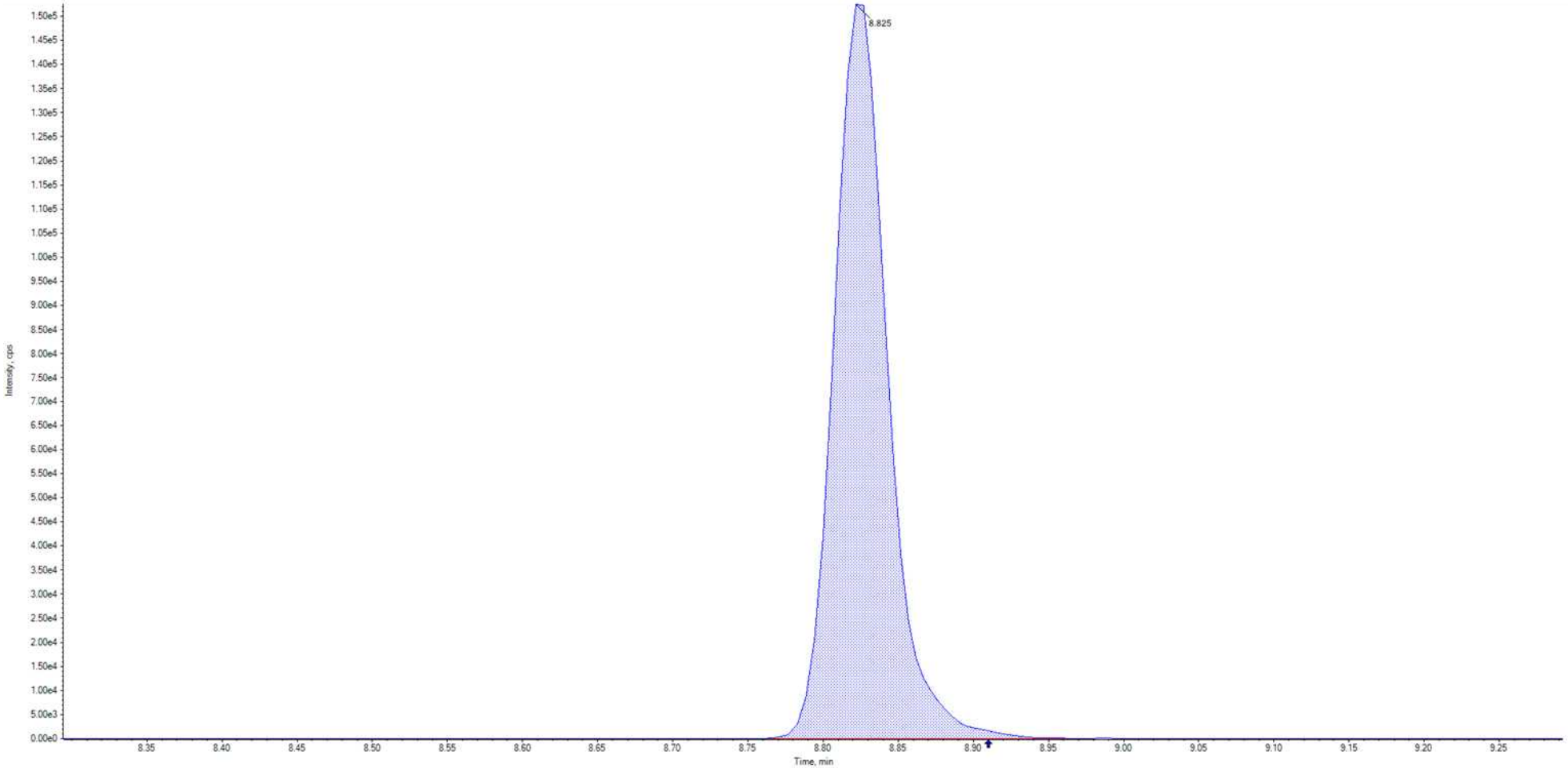
13C6-PFDA
Sample: WG1972760-3



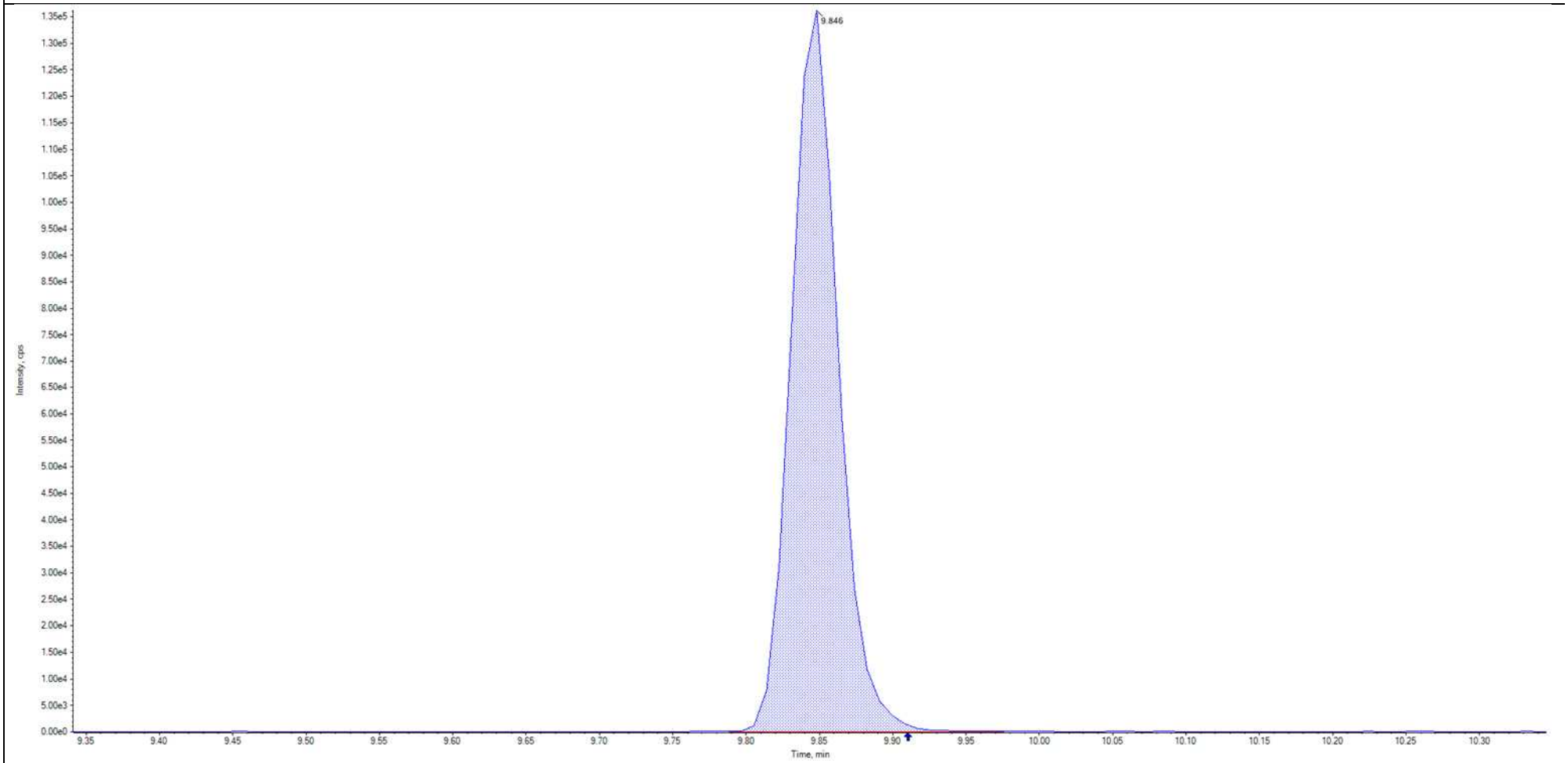
13C7-PFUnA
Sample: WG1972760-3



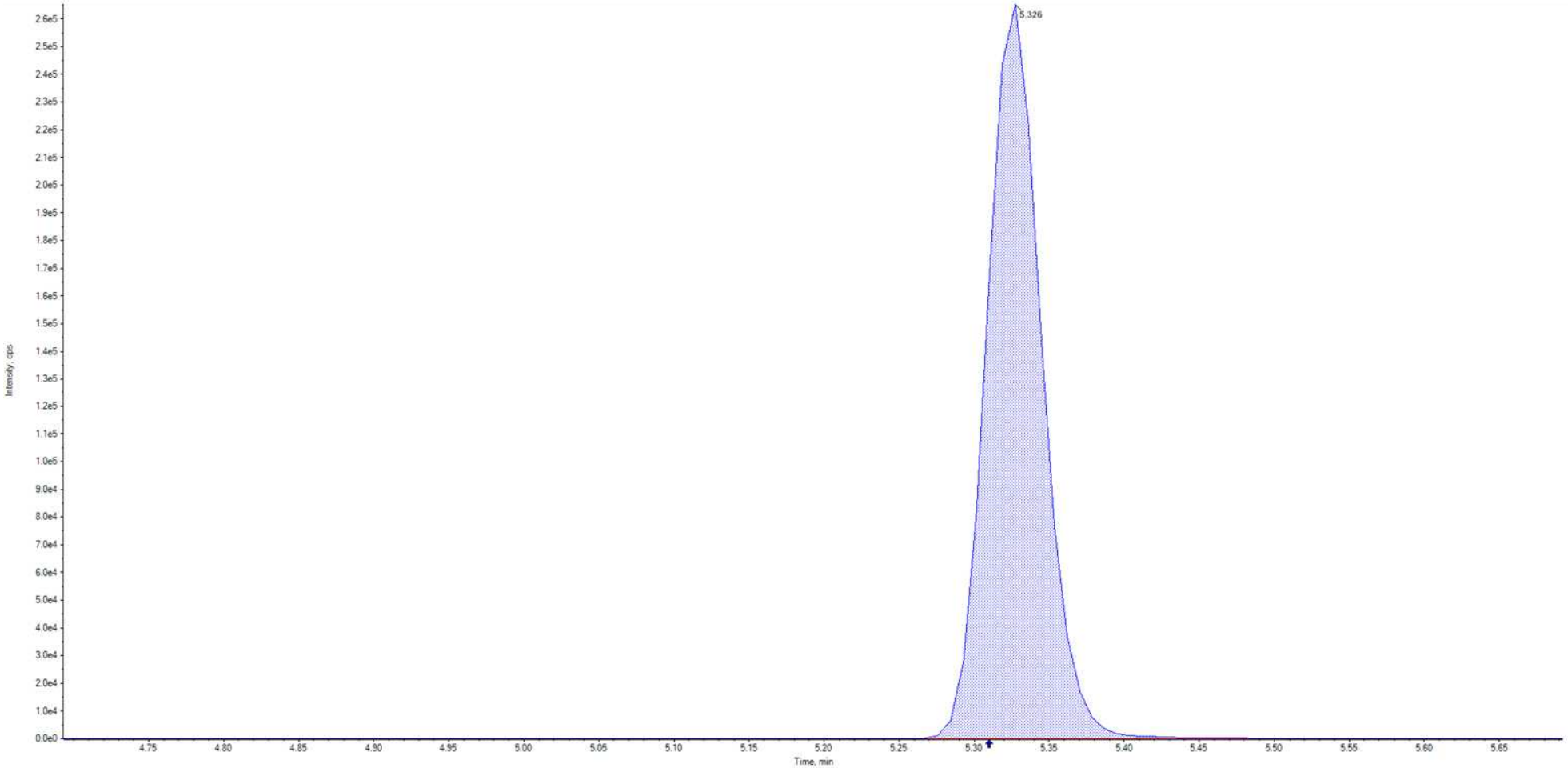
13C2-PFDoA
Sample: WG1972760-3



13C2-PFTeDA
Sample: WG1972760-3

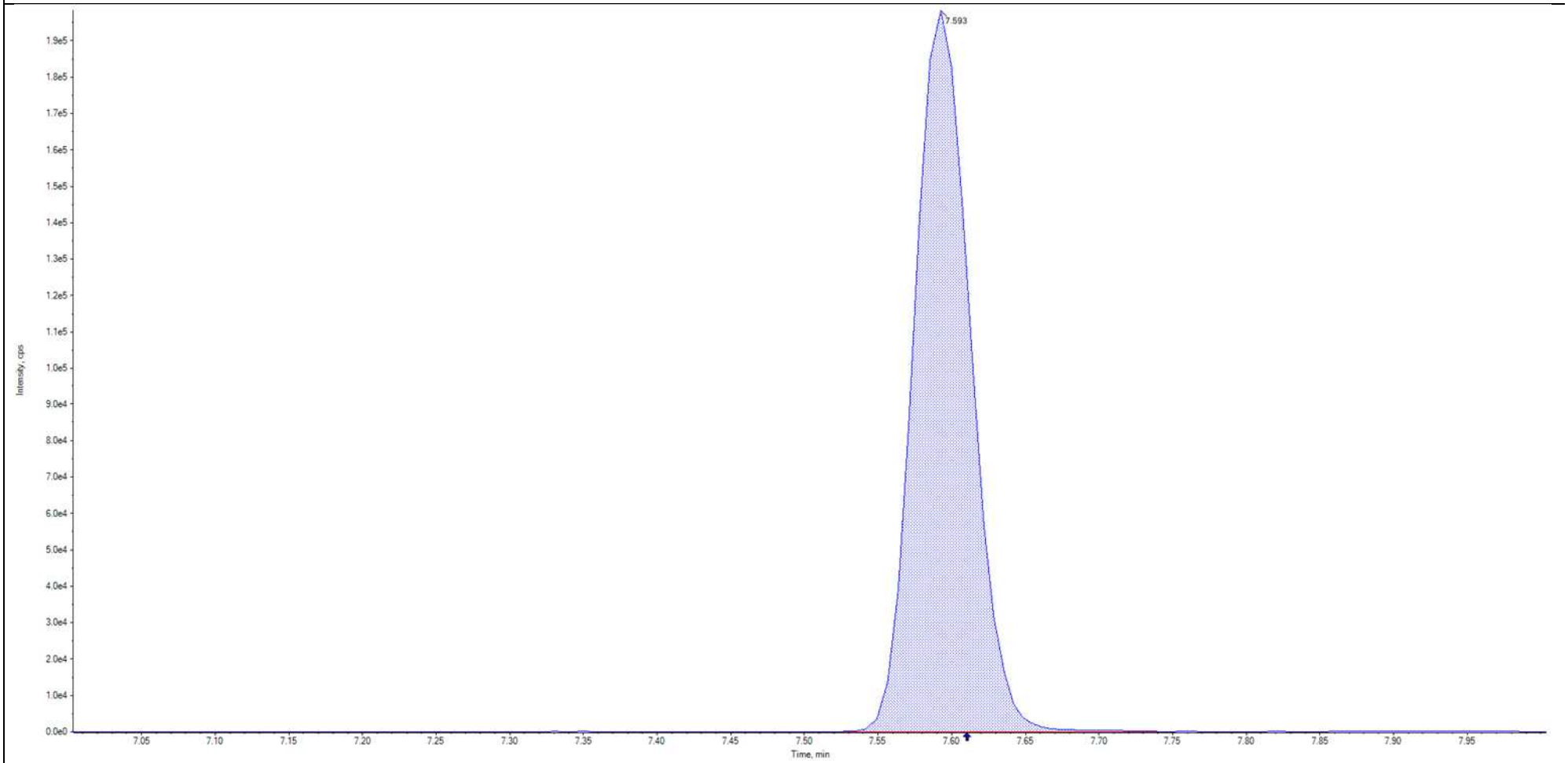


13C3-PFBS
Sample: WG1972760-3

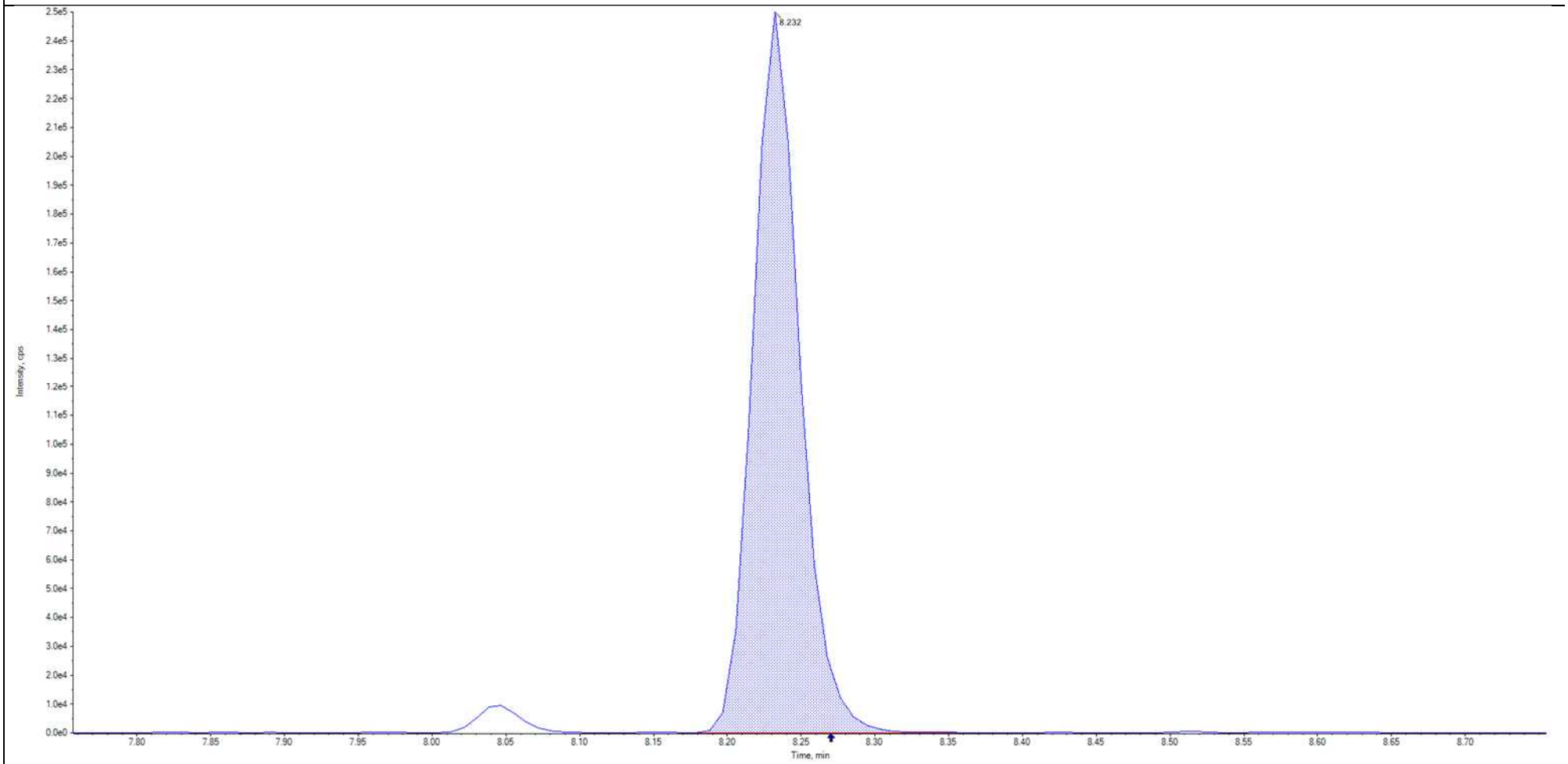


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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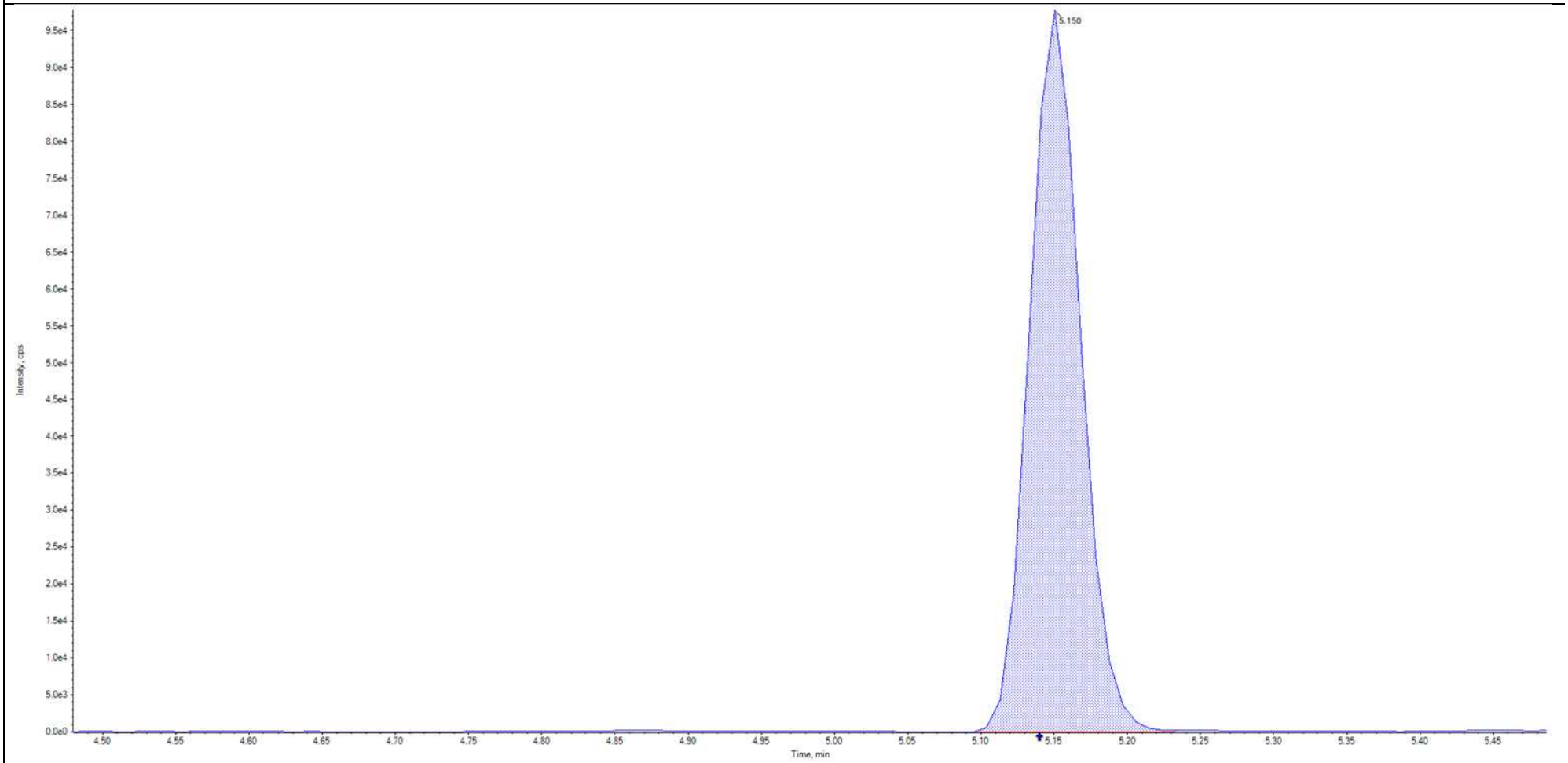
13C3-PFHxS
Sample: WG1972760-3



13C8-PFOS
Sample: WG1972760-3

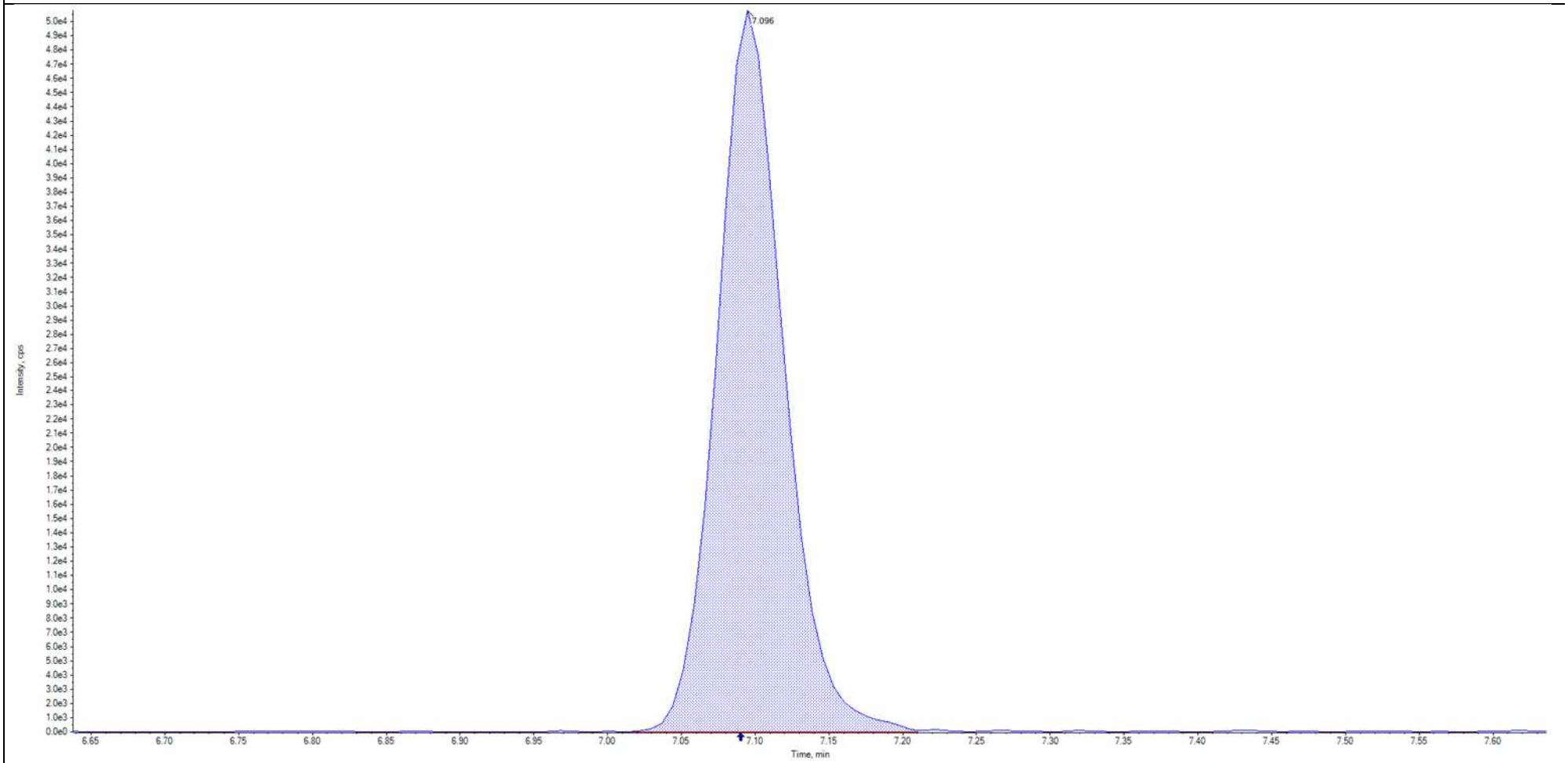


13C2-4:2FTS
Sample: WG1972760-3

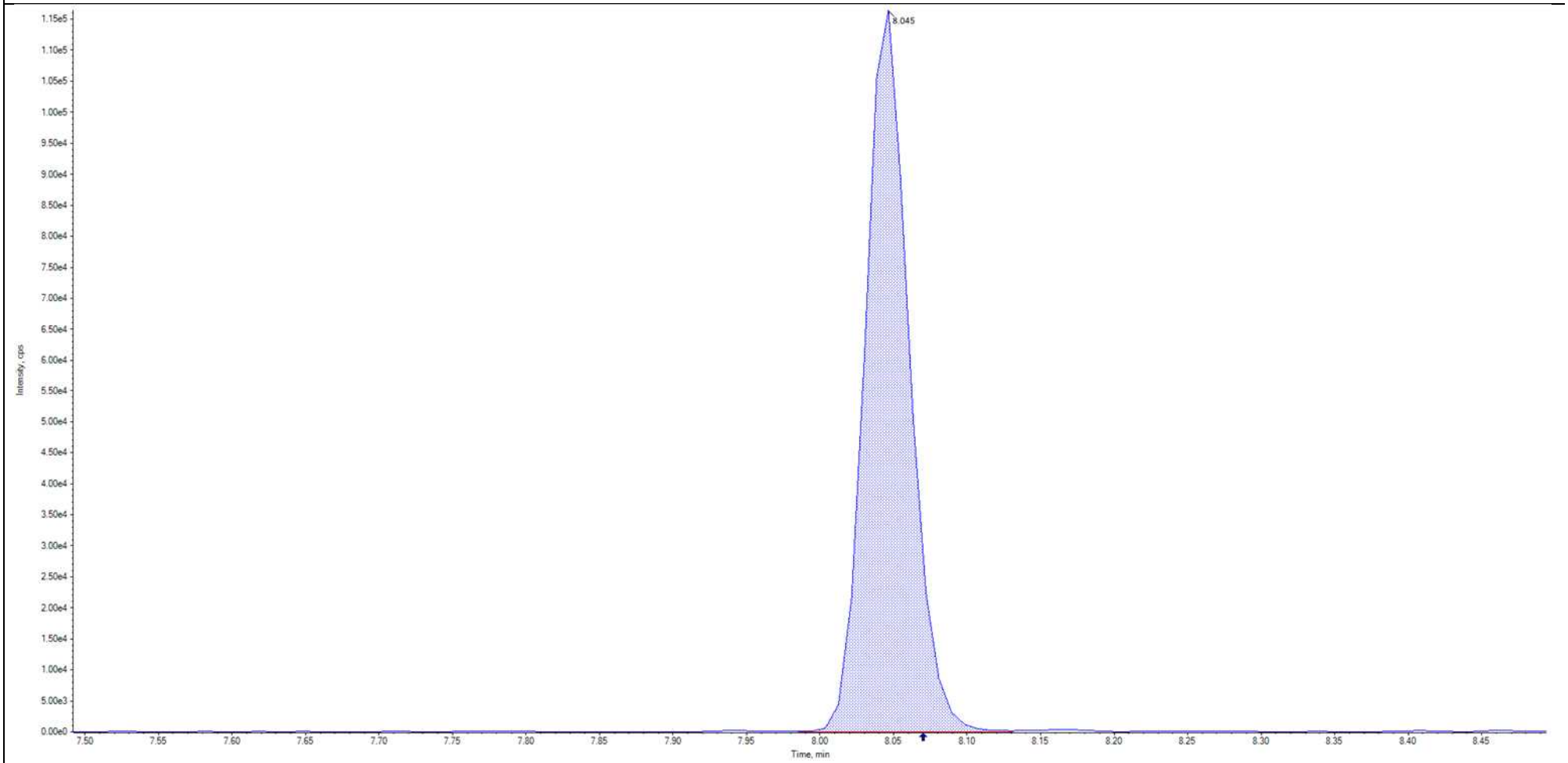


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
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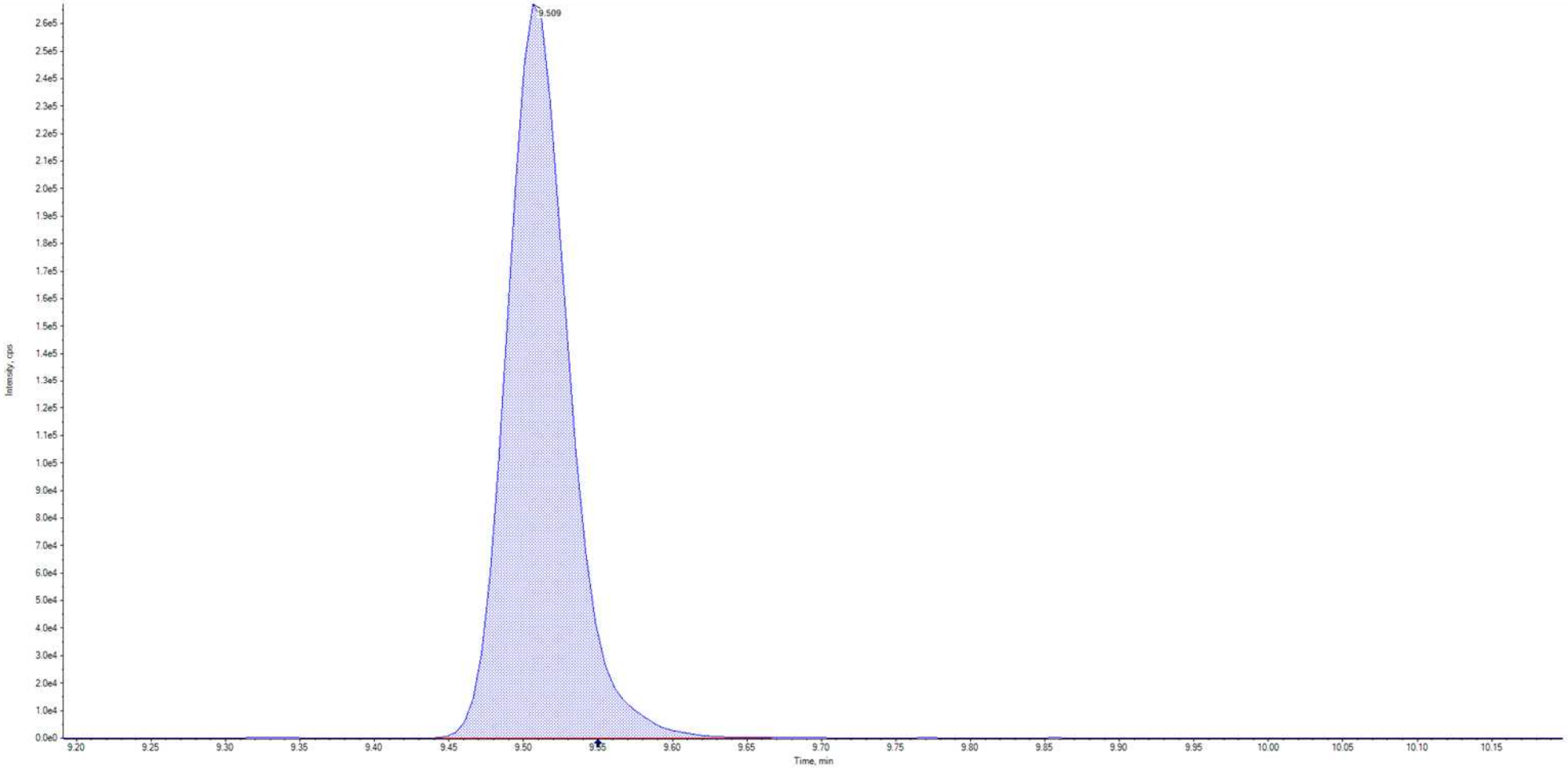
13C2-6:2FTS
Sample: WG1972760-3



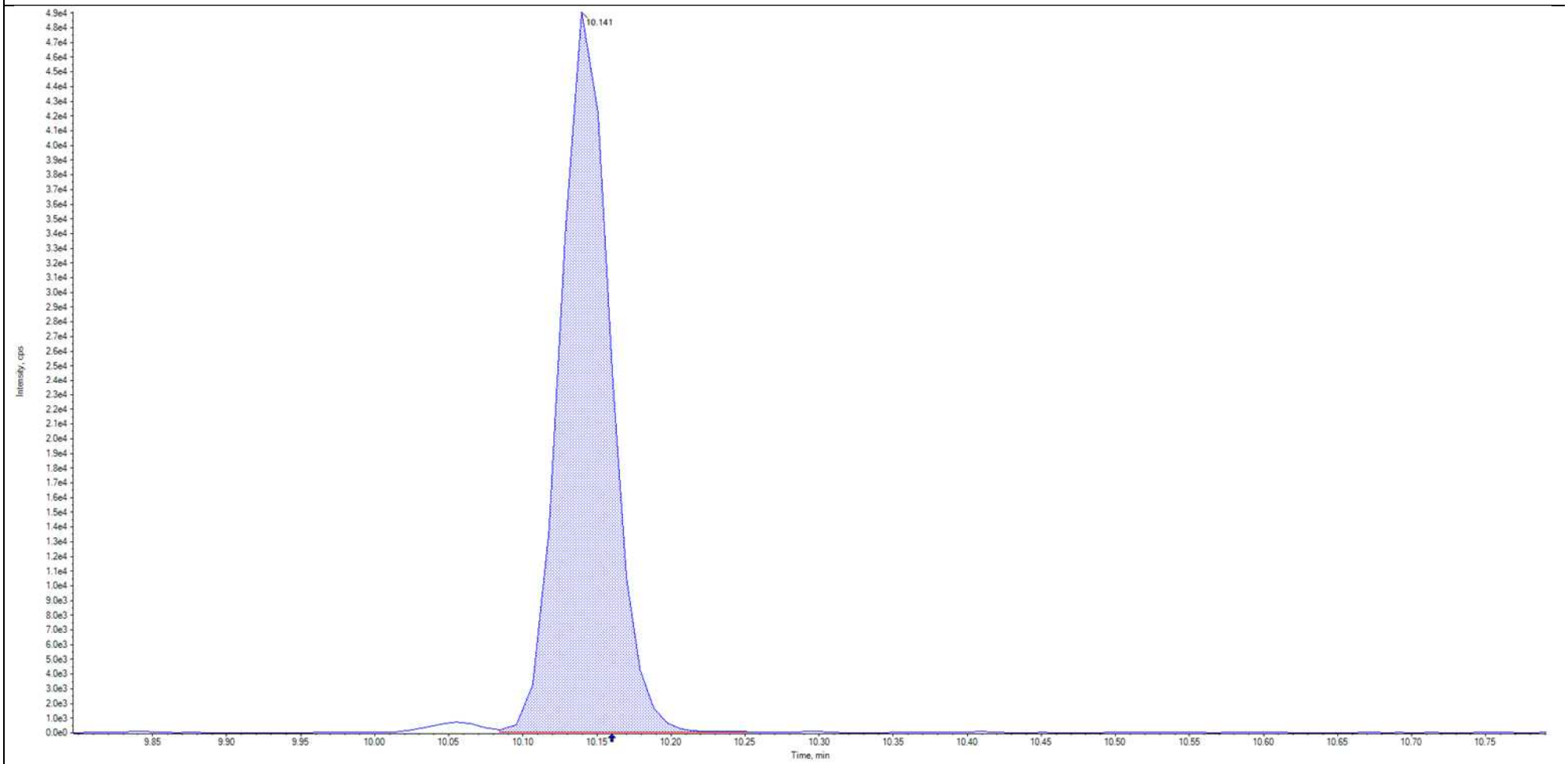
13C2-8:2FTS
Sample: WG1972760-3



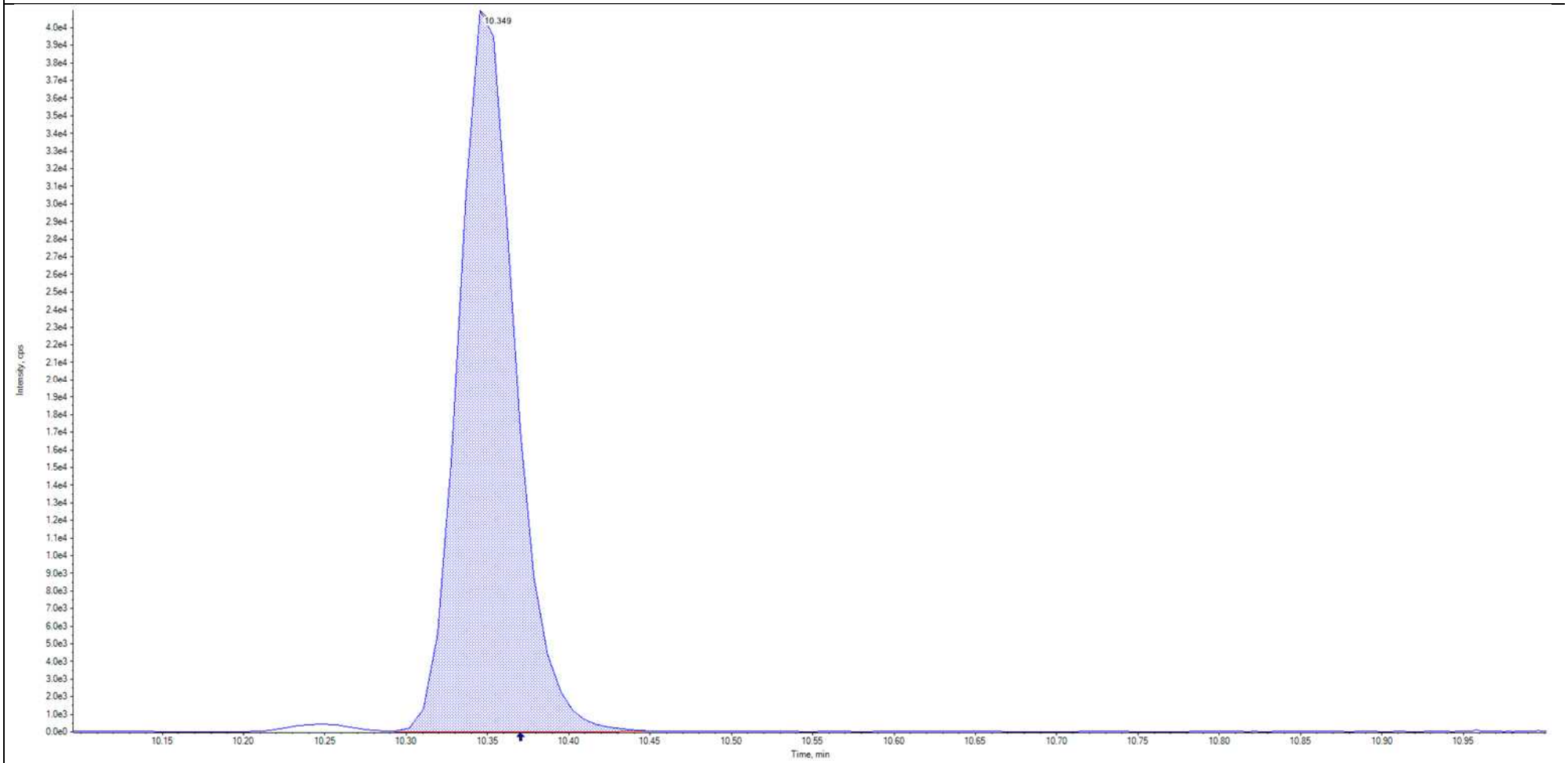
13C8-PFOSA
Sample: WG1972760-3



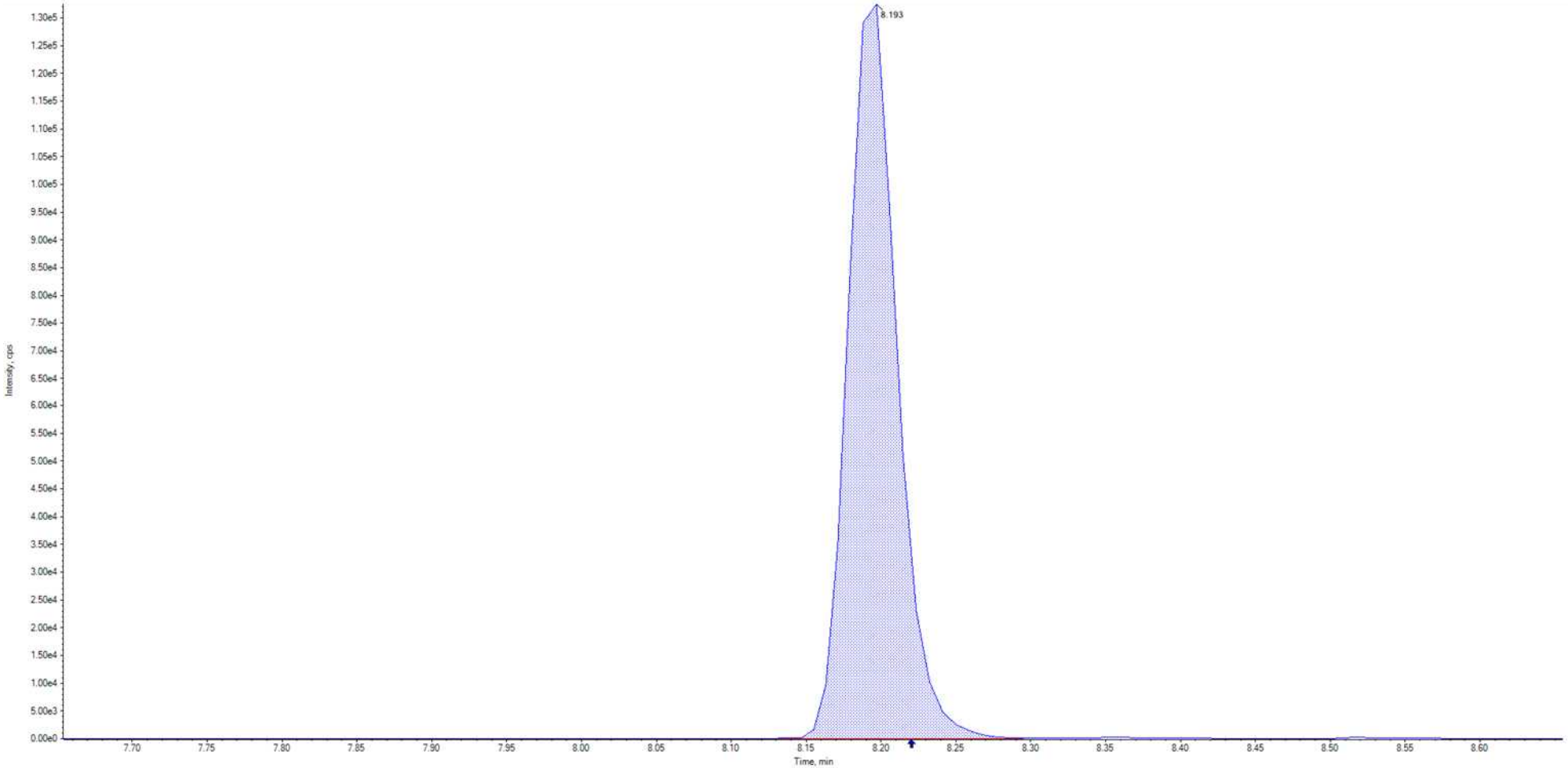
d3-NMeFOSA
Sample: WG1972760-3



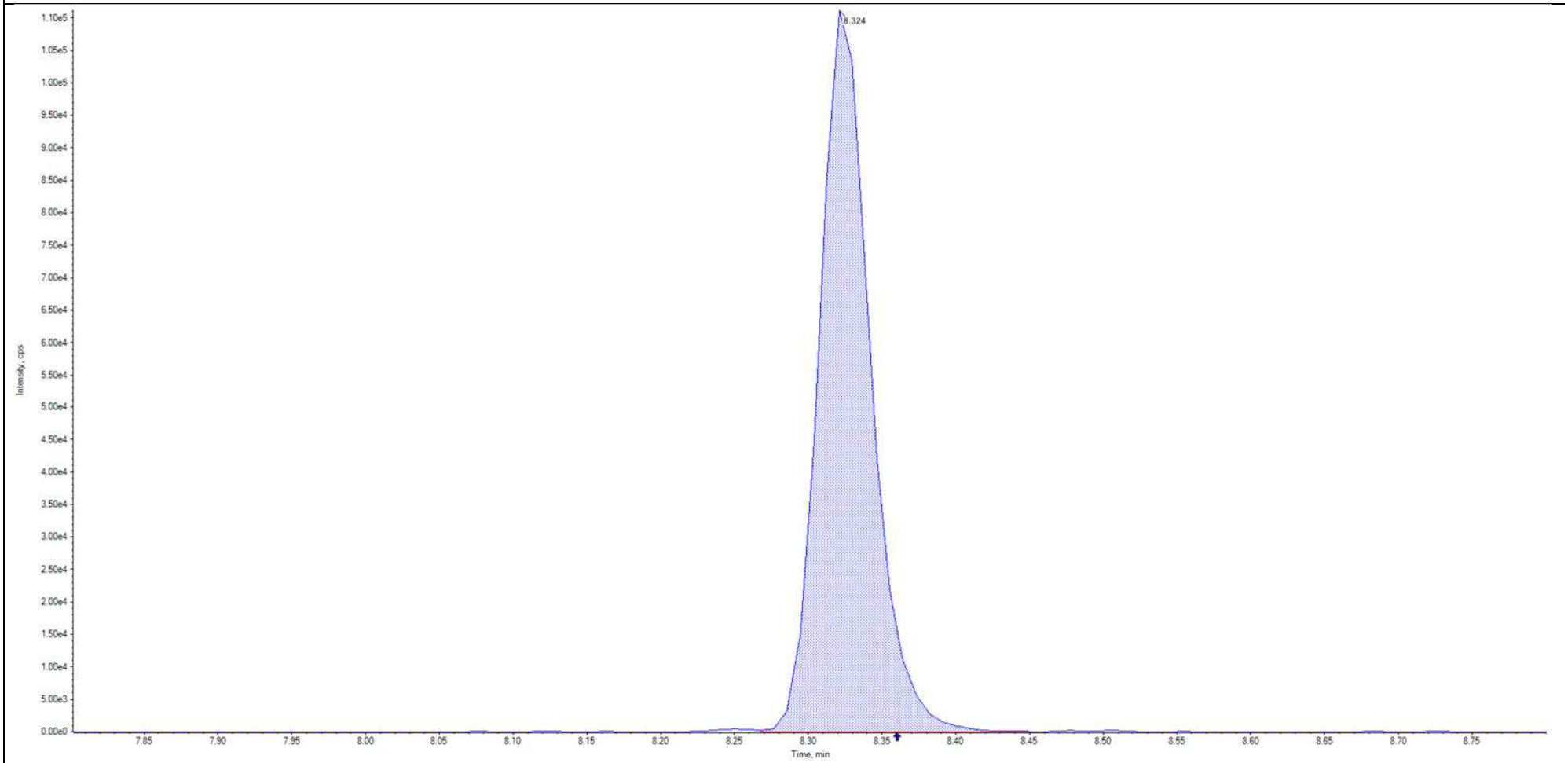
d5-NEtFOSA
Sample: WG1972760-3



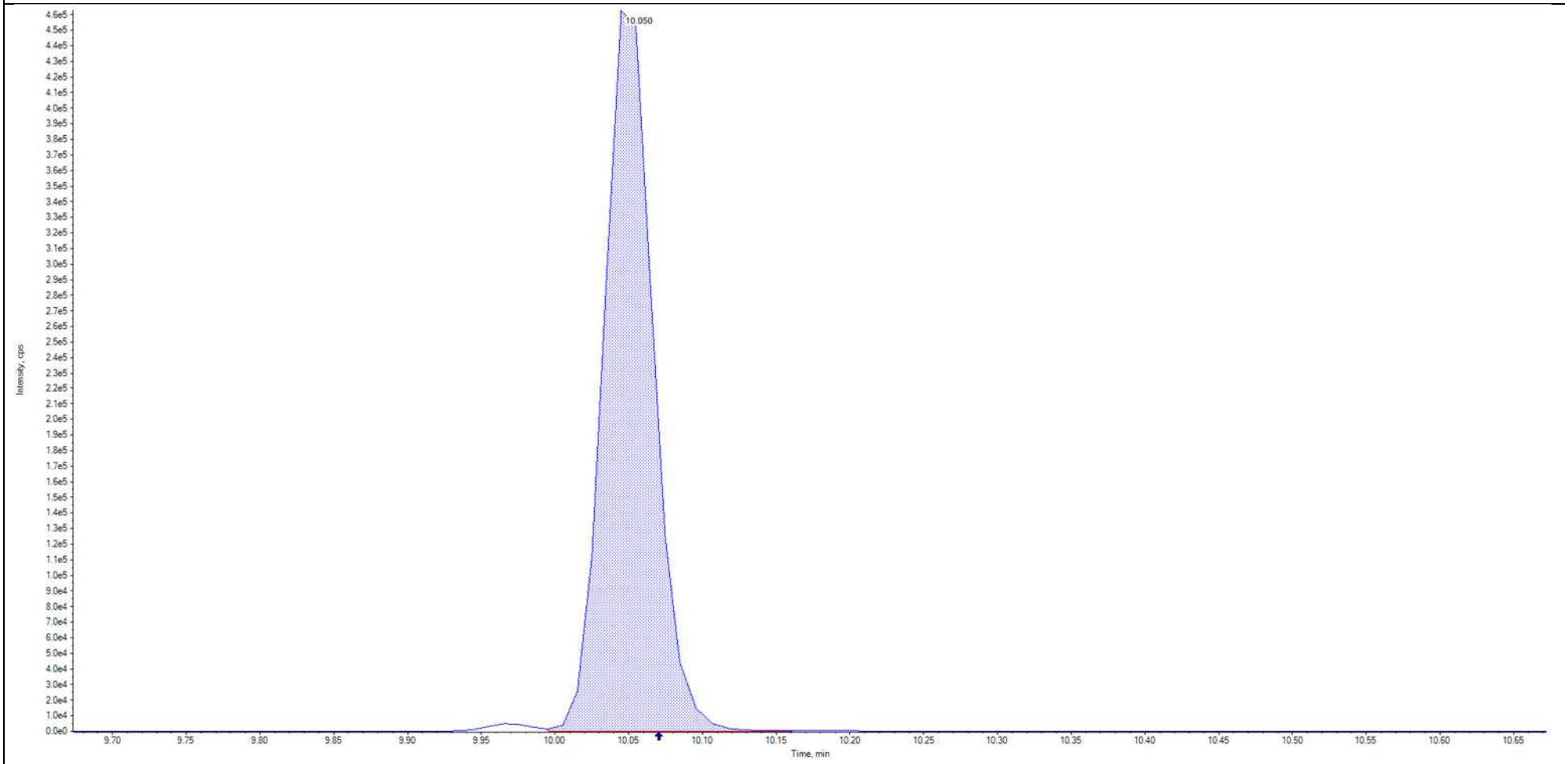
d3-NMeFOSAA
Sample: WG1972760-3



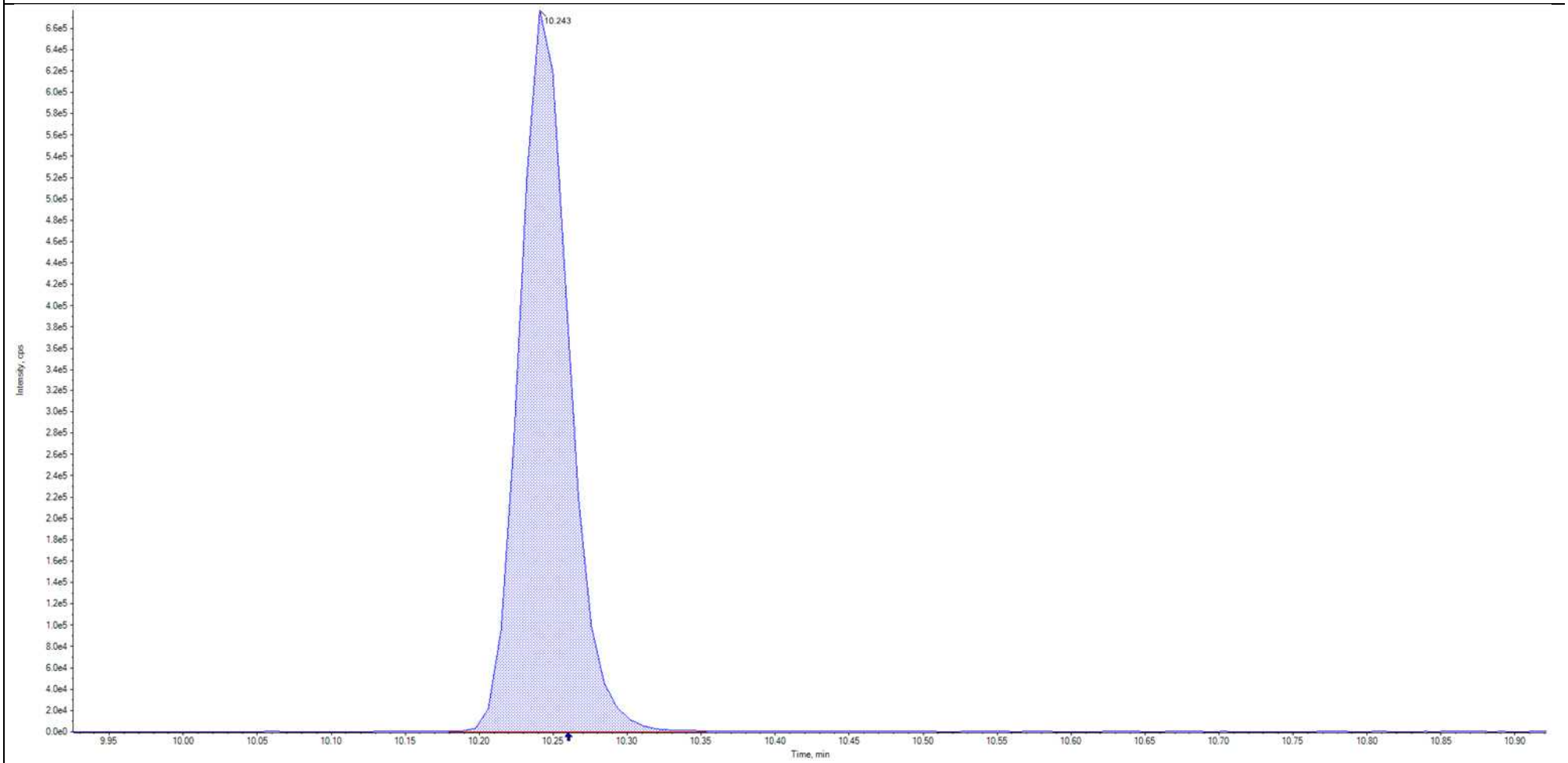
d5-NEtFOSAA
Sample: WG1972760-3



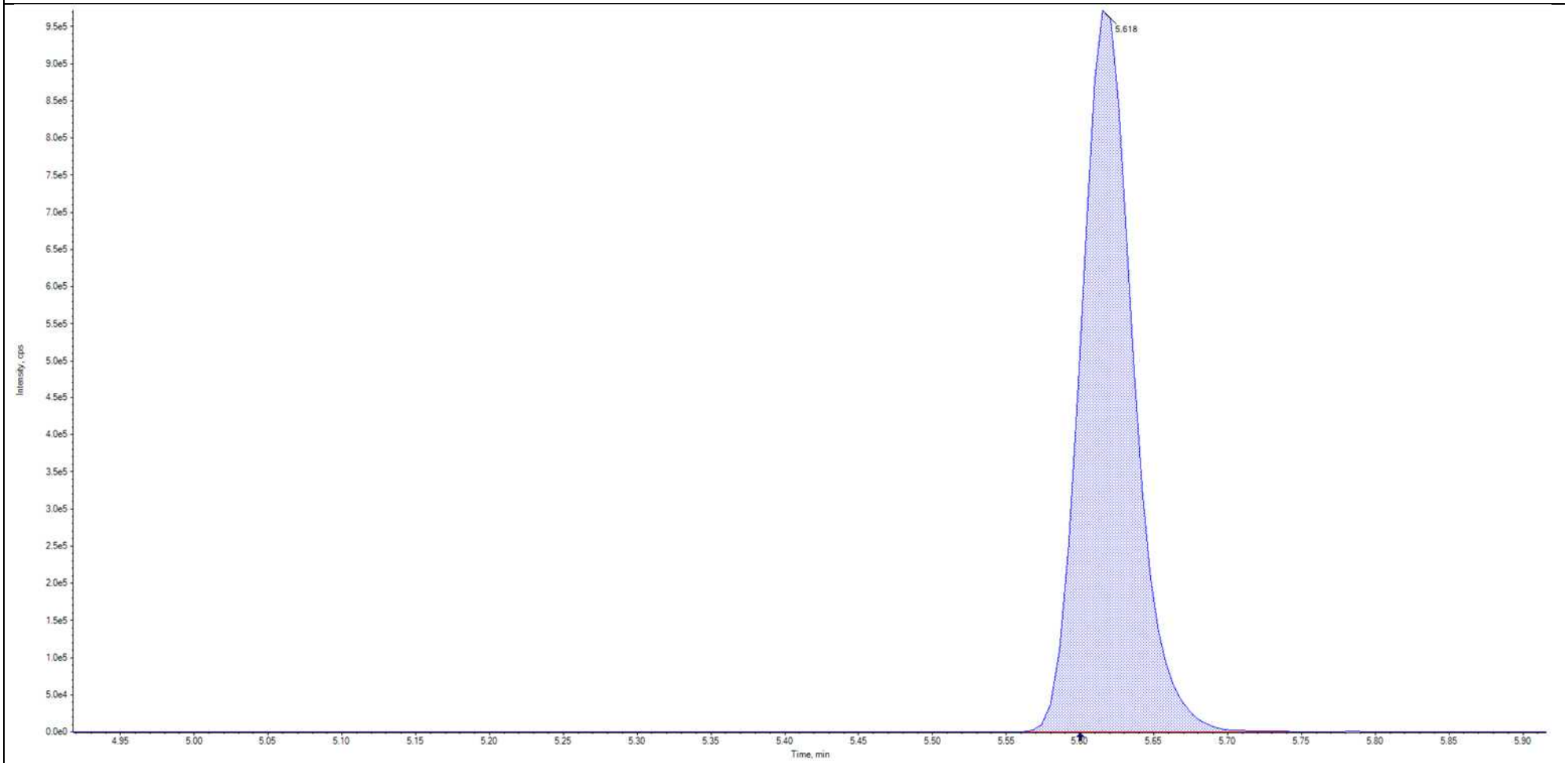
d7-NMeFOSE
Sample: WG1972760-3



d9-NEtFOSE
Sample: WG1972760-3

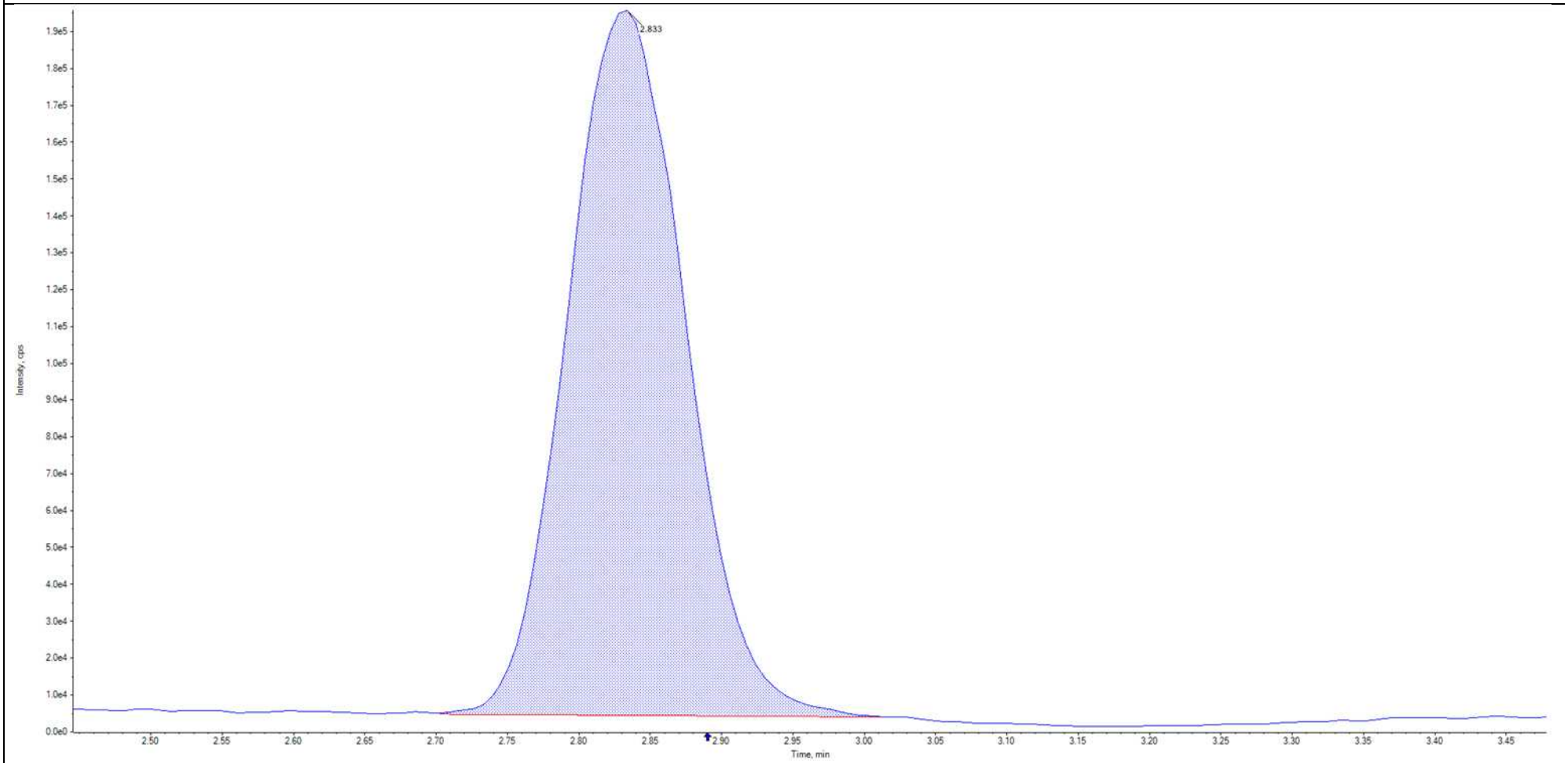


13C3-HFPO-DA
Sample: WG1972760-3

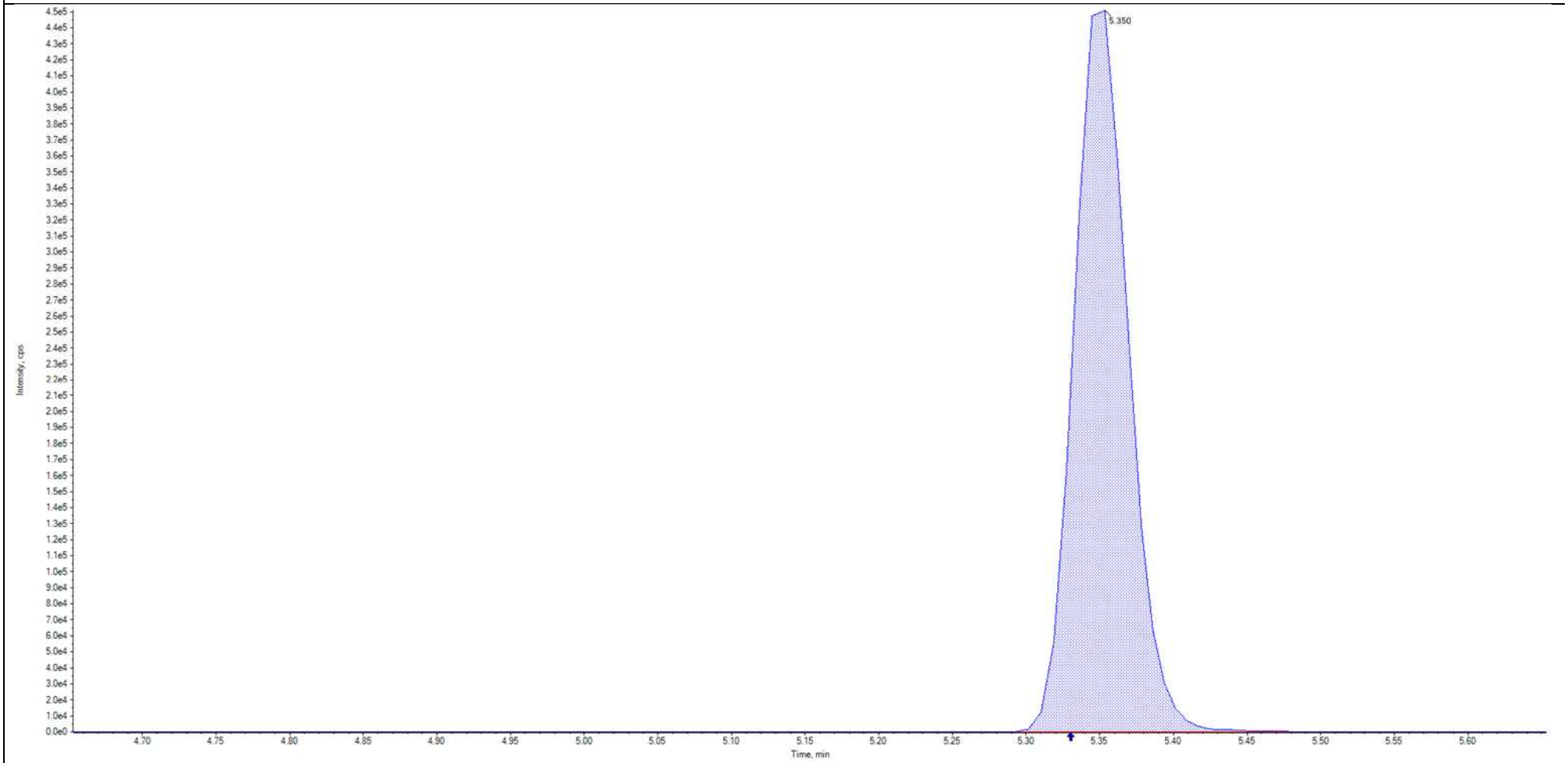


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Generated: 9/18/2024 6:35:36 AM

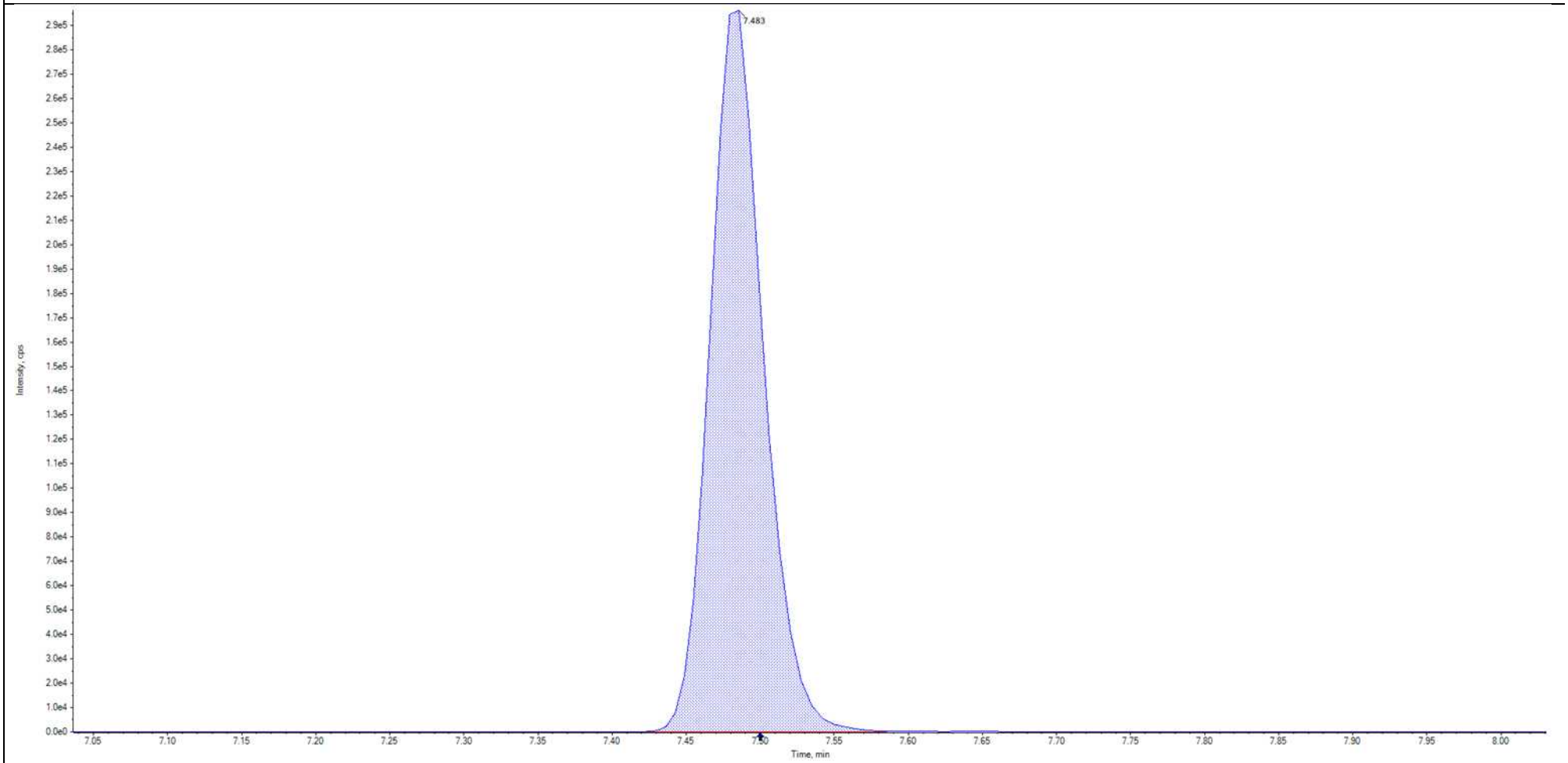
13C3-PFBA
Sample: WG1972760-3



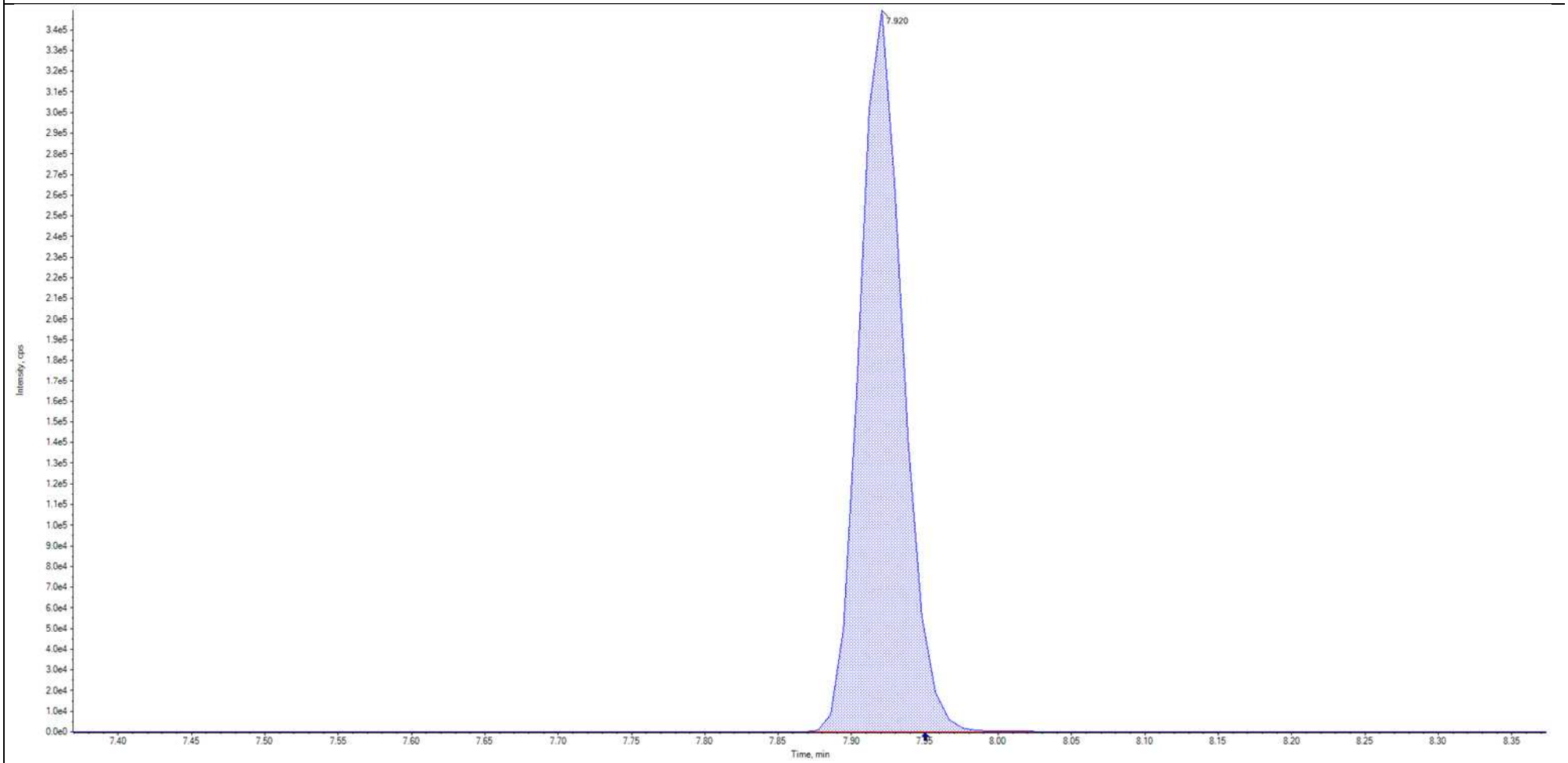
13C2-PFHxA
Sample: WG1972760-3



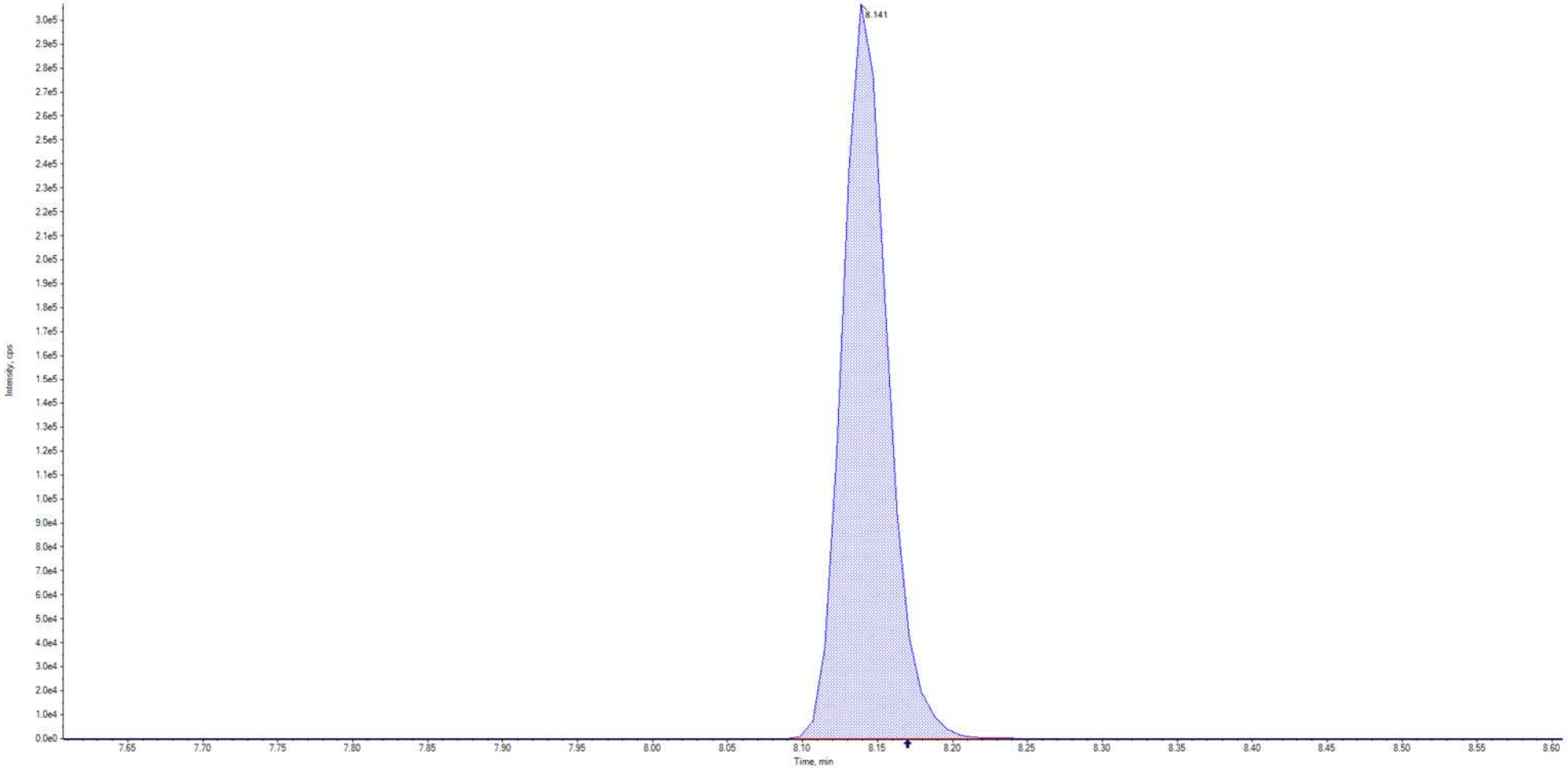
13C4-PFOA
Sample: WG1972760-3



13C5-PFNA
Sample: WG1972760-3

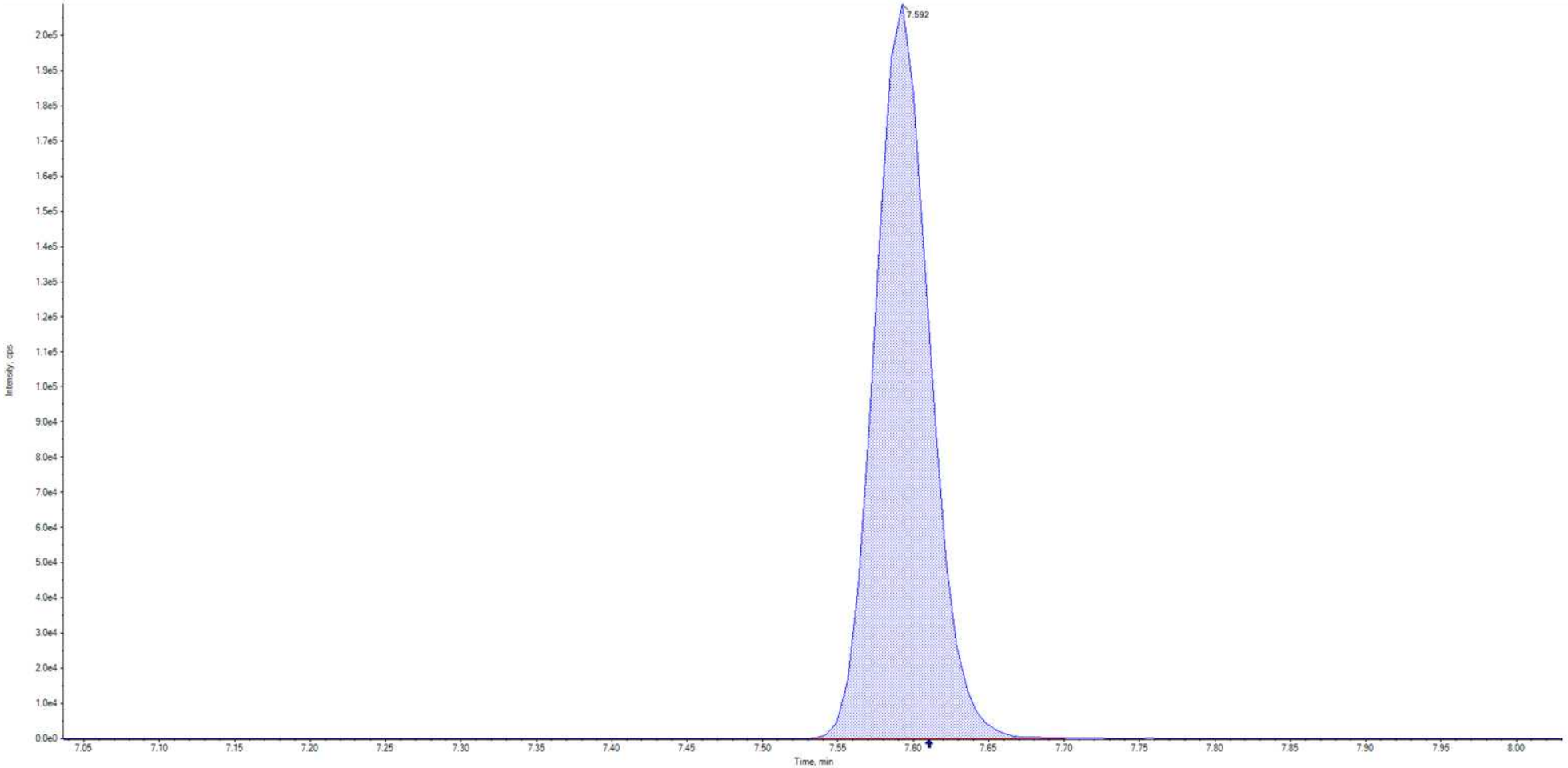


13C2-PFDA
Sample: WG1972760-3



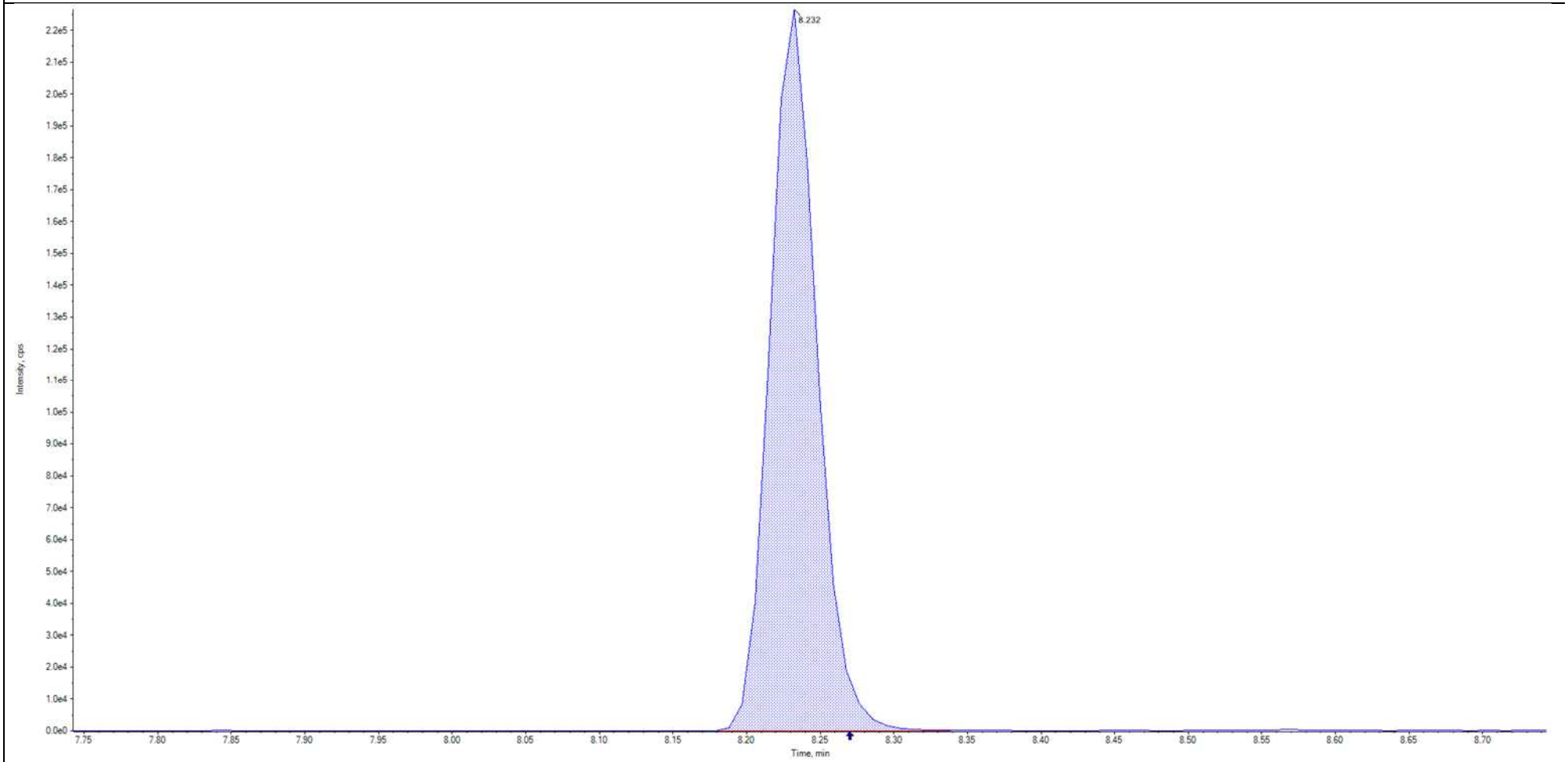
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18O2-PFHxS
Sample: WG1972760-3



Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
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13C4-PFOS
Sample: WG1972760-3



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Method: EPA1633_NIS_CALC.qmethod
Calibration: 240813_1633_ICAL

ID: WG1972760-4
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Description: WG1972930,WG1972760,ICAL21391
Instrument: Triple Quad 5500+
User: LCMS05:AC

LC/MS-MS Method:EPA_1633.dam

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
1	PFBA	375-22-4	2.84	213.0 / 169.0	1873849		11.296	N/A	N/A	N/A	113.0
2	PFPeA	2706-90-3	4.66	263.0 / 219.0	1424081		5.833	0.006	0.007	N/A	116.7
3	PFPeA_2	2706-90-3	4.66	263.0 / 68.9	9210		5.343	0.006	0.007	N/A	106.9
4	PFHxA	307-24-4	5.36	313.0 / 269.0	1034301	M4	2.619	0.077	0.072	Pass	104.8
5	PFHxA_2	307-24-4	5.36	313.0 / 119.0	80010		2.742	0.077	0.072	Pass	109.7
6	PFHpA	375-85-9	6.26	363.1 / 319.0	1042549		2.799	0.315	0.297	Pass	112.0
7	PFHpA_2	375-85-9	6.26	363.1 / 169.0	328223		2.880	0.315	0.297	Pass	115.2

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
8	PFOA	335-67-1	7.49	413.1 / 369.1	770400	M5	3.215	0.555	0.586	Pass	128.6
9	PFOA_2	335-67-1	7.49	413.1 / 169.0	427880	M7	3.259	0.555	0.586	Pass	130.4
10	PFNA	375-95-1	7.93	462.8 / 418.9	939603	M5	3.105	0.311	0.313	Pass	124.2
11	PFNA_2	375-95-1	7.93	462.8 / 218.9	291750	M7	3.154	0.311	0.313	Pass	126.2
12	PFDA	335-76-2	8.15	513.1 / 469.1	948925		2.698	0.157	0.142	Pass	107.9
13	PFDA_2	335-76-2	8.15	513.1 / 219.0	149161		2.830	0.157	0.142	Pass	113.2
14	PFUnA	2058-94-8	8.43	563.1 / 519.1	724943		2.807	0.181	0.194	Pass	112.3
15	PFUnA_2	2058-94-8	8.43	563.1 / 269.0	130916		2.617	0.181	0.194	Pass	104.7
16	PFDoA	307-55-1	8.83	613.1 / 569.1	697362		2.036	0.161	0.167	Pass	81.5
17	PFDoA_2	307-55-1	8.83	613.1 / 319.0	112157		1.939	0.161	0.167	Pass	77.6
18	PFTrDA	72629-94-8	9.40	663.1 / 619.1	391264		1.917	0.219	0.228	Pass	76.7
19	PFTrDA_2	72629-94-8	9.40	663.1 / 169.0	85800		1.888	0.219	0.228	Pass	75.5
20	PFTeDA	376-06-7	9.86	713.1 / 669.1	694149		2.783	0.134	0.137	Pass	111.3
21	PFTeDA_2	376-06-7	9.86	713.1 / 169.0	92898		2.723	0.134	0.137	Pass	108.9
22	PFBS	375-73-5	5.33	299.1 / 80.1	670321		2.461	0.377	0.396	Pass	111.0

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
23	PFBS_2	375-73-5	5.33	299.1 / 99.1	253019		2.330	0.377	0.396	Pass	105.1
24	PFPeS	2706-91-4	6.35	349.1 / 80.1	530072		2.508	0.291	0.299	Pass	106.6
25	PFPeS_2	2706-91-4	6.35	349.1 / 99.1	154400		2.422	0.291	0.299	Pass	102.9
26	PFHxS	355-46-4	7.60	399.1 / 80.1	498390	M5	2.519	0.303	0.315	Pass	110.3
27	PFHxS_2	355-46-4	7.60	399.1 / 99.1	151225	M7	2.462	0.303	0.315	Pass	107.7
28	PFHpS	375-92-8	7.99	449.1 / 80.1	517676		2.782	0.294	0.287	Pass	116.8
29	PFHpS_2	375-92-8	7.99	449.1 / 99.1	152191		2.791	0.294	0.287	Pass	117.1
30	PFOS	1763-23-1	8.24	499.1 / 80.1	577562	M5	2.916	0.236	0.238	Pass	125.7
31	PFOS_2	1763-23-1	8.24	499.1 / 99.1	136144		2.805	0.236	0.238	Pass	120.9
32	PFNS	68259-12-1	8.57	549.1 / 80.1	323373		2.543	0.305	0.301	Pass	105.7
33	PFNS_2	68259-12-1	8.57	549.1 / 99.1	98540		2.558	0.305	0.301	Pass	106.4
34	PFDS	335-77-3	9.06	599.1 / 80.1	290738		2.321	0.277	0.275	Pass	96.2
35	PFDS_2	335-77-3	9.06	599.1 / 99.1	80623		2.335	0.277	0.275	Pass	96.8
36	PFDoS	79780-39-5	9.96	699.2 / 80.1	271081		2.363	0.287	0.274	Pass	97.4
37	PFDoS_2	79780-39-5	9.96	699.2 / 99.1	77687		2.464	0.287	0.274	Pass	101.6

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
38	4:2FTS	757124-72-4	5.16	327.1 / 307.1	1164663		9.315	0.523	0.516	Pass	99.4
39	4:2FTS_2	757124-72-4	5.16	327.1 / 81.1	609347		9.110	0.523	0.516	Pass	97.2
40	6:2FTS	27619-97-2	7.10	427.2 / 407.2	564710		10.732	0.552	0.565	Pass	113.0
41	6:2FTS_2	27619-97-2	7.09	427.2 / 81.1	311709		10.952	0.552	0.565	Pass	115.3
42	8:2FTS	39108-34-4	8.05	527.2 / 507.2	776024		11.997	0.604	0.662	Pass	125.0
43	8:2FTS_2	39108-34-4	8.05	527.2 / 81.1	468893		10.687	0.604	0.662	Pass	111.3
44	PFOSA	754-91-6	9.52	498.1 / 78.1	490624	M5	2.726	0.024	0.025	Pass	109.1
45	PFOSA_2	754-91-6	9.52	498.1 / 478.0	11975	M7	2.536	0.024	0.025	Pass	101.4
46	NMeFOSA	31506-32-8	10.16	512.2 / 219.0	129202	M5	2.825	1.511	1.551	Pass	113.0
47	NMeFOSA_2	31506-32-8	10.12	512.2 / 169.0	195220	M7	2.754	1.511	1.551	Pass	110.2
48	NEtFOSA	4151-50-2	10.37	526.2 / 219.0	126316	M5	2.735	1.267	1.285	Pass	109.4
49	NEtFOSA_2	4151-50-2	10.33	526.2 / 169.0	160004	M7	2.588	1.267	1.285	Pass	103.5
50	NMeFOSAA	2355-31-9	8.20	570.2 / 419.1	119105		3.137	0.770	0.700	Pass	125.5
51	NMeFOSAA_2	2355-31-9	8.20	570.2 / 483.0	91717		3.798	0.770	0.700	Pass	151.9
52	NEtFOSAA	2991-50-6	8.33	584.2 / 419.1	125730		2.885	0.461	0.487	Pass	115.4

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
53	NEtFOSAA_2	2991-50-6	8.34	584.2 / 526.2	57899		2.887	0.461	0.487	Pass	115.5
54	NMeFOSE	24448-09-7	10.07	616.1 / 58.9	2180888	M5	25.038	N/A	N/A	N/A	100.2
55	NEtFOSE	1691-99-2	10.27	630.0 / 58.9	3865191	M5	25.136	N/A	N/A	N/A	100.6
56	HFPO-DA	13252-13-6	5.62	285.0 / 169.0	2229777		11.121	0.469	0.464	Pass	111.2
57	HFPO-DA_2	13252-13-6	5.62	285.0 / 184.9	1045863		11.218	0.469	0.464	Pass	112.2
58	ADONA	919005-14-4	6.73	377.1 / 251.0	4674165		10.251	0.657	0.634	Pass	108.5
59	ADONA_2	919005-14-4	6.72	377.1 / 84.8	3072459		10.414	0.657	0.634	Pass	110.2
60	9Cl-PF3ONS	756426-58-1	8.45	530.8 / 351.1	4552556		10.126	0.314	0.322	Pass	108.3
61	9Cl-PF3ONS_2	756426-58-1	8.45	532.8 / 353.0	1428482		9.757	0.314	0.322	Pass	104.4
62	11Cl-PF3OUdS	763051-92-9	9.47	630.9 / 451.0	2455619		8.647	0.335	0.331	Pass	91.5
63	11Cl-PF3OUdS_2	763051-92-9	9.47	632.9 / 452.9	821547		8.596	0.335	0.331	Pass	91.0
64	3:3FTCA	356-02-5	4.95	241.1 / 177.1	324325		15.315	0.882	1.074	Pass	122.5
65	3:3FTCA_2	356-02-5	4.94	241.1 / 117.0	285929		13.481	0.882	1.074	Pass	107.9
66	5:3FTCA	914637-49-3	7.19	341.1 / 237.1	4733327		66.081	0.965	0.953	Pass	105.7
67	5:3FTCA_2	914637-49-3	7.19	341.1 / 217.0	4566366		67.373	0.965	0.953	Pass	107.8

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
68	7:3FTCA	812-70-4	8.20	441.1 / 316.9	3578343		44.874	1.769	1.558	Pass	71.8
69	7:3FTCA_2	812-70-4	8.20	441.1 / 337.1	6330763		54.710	1.769	1.558	Pass	87.5
70	PFEESA	113507-82-7	5.72	315.1 / 135.0	3304054		4.823	0.084	0.087	Pass	108.4
71	PFEESA_2	113507-82-7	5.72	315.1 / 82.9	277730		4.693	0.084	0.087	Pass	105.5
72	PFMPA	377-73-1	3.88	229.0 / 85.0	218403		7.391	N/A	N/A	N/A	147.8
73	PFMBA	863090-89-5	4.89	279.0 / 85.0	2144977		5.383	N/A	N/A	N/A	107.7
74	NFDHA	151772-58-6	5.27	295.0 / 201.0	434603		6.026	0.912	0.910	Pass	120.5
75	NFDHA_2	151772-58-6	5.27	295.0 / 84.9	396490		5.997	0.912	0.910	Pass	119.9
76	TDCA	516-50-7	N/A	499.1 / 124.1	N/A		N/A	N/A	40.716	N/A	N/A
77	TDCA_2	516-50-7	N/A	499.1 / 79.9	N/A		N/A	N/A	40.716	N/A	N/A
78	13C2D4-4:2FTS	Surr	N/A	333.2 / 312.1	N/A		N/A	N/A	N/A	N/A	N/A
79	13C2-PFOA	Surr	N/A	415.0 / 370.0	N/A		N/A	N/A	N/A	N/A	N/A

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C4-PFBA	EIS	2.83	217.0 / 172.0	2045632		8.826	NA	NA	NA	88.3

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C5-PFPeA	EIS	4.66	268.0 / 223.0	1323983		4.058	NA	NA	NA	81.2
	13C5-PFHxA	EIS	5.35	318.0 / 273.0	810151		1.890	NA	NA	NA	75.6
	13C4-PFHpA	EIS	6.26	367.0 / 322.0	795147		1.853	NA	NA	NA	74.1
	13C8-PFOA	EIS	7.48	421.0 / 376.0	1151391		2.157	NA	NA	NA	86.3
	13C9-PFNA	EIS	7.93	472.0 / 427.0	516830		0.993	NA	NA	NA	79.5
	13C6-PFDA	EIS	8.15	519.0 / 474.0	510162		1.074	NA	NA	NA	85.9
	13C7-PFUnA	EIS	8.42	570.0 / 525.0	408486		1.062	NA	NA	NA	85.0

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C2-PFDoA	EIS	8.83	615.1 / 570.0	329188		1.316	NA	NA	NA	105.3
	13C2-PFTeDA	EIS	9.85	715.1 / 670.1	248872		0.917	NA	NA	NA	73.3
	13C3-PFBS	EIS	5.32	302.1 / 80.1	649125		2.092	NA	NA	NA	89.8
	13C3-PFHxS	EIS	7.59	402.1 / 80.1	495579		2.011	NA	NA	NA	84.8
	13C8-PFOS	EIS	8.24	507.1 / 80.1	482252		1.899	NA	NA	NA	79.3
	13C2-4:2FTS	EIS	5.15	329.1 / 81.1	299221		5.403	NA	NA	NA	115.2
	13C2-6:2FTS	EIS	7.09	429.2 / 81.1	152517		3.758	NA	NA	NA	79.0
	13C2-8:2FTS	EIS	8.05	529.2 / 81.1	244973		4.124	NA	NA	NA	85.9

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C8-PFOSA	EIS	9.51	506.1 / 78.1	673139		1.994	NA	NA	NA	79.8
	d3-NMeFOSA	EIS	10.15	515.2 / 219.0	106789		1.879	NA	NA	NA	75.2
	d5-NEtFOSA	EIS	10.36	531.2 / 219.0	105123		1.894	NA	NA	NA	75.7
	d3-NMeFOSAA	EIS	8.20	573.2 / 419.1	288510		2.246	NA	NA	NA	44.9
	d5-NEtFOSAA	EIS	8.33	589.3 / 419.1	233713		3.462	NA	NA	NA	69.2
	d7-NMeFOSE	EIS	10.06	623.2 / 58.9	882684		20.114	NA	NA	NA	80.5
	d9-NEtFOSE	EIS	10.25	639.2 / 58.9	1309904		20.245	NA	NA	NA	81.0

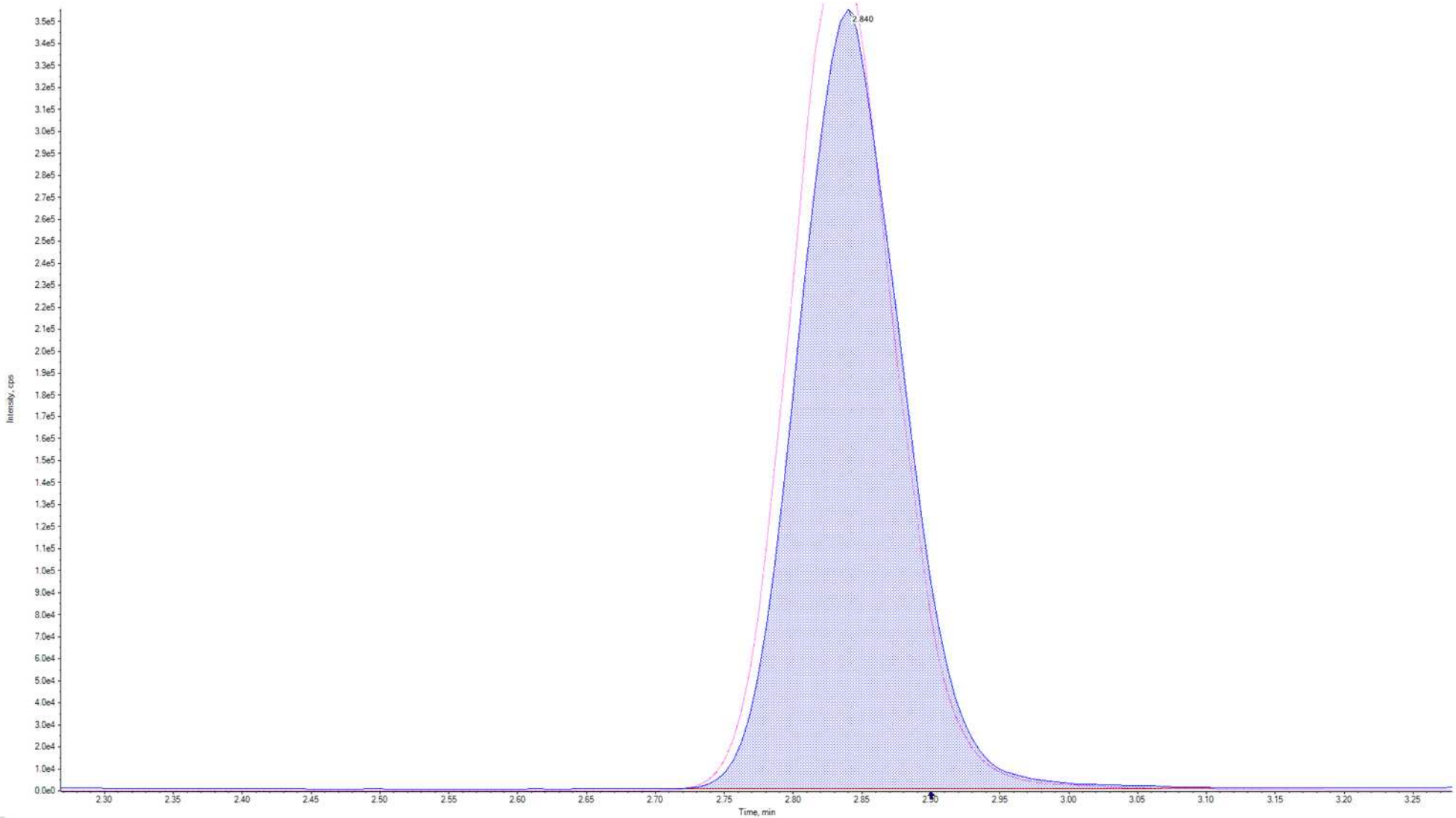
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	13C3-HFPO-DA	EIS	5.61	287.0 / 169.0	2187110		7.700	NA	NA	NA	77.0
	13C3-PFBA	NIS	2.83	216.0 / 172.0	1013838		4.742	NA	NA	NA	94.8
	13C2-PFHxA	NIS	5.35	315.0 / 270.0	1272599		2.599	NA	NA	NA	104.0
	13C4-PFOA	NIS	7.48	417.0 / 372.0	698435		2.231	NA	NA	NA	89.2
	13C5-PFNA	NIS	7.92	468.0 / 423.0	633820		1.157	NA	NA	NA	92.6
	13C2-PFDA	NIS	8.15	515.1 / 470.1	558220		1.089	NA	NA	NA	87.2
	18O2-PFHxS	NIS	7.59	403.1 / 84.1	500989		2.138	NA	NA	NA	90.2
	13C4-PFOS	NIS	8.24	503.1 / 80.1	449164		2.133	NA	NA	NA	89.1

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	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec

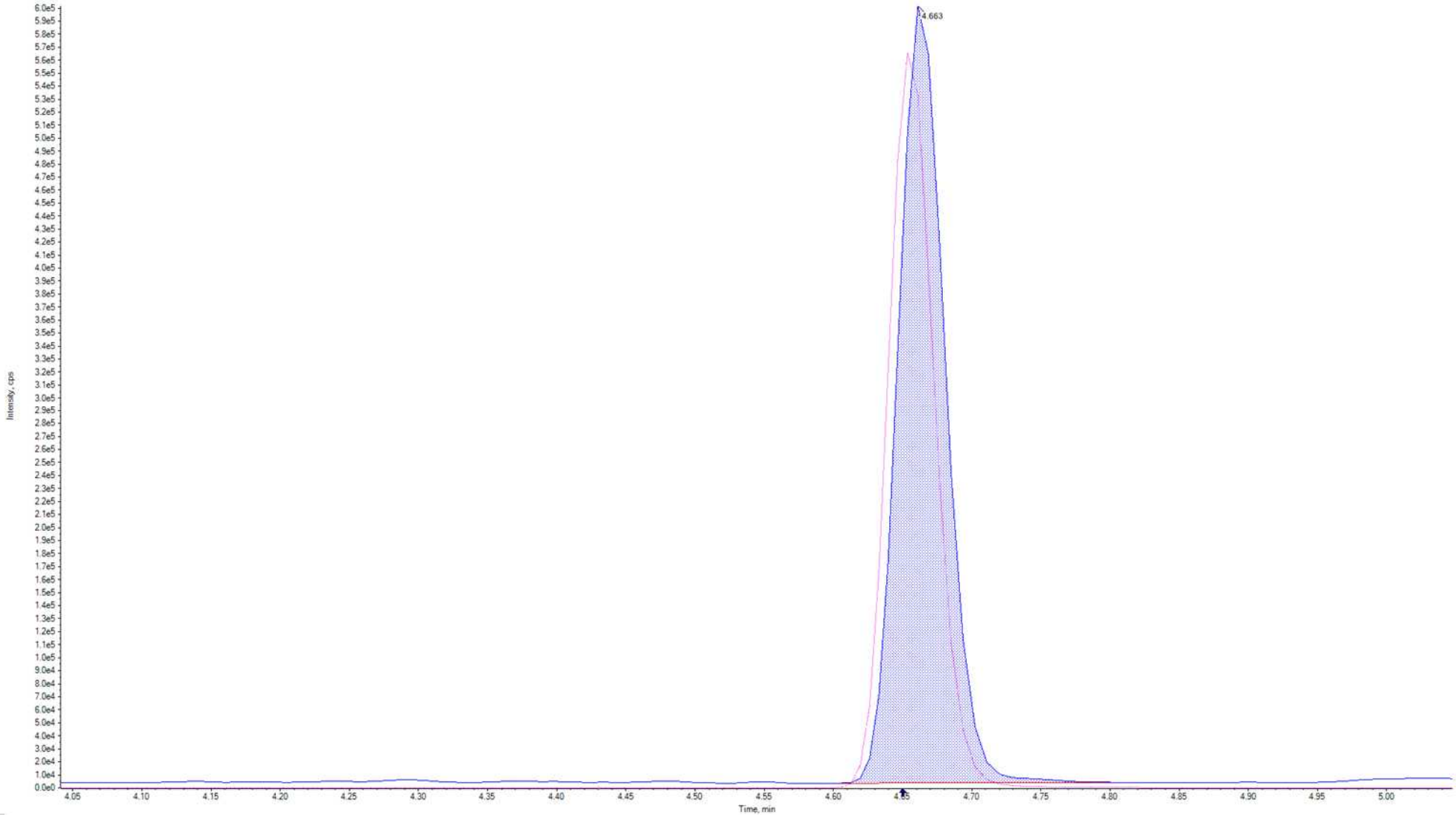
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PFBA
Sample: WG1972760-4 S/N:2067.7 Points Across peak:78



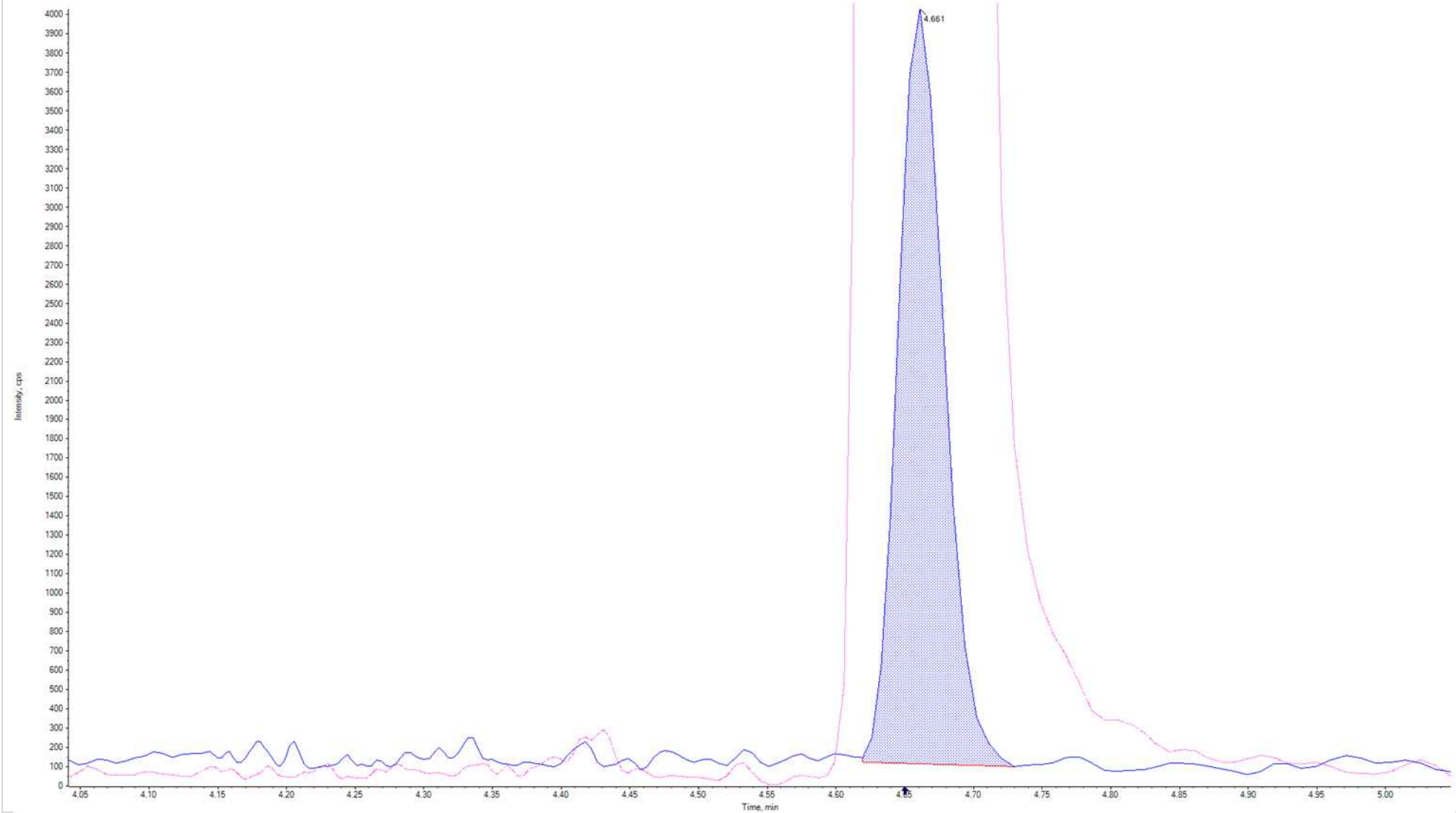
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PFPeA
Sample: WG1972760-4 S/N:1003.8 Points Across peak:32



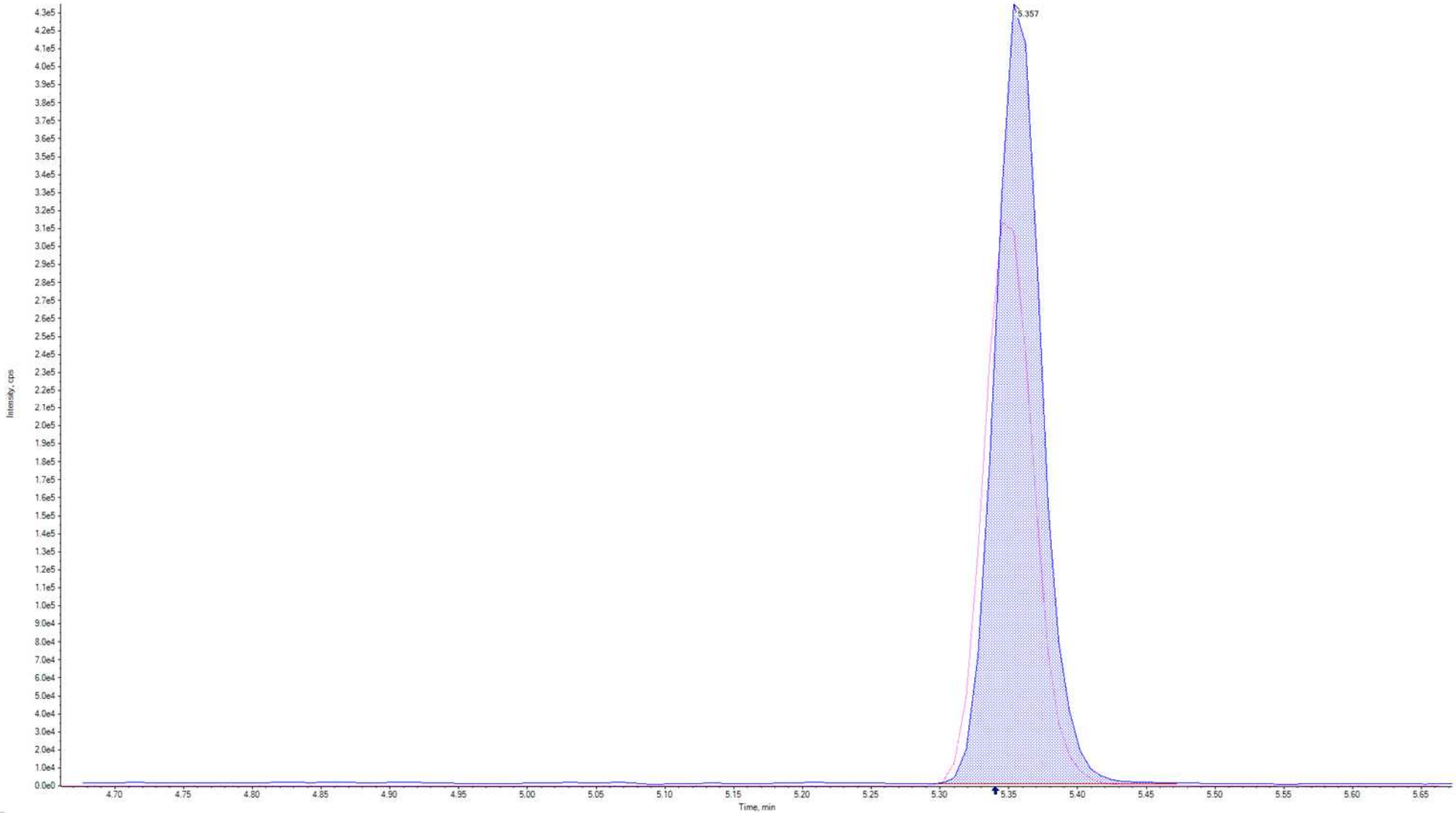
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PFPeA_2
Sample: WG1972760-4 S/N:198.3 Points Across peak:15



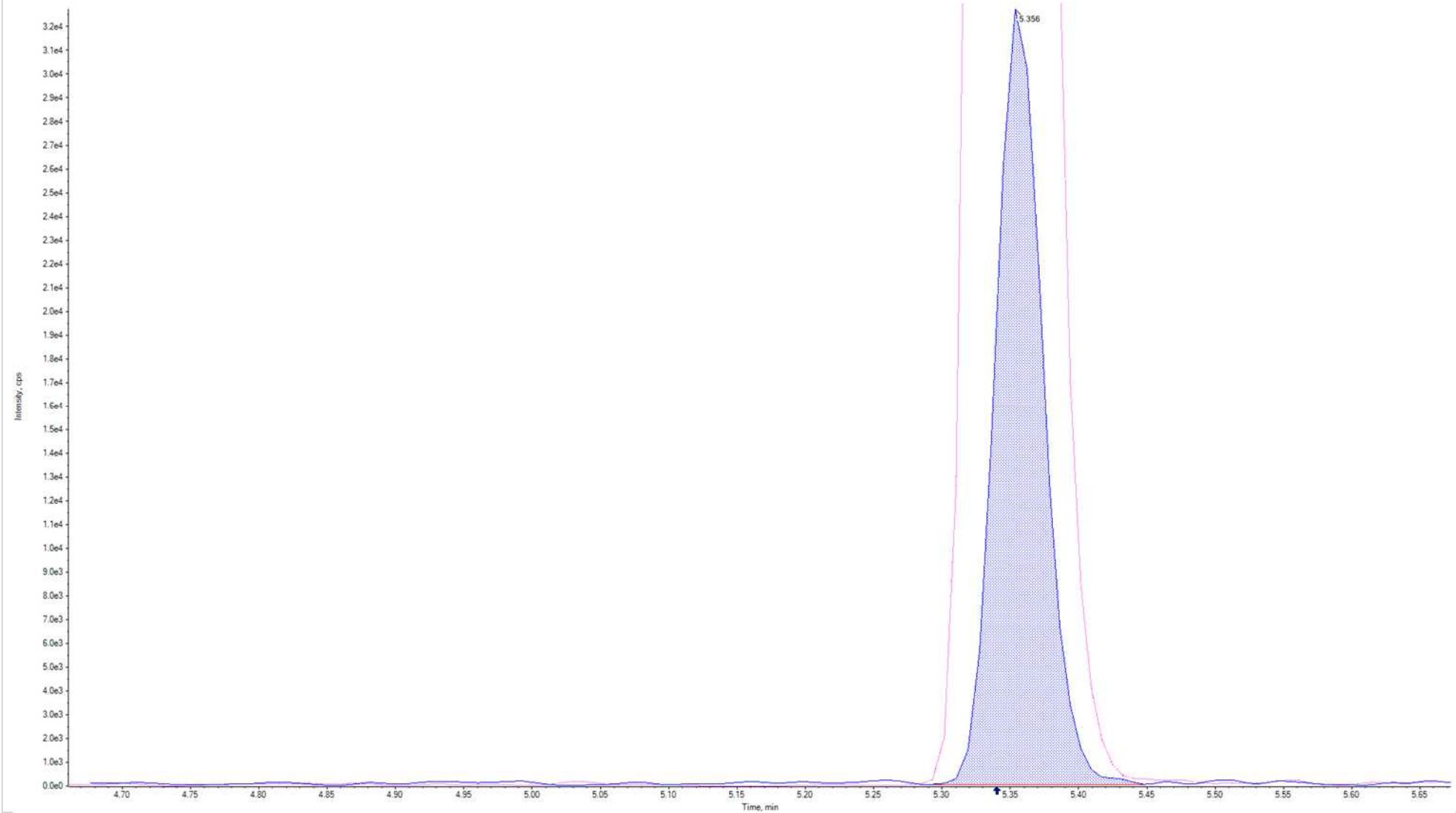
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PFHxA
Sample: WG1972760-4 S/N:782.7 Points Across peak:24



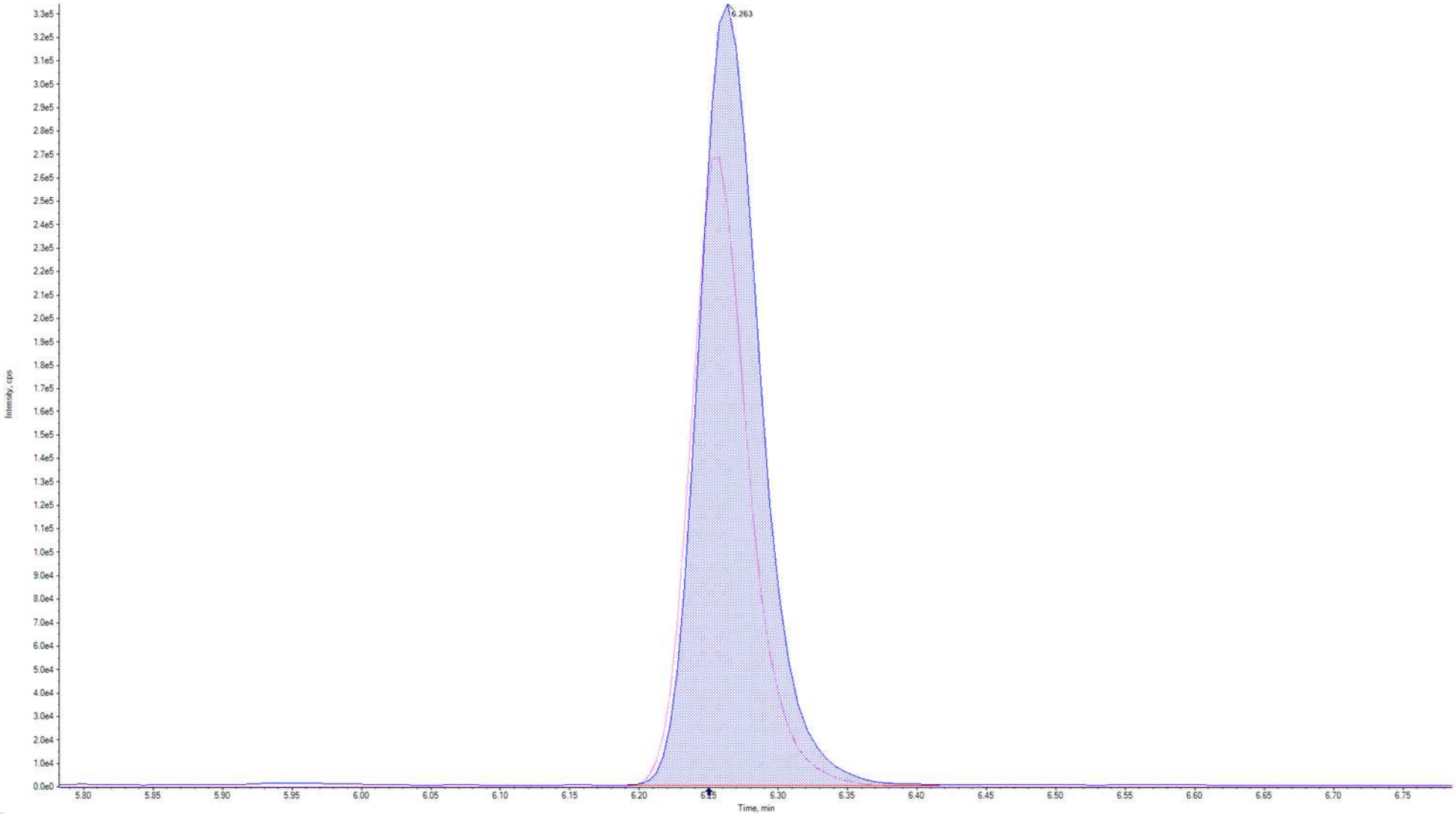
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PFHxA_2
Sample: WG1972760-4 S/N:1033.1 Points Across peak:21



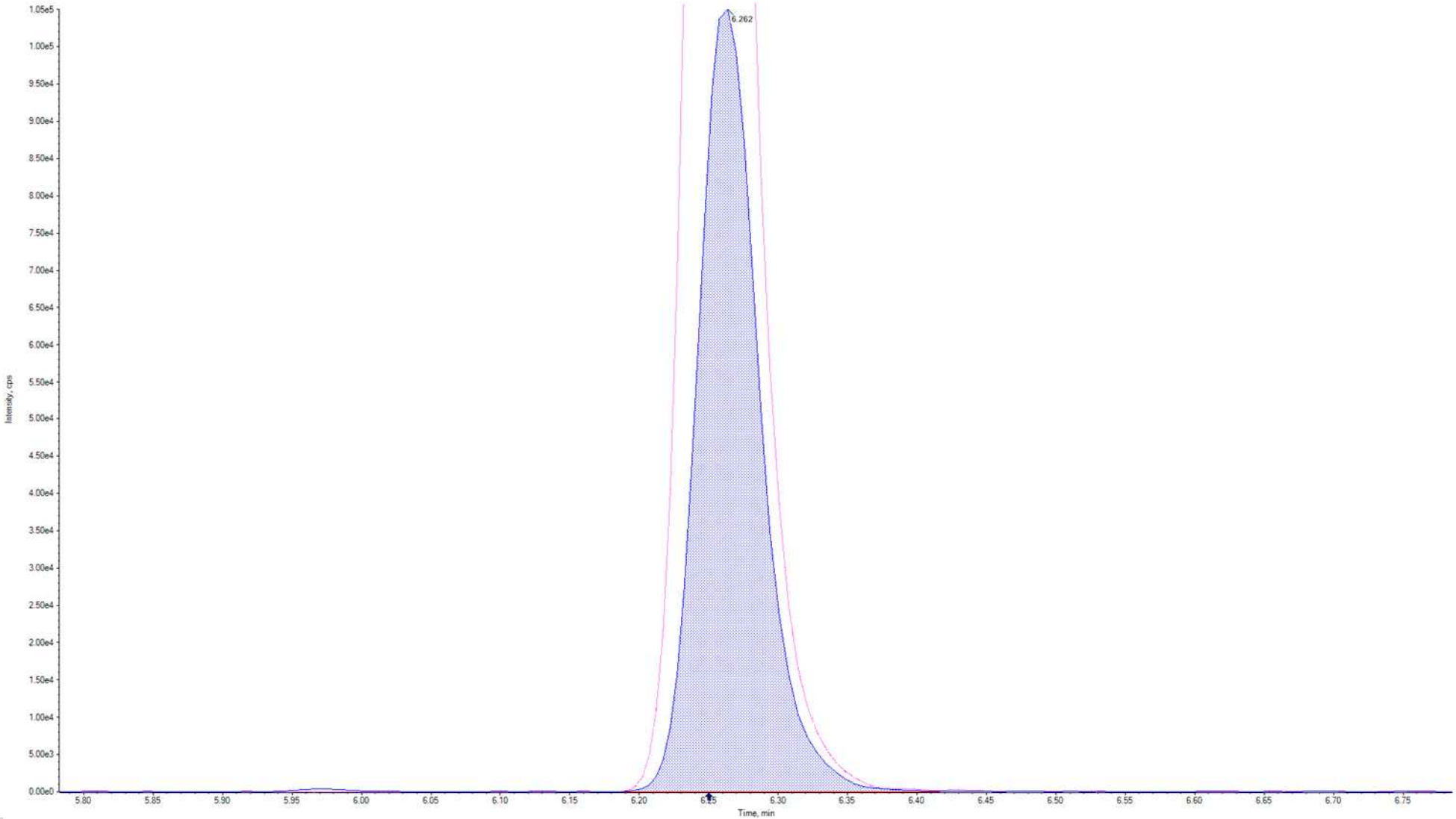
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_22.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFHpA
Sample: WG1972760-4 S/N:1824.3 Points Across peak:40



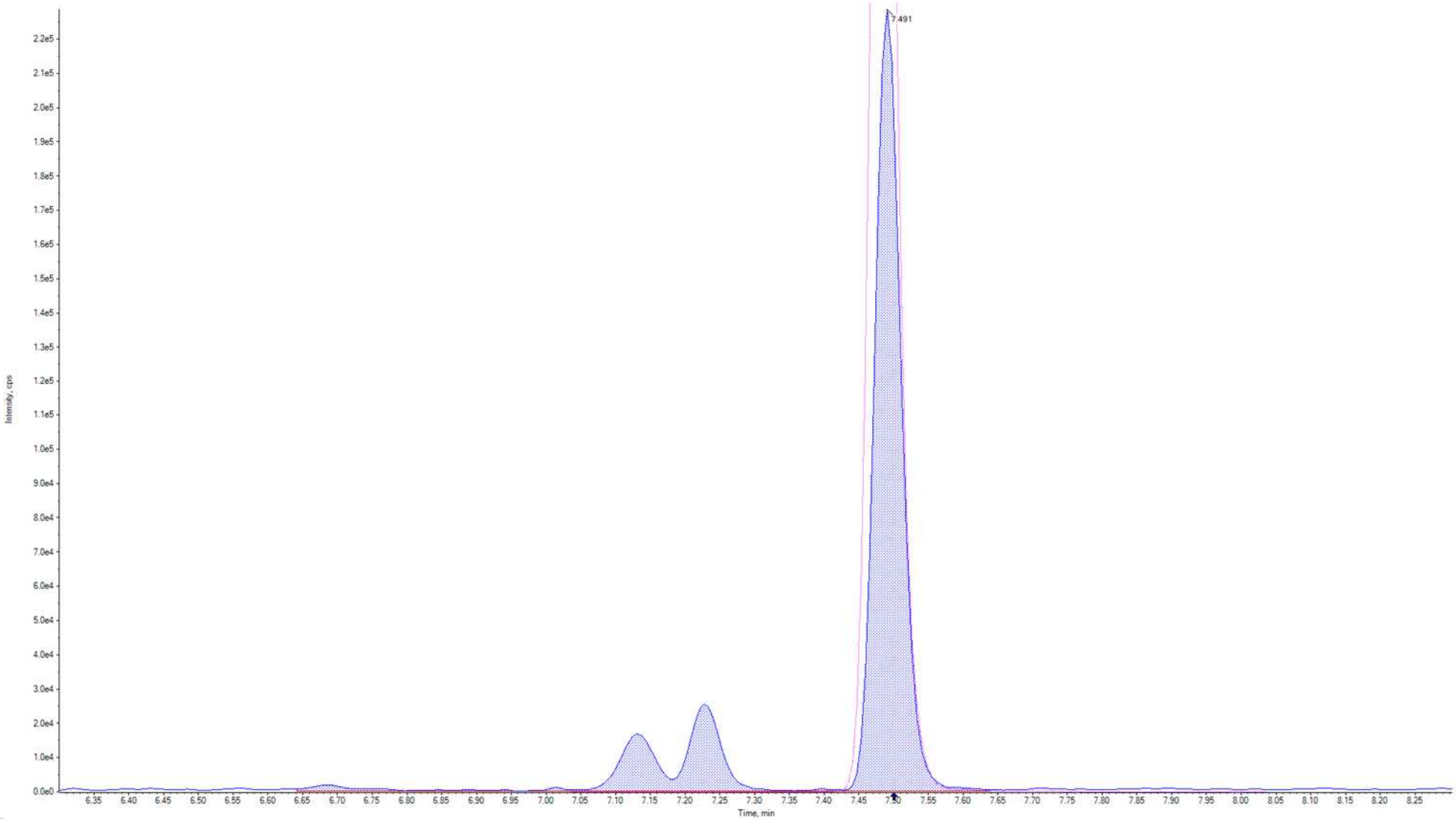
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFHpA_2
Sample: WG1972760-4 S/N:5538.7 Points Across peak:40



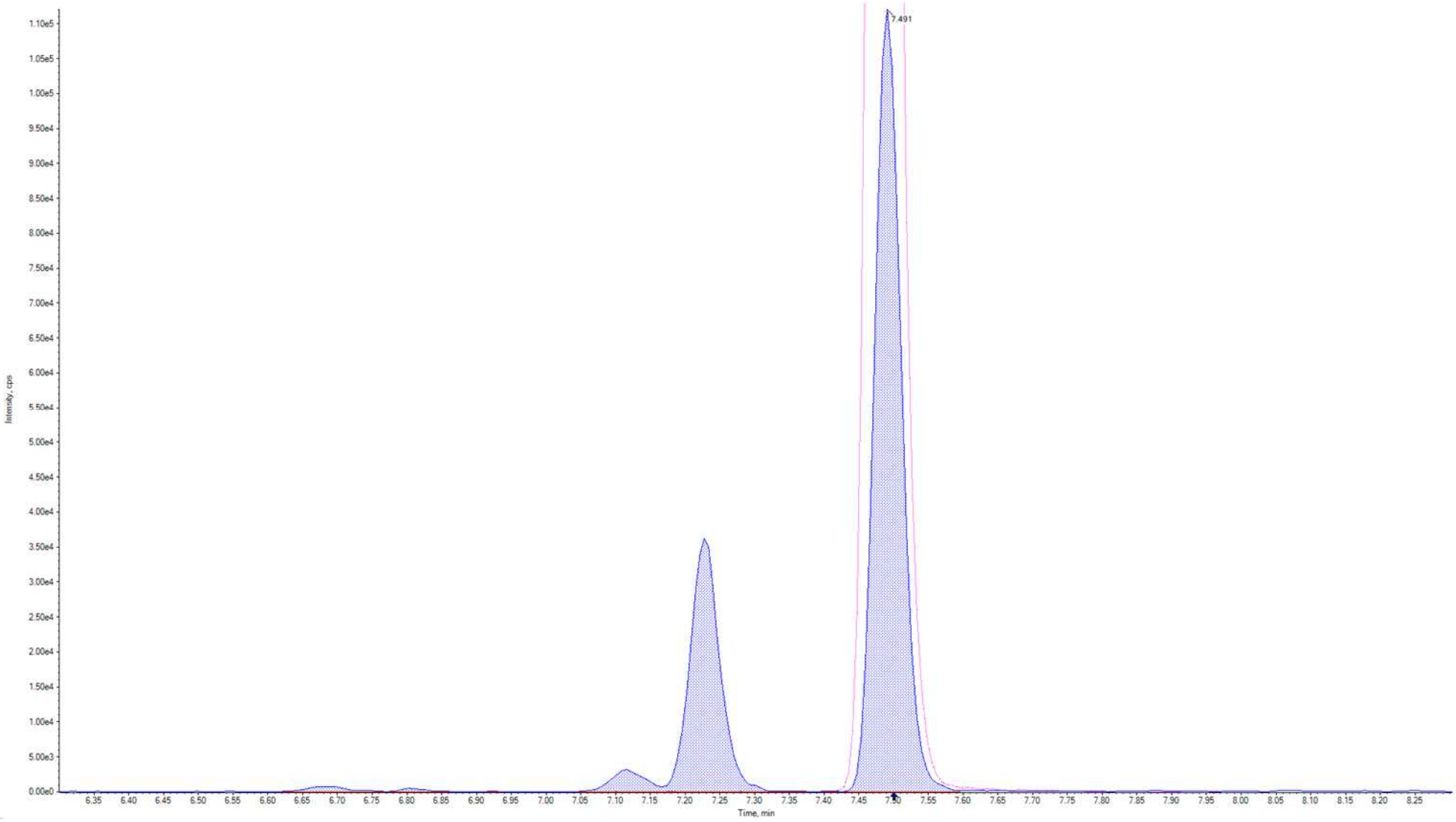
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Alpha Analytical Inc.
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PFOA
Sample: WG1972760-4 S/N:1719.9 Points Across peak:153



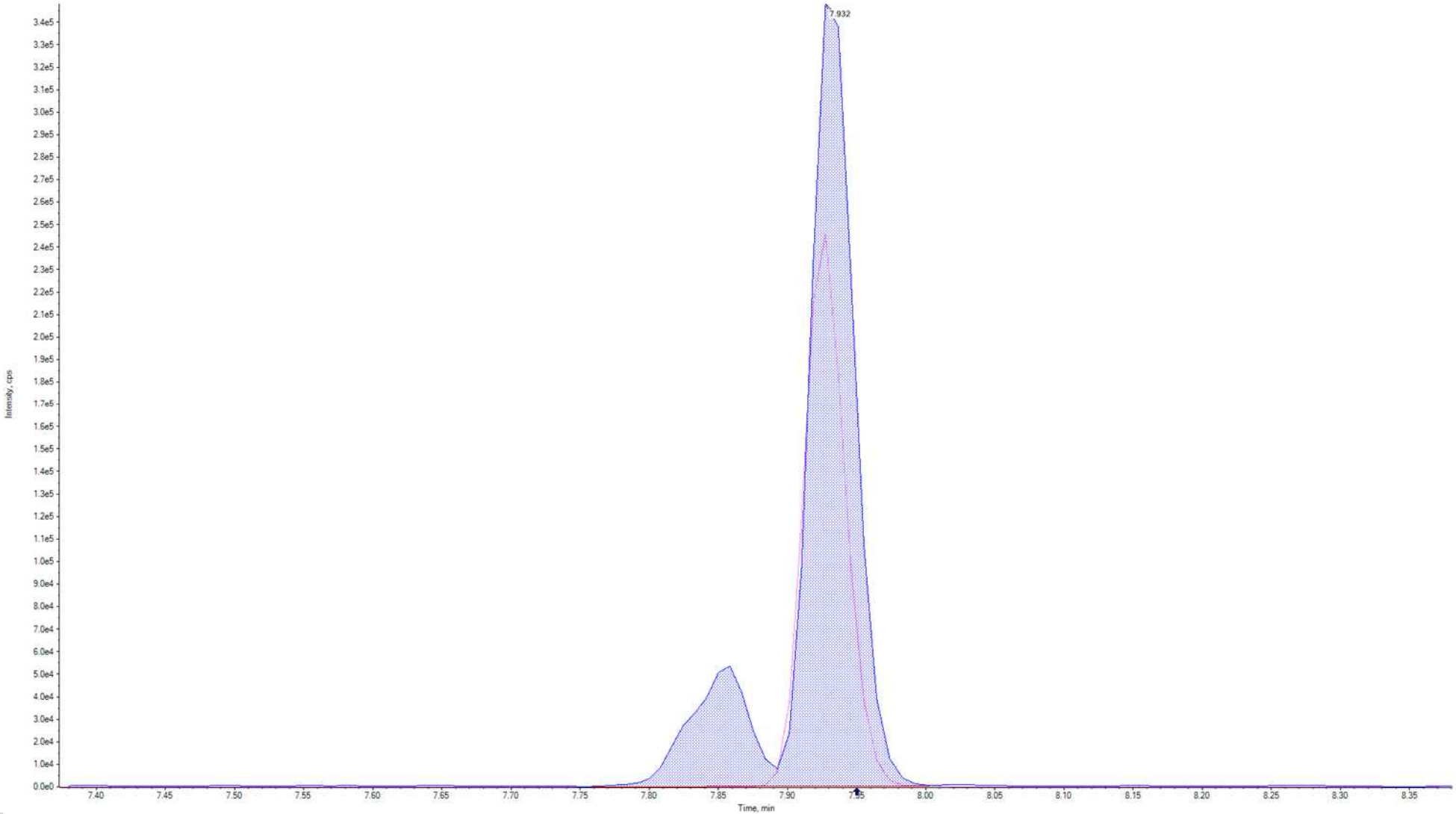
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Alpha Analytical Inc.
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PFOA_2
Sample: WG1972760-4 S/N:124633.9 Points Across peak:150



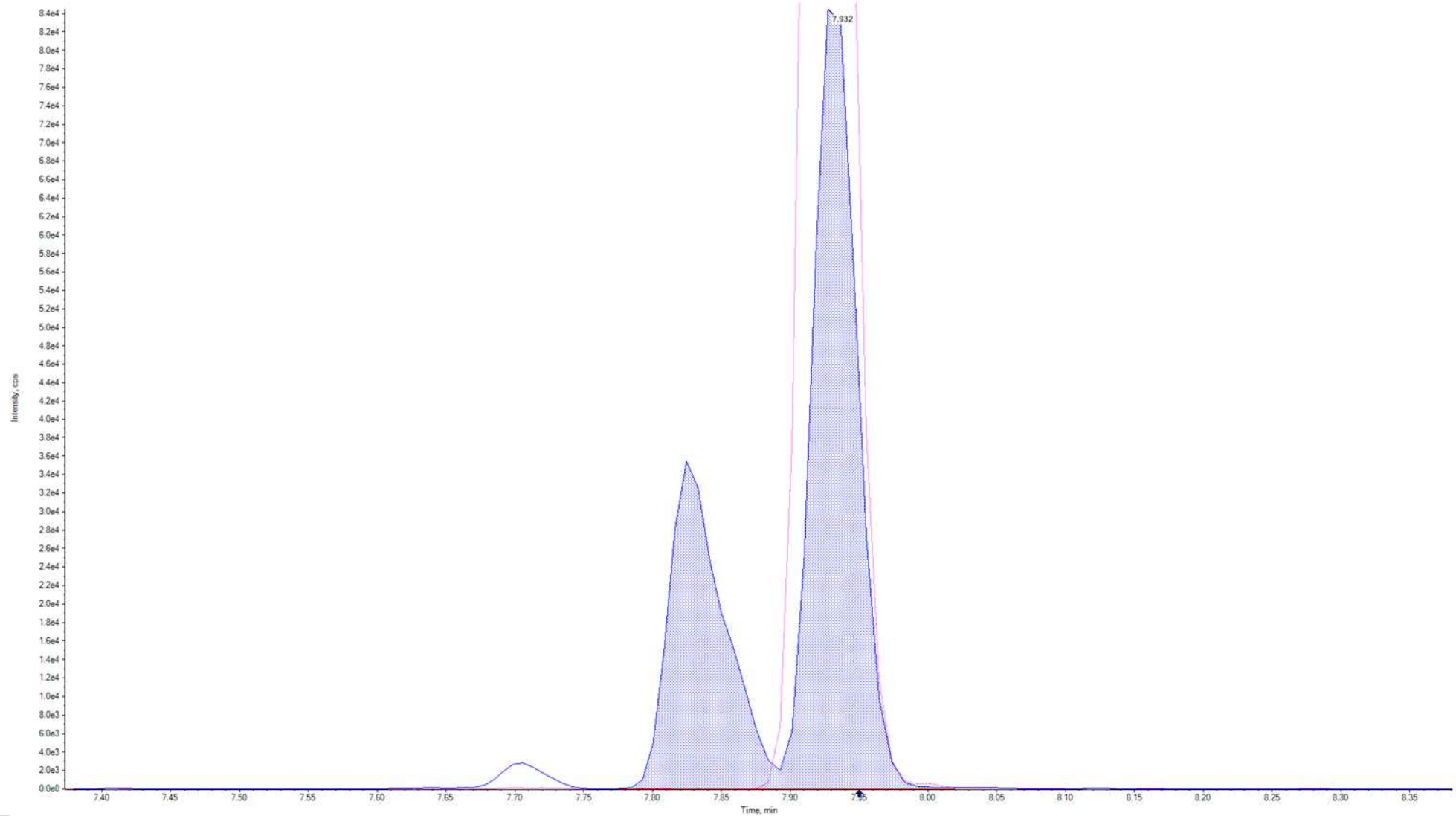
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Last Altered: 9/18/2024 12:41:54 PM
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PFNA
Sample: WG1972760-4 S/N:1582.8 Points Across peak:31



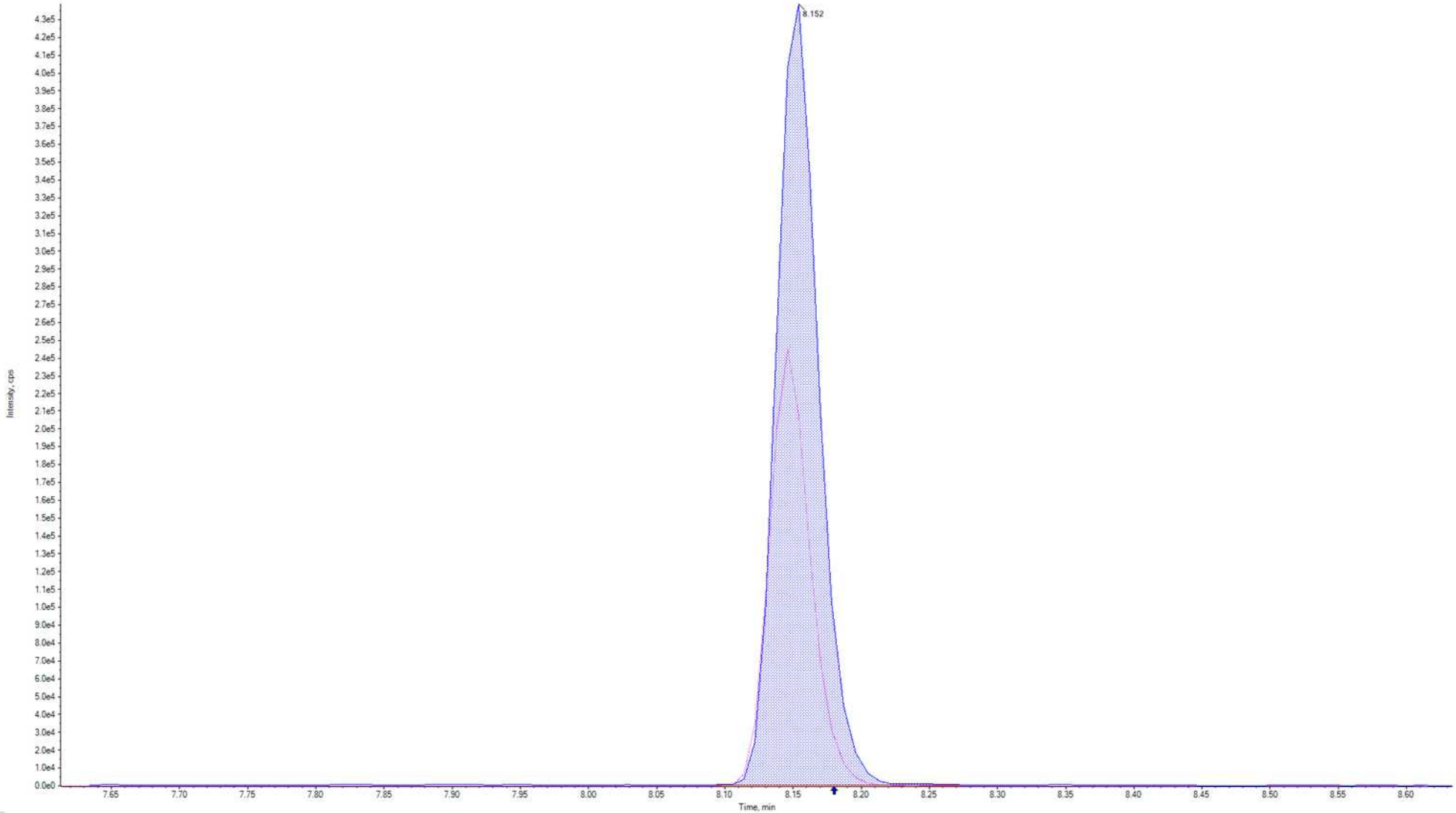
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFNA_2
Sample: WG1972760-4 S/N:985.0 Points Across peak:30



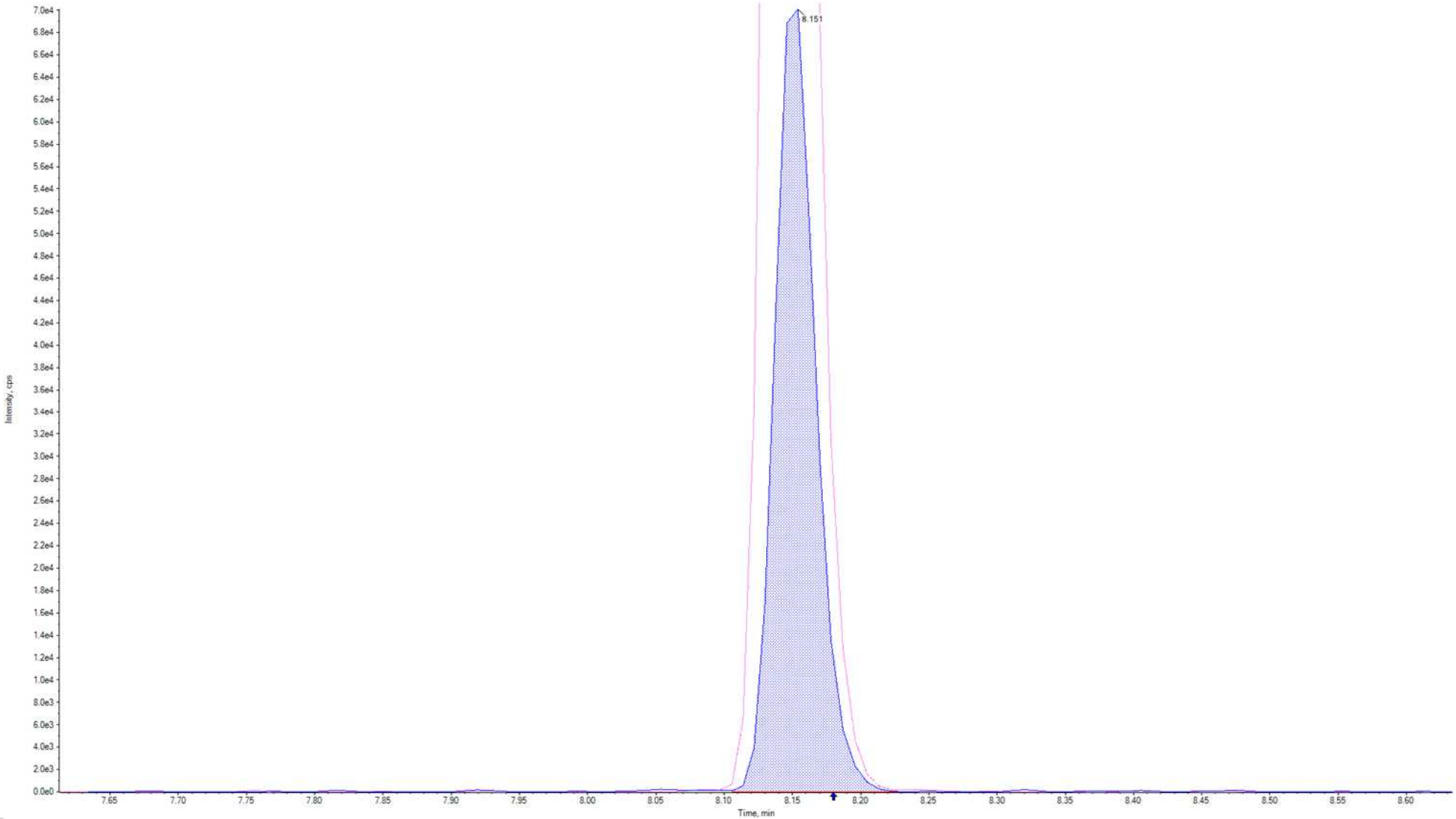
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFDA
Sample: WG1972760-4 S/N:3343.3 Points Across peak:29



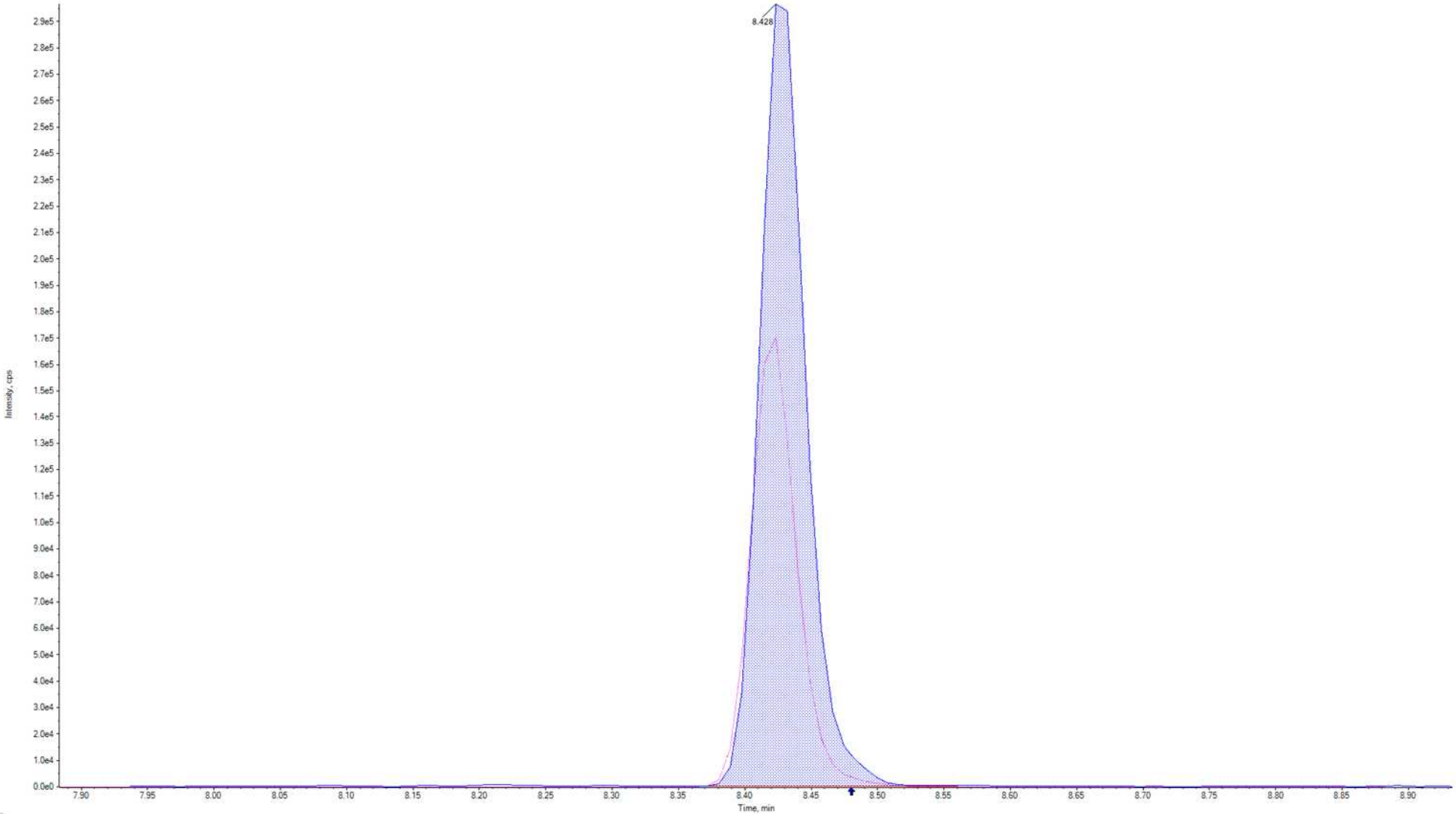
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDA_2
Sample: WG1972760-4 S/N:9392824.3 Points Across peak:16



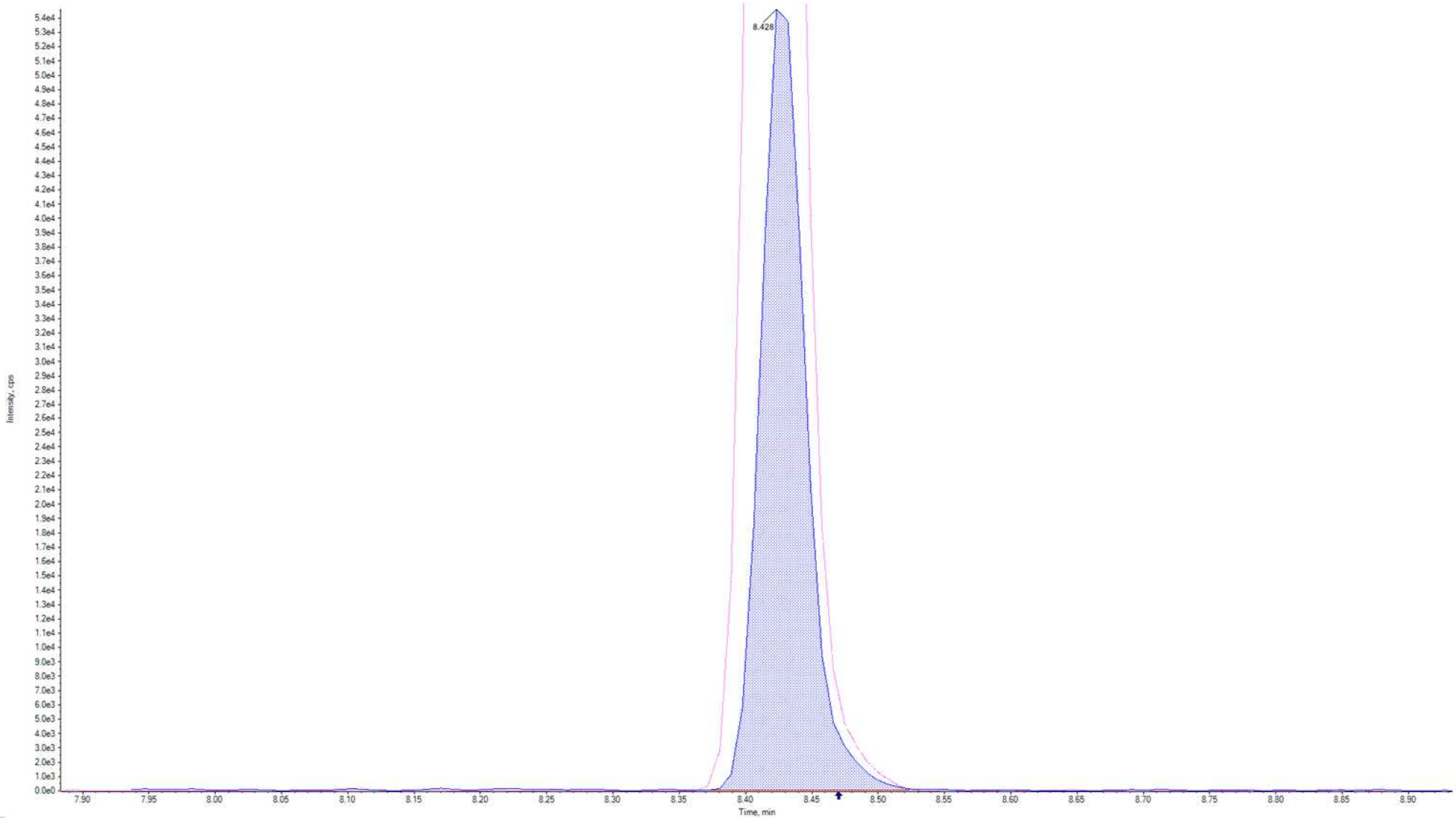
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFUnA
Sample: WG1972760-4 S/N:2568.5 Points Across peak:25



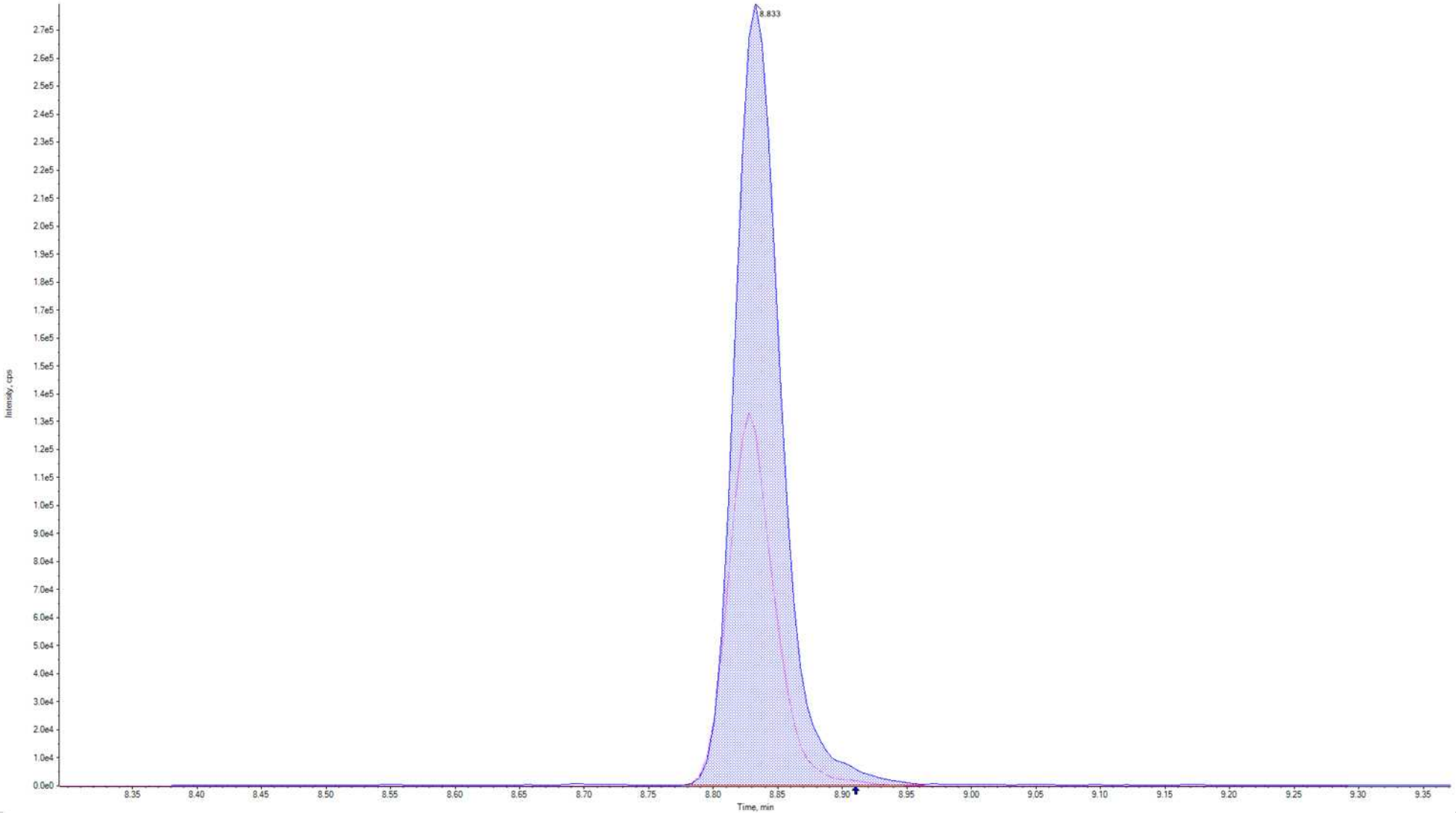
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFUnA_2
Sample: WG1972760-4 S/N:72265.5 Points Across peak:21



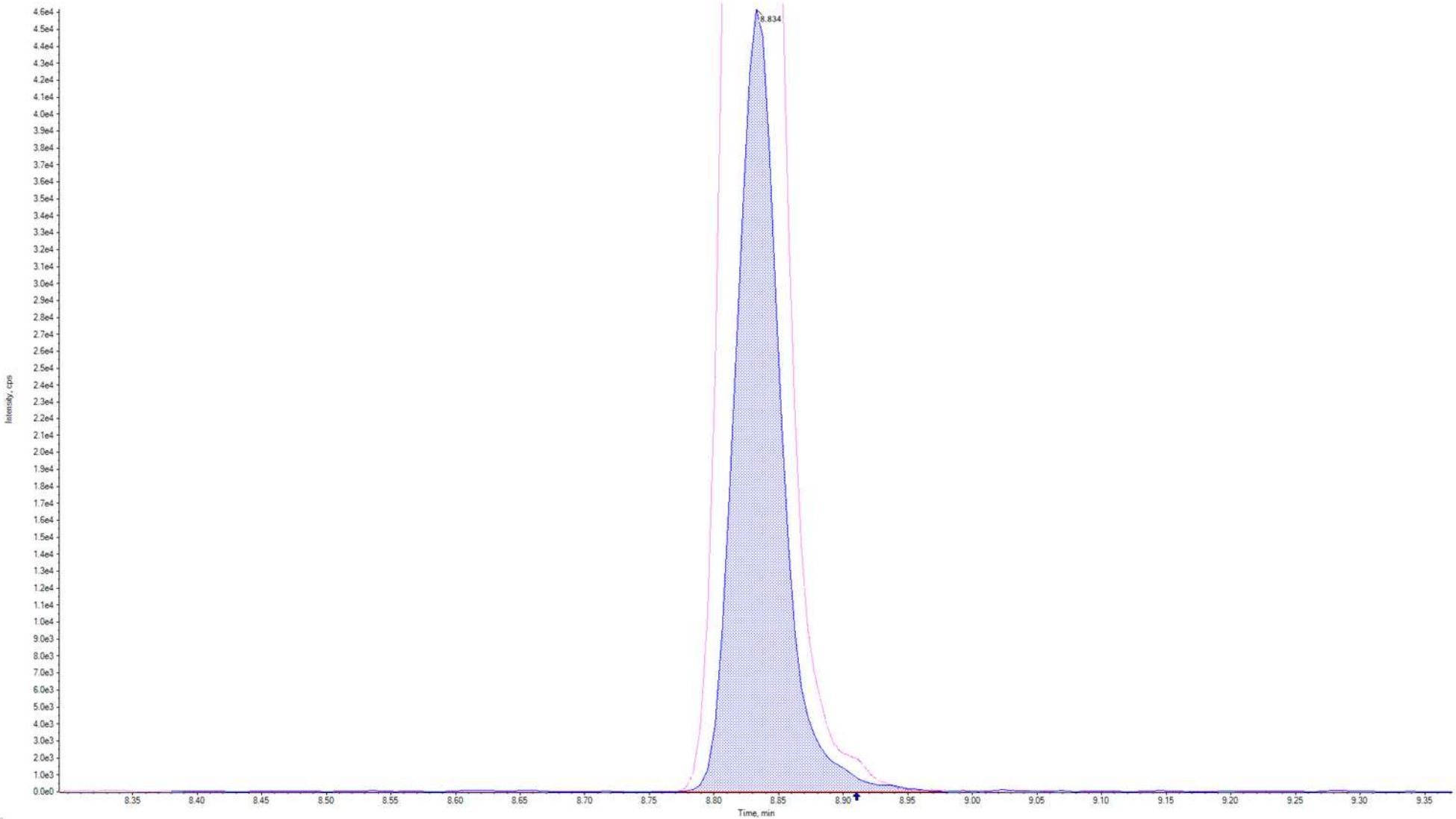
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDoA
Sample: WG1972760-4 S/N:2536.1 Points Across peak:41



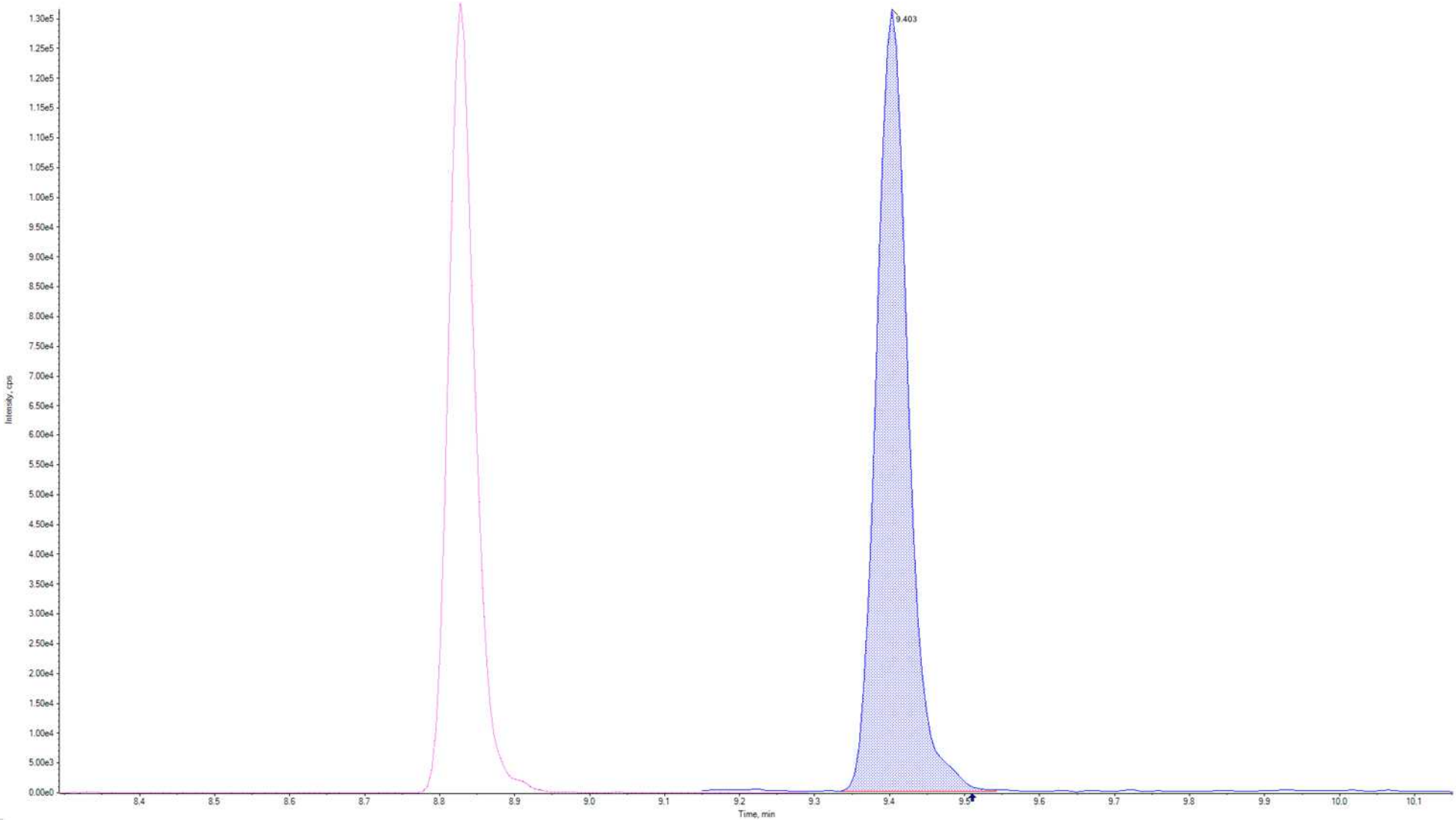
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDoA_2
Sample: WG1972760-4 S/N:8198.1 Points Across peak:42



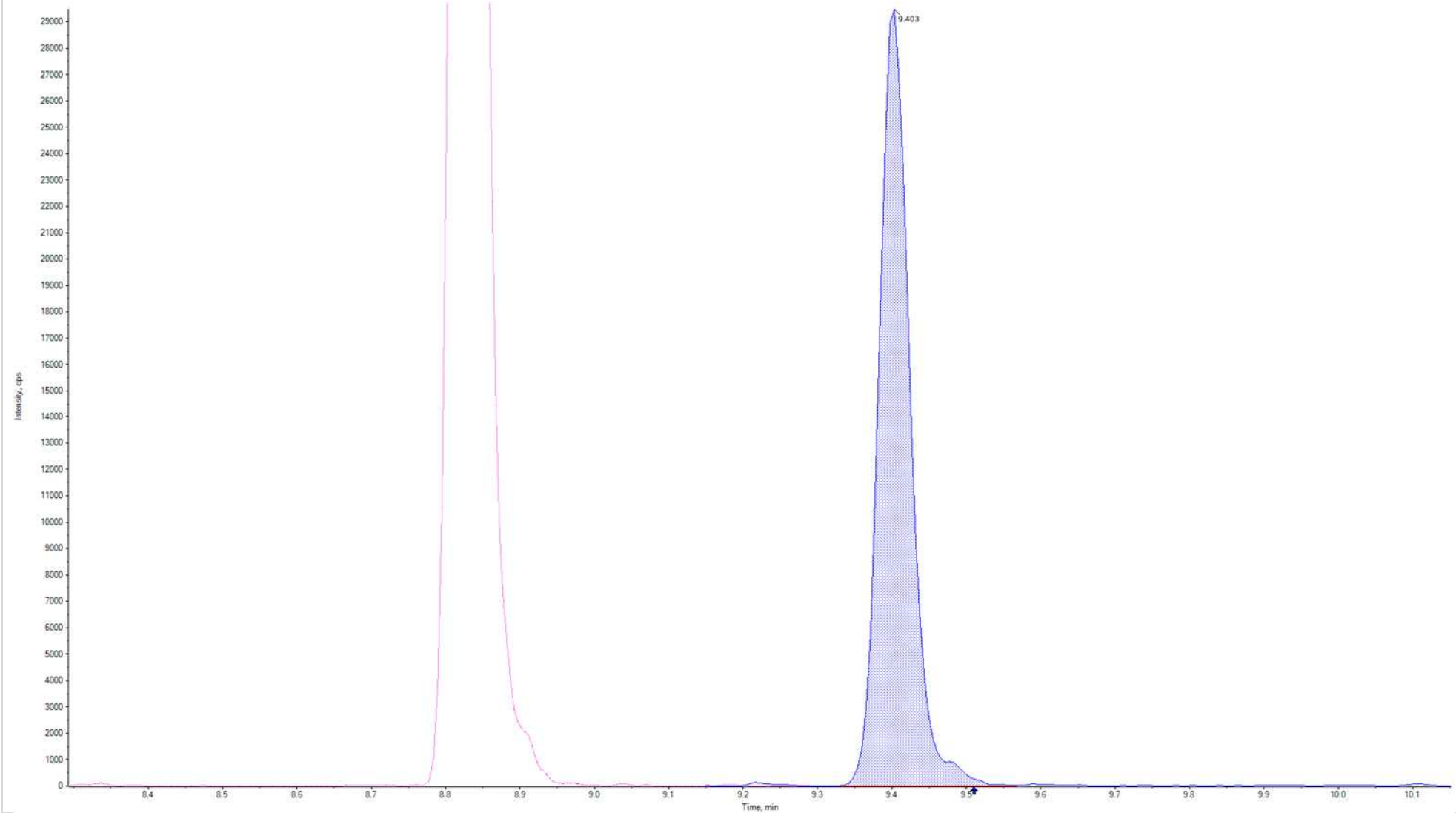
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFTrDA
Sample: WG1972760-4 S/N:1380.9 Points Across peak:38



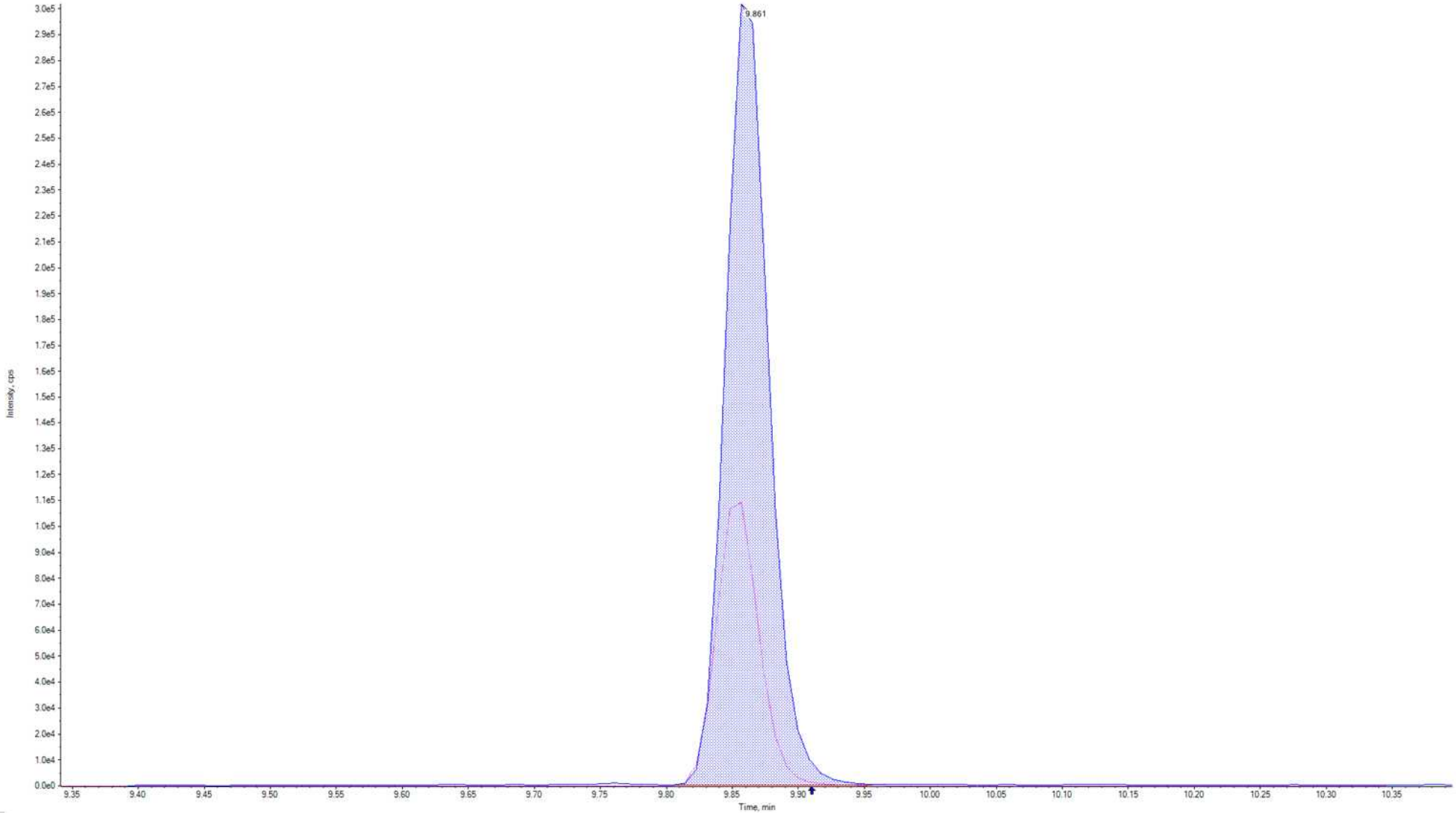
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFTrDA_2
Sample: WG1972760-4 S/N:963949.6 Points Across peak:45



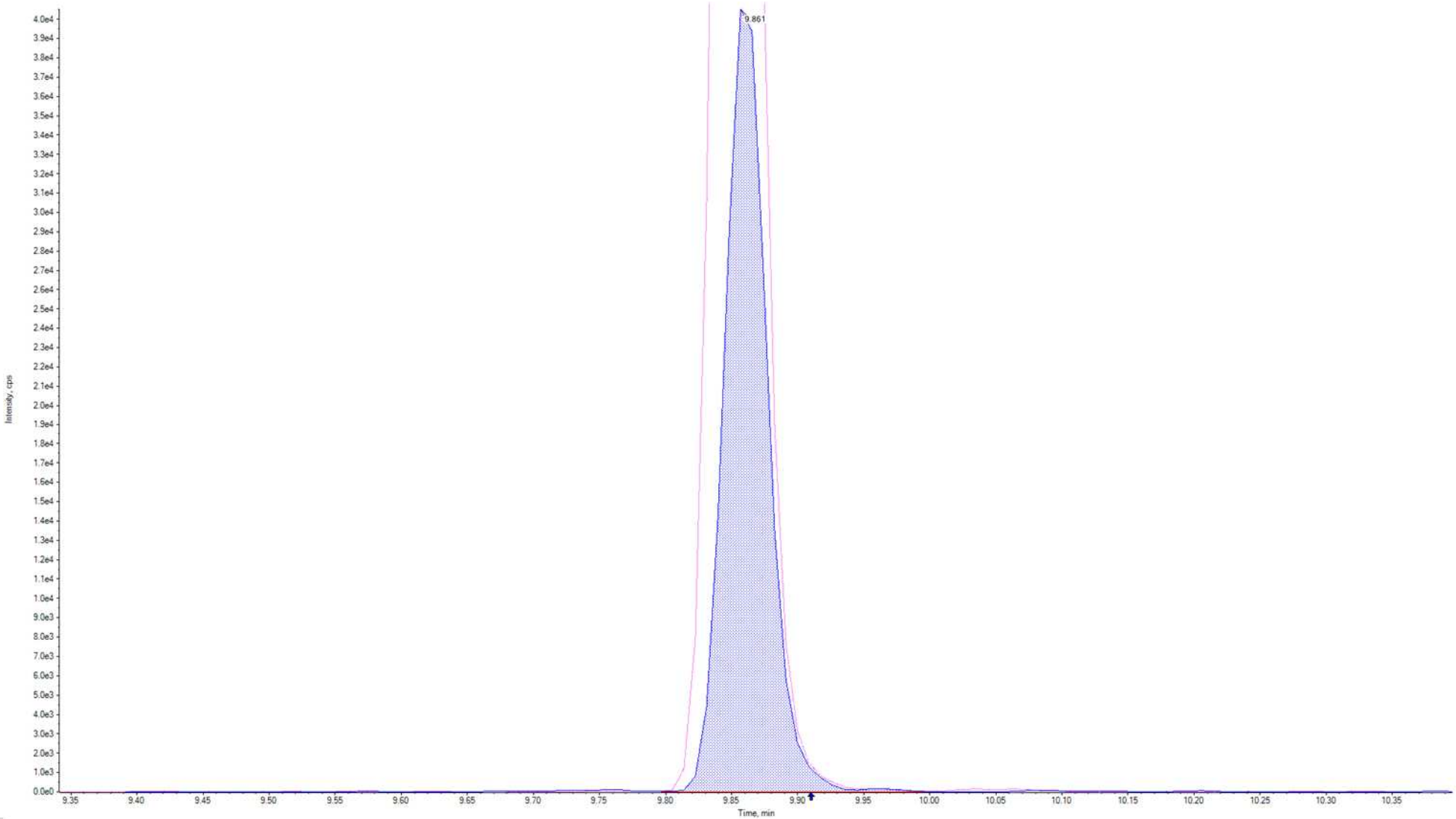
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Last Altered: 9/18/2024 12:41:54 PM
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PFTeDA
Sample: WG1972760-4 S/N:1602.6 Points Across peak:18



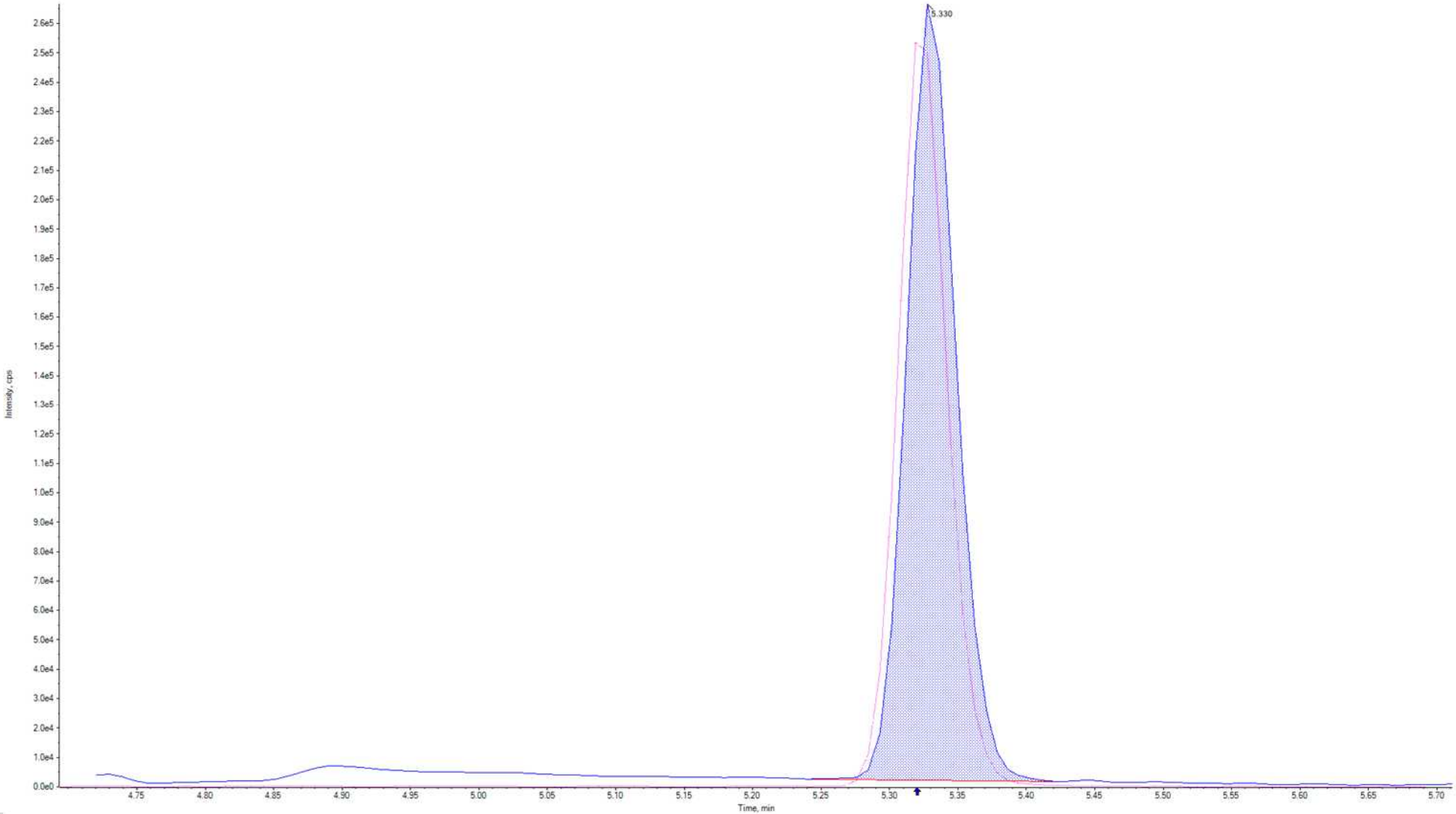
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFTeDA_2
Sample: WG1972760-4 S/N:1602.5 Points Across peak:25



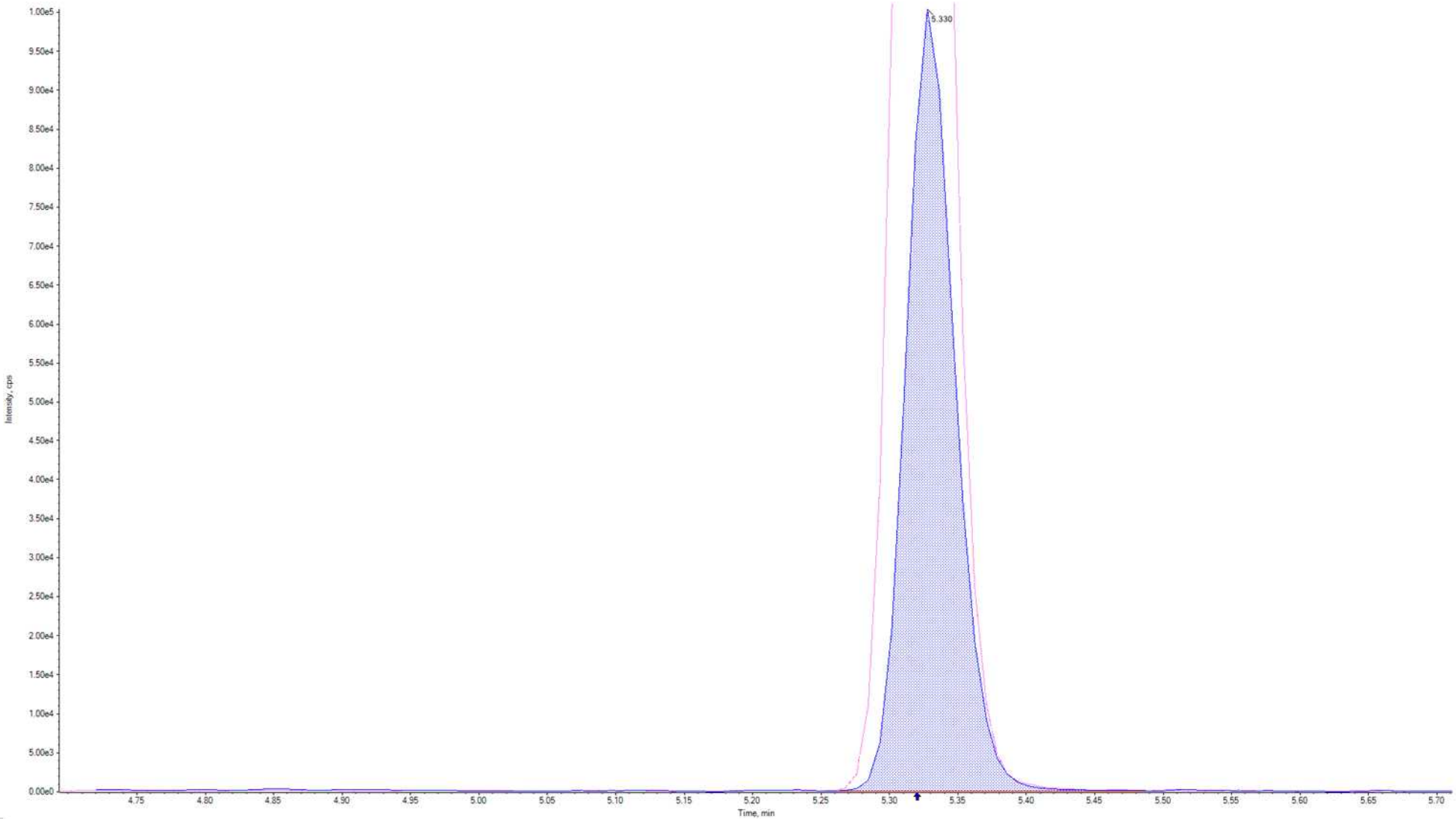
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFBS
Sample: WG1972760-4 S/N:85.9 Points Across peak:23



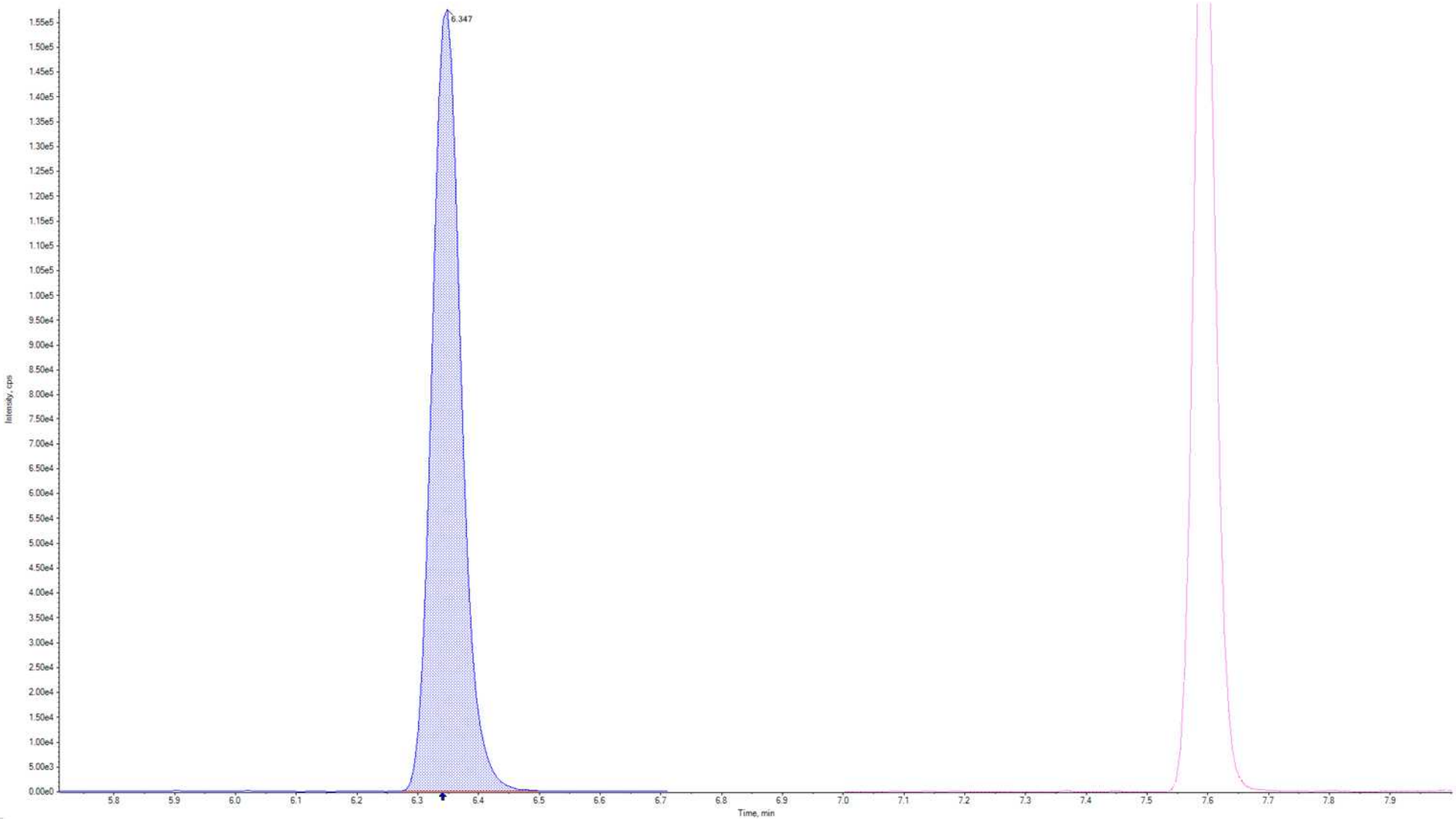
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFBS_2
Sample: WG1972760-4 S/N:2736.1 Points Across peak:30



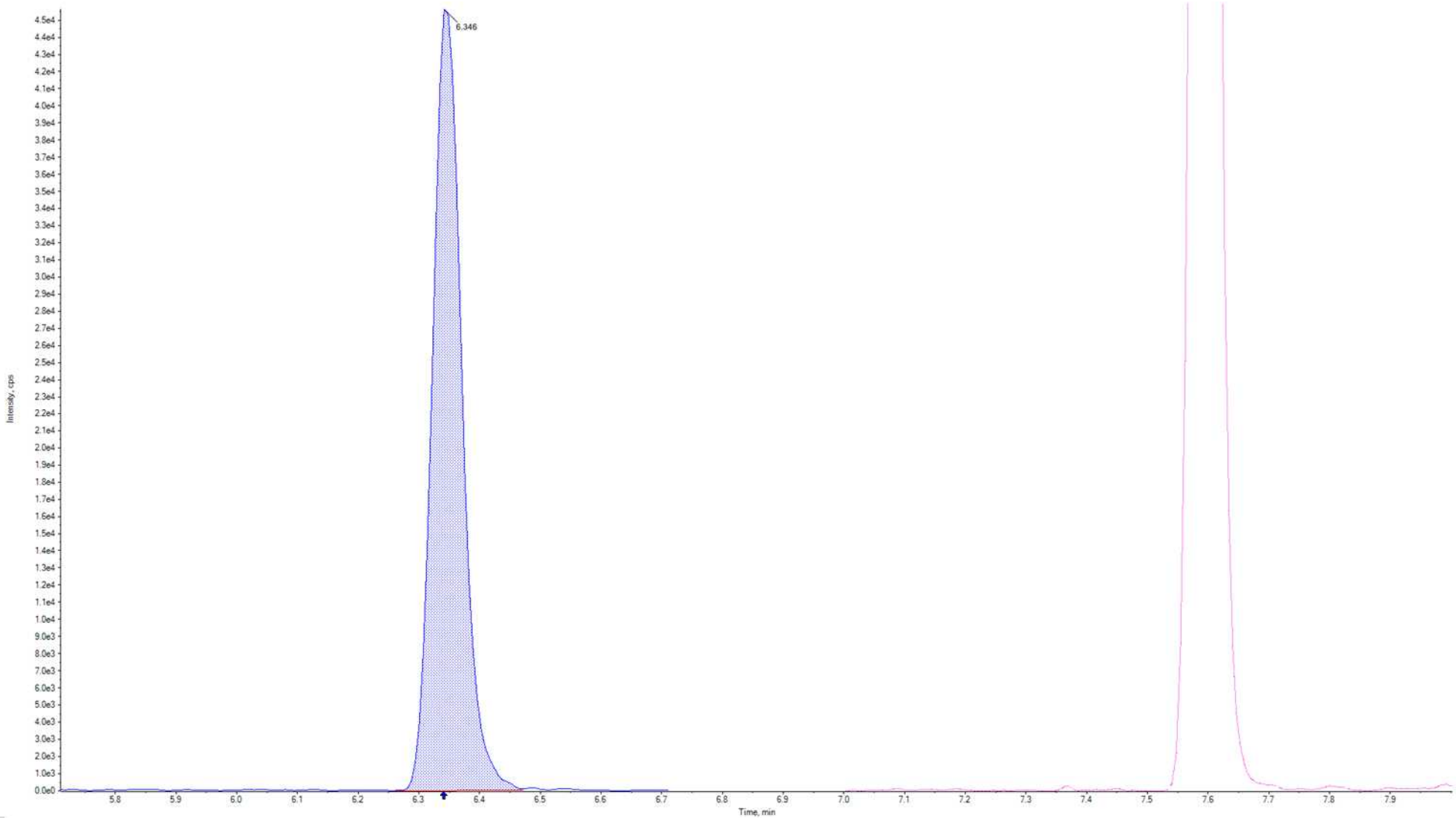
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PFPeS
Sample: WG1972760-4 S/N:3464.9 Points Across peak:38



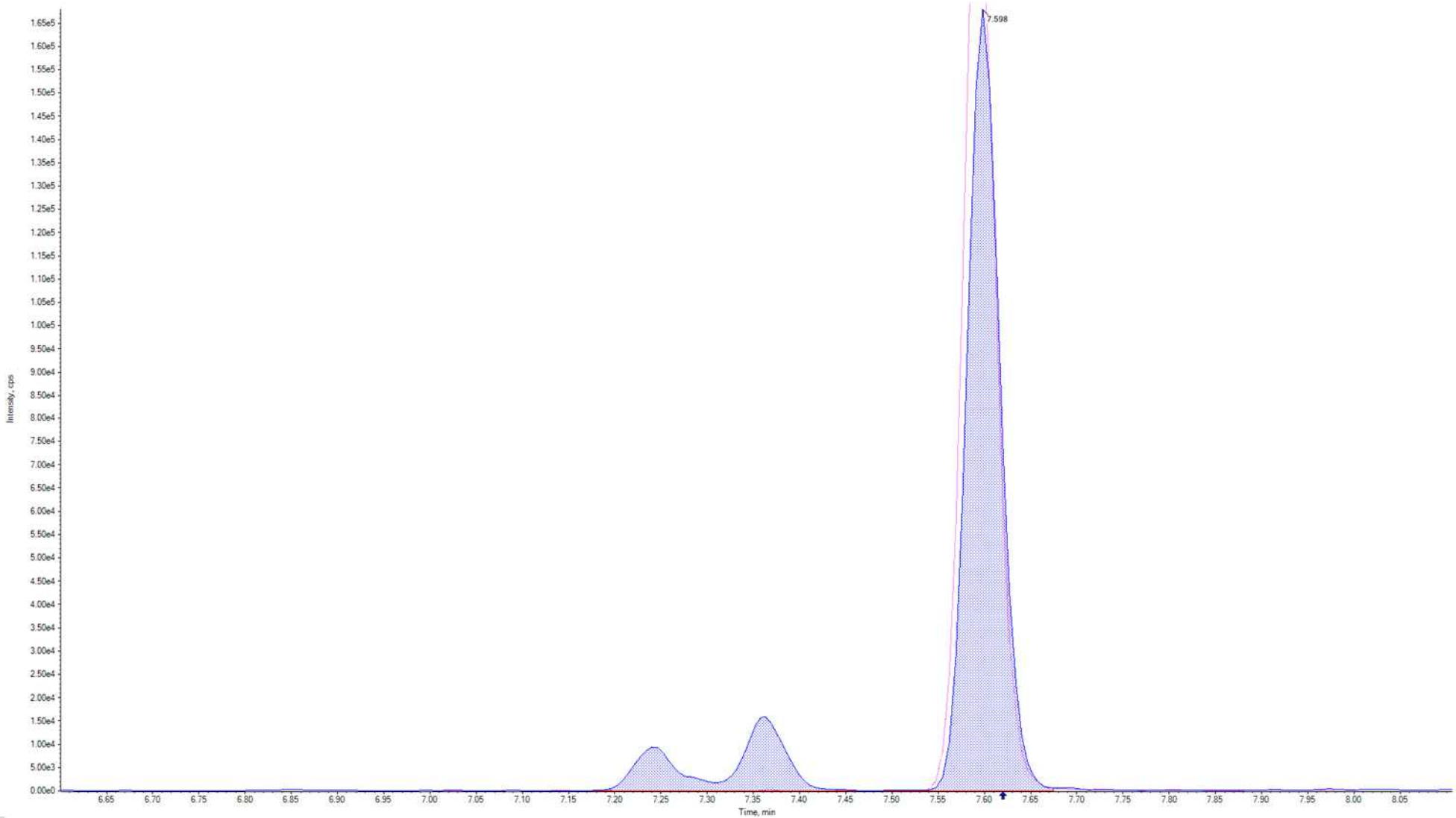
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Last Altered: 9/18/2024 12:41:54 PM
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PFPeS_2
Sample: WG1972760-4 S/N:4452.0 Points Across peak:33



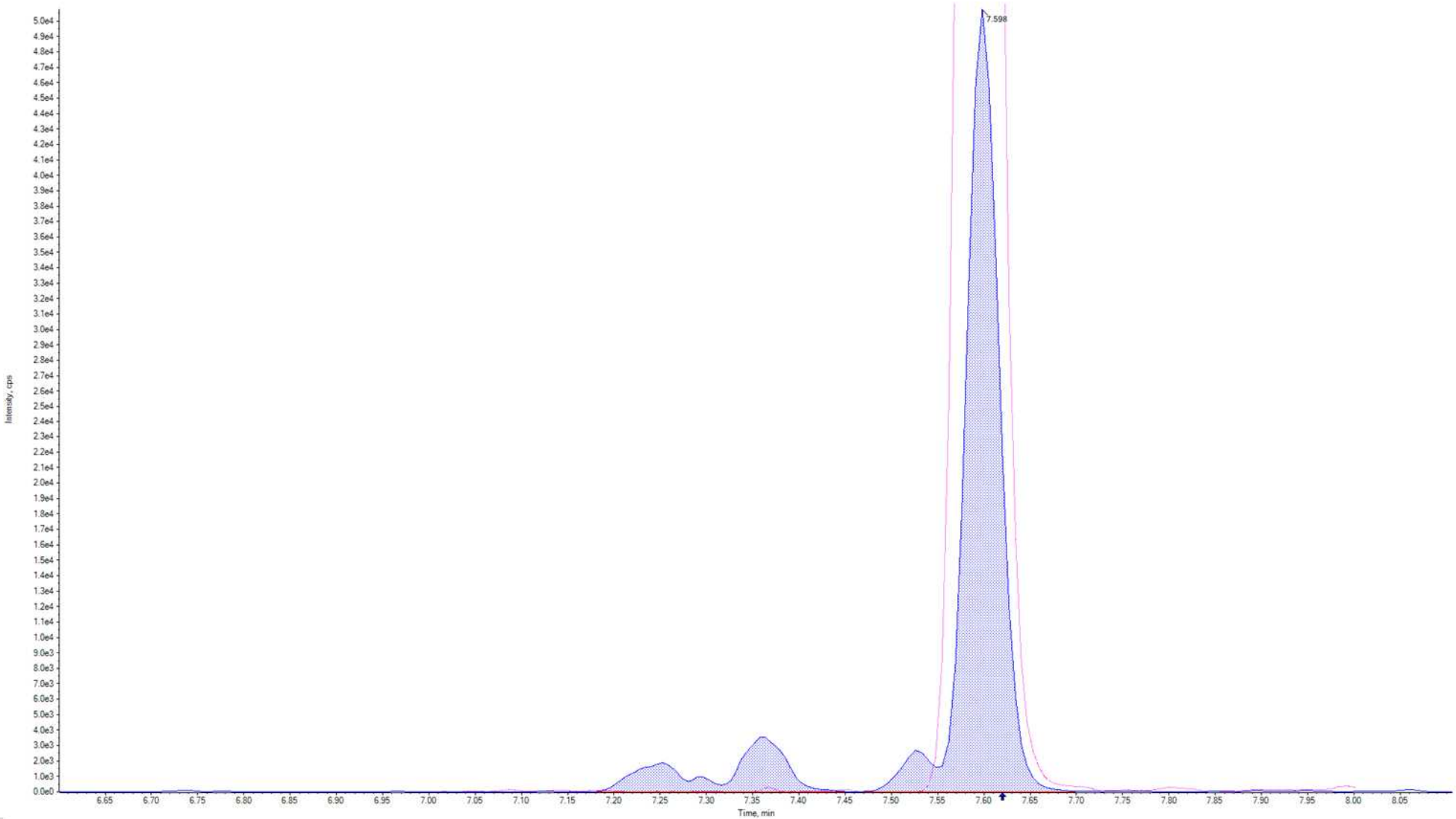
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Last Altered: 9/18/2024 12:41:54 PM
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PFHxS
Sample: WG1972760-4 S/N:5144.6 Points Across peak:83



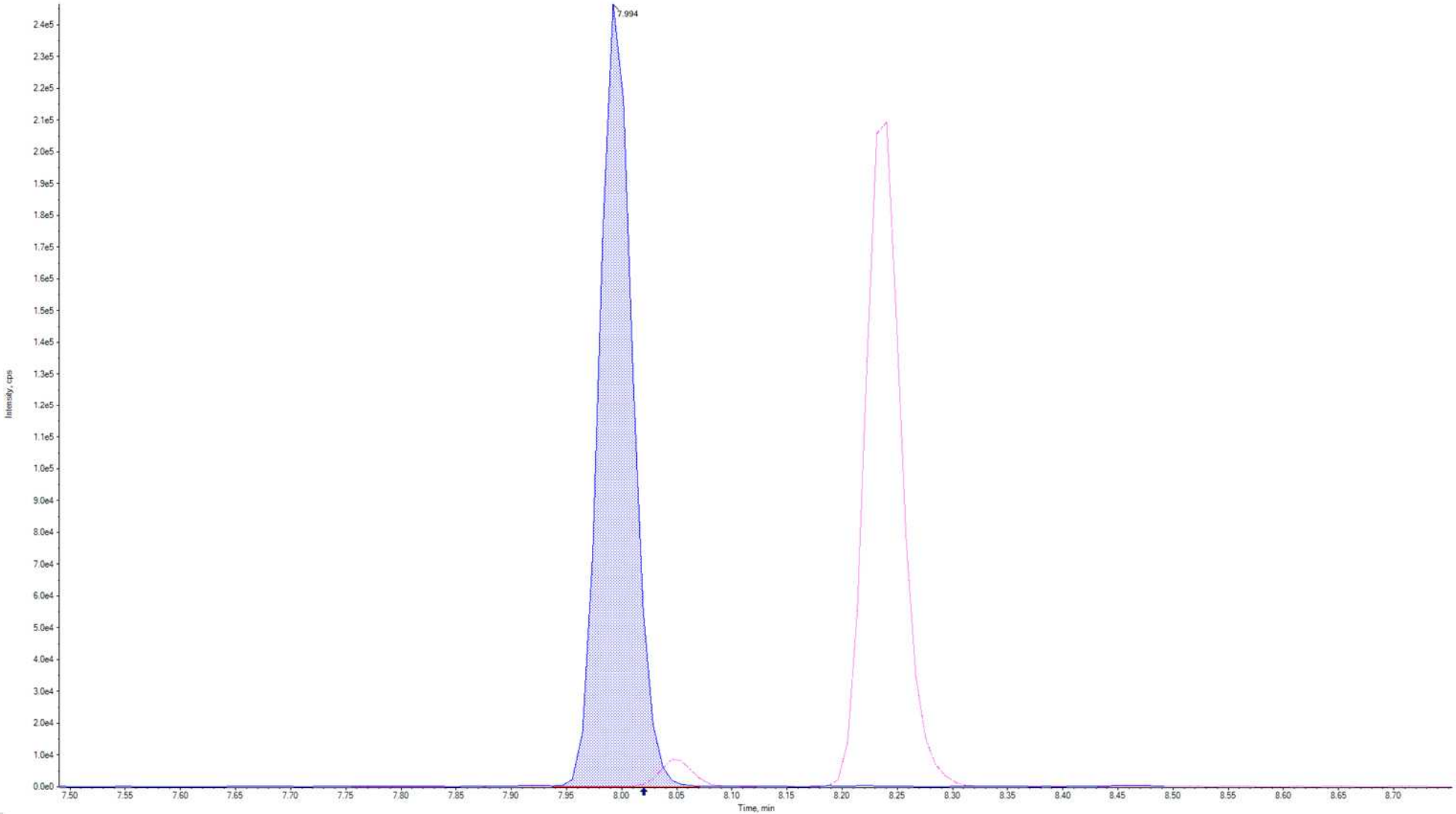
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFHxS_2
Sample: WG1972760-4 S/N:1541.5 Points Across peak:86



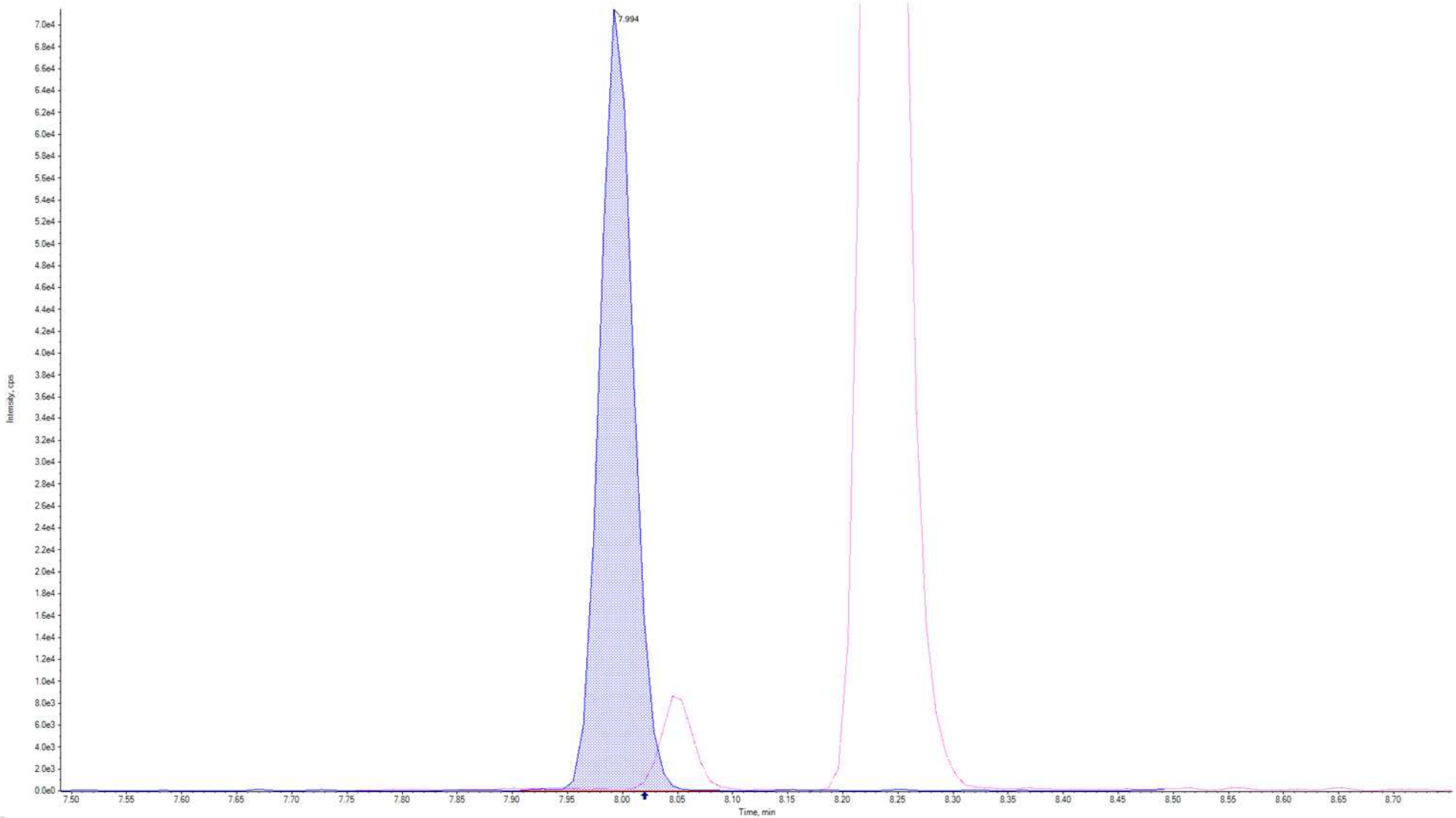
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFHpS
Sample: WG1972760-4 S/N:2825.2 Points Across peak:16



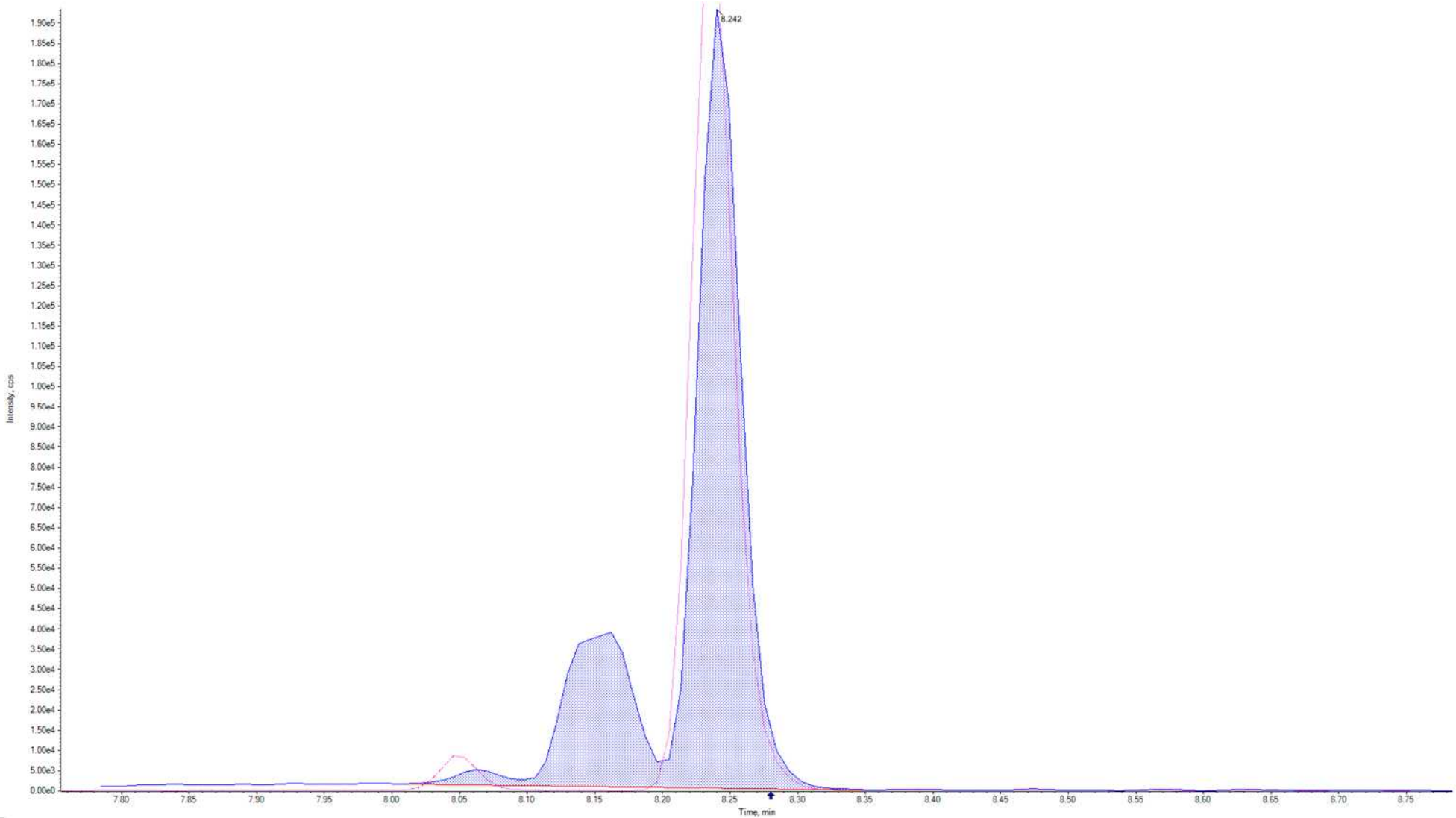
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFHpS_2
Sample: WG1972760-4 S/N:11613590.2 Points Across peak:24



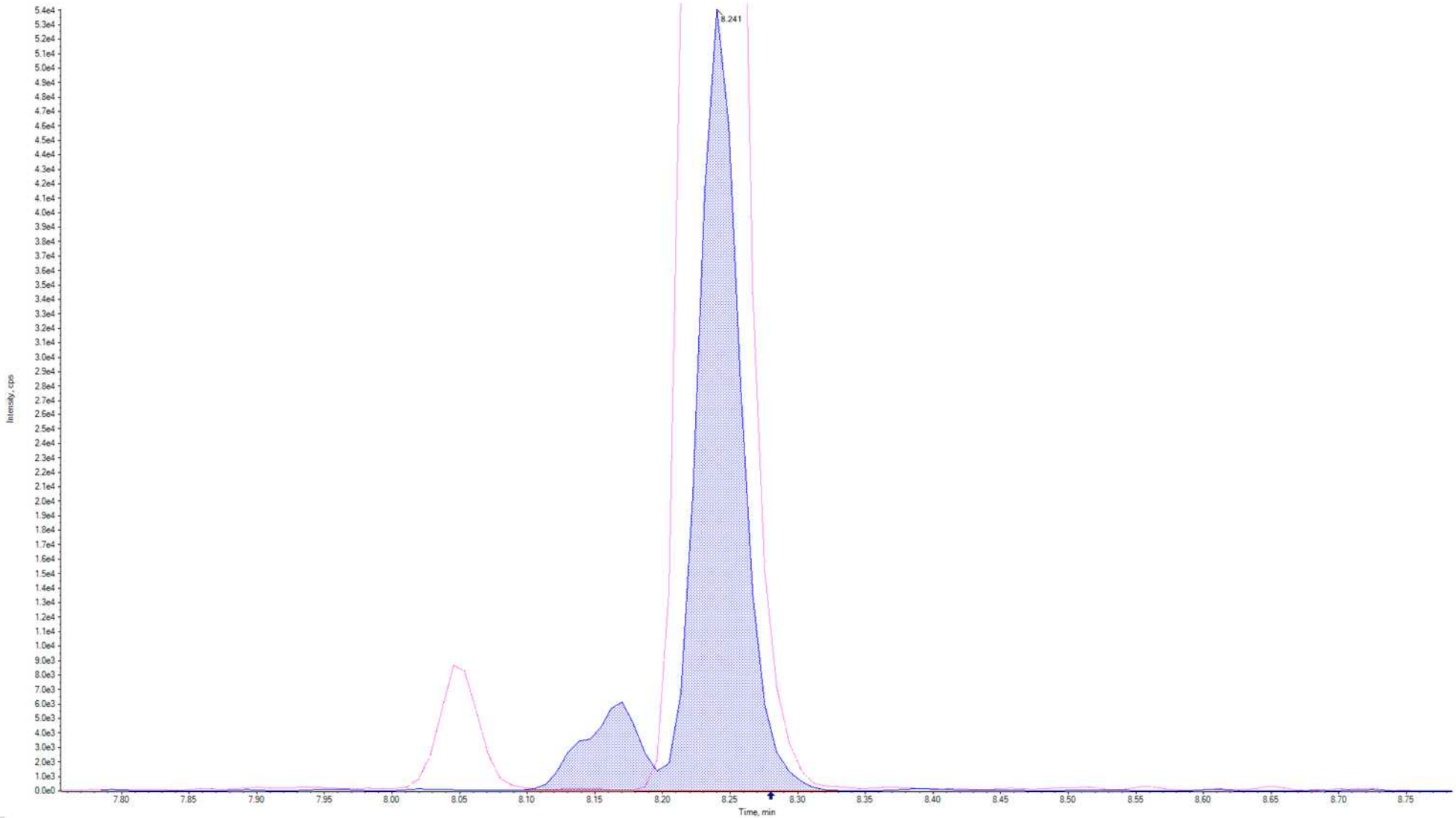
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFOS
Sample: WG1972760-4 S/N:1562.4 Points Across peak:42



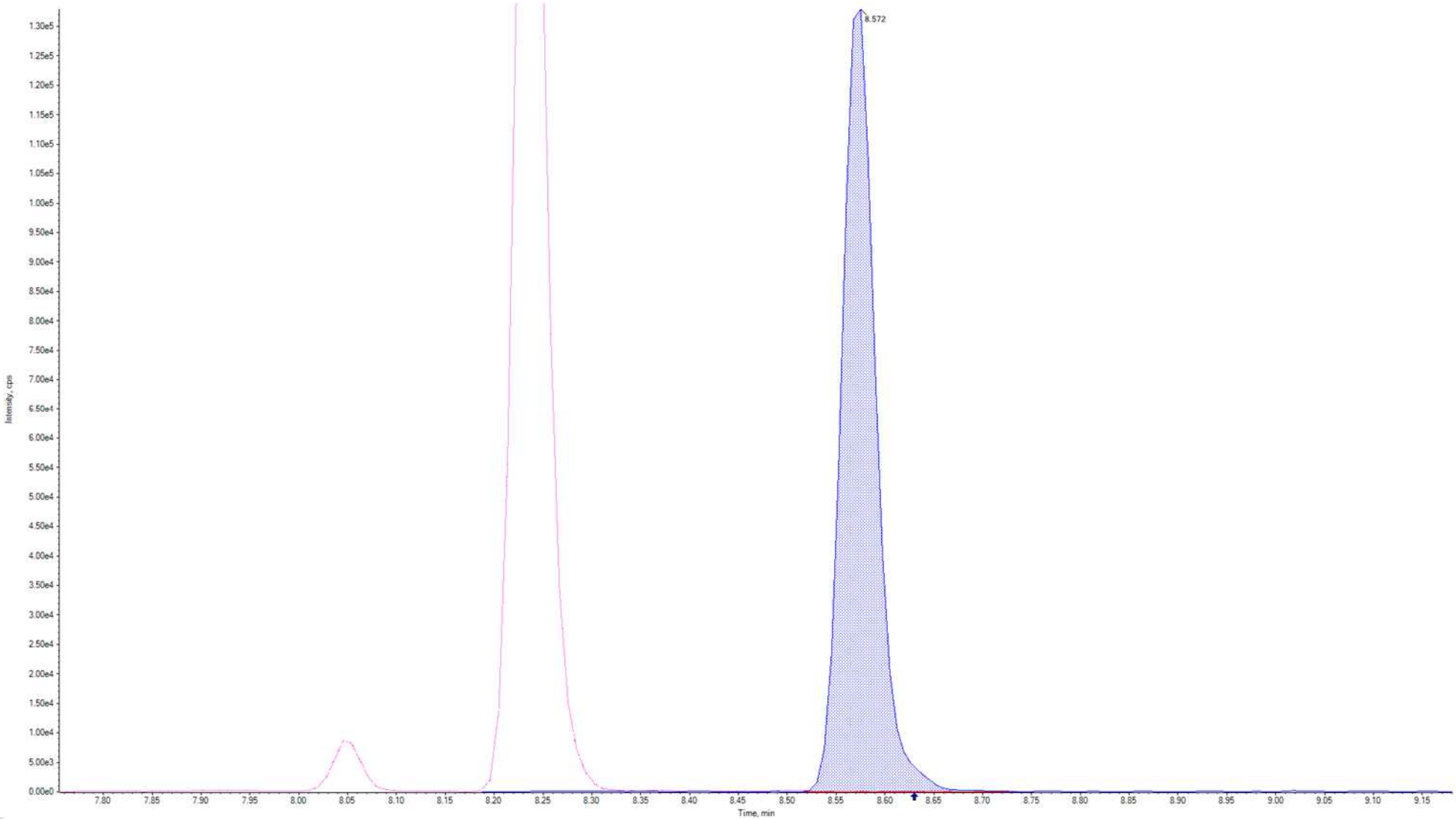
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFOS_2
Sample: WG1972760-4 S/N:858.2 Points Across peak:31



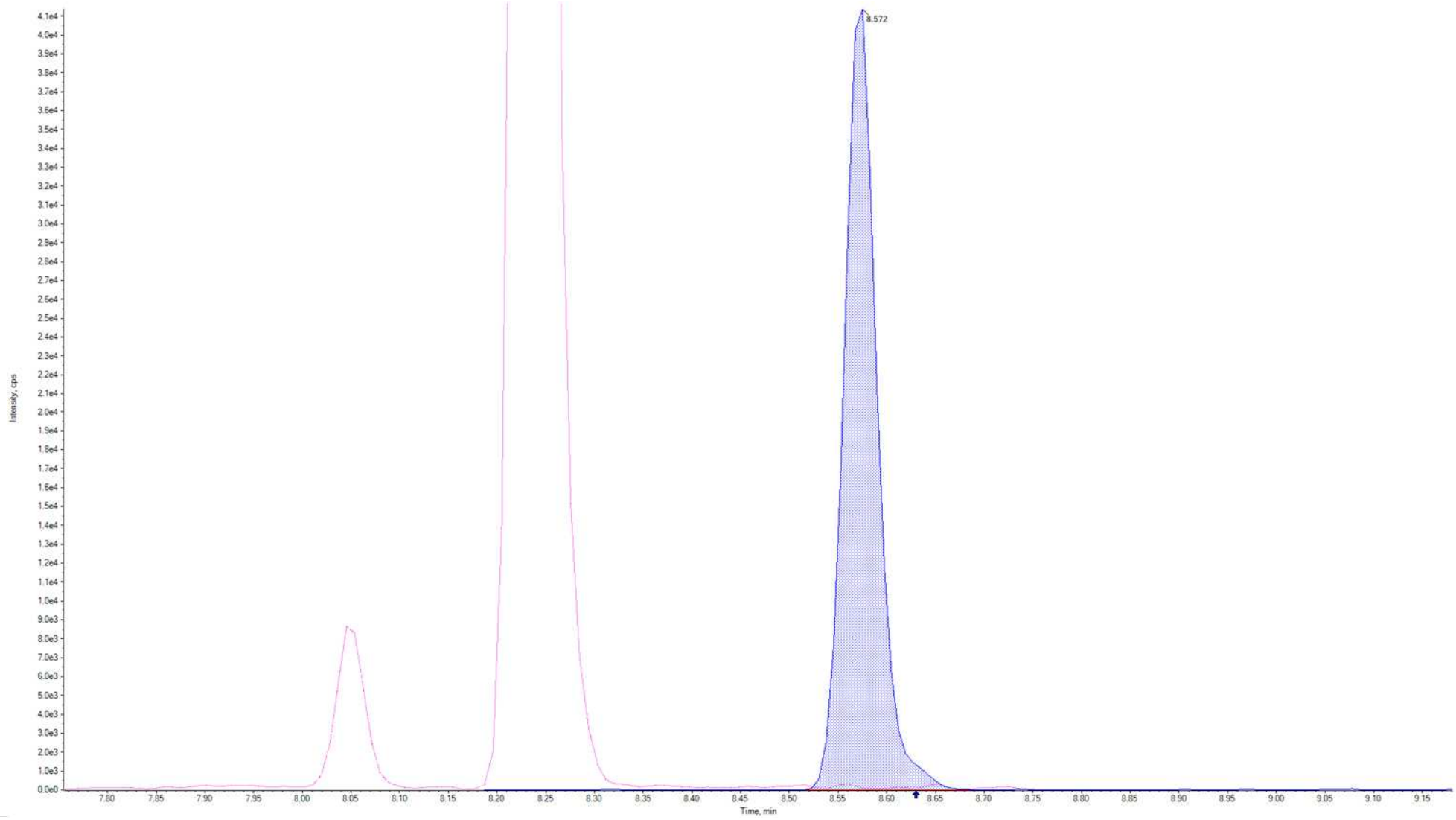
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFNS
Sample: WG1972760-4 S/N:7644.9 Points Across peak:35



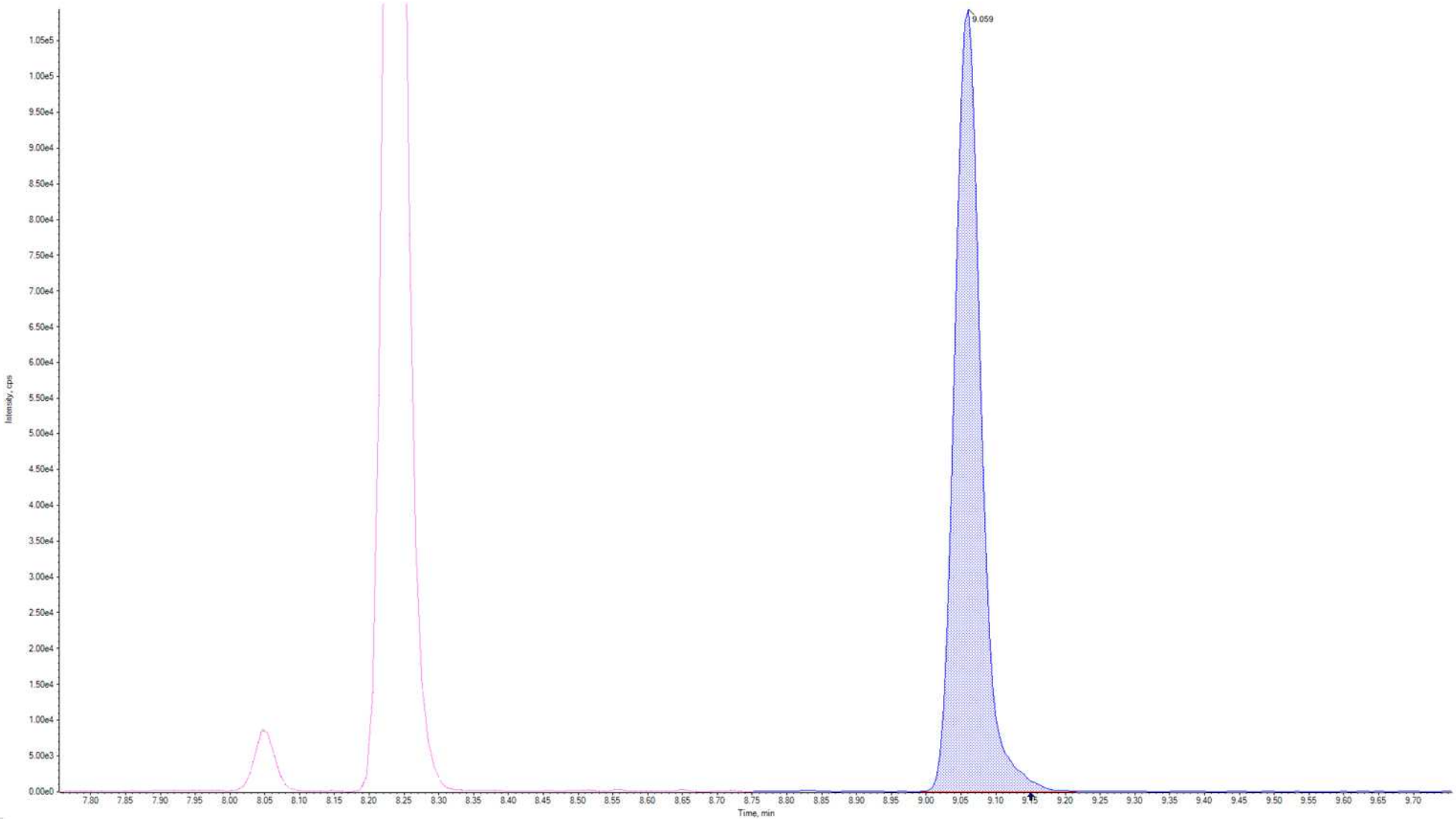
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFNS_2
Sample: WG1972760-4 S/N:3111.1 Points Across peak:32



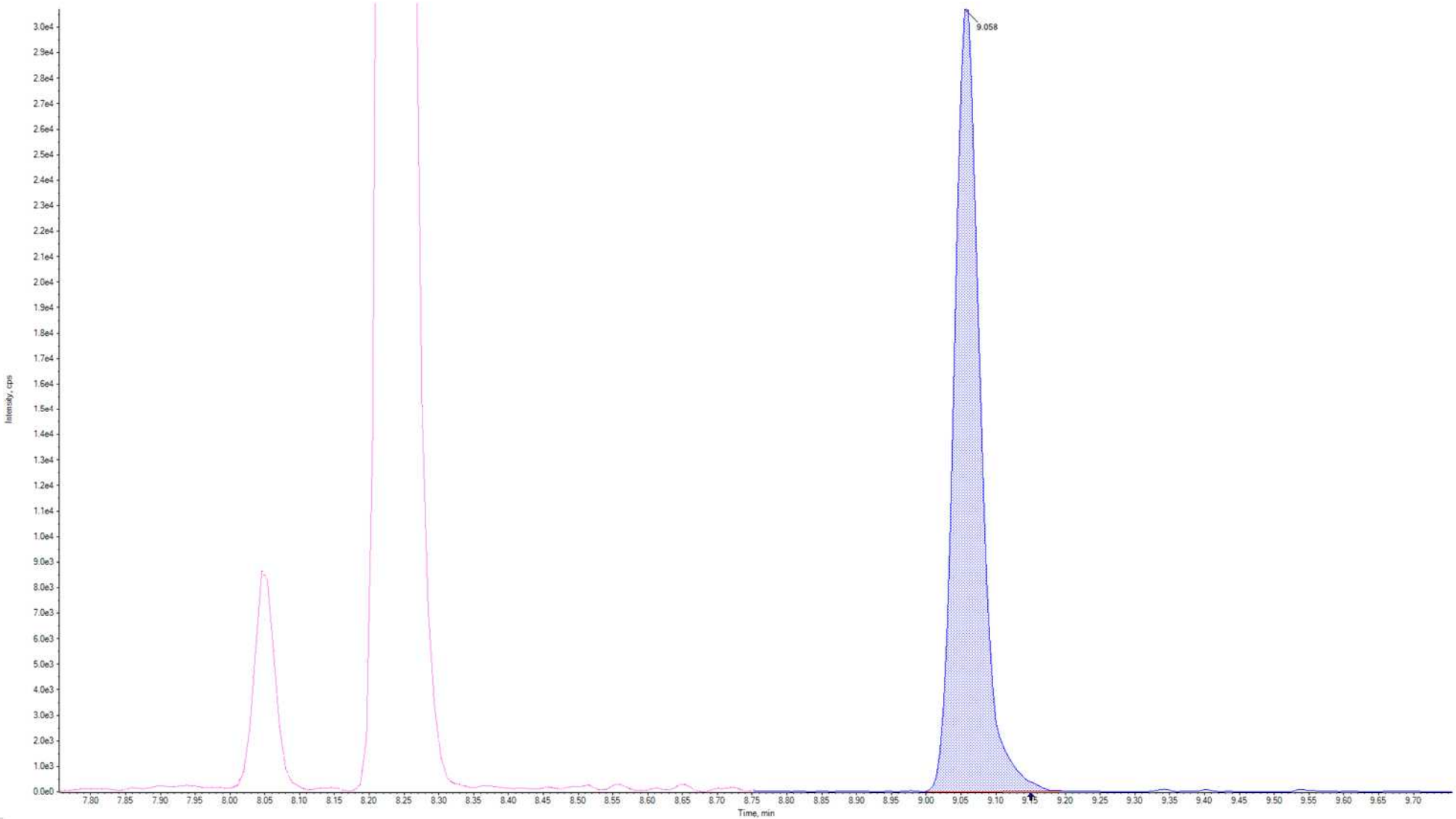
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDS
Sample: WG1972760-4 S/N:5241.8 Points Across peak:47



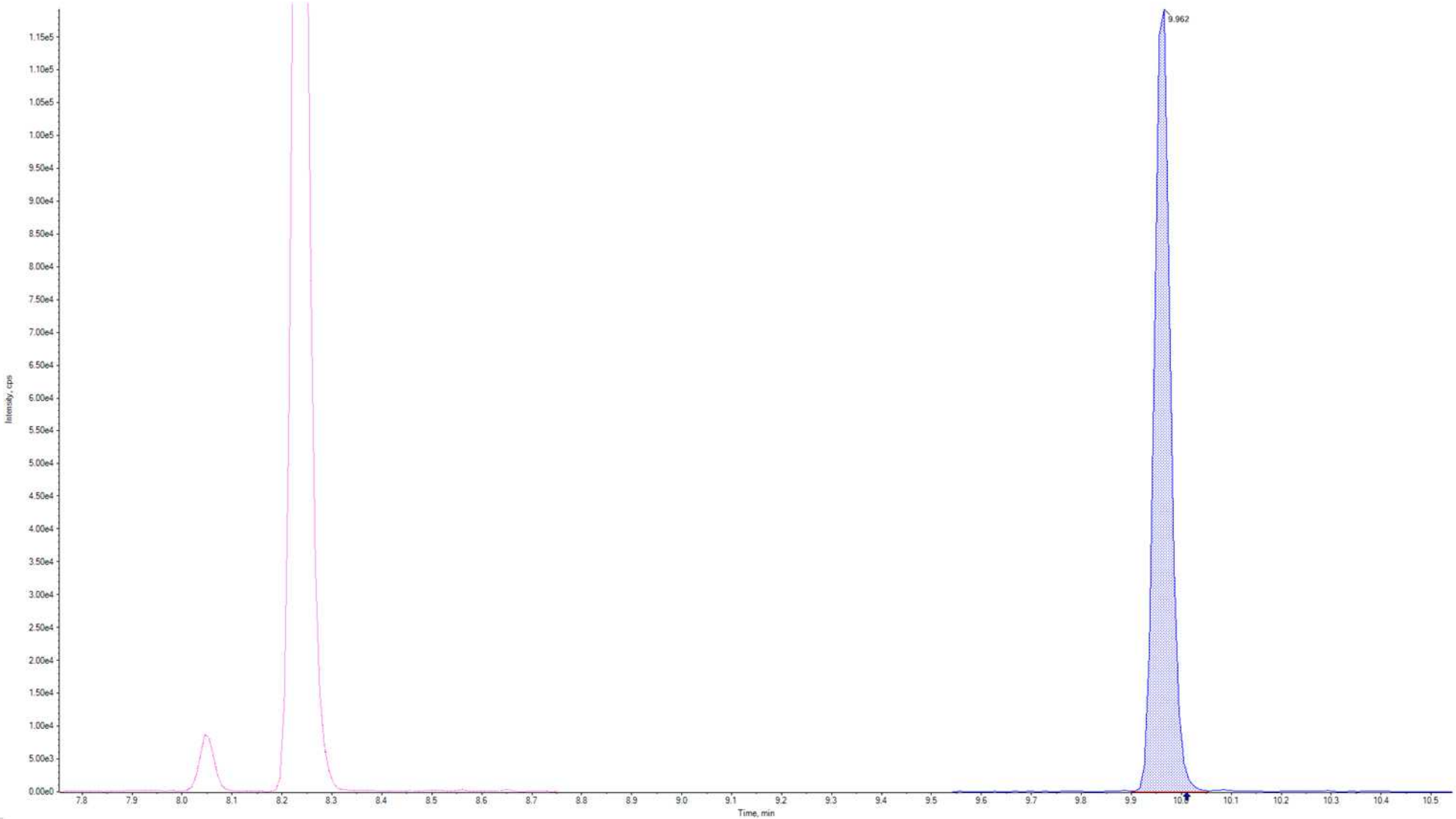
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDS_2
Sample: WG1972760-4 S/N:23050776.8 Points Across peak:44



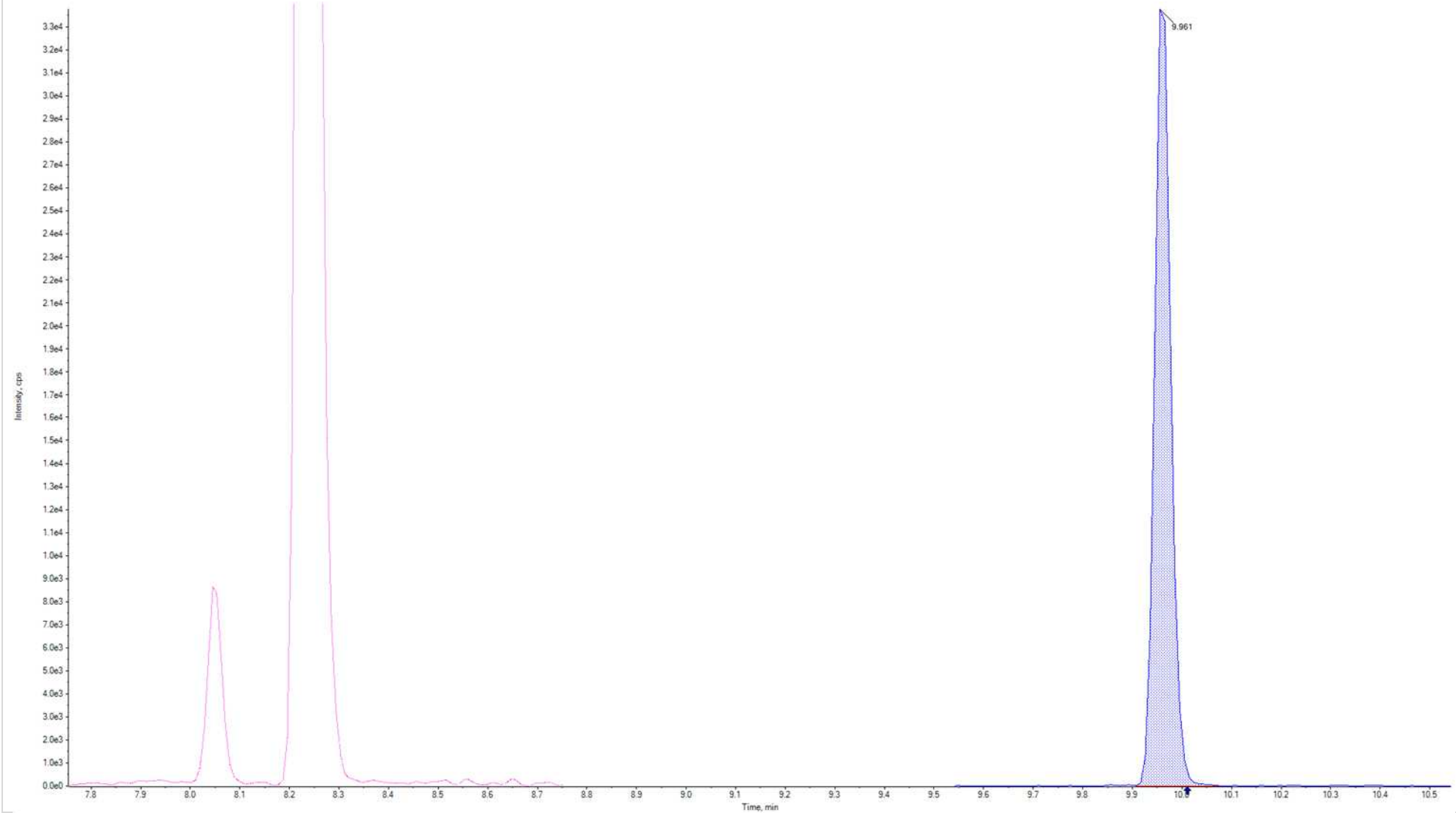
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_22.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDoS
Sample: WG1972760-4 S/N:5618.9 Points Across peak:17



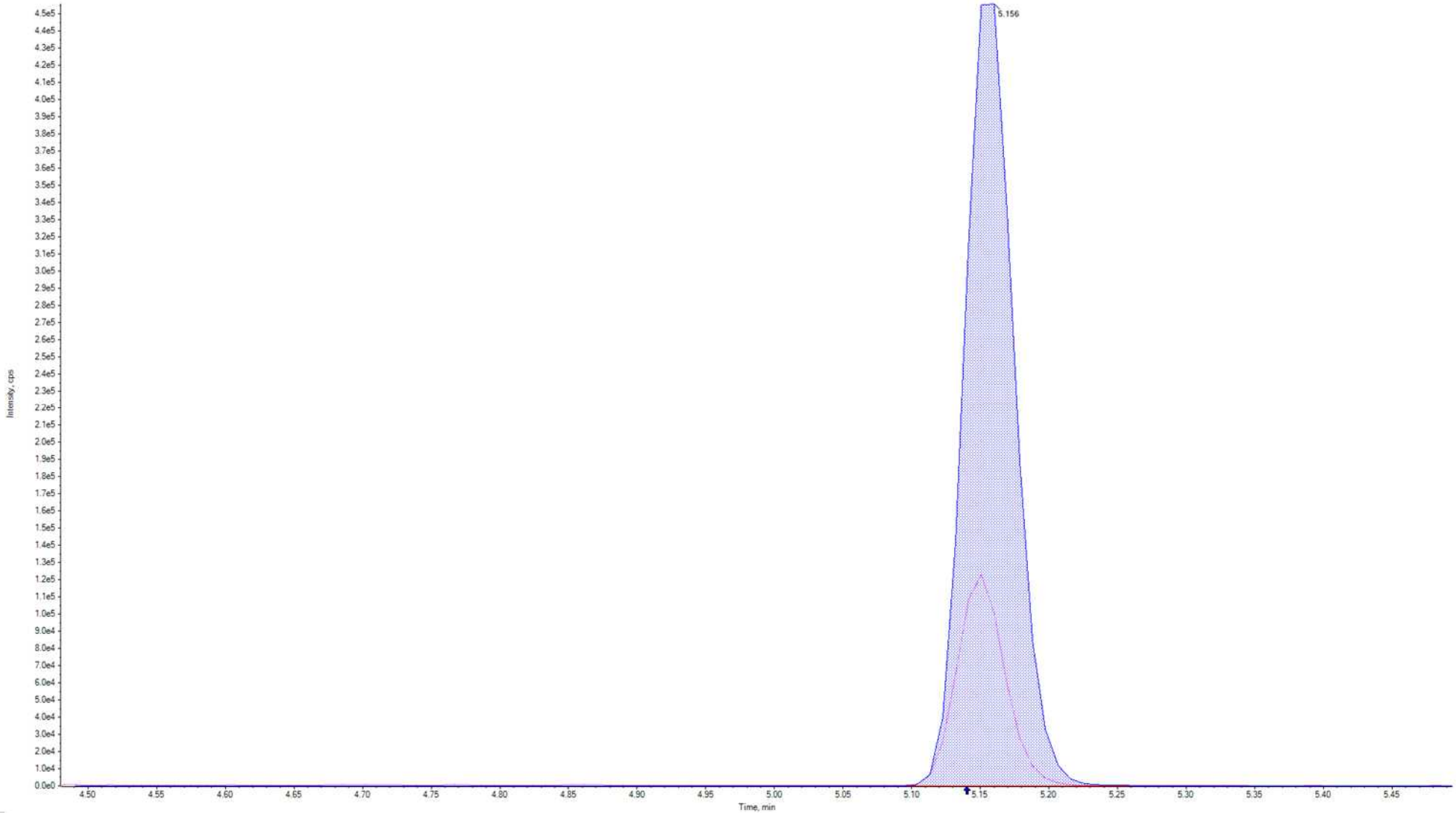
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Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_22.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDoS_2
Sample: WG1972760-4 S/N:1590.5 Points Across peak:19



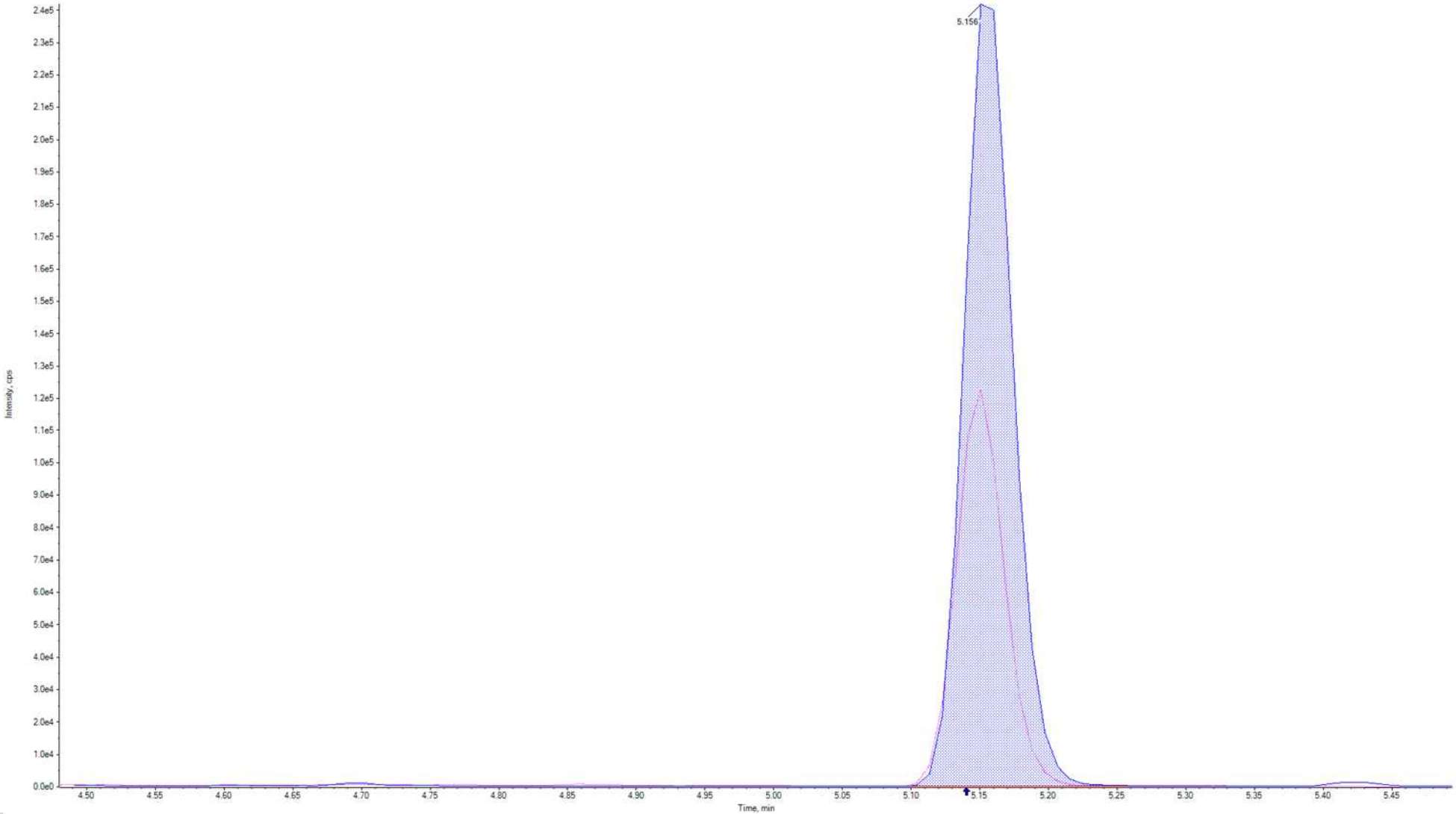
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

4:2FTS
Sample: WG1972760-4 S/N:43037.4 Points Across peak:35



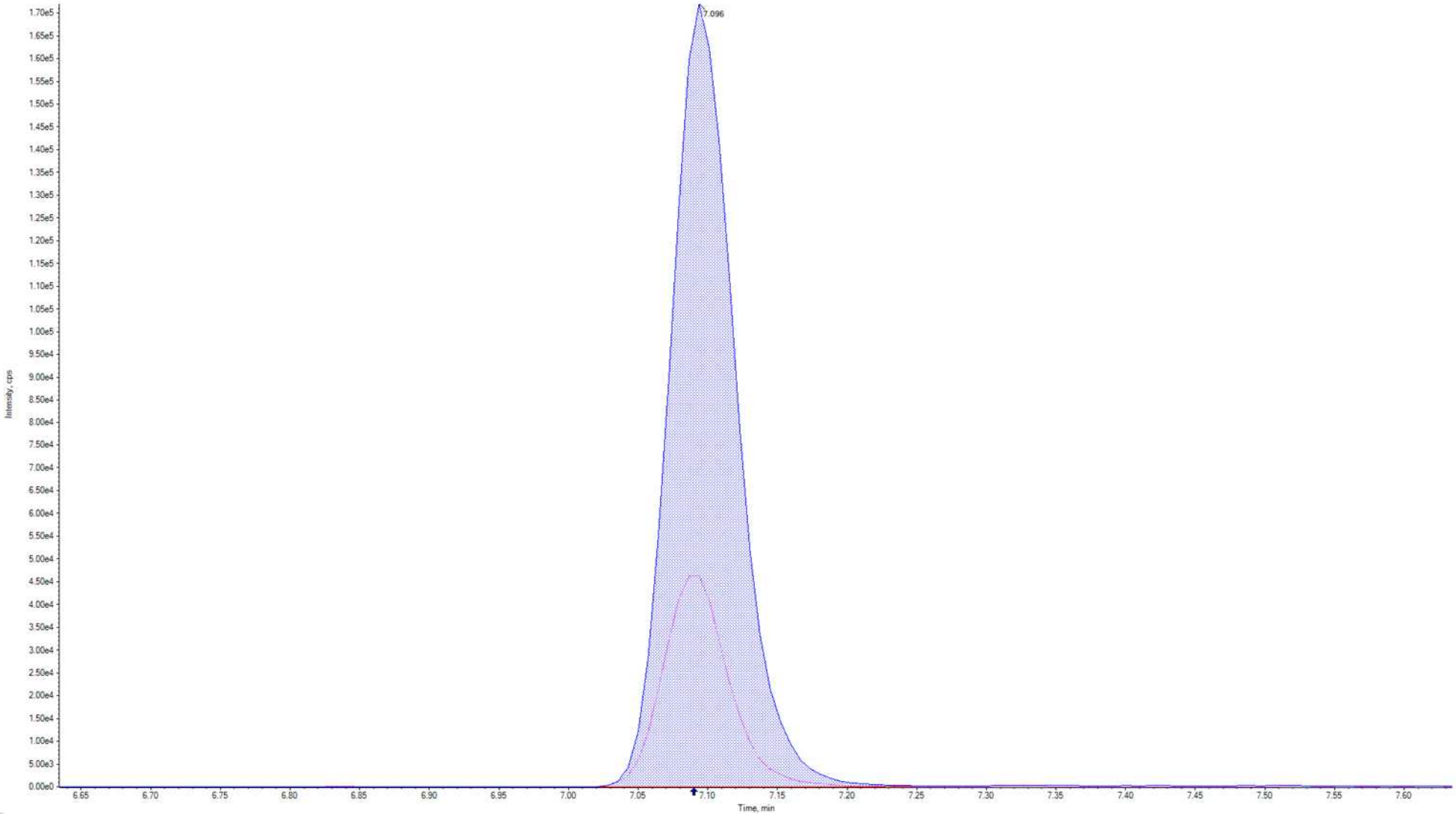
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

4:2FTS_2
Sample: WG1972760-4 S/N:1349.4 Points Across peak:24



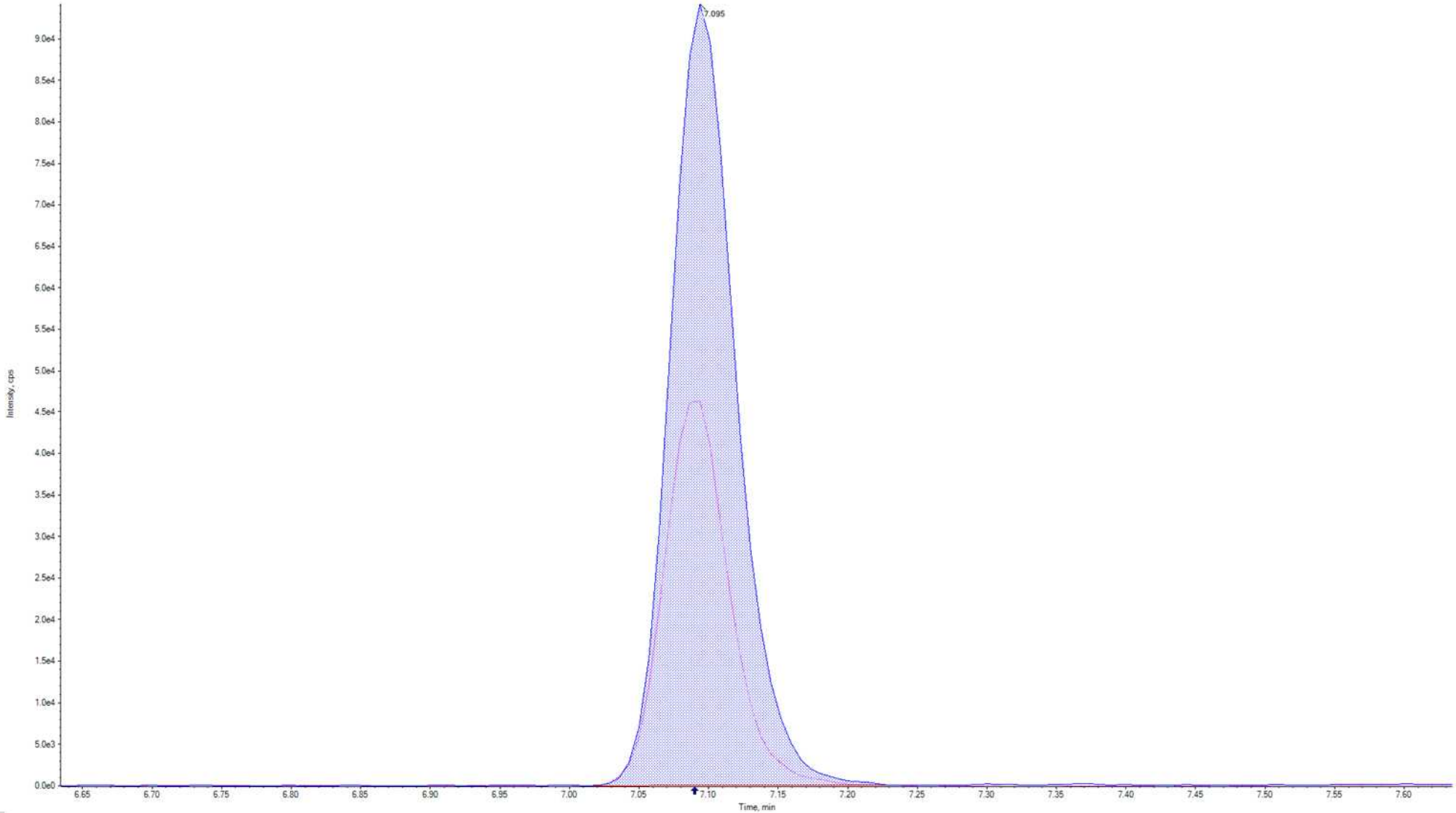
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

6:2FTS
Sample: WG1972760-4 S/N:1533.9 Points Across peak:42



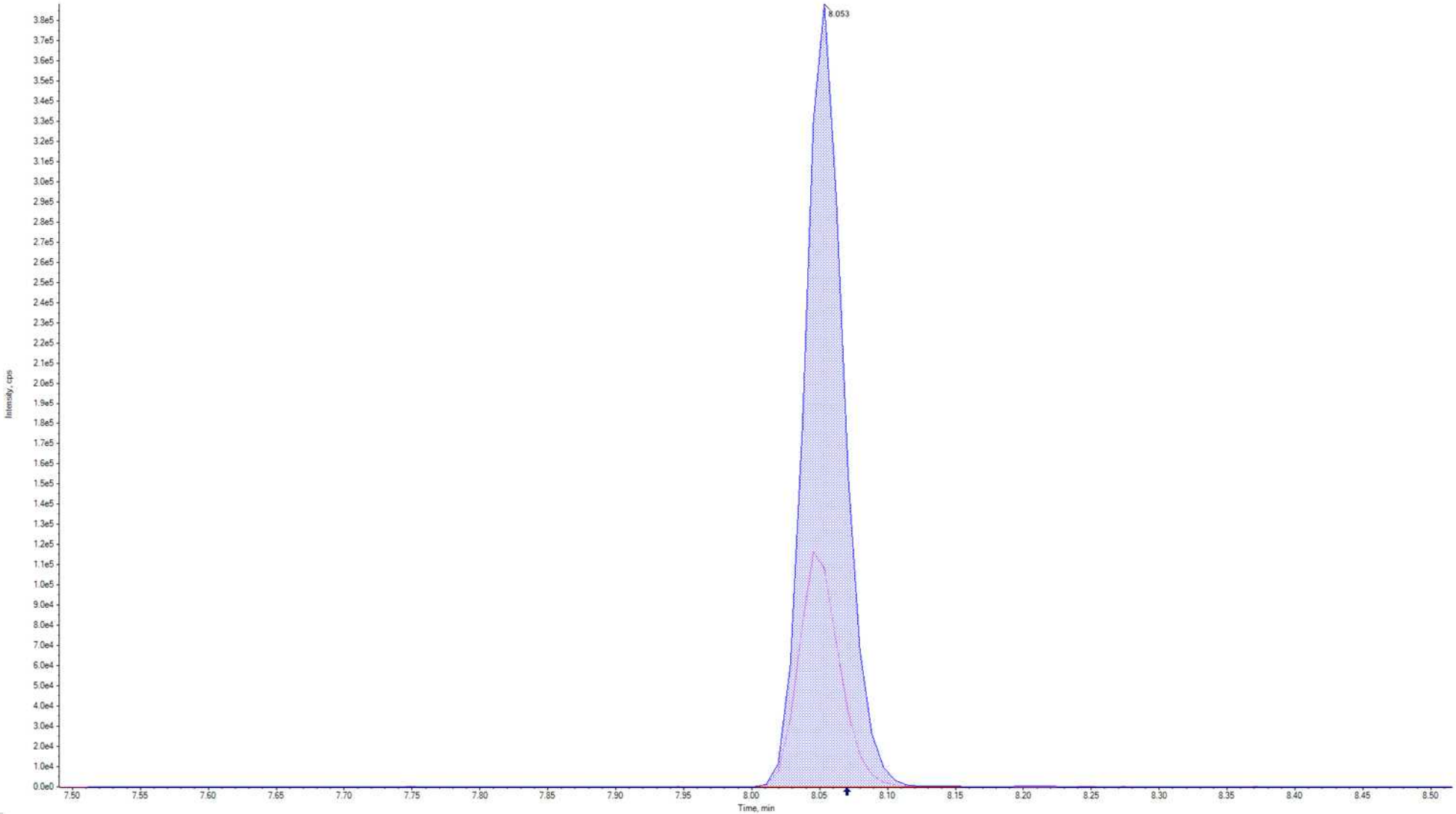
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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6:2FTS_2
Sample: WG1972760-4 S/N:27745.5 Points Across peak:32



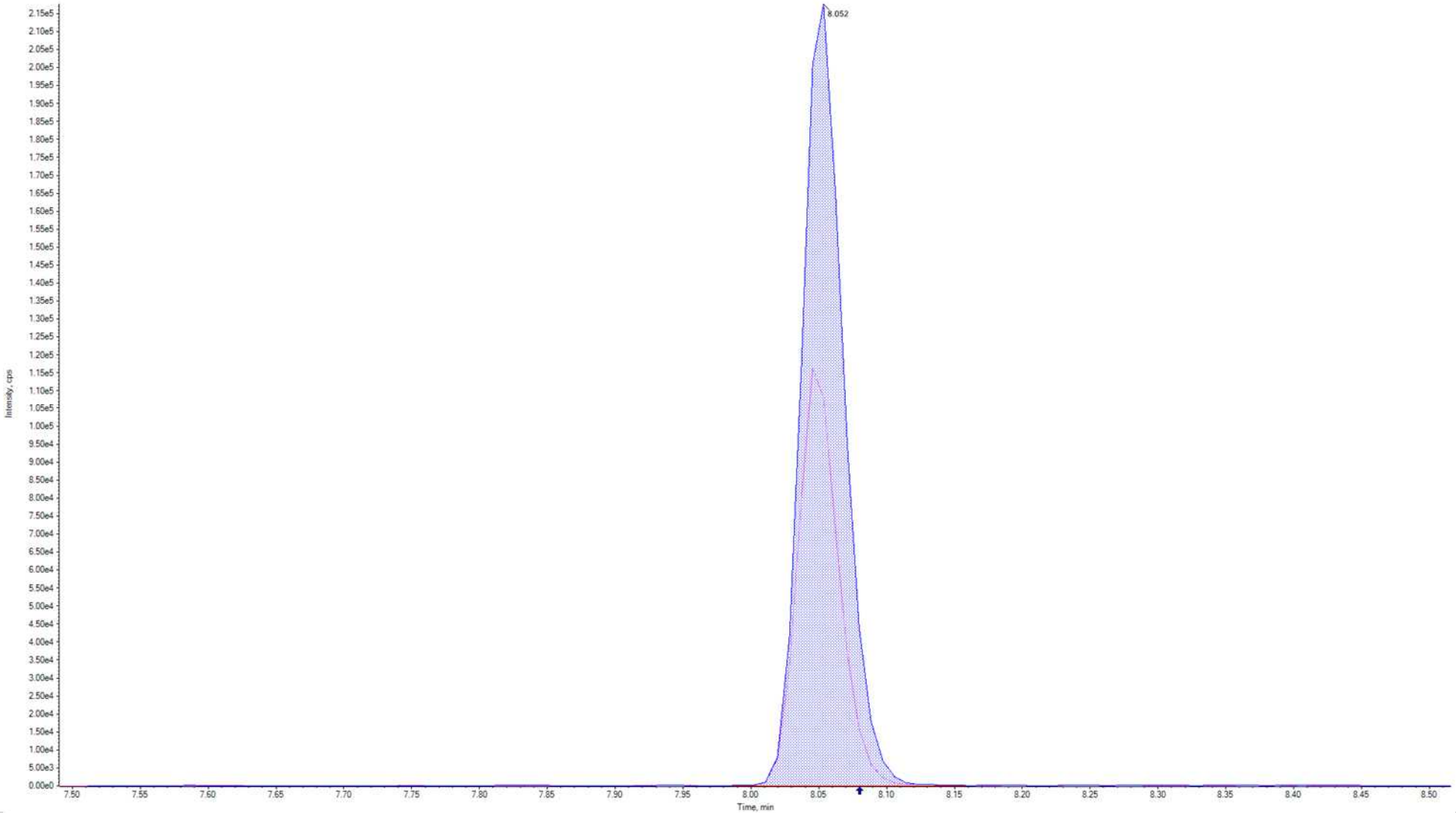
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

8:2FTS
Sample: WG1972760-4 S/N:7637.2 Points Across peak:31



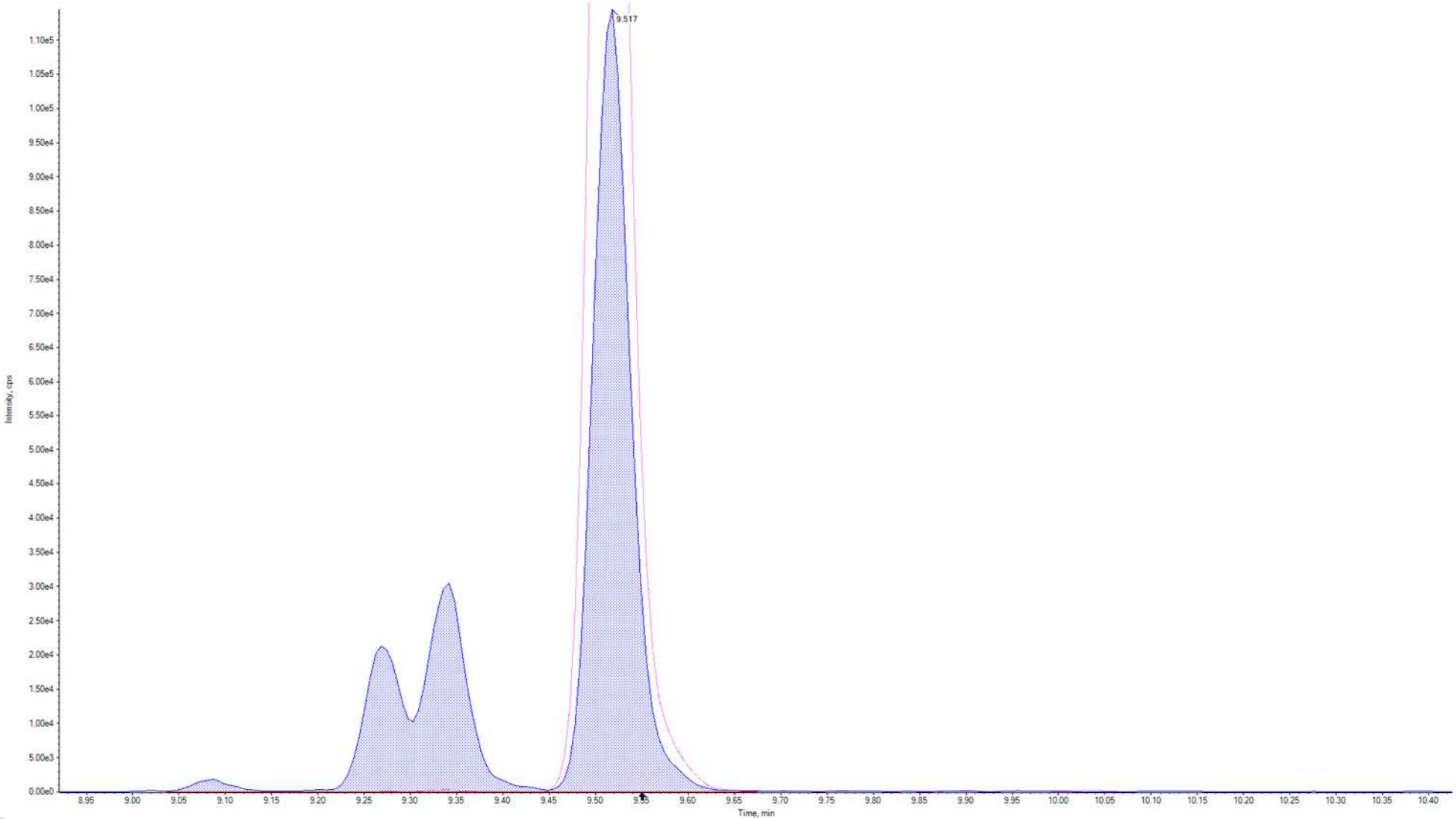
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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8:2FTS_2
Sample: WG1972760-4 S/N:1253117.8 Points Across peak:23



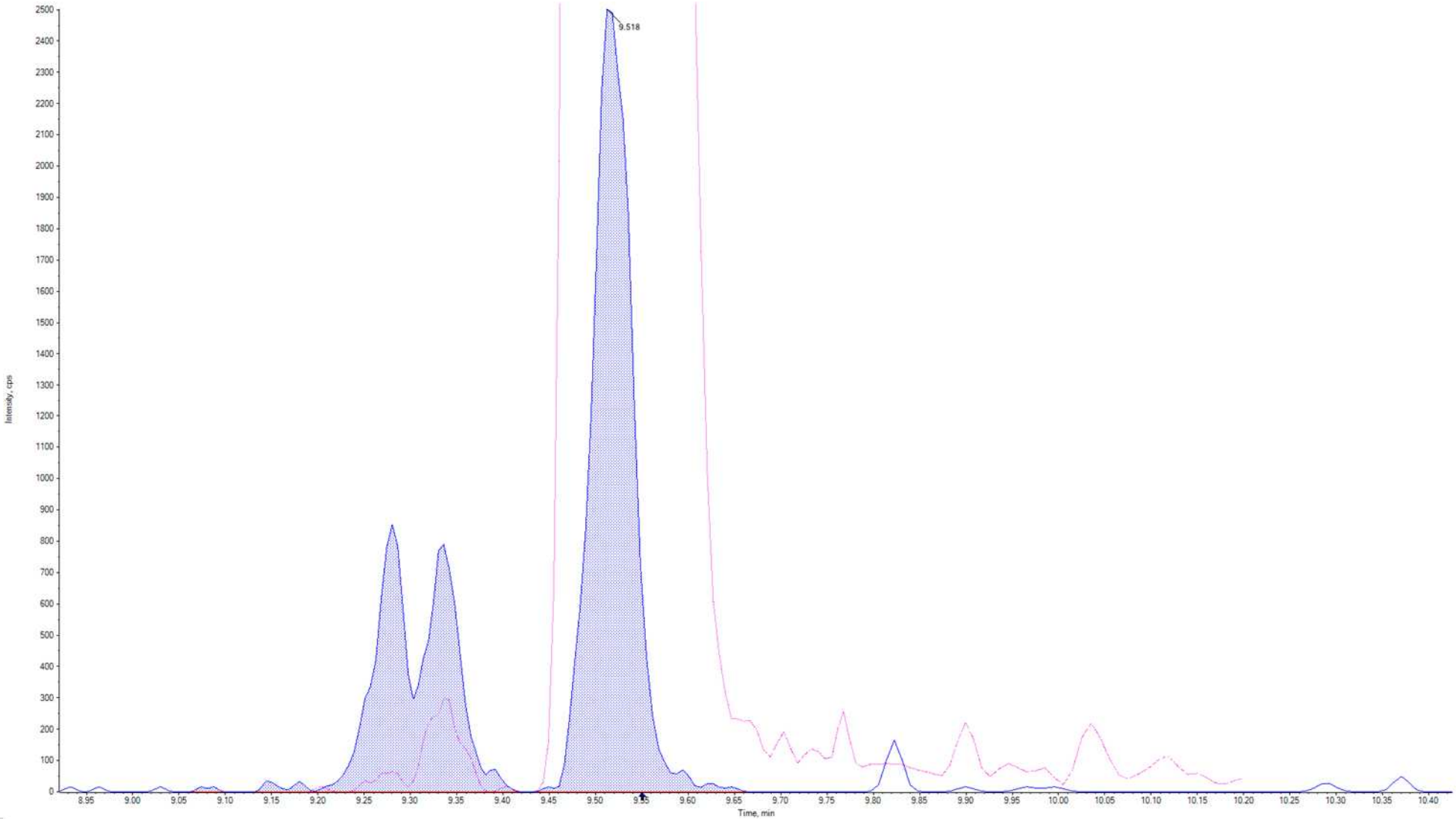
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Last Altered: 9/18/2024 12:41:54 PM
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PFOSA
Sample: WG1972760-4 S/N:6482.2 Points Across peak:115



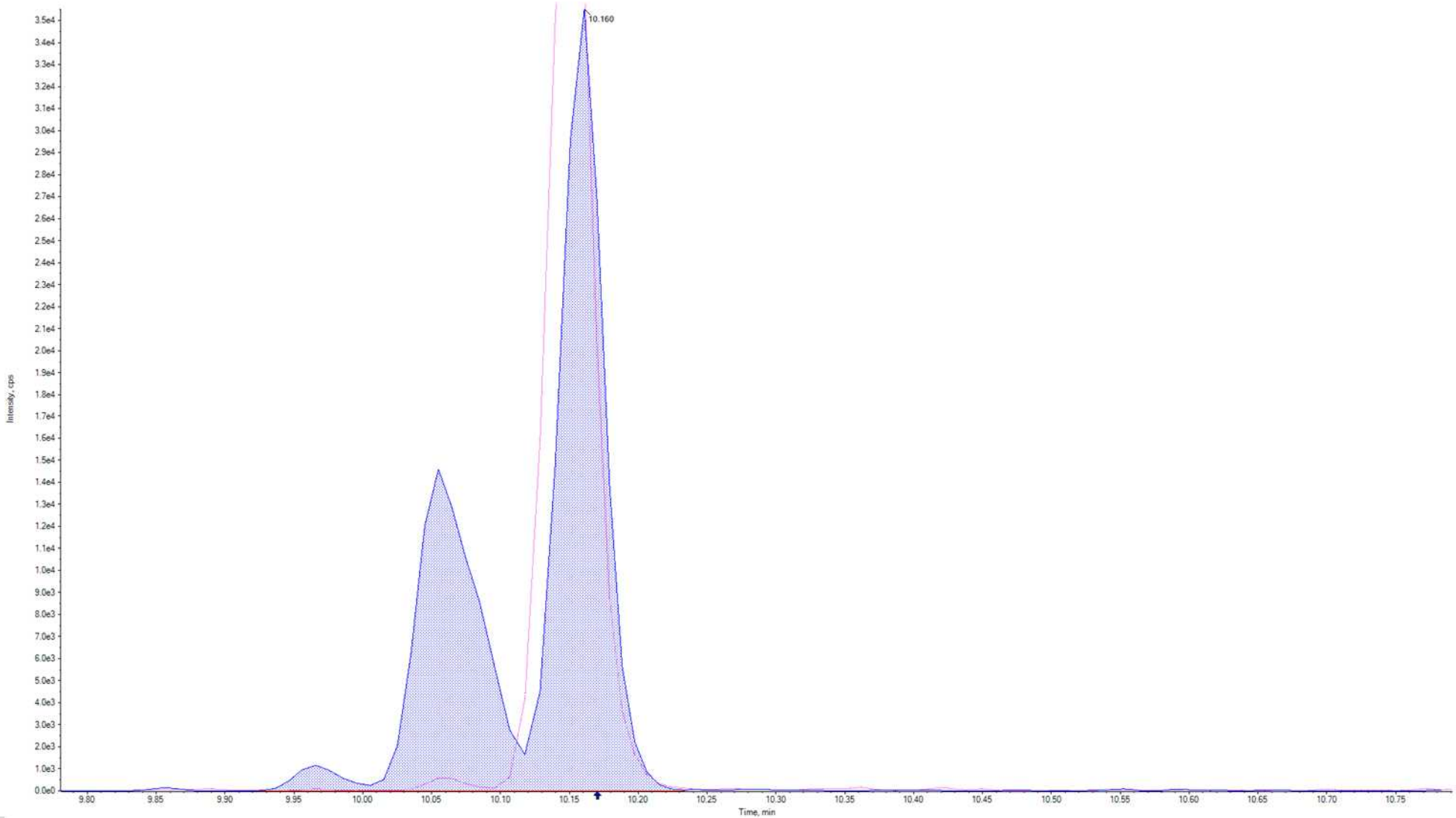
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Last Altered: 9/18/2024 12:41:54 PM
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PFOSA_2
Sample: WG1972760-4 S/N:399.2 Points Across peak:108



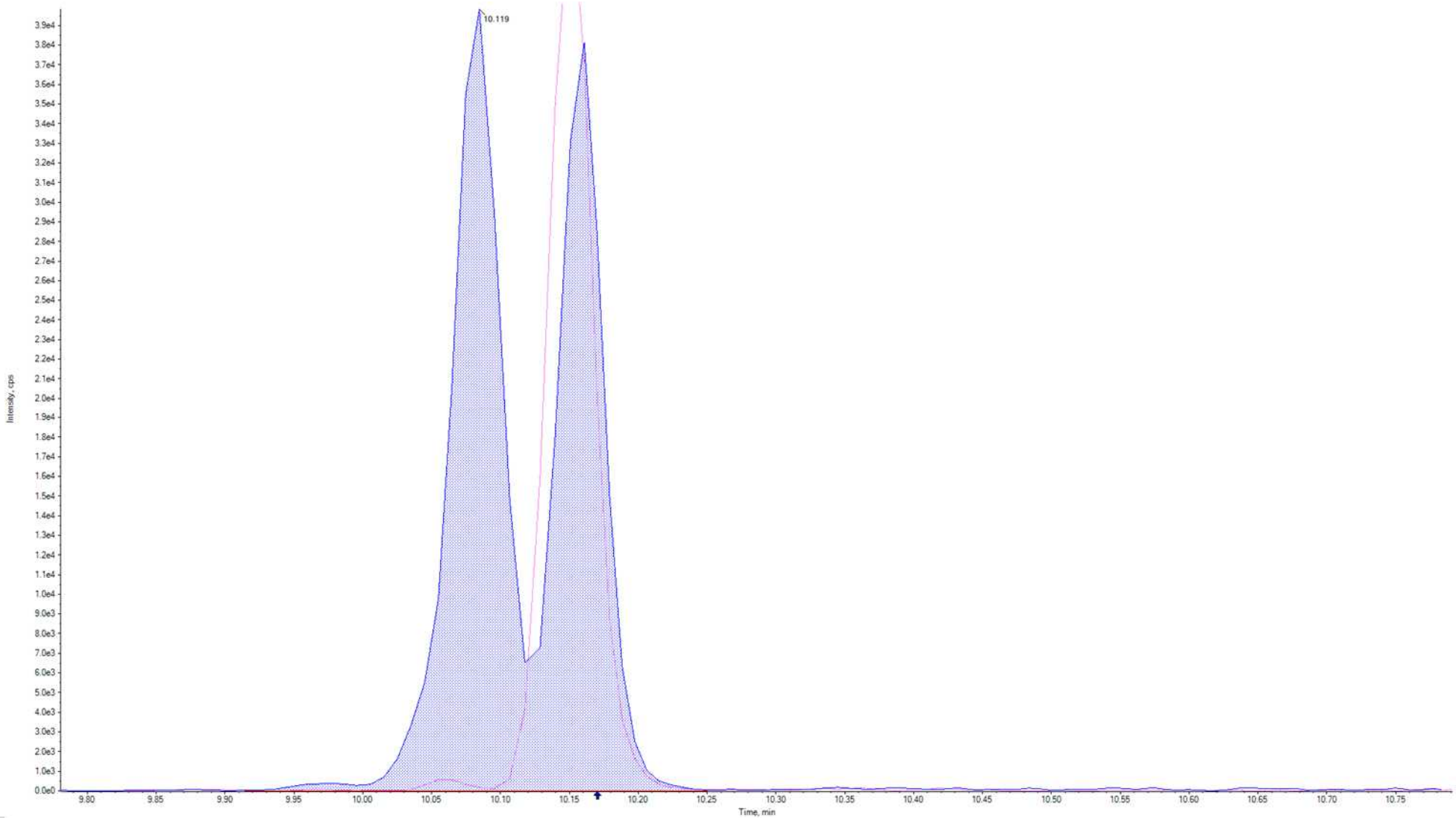
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NMeFOSA
Sample: WG1972760-4 S/N:543594.1 Points Across peak:35



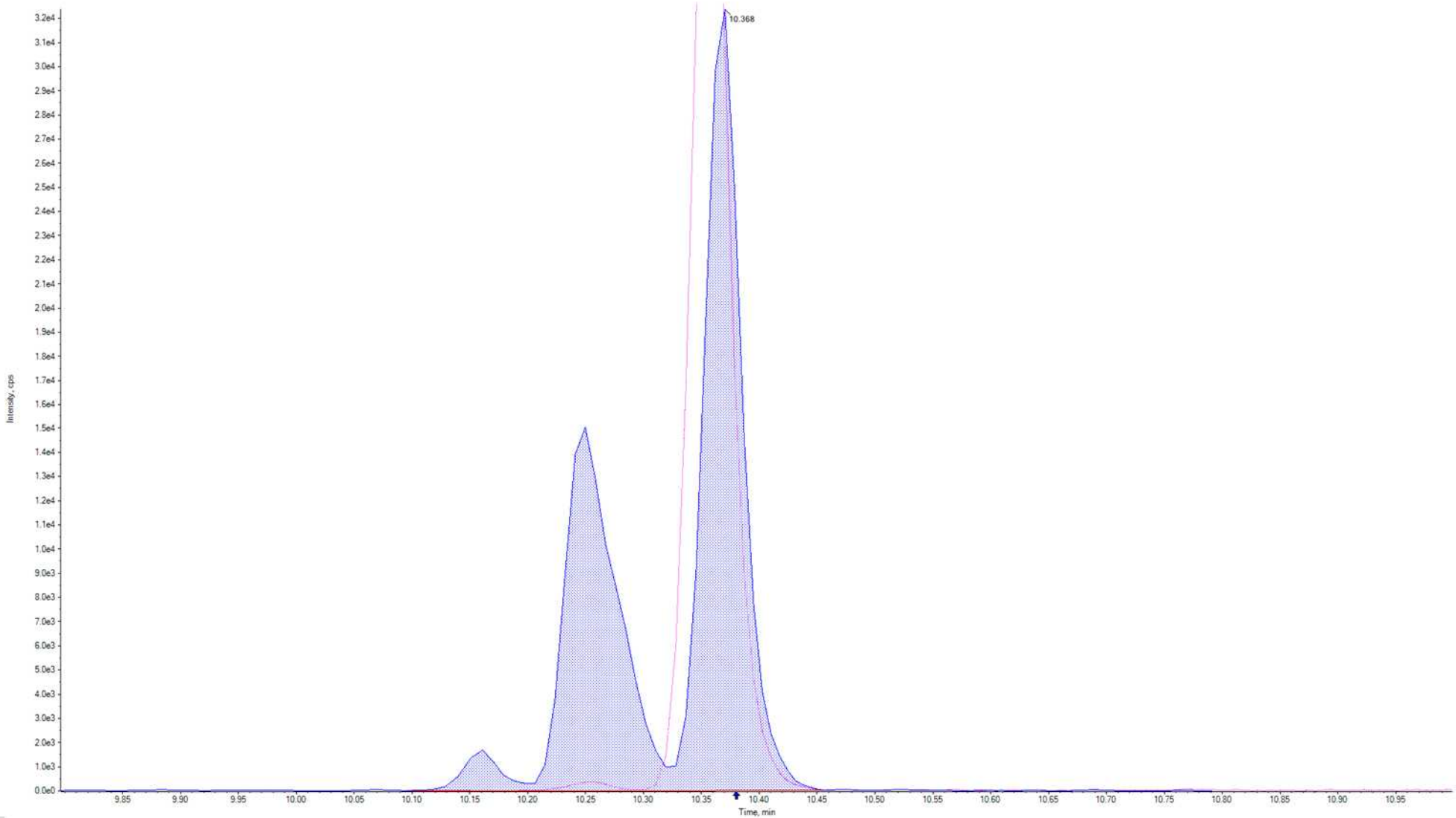
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NMeFOSA_2
Sample: WG1972760-4 S/N:2390.4 Points Across peak:37



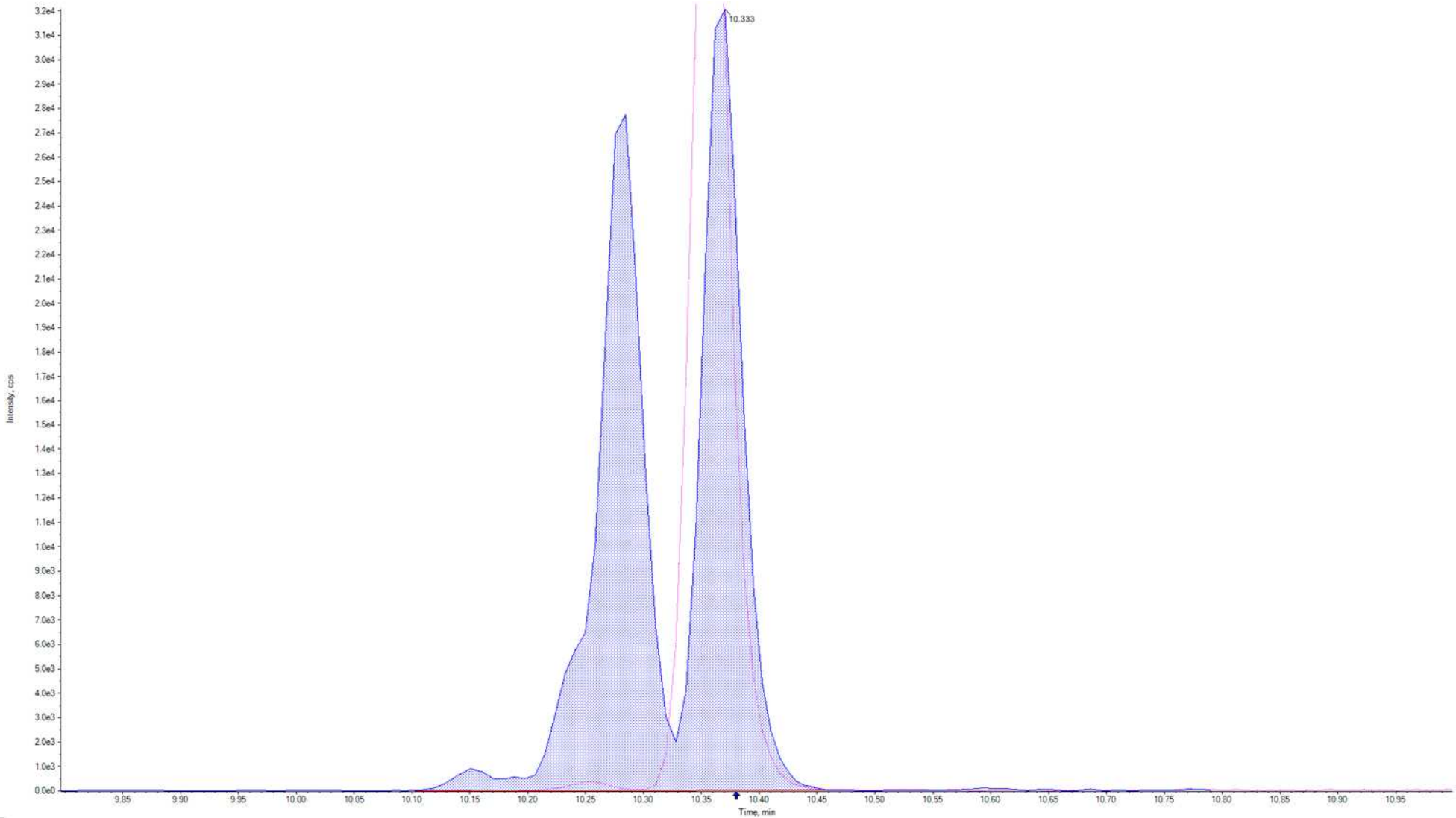
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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NEtFOSA
Sample: WG1972760-4 S/N:35399.4 Points Across peak:44



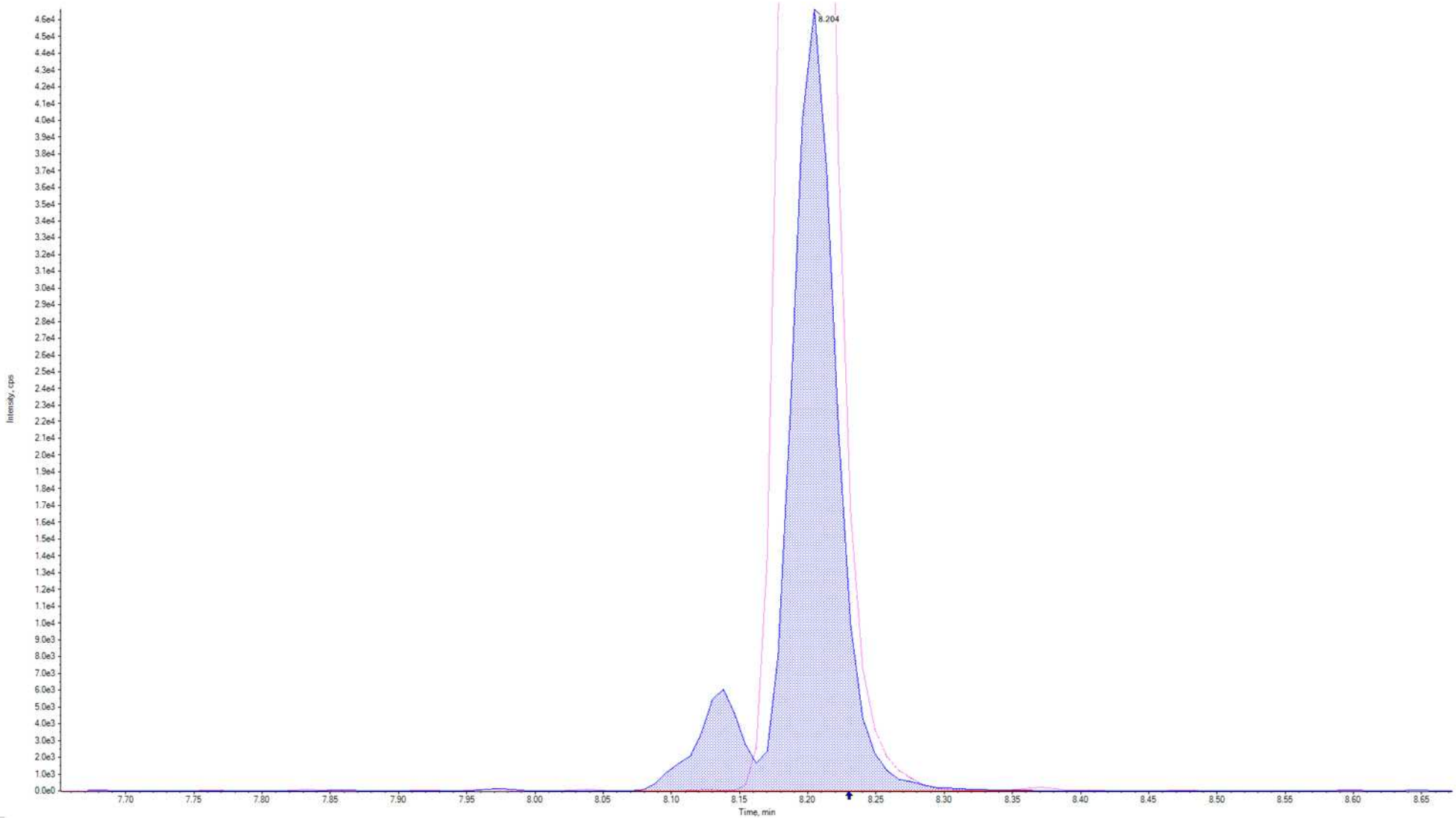
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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NEtFOSA_2
Sample: WG1972760-4 S/N:30586.9 Points Across peak:44



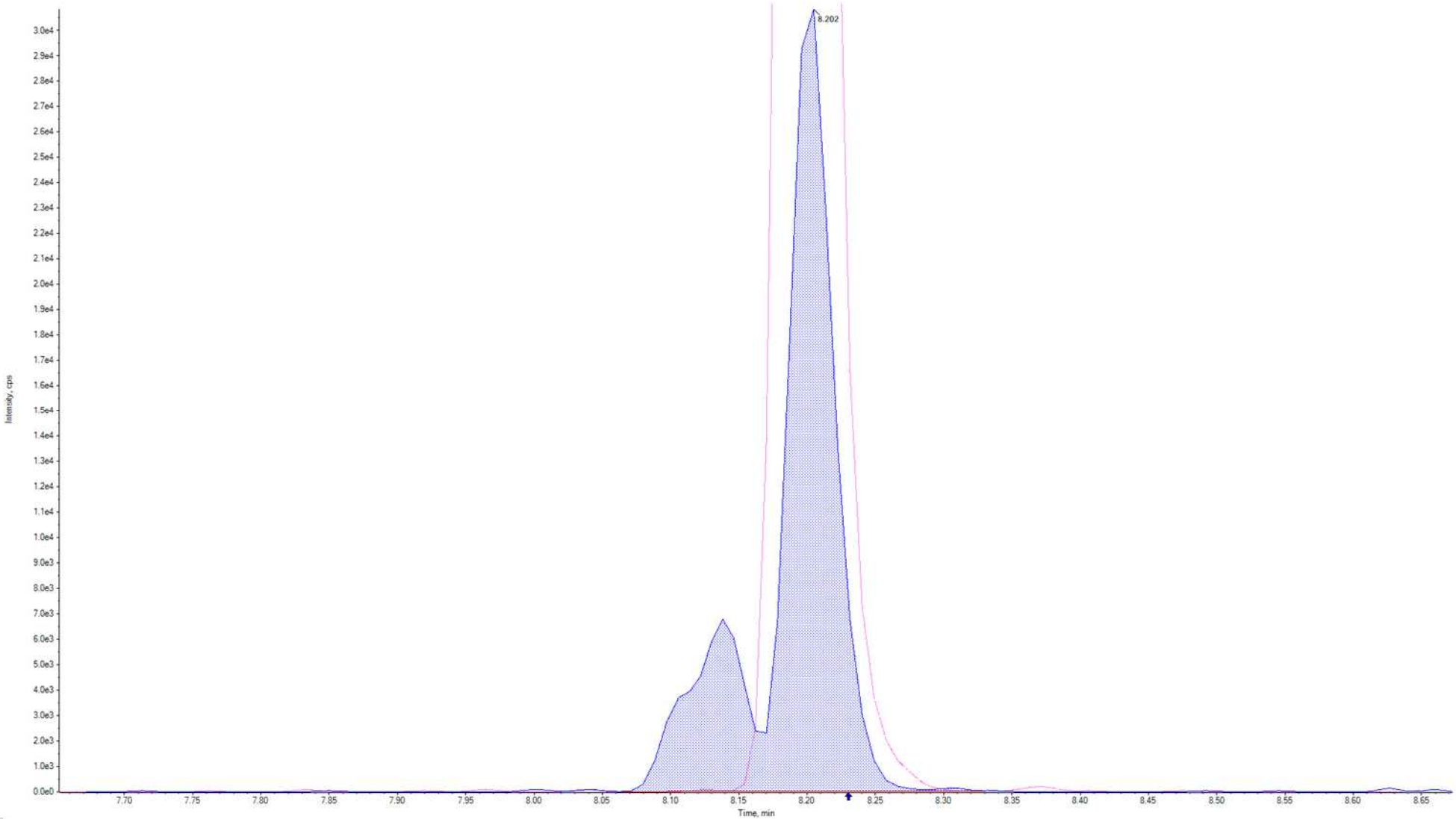
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NMeFOSAA
Sample: WG1972760-4 S/N:978.0 Points Across peak:46



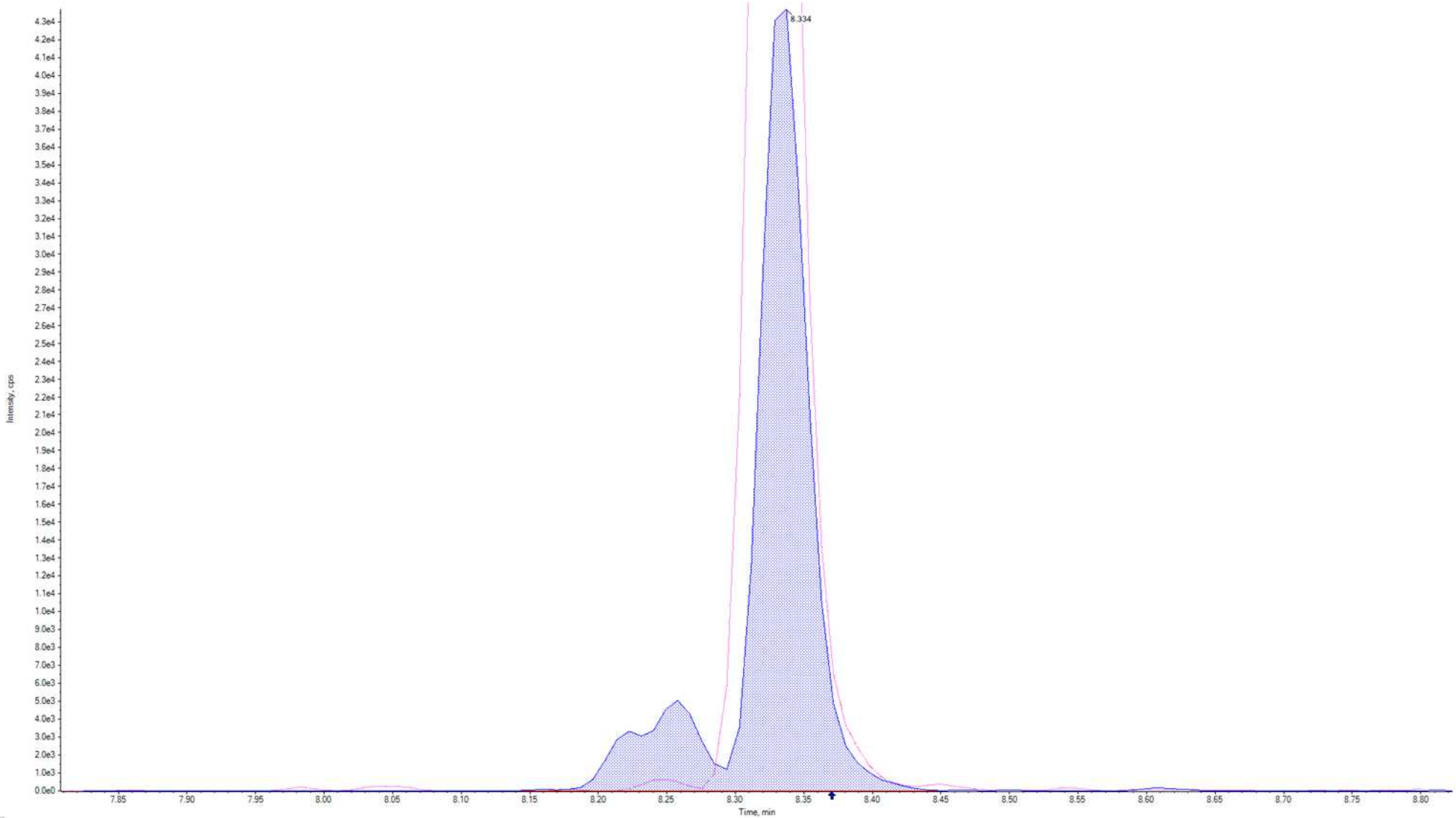
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NMeFOSAA_2
Sample: WG1972760-4 S/N:596.2 Points Across peak:32



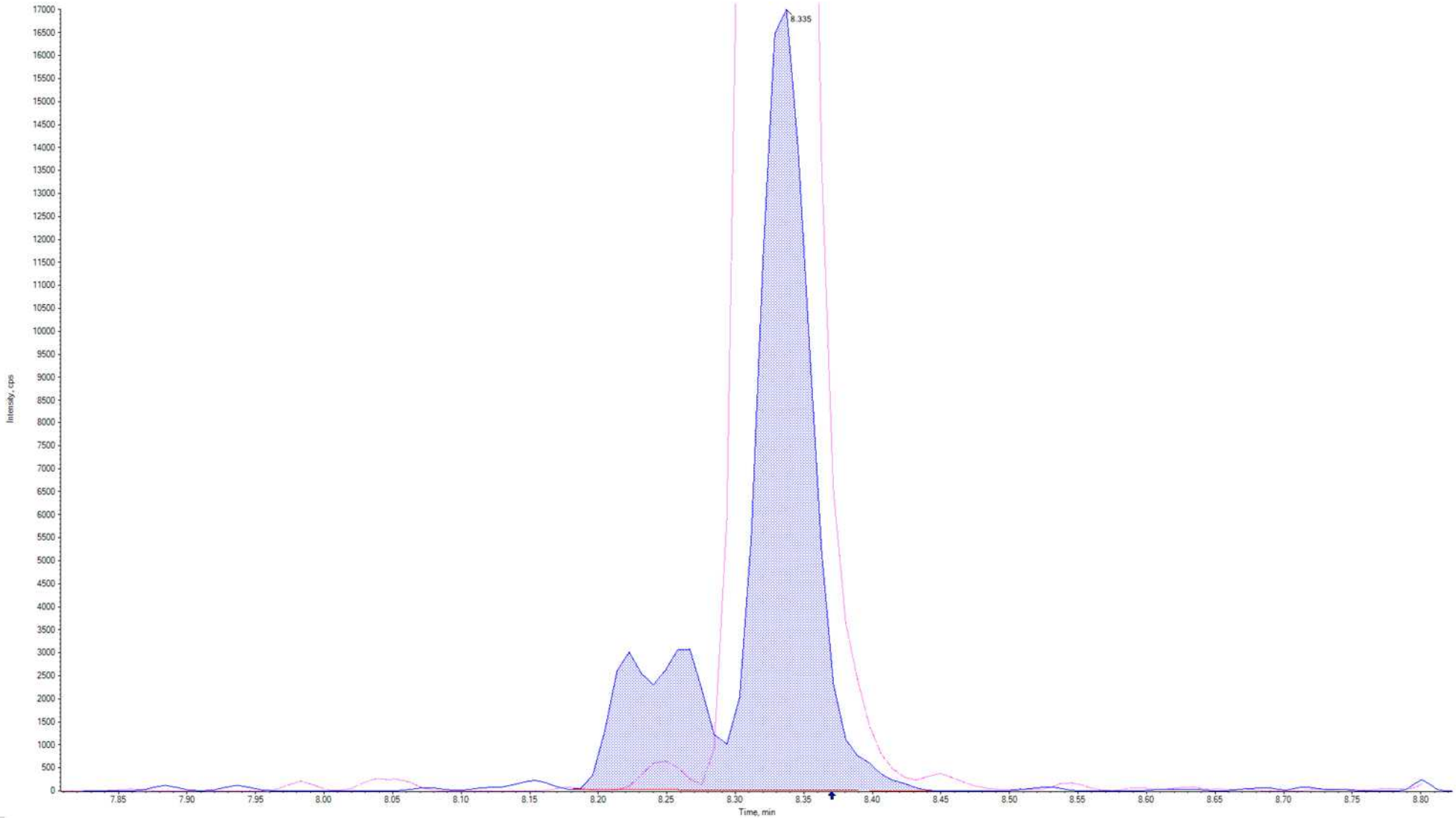
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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NEtFOSAA
Sample: WG1972760-4 S/N:691.0 Points Across peak:39



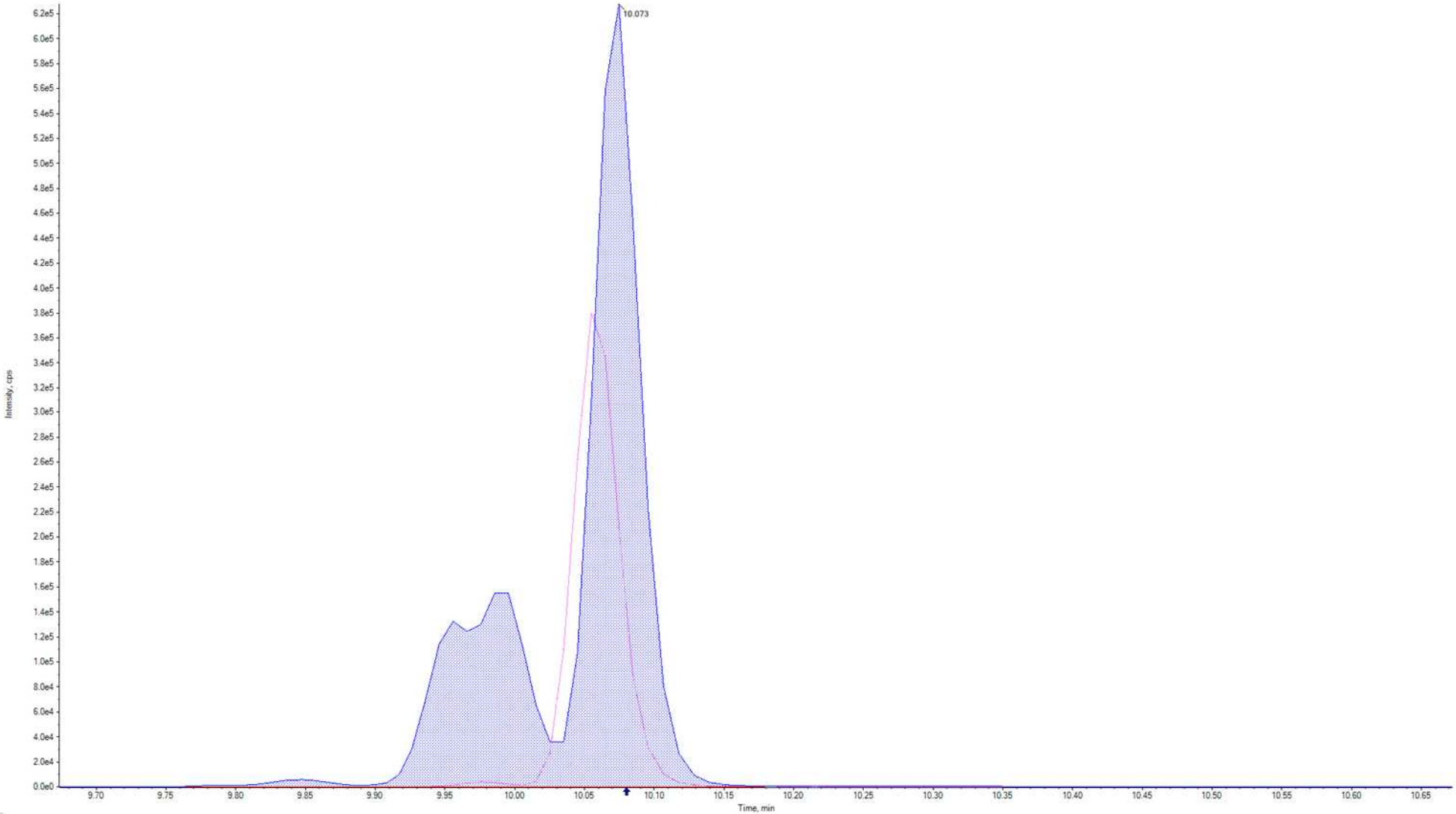
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NEtFOSAA_2
Sample: WG1972760-4 S/N:287.5 Points Across peak:32



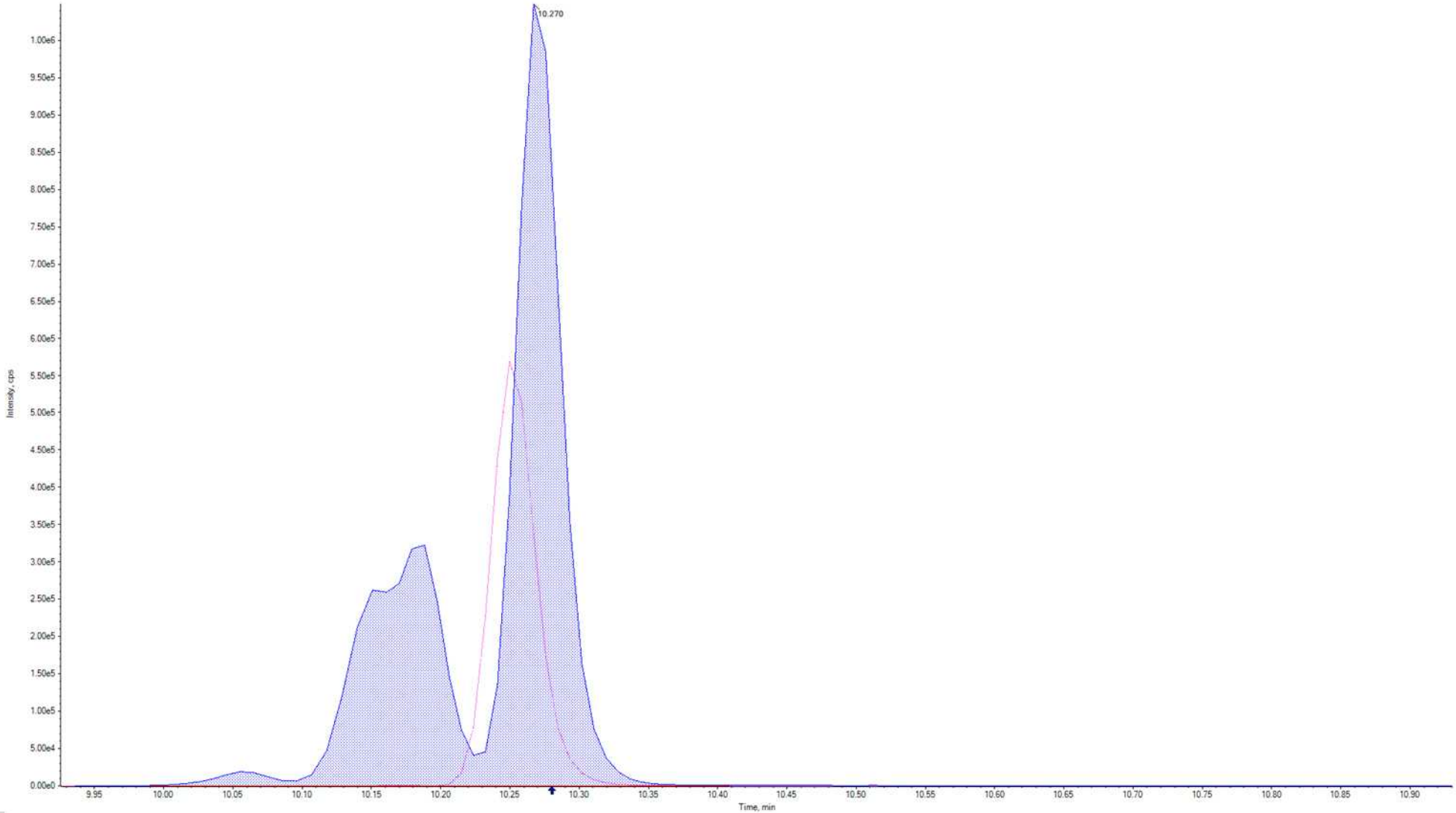
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NMeFOSE
Sample: WG1972760-4 S/N:2842.9 Points Across peak:48



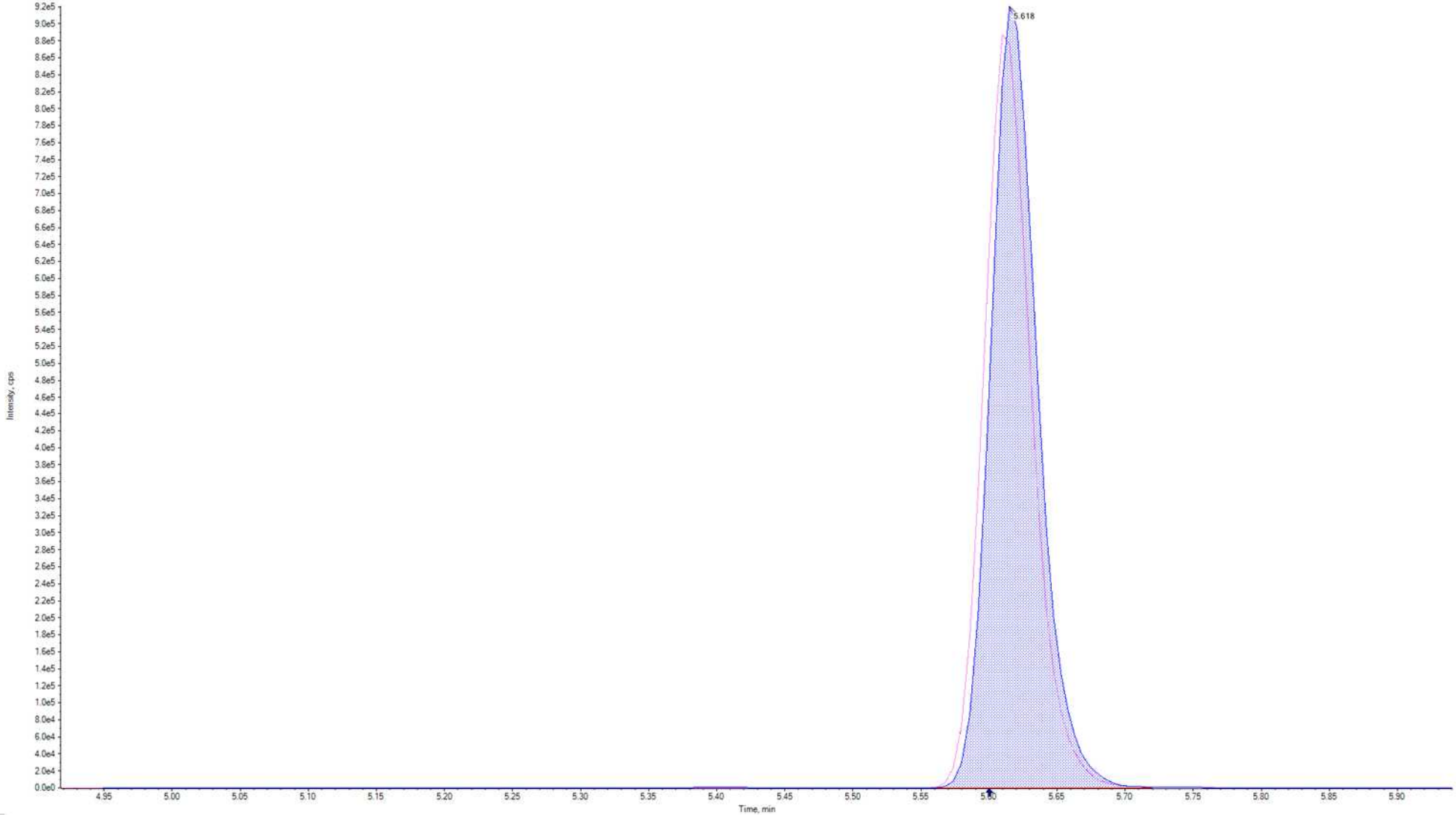
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NEtFOSE
Sample: WG1972760-4 S/N:3236.5 Points Across peak:48



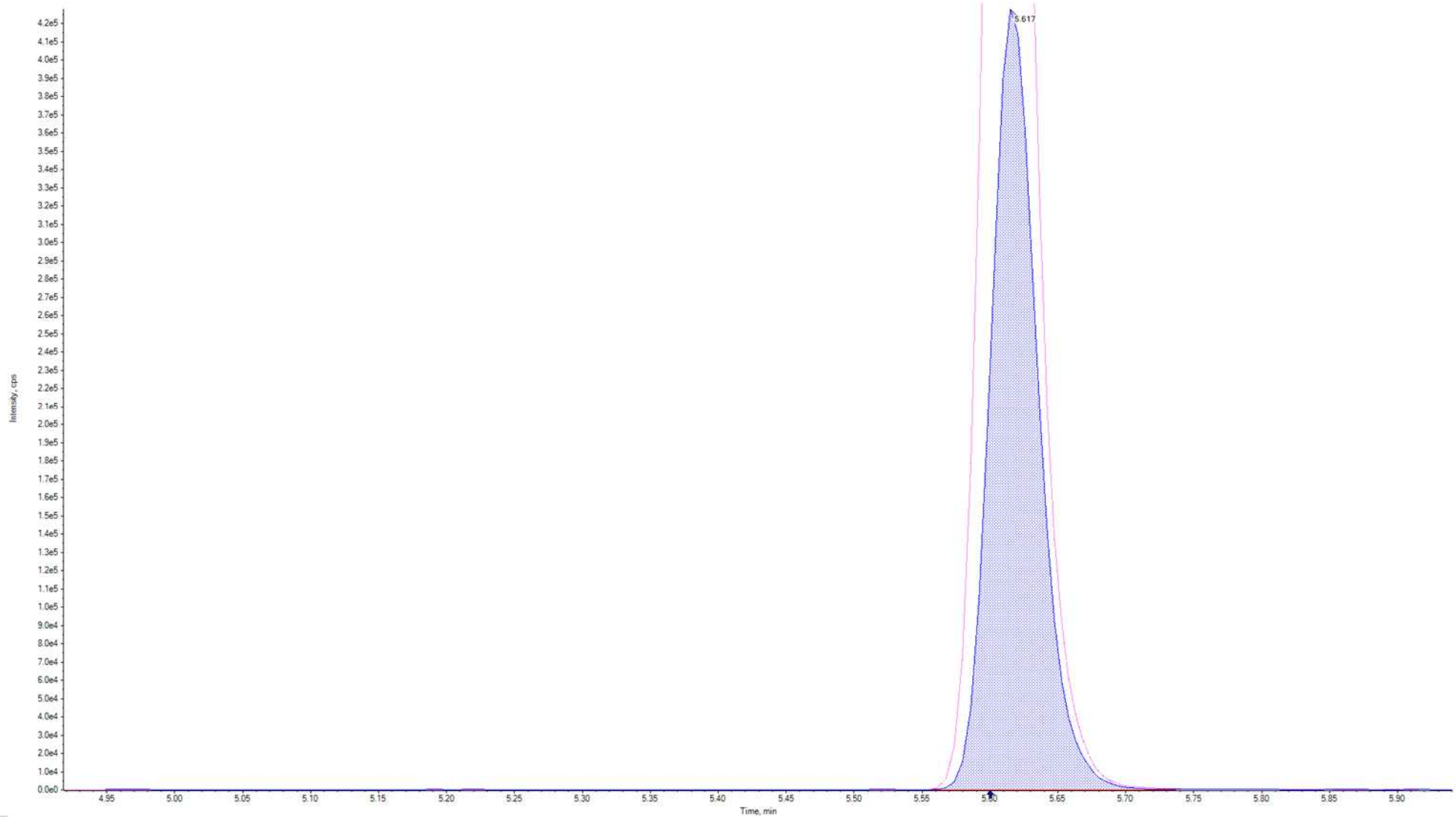
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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HFPO-DA
Sample: WG1972760-4 S/N:20799.6 Points Across peak:35



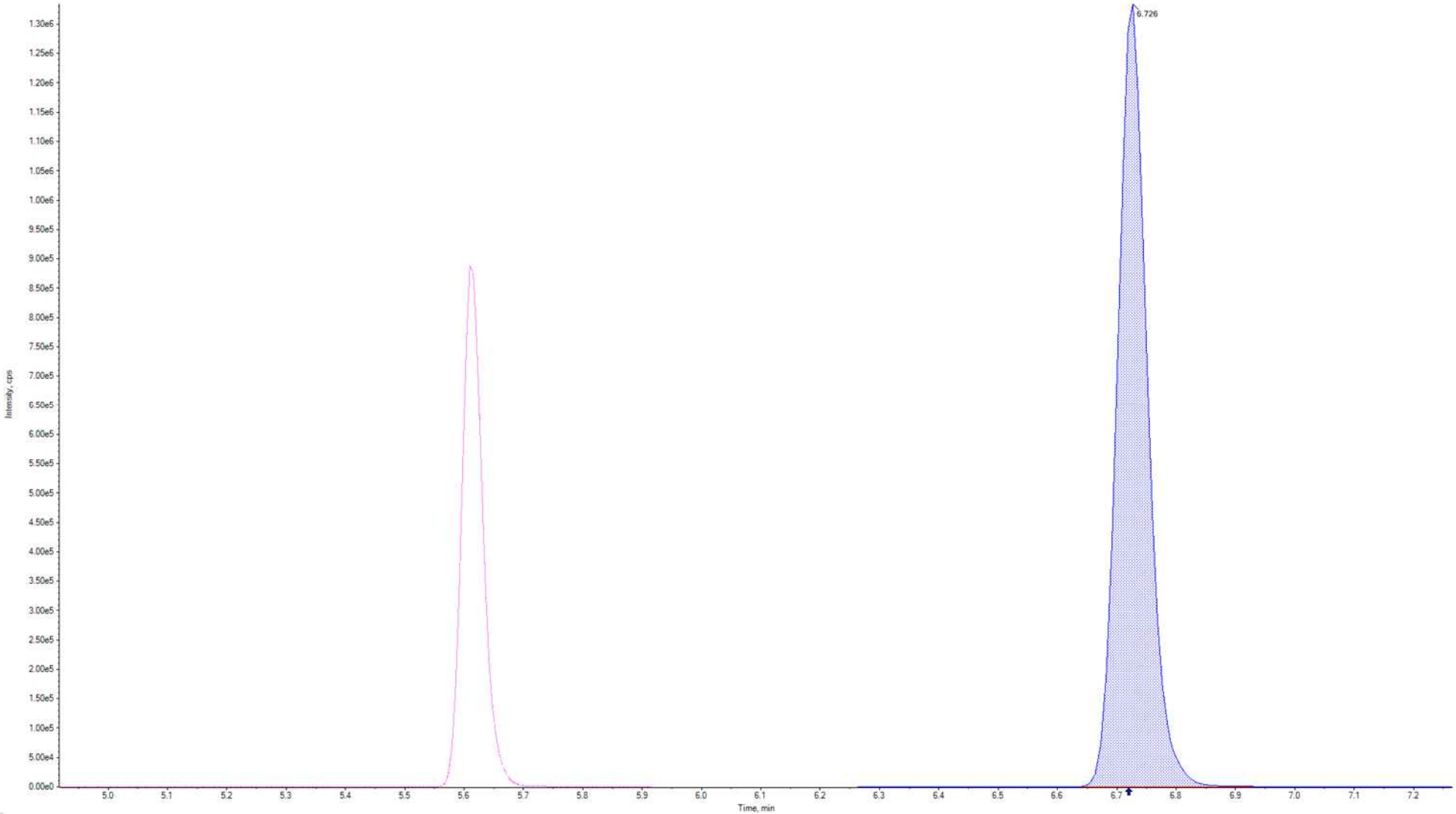
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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HFPO-DA_2
Sample: WG1972760-4 S/N:5017.2 Points Across peak:38



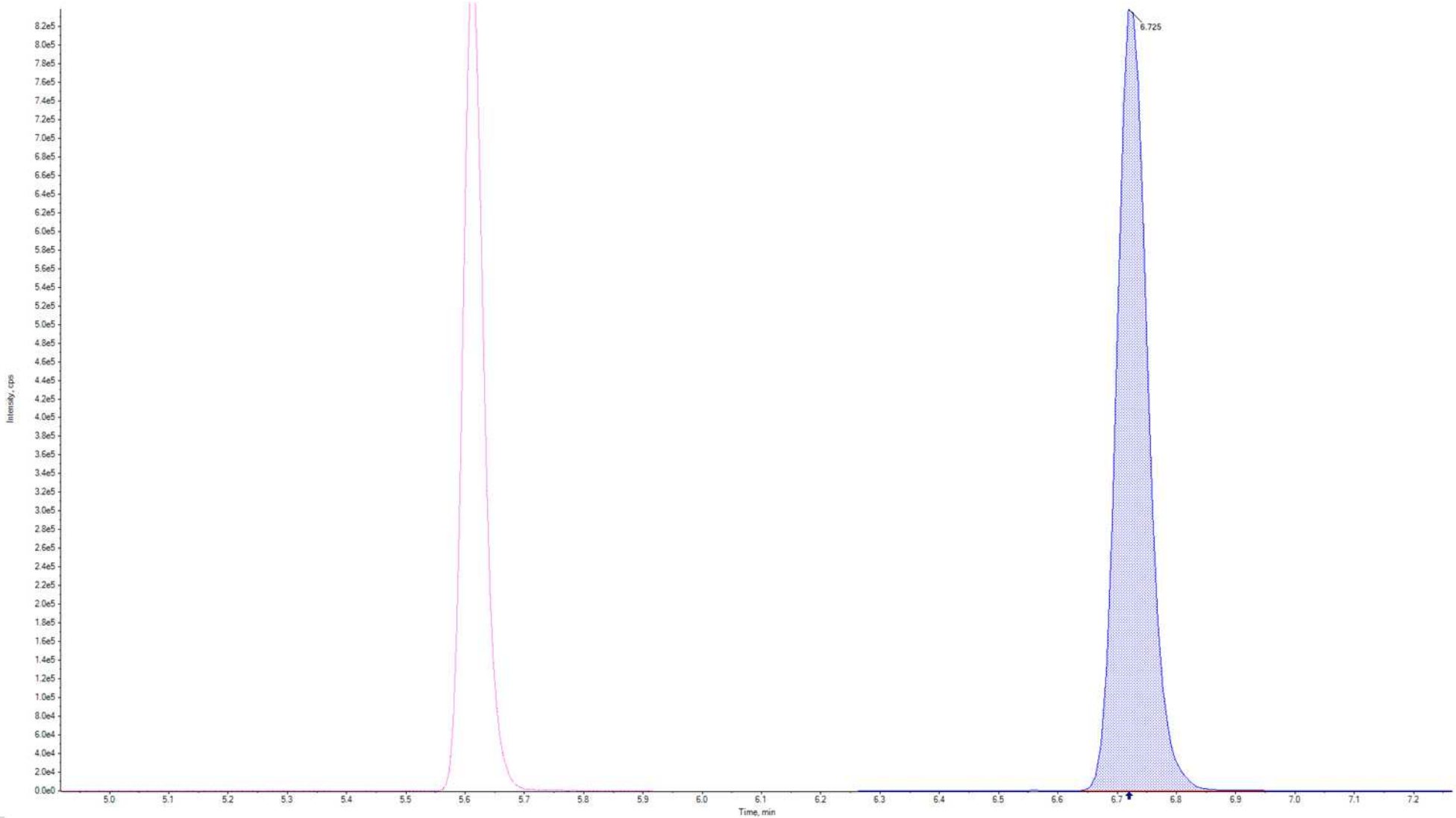
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Alpha Analytical Inc.
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Generated: 9/18/2024 6:35:36 AM

ADONA
Sample: WG1972760-4 S/N:35595.9 Points Across peak:49



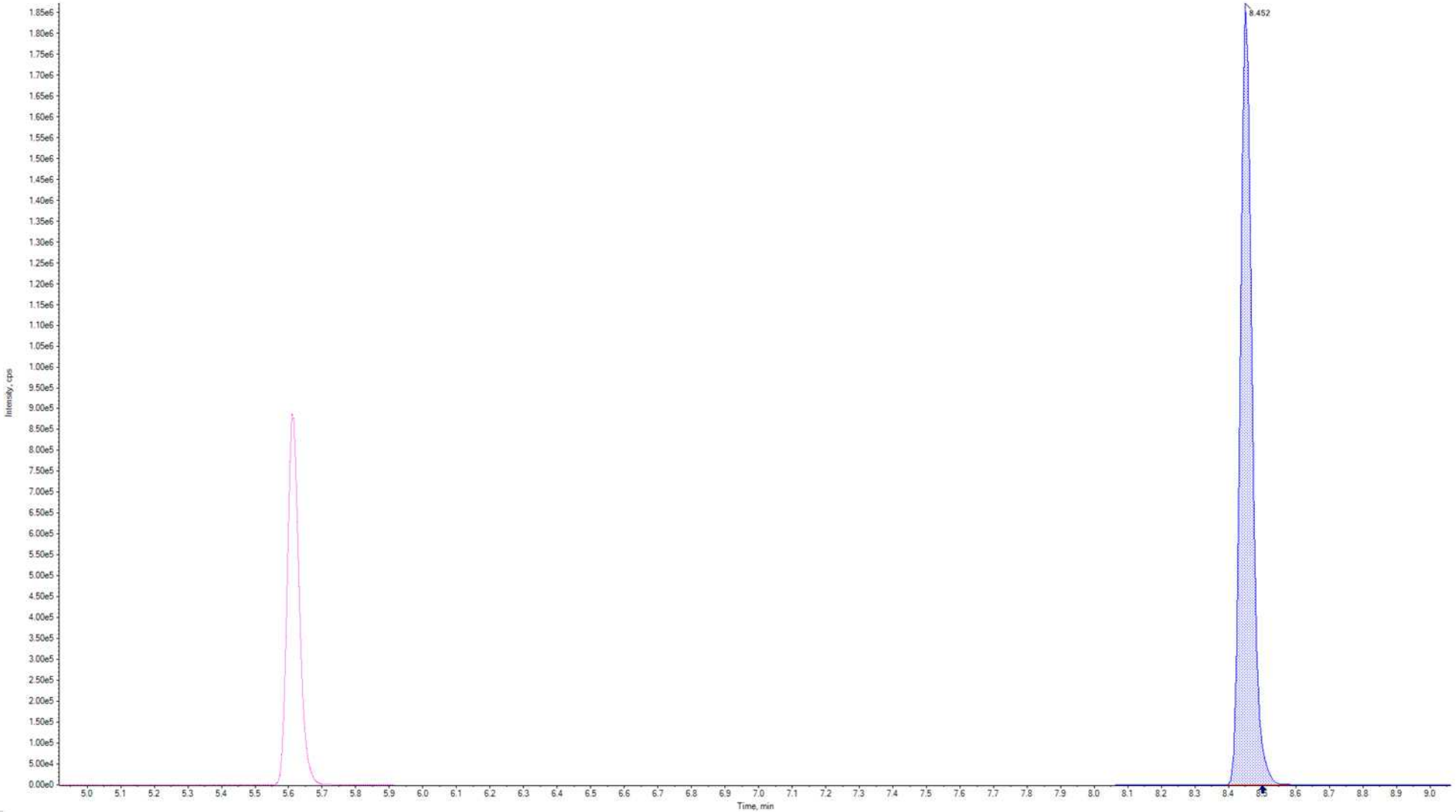
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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ADONA_2
Sample: WG1972760-4 S/N:11966.9 Points Across peak:54



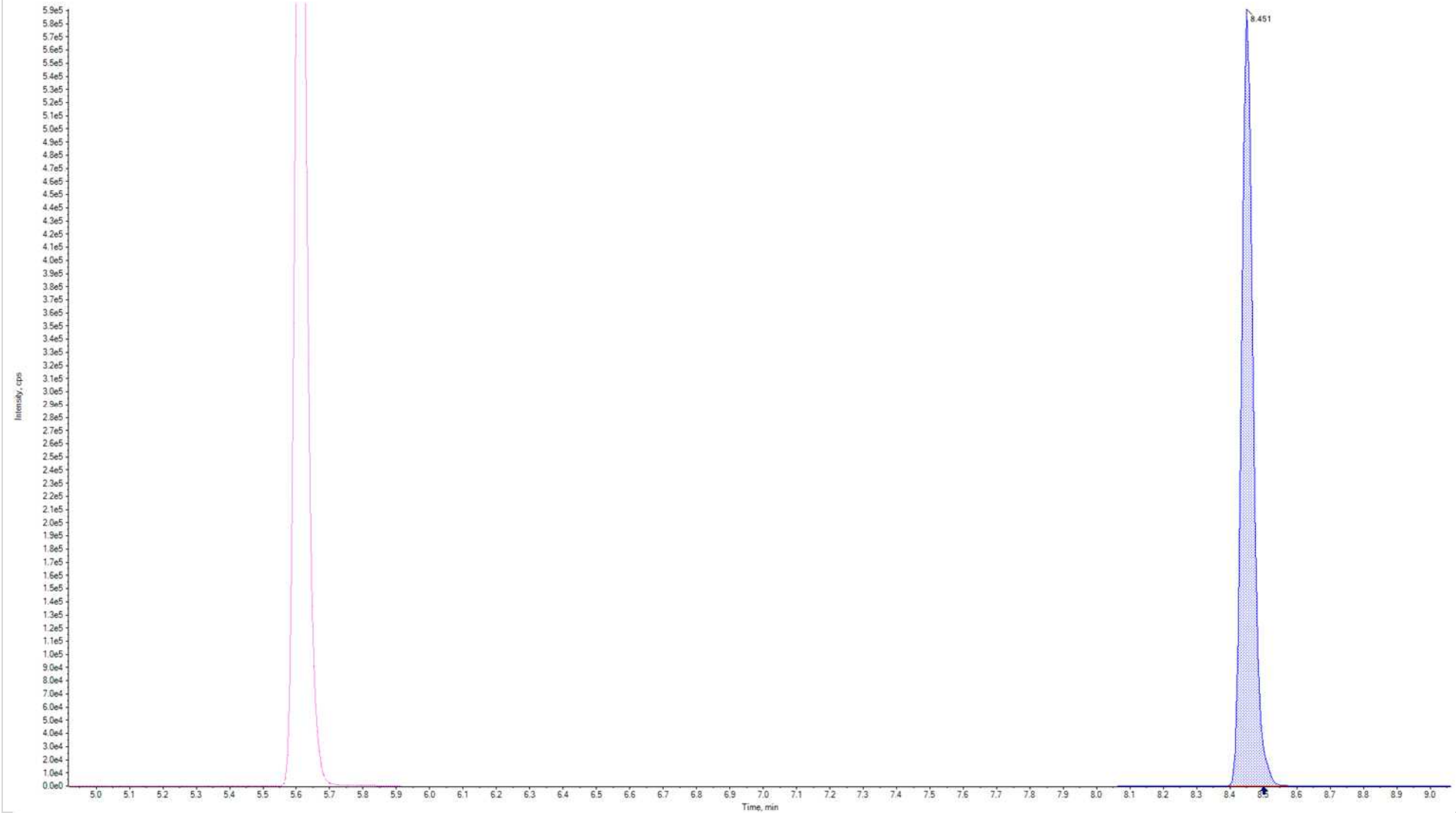
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

9Cl-PF3ONS
Sample: WG1972760-4 S/N:677878.8 Points Across peak:32



Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_22.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

9Cl-PF3ONS_2
Sample: WG1972760-4 S/N:4730.2 Points Across peak:28



Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_22.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

11Cl-PF3OUdS
Sample: WG1972760-4 S/N:646612.2 Points Across peak:42



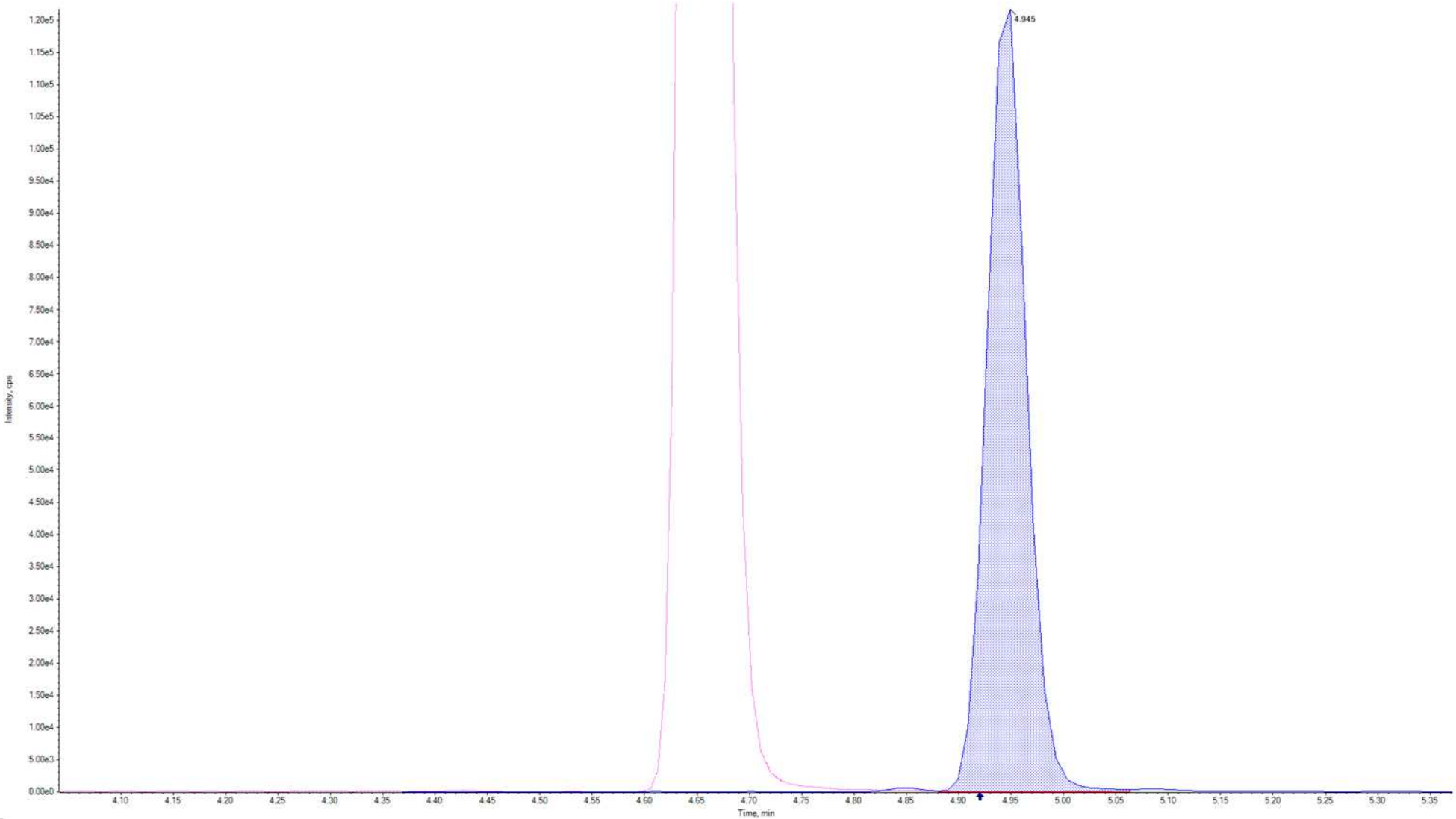
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

11Cl-PF3OUdS_2
Sample: WG1972760-4 S/N:3175.5 Points Across peak:40



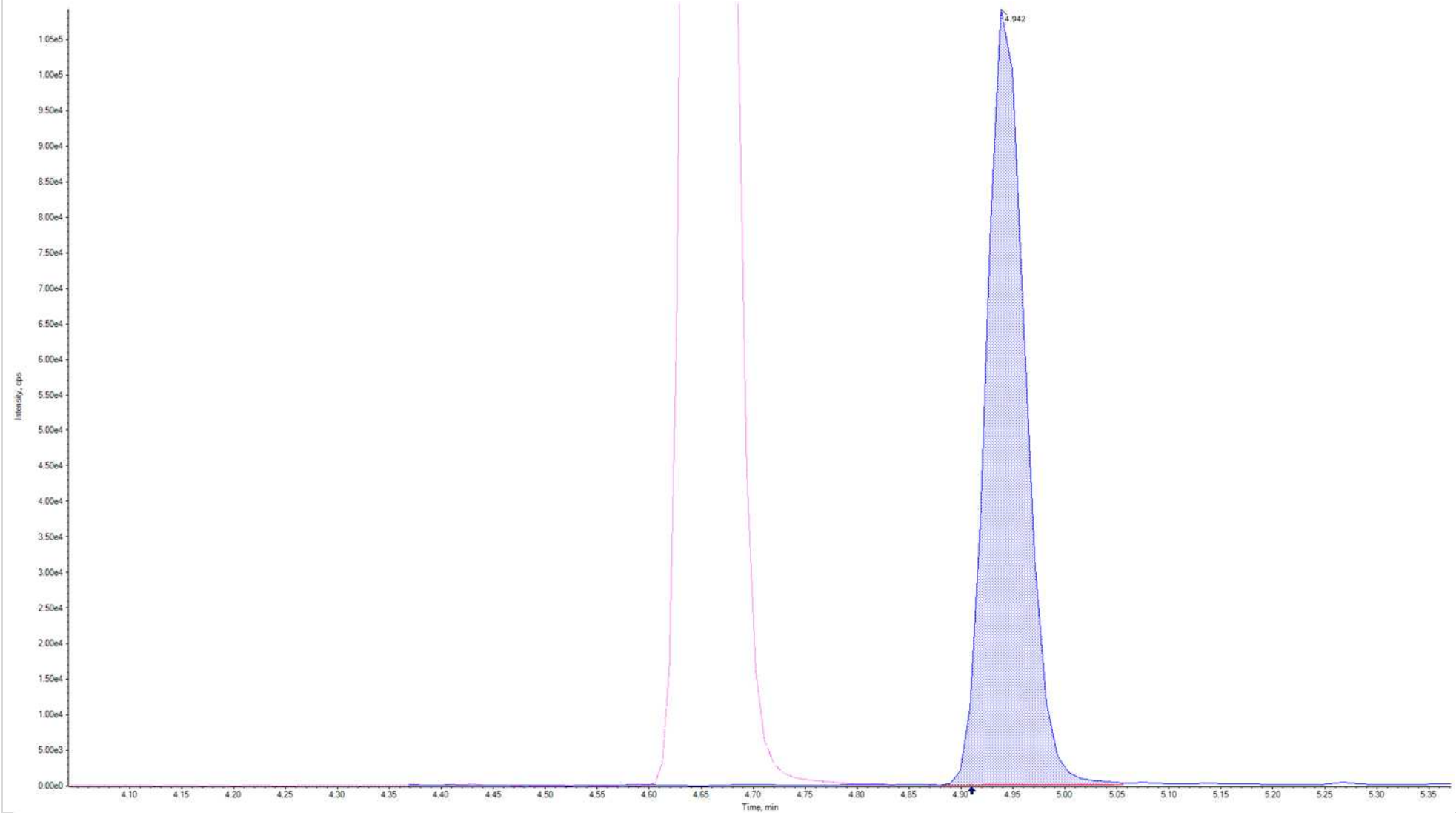
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_22.wiff
Last Altered: 9/18/2024 12:41:54 PM
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3:3FTCA
Sample: WG1972760-4 S/N:1346498.3 Points Across peak:19



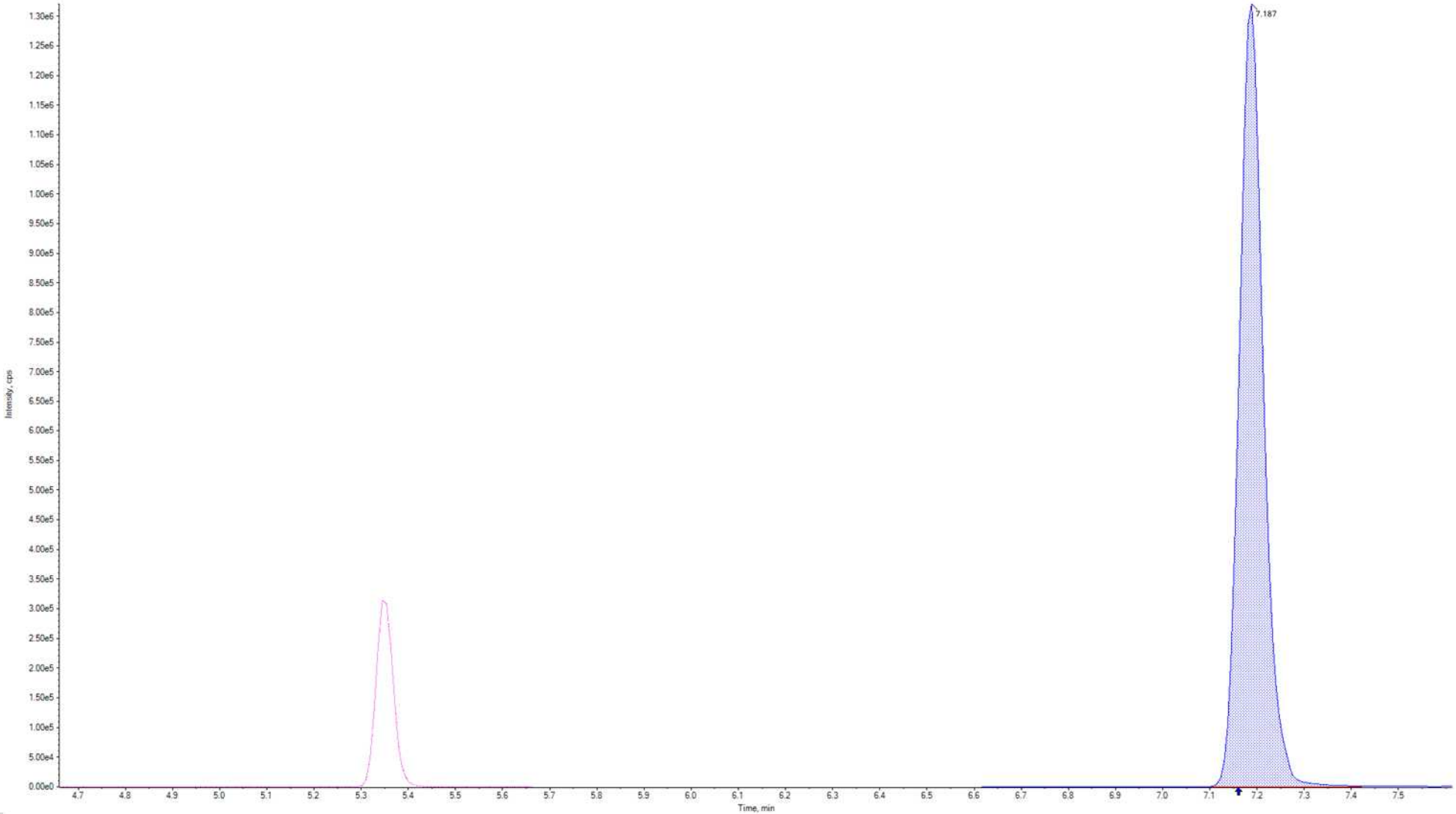
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_22.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

3:3FTCA_2
Sample: WG1972760-4 S/N:1702.6 Points Across peak:18



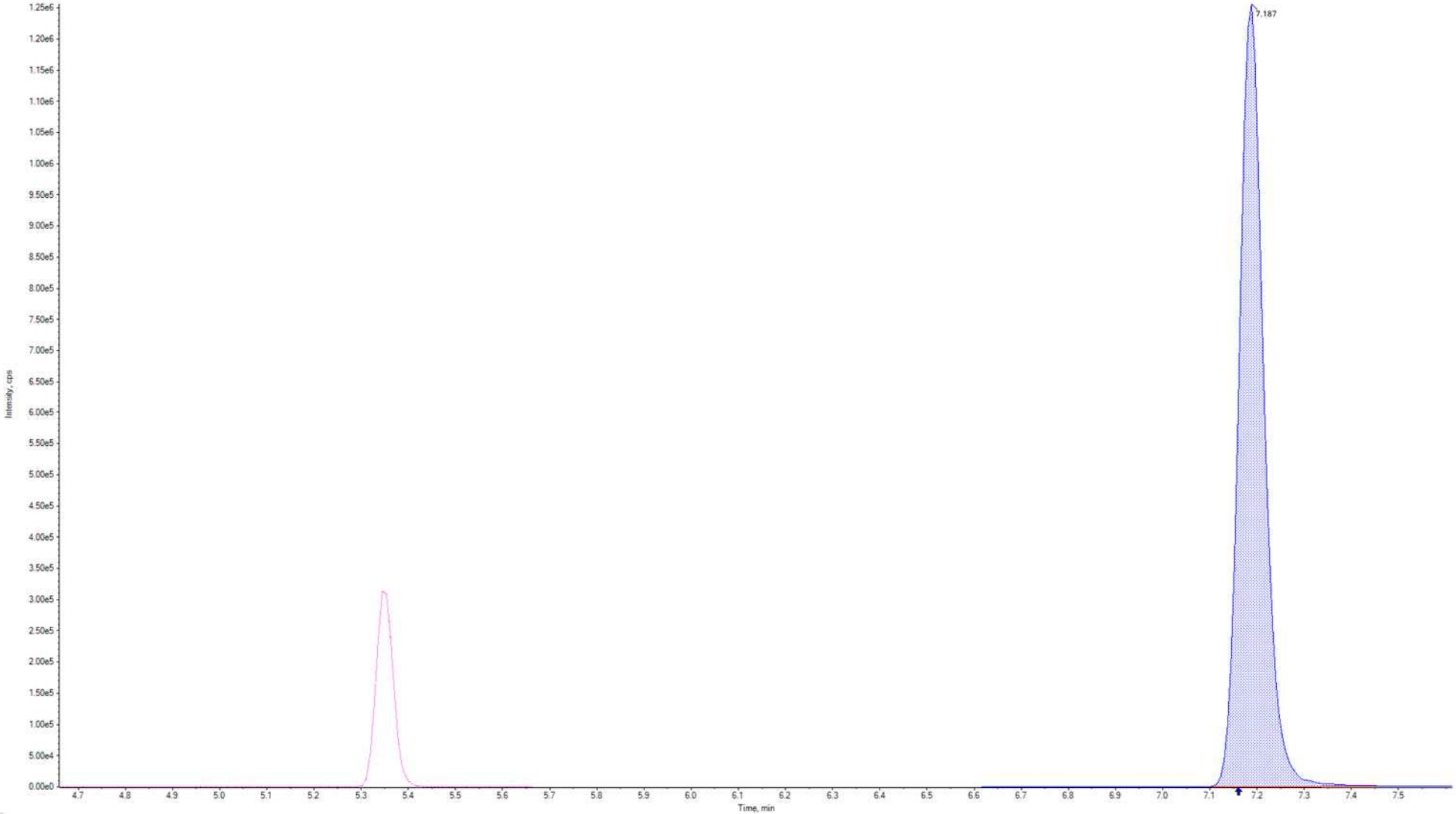
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

5:3FTCA
Sample: WG1972760-4 S/N:122720.9 Points Across peak:56



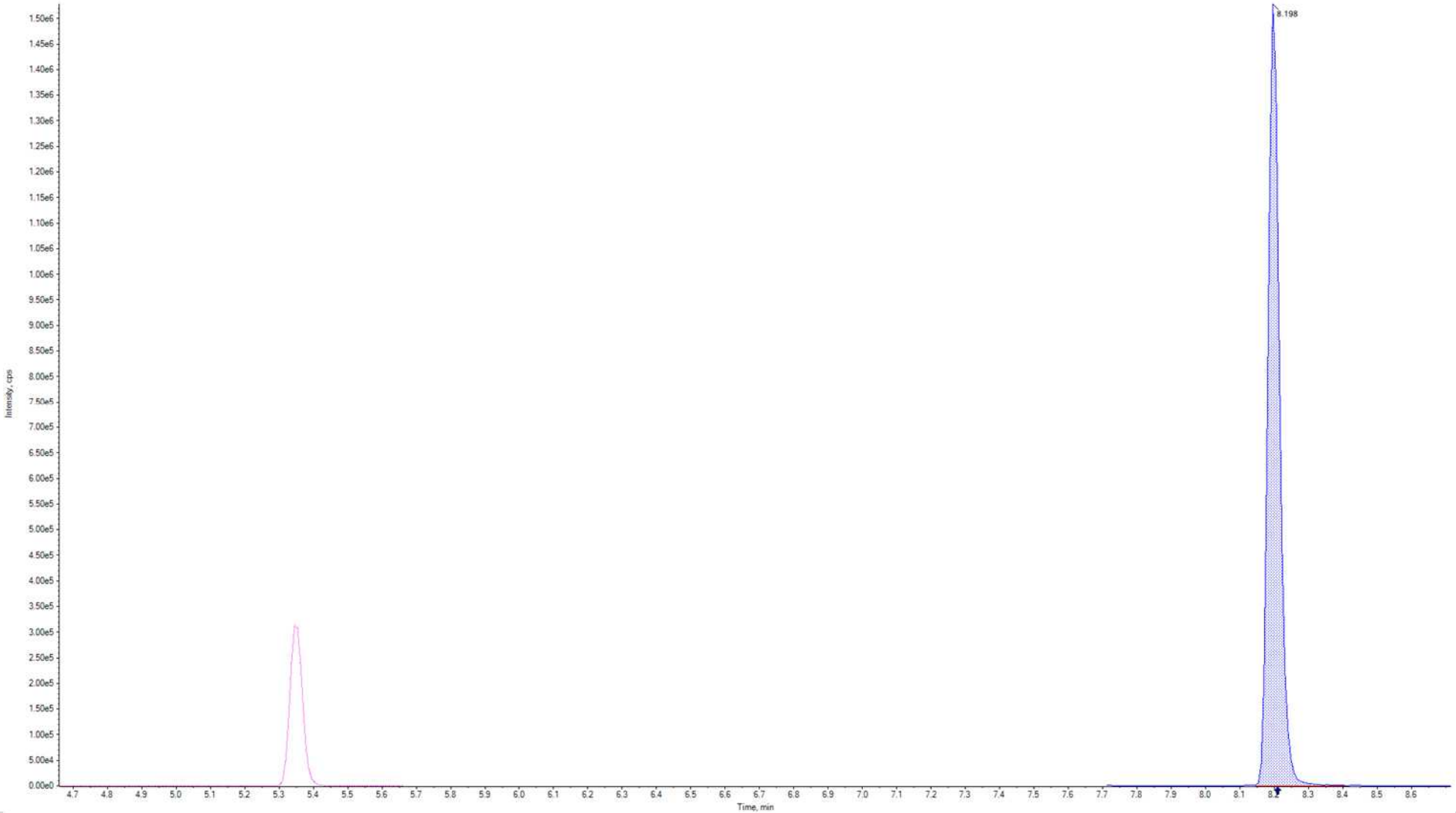
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_22.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

5:3FTCA_2
Sample: WG1972760-4 S/N:16039.5 Points Across peak:73



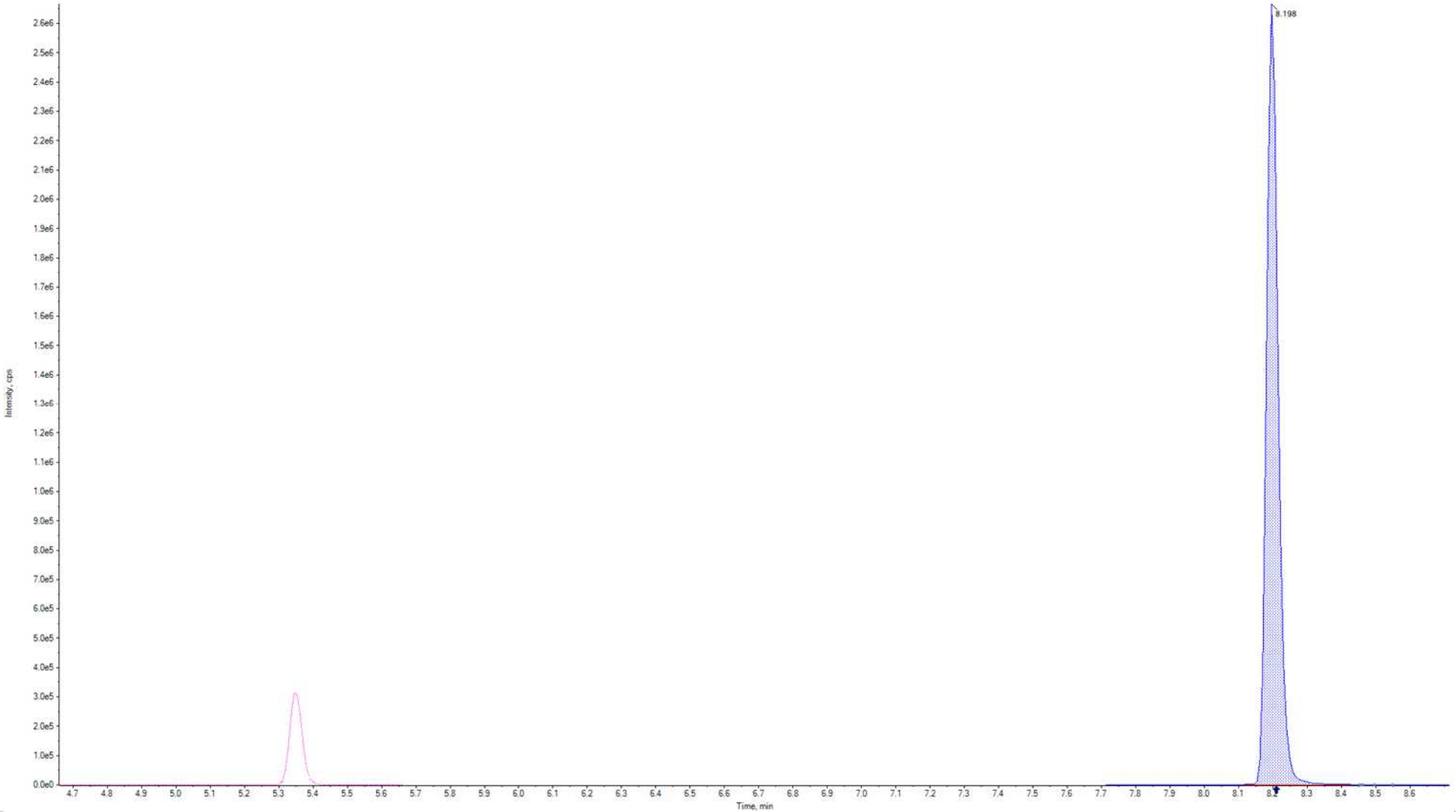
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

7:3FTCA
Sample: WG1972760-4 S/N:15669.7 Points Across peak:32



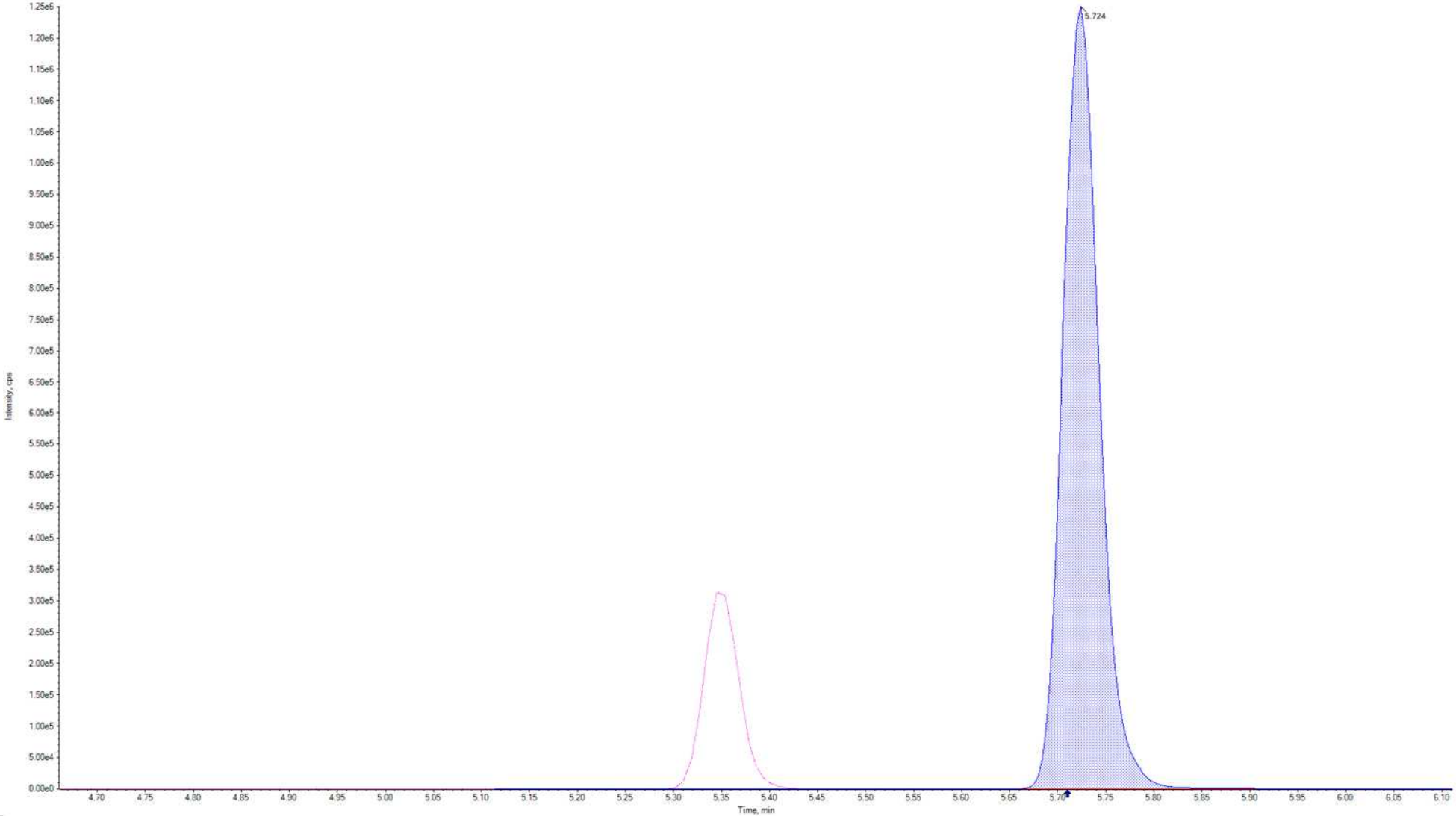
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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7:3FTCA_2
Sample: WG1972760-4 S/N:530760.5 Points Across peak:42



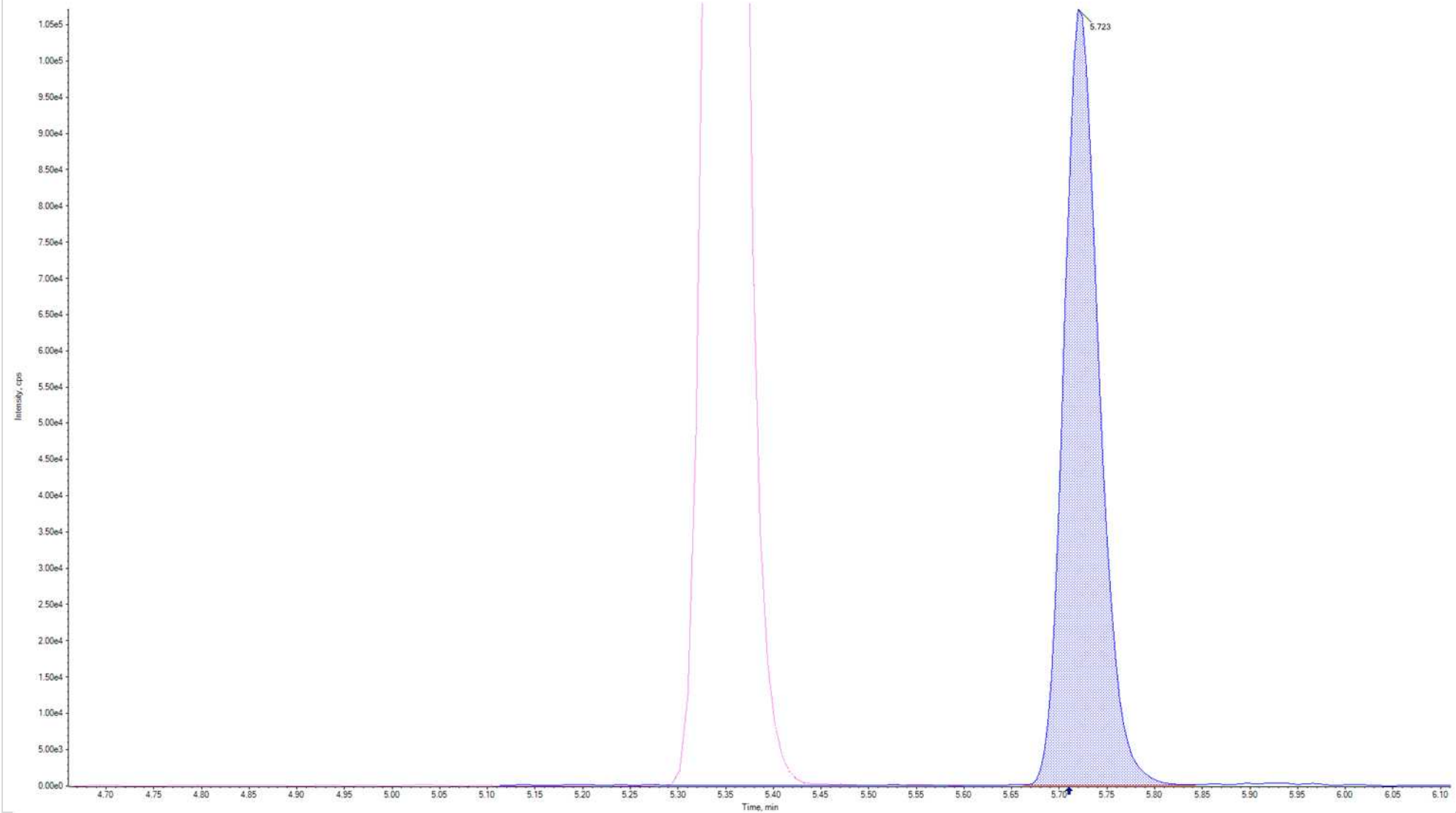
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFEESA
Sample: WG1972760-4 S/N:7275.9 Points Across peak:51



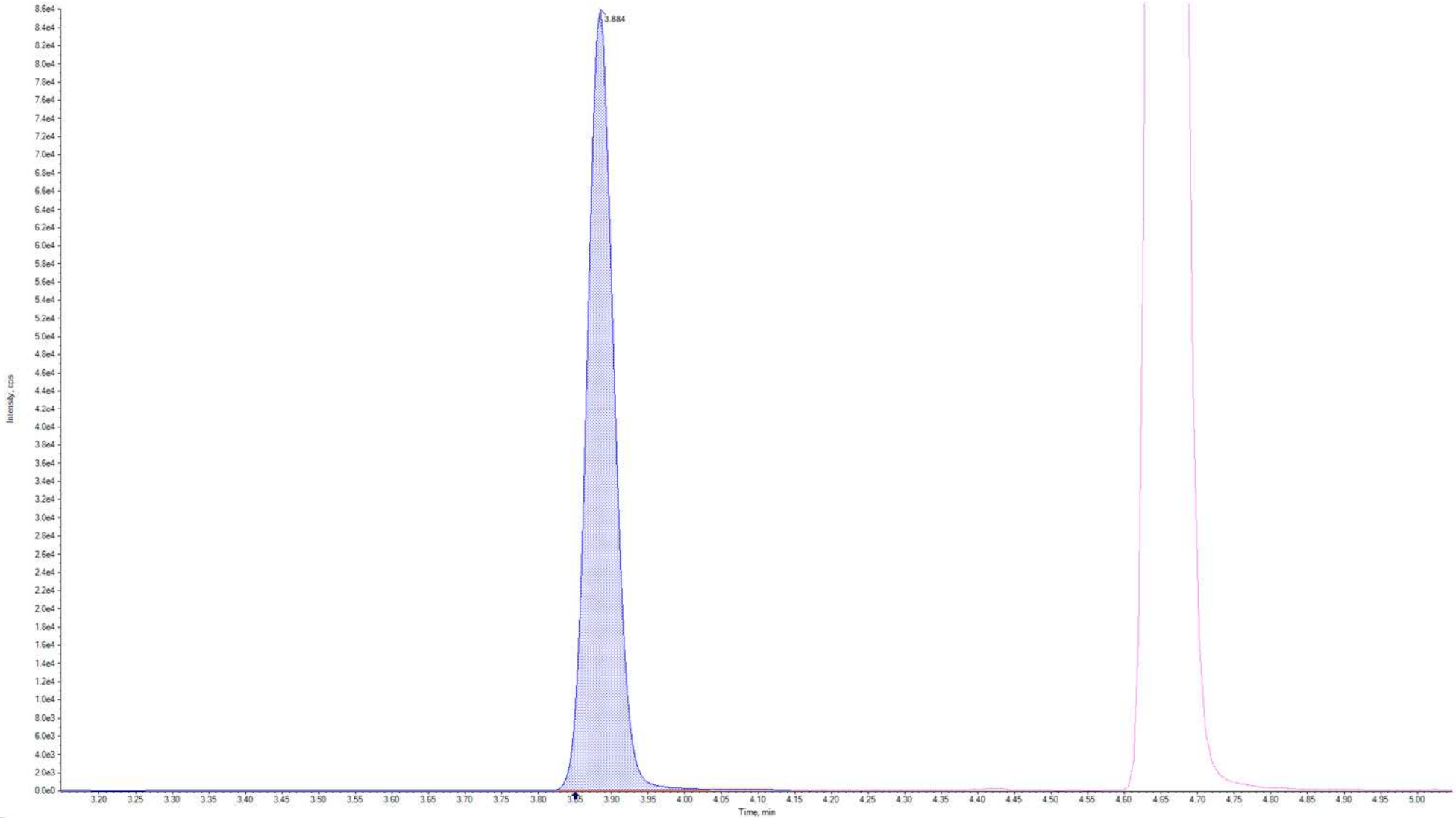
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PFEESA_2
Sample: WG1972760-4 S/N:2672.9 Points Across peak:38



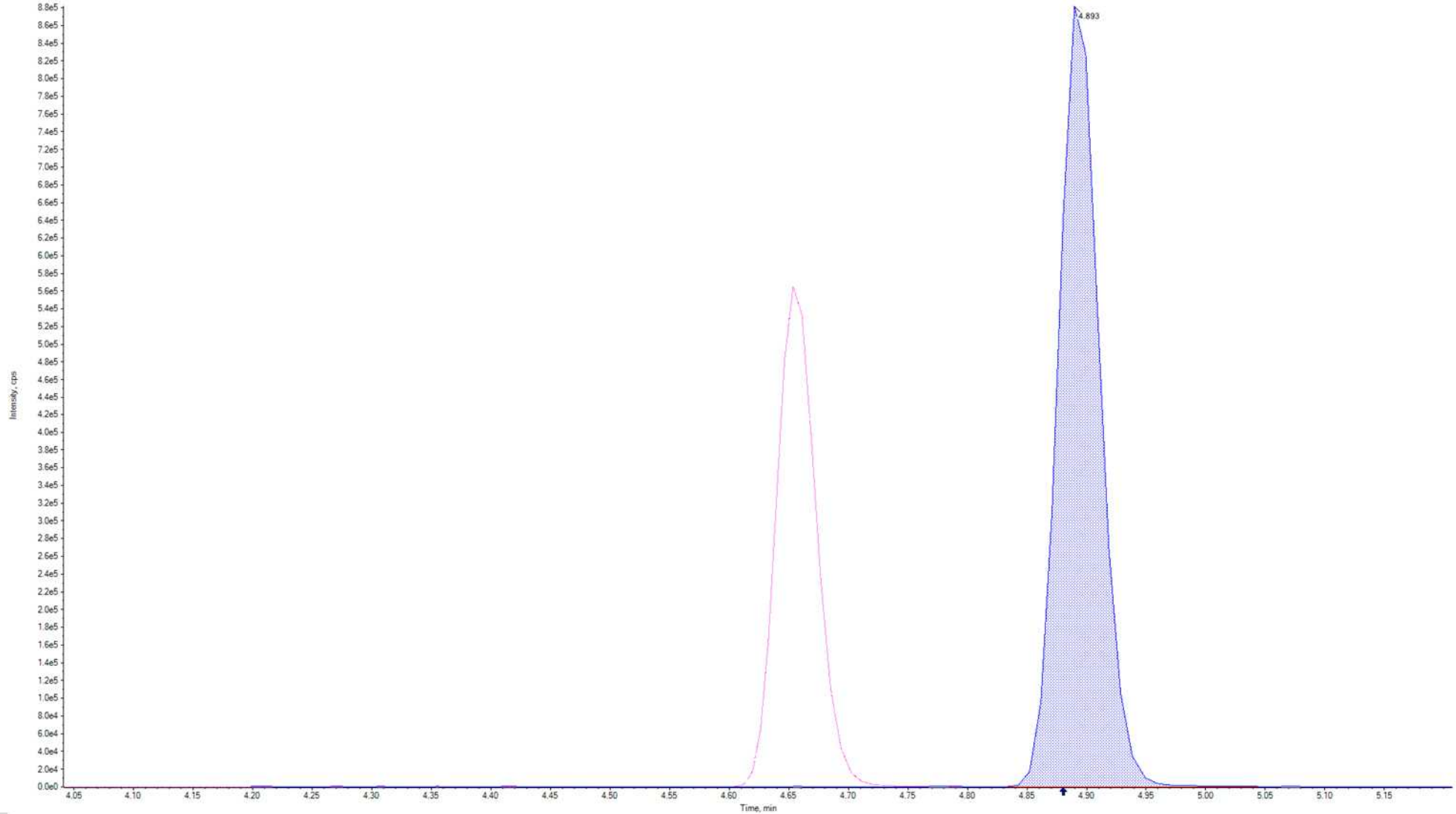
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Alpha Analytical Inc.
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PFMPA
Sample: WG1972760-4 S/N:4837.7 Points Across peak:63



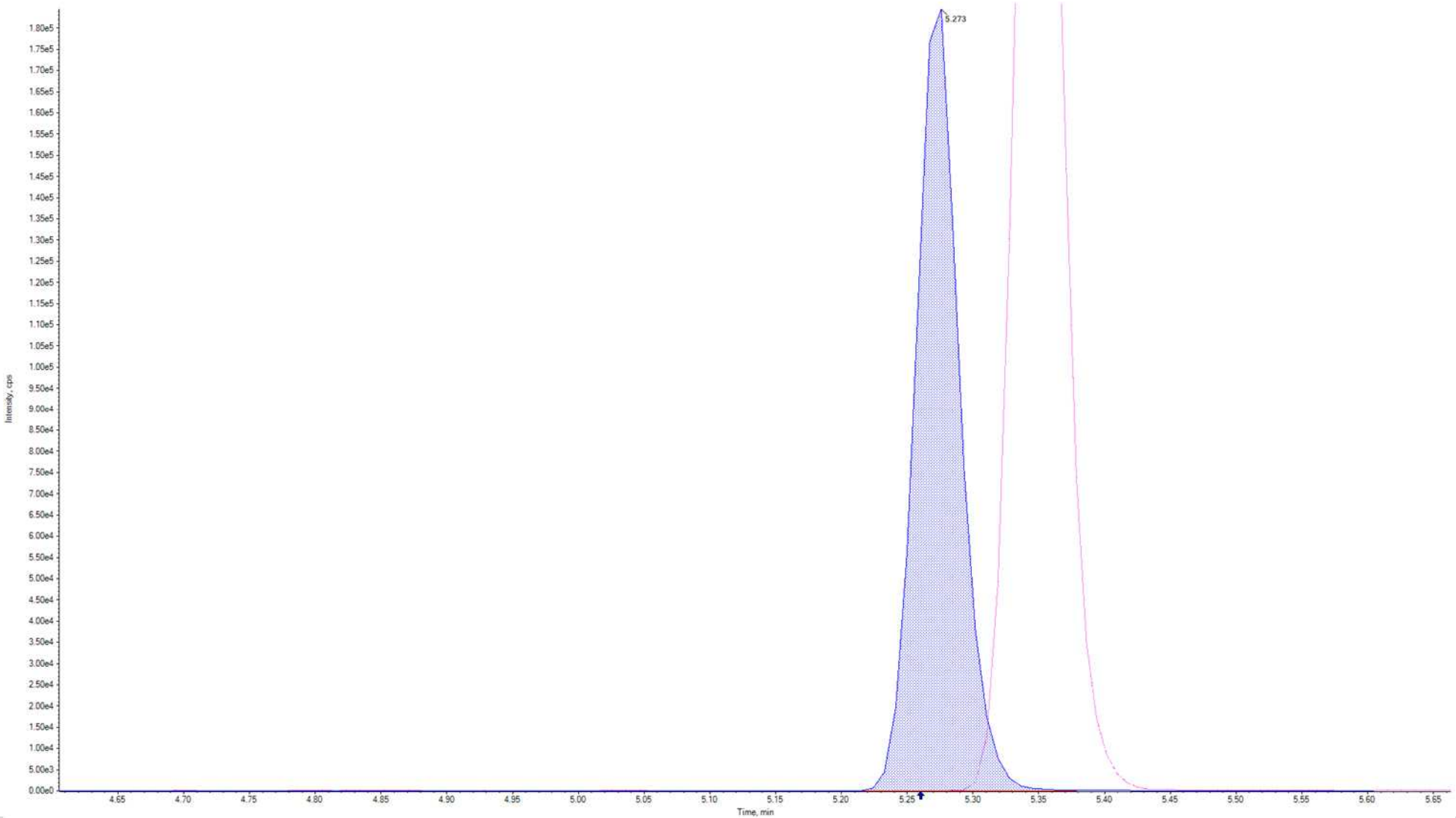
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PFMBA
Sample: WG1972760-4 S/N:2400.3 Points Across peak:24



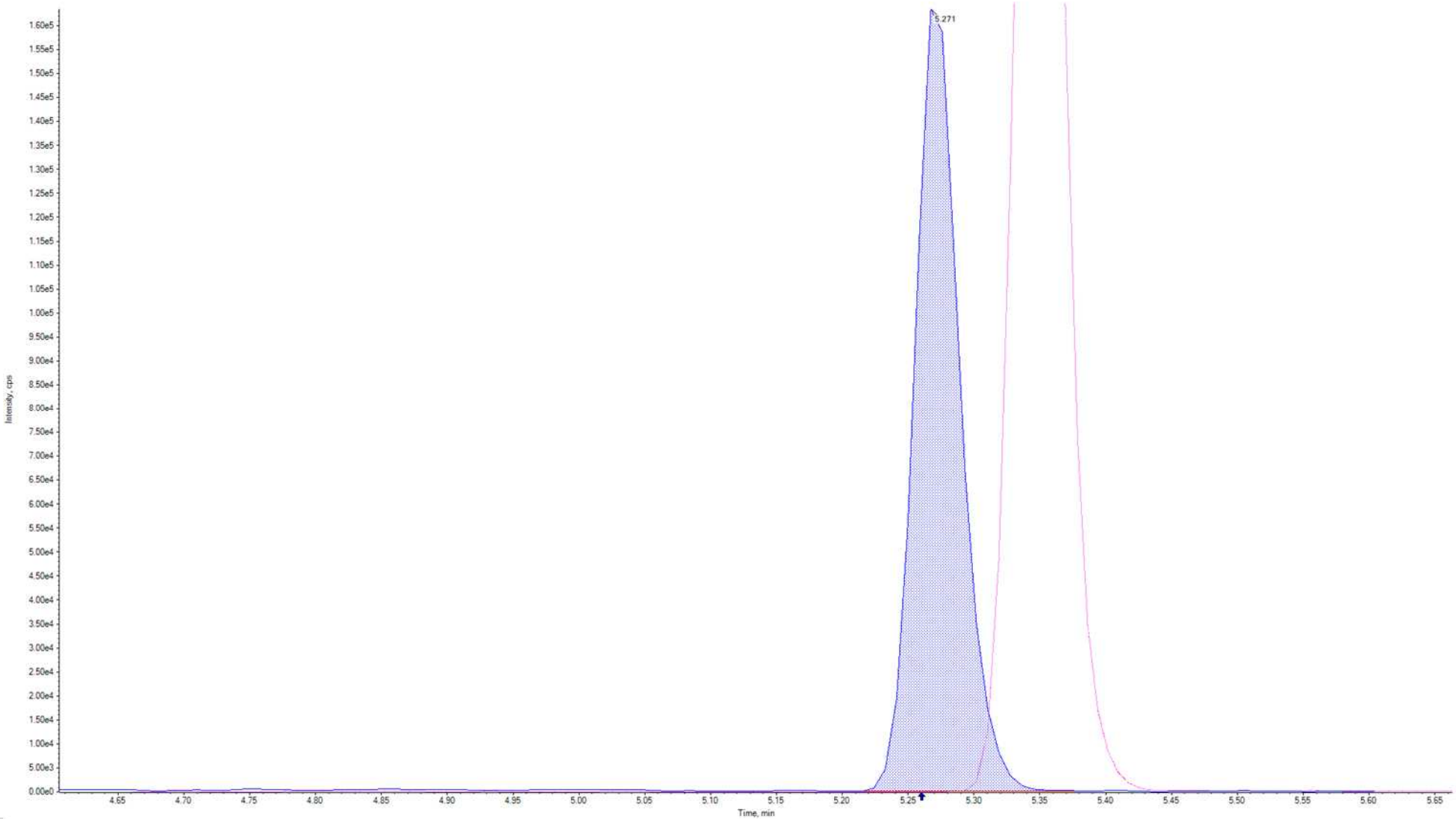
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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NFDHA
Sample: WG1972760-4 S/N:20906085.2 Points Across peak:22



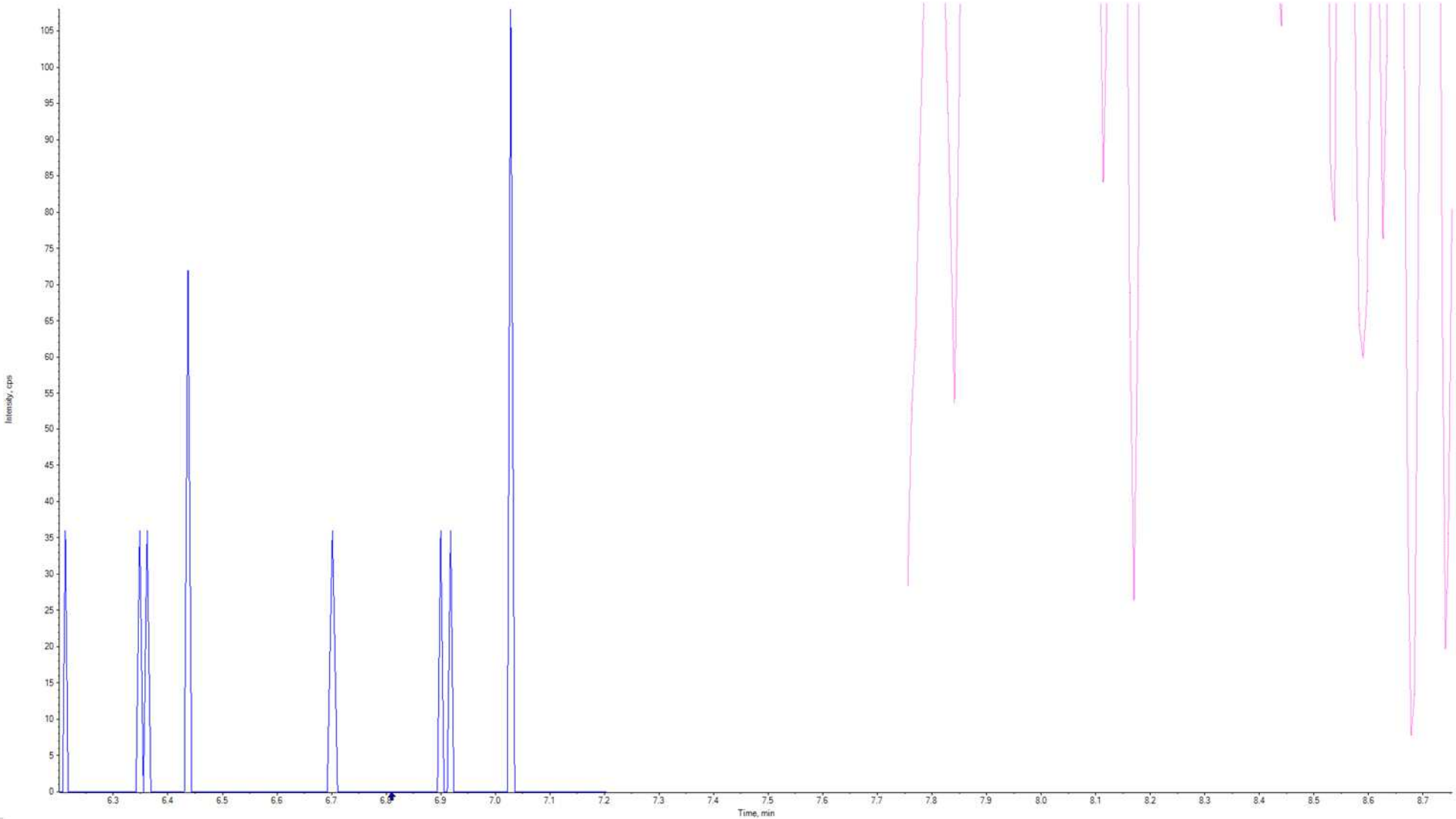
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Alpha Analytical Inc.
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NFDHA_2
Sample: WG1972760-4 S/N:1487.2 Points Across peak:22



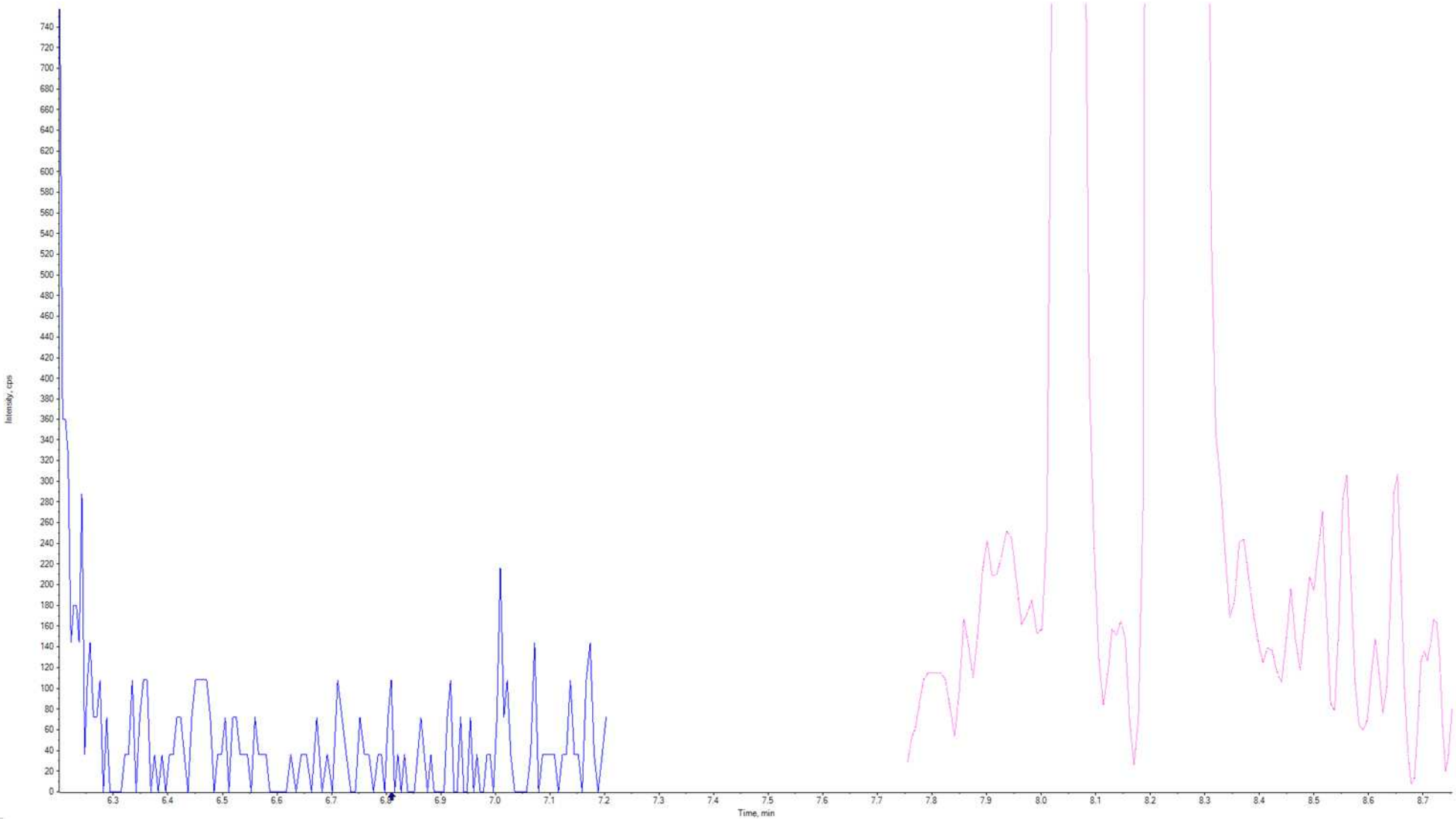
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Alpha Analytical Inc.
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TDCA
Sample: WG1972760-4 S/N:N/A Points Across peak:N/A



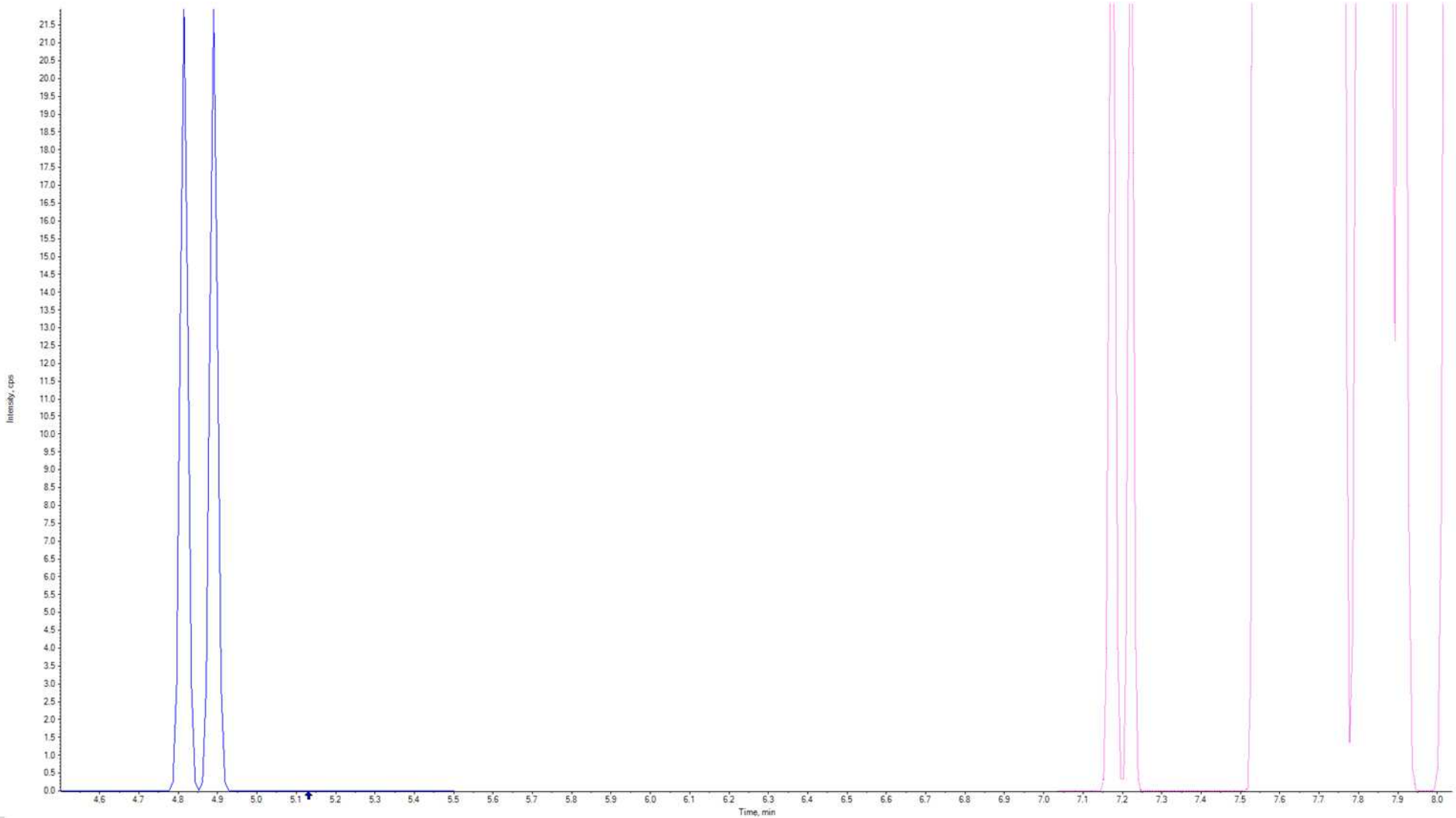
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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TDCA_2
Sample: WG1972760-4 S/N:N/A Points Across peak:N/A



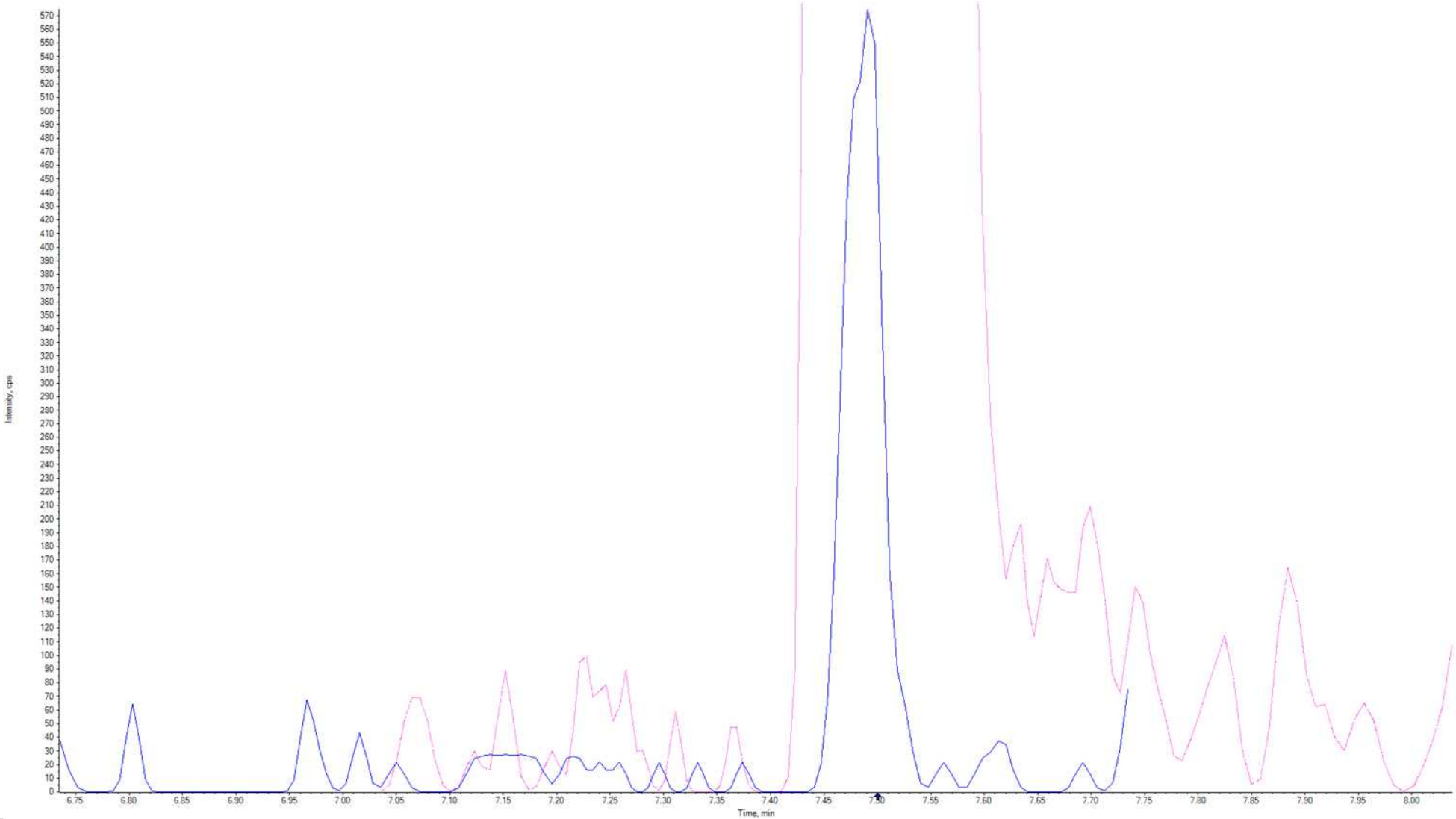
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

13C2D4-4:2FTS
Sample: WG1972760-4 S/N:N/A Points Across peak:N/A

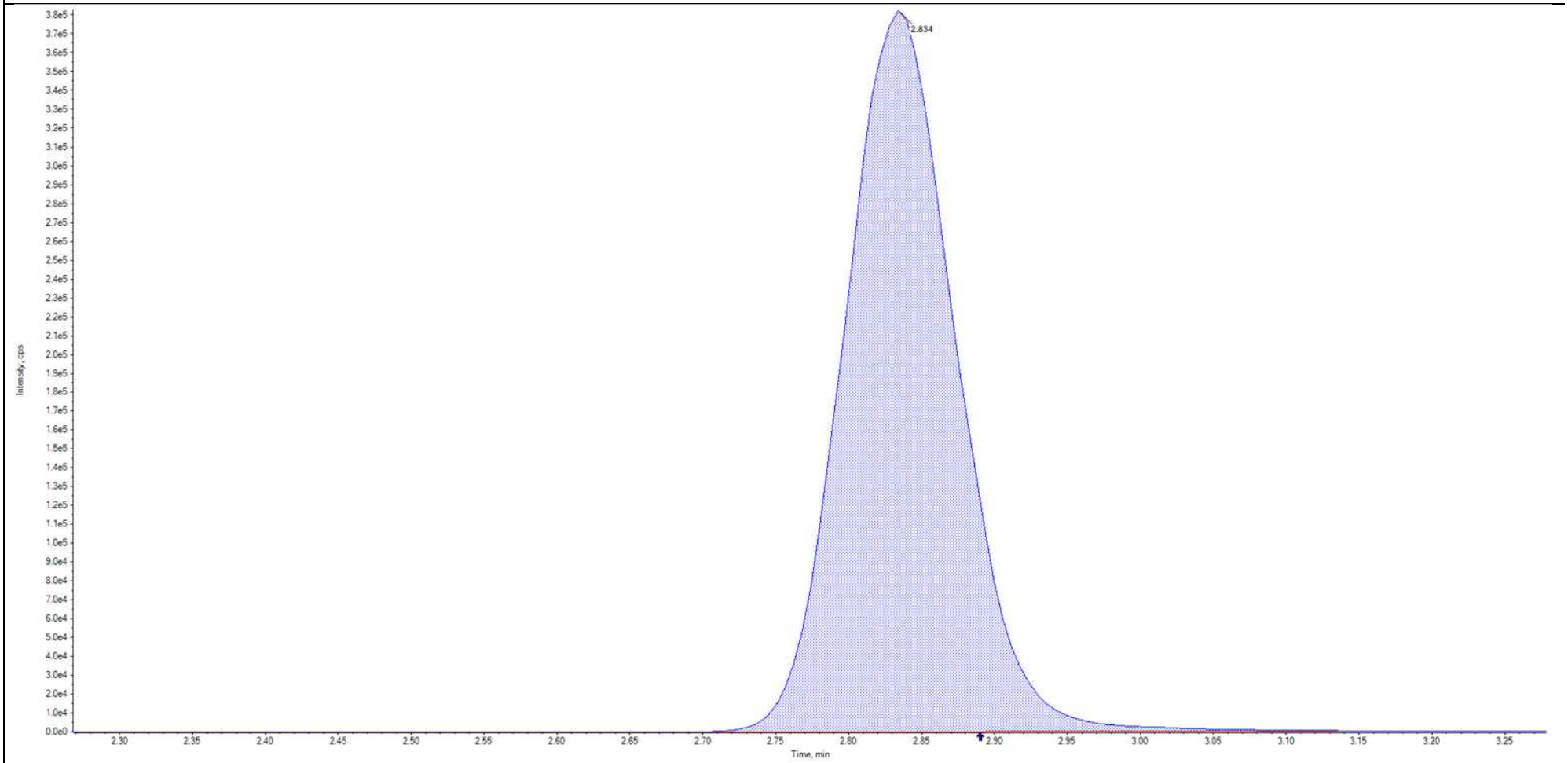


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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13C2-PFOA
Sample: WG1972760-4 S/N:N/A Points Across peak:N/A

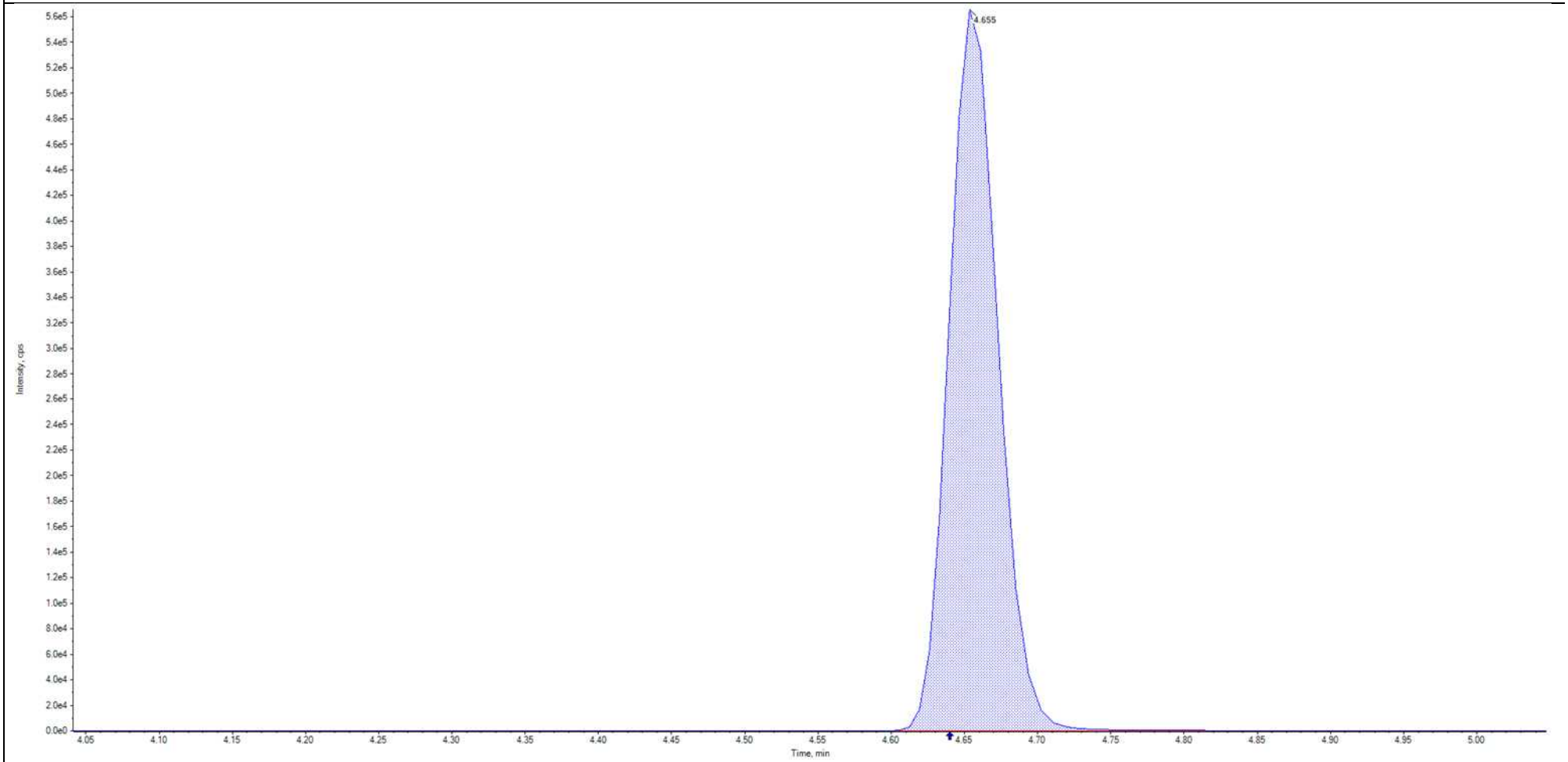


13C4-PFBA
Sample: WG1972760-4

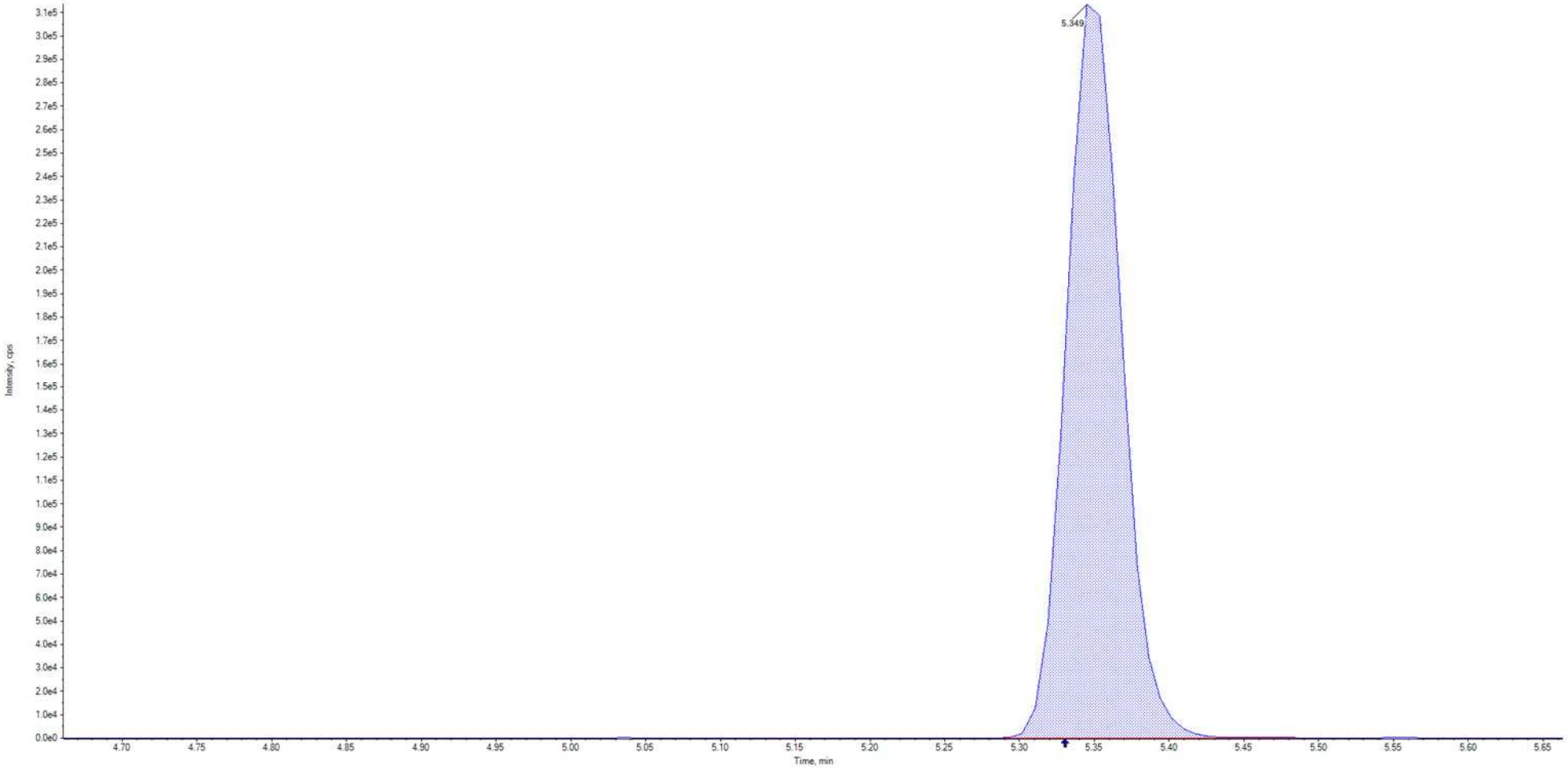


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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13C5-PFPeA
Sample: WG1972760-4

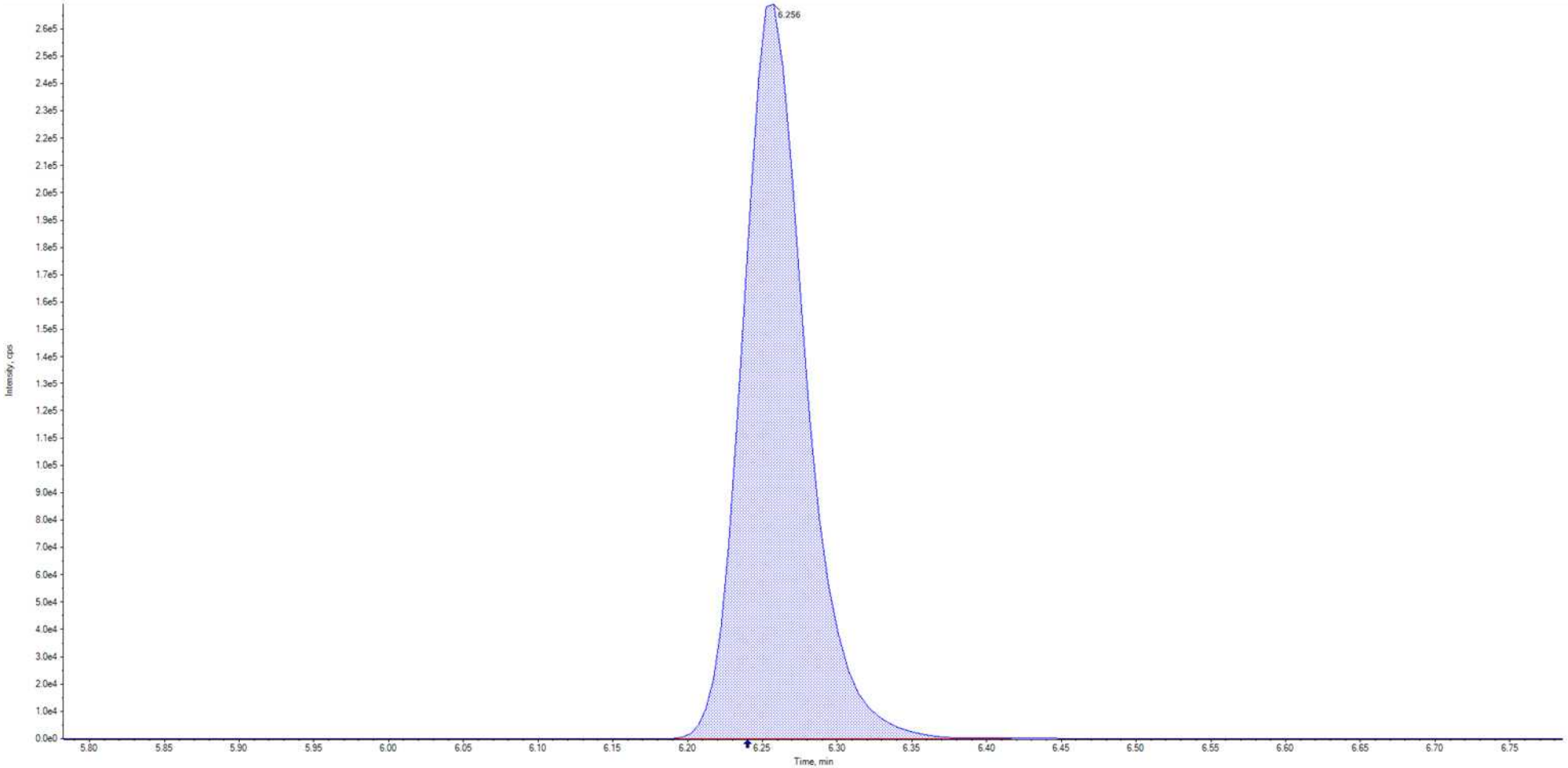


13C5-PFHxA
Sample: WG1972760-4



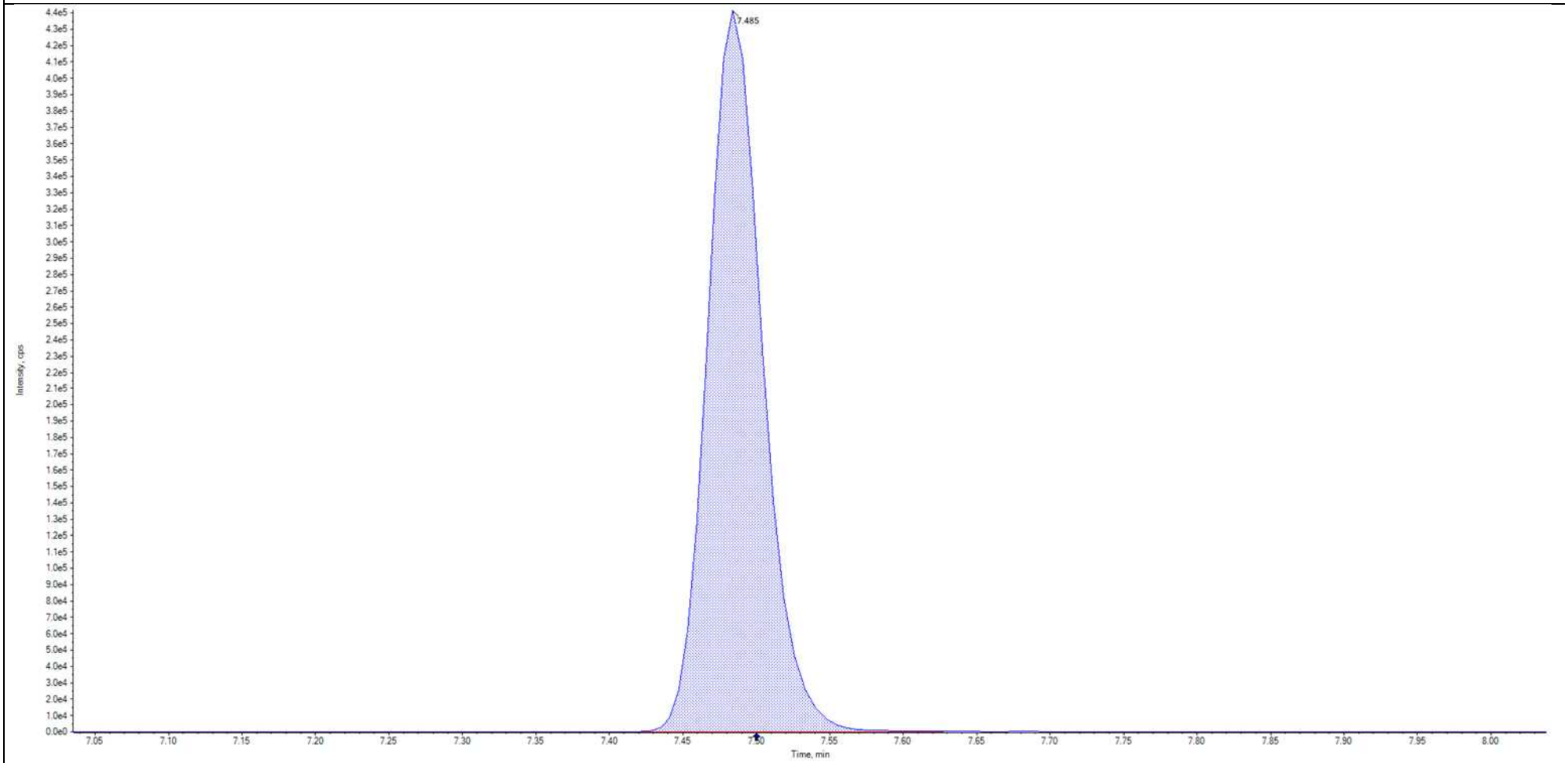
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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13C4-PFHpA
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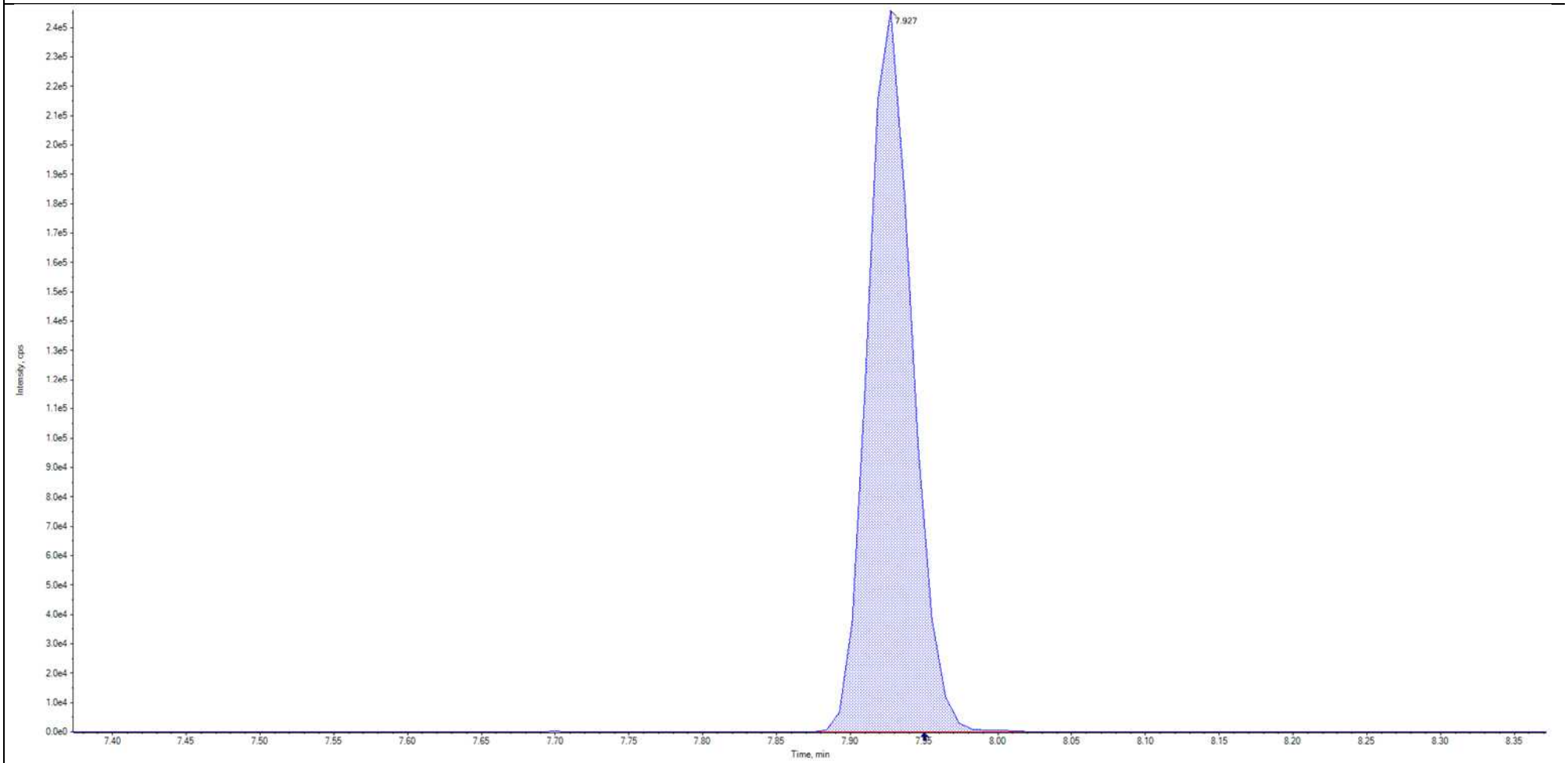


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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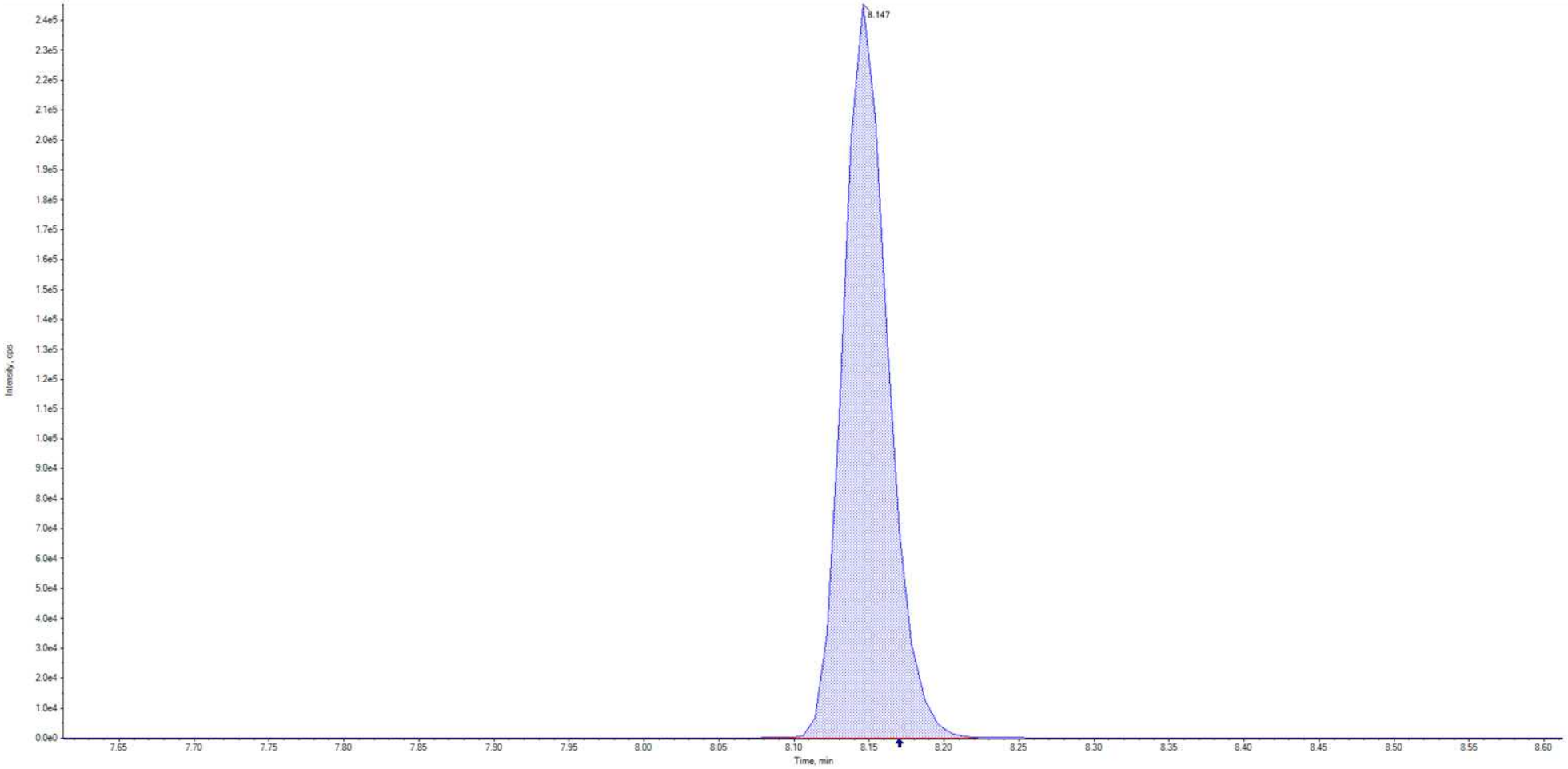
13C8-PFOA
Sample: WG1972760-4



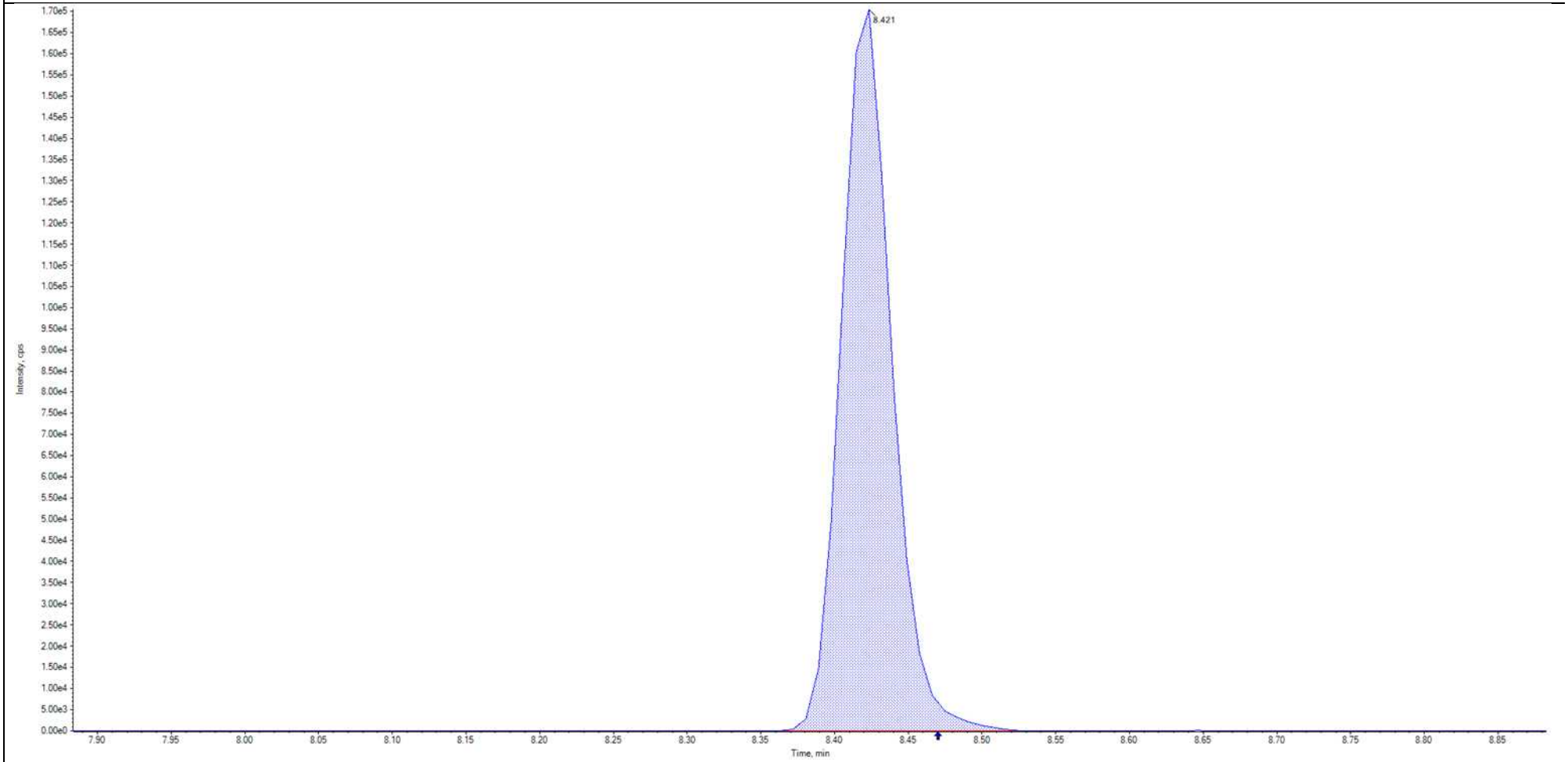
13C9-PFNA
Sample: WG1972760-4



13C6-PFDA
Sample: WG1972760-4

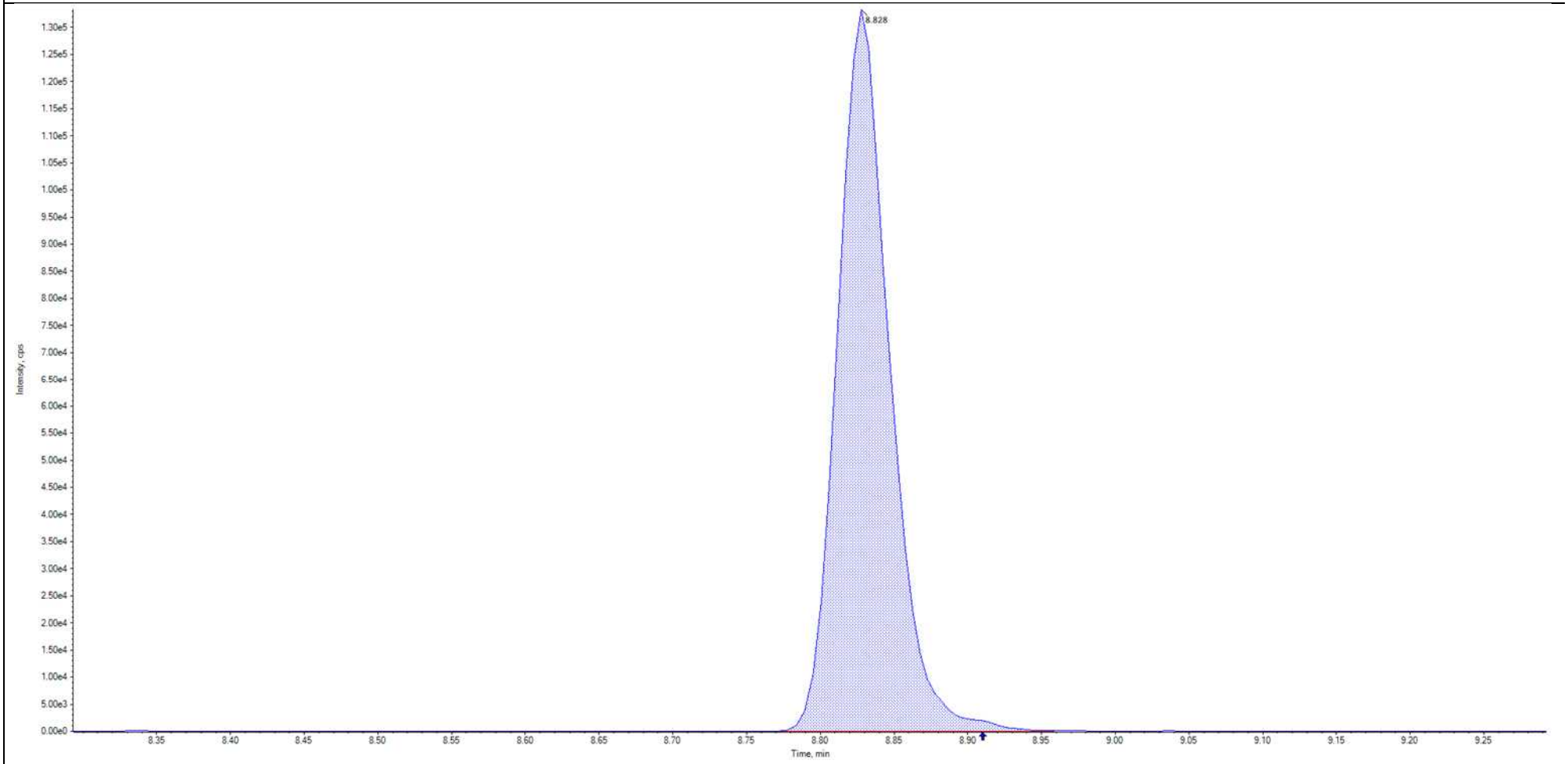


13C7-PFUnA
Sample: WG1972760-4



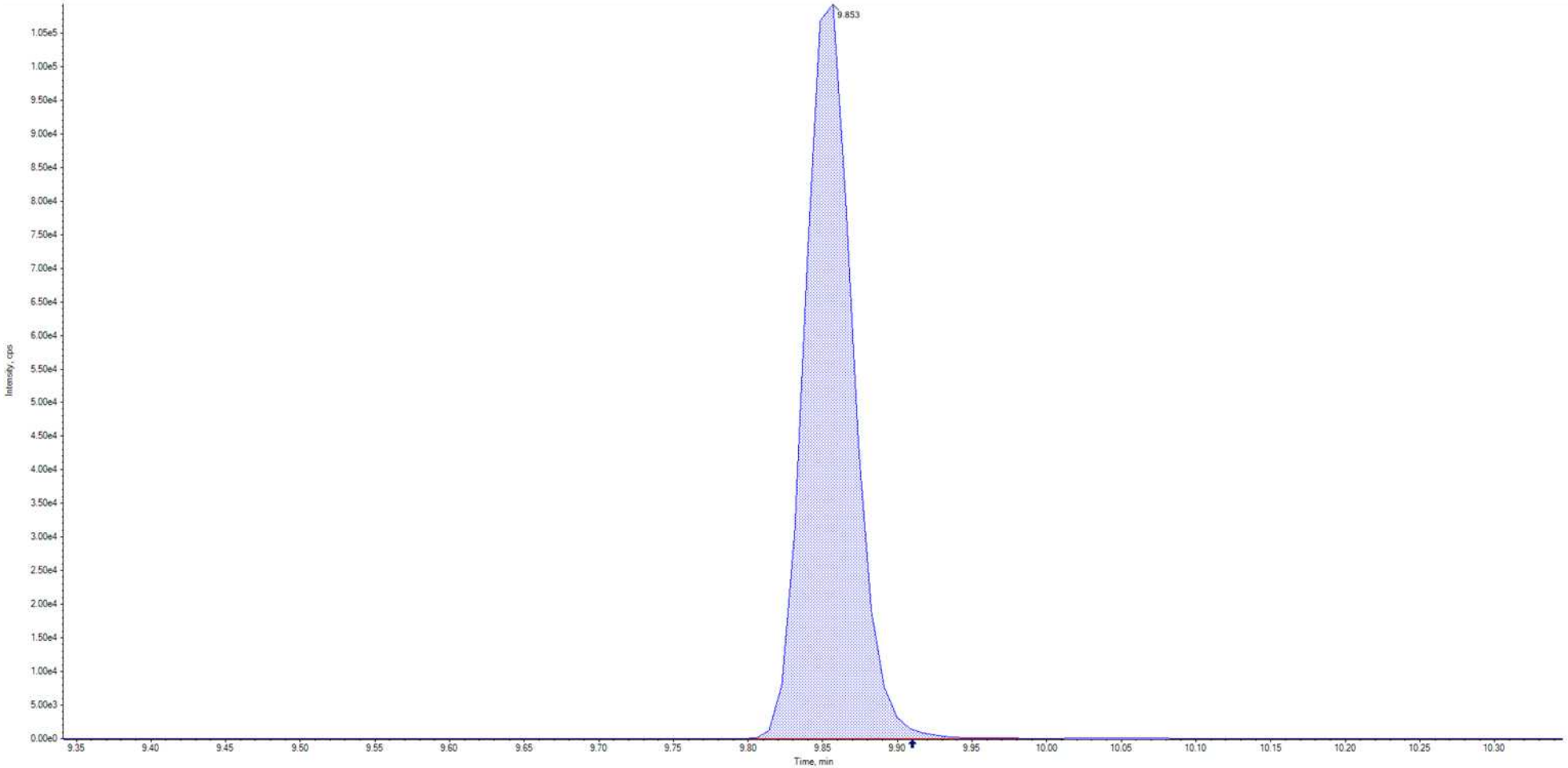
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Alpha Analytical Inc.
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13C2-PFDoA
Sample: WG1972760-4

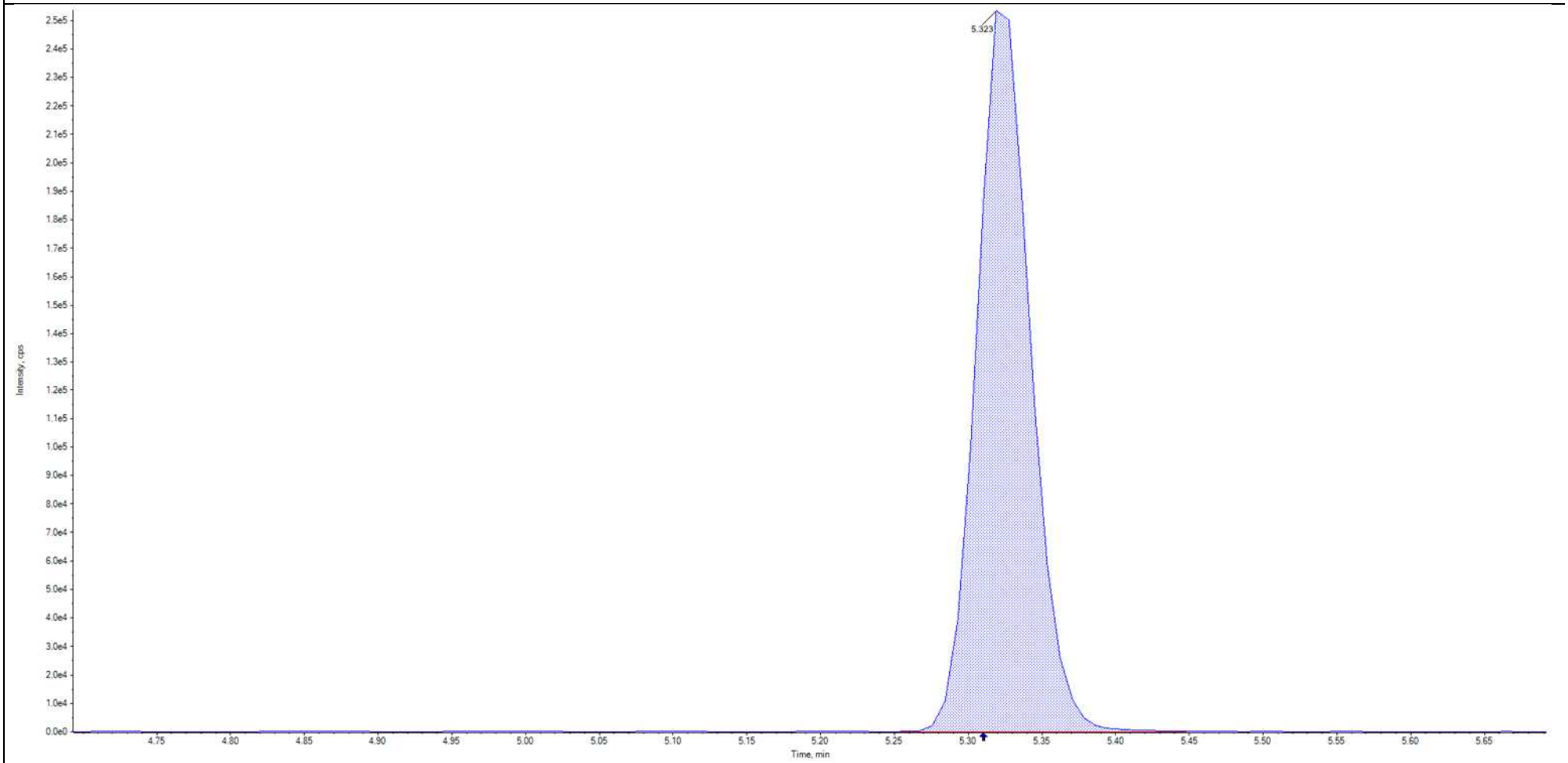


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
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13C2-PFTeDA
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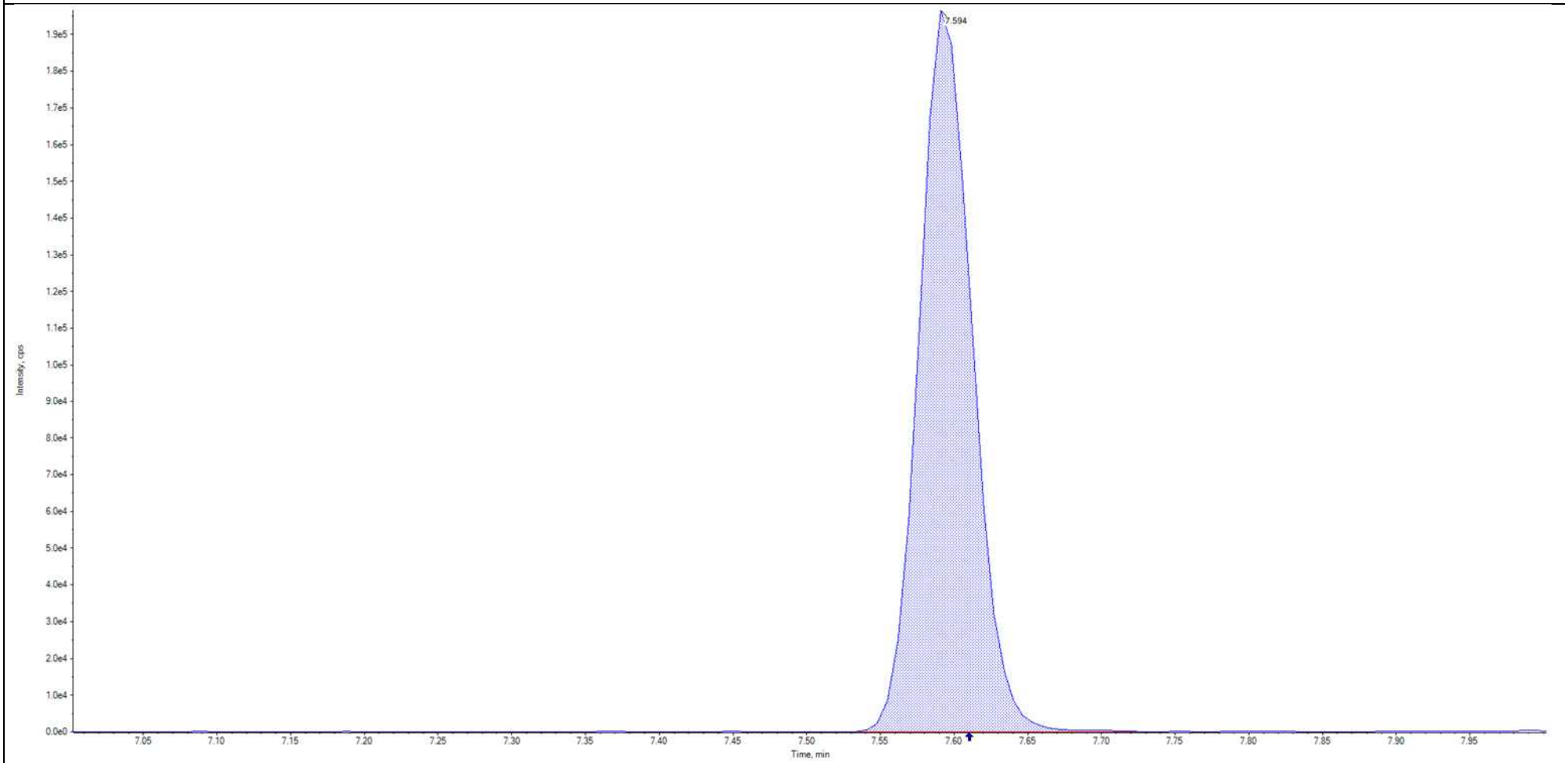


13C3-PFBS
Sample: WG1972760-4



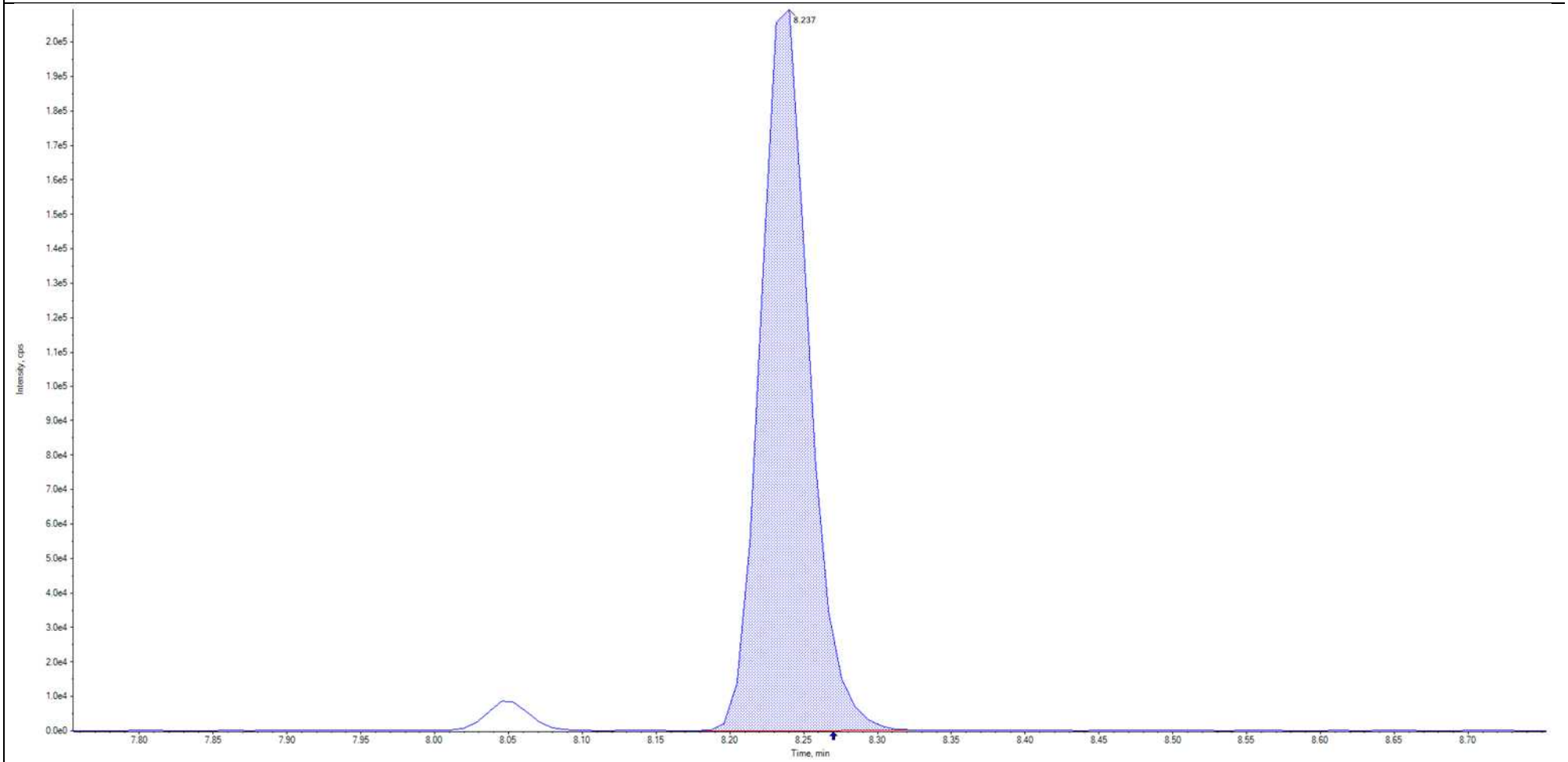
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13C3-PFHxS
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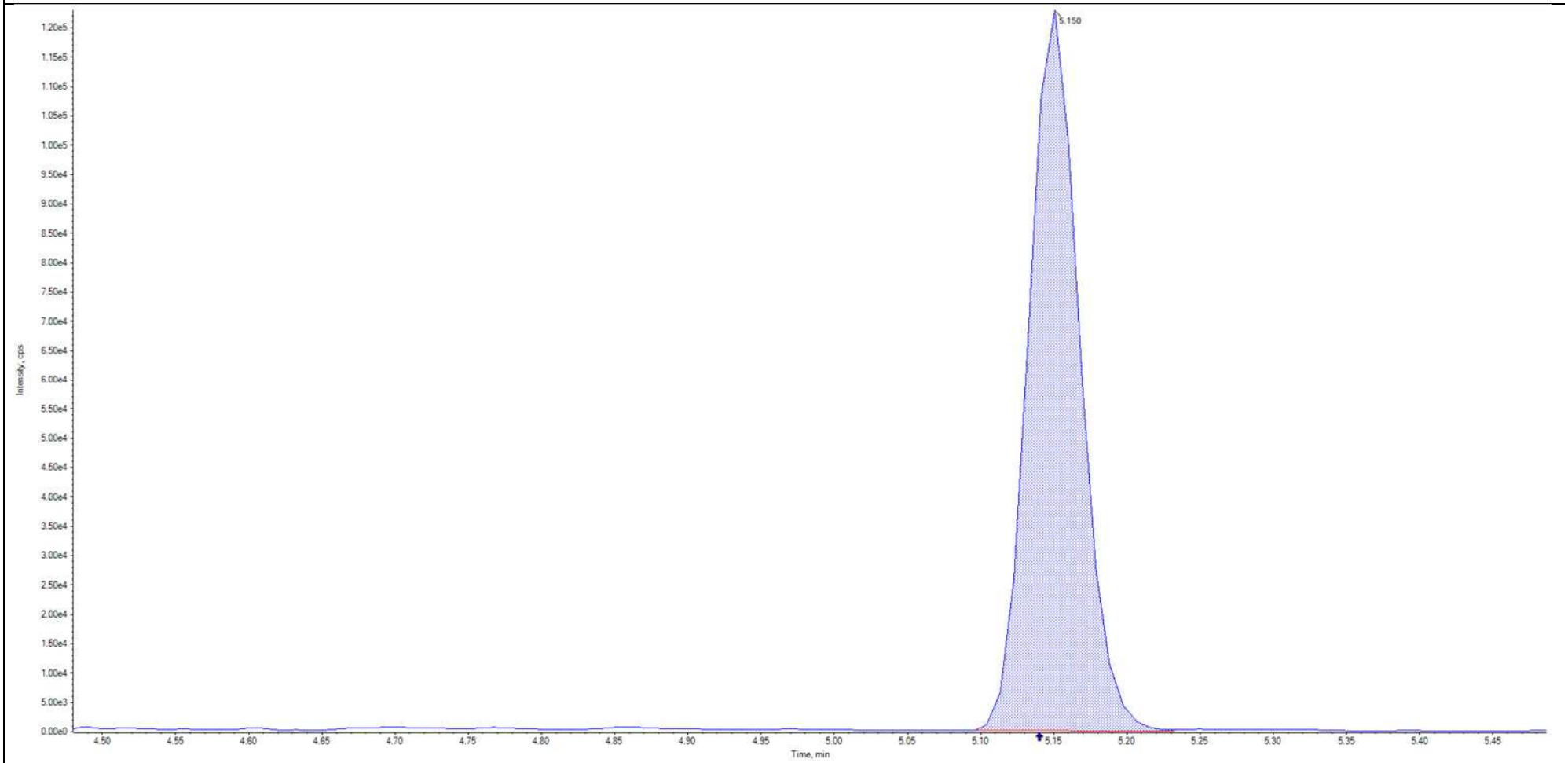


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
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13C8-PFOS
Sample: WG1972760-4

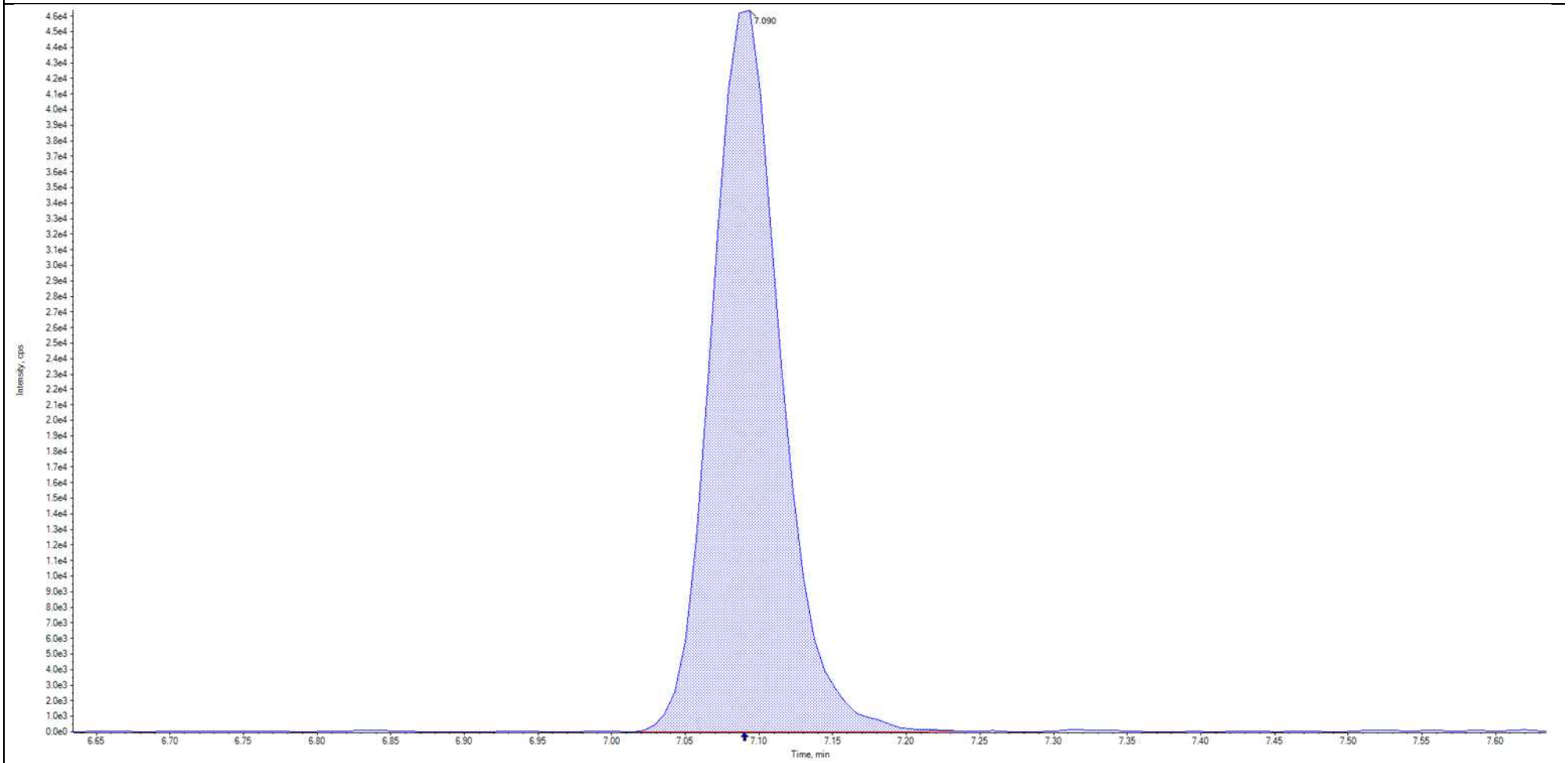


13C2-4:2FTS
Sample: WG1972760-4



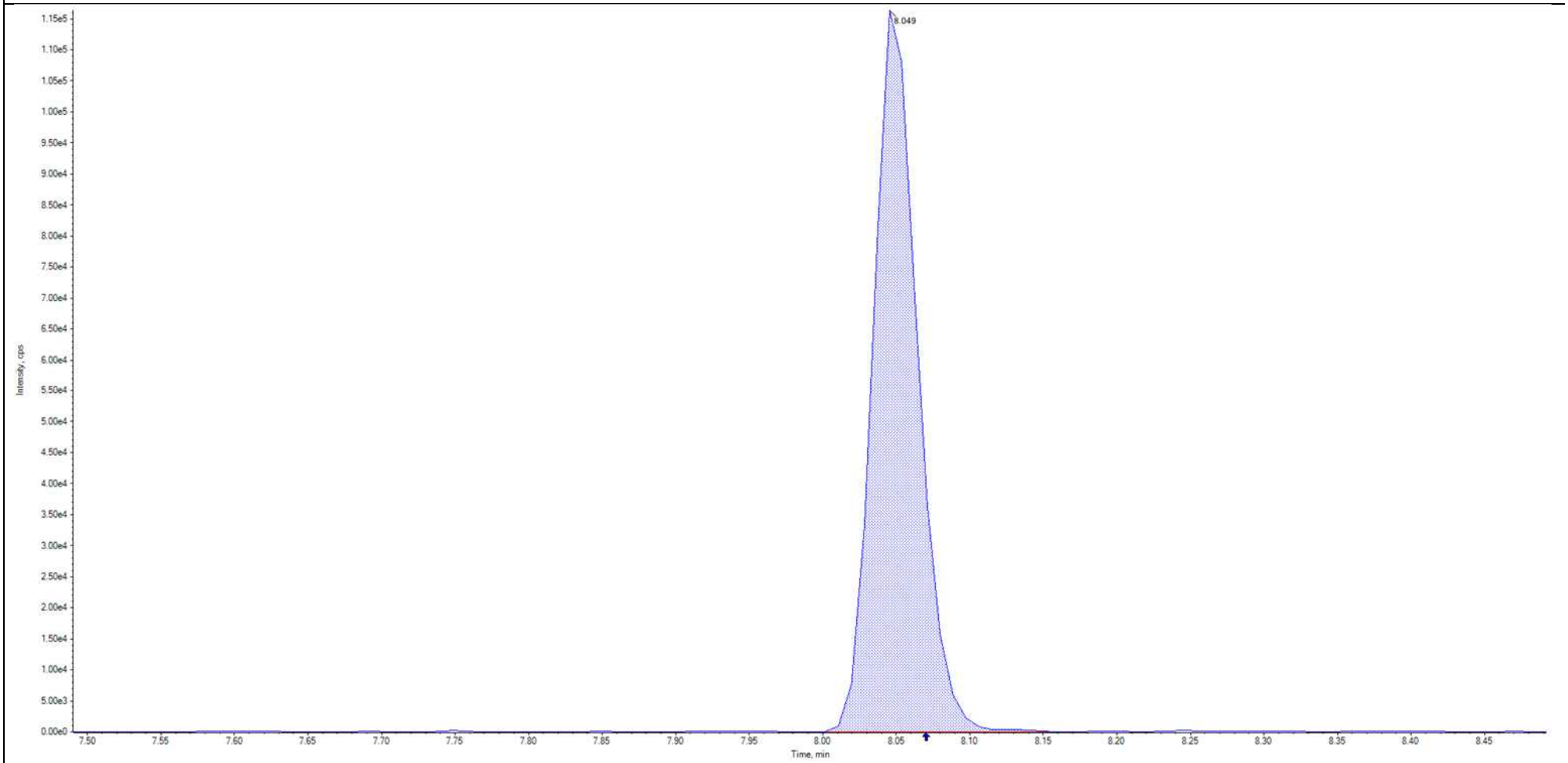
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13C2-6:2FTS
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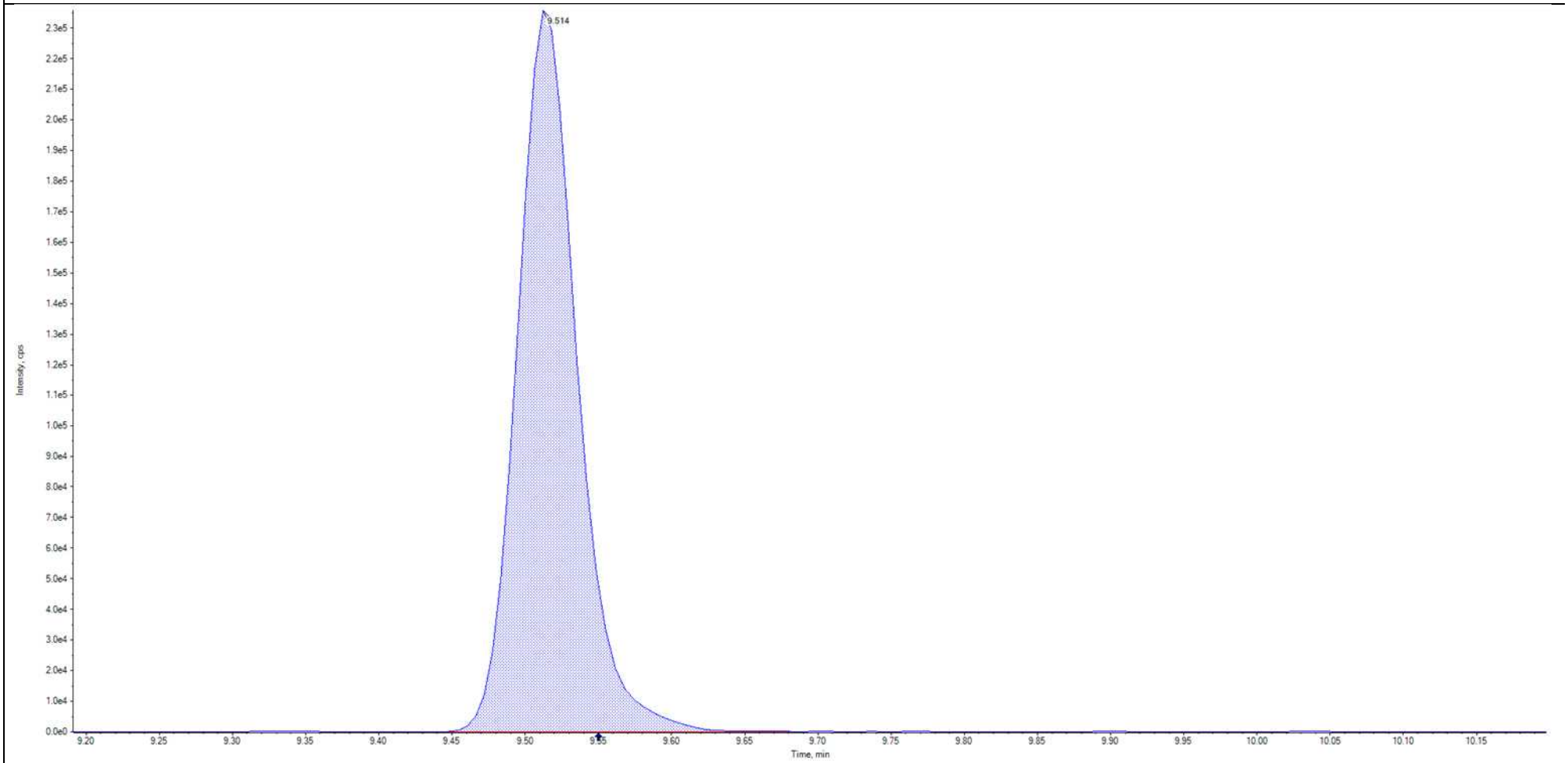


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
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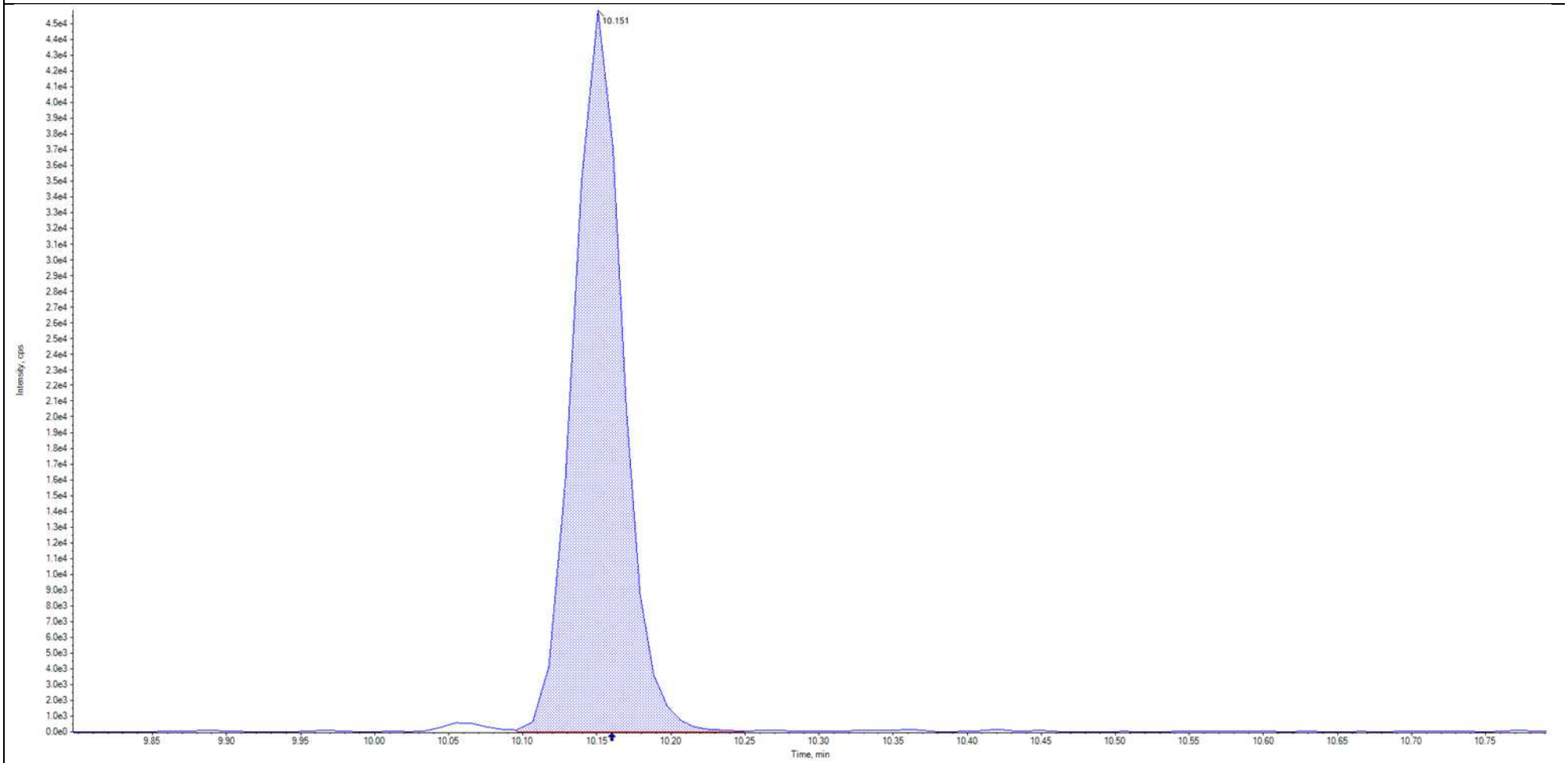
13C2-8:2FTS
Sample: WG1972760-4



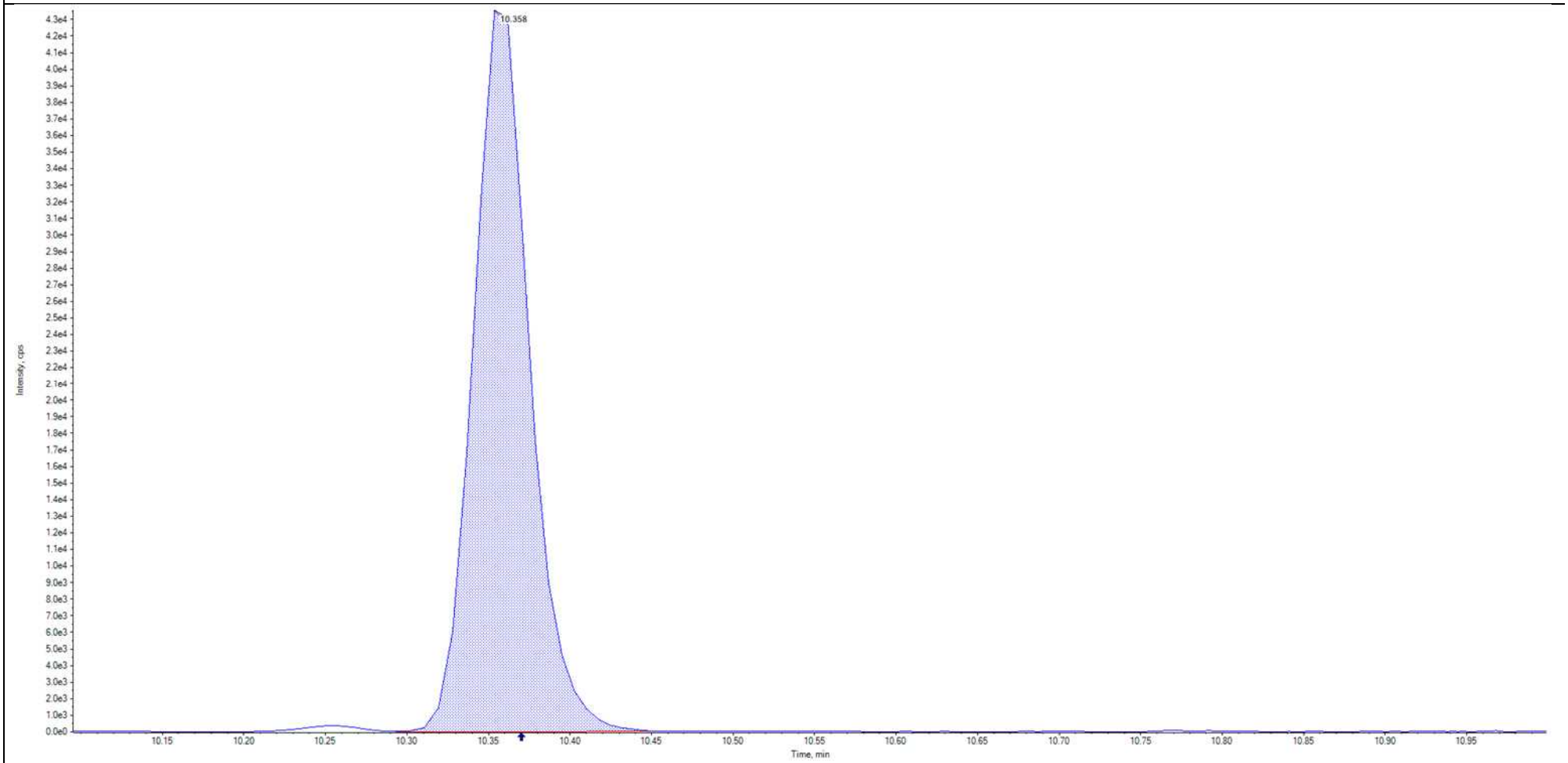
13C8-PFOSA
Sample: WG1972760-4



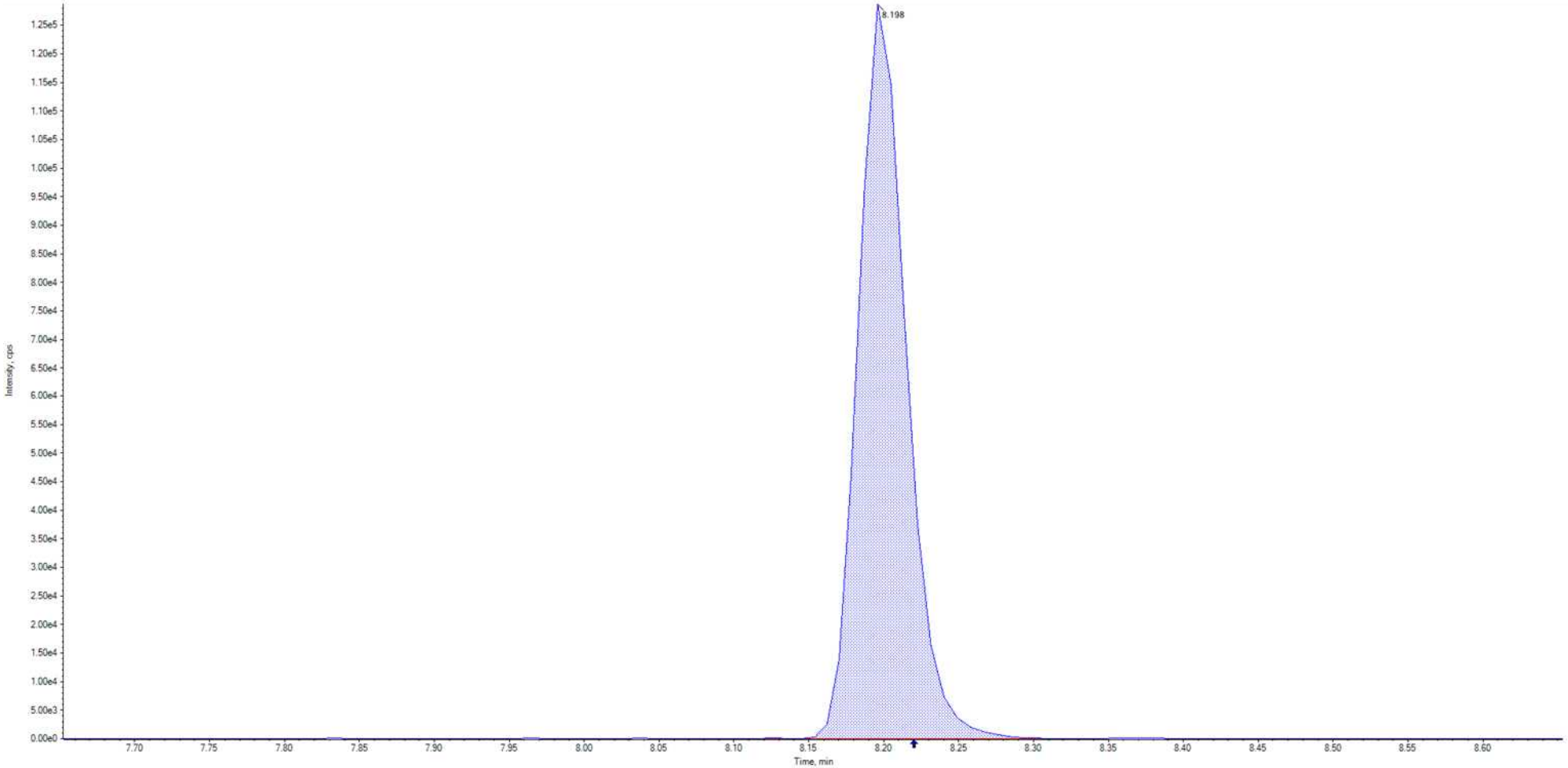
d3-NMeFOSA
Sample: WG1972760-4



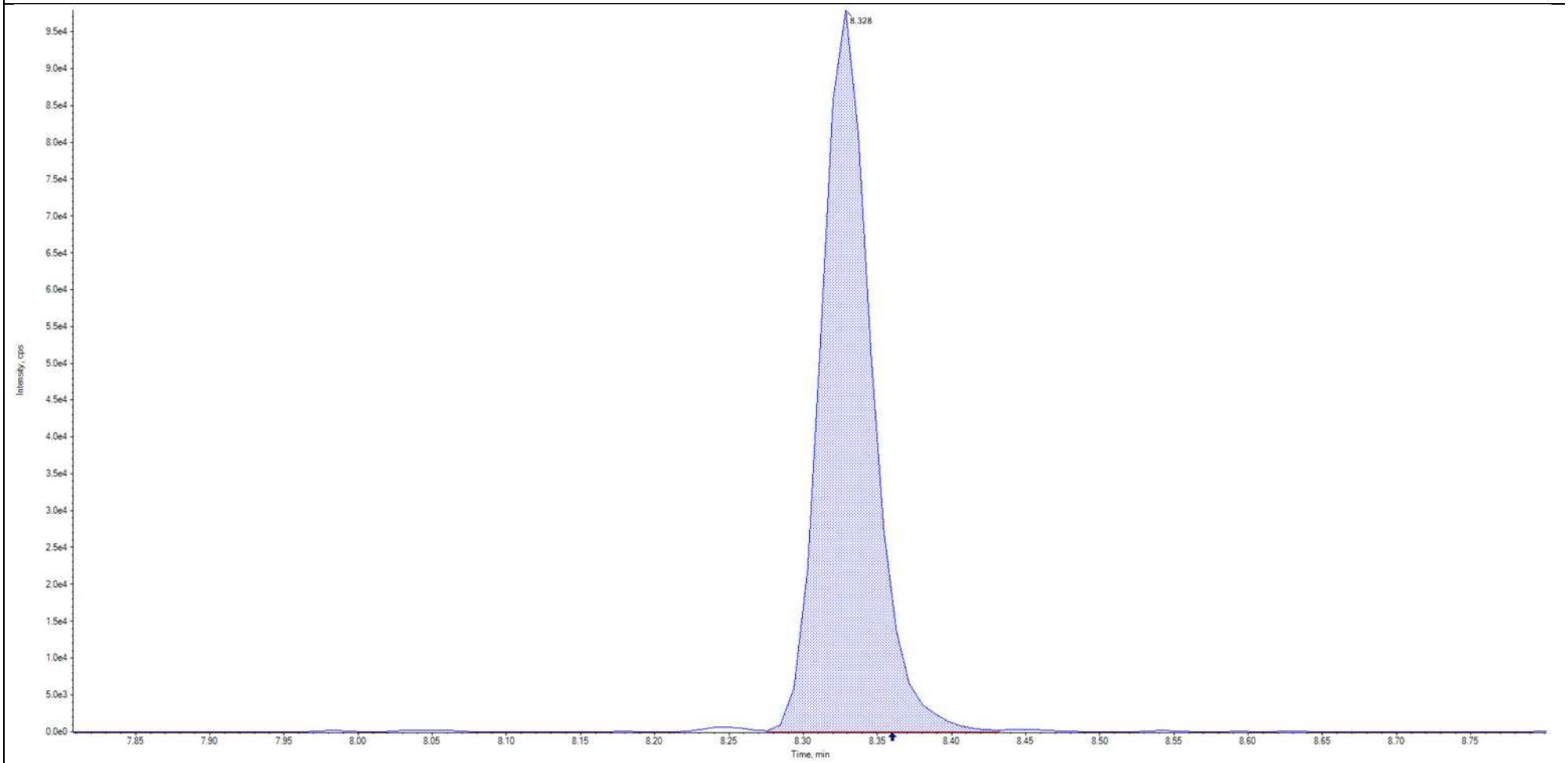
d5-NEtFOSA
Sample: WG1972760-4



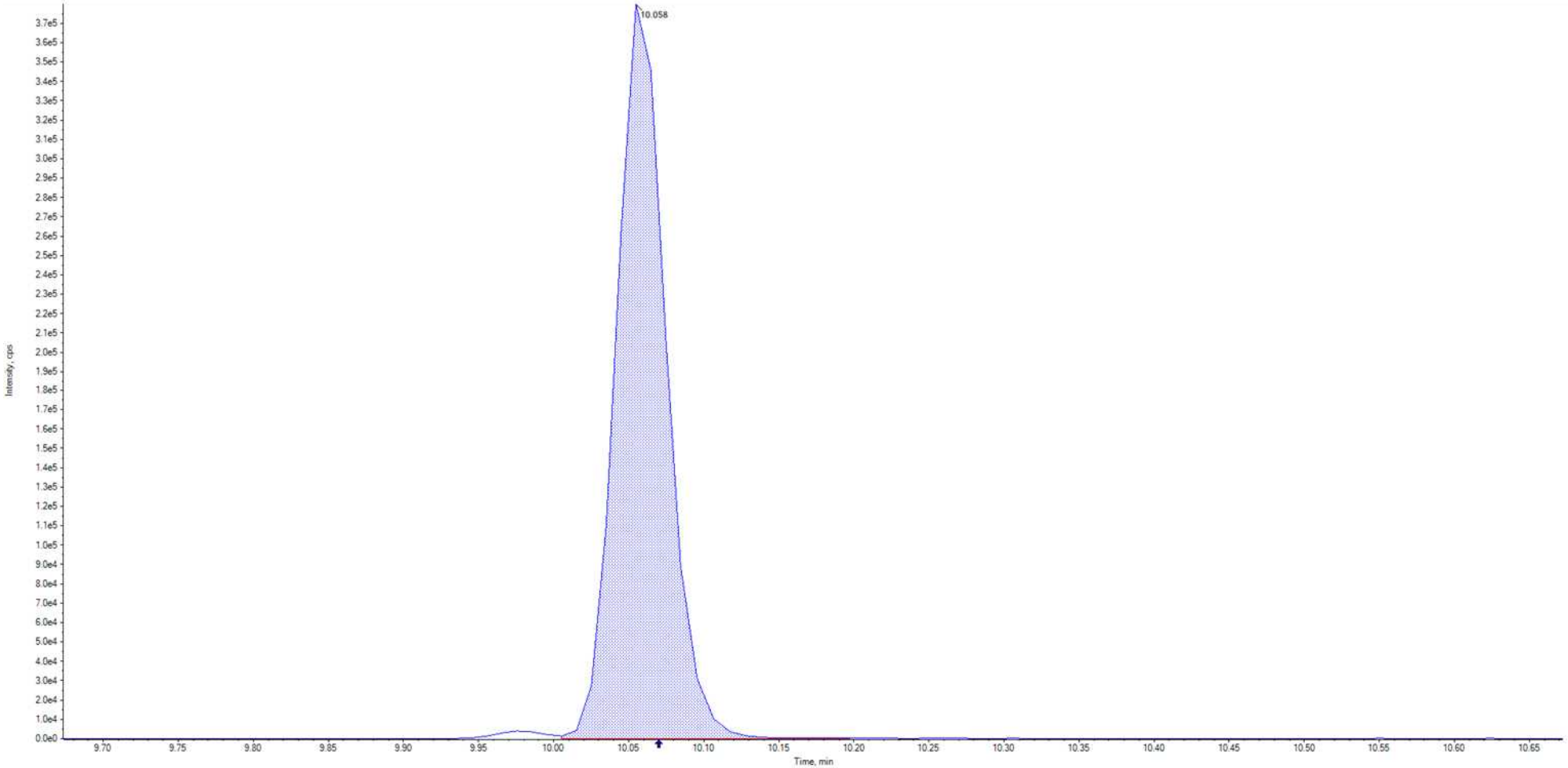
d3-NMeFOSAA
Sample: WG1972760-4



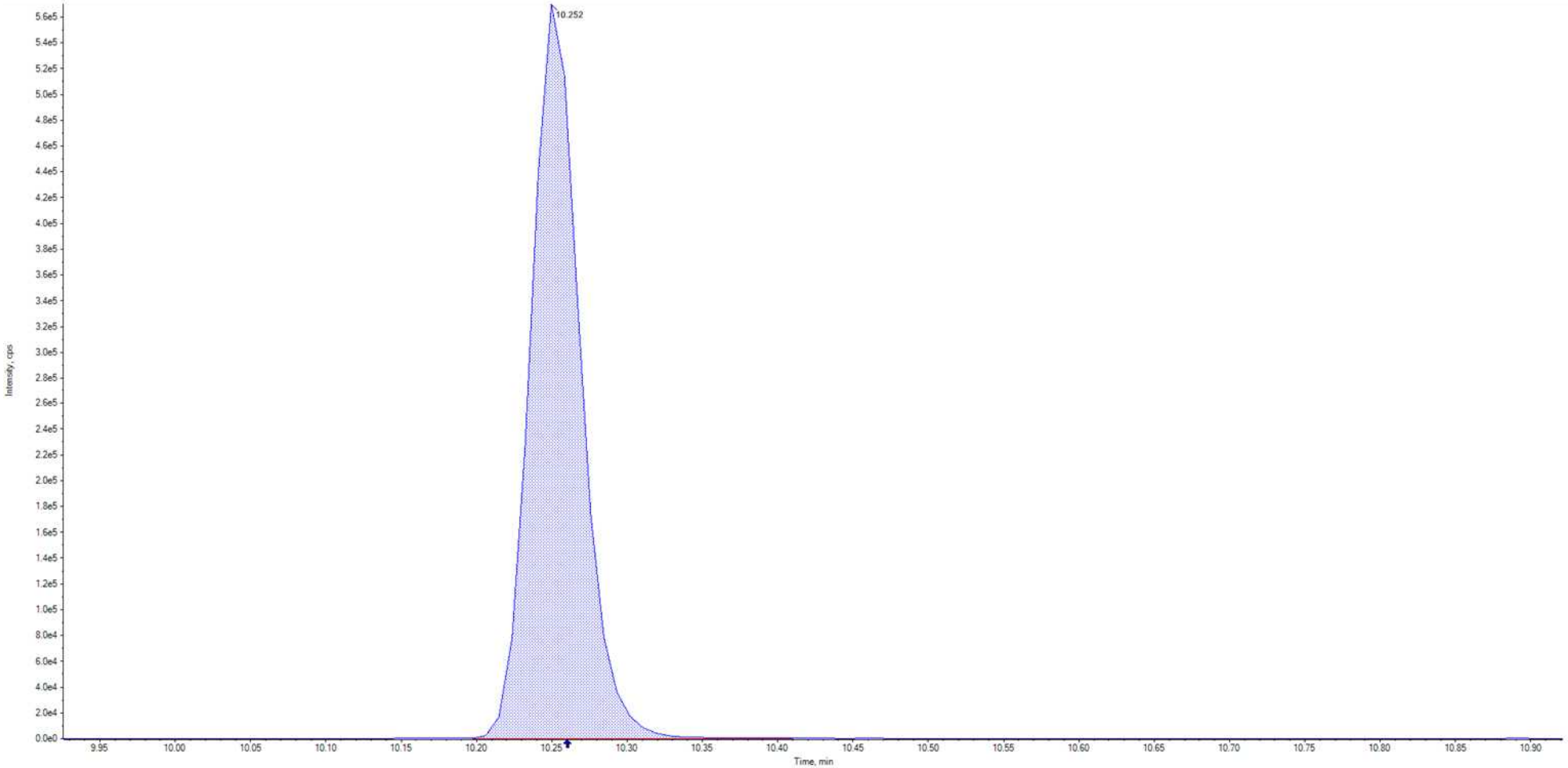
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Sample: WG1972760-4



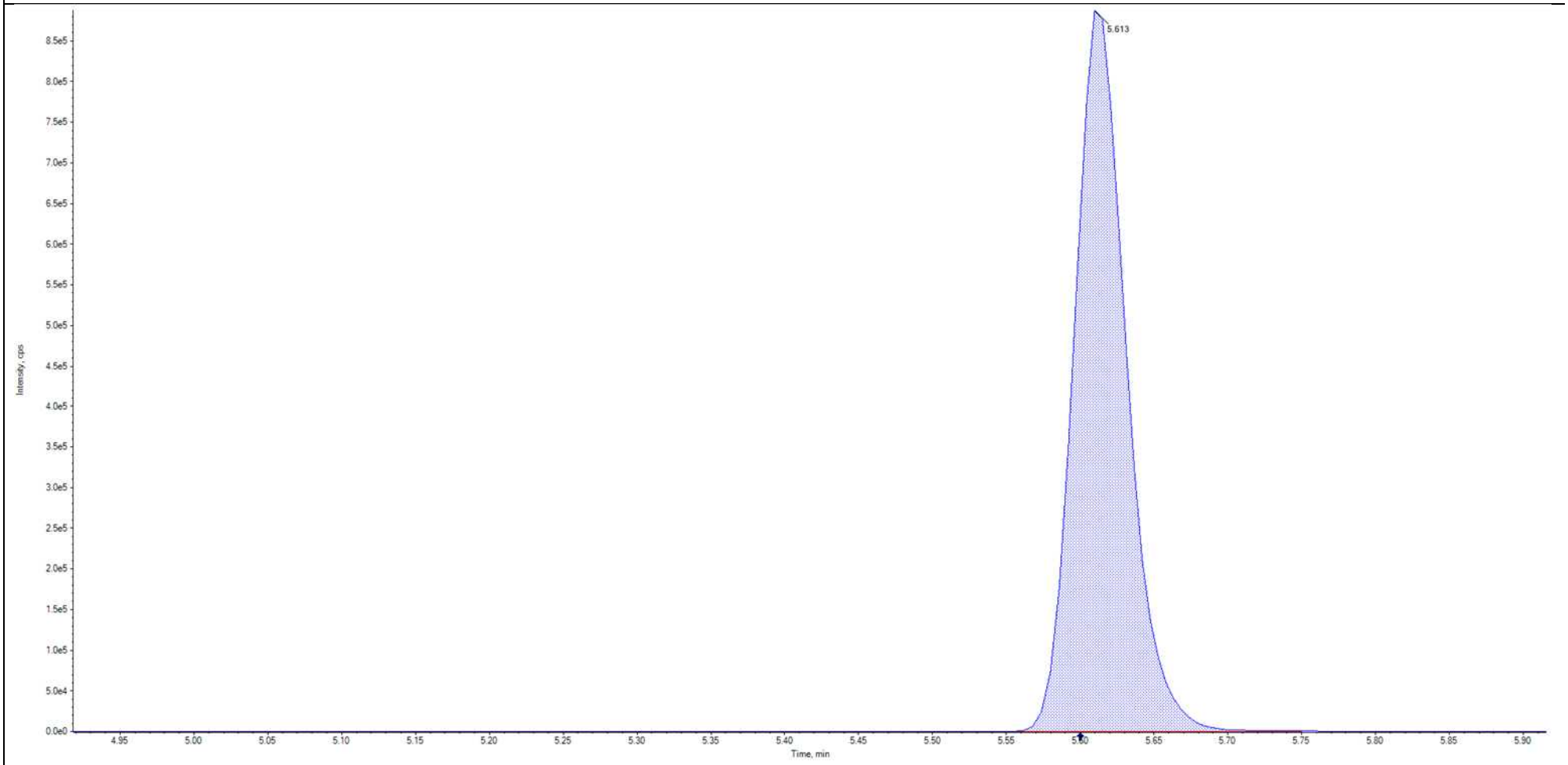
d7-NMeFOSE
Sample: WG1972760-4



d9-NEtFOSE
Sample: WG1972760-4

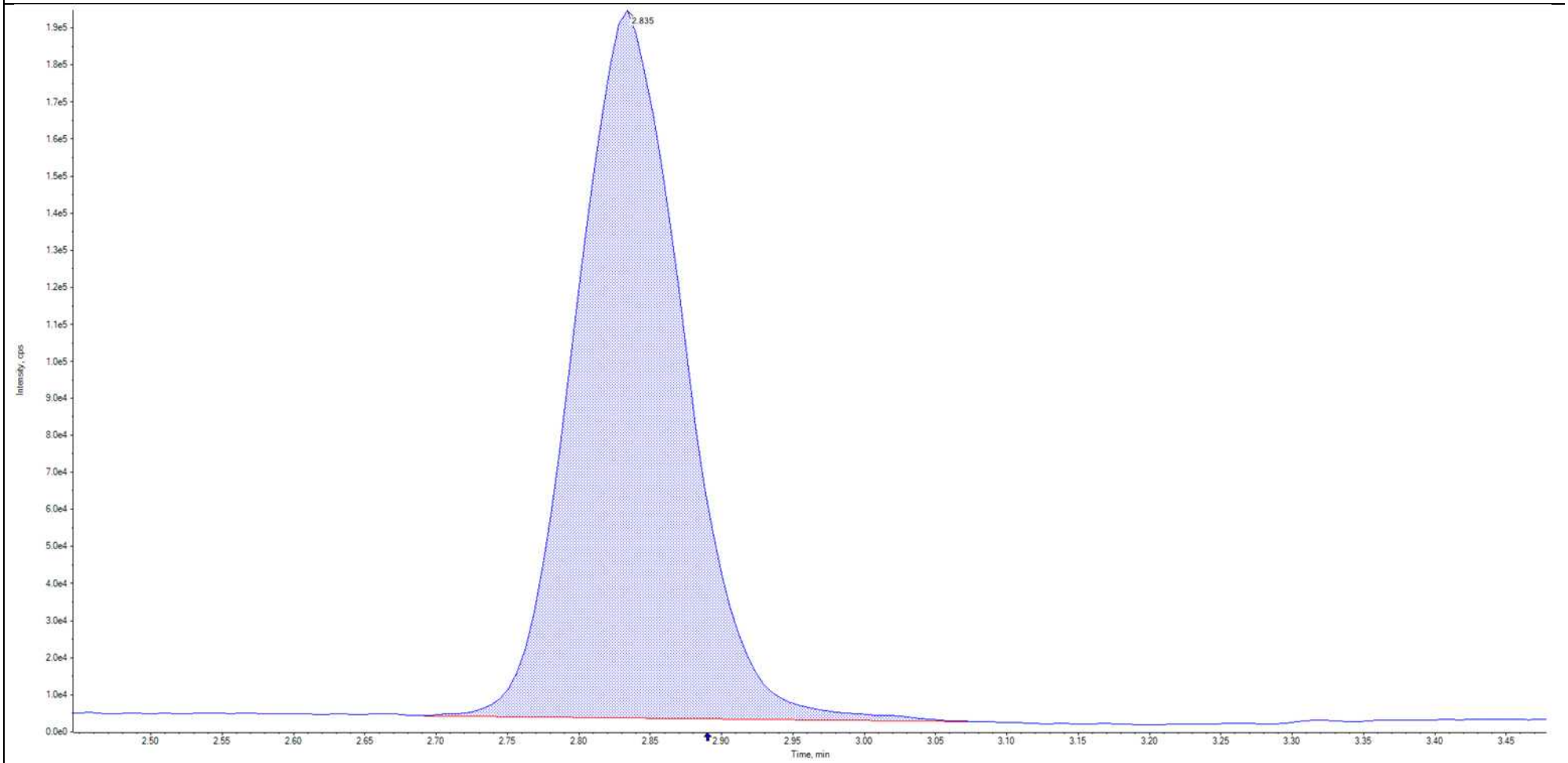


13C3-HFPO-DA
Sample: WG1972760-4

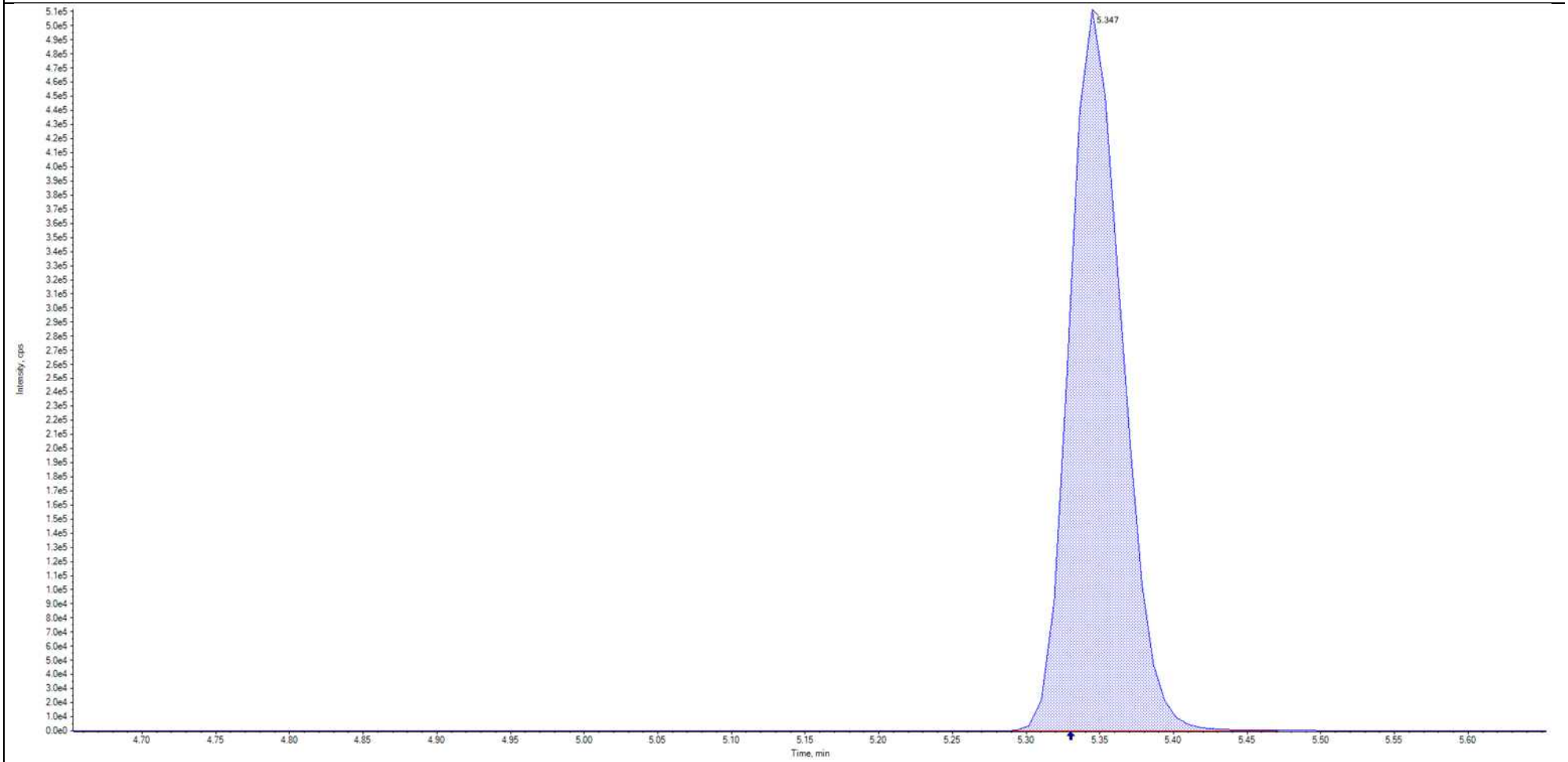


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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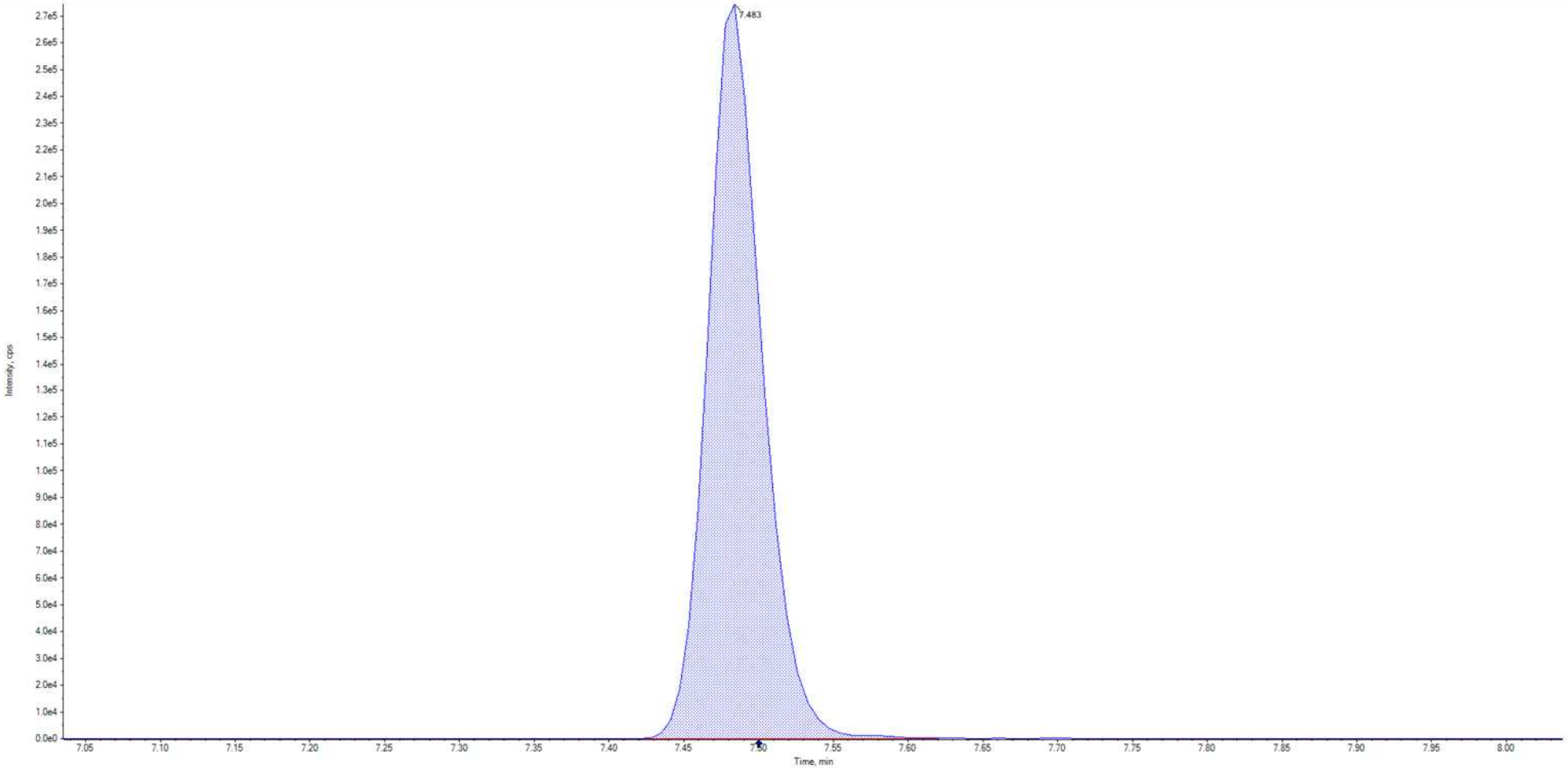
13C3-PFBA
Sample: WG1972760-4



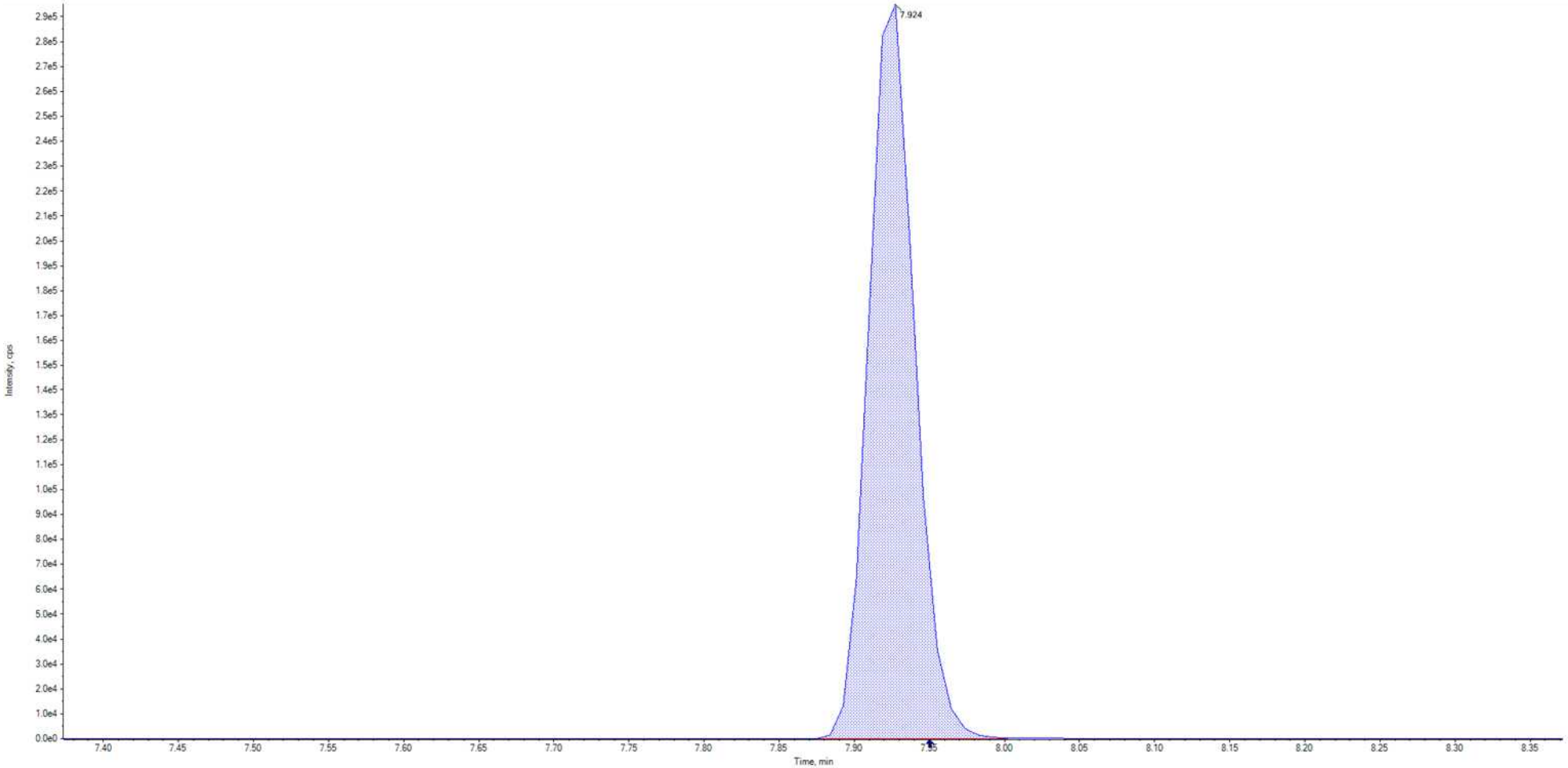
13C2-PFHxA
Sample: WG1972760-4



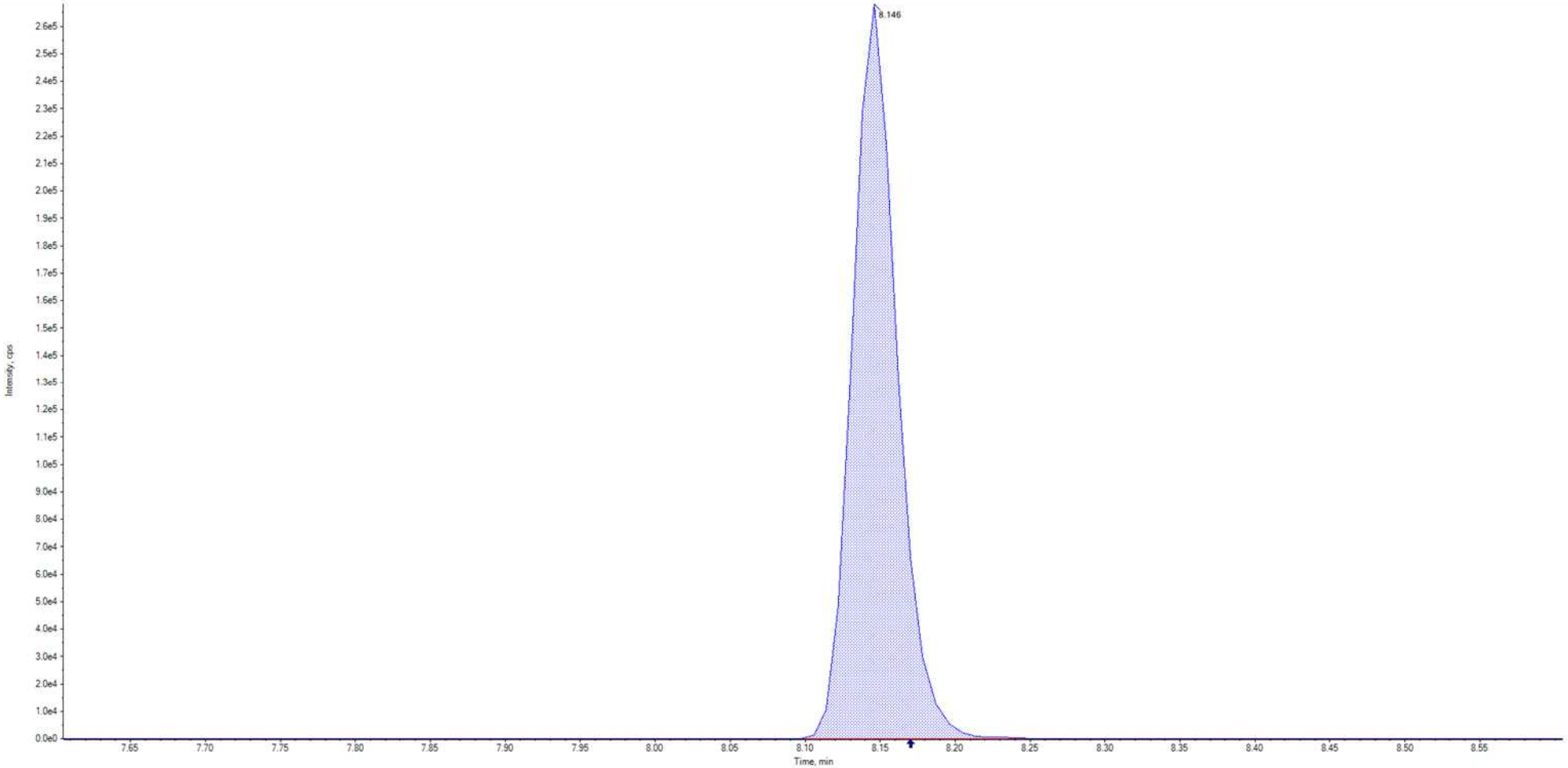
13C4-PFOA
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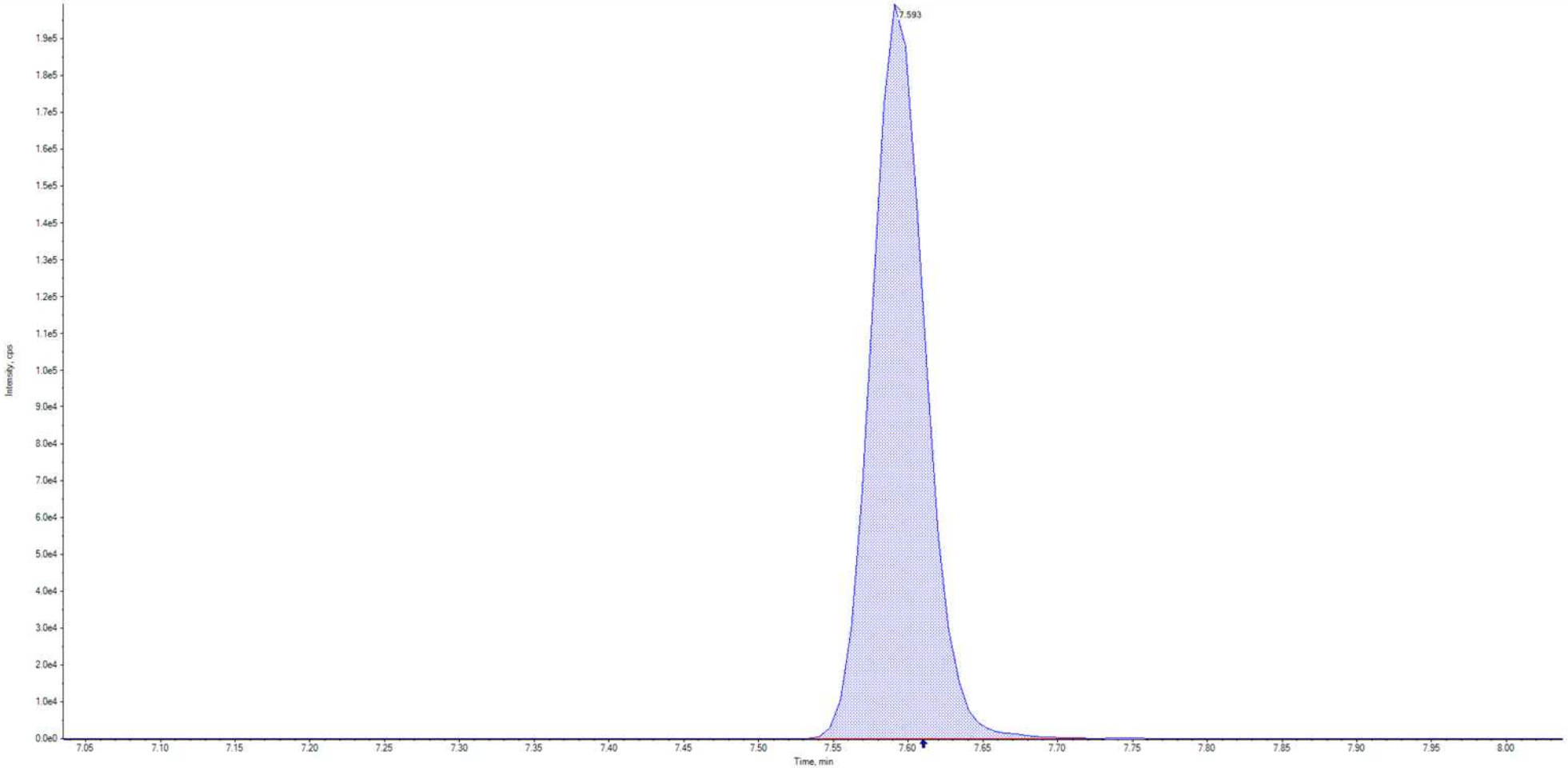
13C5-PFNA
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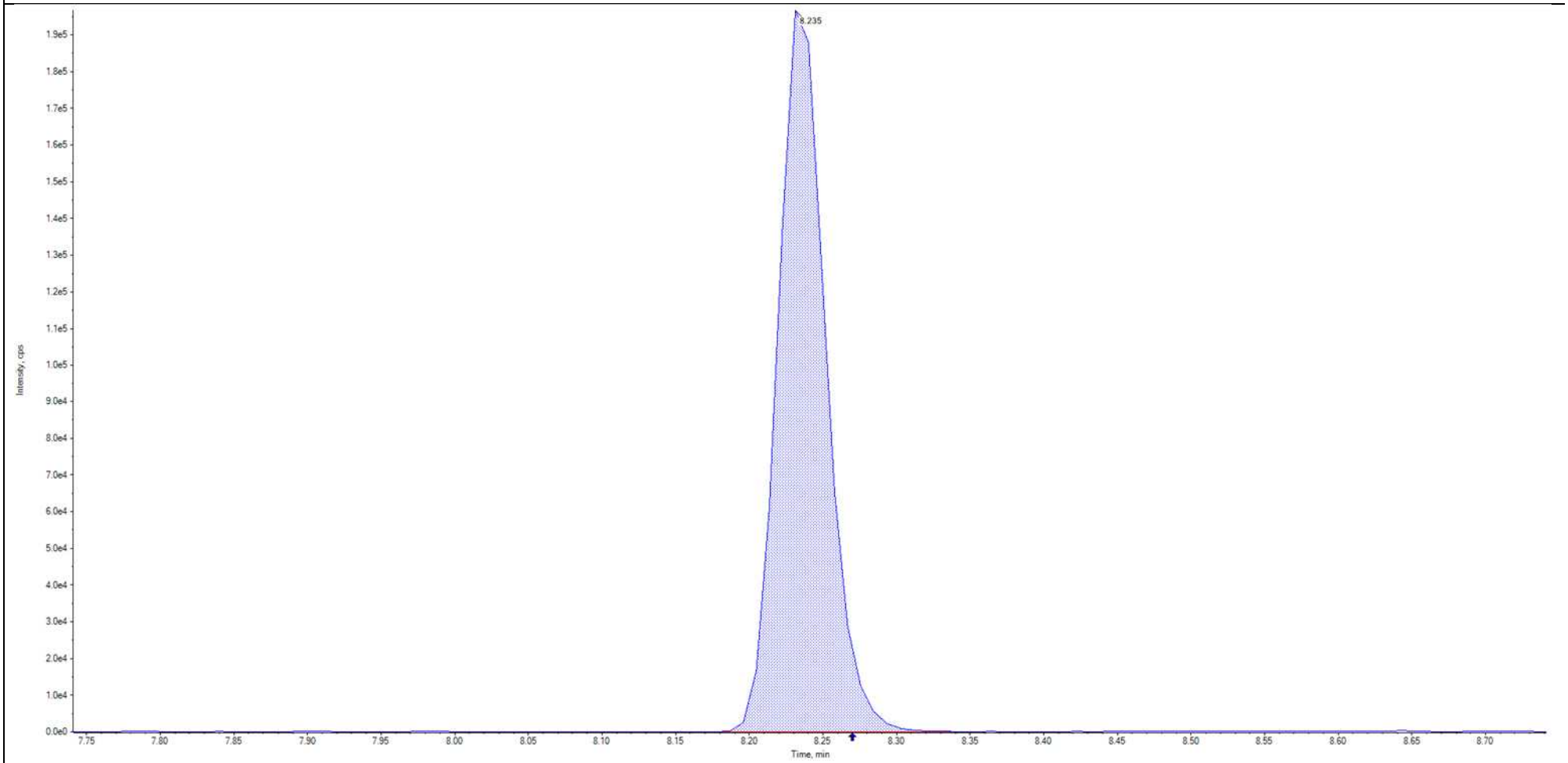
13C2-PFDA
Sample: WG1972760-4



18O2-PFHxS
Sample: WG1972760-4



13C4-PFOS
Sample: WG1972760-4



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User: LCMS05:AC

LC/MS-MS Method:EPA_1633.dam

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
1	PFBA	375-22-4	2.84	213.0 / 169.0	1492300		11.366	N/A	N/A	N/A	113.7
2	PFPeA	2706-90-3	4.67	263.0 / 219.0	1116465		5.942	0.007	0.007	N/A	118.9
3	PFPeA_2	2706-90-3	4.67	263.0 / 68.9	7660		5.774	0.007	0.007	N/A	115.5
4	PFHxA	307-24-4	5.36	313.0 / 269.0	812822		2.726	0.073	0.072	Pass	109.0
5	PFHxA_2	307-24-4	5.36	313.0 / 119.0	59245		2.689	0.073	0.072	Pass	107.6
6	PFHpA	375-85-9	6.27	363.1 / 319.0	831525		2.915	0.306	0.297	Pass	116.6
7	PFHpA_2	375-85-9	6.26	363.1 / 169.0	254796		2.919	0.306	0.297	Pass	116.7

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
8	PFOA	335-67-1	7.49	413.1 / 369.1	595767	M5	3.269	0.562	0.586	Pass	130.8
9	PFOA_2	335-67-1	7.49	413.1 / 169.0	334974	M7	3.355	0.562	0.586	Pass	134.2
10	PFNA	375-95-1	7.93	462.8 / 418.9	707821	M5	2.984	0.313	0.313	Pass	119.4
11	PFNA_2	375-95-1	7.93	462.8 / 218.9	221642	M7	3.058	0.313	0.313	Pass	122.3
12	PFDA	335-76-2	8.15	513.1 / 469.1	751100		2.813	0.156	0.142	Pass	112.5
13	PFDA_2	335-76-2	8.15	513.1 / 219.0	117018		2.925	0.156	0.142	Pass	117.0
14	PFUnA	2058-94-8	8.43	563.1 / 519.1	503858		2.751	0.187	0.194	Pass	110.1
15	PFUnA_2	2058-94-8	8.43	563.1 / 269.0	94393		2.661	0.187	0.194	Pass	106.4
16	PFDoA	307-55-1	8.83	613.1 / 569.1	473141		1.831	0.169	0.167	Pass	73.3
17	PFDoA_2	307-55-1	8.83	613.1 / 319.0	79891		1.831	0.169	0.167	Pass	73.2
18	PFTrDA	72629-94-8	9.40	663.1 / 619.1	279293		1.814	0.211	0.228	Pass	72.6
19	PFTrDA_2	72629-94-8	9.40	663.1 / 169.0	58826		1.716	0.211	0.228	Pass	68.6
20	PFTeDA	376-06-7	9.86	713.1 / 669.1	441297		2.497	0.137	0.137	Pass	99.9
21	PFTeDA_2	376-06-7	9.86	713.1 / 169.0	60591		2.506	0.137	0.137	Pass	100.3
22	PFBS	375-73-5	5.33	299.1 / 80.1	518168		2.566	0.384	0.396	Pass	115.7

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
23	PFBS_2	375-73-5	5.33	299.1 / 99.1	198915		2.470	0.384	0.396	Pass	111.4
24	PFPeS	2706-91-4	6.35	349.1 / 80.1	410637		2.547	0.298	0.299	Pass	108.2
25	PFPeS_2	2706-91-4	6.35	349.1 / 99.1	122450		2.518	0.298	0.299	Pass	107.0
26	PFHxS	355-46-4	7.60	399.1 / 80.1	382050	M5	2.532	0.313	0.315	Pass	110.8
27	PFHxS_2	355-46-4	7.60	399.1 / 99.1	119419	M7	2.549	0.313	0.315	Pass	111.5
28	PFHpS	375-92-8	7.99	449.1 / 80.1	397443		2.946	0.289	0.287	Pass	123.6
29	PFHpS_2	375-92-8	7.99	449.1 / 99.1	114813		2.904	0.289	0.287	Pass	121.8
30	PFOS	1763-23-1	8.24	499.1 / 80.1	440759	M5	3.068	0.232	0.238	Pass	132.3
31	PFOS_2	1763-23-1	8.24	499.1 / 99.1	102140	M7	2.902	0.232	0.238	Pass	125.1
32	PFNS	68259-12-1	8.57	549.1 / 80.1	229519		2.489	0.306	0.301	Pass	103.5
33	PFNS_2	68259-12-1	8.57	549.1 / 99.1	70143		2.511	0.306	0.301	Pass	104.4
34	PFDS	335-77-3	9.06	599.1 / 80.1	201613		2.219	0.273	0.275	Pass	92.0
35	PFDS_2	335-77-3	9.06	599.1 / 99.1	55049		2.198	0.273	0.275	Pass	91.1
36	PFDoS	79780-39-5	9.96	699.2 / 80.1	178710		2.148	0.283	0.274	Pass	88.6
37	PFDoS_2	79780-39-5	9.96	699.2 / 99.1	50618		2.214	0.283	0.274	Pass	91.3

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
38	4:2FTS	757124-72-4	5.16	327.1 / 307.1	864919		9.497	0.502	0.516	Pass	101.3
39	4:2FTS_2	757124-72-4	5.16	327.1 / 81.1	433960		8.907	0.502	0.516	Pass	95.0
40	6:2FTS	27619-97-2	7.09	427.2 / 407.2	428619		10.949	0.561	0.565	Pass	115.3
41	6:2FTS_2	27619-97-2	7.09	427.2 / 81.1	240450		11.356	0.561	0.565	Pass	119.5
42	8:2FTS	39108-34-4	8.05	527.2 / 507.2	516537		11.429	0.670	0.662	Pass	119.1
43	8:2FTS_2	39108-34-4	8.05	527.2 / 81.1	346292		11.296	0.670	0.662	Pass	117.7
44	PFOSA	754-91-6	9.52	498.1 / 78.1	374461	M5	2.714	0.026	0.025	Pass	108.5
45	PFOSA_2	754-91-6	9.51	498.1 / 478.0	9758	M7	2.695	0.026	0.025	Pass	107.8
46	NMeFOSA	31506-32-8	10.16	512.2 / 219.0	98710	M5	2.766	1.439	1.551	Pass	110.6
47	NMeFOSA_2	31506-32-8	10.11	512.2 / 169.0	142044	M7	2.569	1.439	1.551	Pass	102.7
48	NEtFOSA	4151-50-2	10.37	526.2 / 219.0	99451	M5	2.758	1.268	1.285	Pass	110.3
49	NEtFOSA_2	4151-50-2	10.33	526.2 / 169.0	126057	M7	2.611	1.268	1.285	Pass	104.5
50	NMeFOSAA	2355-31-9	8.20	570.2 / 419.1	86800	M4	3.057	0.730	0.700	Pass	122.3
51	NMeFOSAA_2	2355-31-9	8.20	570.2 / 483.0	63388		3.510	0.730	0.700	Pass	140.4
52	NEtFOSAA	2991-50-6	8.33	584.2 / 419.1	94491		2.859	0.438	0.487	Pass	114.4

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
53	NEtFOSAA_2	2991-50-6	8.33	584.2 / 526.2	41356		2.719	0.438	0.487	Pass	108.8
54	NMeFOSE	24448-09-7	10.07	616.1 / 58.9	1573010	M5	24.683	N/A	N/A	N/A	98.7
55	NEtFOSE	1691-99-2	10.27	630.0 / 58.9	2806024	M5	25.562	N/A	N/A	N/A	102.3
56	HFPO-DA	13252-13-6	5.62	285.0 / 169.0	1807598		11.740	0.466	0.464	Pass	117.4
57	HFPO-DA_2	13252-13-6	5.62	285.0 / 184.9	841532		11.754	0.466	0.464	Pass	117.5
58	ADONA	919005-14-4	6.73	377.1 / 251.0	3663869		10.463	0.661	0.634	Pass	110.7
59	ADONA_2	919005-14-4	6.73	377.1 / 84.8	2420624		10.684	0.661	0.634	Pass	113.1
60	9Cl-PF3ONS	756426-58-1	8.45	530.8 / 351.1	3392408		9.825	0.307	0.322	Pass	105.1
61	9Cl-PF3ONS_2	756426-58-1	8.45	532.8 / 353.0	1042665		9.273	0.307	0.322	Pass	99.2
62	11Cl-PF3OUdS	763051-92-9	9.47	630.9 / 451.0	1673753		7.675	0.335	0.331	Pass	81.2
63	11Cl-PF3OUdS_2	763051-92-9	9.47	632.9 / 452.9	560359		7.634	0.335	0.331	Pass	80.8
64	3:3FTCA	356-02-5	4.95	241.1 / 177.1	256014		15.709	0.855	1.074	Pass	125.7
65	3:3FTCA_2	356-02-5	4.95	241.1 / 117.0	218805		13.406	0.855	1.074	Pass	107.3
66	5:3FTCA	914637-49-3	7.19	341.1 / 237.1	3721177		68.794	0.934	0.953	Pass	110.1
67	5:3FTCA_2	914637-49-3	7.19	341.1 / 217.0	3476895		67.930	0.934	0.953	Pass	108.7

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
68	7:3FTCA	812-70-4	8.20	441.1 / 316.9	2812679		46.708	1.809	1.558	Pass	74.7
69	7:3FTCA_2	812-70-4	8.20	441.1 / 337.1	5087016		58.214	1.809	1.558	Pass	93.1
70	PFEESA	113507-82-7	5.73	315.1 / 135.0	2514778		4.861	0.088	0.087	Pass	109.2
71	PFEESA_2	113507-82-7	5.73	315.1 / 82.9	221979		4.967	0.088	0.087	Pass	111.6
72	PFMPA	377-73-1	3.89	229.0 / 85.0	169237		7.442	N/A	N/A	N/A	148.8
73	PFMBA	863090-89-5	4.90	279.0 / 85.0	1684026		5.492	N/A	N/A	N/A	109.8
74	NFDHA	151772-58-6	5.28	295.0 / 201.0	324044		5.950	0.925	0.910	Pass	119.0
75	NFDHA_2	151772-58-6	5.28	295.0 / 84.9	299860		6.006	0.925	0.910	Pass	120.1
76	TDCA	516-50-7	N/A	499.1 / 124.1	N/A		N/A	N/A	40.716	N/A	N/A
77	TDCA_2	516-50-7	N/A	499.1 / 79.9	N/A		N/A	N/A	40.716	N/A	N/A
78	13C2D4-4:2FTS	Surr	N/A	333.2 / 312.1	N/A		N/A	N/A	N/A	N/A	N/A
79	13C2-PFOA	Surr	N/A	415.0 / 370.0	N/A		N/A	N/A	N/A	N/A	N/A

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C4-PFBA	EIS	2.83	217.0 / 172.0	1619016		6.955	NA	NA	NA	69.5

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C5-PFPeA	EIS	4.66	268.0 / 223.0	1018873		3.680	NA	NA	NA	73.6
	13C5-PFHxA	EIS	5.35	318.0 / 273.0	611796		1.682	NA	NA	NA	67.3
	13C4-PFHpA	EIS	6.26	367.0 / 322.0	609030		1.673	NA	NA	NA	66.9
	13C8-PFOA	EIS	7.48	421.0 / 376.0	875628		1.692	NA	NA	NA	67.7
	13C9-PFNA	EIS	7.93	472.0 / 427.0	405066		0.801	NA	NA	NA	64.1
	13C6-PFDA	EIS	8.15	519.0 / 474.0	387237		0.761	NA	NA	NA	60.9
	13C7-PFUnA	EIS	8.42	570.0 / 525.0	289703		0.704	NA	NA	NA	56.3

	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
	13C2-PFDoA	EIS	8.83	615.1 / 570.0	248332		0.927	NA	NA	NA	74.2
	13C2-PFTeDA	EIS	9.85	715.1 / 670.1	176339		0.607	NA	NA	NA	48.5
	13C3-PFBS	EIS	5.33	302.1 / 80.1	481377		1.610	NA	NA	NA	69.1
	13C3-PFHxS	EIS	7.59	402.1 / 80.1	377986		1.592	NA	NA	NA	67.2
	13C8-PFOS	EIS	8.24	507.1 / 80.1	349713		1.390	NA	NA	NA	58.0
	13C2-4:2FTS	EIS	5.15	329.1 / 81.1	217947		4.084	NA	NA	NA	87.1
	13C2-6:2FTS	EIS	7.09	429.2 / 81.1	113472		2.902	NA	NA	NA	61.0
	13C2-8:2FTS	EIS	8.05	529.2 / 81.1	171166		2.991	NA	NA	NA	62.3

Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec
13C8-PFOSA	EIS	9.51	506.1 / 78.1	516174		1.543	NA	NA	NA	61.7
d3-NMeFOSA	EIS	10.15	515.2 / 219.0	83320		1.480	NA	NA	NA	59.2
d5-NEtFOSA	EIS	10.36	531.2 / 219.0	82090		1.492	NA	NA	NA	59.7
d3-NMeFOSAA	EIS	8.20	573.2 / 419.1	215786		1.695	NA	NA	NA	33.9
d5-NEtFOSAA	EIS	8.33	589.3 / 419.1	177274		2.650	NA	NA	NA	53.0
d7-NMeFOSE	EIS	10.06	623.2 / 58.9	645830		14.851	NA	NA	NA	59.4
d9-NEtFOSE	EIS	10.25	639.2 / 58.9	935129		14.585	NA	NA	NA	58.3

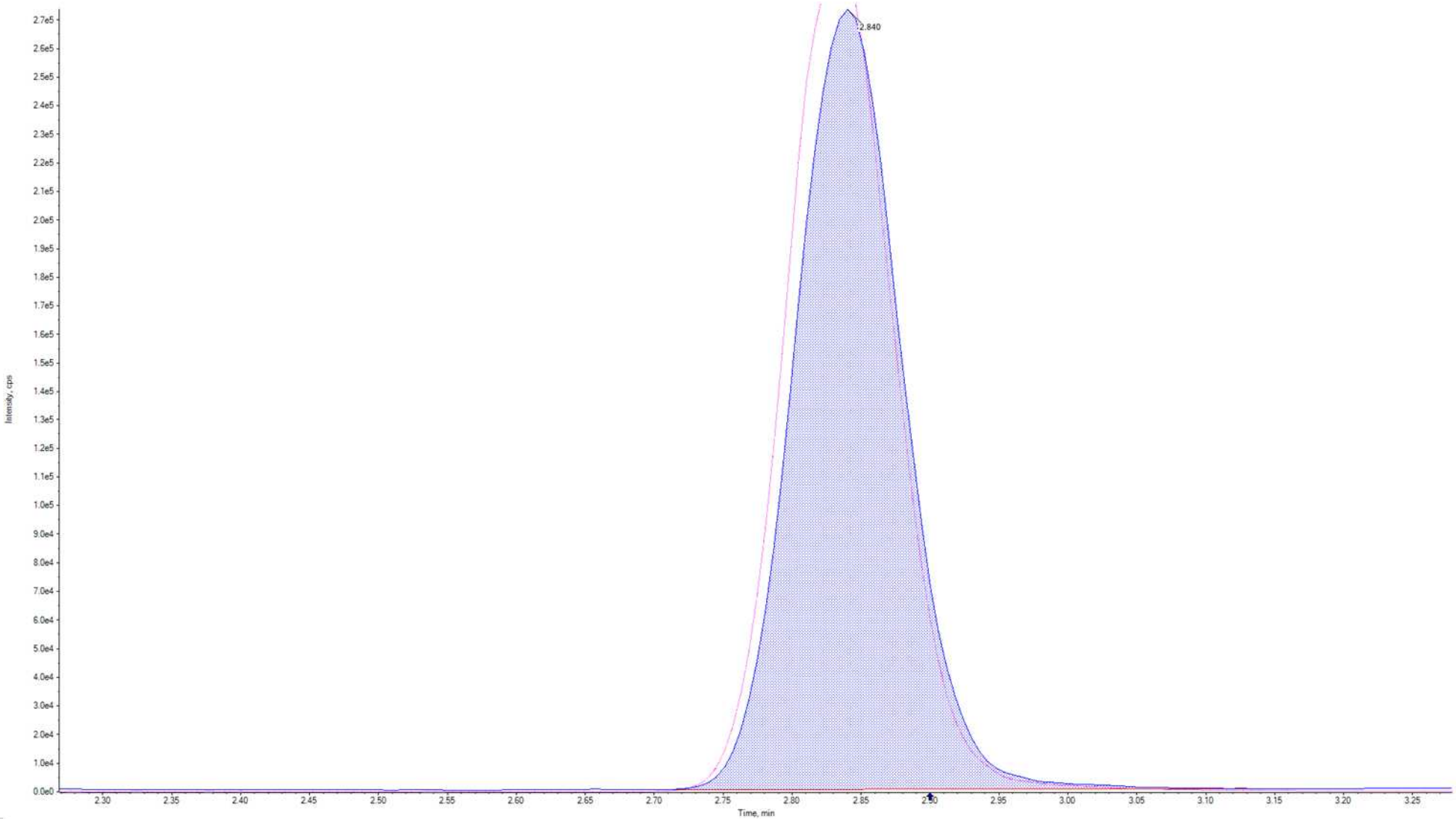
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	13C3-HFPO-DA	EIS	5.62	287.0 / 169.0	1679605		6.968	NA	NA	NA	69.7
	13C3-PFBA	NIS	2.83	216.0 / 172.0	1018346		4.763	NA	NA	NA	95.3
	13C2-PFHxA	NIS	5.35	315.0 / 270.0	1079878		2.206	NA	NA	NA	88.2
	13C4-PFOA	NIS	7.48	417.0 / 372.0	676966		2.162	NA	NA	NA	86.5
	13C5-PFNA	NIS	7.92	468.0 / 423.0	616204		1.125	NA	NA	NA	90.0
	13C2-PFDA	NIS	8.15	515.1 / 470.1	597706		1.166	NA	NA	NA	93.3
	18O2-PFHxS	NIS	7.59	403.1 / 84.1	482705		2.060	NA	NA	NA	86.9
	13C4-PFOS	NIS	8.23	503.1 / 80.1	445091		2.114	NA	NA	NA	88.3

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	Analyte Name	CAS	RT	Trace	Area	M Flag	Conc (ng/mL)	Ion Ratio	Expected Ratio	Ion Q	%Rec

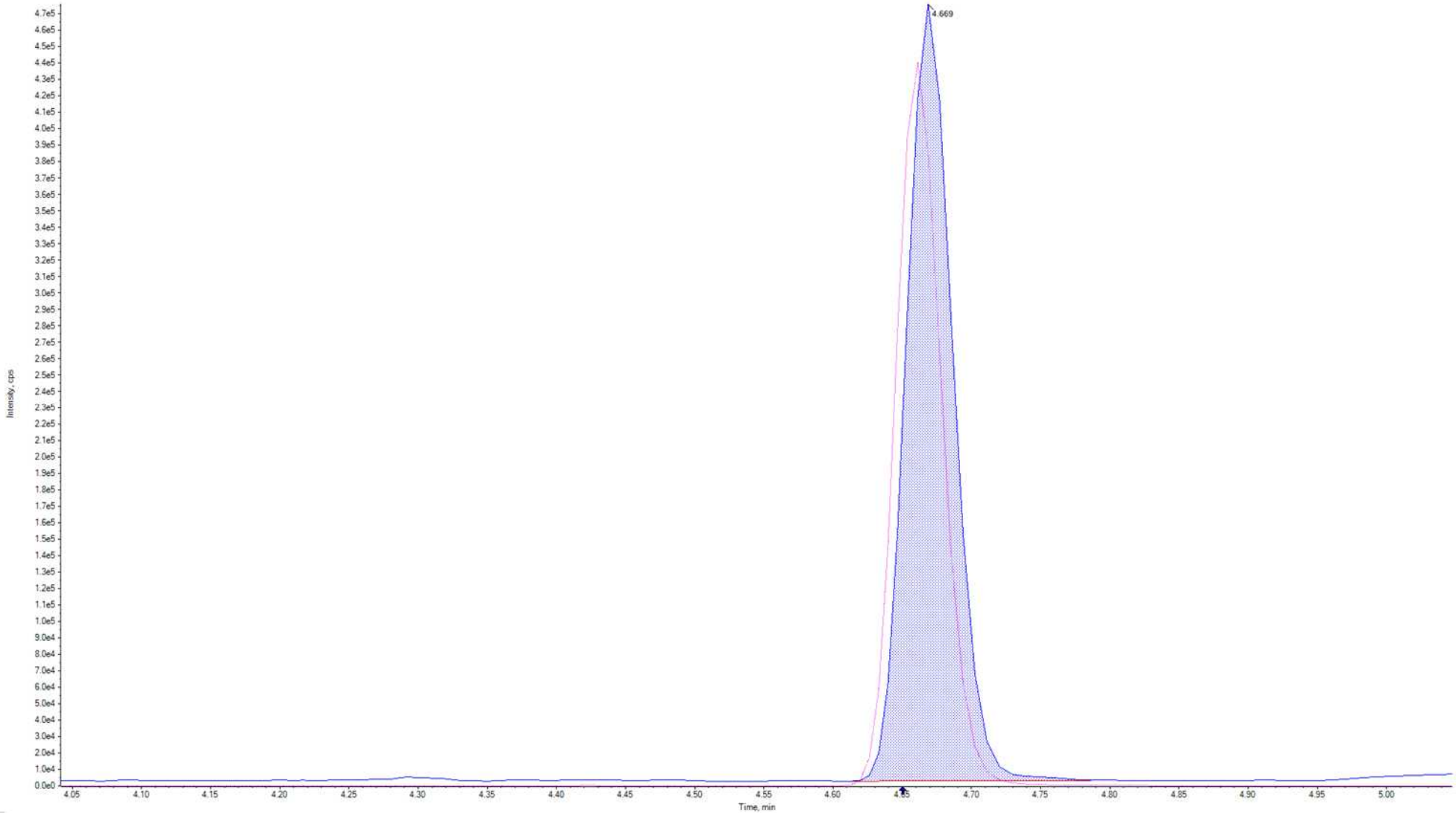
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PFBA
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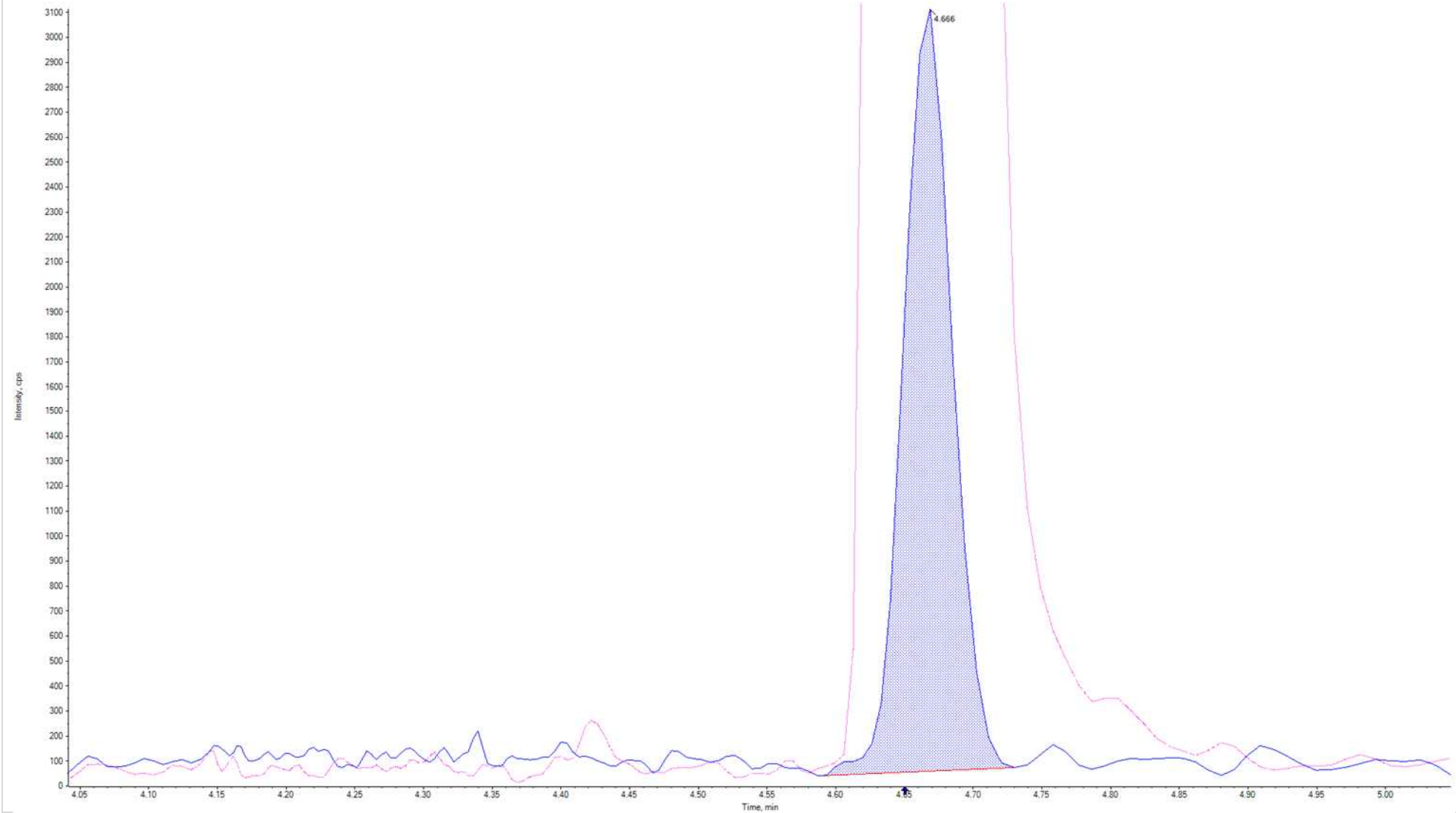
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PFPeA
Sample: WG1972760-5 S/N:577.1 Points Across peak:23



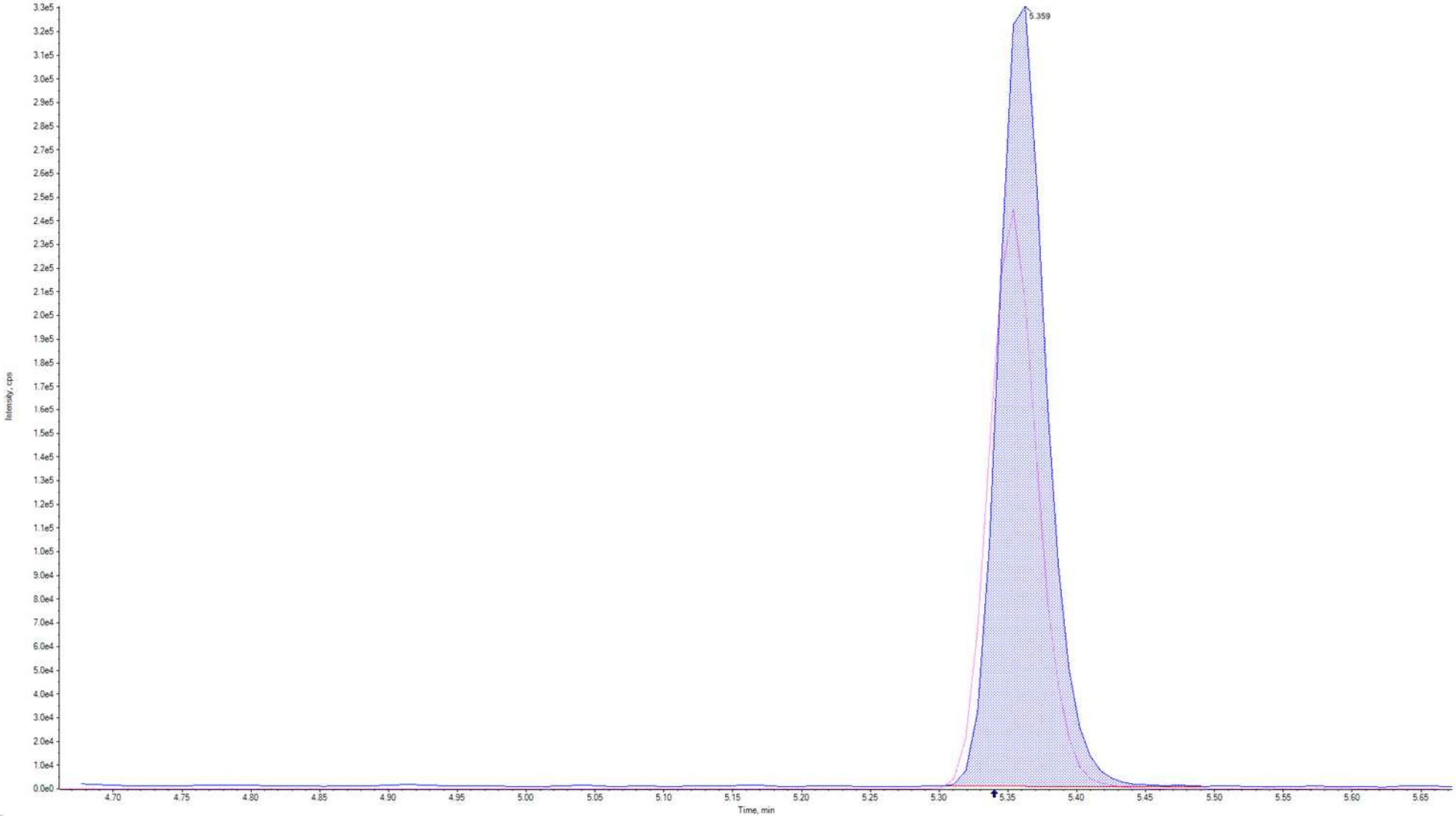
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PFPeA_2
Sample: WG1972760-5 S/N:237.3 Points Across peak:20



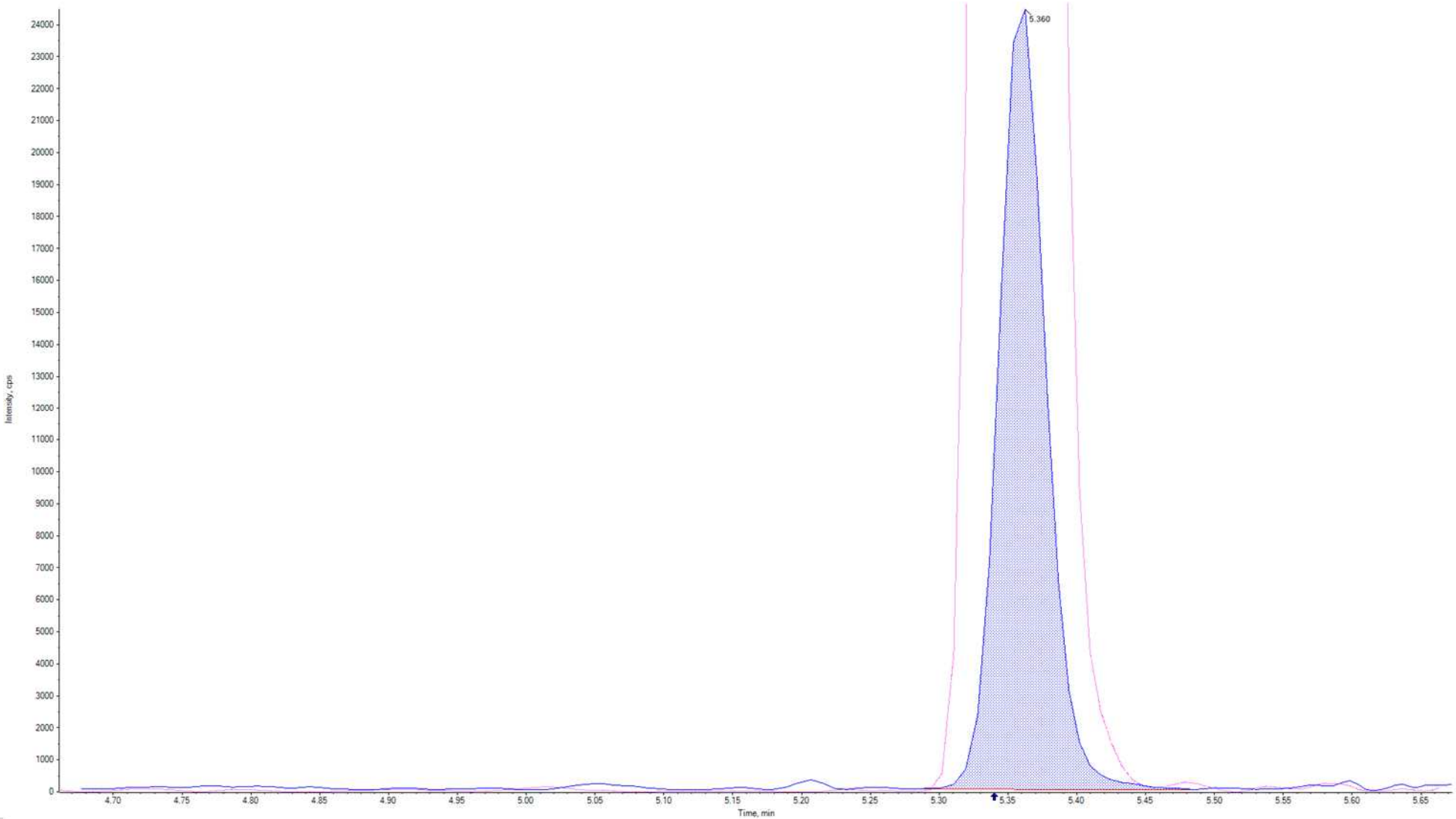
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PFHxA
Sample: WG1972760-5 S/N:569.2 Points Across peak:25



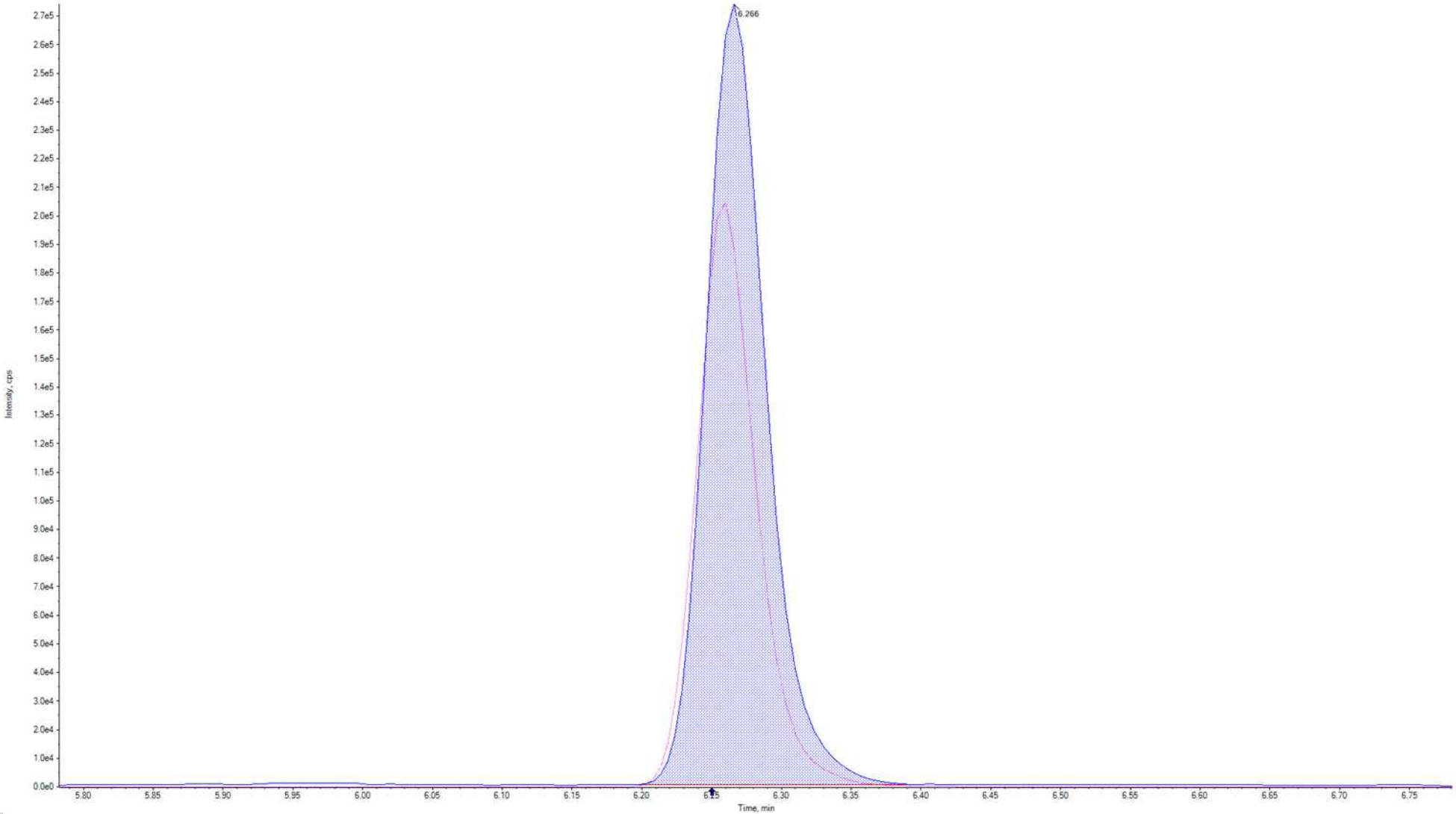
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Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_23.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFHxA_2
Sample: WG1972760-5 S/N:510.4 Points Across peak:27



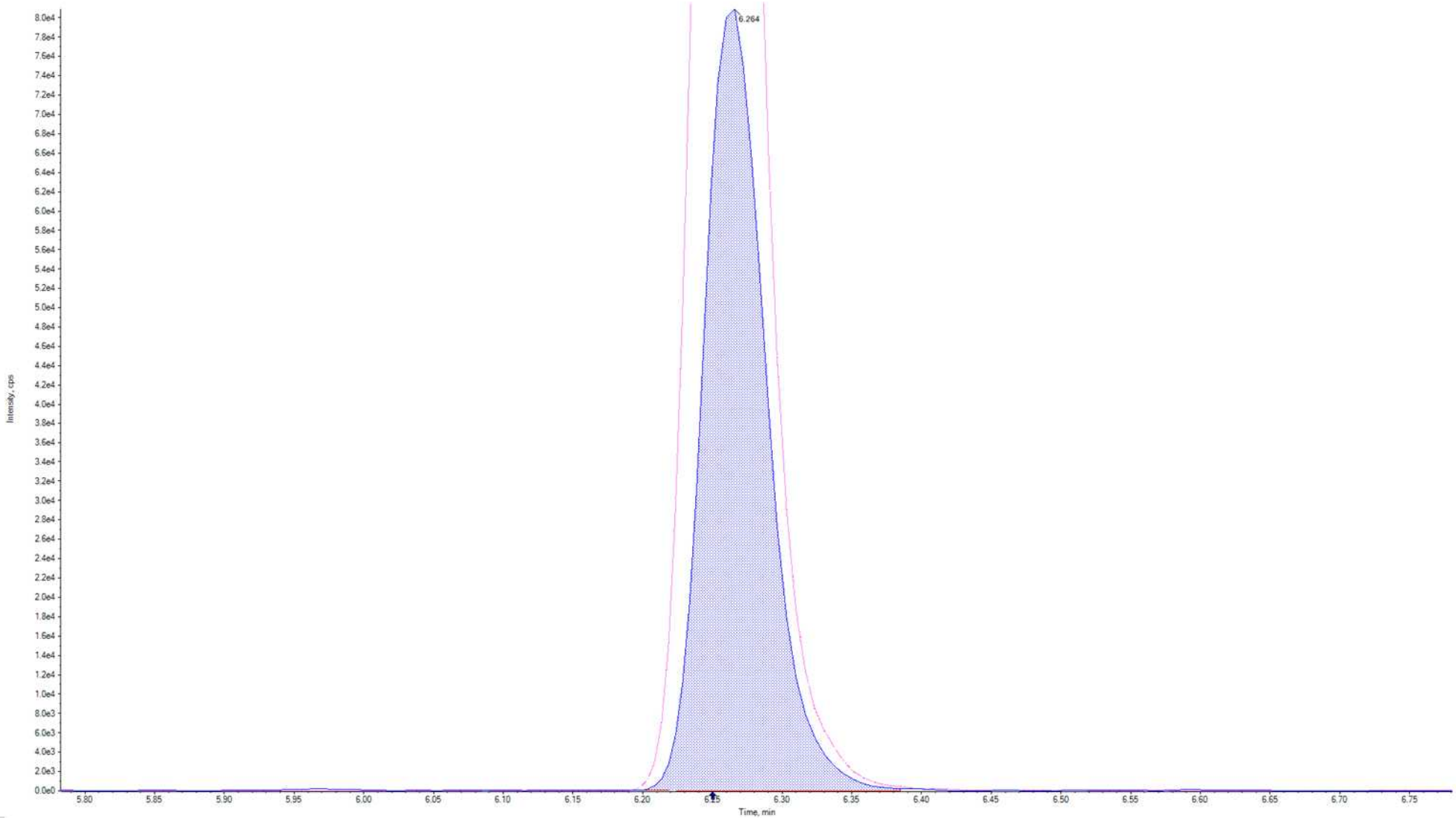
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFHpA
Sample: WG1972760-5 S/N:1675.6 Points Across peak:39



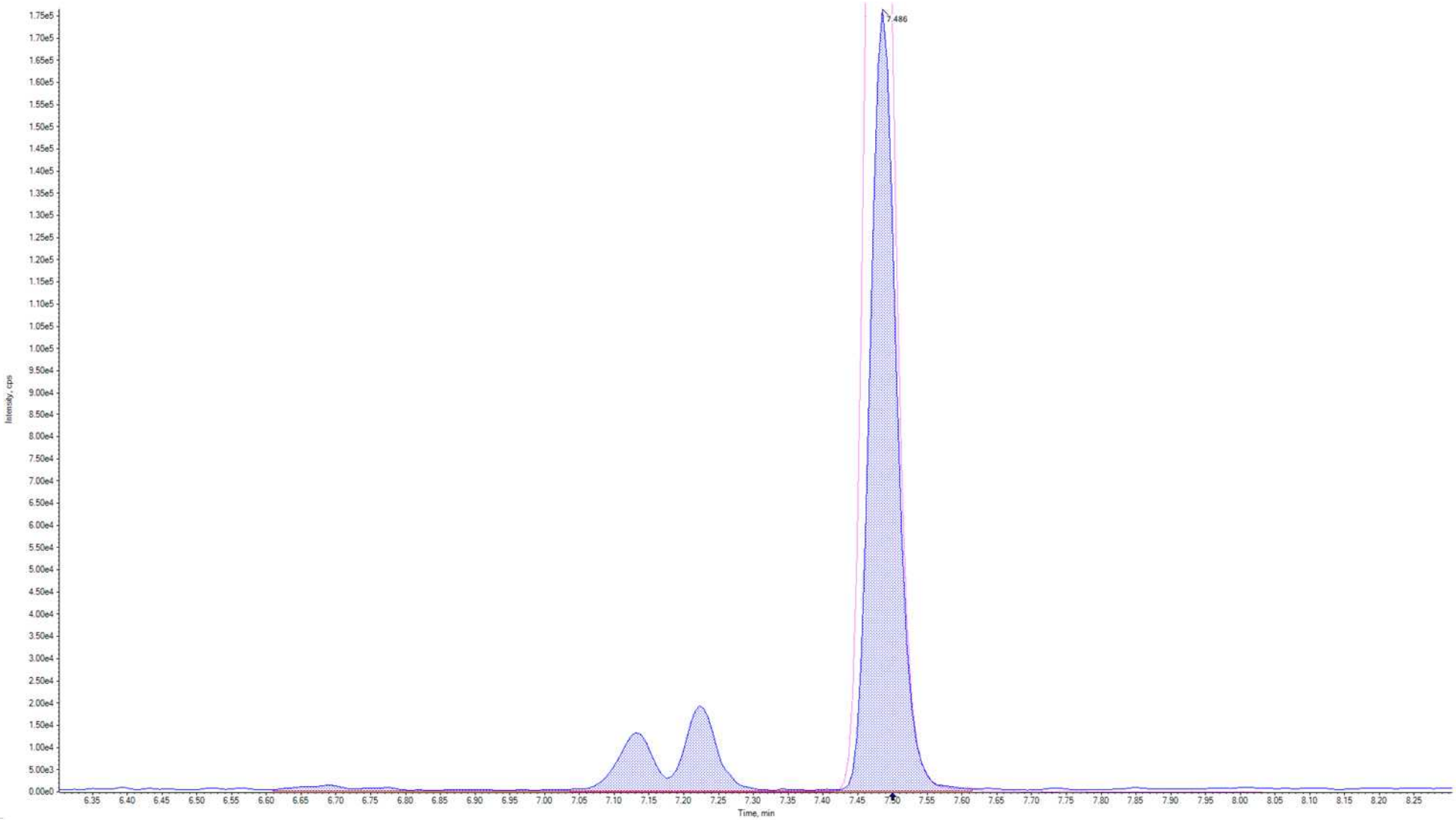
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFHpA_2
Sample: WG1972760-5 S/N:8134.1 Points Across peak:33



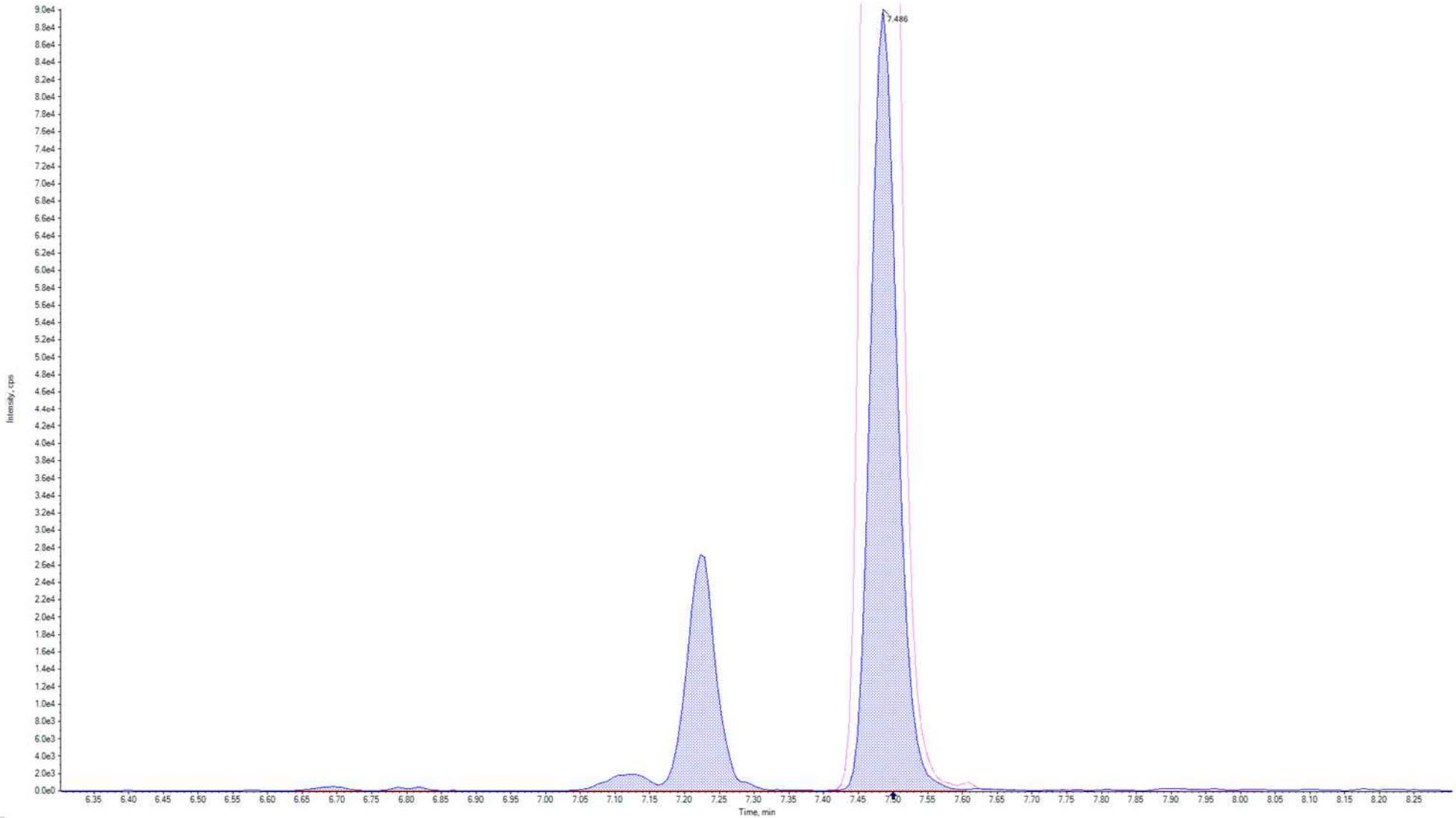
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFOA
Sample: WG1972760-5 S/N:1524.1 Points Across peak:154



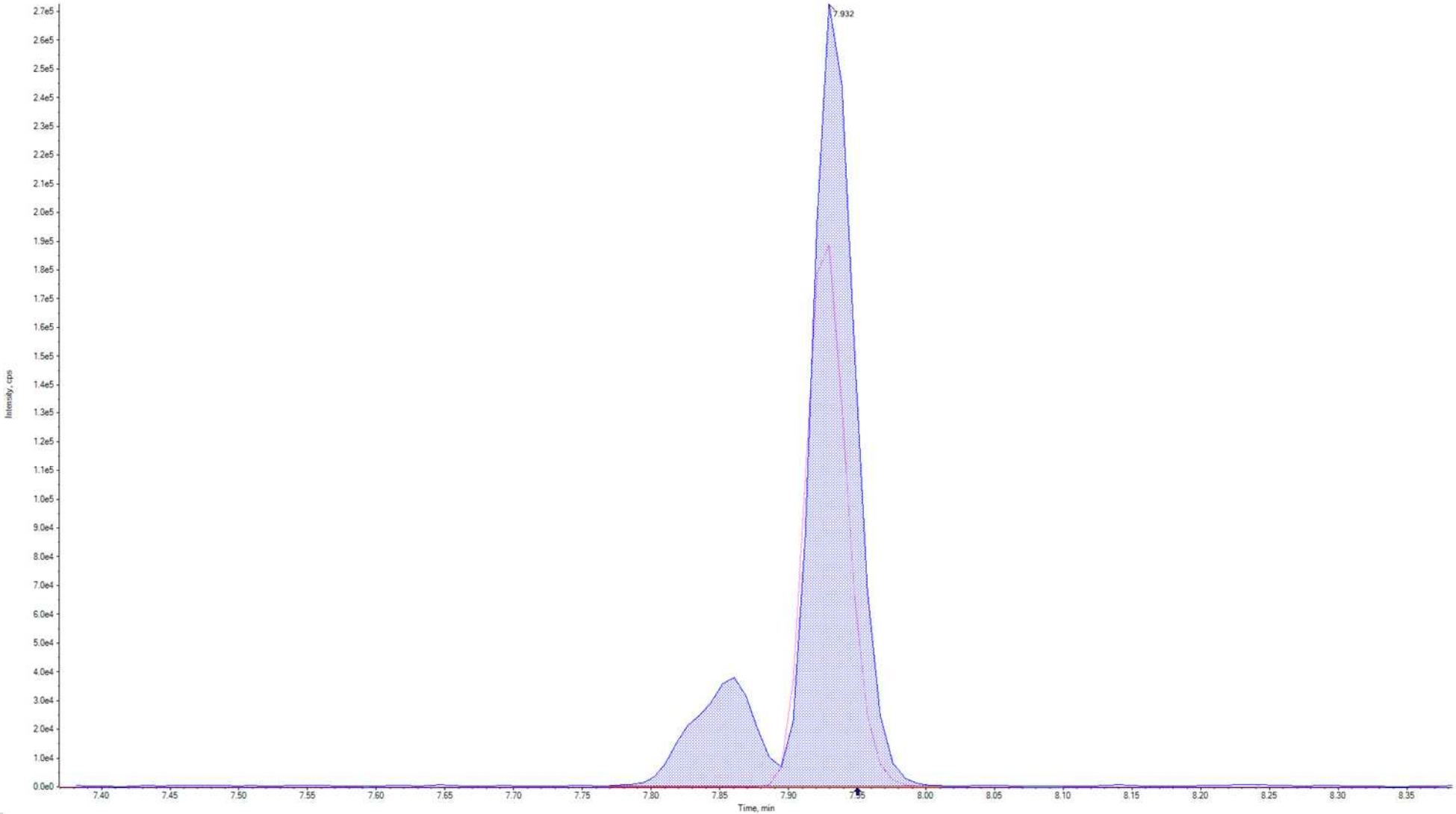
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFOA_2
Sample: WG1972760-5 S/N:130783.5 Points Across peak:151



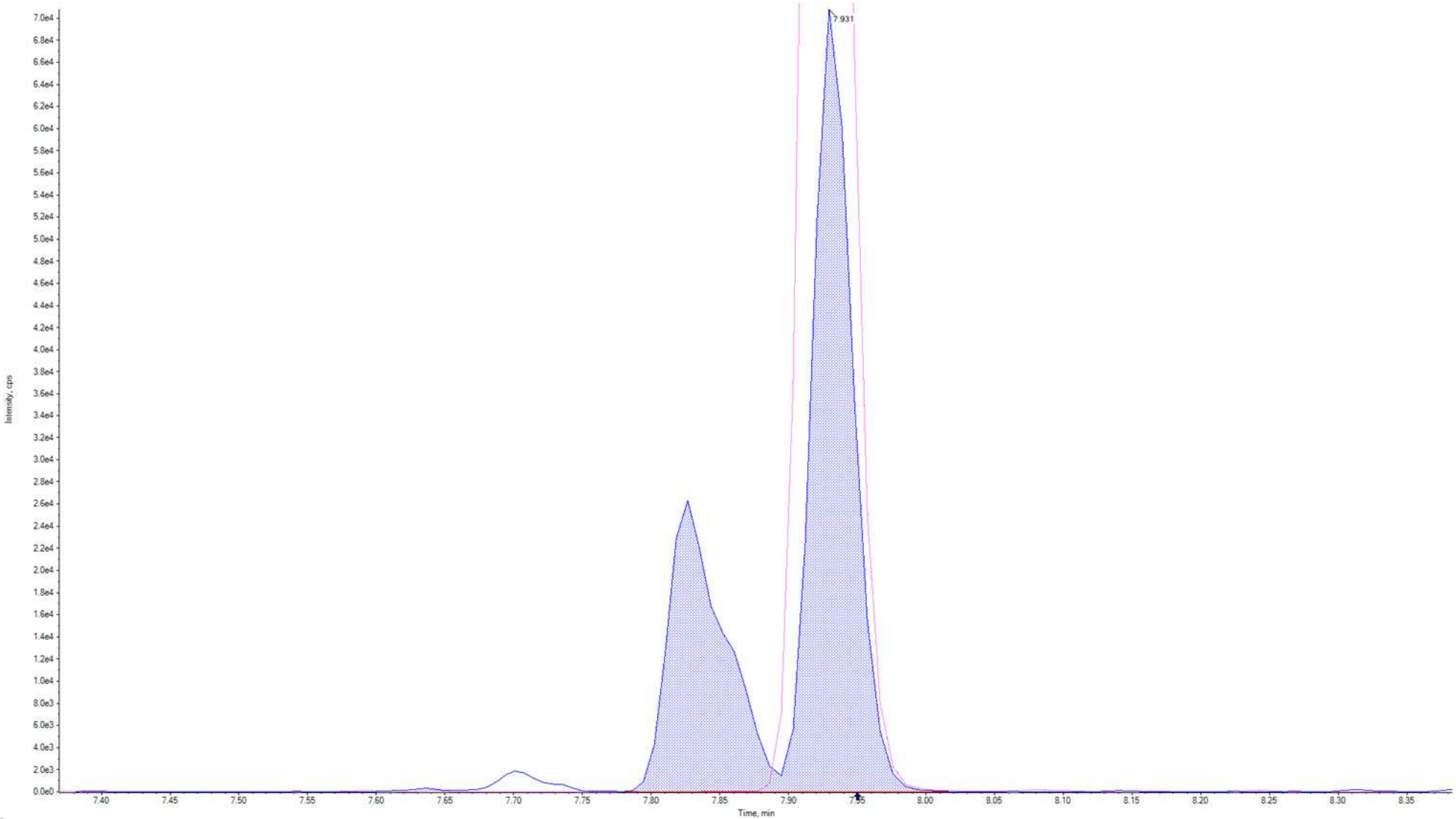
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFNA
Sample: WG1972760-5 S/N:1453.0 Points Across peak:31



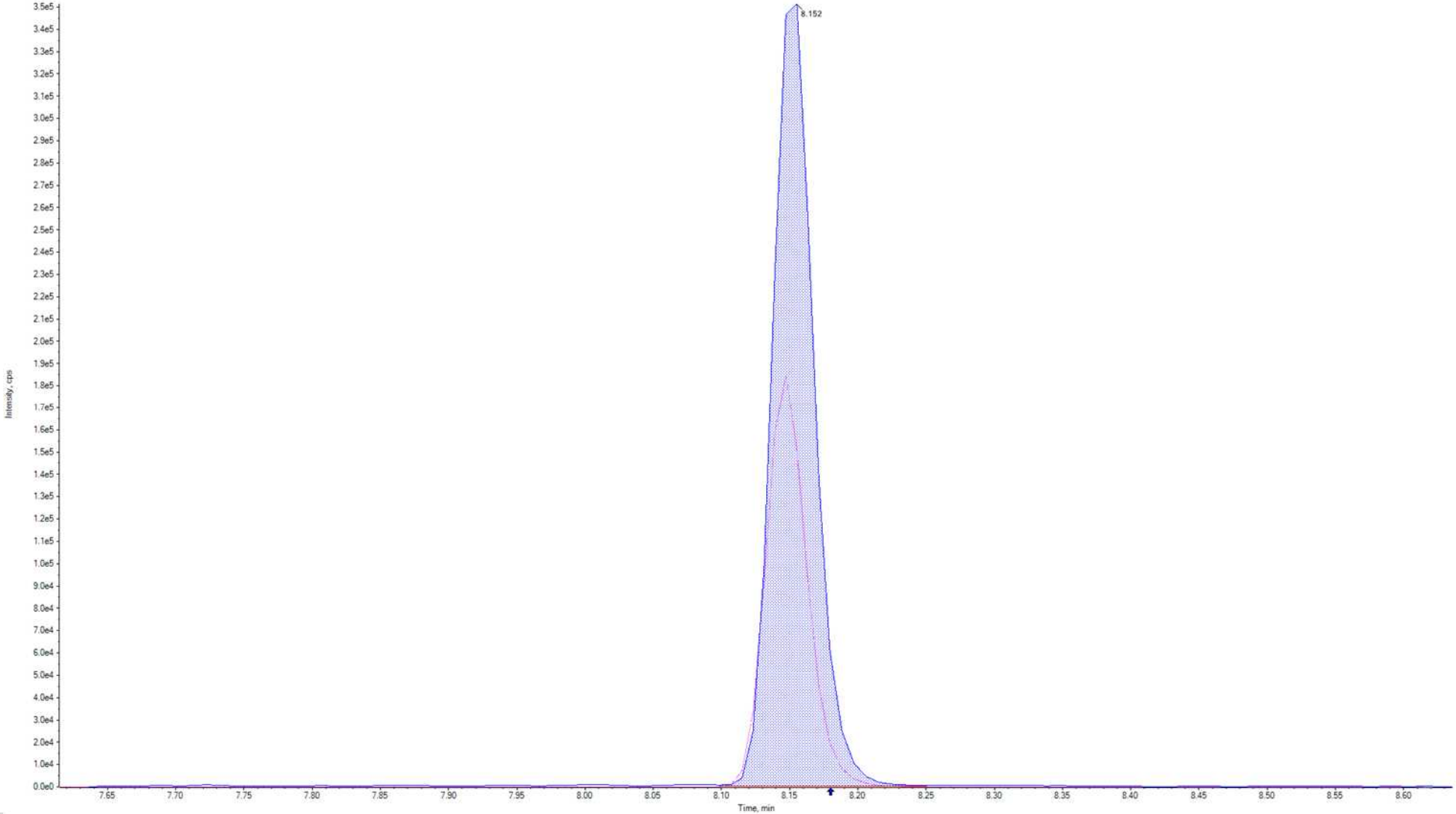
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFNA_2
Sample: WG1972760-5 S/N:817.6 Points Across peak:29



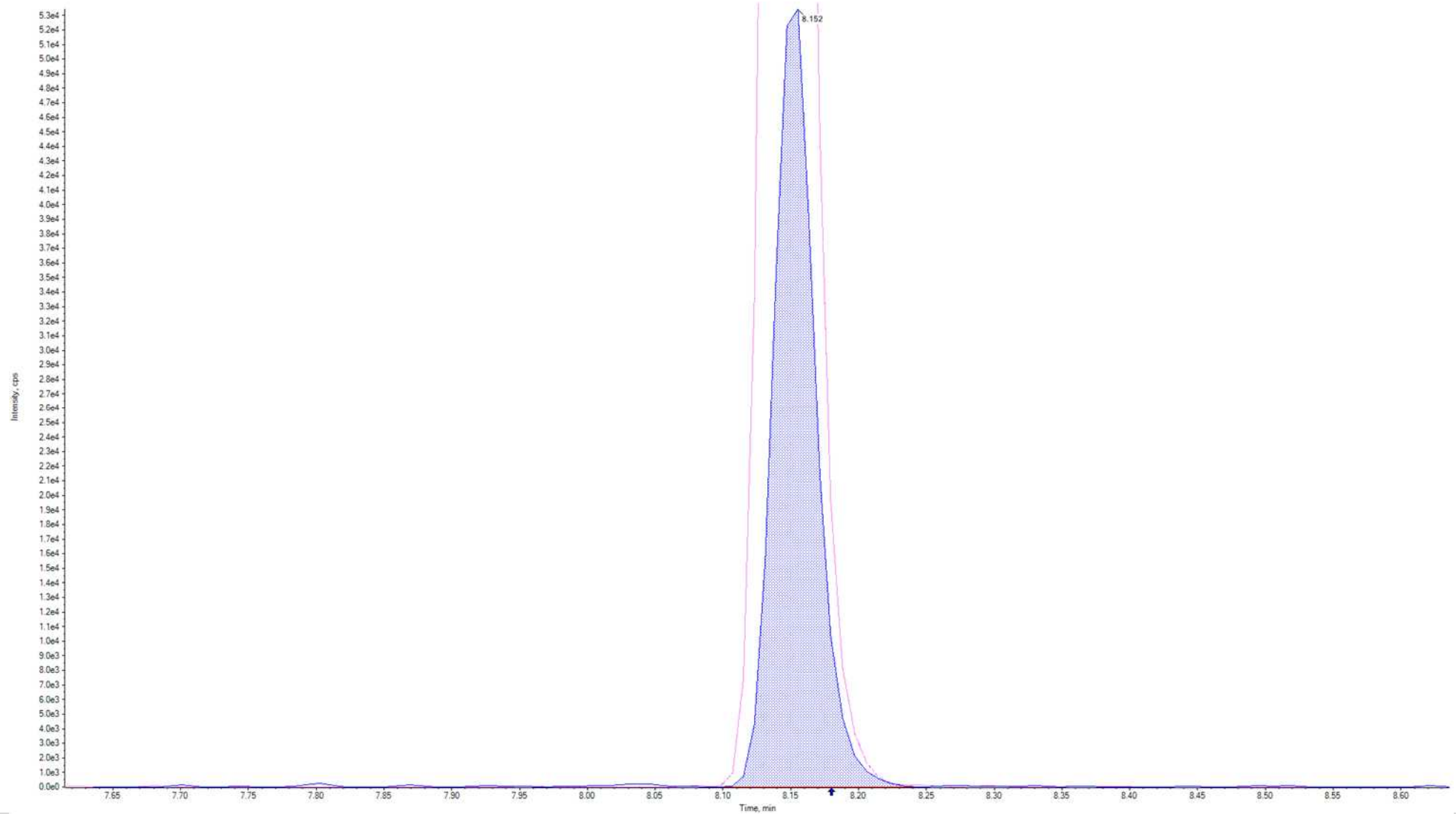
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFDA
Sample: WG1972760-5 S/N:2285.7 Points Across peak:19



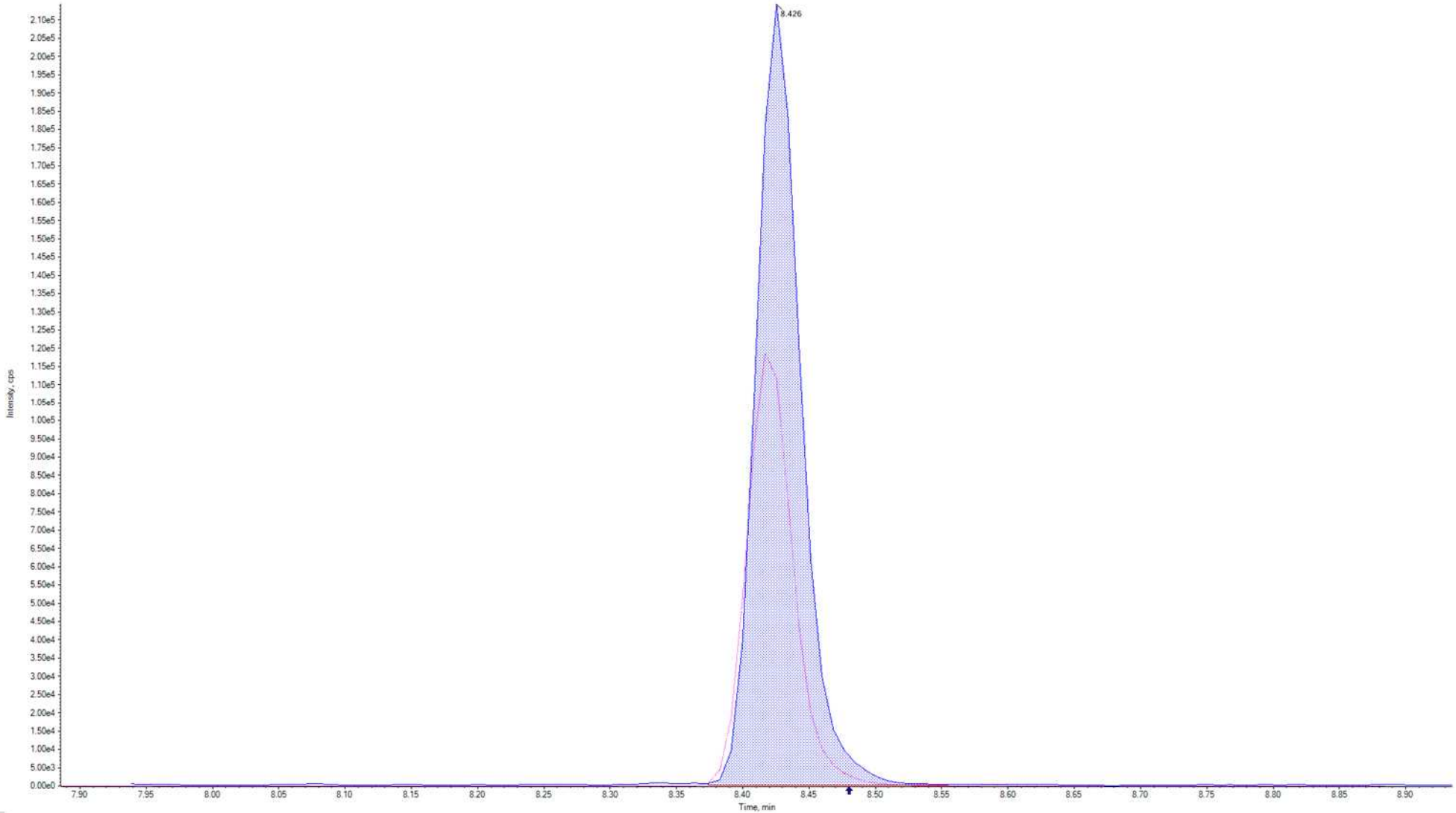
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDA_2
Sample: WG1972760-5 S/N:882.3 Points Across peak:19



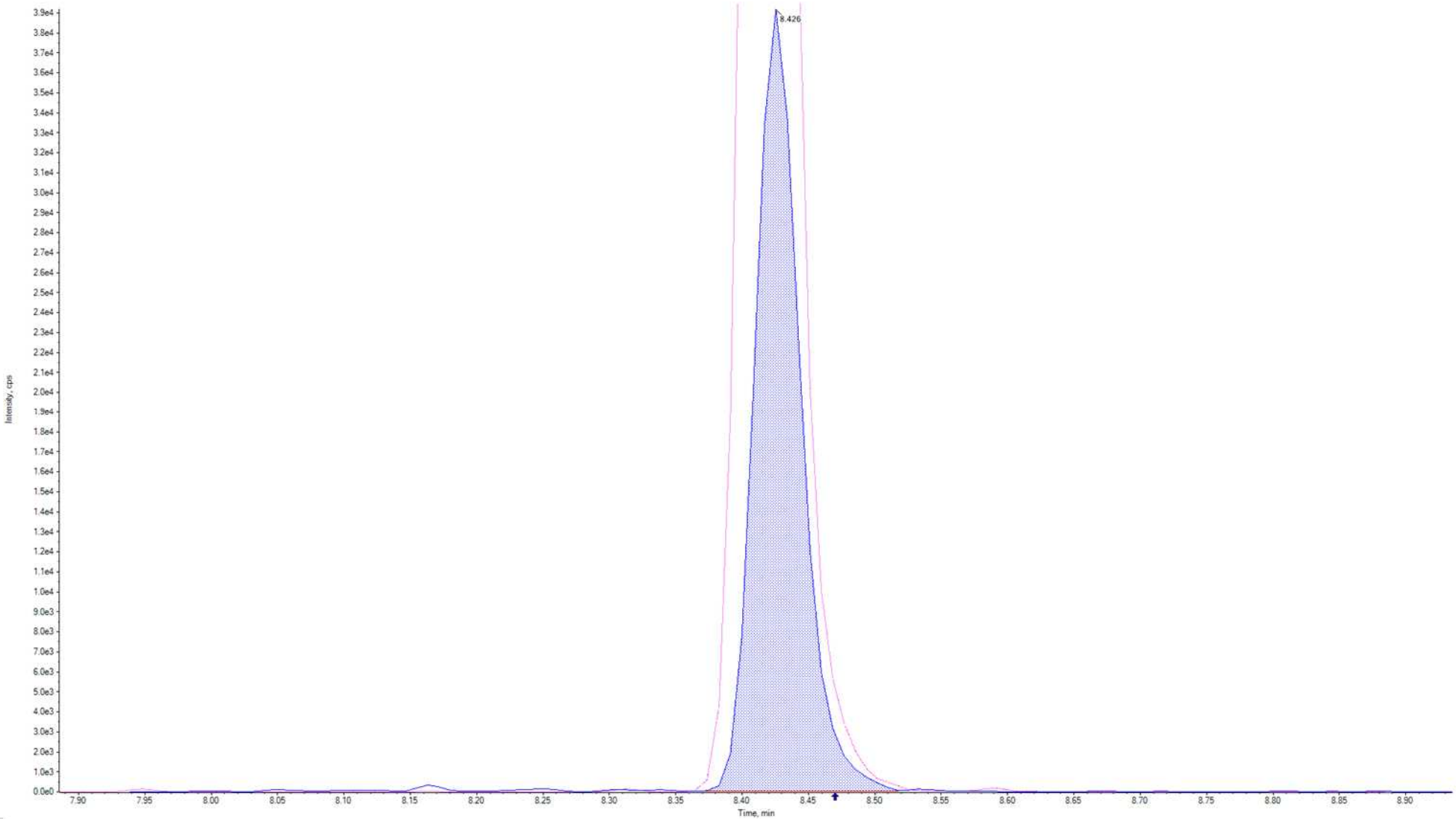
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFUnA
Sample: WG1972760-5 S/N:1886.5 Points Across peak:23



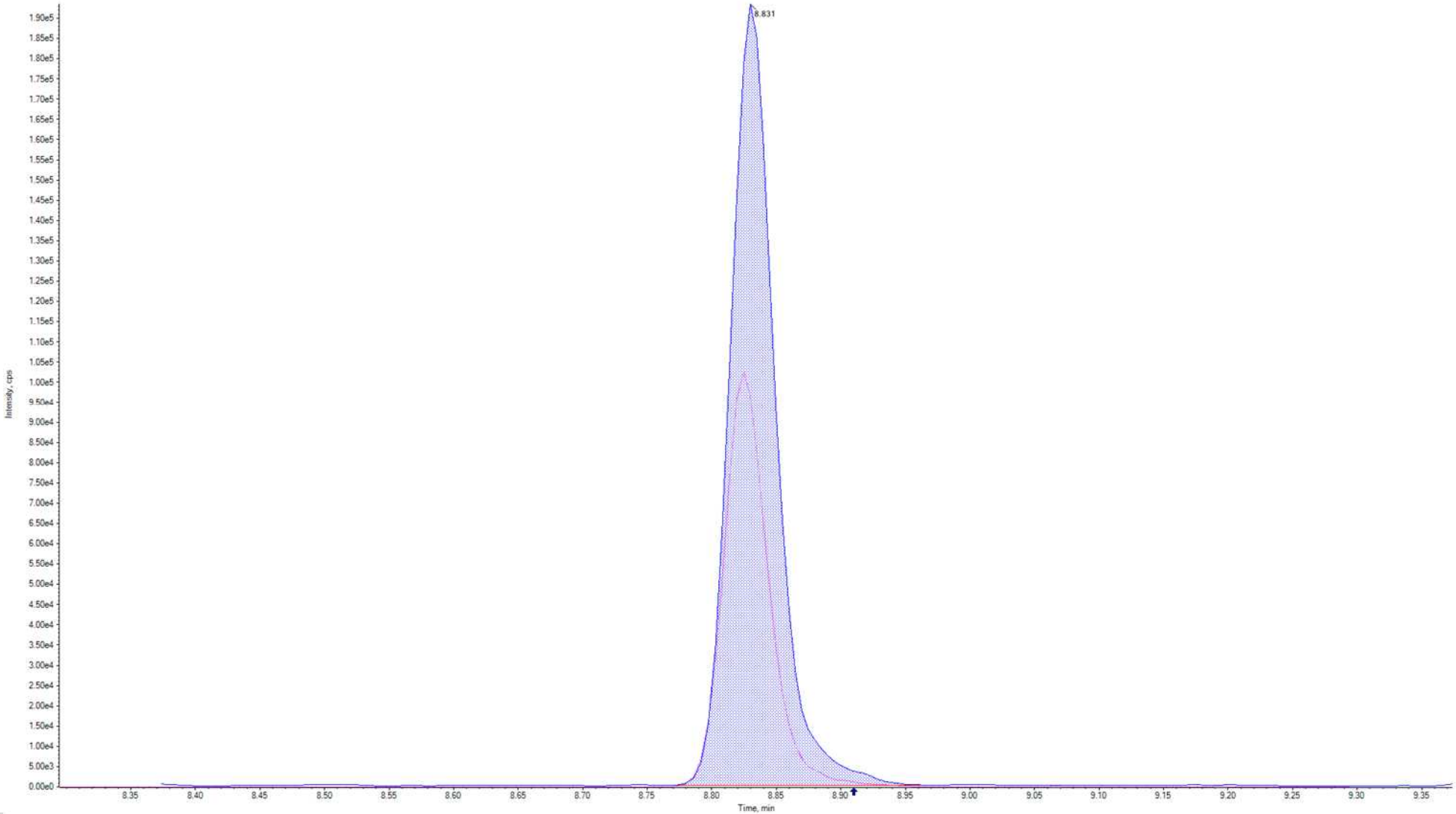
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFUnA_2
Sample: WG1972760-5 S/N:1137.3 Points Across peak:19



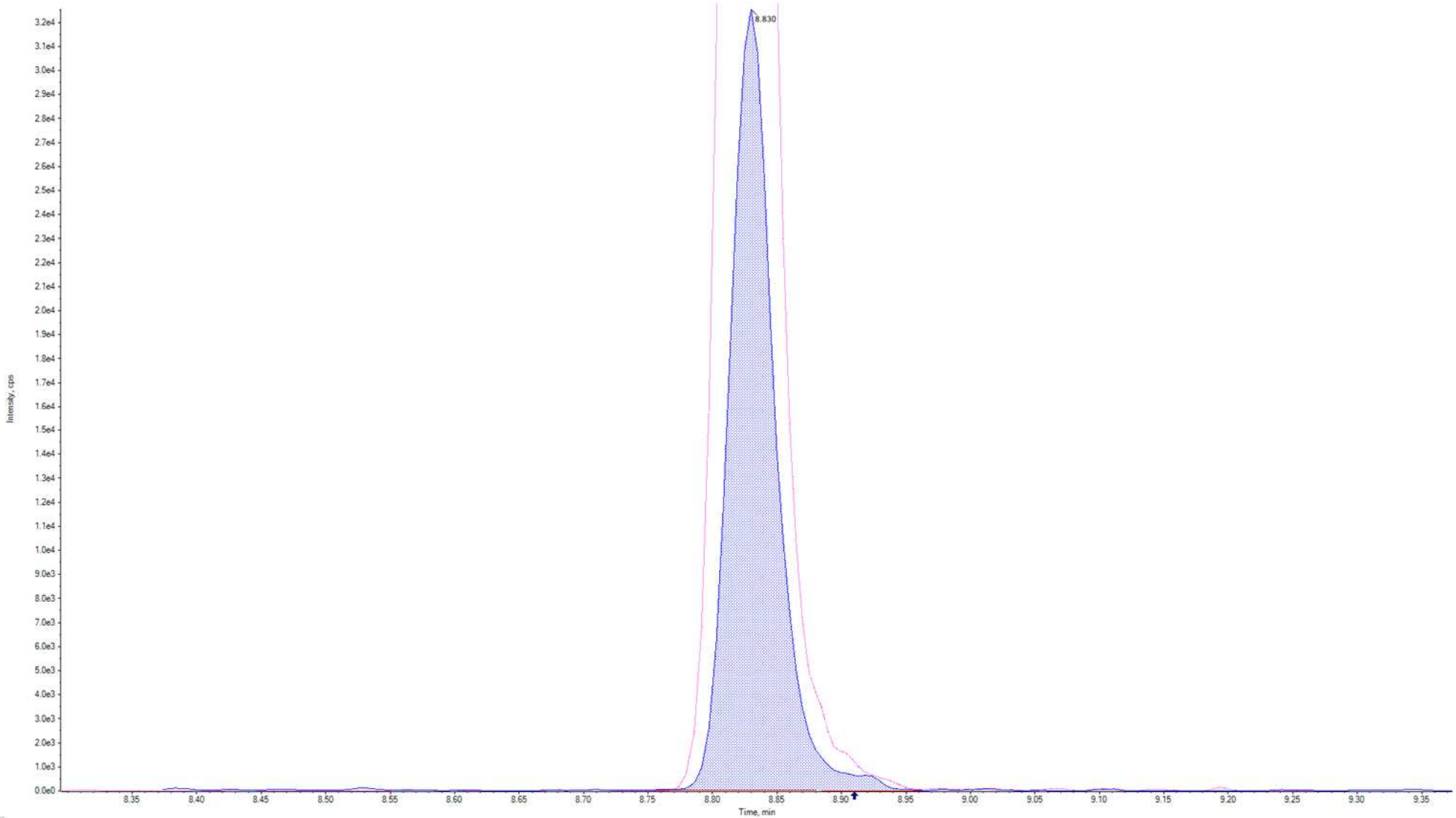
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFDoA
Sample: WG1972760-5 S/N:2593.8 Points Across peak:41



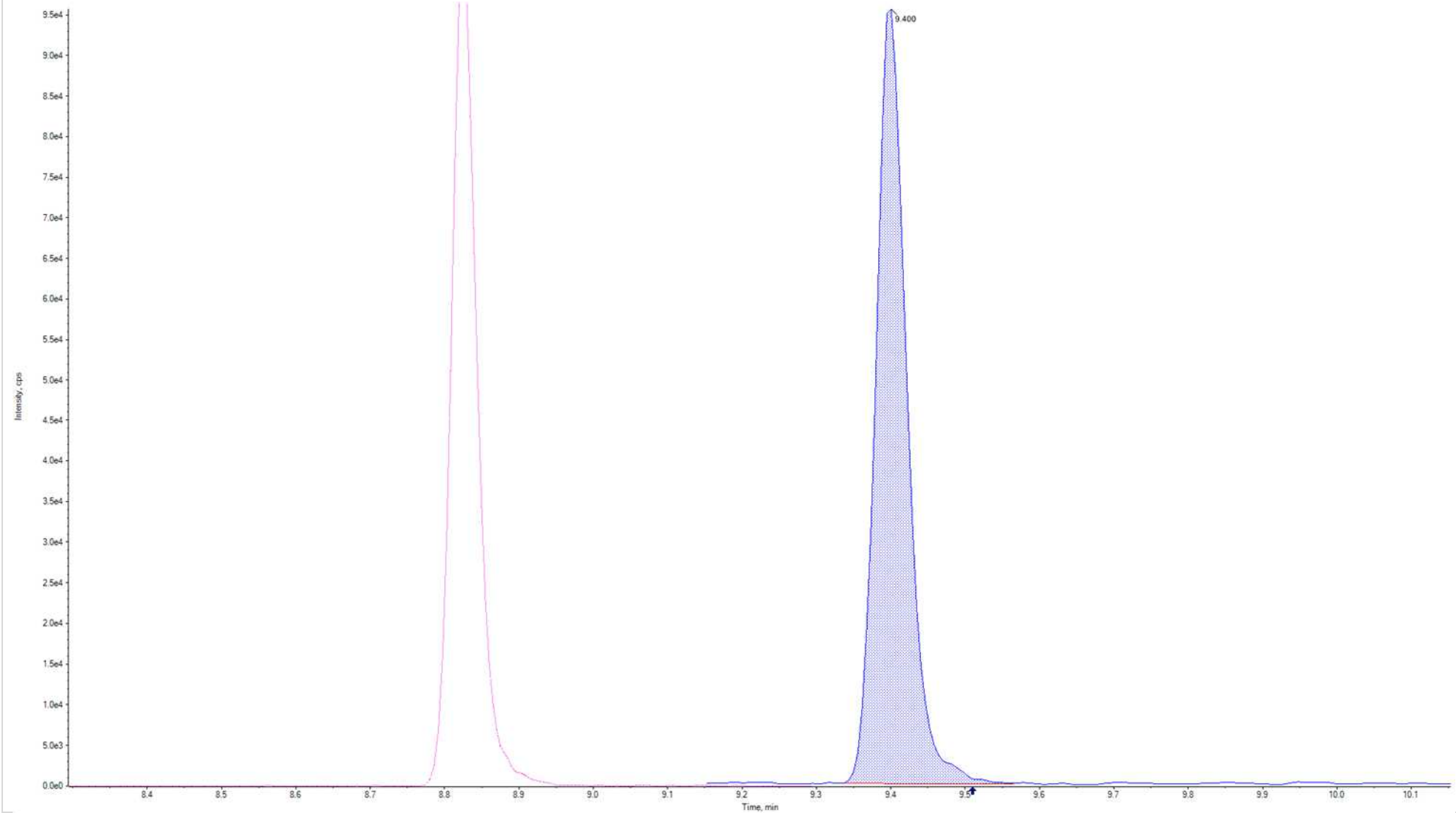
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFDoA_2
Sample: WG1972760-5 S/N:101934.7 Points Across peak:47



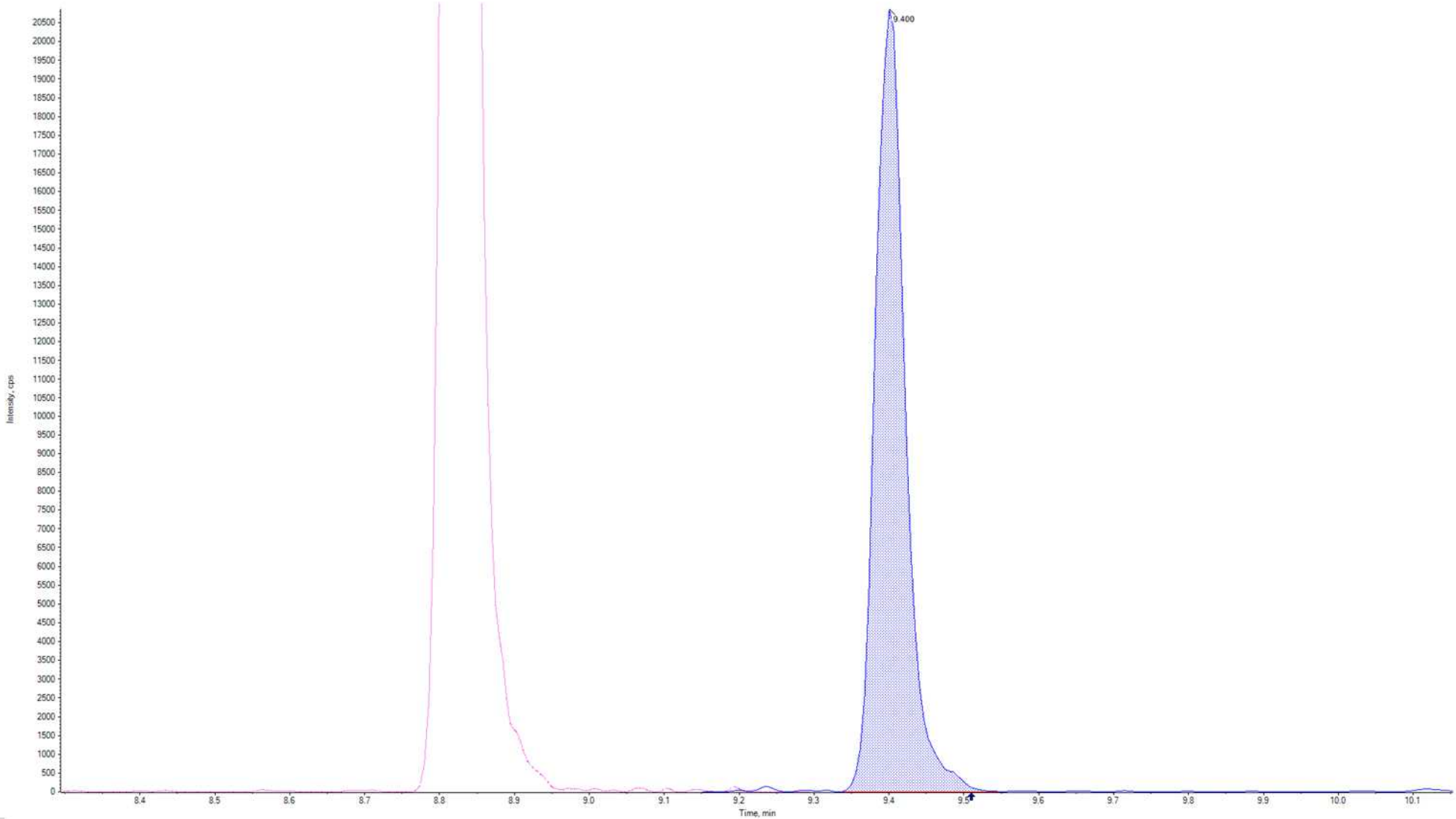
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Last Altered: 9/18/2024 12:41:54 PM
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PFTrDA
Sample: WG1972760-5 S/N:1153.3 Points Across peak:41



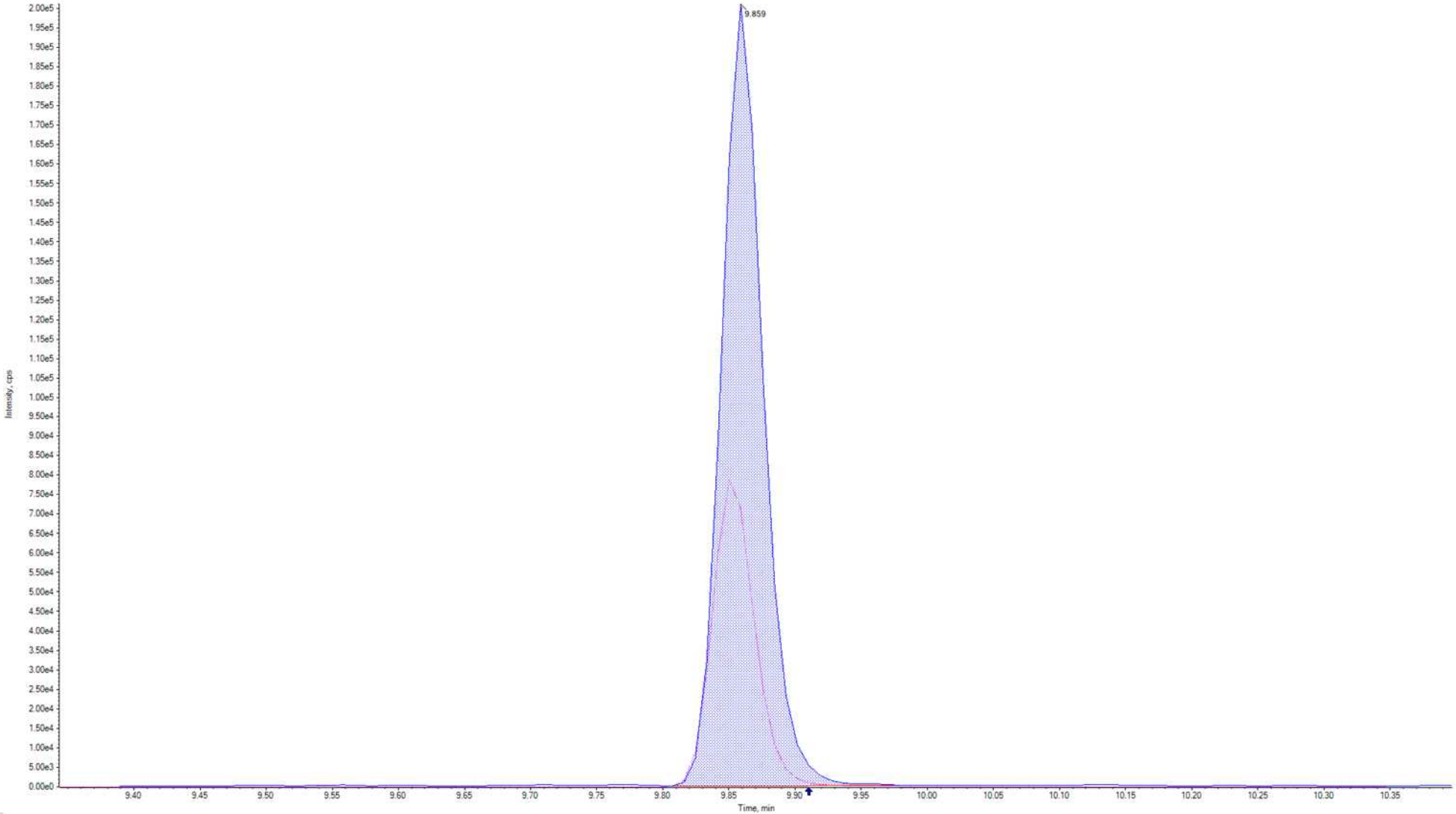
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFTrDA_2
Sample: WG1972760-5 S/N:1392.1 Points Across peak:39



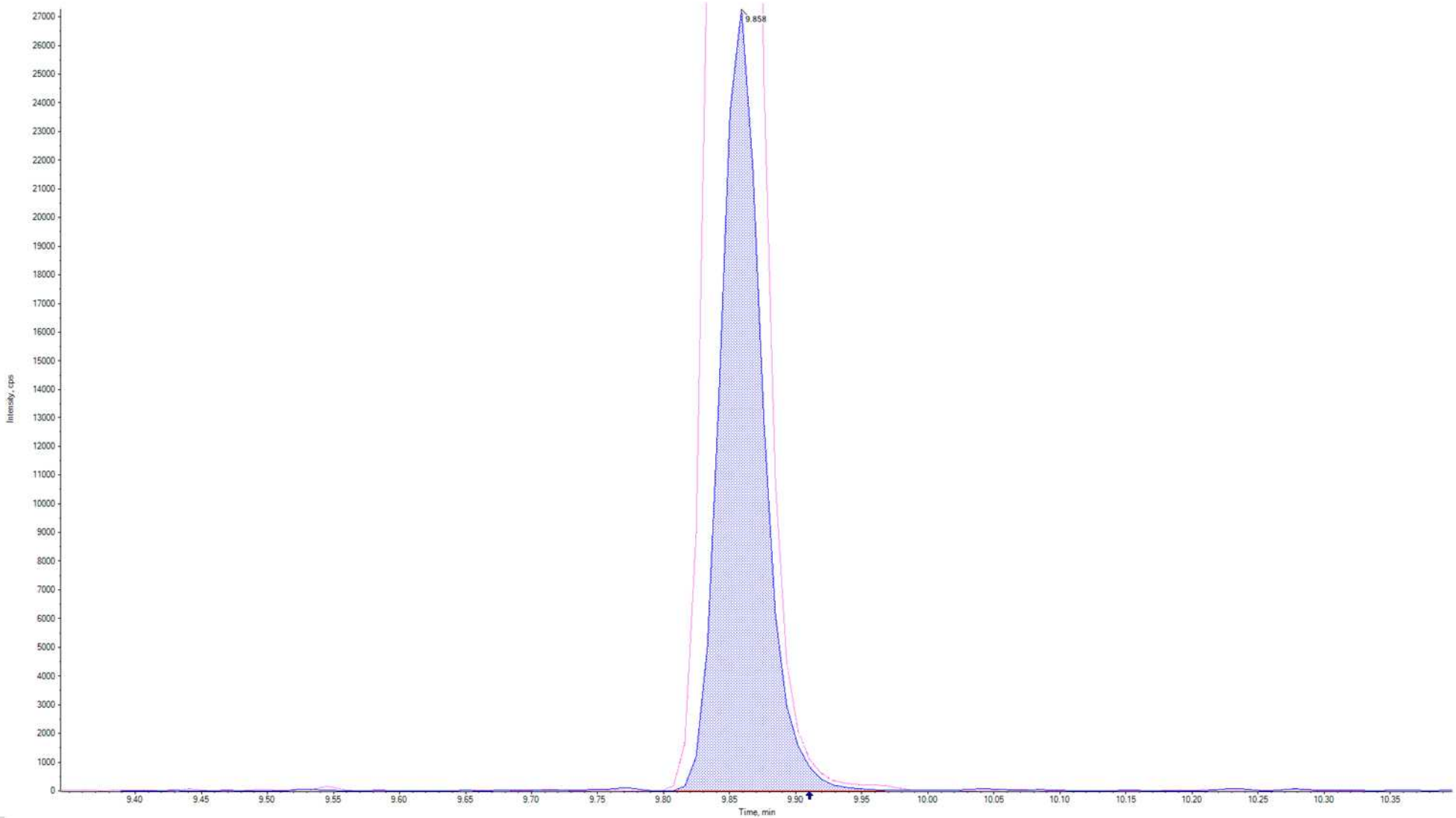
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFTeDA
Sample: WG1972760-5 S/N:1466.3 Points Across peak:22



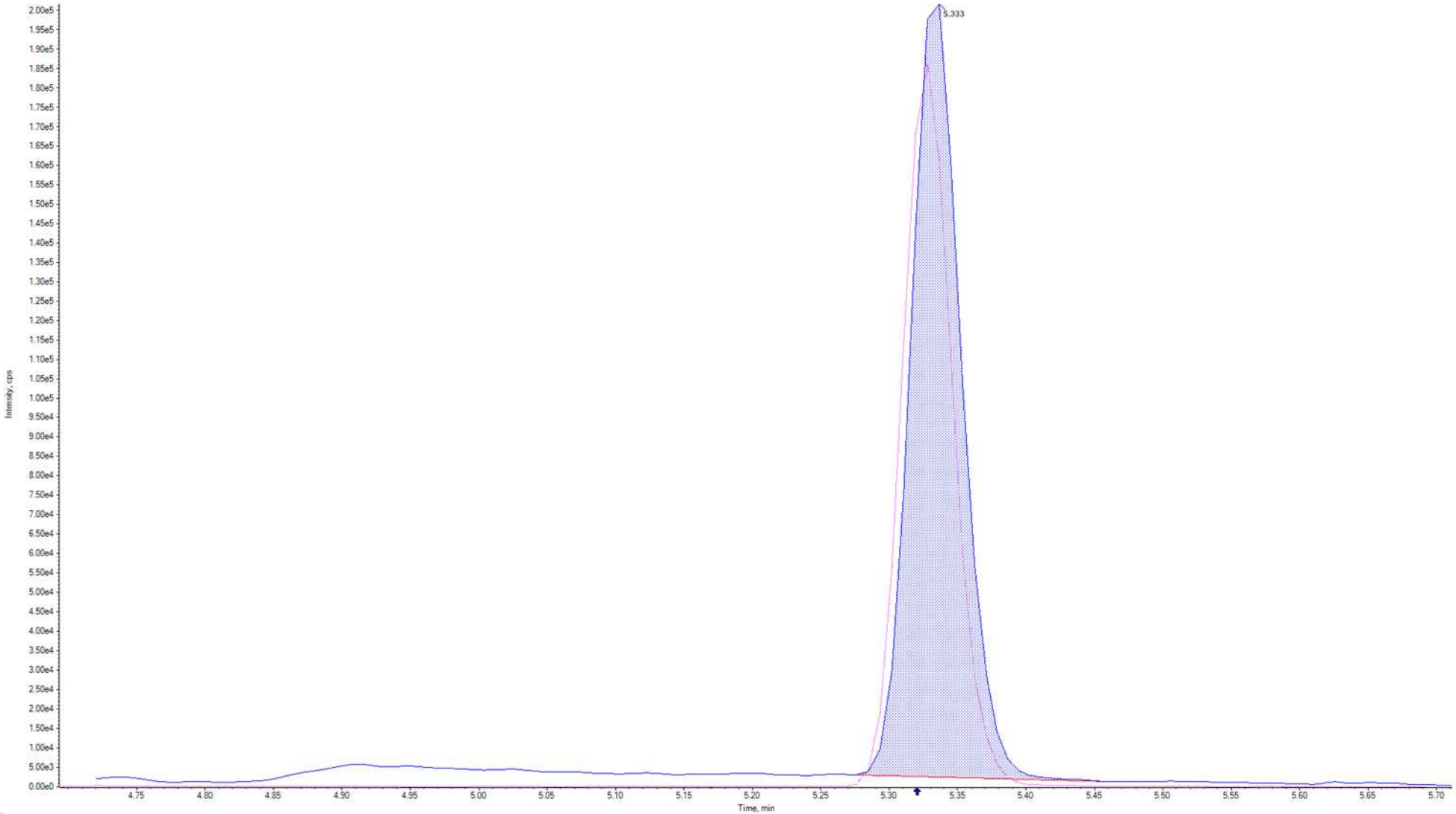
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFTeDA_2
Sample: WG1972760-5 S/N:11258168.4 Points Across peak:23



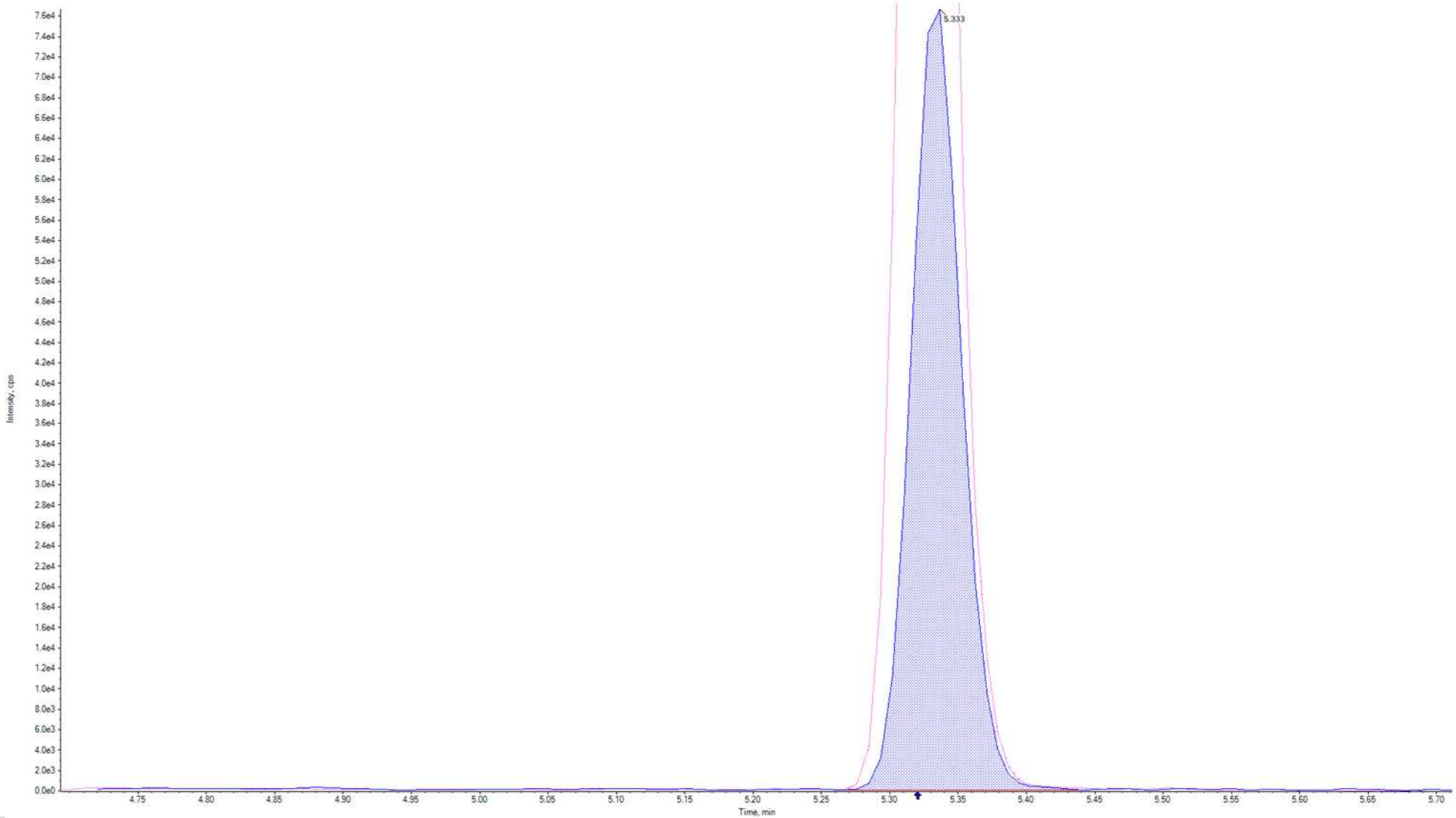
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFBS
Sample: WG1972760-5 S/N:69.9 Points Across peak:23



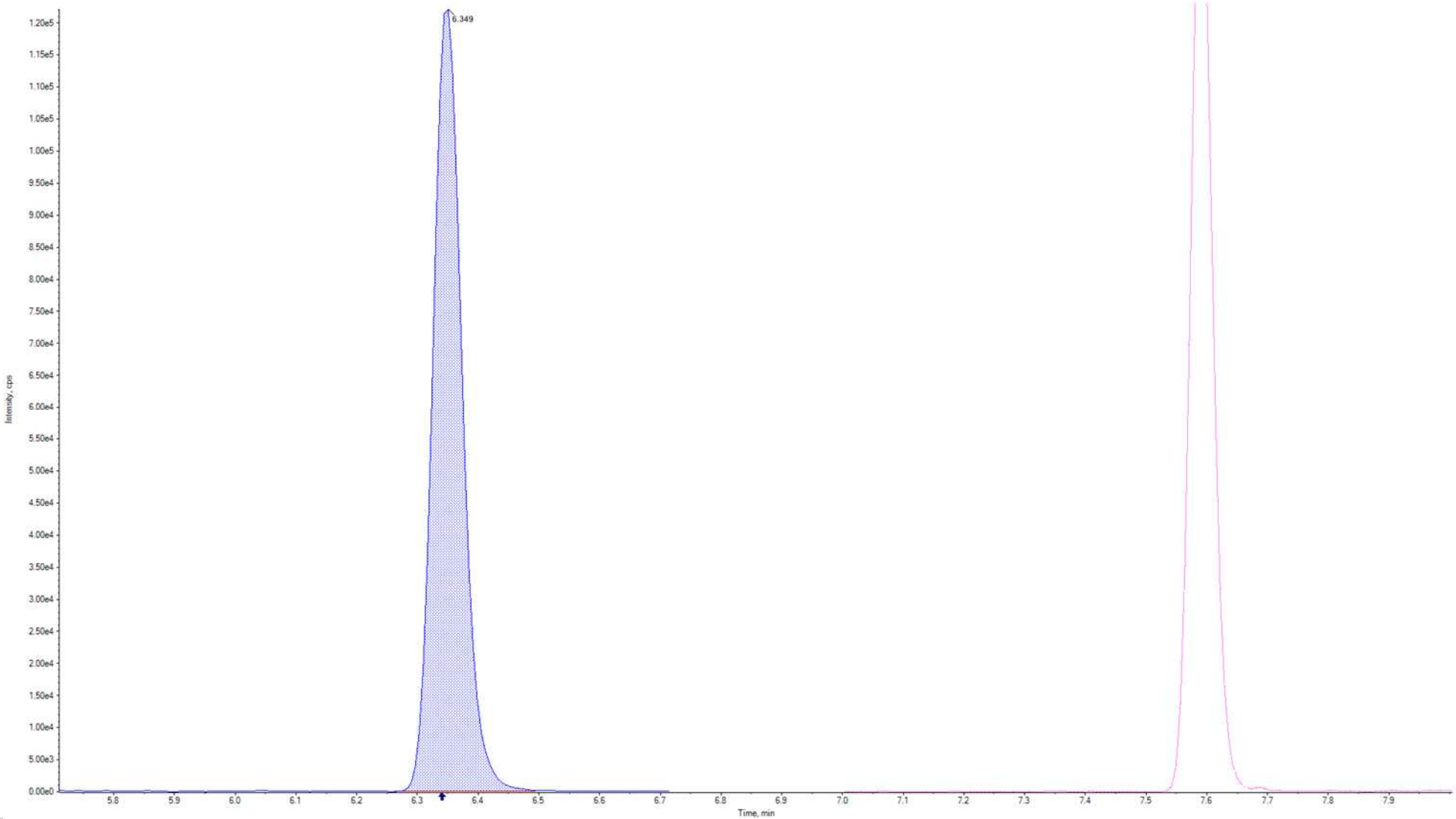
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PFBS_2
Sample: WG1972760-5 S/N:1772.1 Points Across peak:22



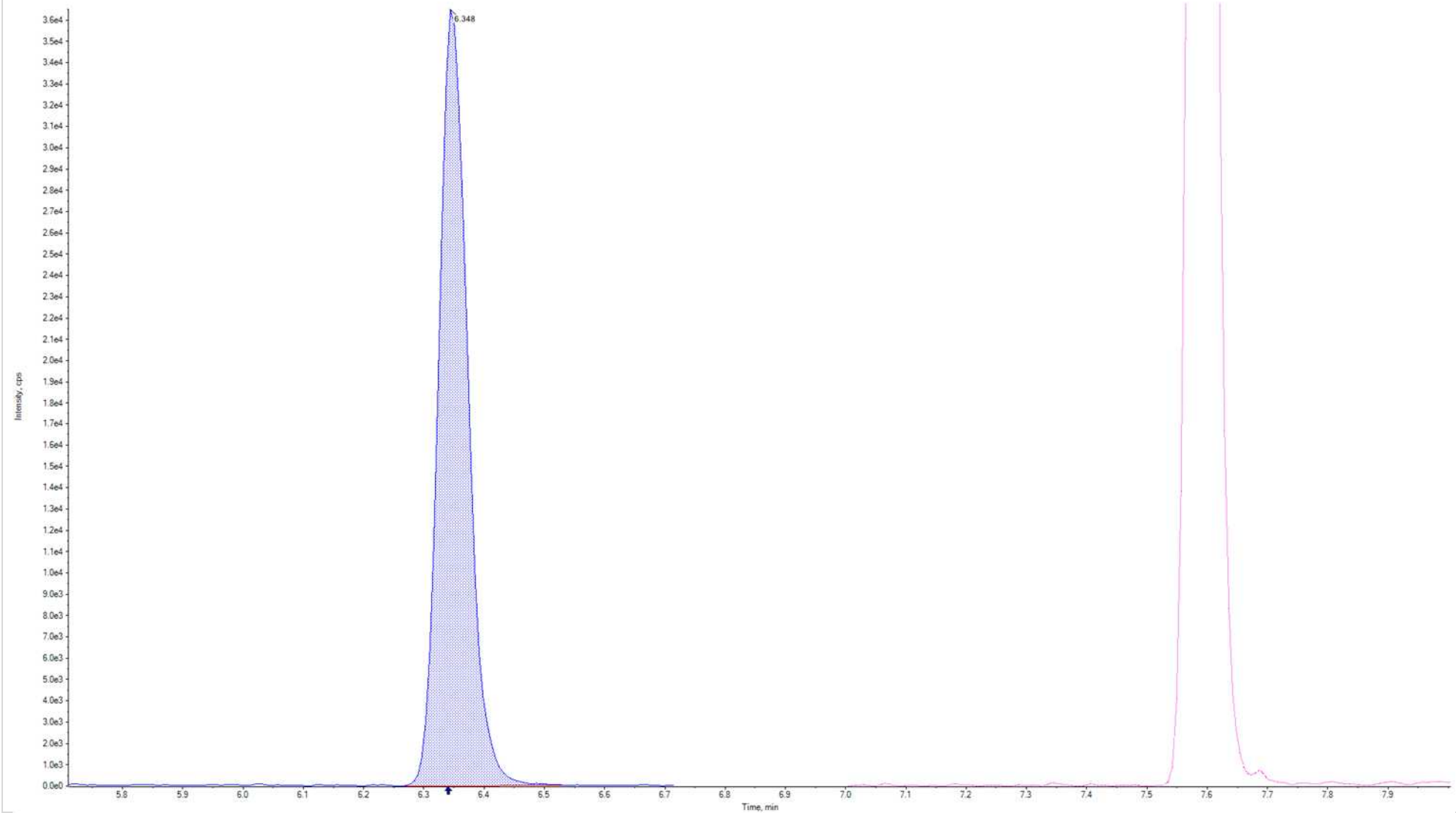
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PFPeS
Sample: WG1972760-5 S/N:3423.8 Points Across peak:36



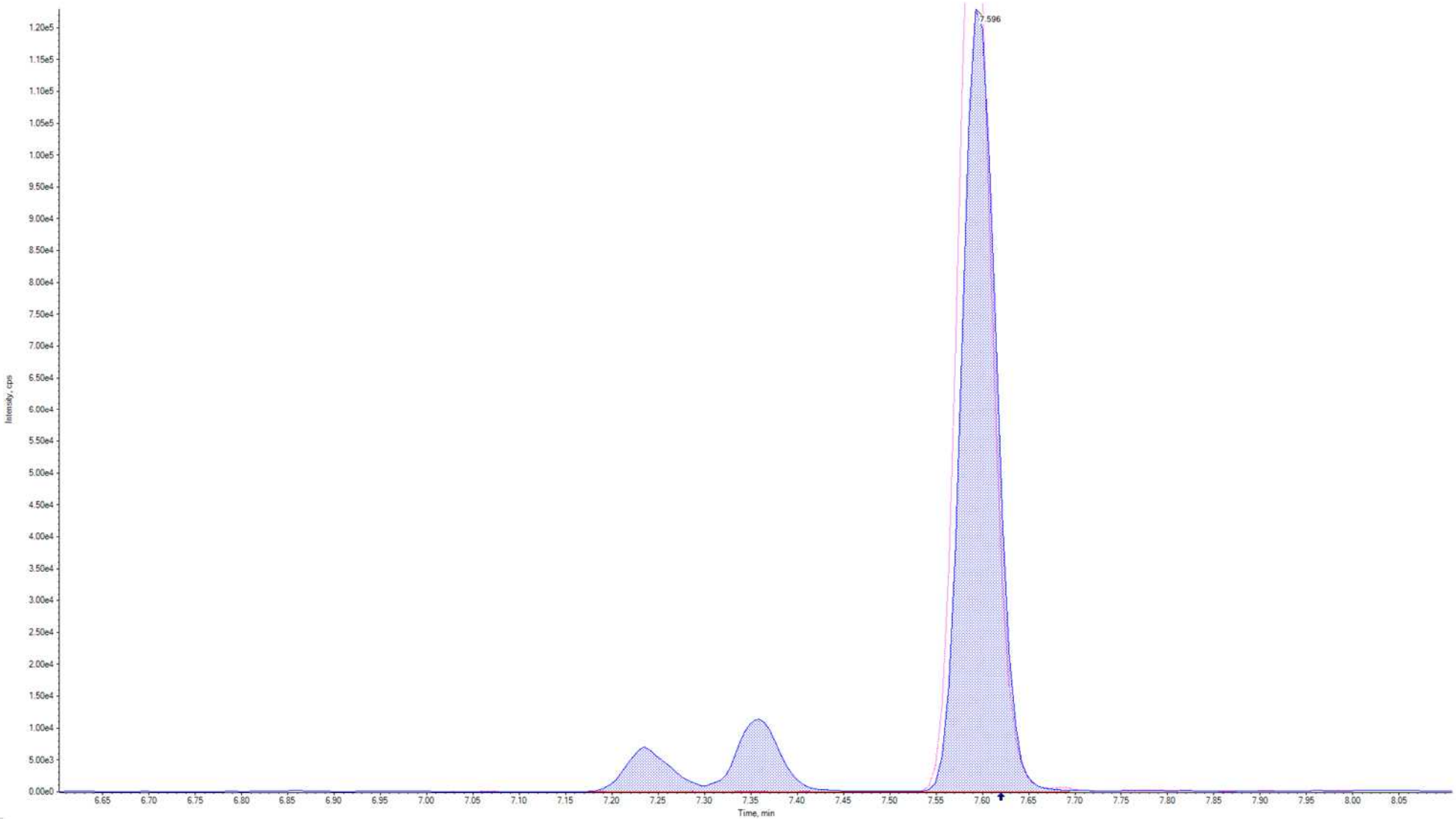
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PFPeS_2
Sample: WG1972760-5 S/N:3993.0 Points Across peak:41



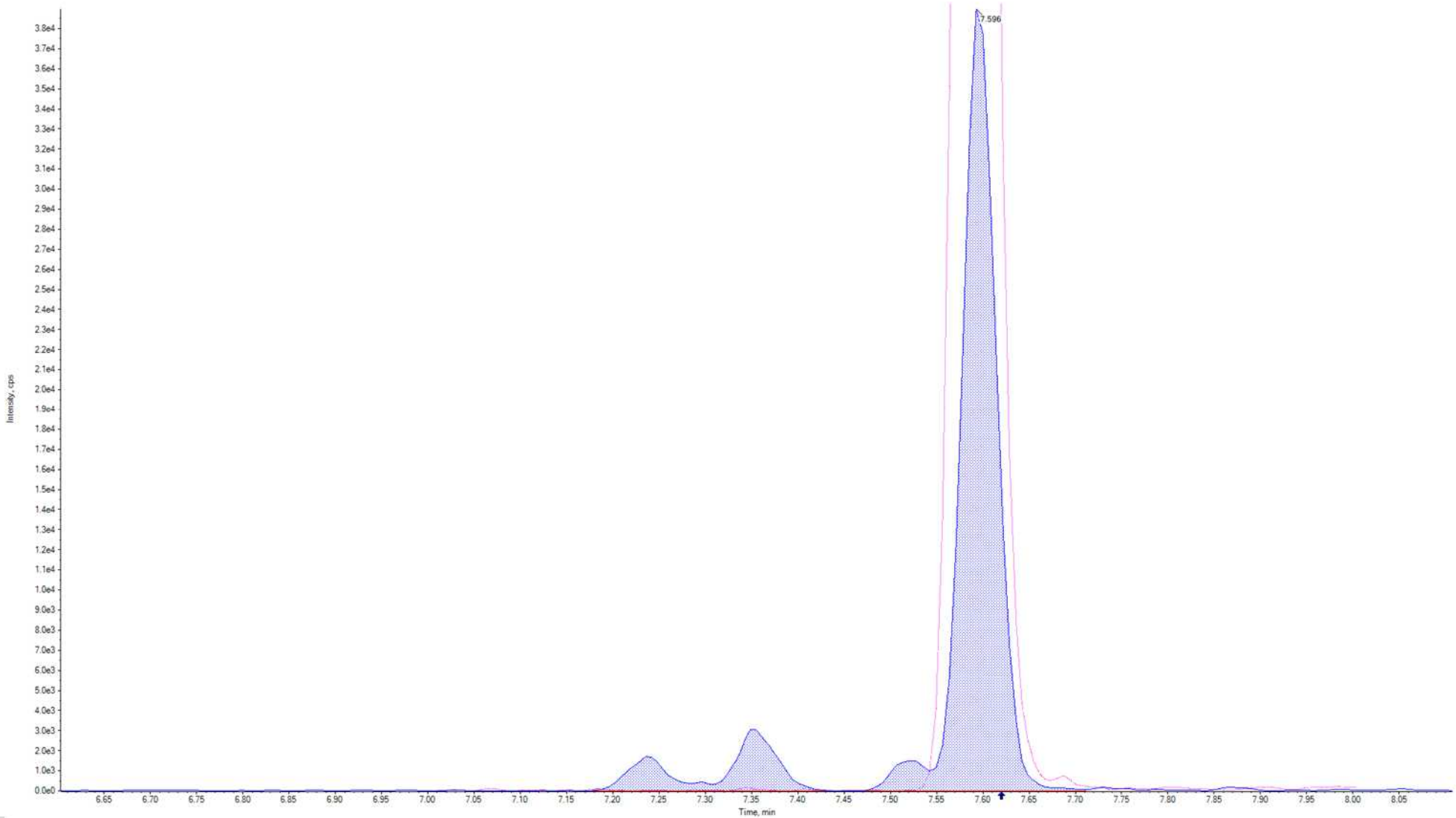
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Generated: 9/18/2024 6:35:36 AM

PFHxS
Sample: WG1972760-5 S/N:6591.0 Points Across peak:87



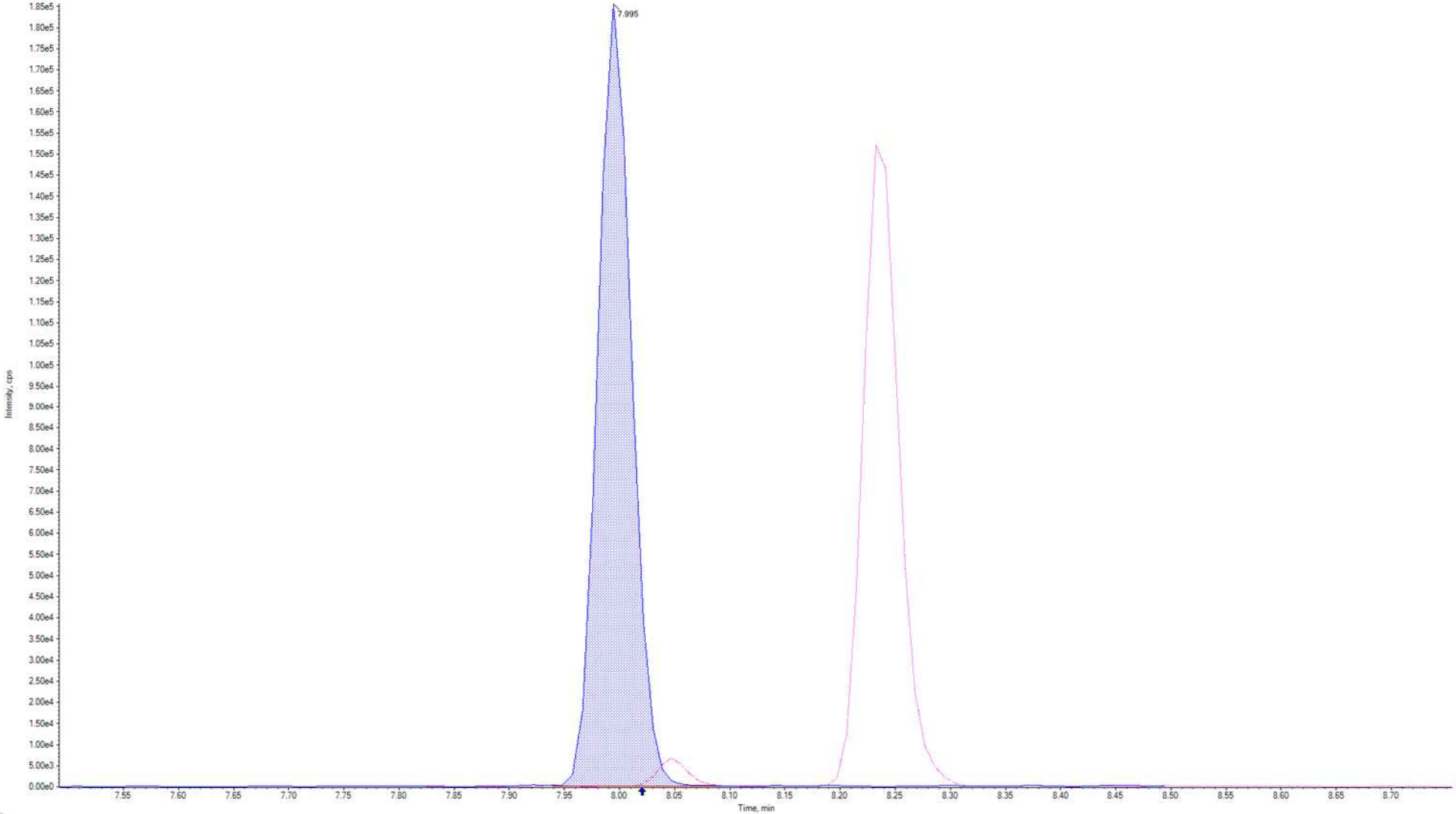
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PFHxS_2
Sample: WG1972760-5 S/N:994645.1 Points Across peak:87



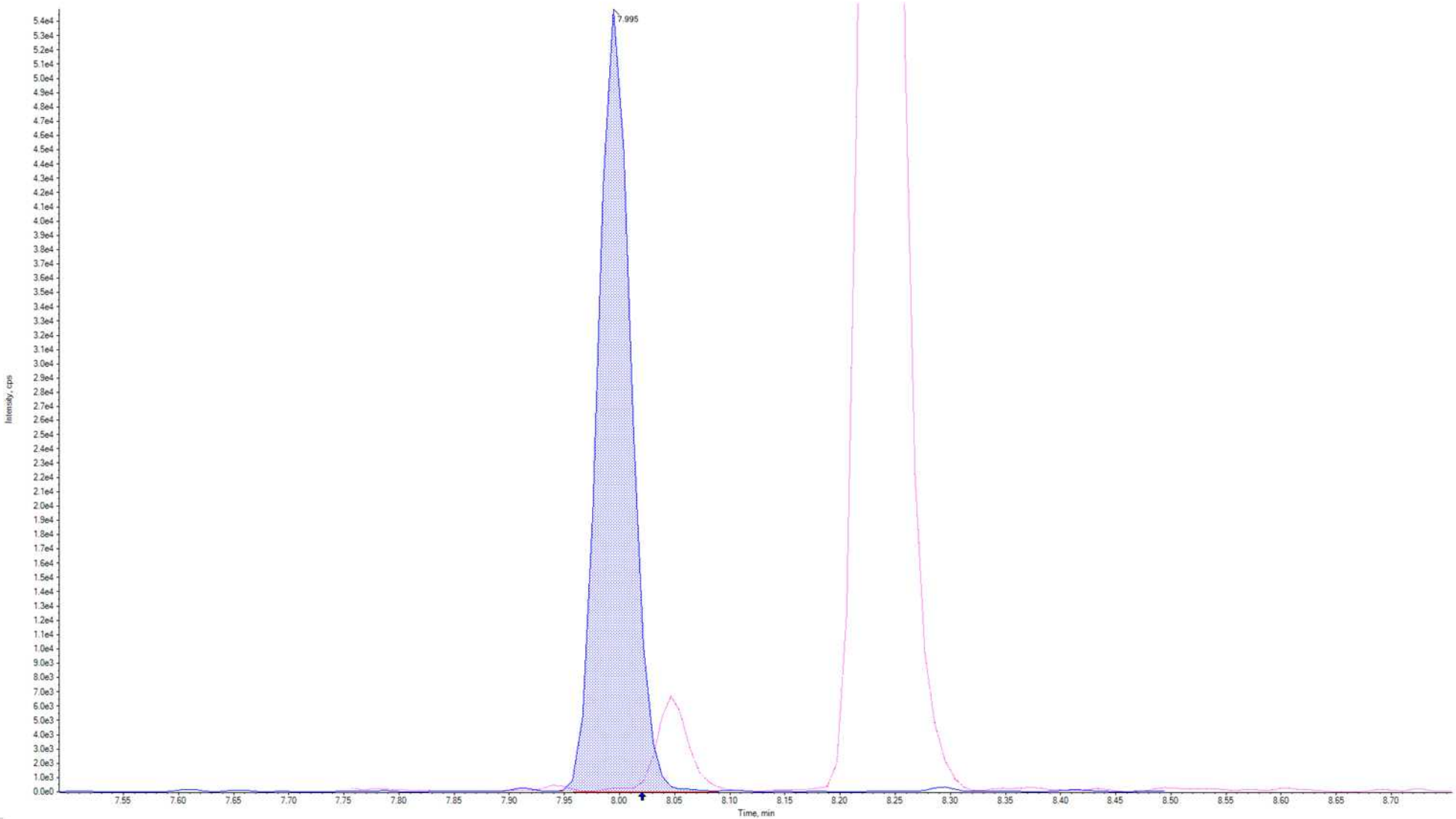
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Last Altered: 9/18/2024 12:41:54 PM
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PFHpS
Sample: WG1972760-5 S/N:5459.8 Points Across peak:19



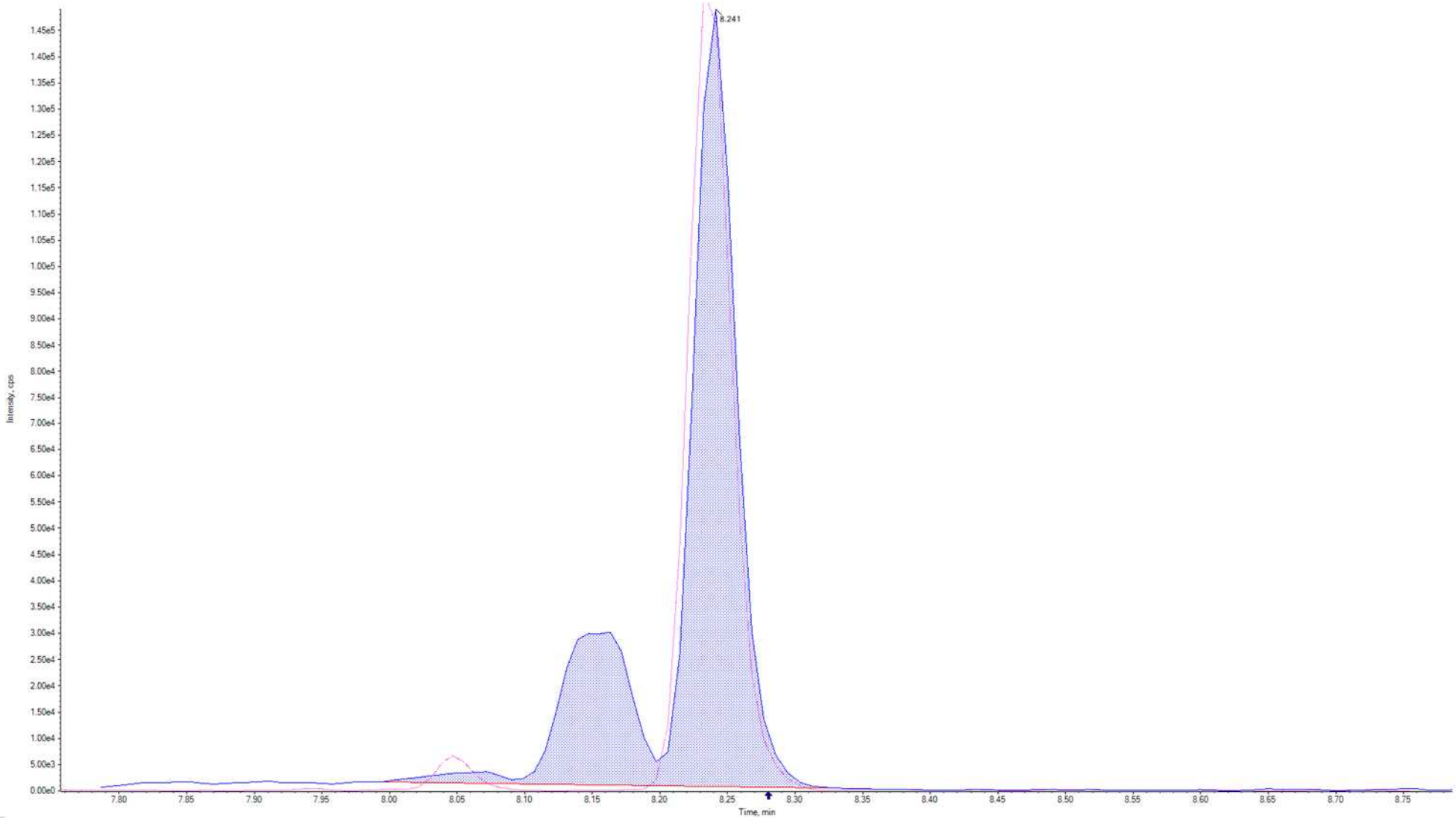
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Alpha Analytical Inc.
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Generated: 9/18/2024 6:35:36 AM

PFHpS_2
Sample: WG1972760-5 S/N:544773.5 Points Across peak:18



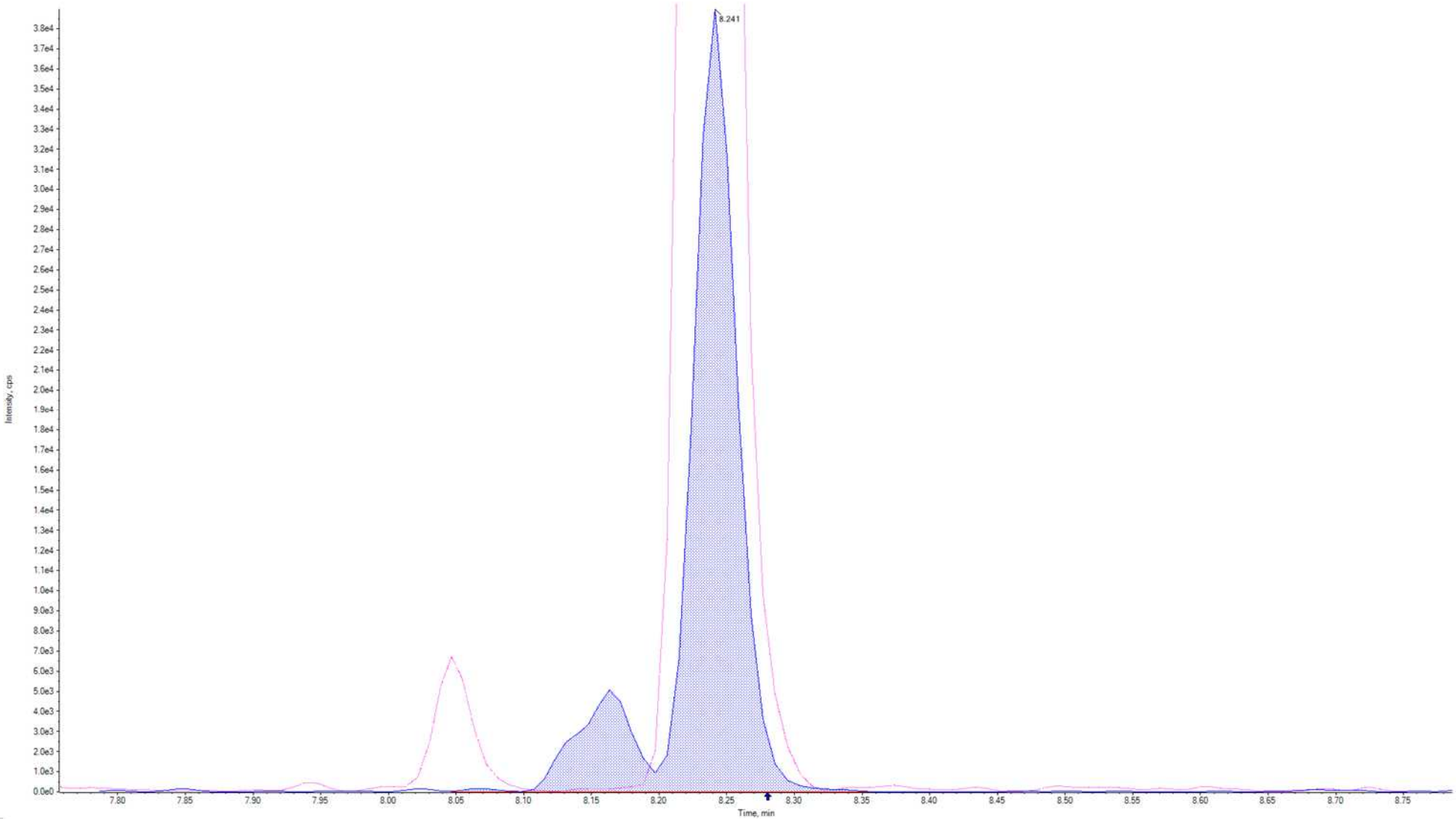
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFOS
Sample: WG1972760-5 S/N:1710.2 Points Across peak:41



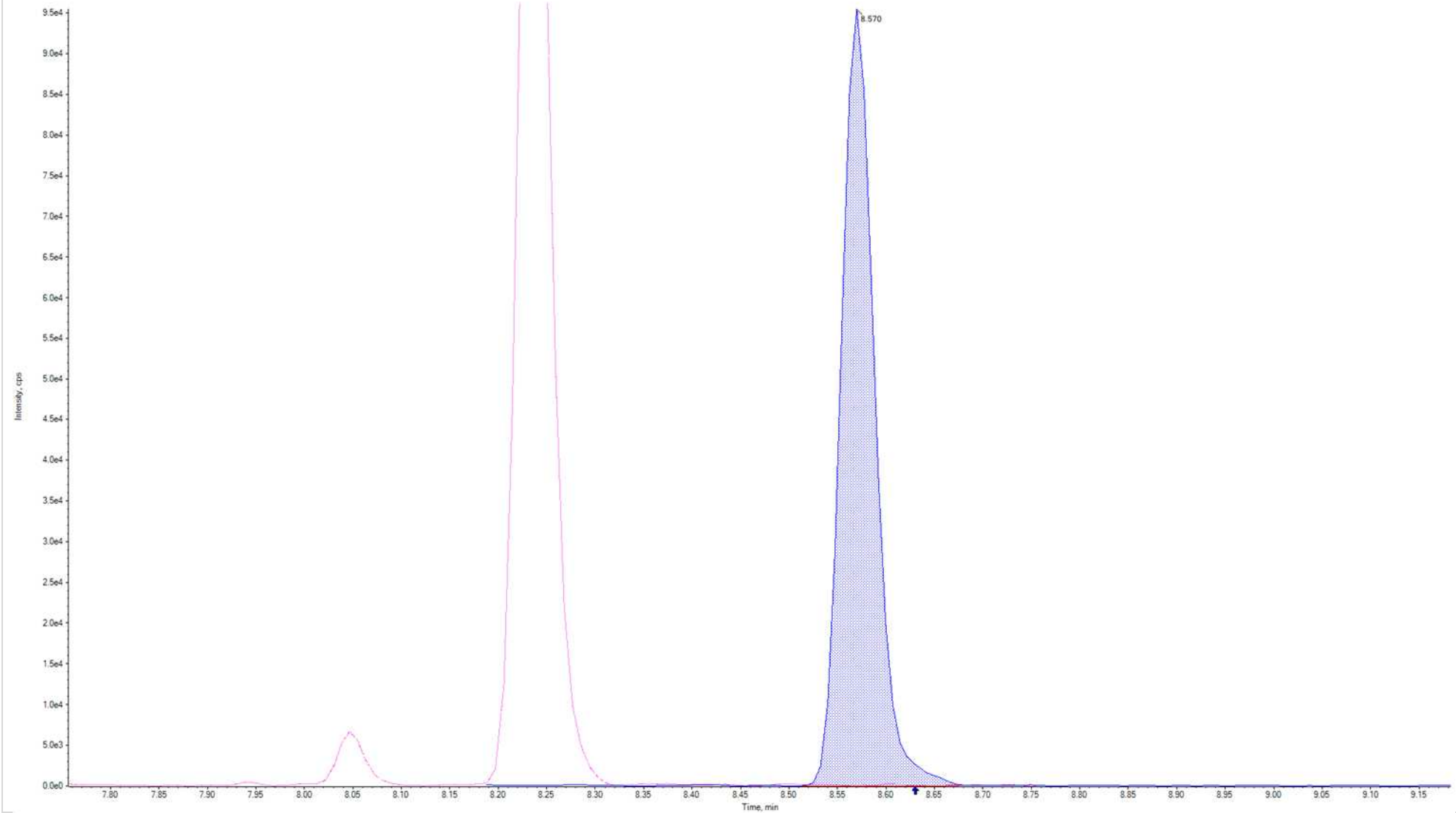
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFOS_2
Sample: WG1972760-5 S/N:829.1 Points Across peak:38



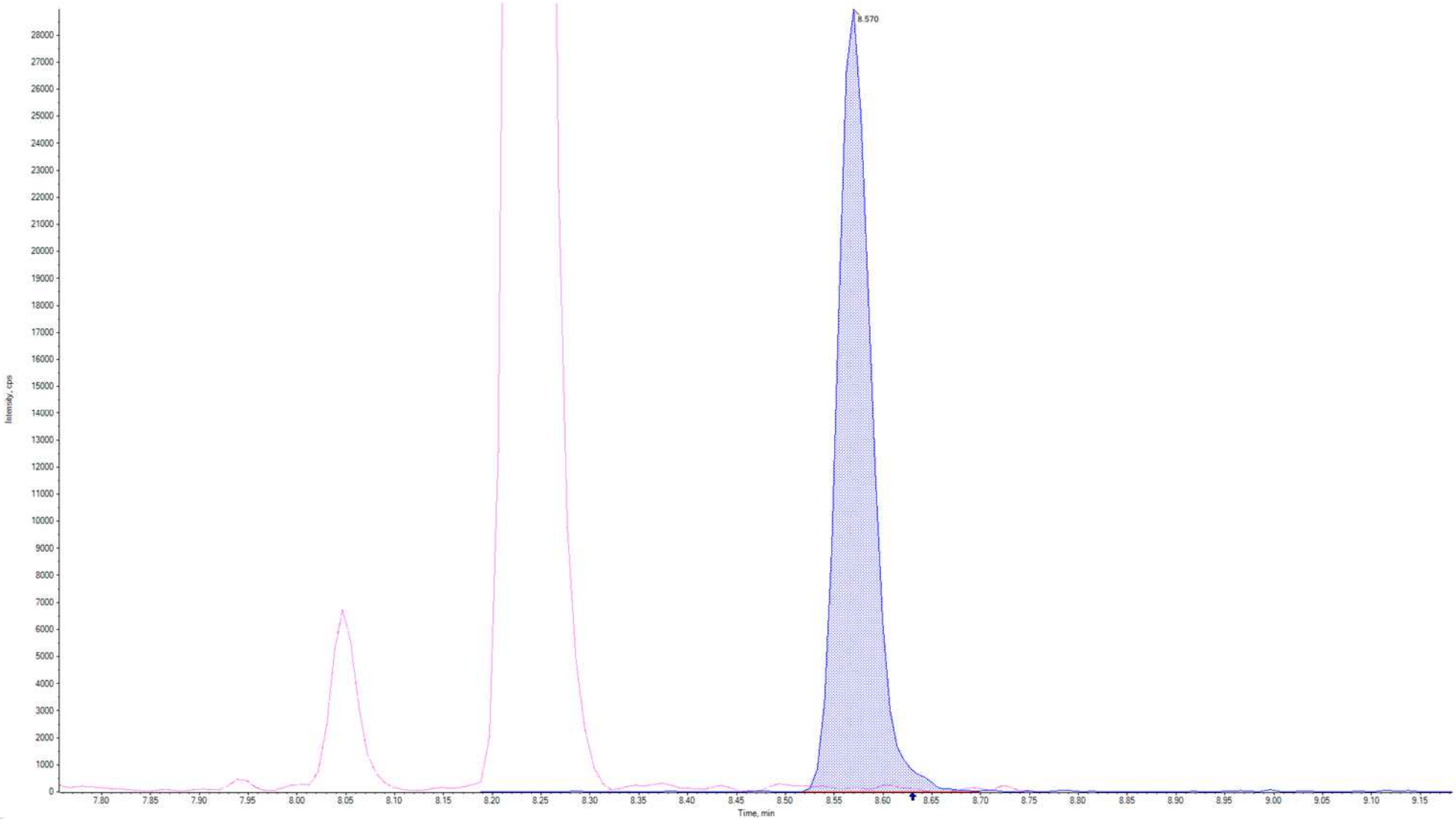
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFNS
Sample: WG1972760-5 S/N:4372.1 Points Across peak:28



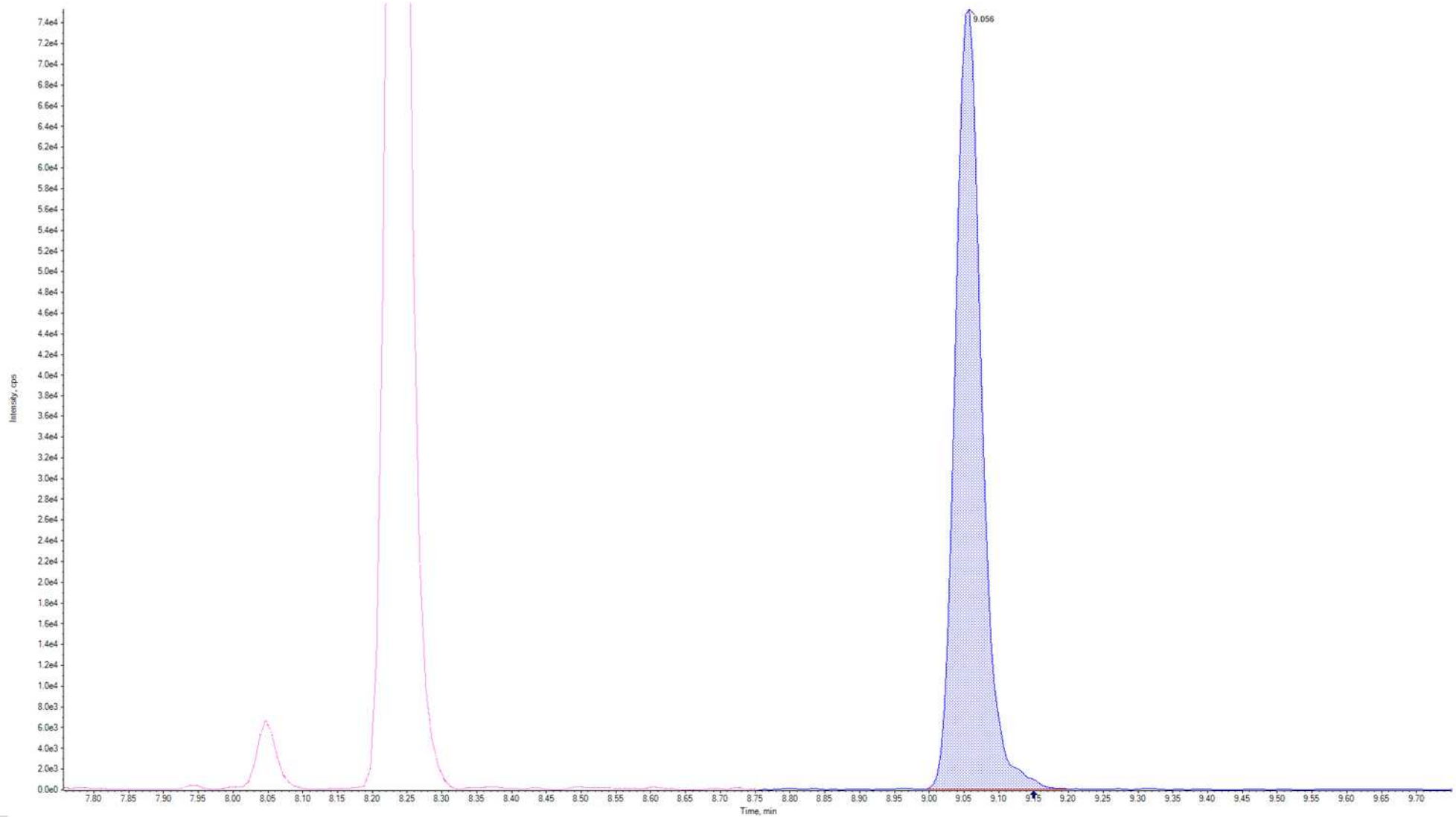
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFNS_2
Sample: WG1972760-5 S/N:2174.7 Points Across peak:29



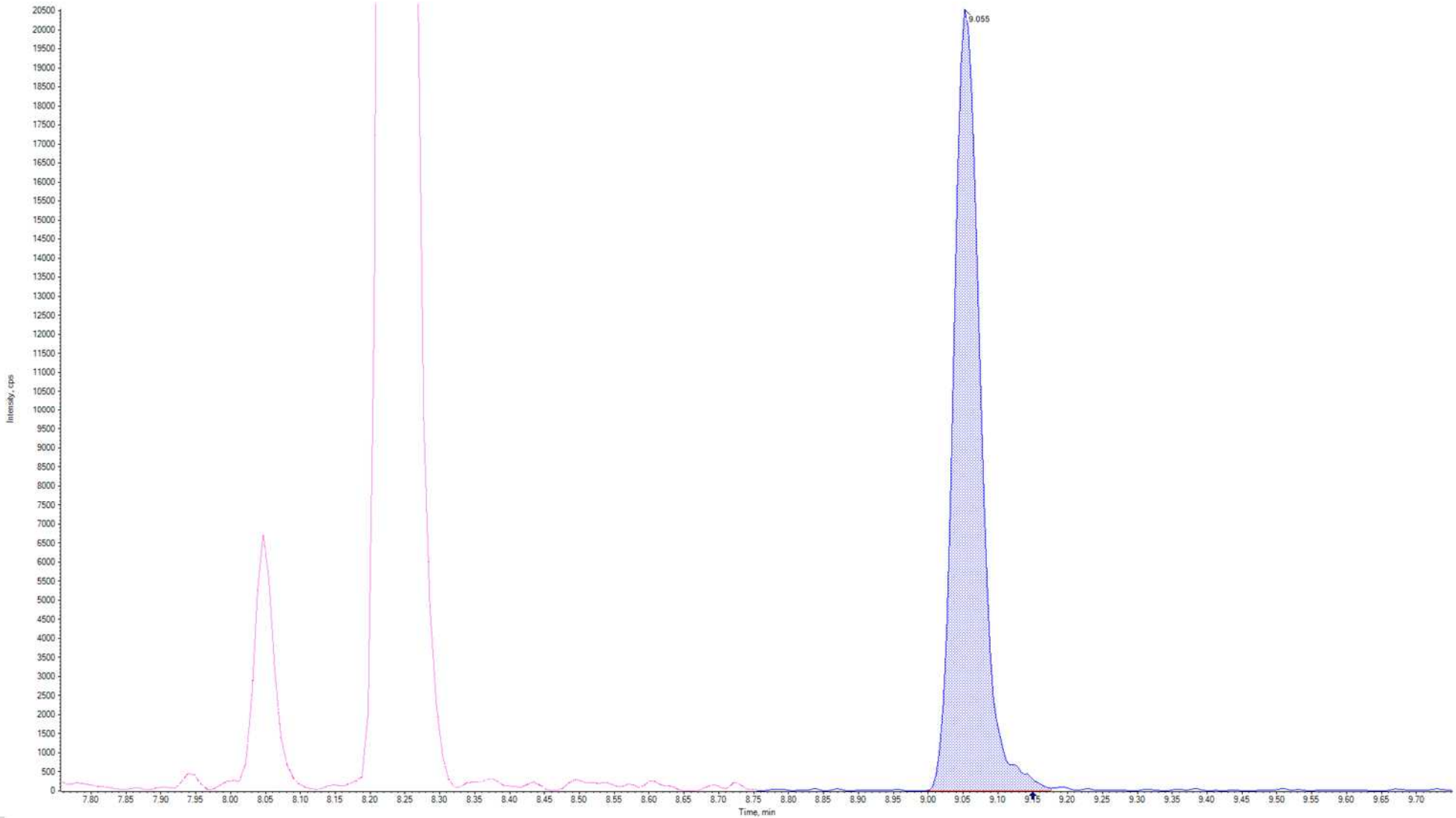
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDS
Sample: WG1972760-5 S/N:5485.6 Points Across peak:43



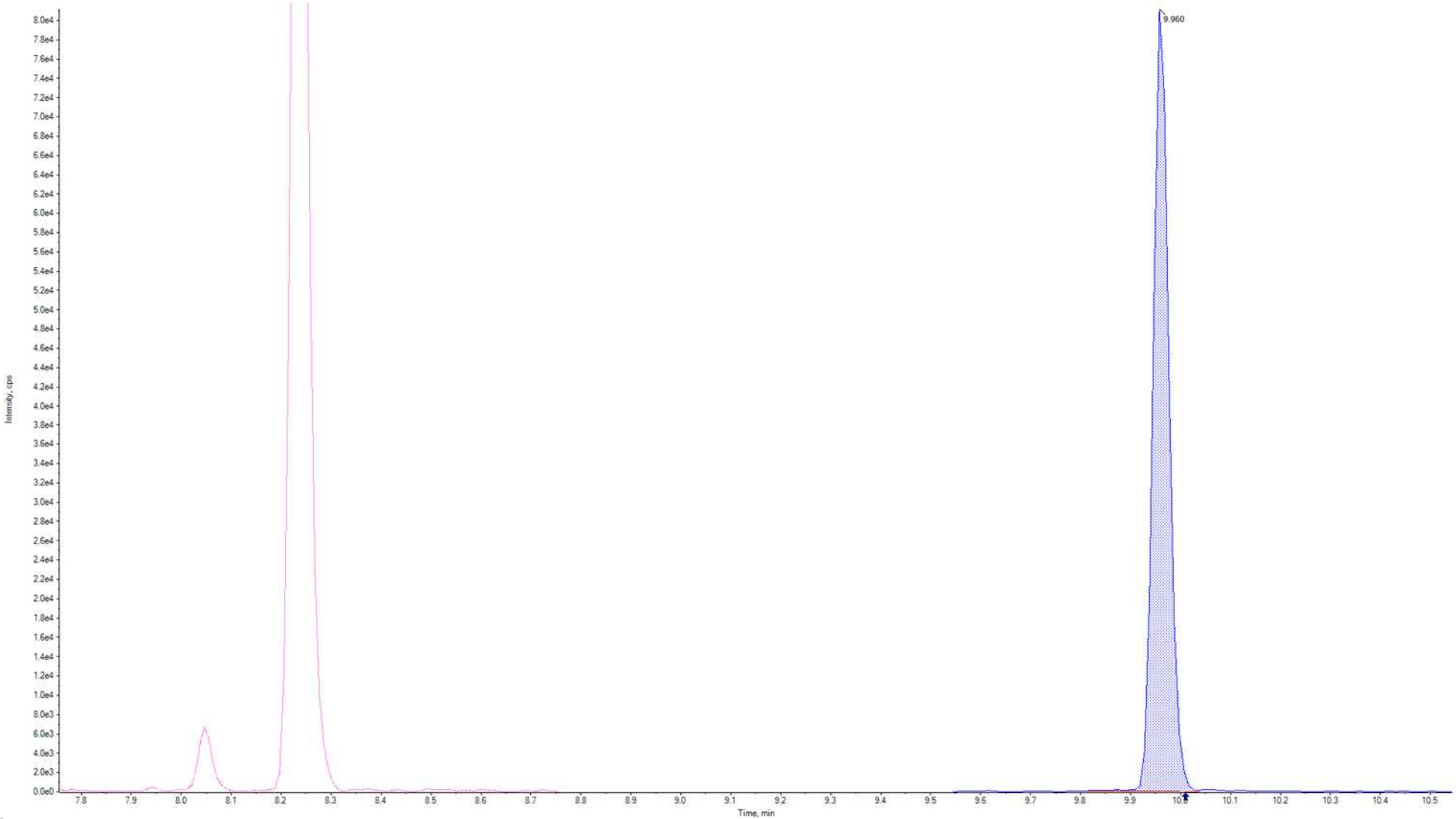
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_23.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDS_2
Sample: WG1972760-5 S/N:100567.9 Points Across peak:39



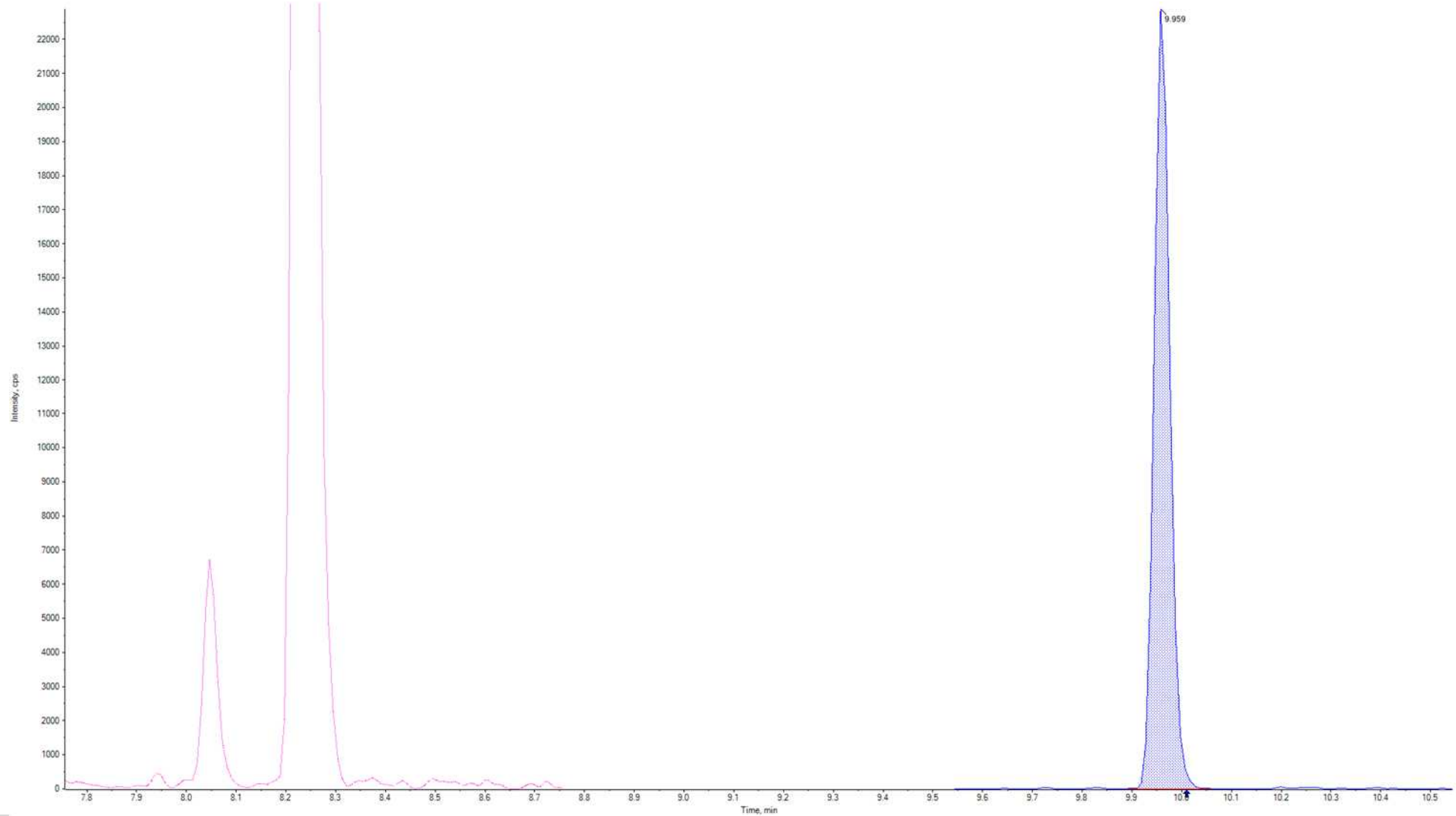
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

PFDoS
Sample: WG1972760-5 S/N:12158.2 Points Across peak:27



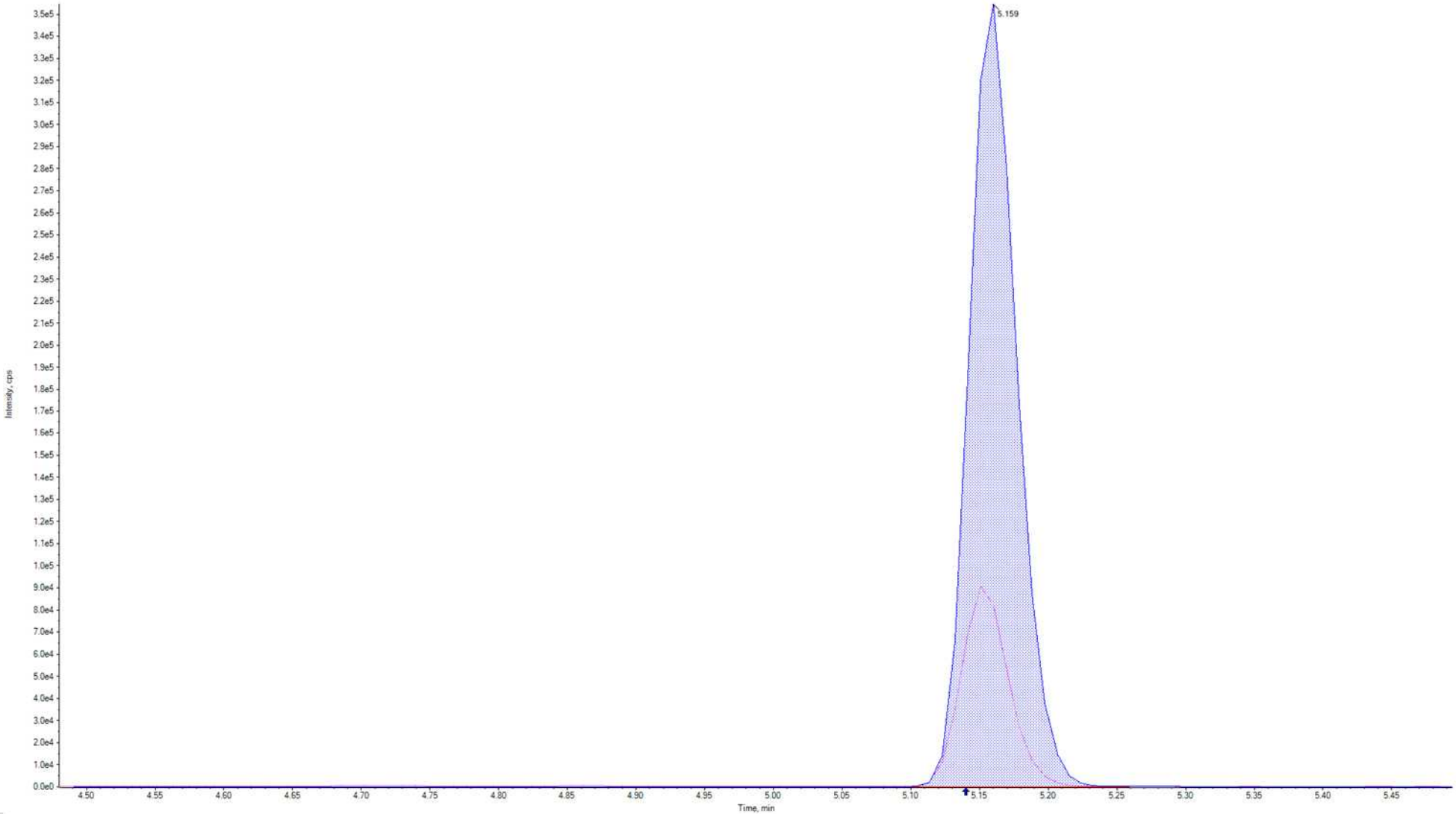
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFDoS_2
Sample: WG1972760-5 S/N:2748.5 Points Across peak:25



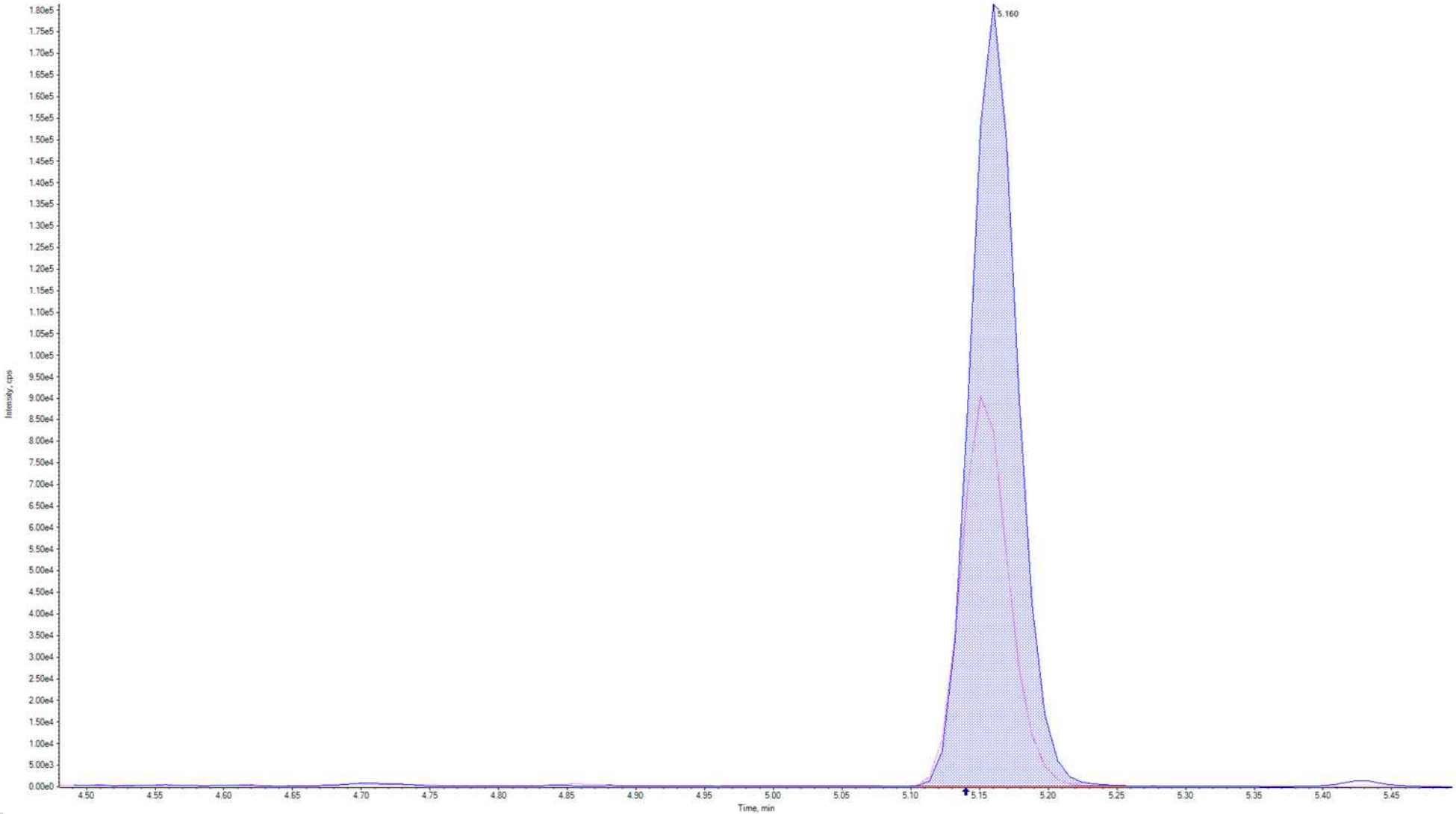
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

4:2FTS
Sample: WG1972760-5 S/N:241105.5 Points Across peak:22



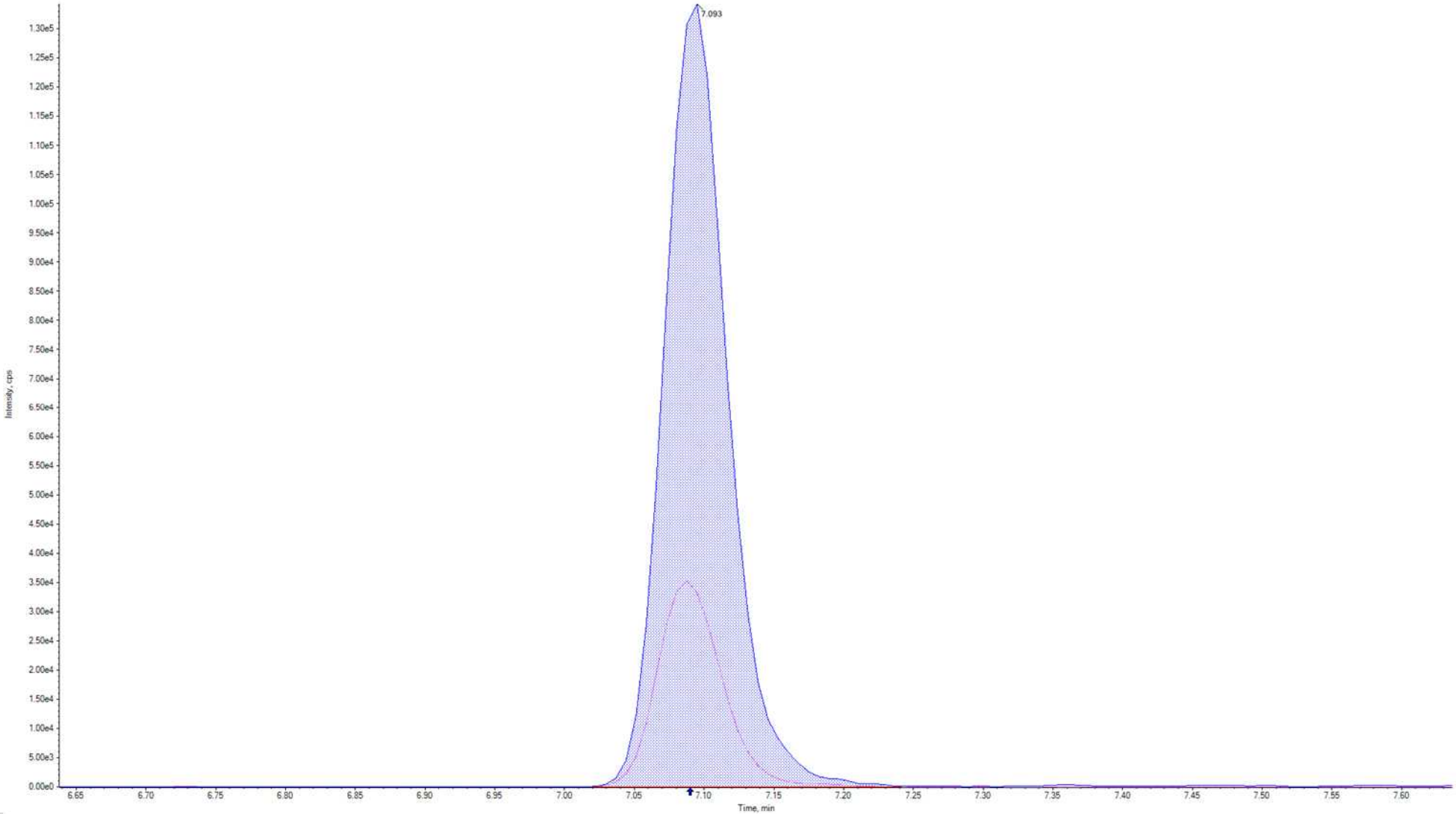
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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4:2FTS_2
Sample: WG1972760-5 S/N:2594.0 Points Across peak:23



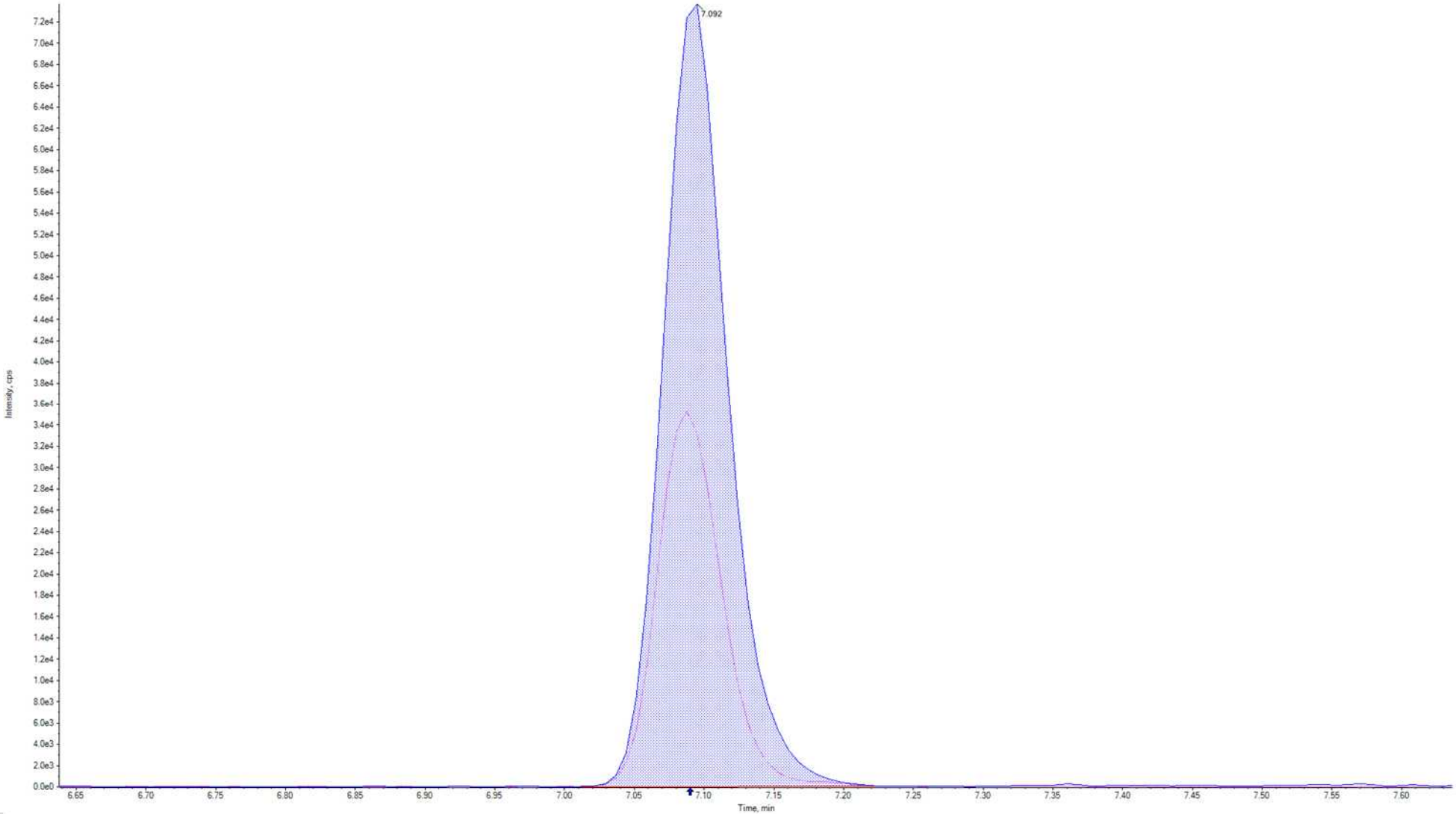
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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6:2FTS
Sample: WG1972760-5 S/N:1765.3 Points Across peak:37



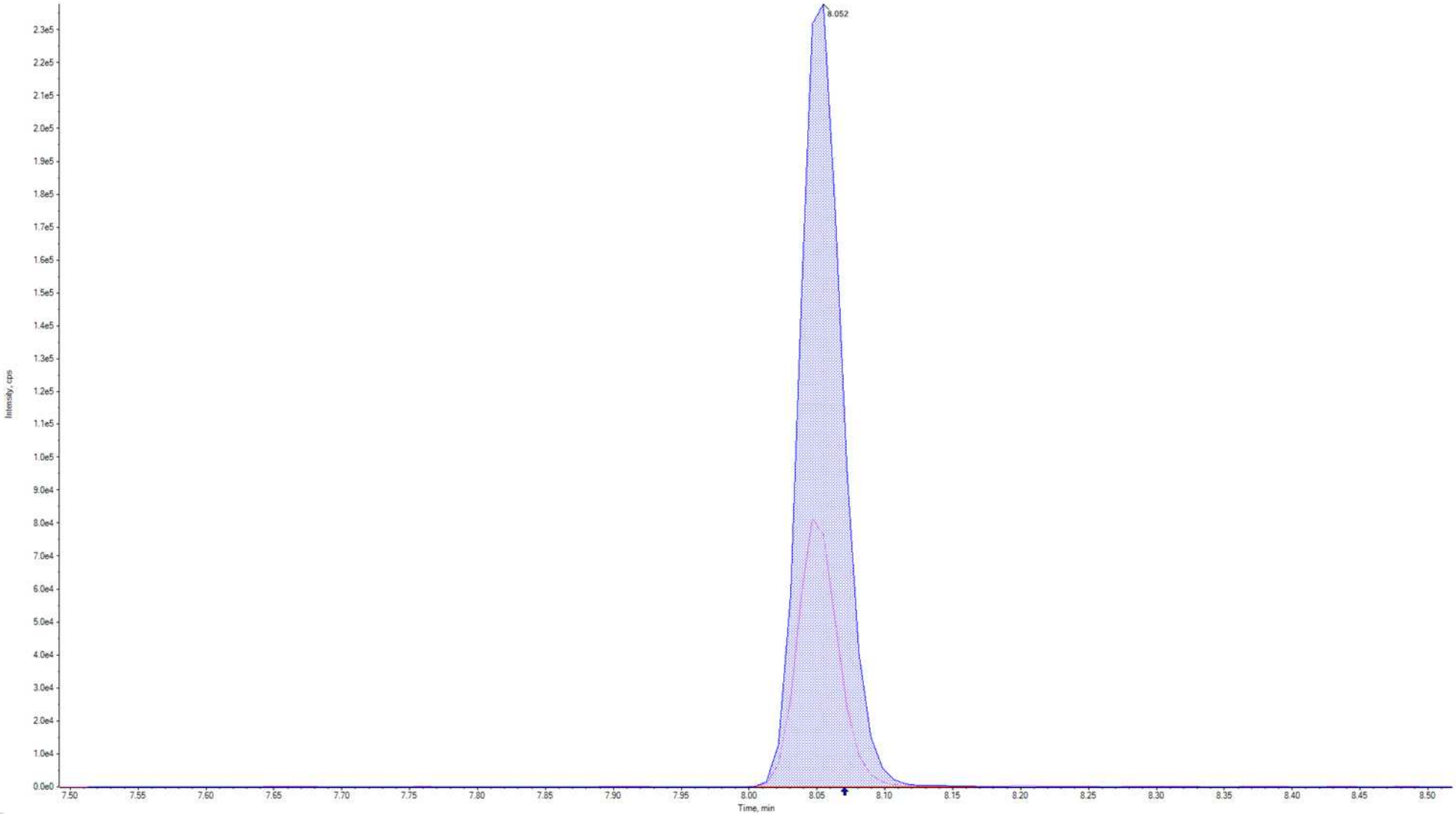
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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6:2FTS_2
Sample: WG1972760-5 S/N:1008707.5 Points Across peak:34



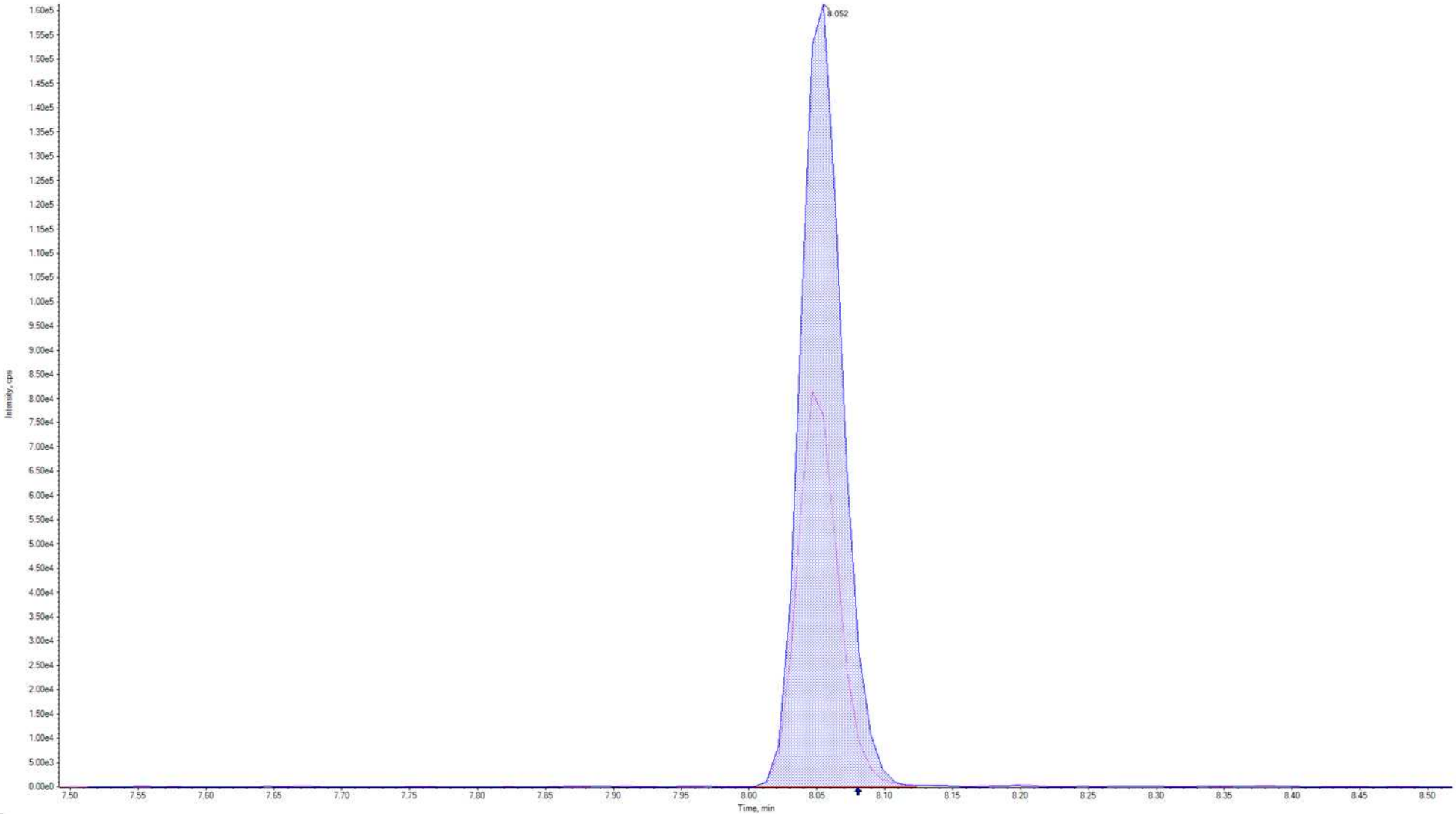
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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8:2FTS
Sample: WG1972760-5 S/N:22160.1 Points Across peak:34



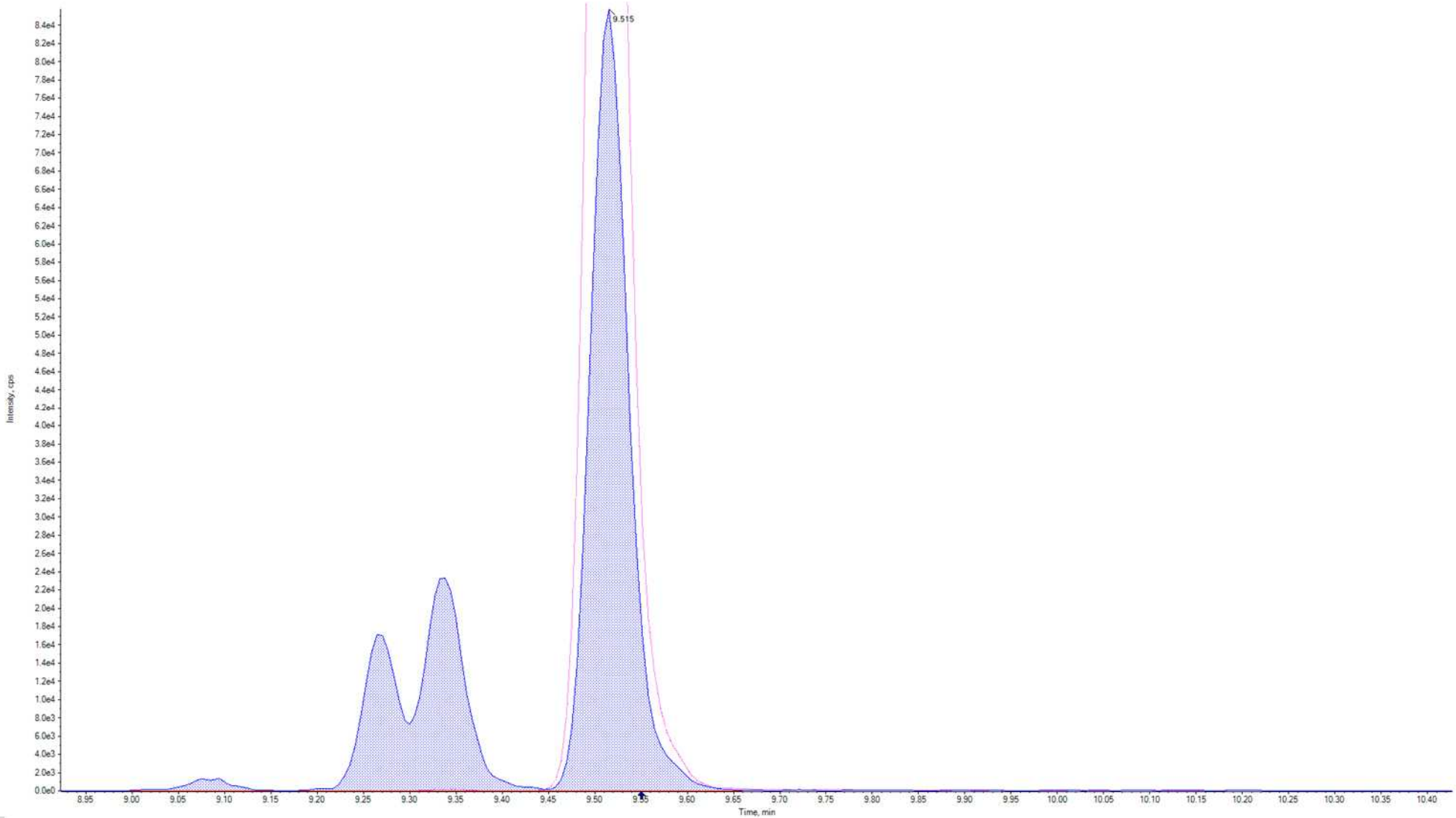
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

8:2FTS_2
Sample: WG1972760-5 S/N:984799.0 Points Across peak:16



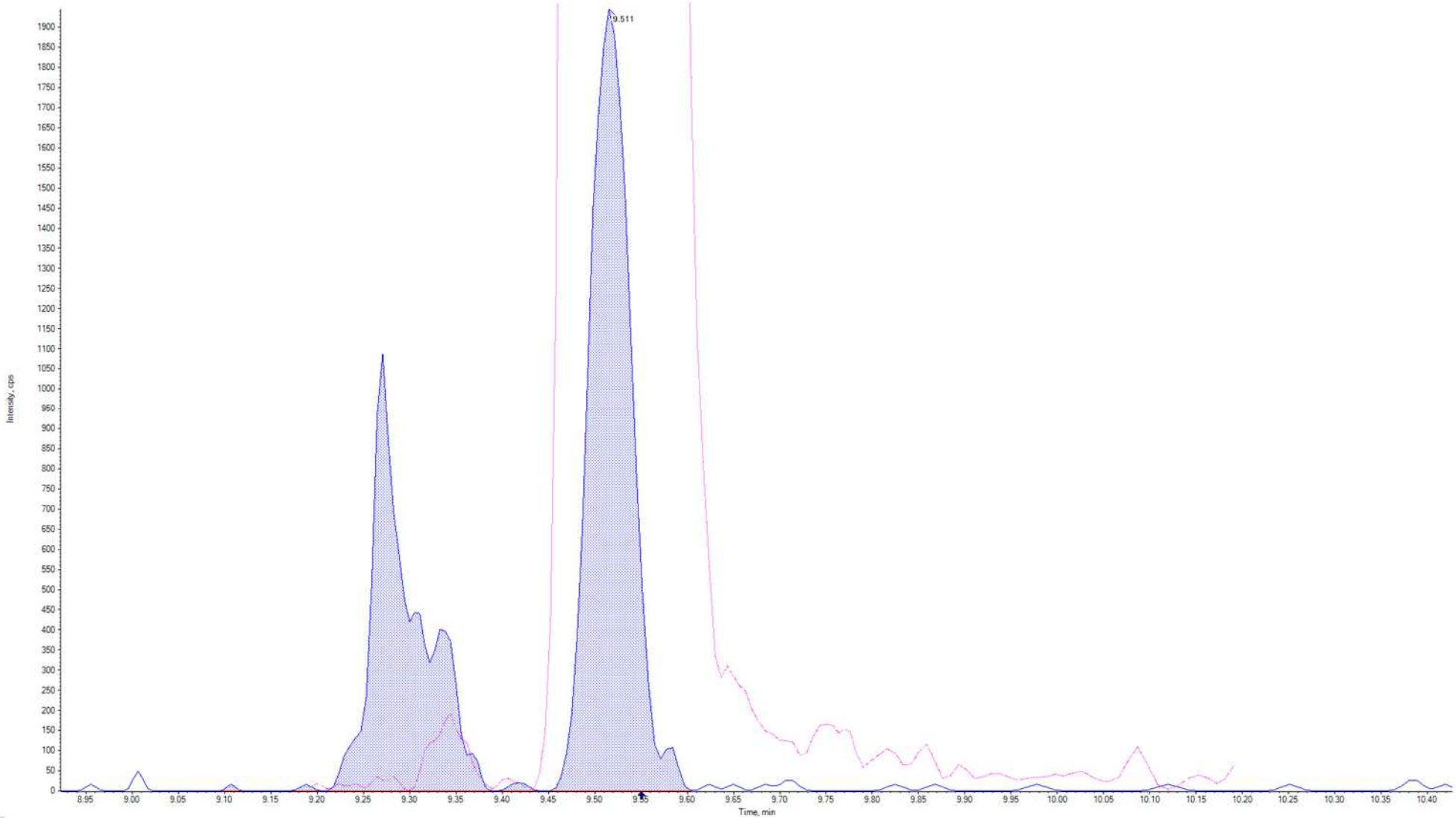
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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PFOSA
Sample: WG1972760-5 S/N:26429.4 Points Across peak:121



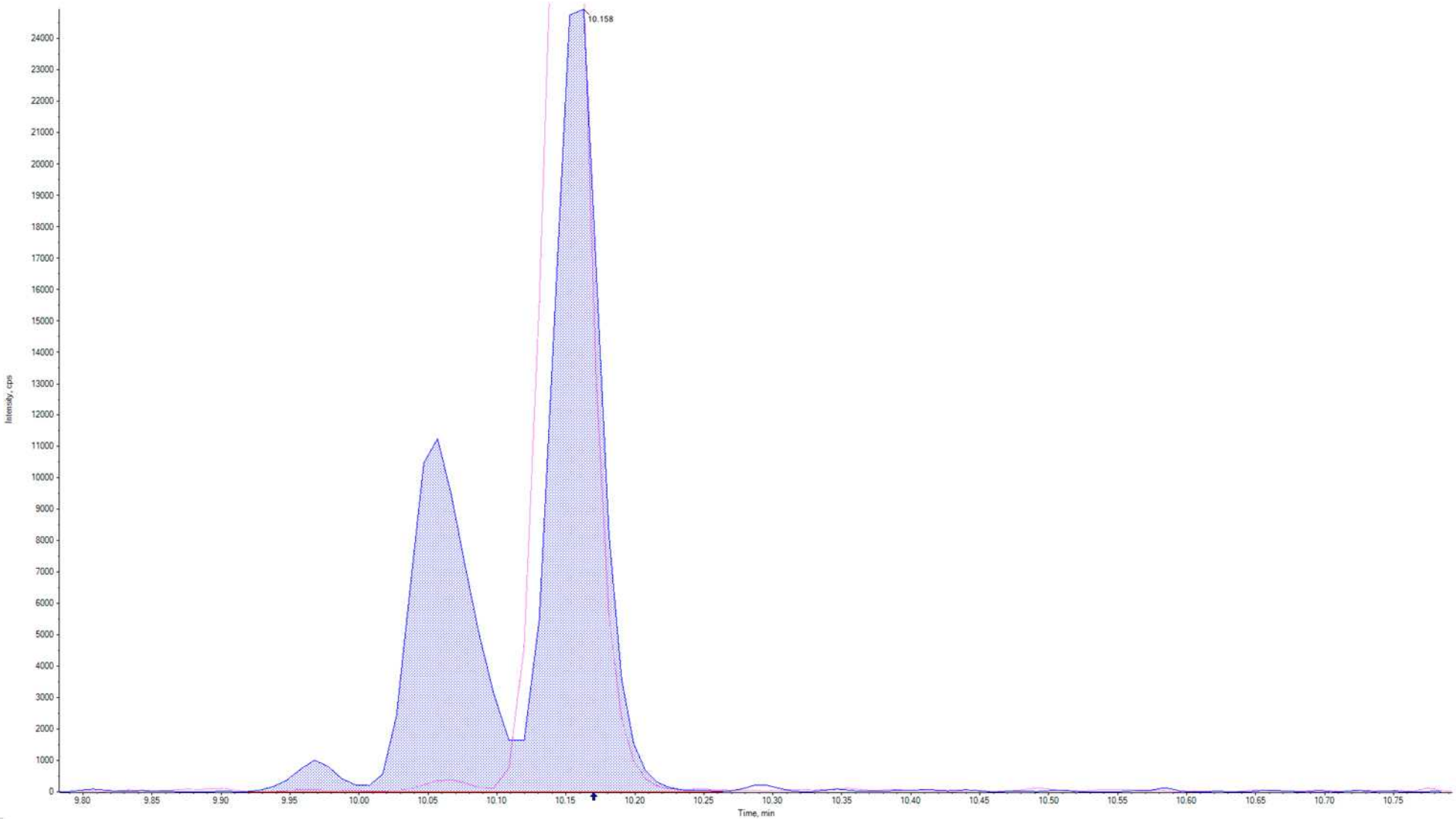
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Last Altered: 9/18/2024 12:41:54 PM
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PFOSA_2
Sample: WG1972760-5 S/N:479.8 Points Across peak:93



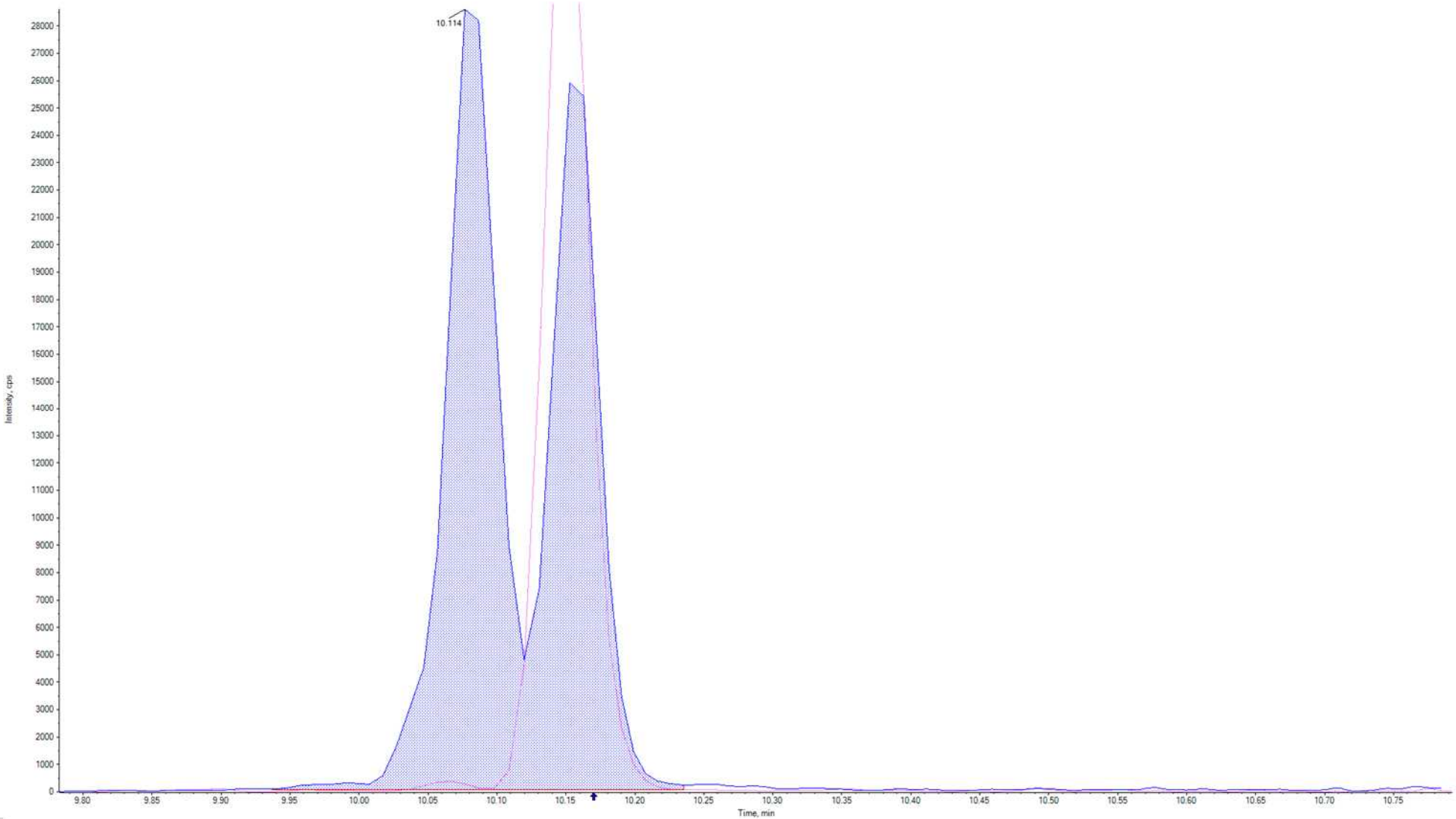
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Alpha Analytical Inc.
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NMeFOSA
Sample: WG1972760-5 S/N:6792.2 Points Across peak:38



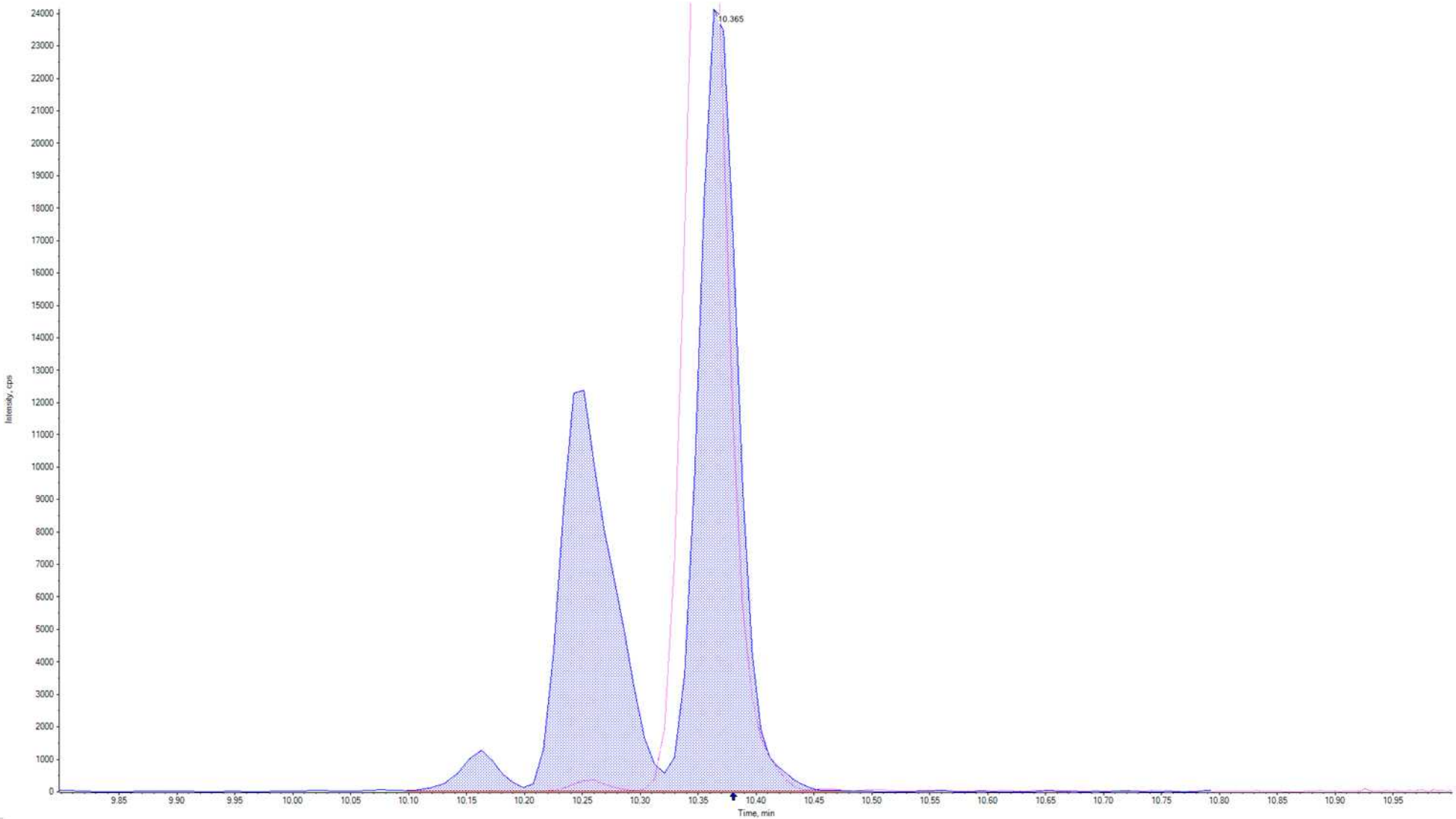
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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NMeFOSA_2
Sample: WG1972760-5 S/N:837.3 Points Across peak:33



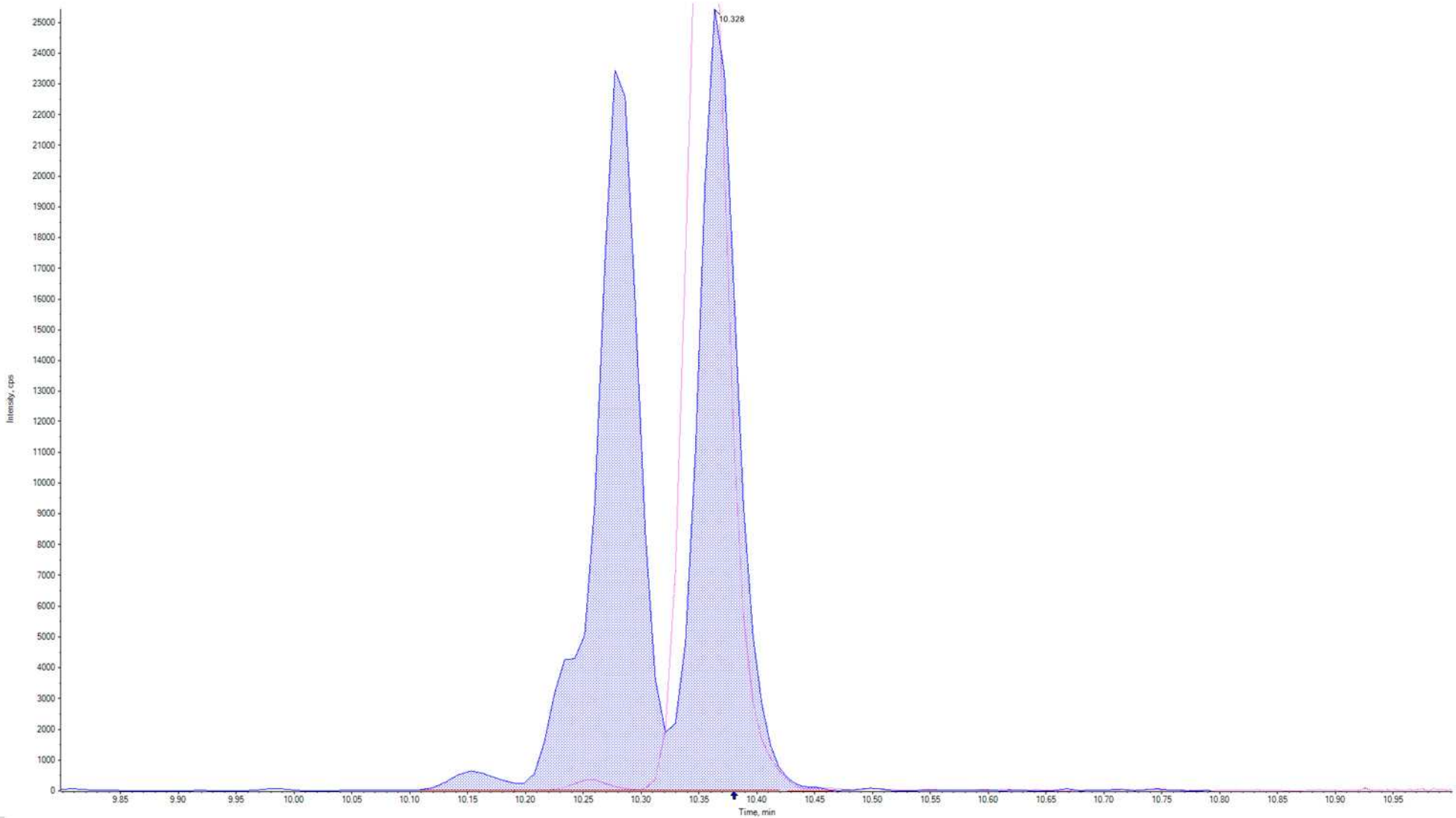
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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NEtFOSA
Sample: WG1972760-5 S/N:47099.4 Points Across peak:47



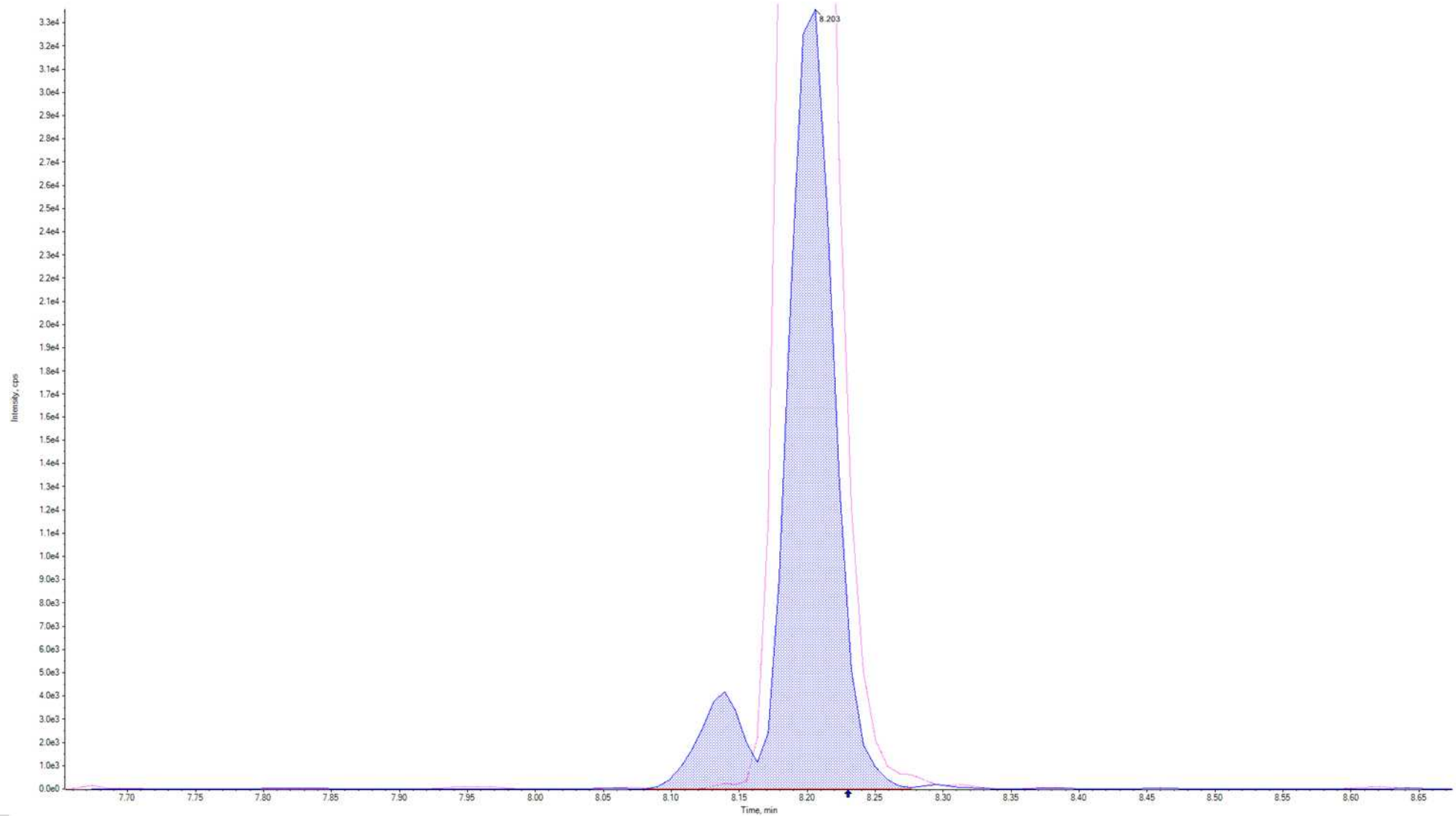
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NEtFOSA_2
Sample: WG1972760-5 S/N:41872.7 Points Across peak:45



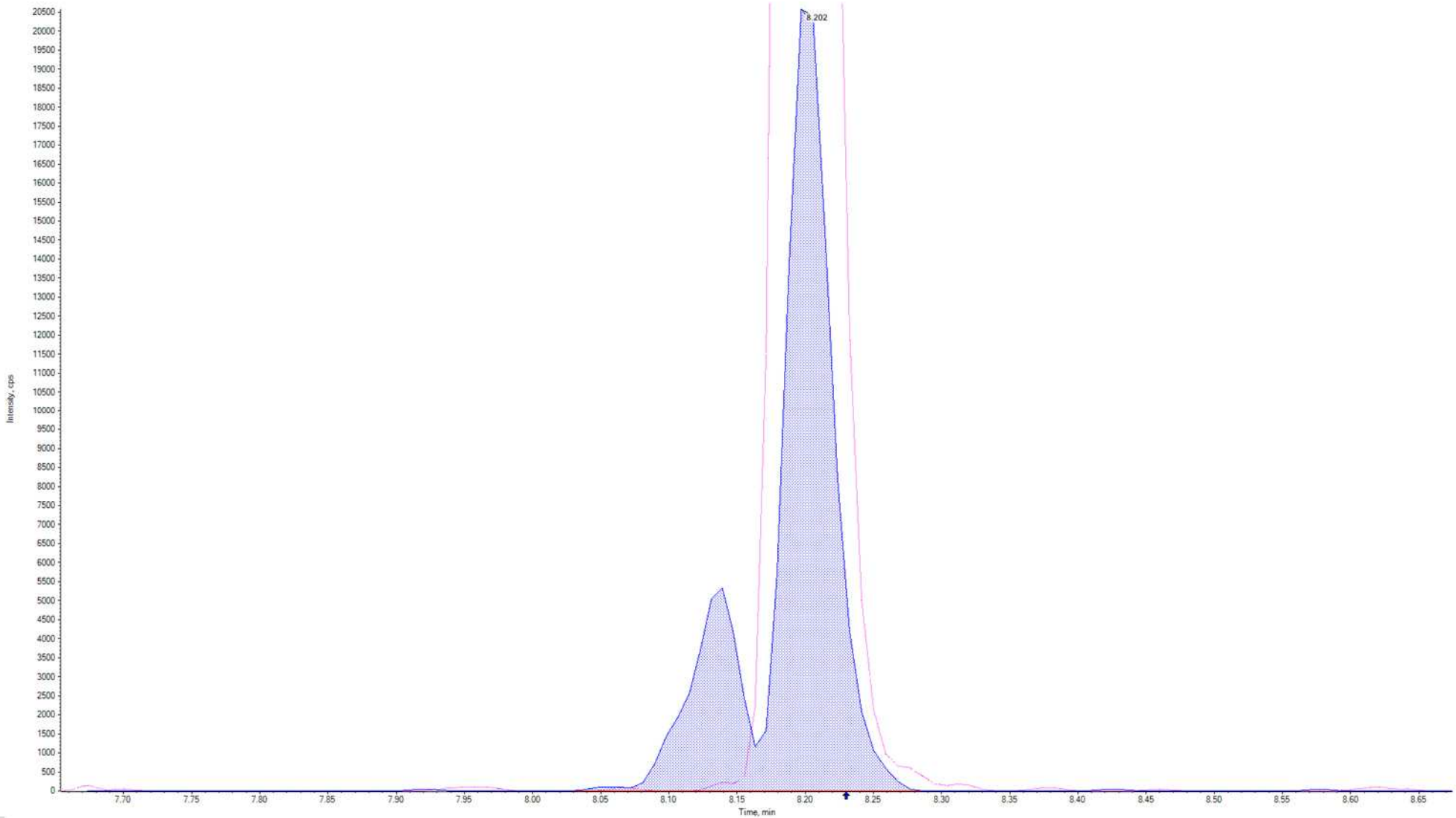
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NMeFOSAA
Sample: WG1972760-5 S/N:920.8 Points Across peak:24



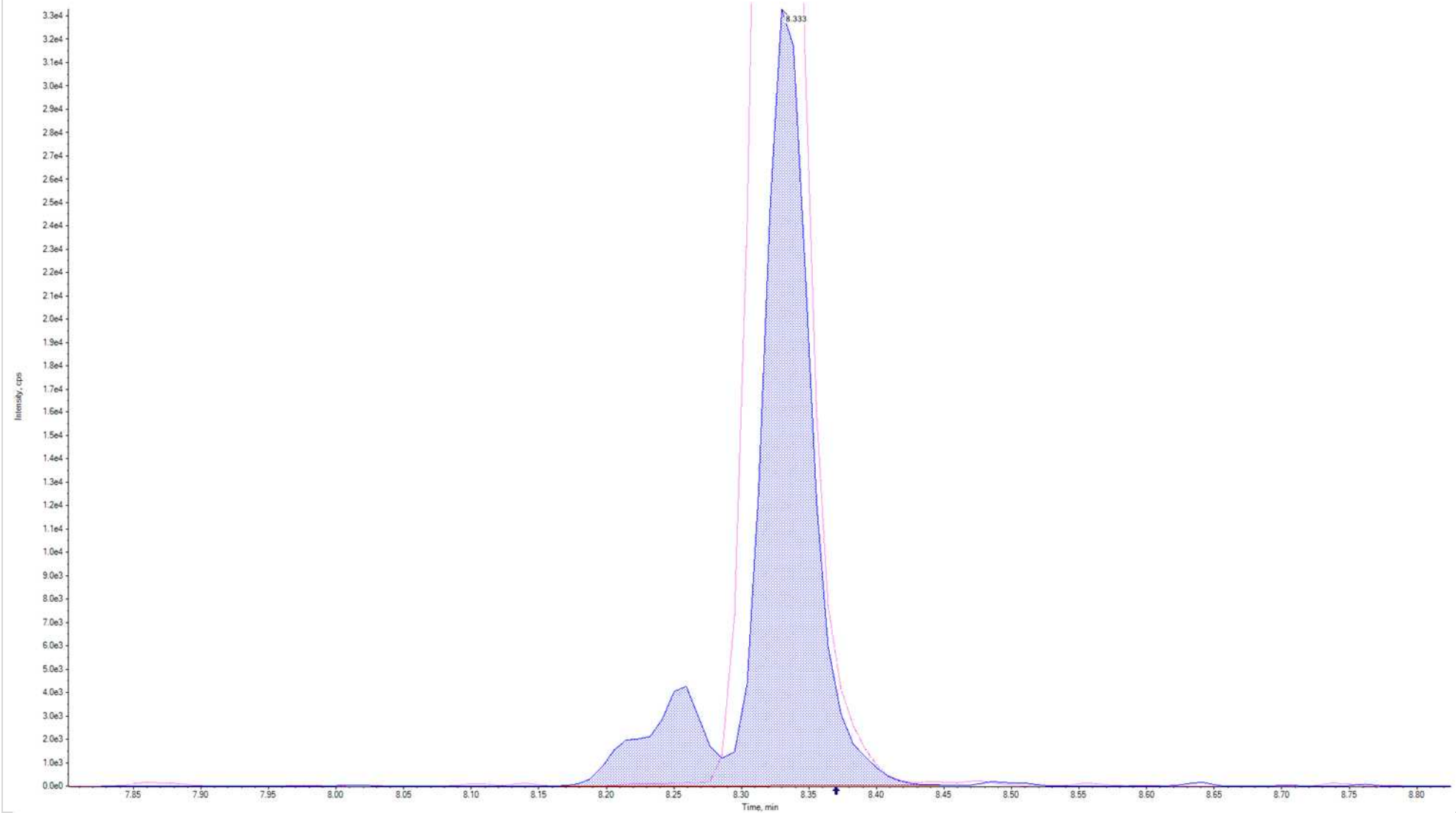
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

NMeFOSAA_2
Sample: WG1972760-5 S/N:537.5 Points Across peak:41



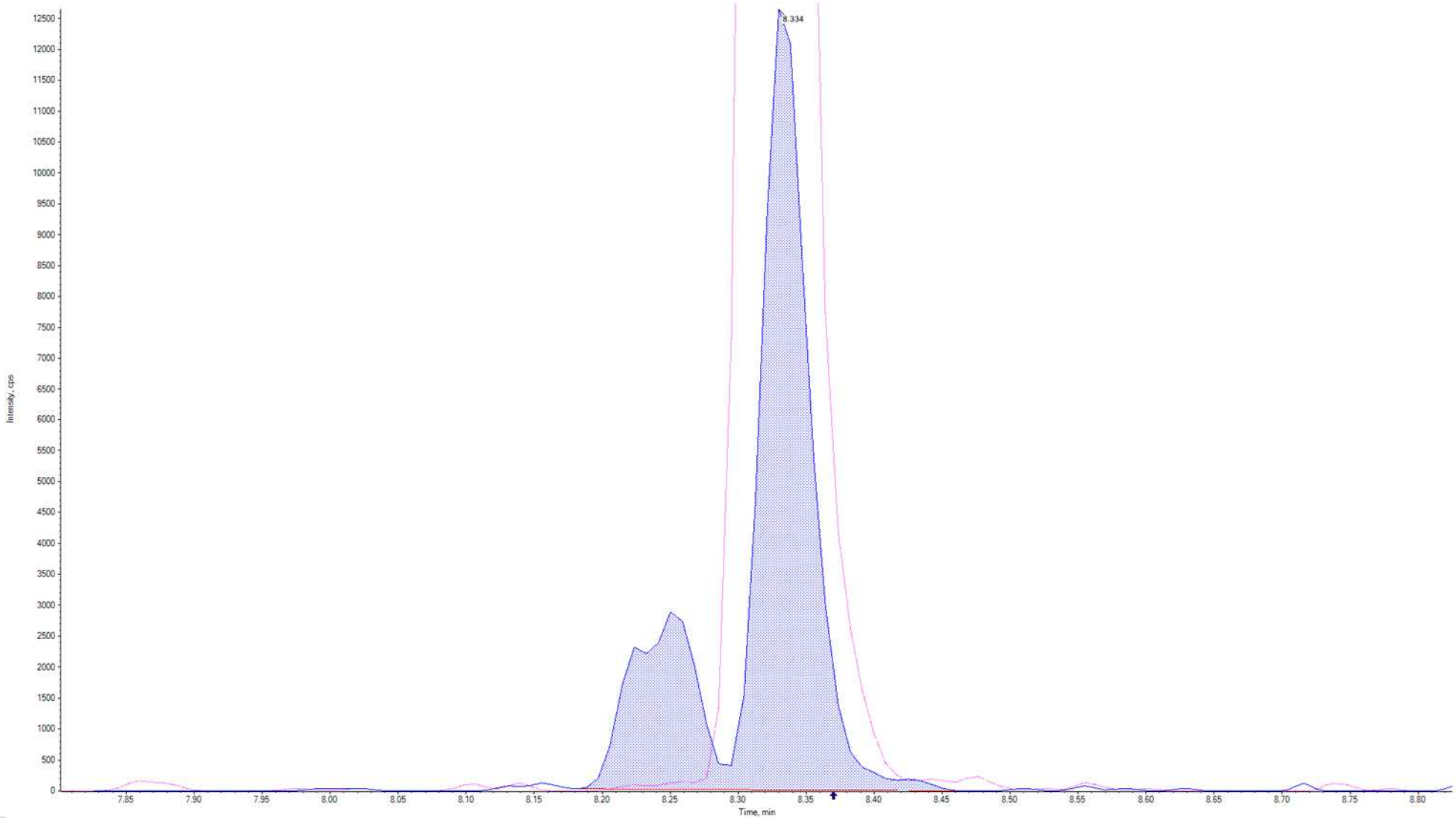
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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NEtFOSAA
Sample: WG1972760-5 S/N:542.9 Points Across peak:36



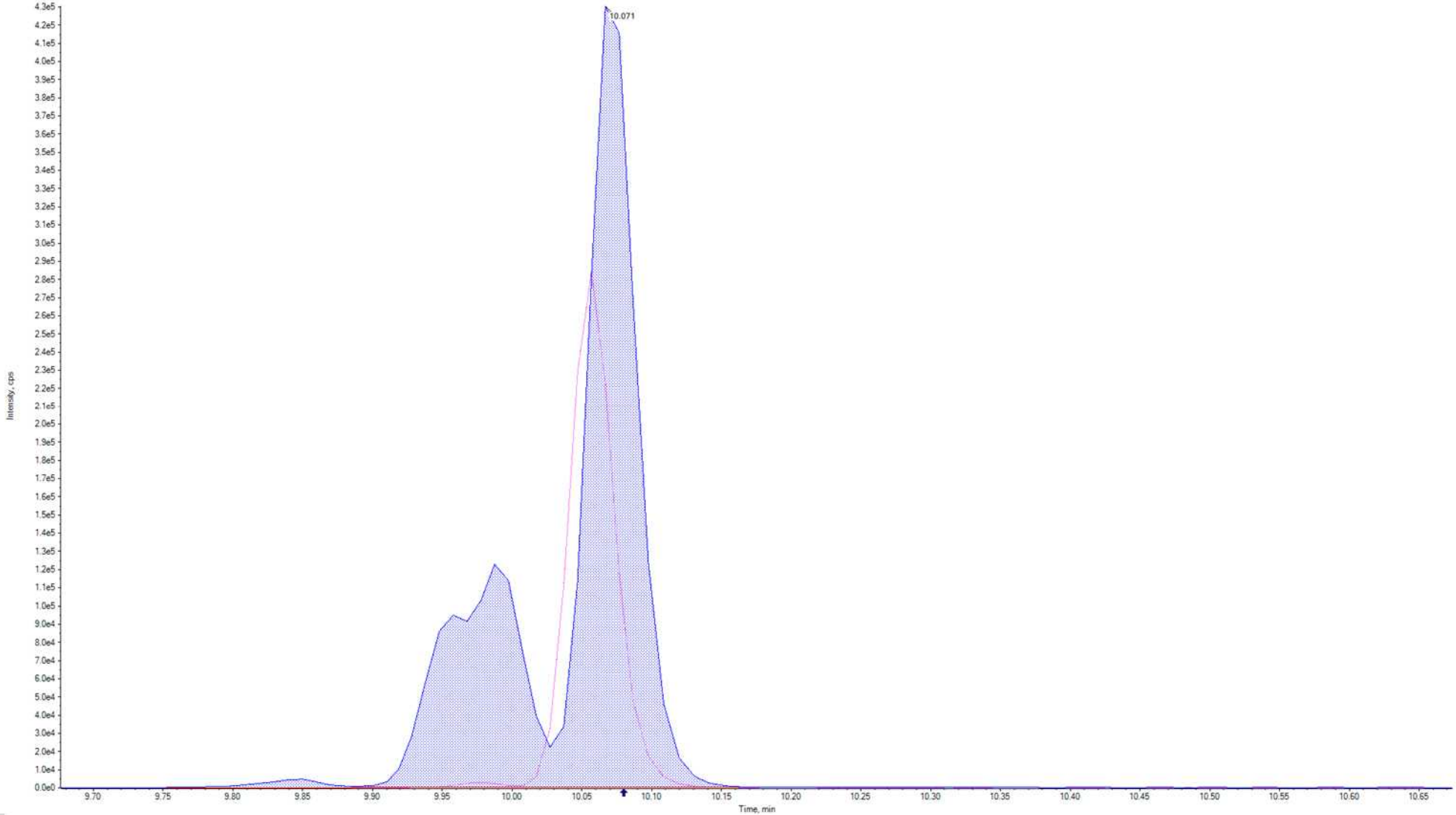
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Alpha Analytical Inc.
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Generated: 9/18/2024 6:35:36 AM

NEtFOSAA_2
Sample: WG1972760-5 S/N:301.2 Points Across peak:34



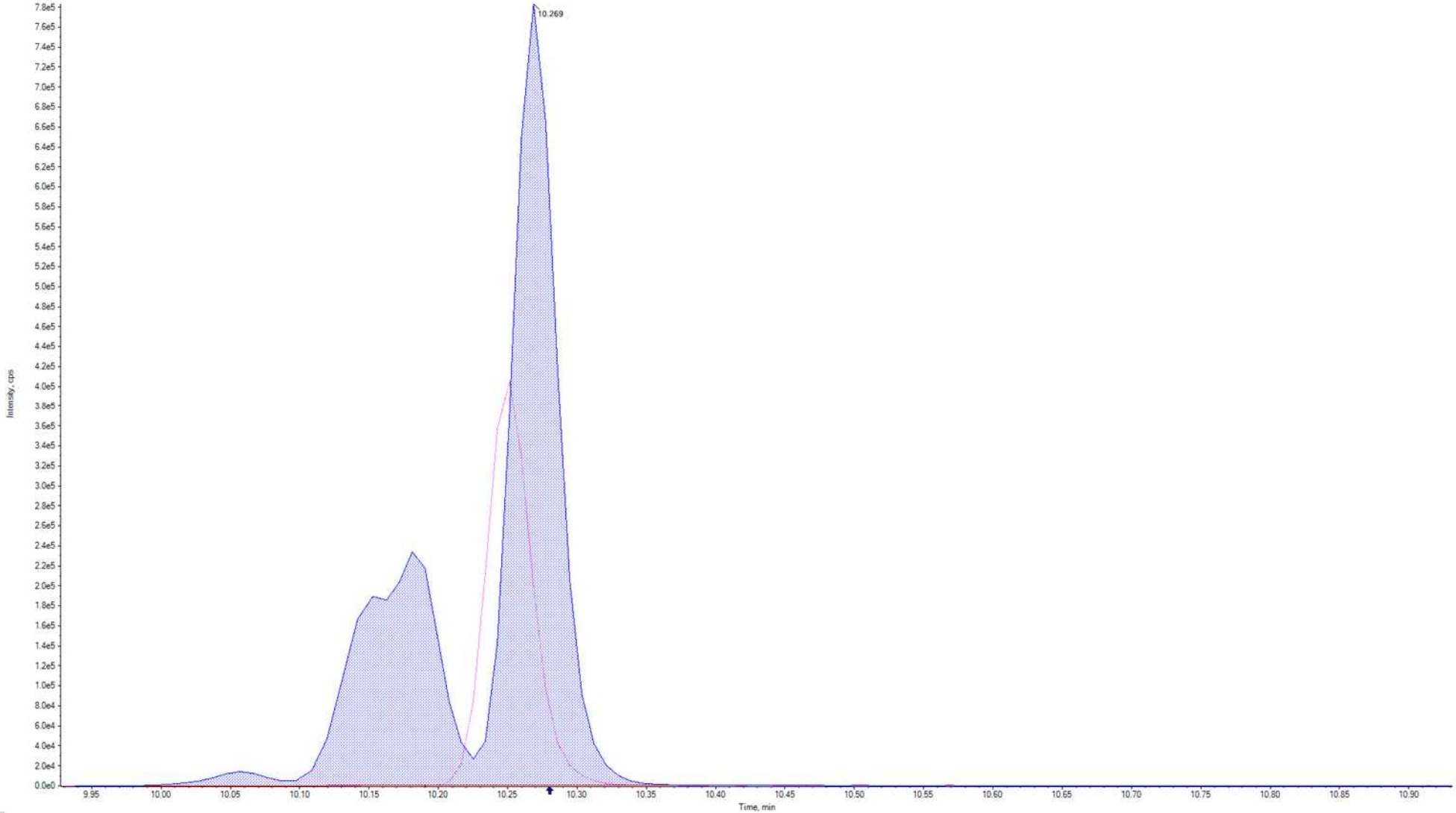
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Alpha Analytical Inc.
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NMeFOSE
Sample: WG1972760-5 S/N:13601.8 Points Across peak:48



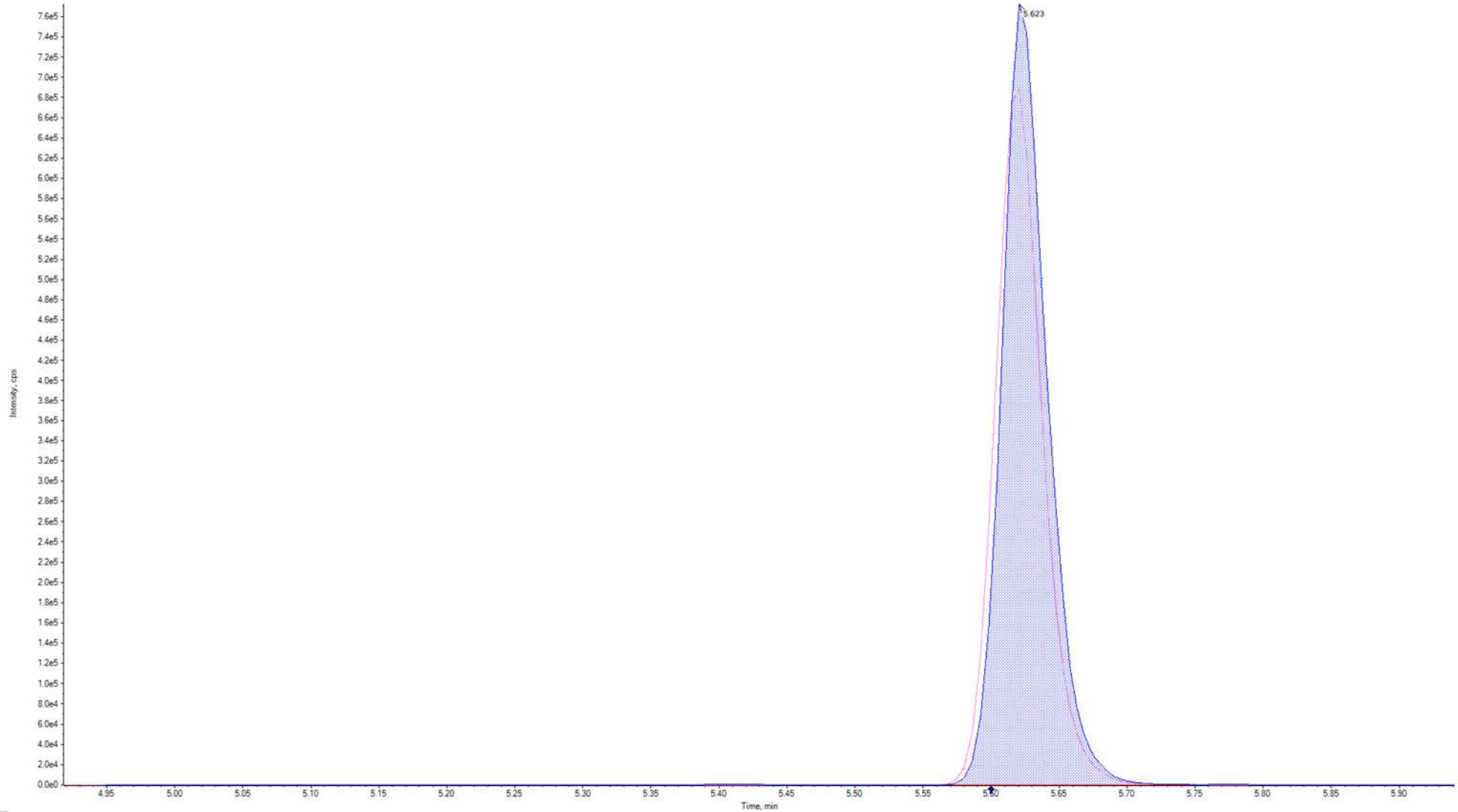
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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NEtFOSE
Sample: WG1972760-5 S/N:2602.6 Points Across peak:45



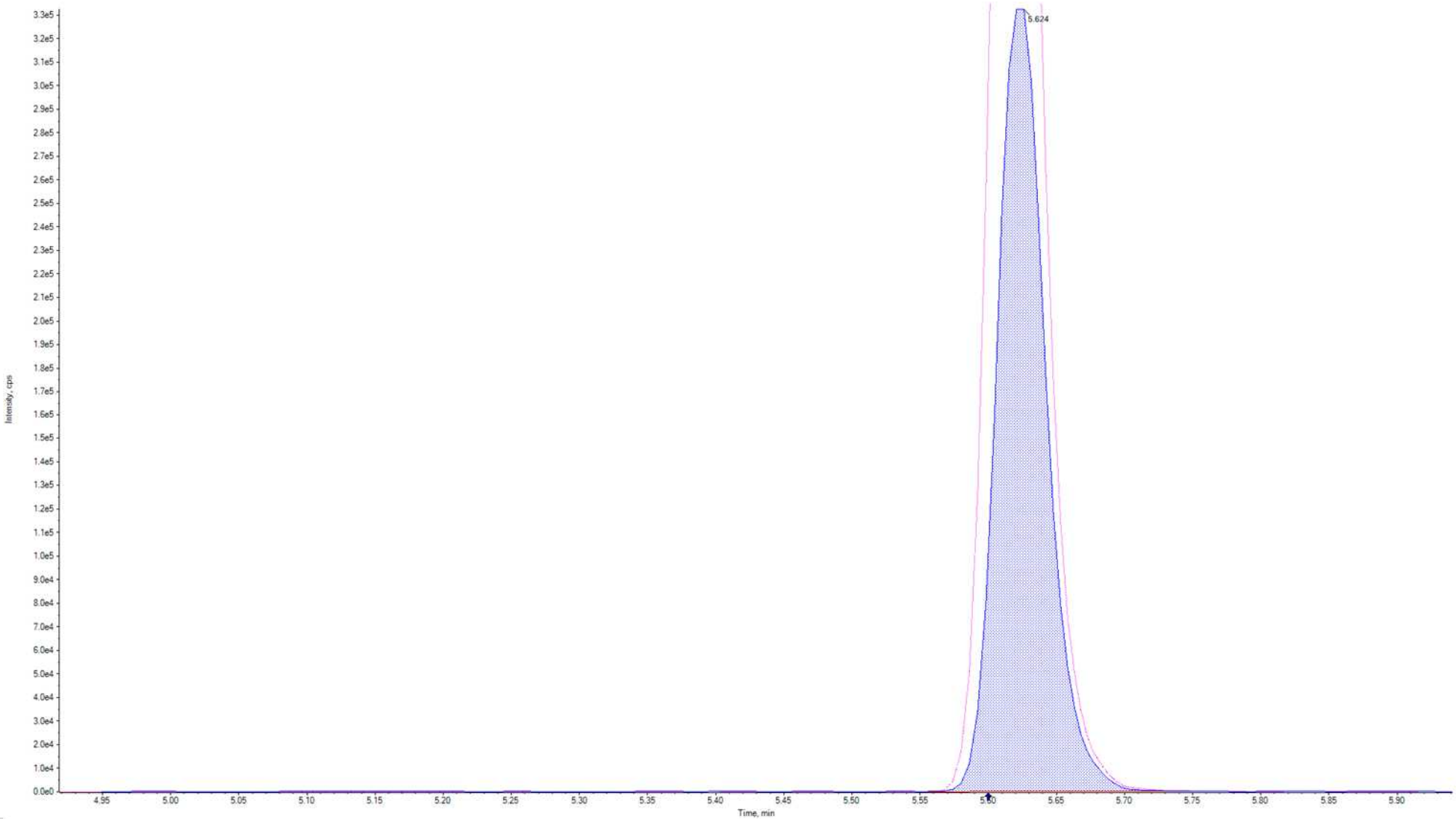
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HFPO-DA
Sample: WG1972760-5 S/N:18809.0 Points Across peak:46



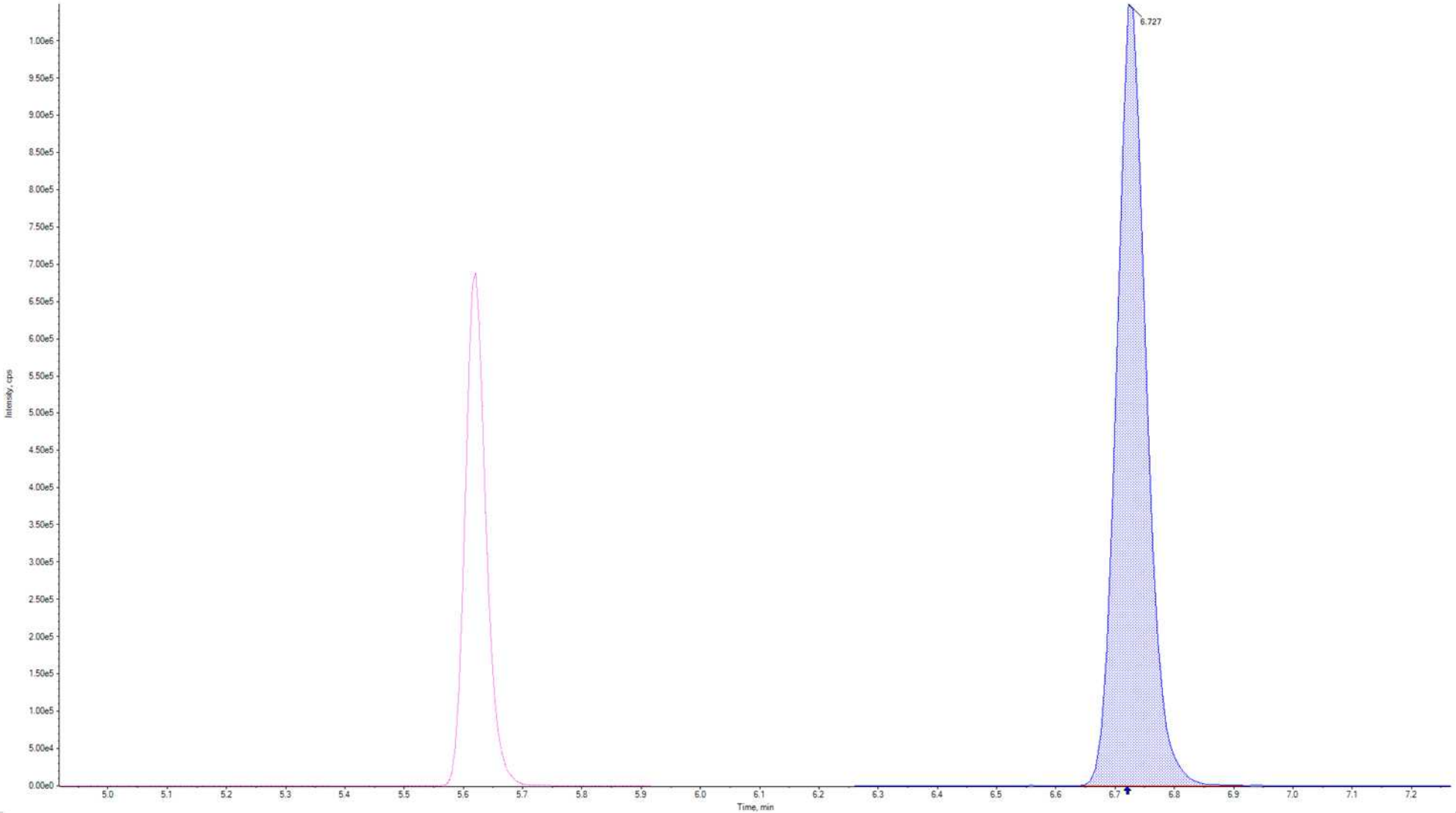
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Generated: 9/18/2024 6:35:36 AM

HFPO-DA_2
Sample: WG1972760-5 S/N:3617.9 Points Across peak:39



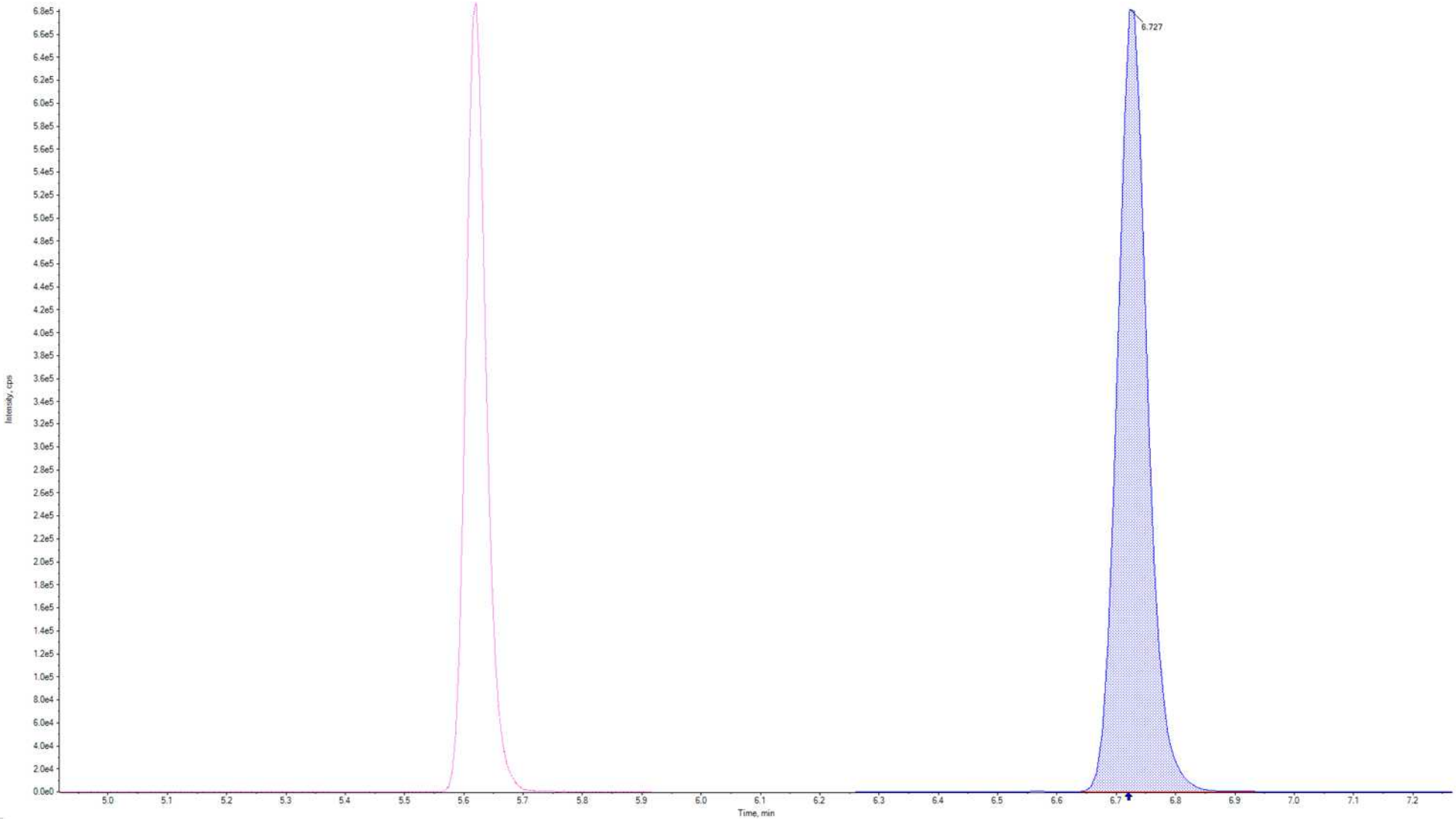
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Alpha Analytical Inc.
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Generated: 9/18/2024 6:35:36 AM

ADONA
Sample: WG1972760-5 S/N:16687.4 Points Across peak:43



Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_23.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

ADONA_2
Sample: WG1972760-5 S/N:10900.9 Points Across peak:46



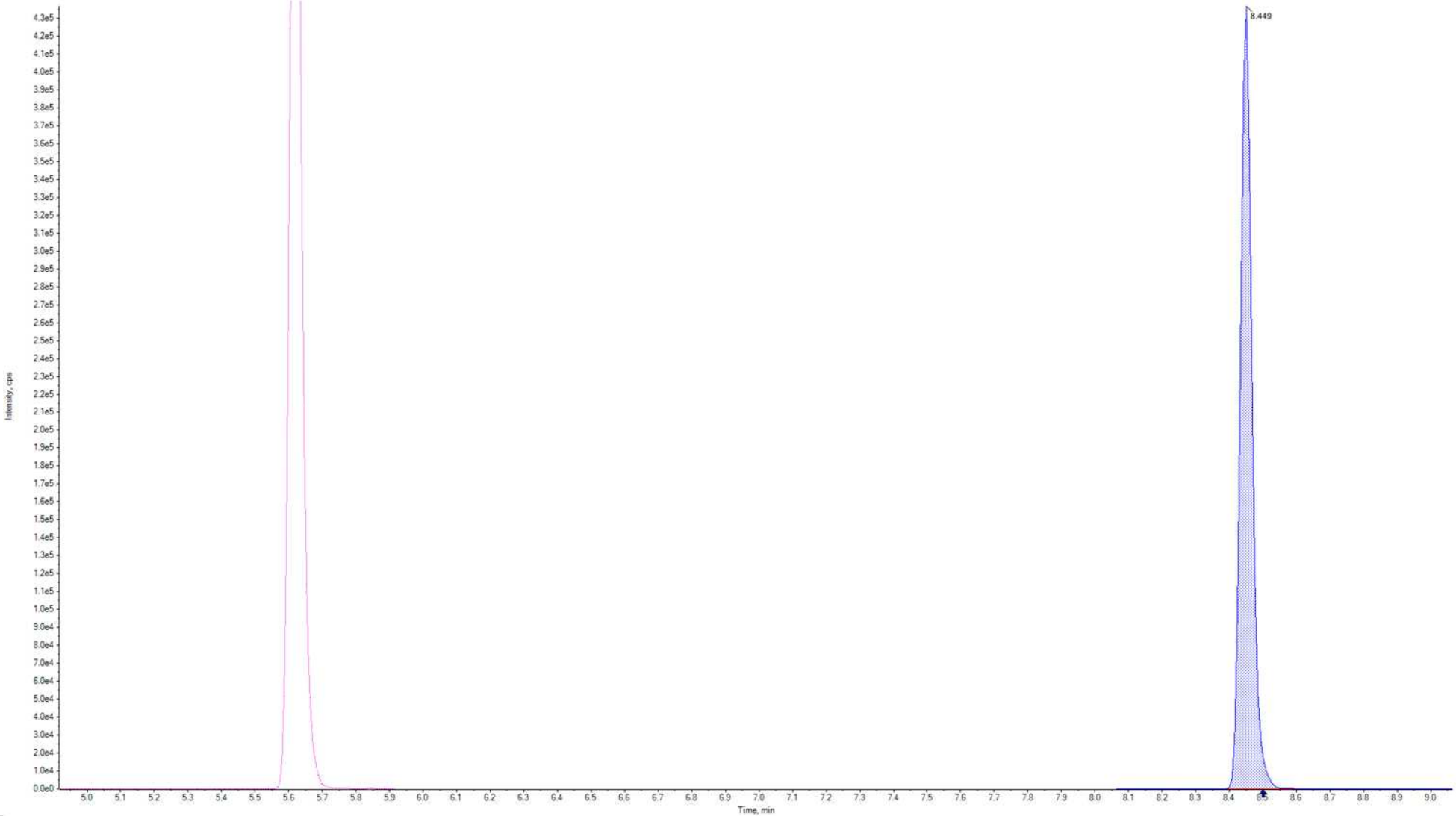
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

9Cl-PF3ONS
Sample: WG1972760-5 S/N:26889.9 Points Across peak:31



Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_23.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

9Cl-PF3ONS_2
Sample: WG1972760-5 S/N:2863351.6 Points Across peak:38



Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_23.wiff
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11Cl-PF3OUdS
Sample: WG1972760-5 S/N:3513.6 Points Across peak:38

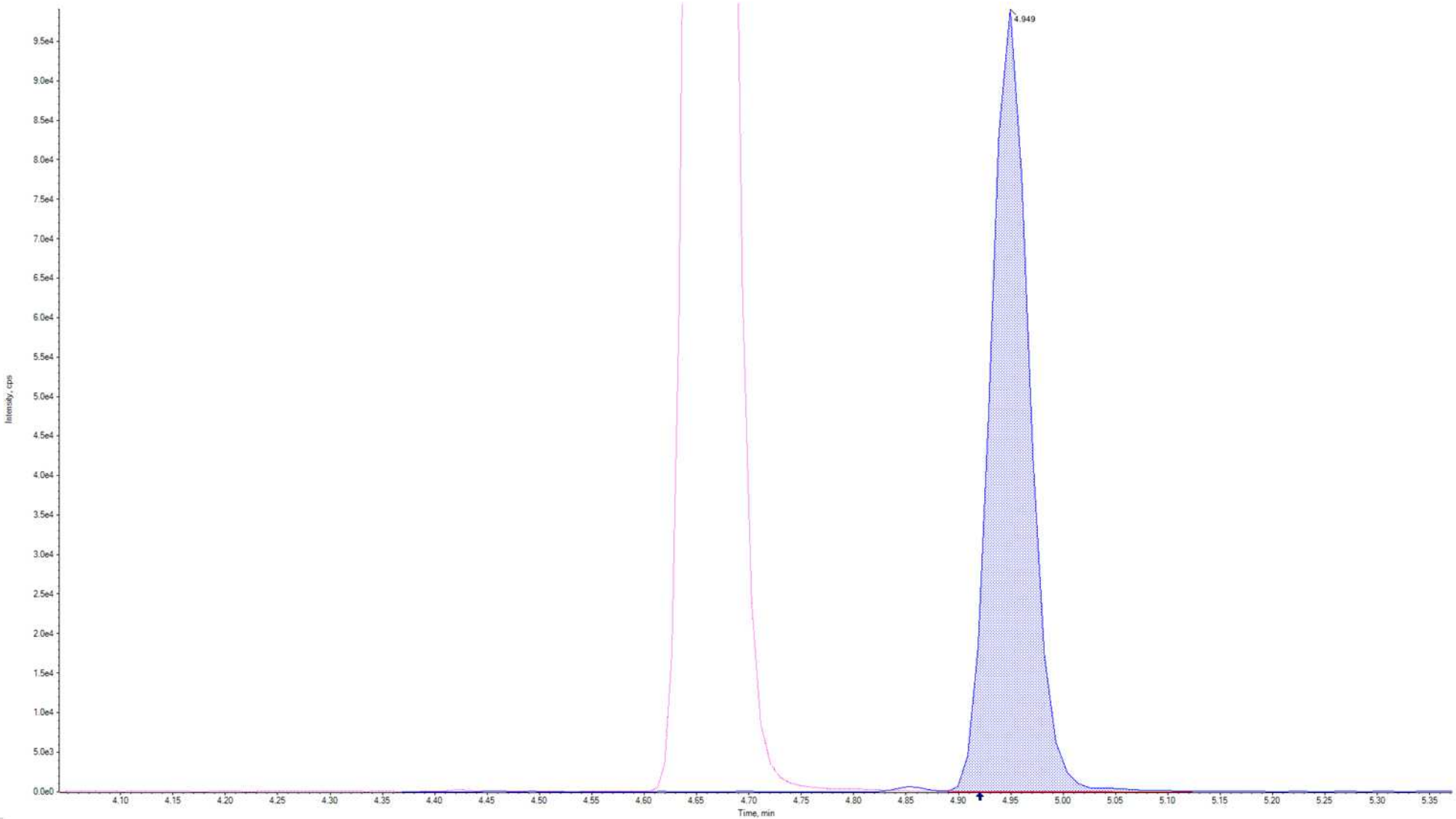


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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11Cl-PF3OUdS_2
Sample: WG1972760-5 S/N:51343.4 Points Across peak:39

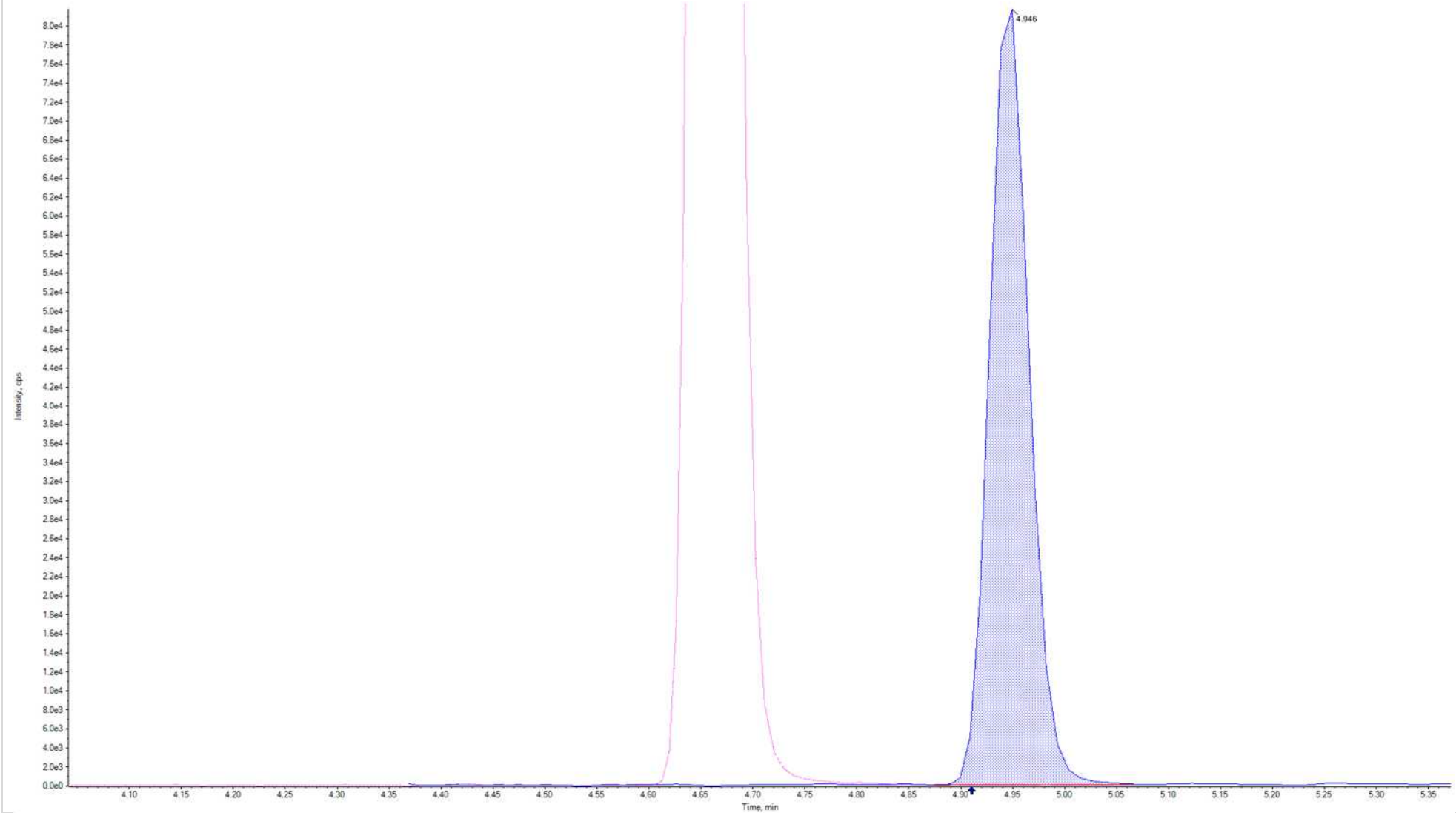


3:3FTCA
Sample: WG1972760-5 S/N:1600528.6 Points Across peak:25



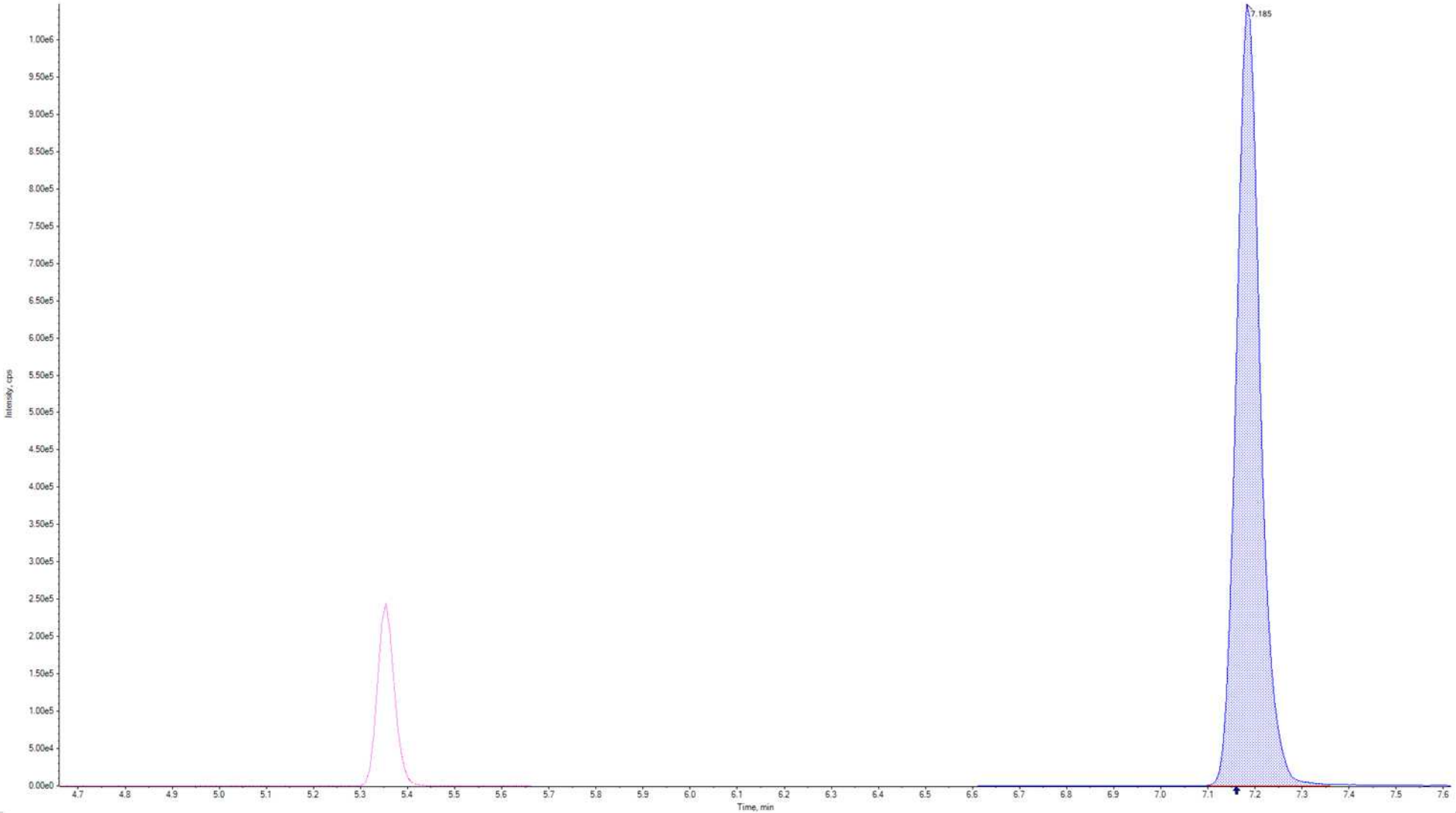
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_23.wiff
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Generated: 9/18/2024 6:35:36 AM

3:3FTCA_2
Sample: WG1972760-5 S/N:2654.9 Points Across peak:23



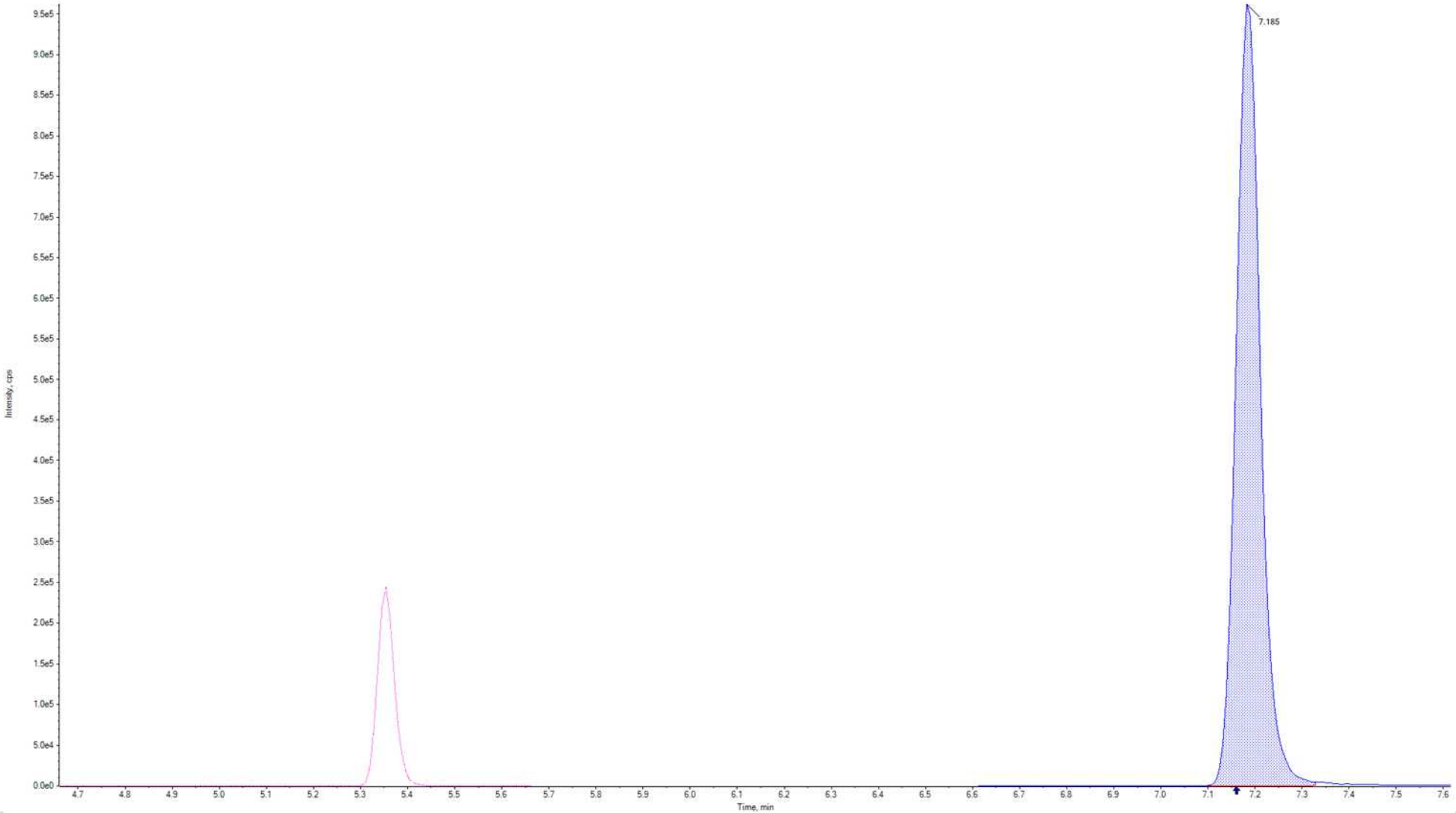
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_23.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

5:3FTCA
Sample: WG1972760-5 S/N:15434.9 Points Across peak:48



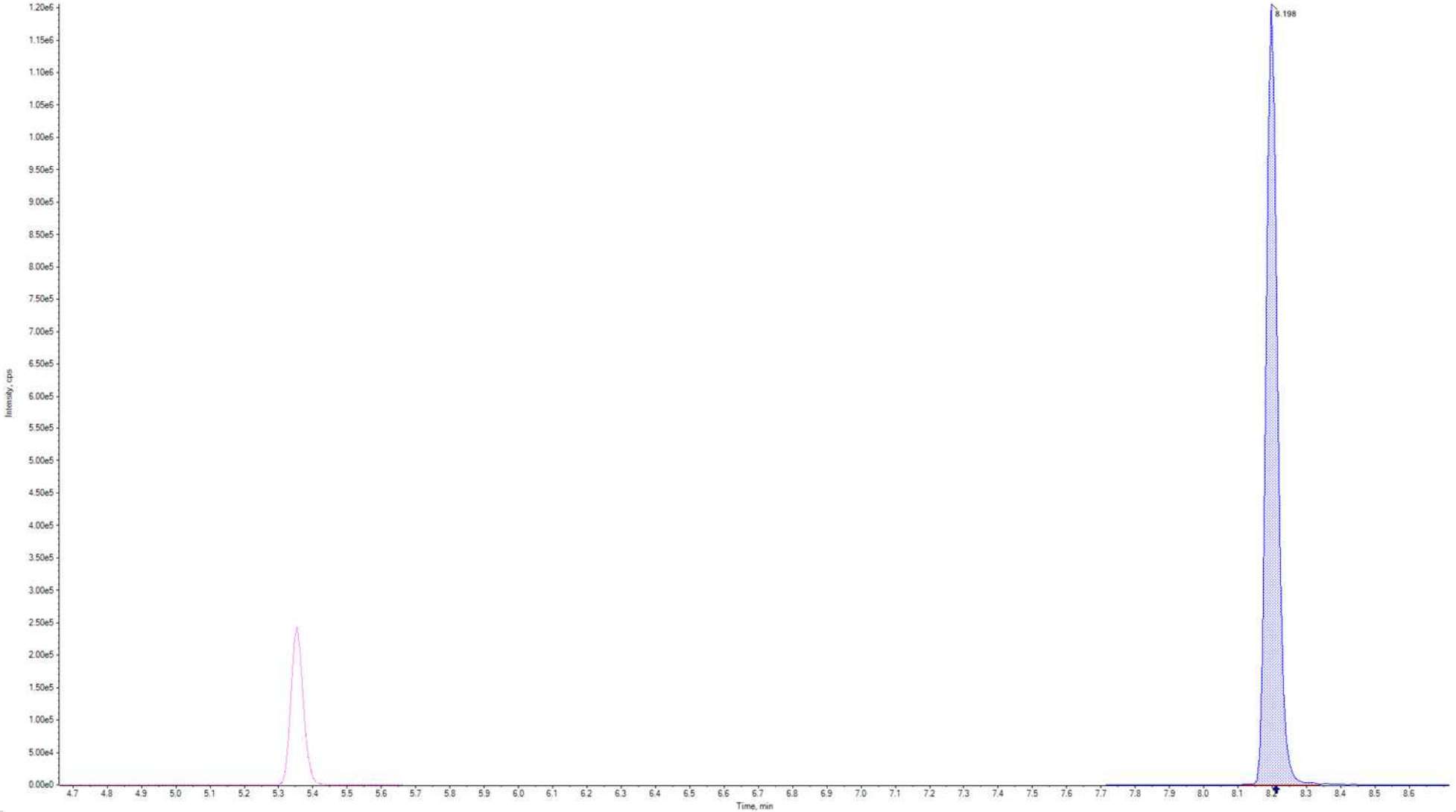
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_23.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

5:3FTCA_2
Sample: WG1972760-5 S/N:8838.7 Points Across peak:42



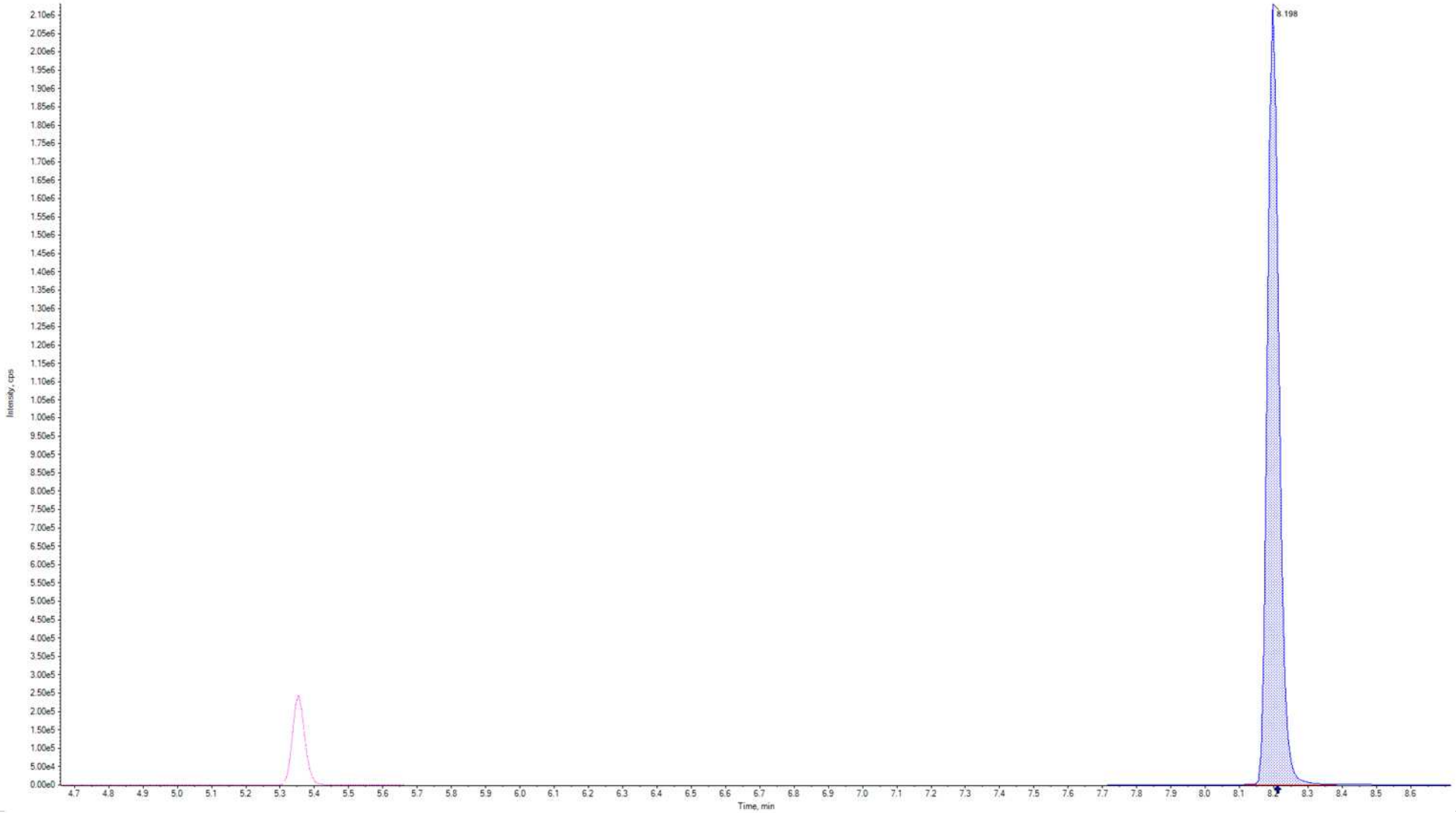
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

7:3FTCA
Sample: WG1972760-5 S/N:295765.2 Points Across peak:31



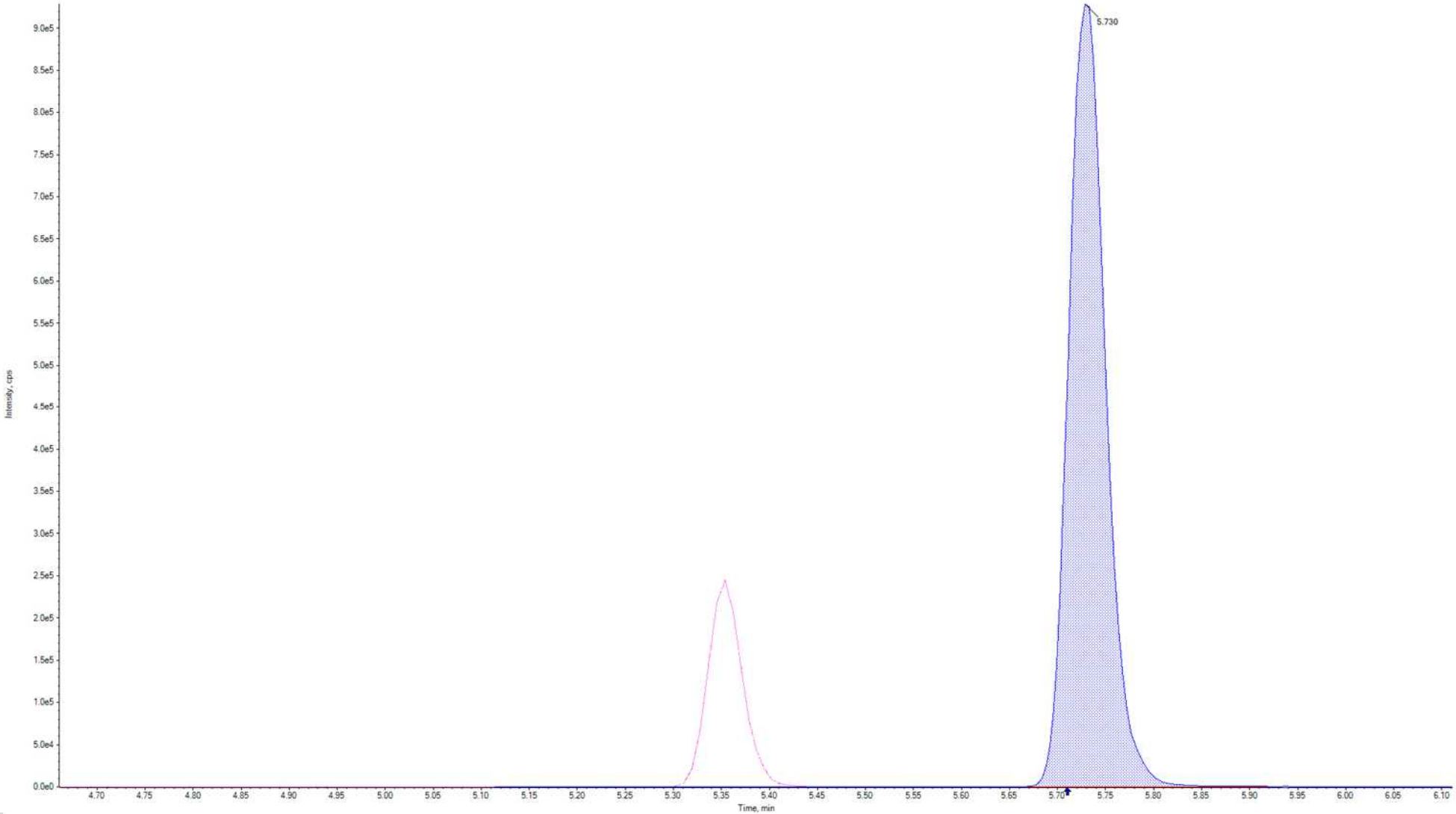
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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7:3FTCA_2
Sample: WG1972760-5 S/N:21763.2 Points Across peak:35



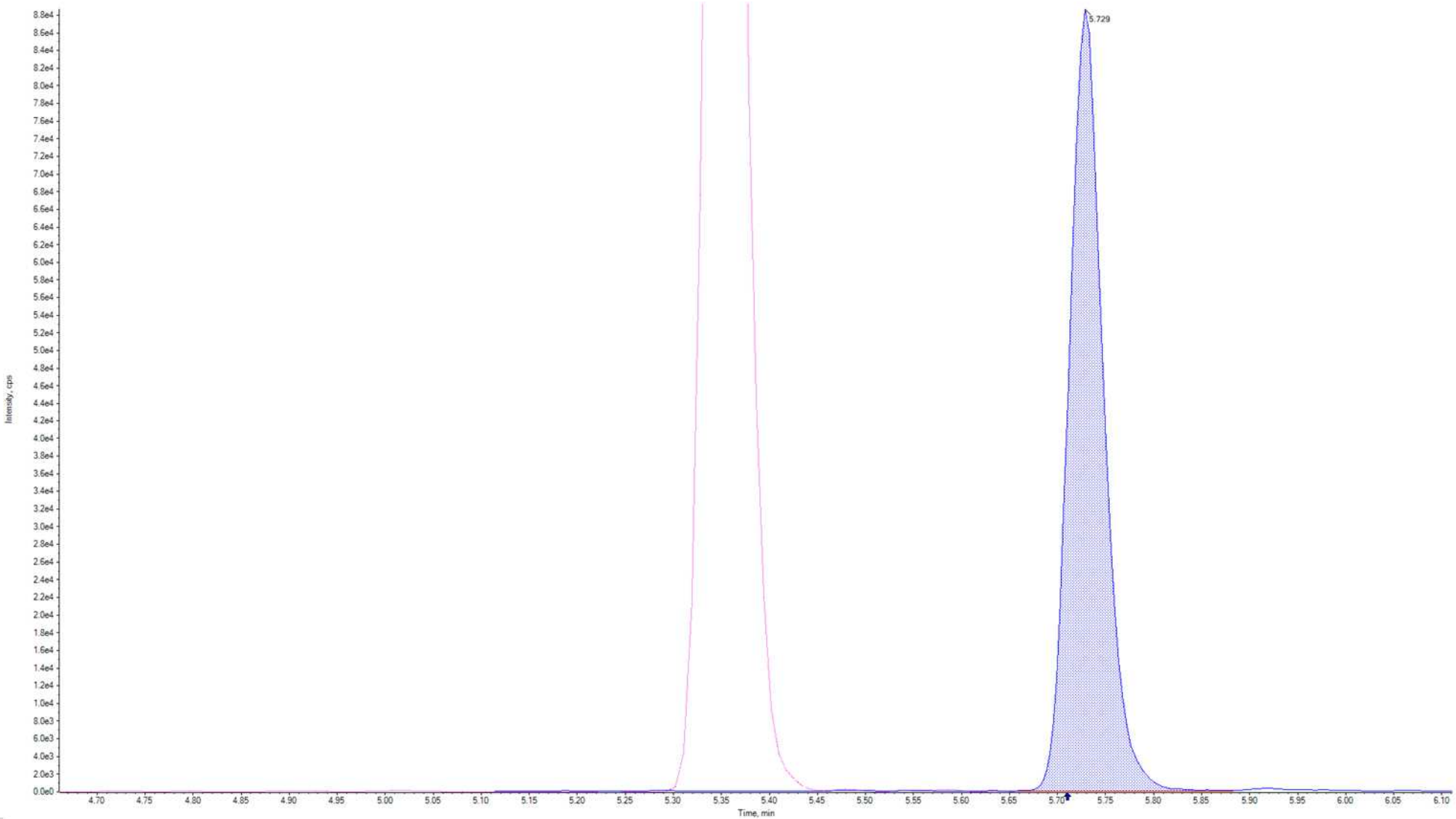
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Last Altered: 9/18/2024 12:41:54 PM
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PFEESA
Sample: WG1972760-5 S/N:5417.0 Points Across peak:52



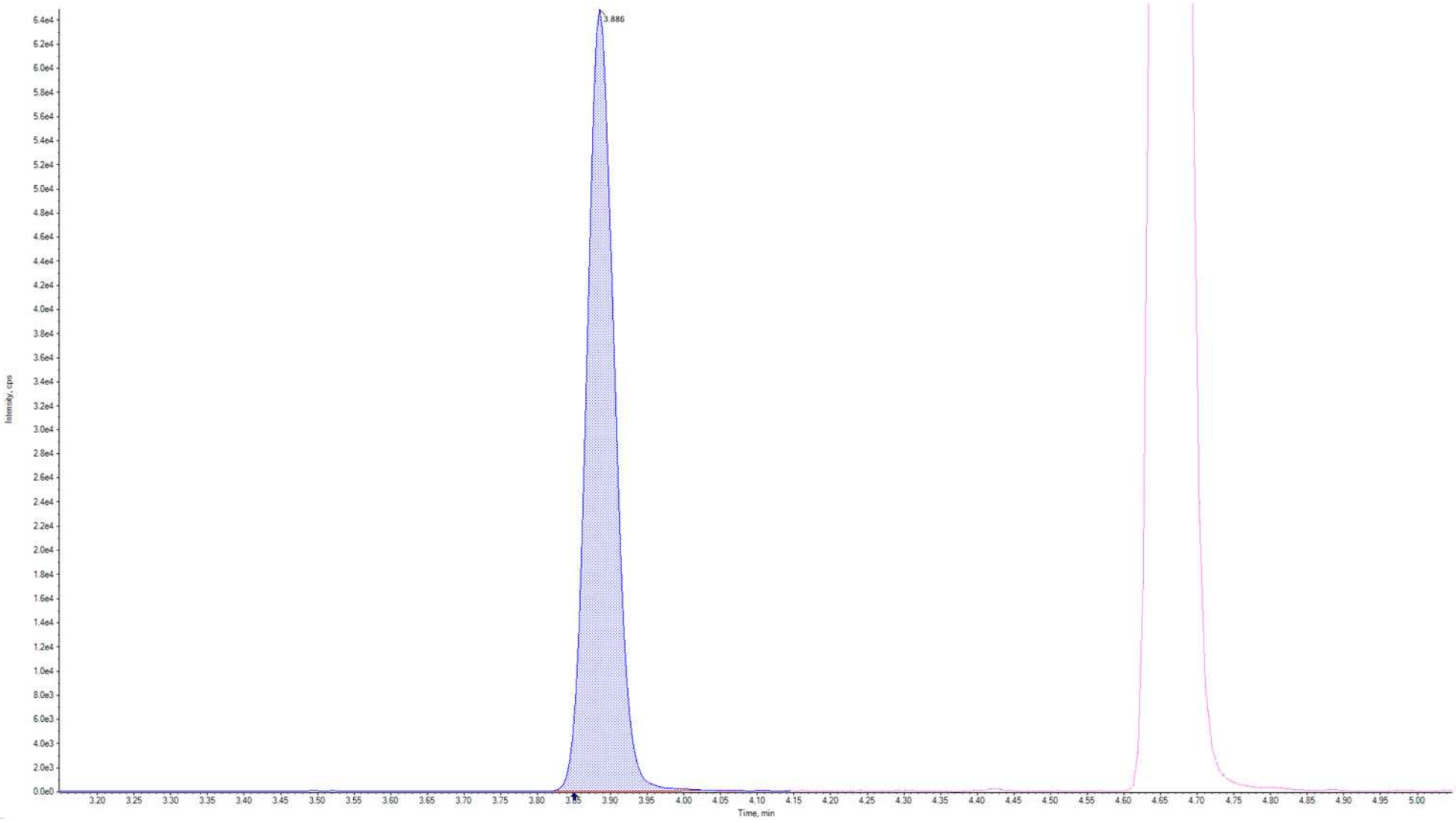
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Alpha Analytical Inc.
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PFEESA_2
Sample: WG1972760-5 S/N:2438.3 Points Across peak:47



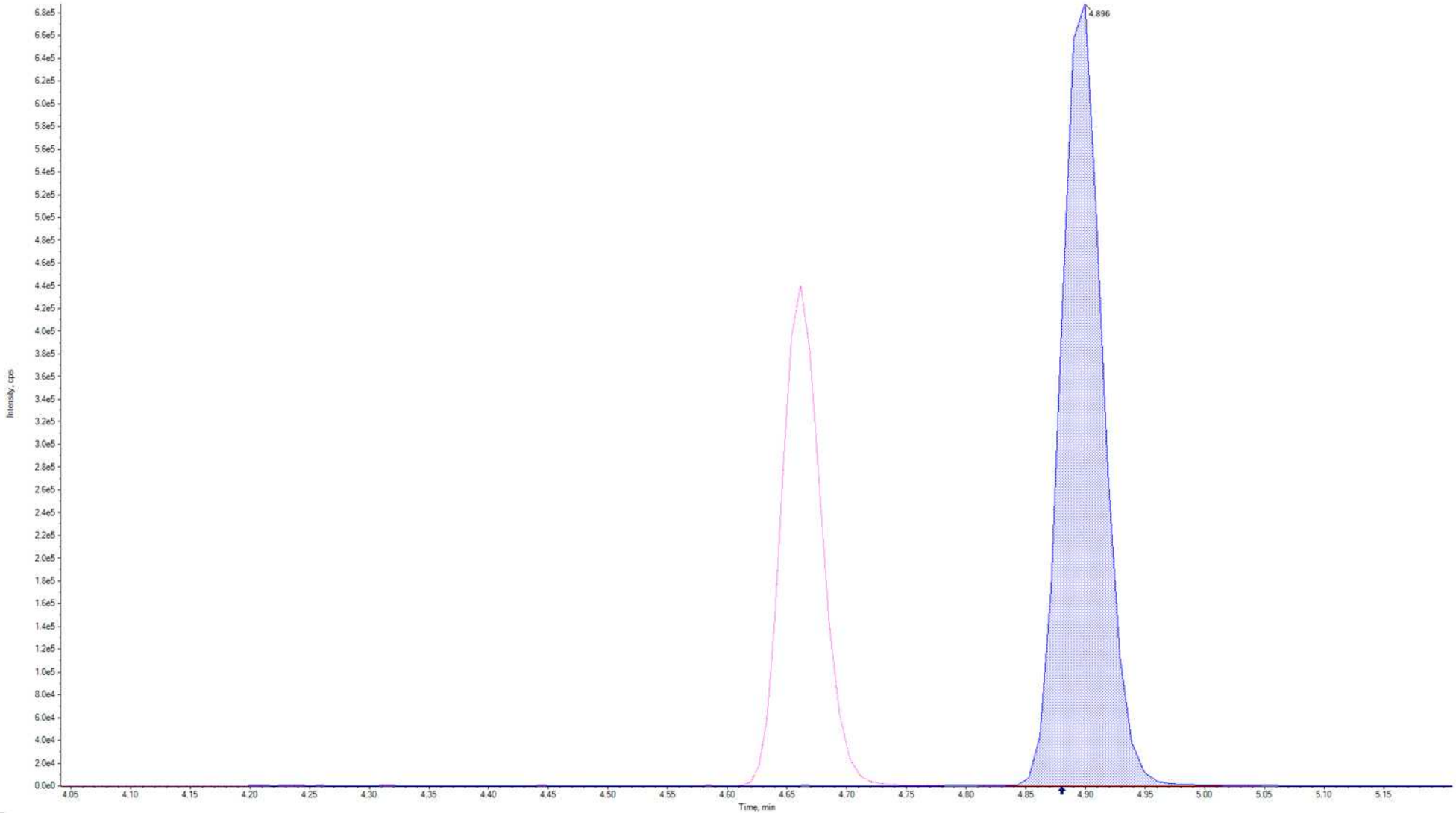
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PFMPA
Sample: WG1972760-5 S/N:3883.3 Points Across peak:60



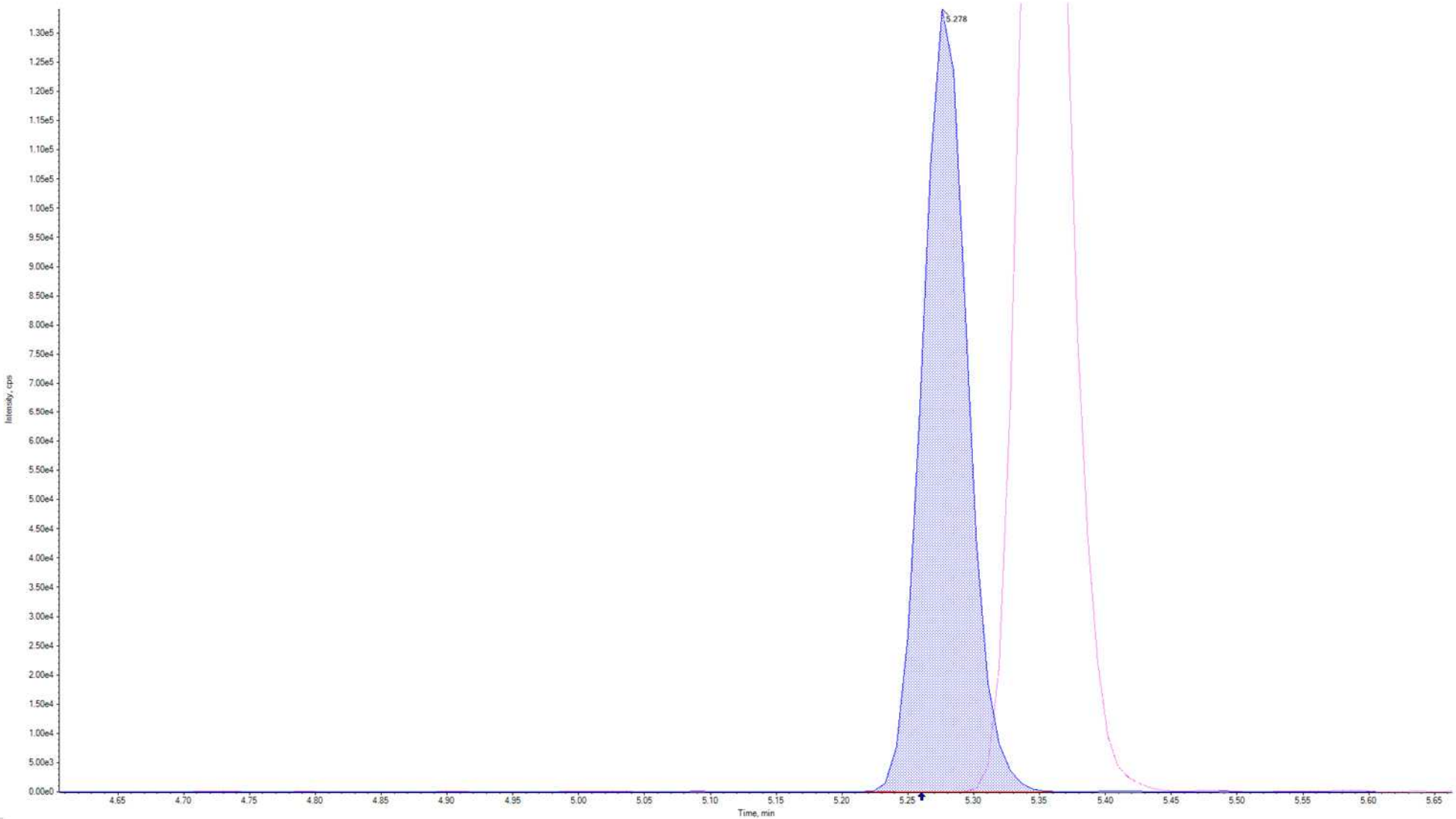
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Alpha Analytical Inc.
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PFMBA
Sample: WG1972760-5 S/N:2185.5 Points Across peak:19



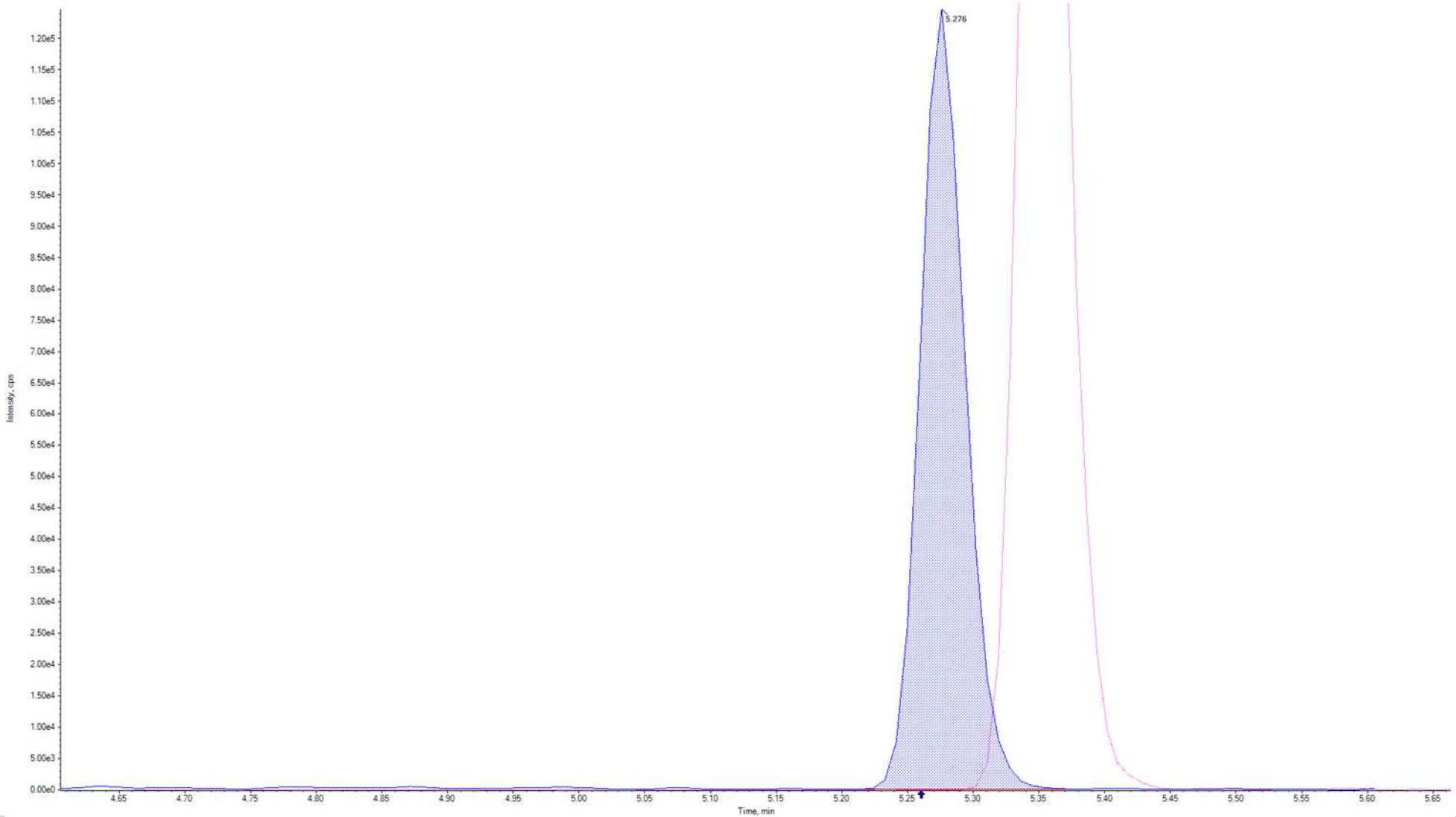
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Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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NFDHA
Sample: WG1972760-5 S/N:20775695.0 Points Across peak:23



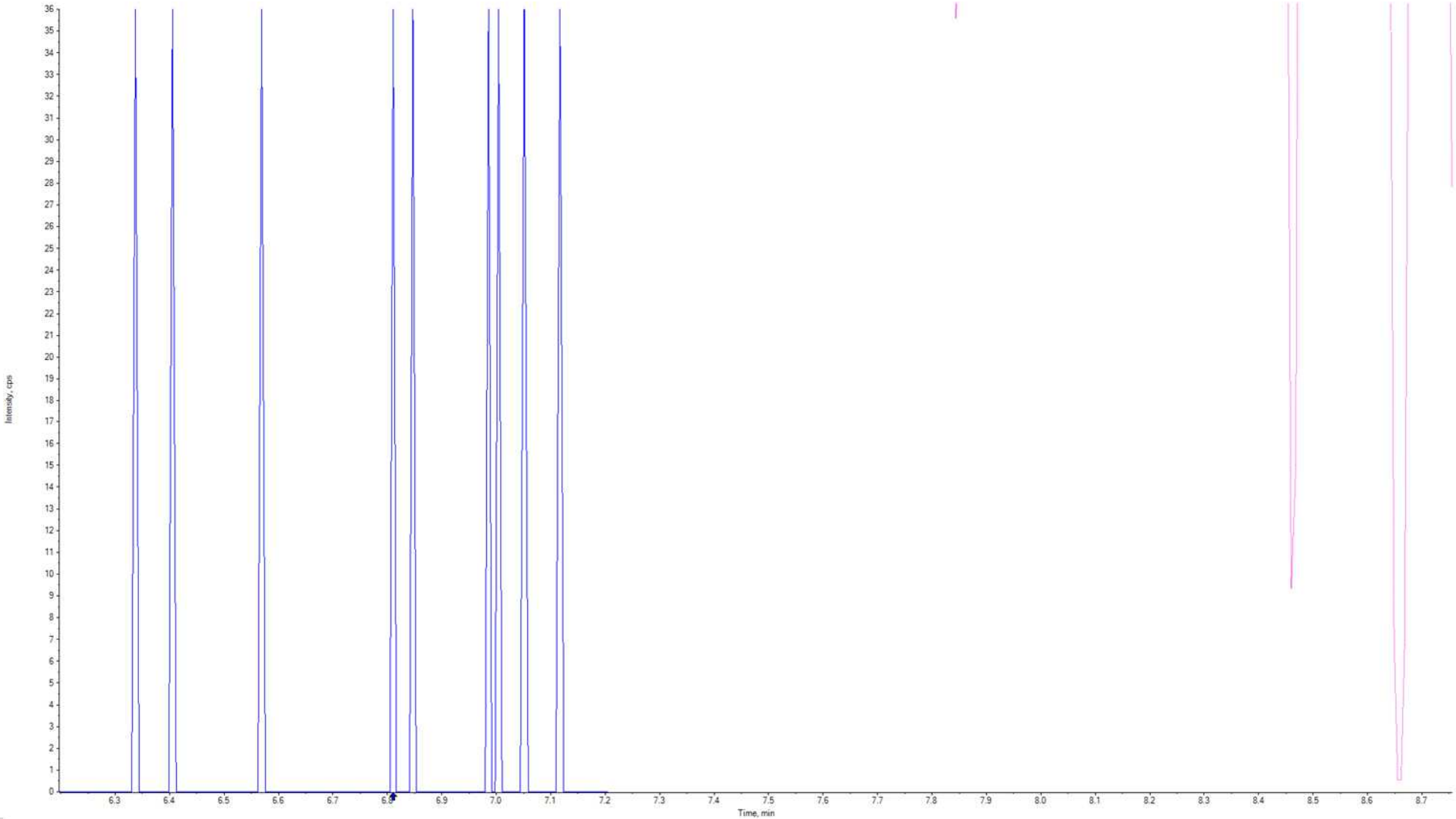
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Alpha Analytical Inc.
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NFDHA_2
Sample: WG1972760-5 S/N:5617.2 Points Across peak:20



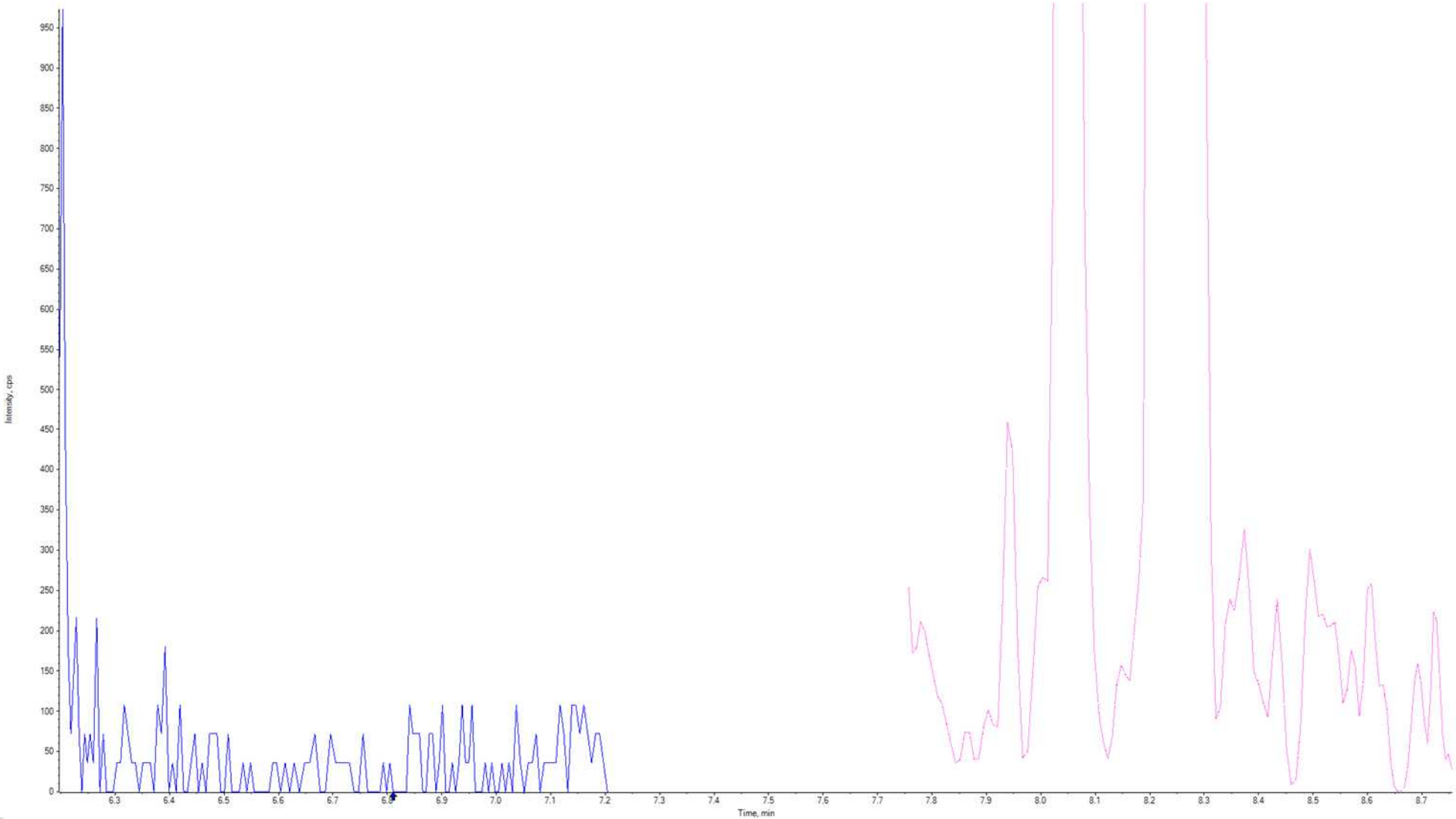
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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TDCA
Sample: WG1972760-5 S/N:N/A Points Across peak:N/A



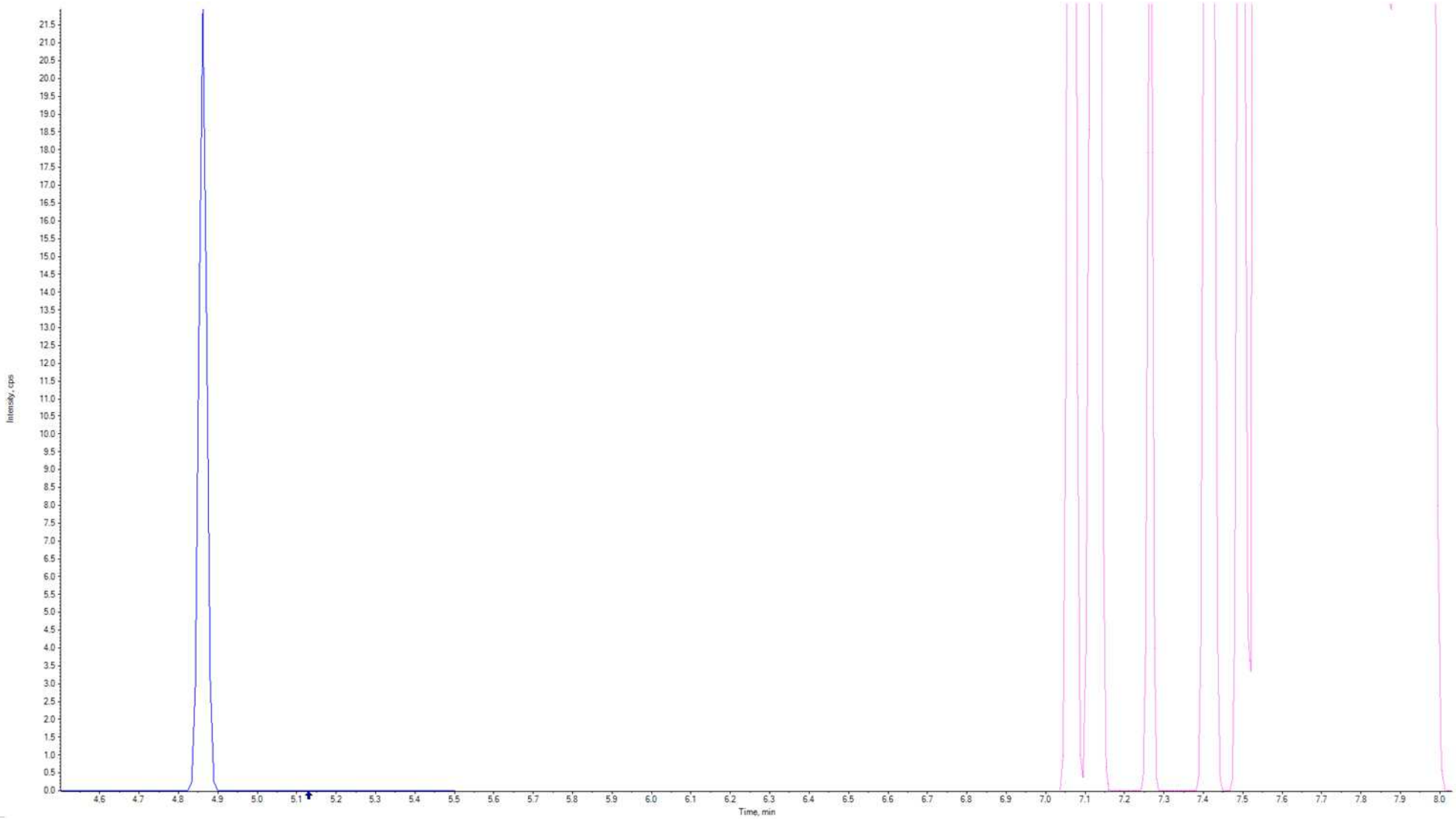
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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TDCA_2
Sample: WG1972760-5 S/N:N/A Points Across peak:N/A



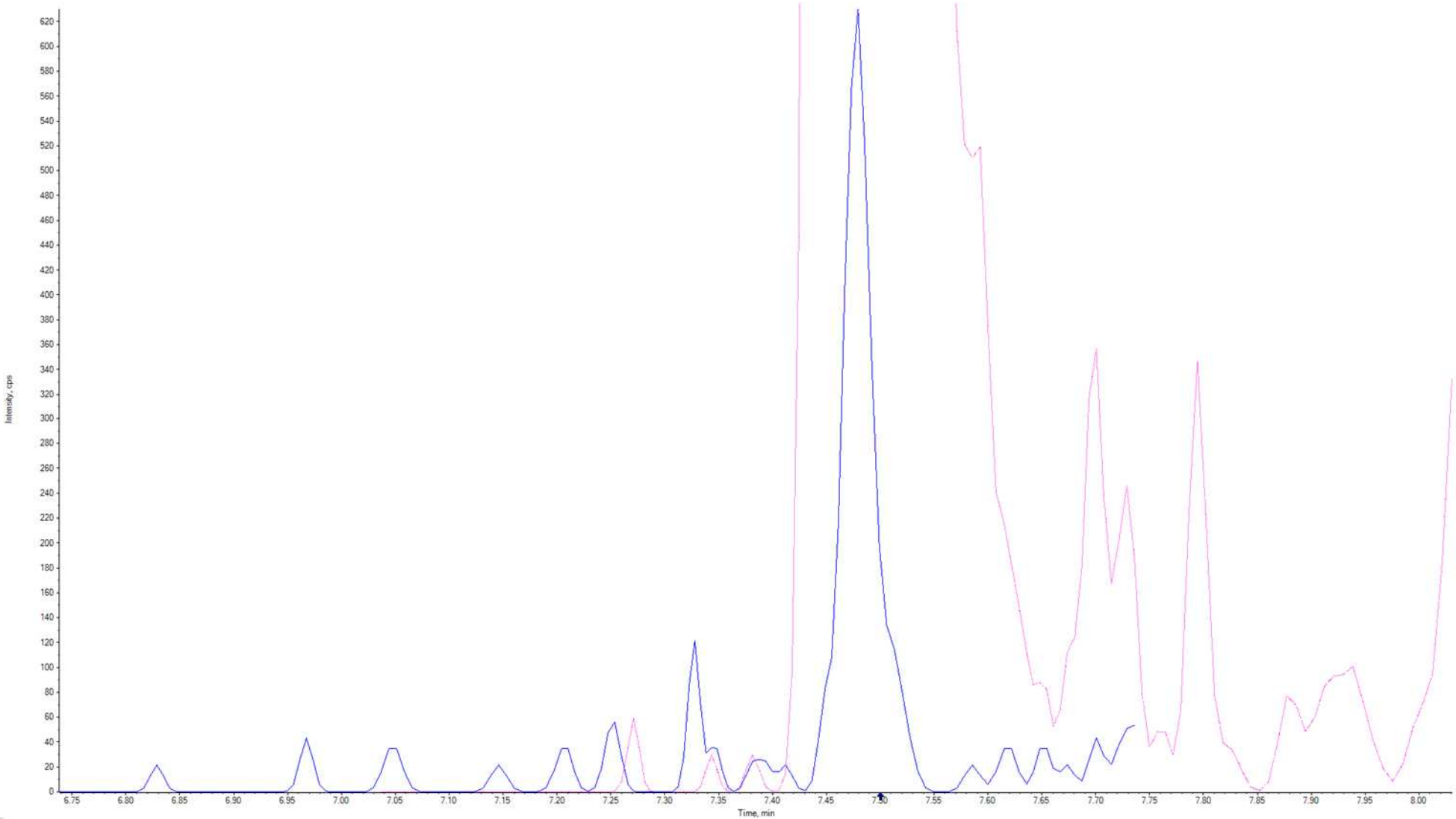
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Last Altered: 9/18/2024 12:41:54 PM
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13C2D4-4:2FTS
Sample: WG1972760-5 S/N:N/A Points Across peak:N/A

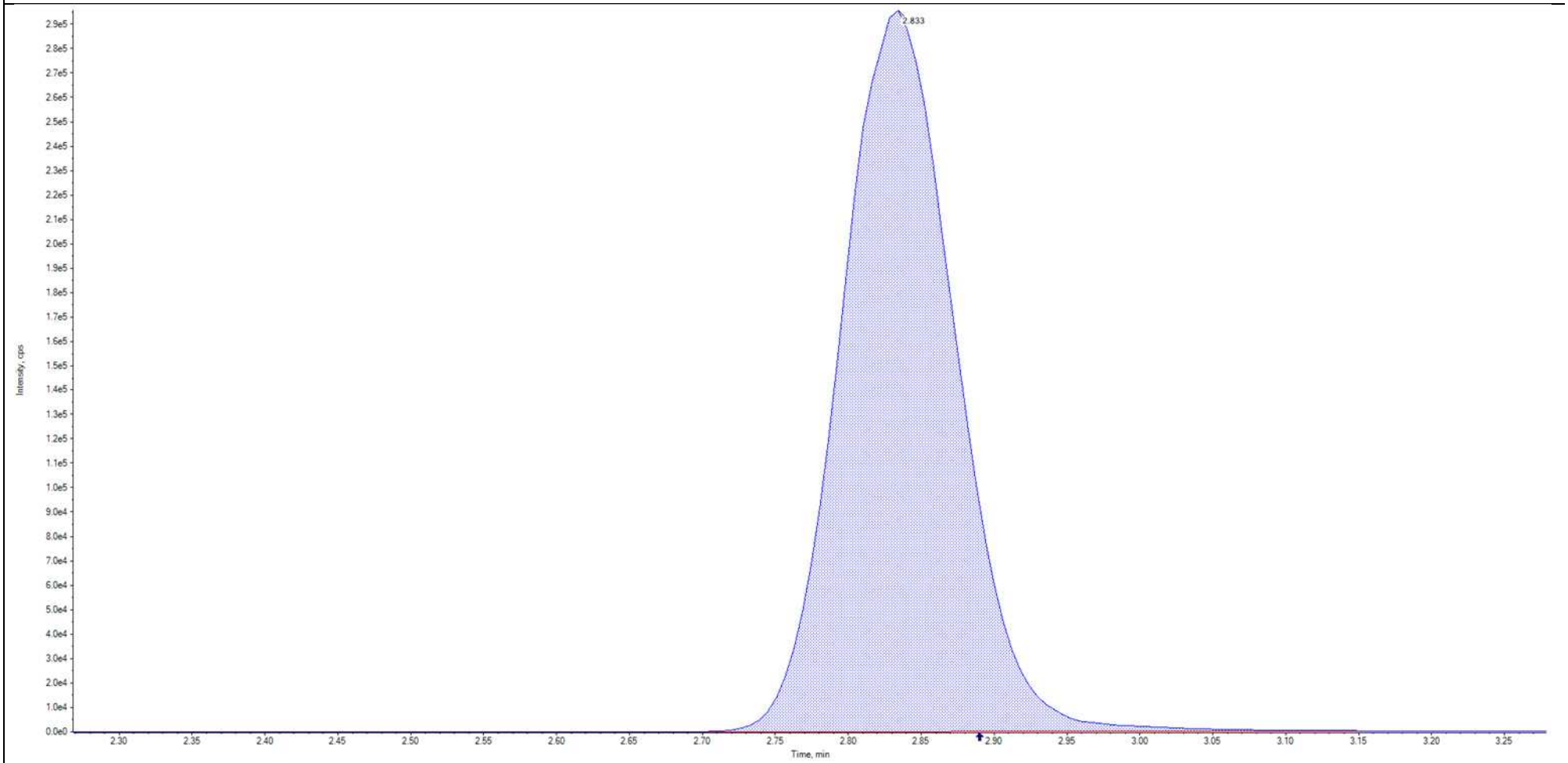


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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Last Altered: 9/18/2024 12:41:54 PM
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13C2-PFOA
Sample: WG1972760-5 S/N:N/A Points Across peak:N/A

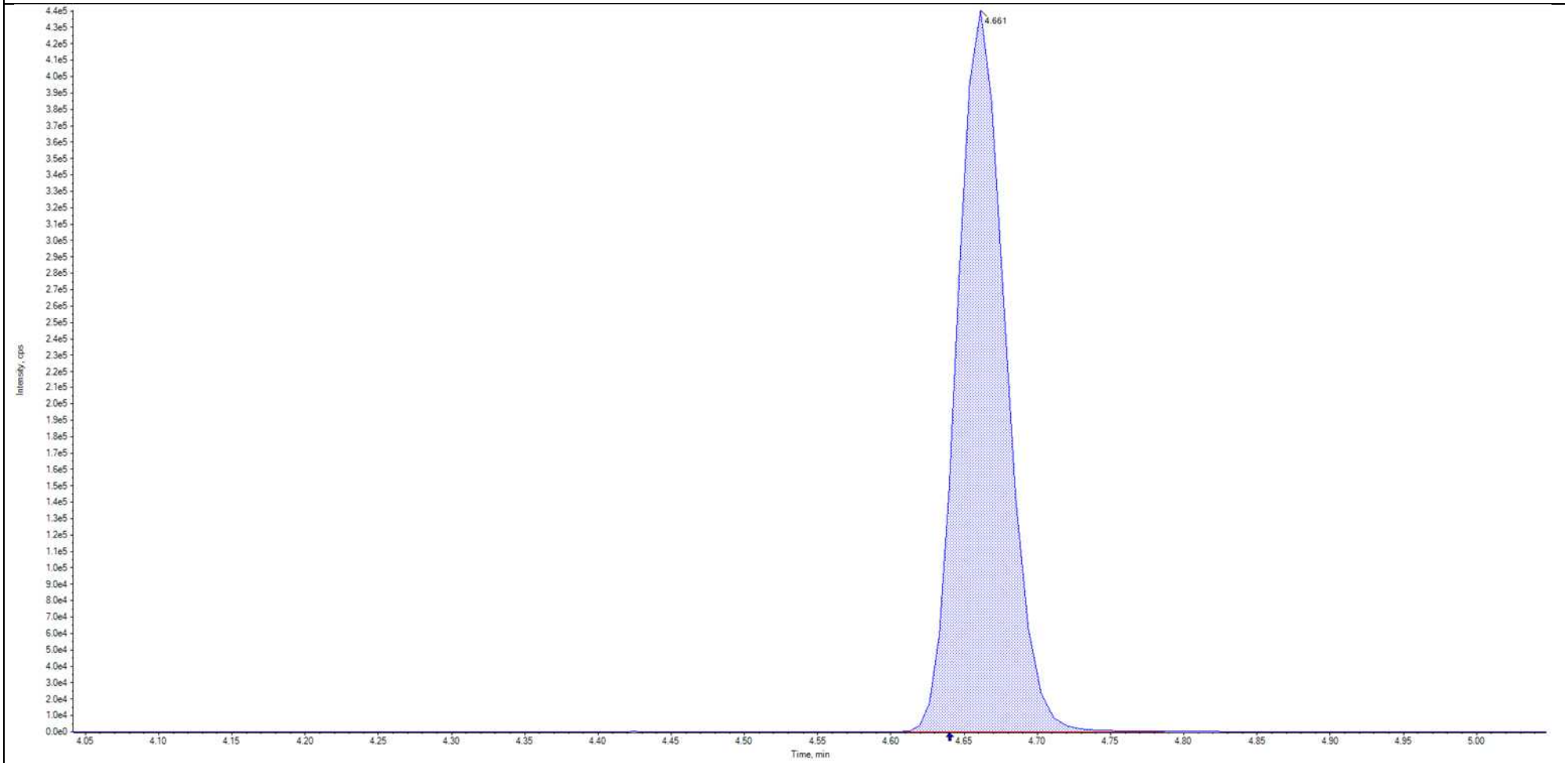


13C4-PFBA
Sample: WG1972760-5

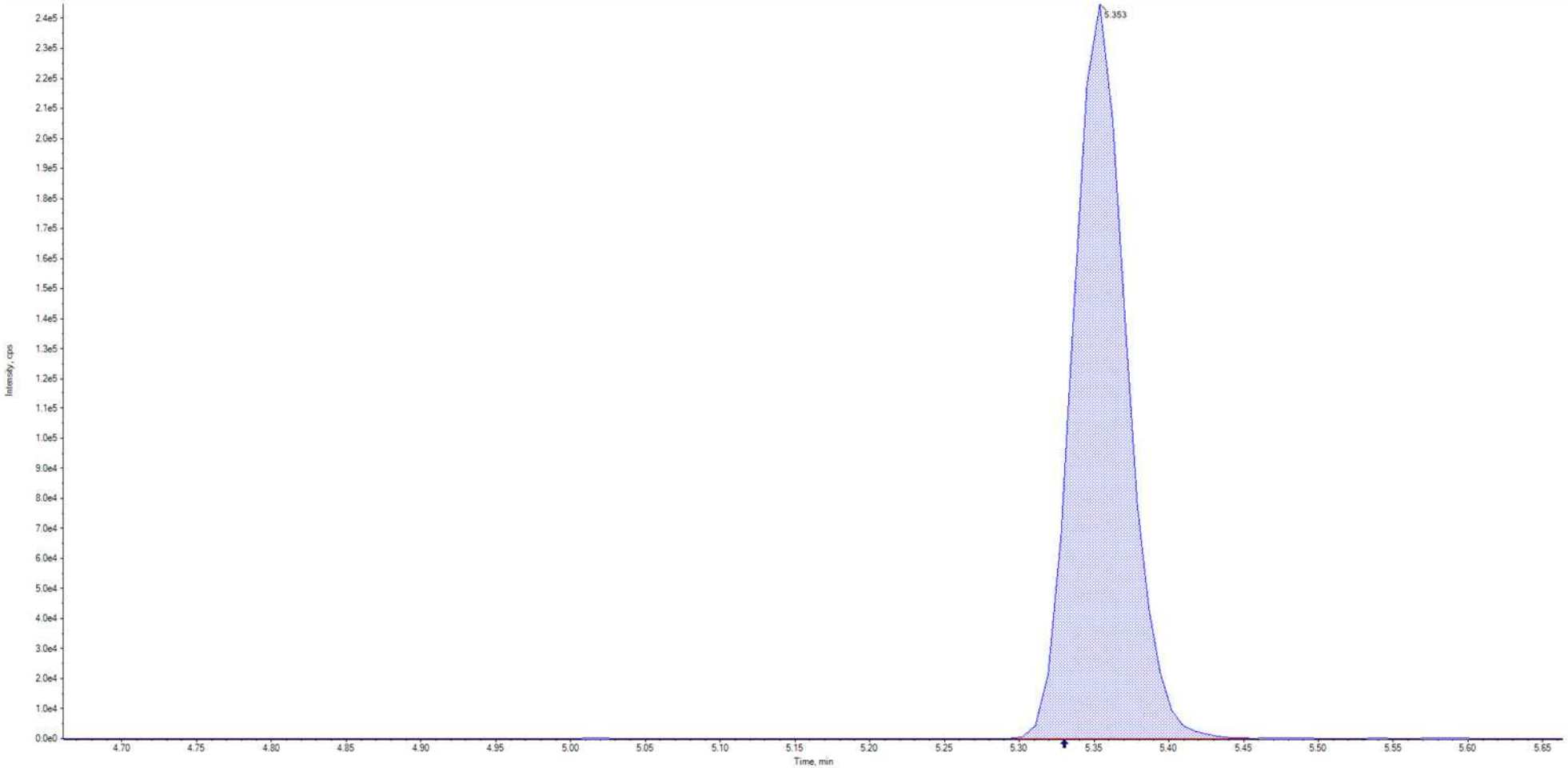


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
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13C5-PFPeA
Sample: WG1972760-5

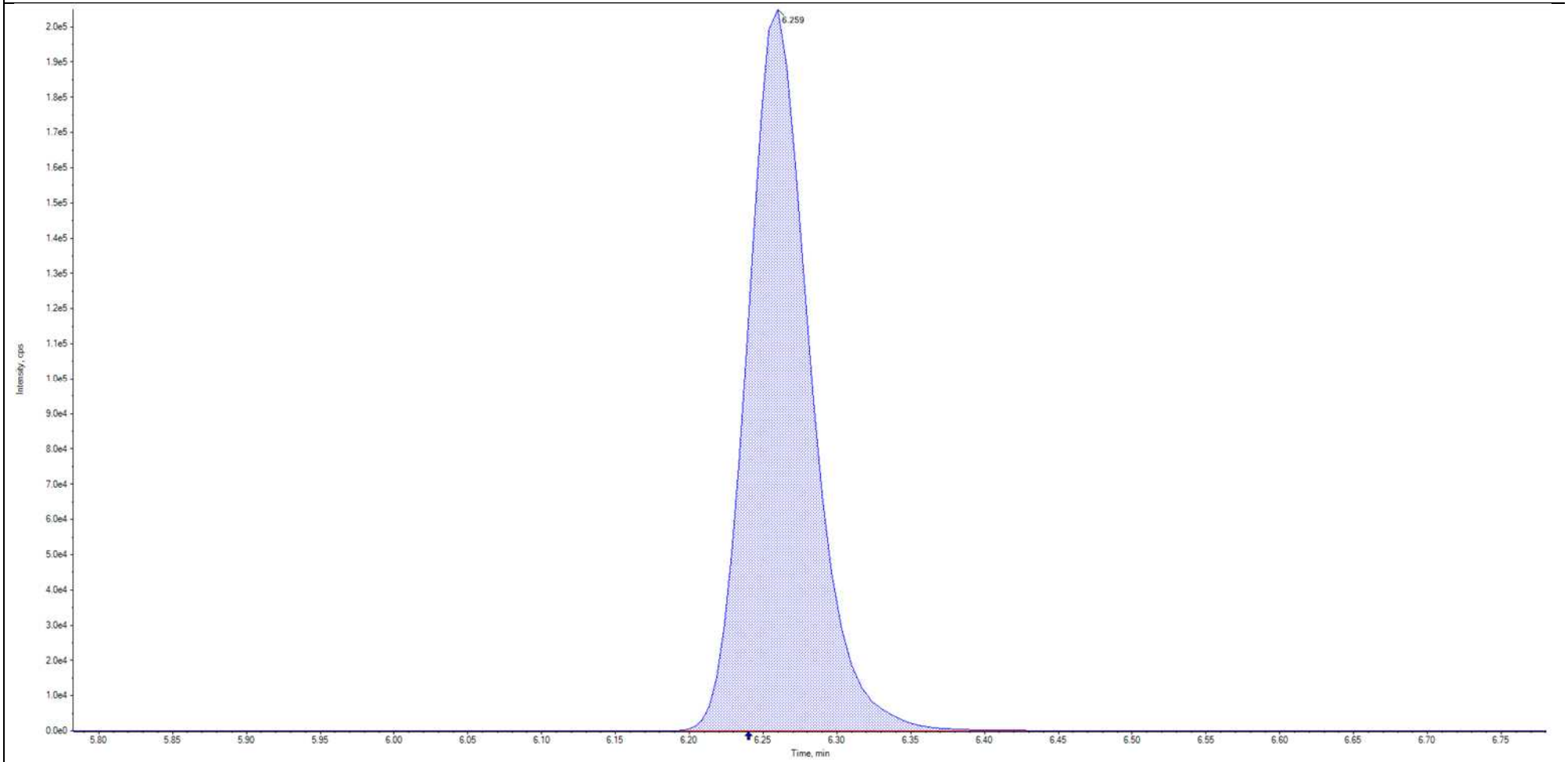


13C5-PFHxA
Sample: WG1972760-5

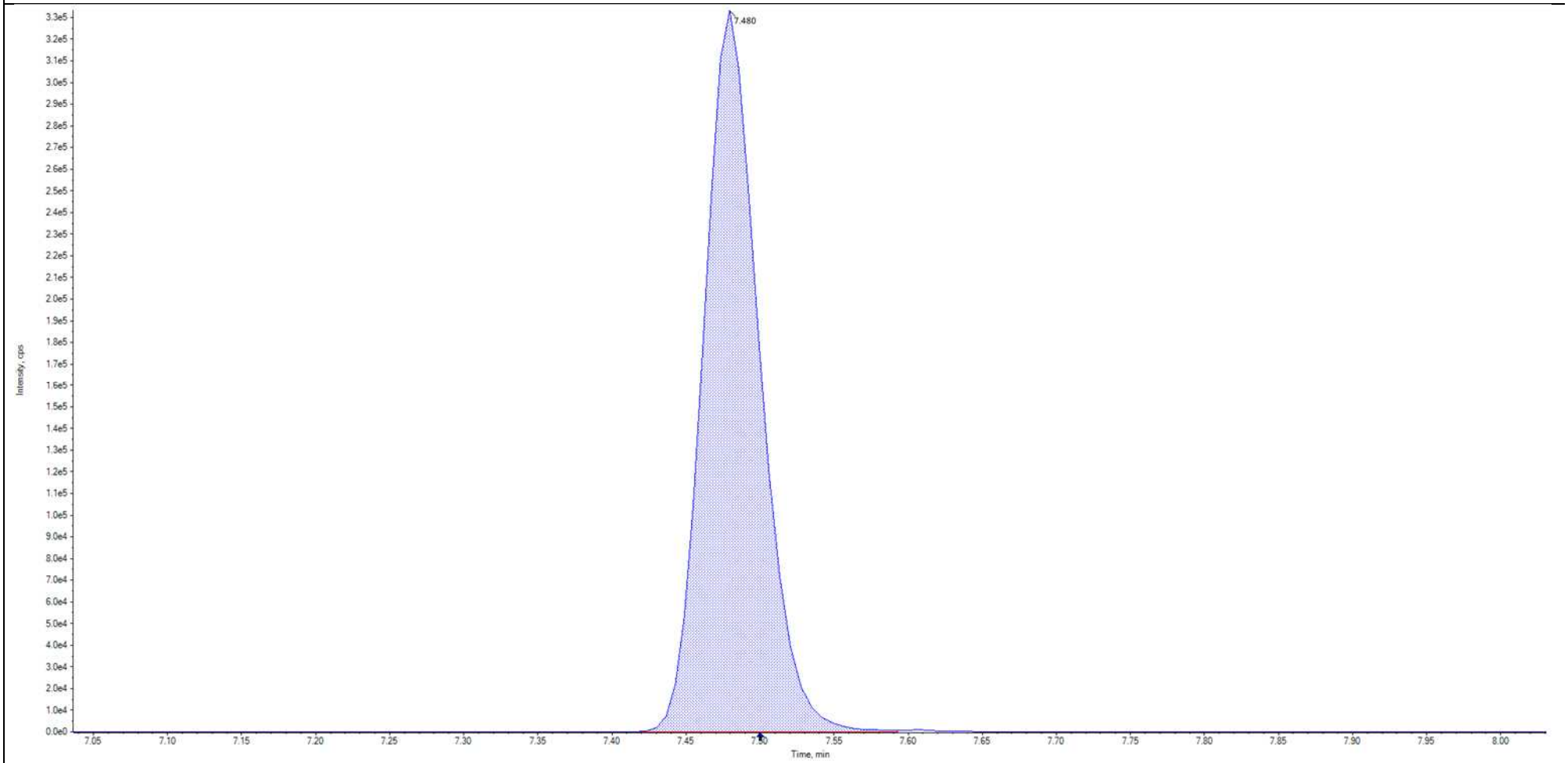


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
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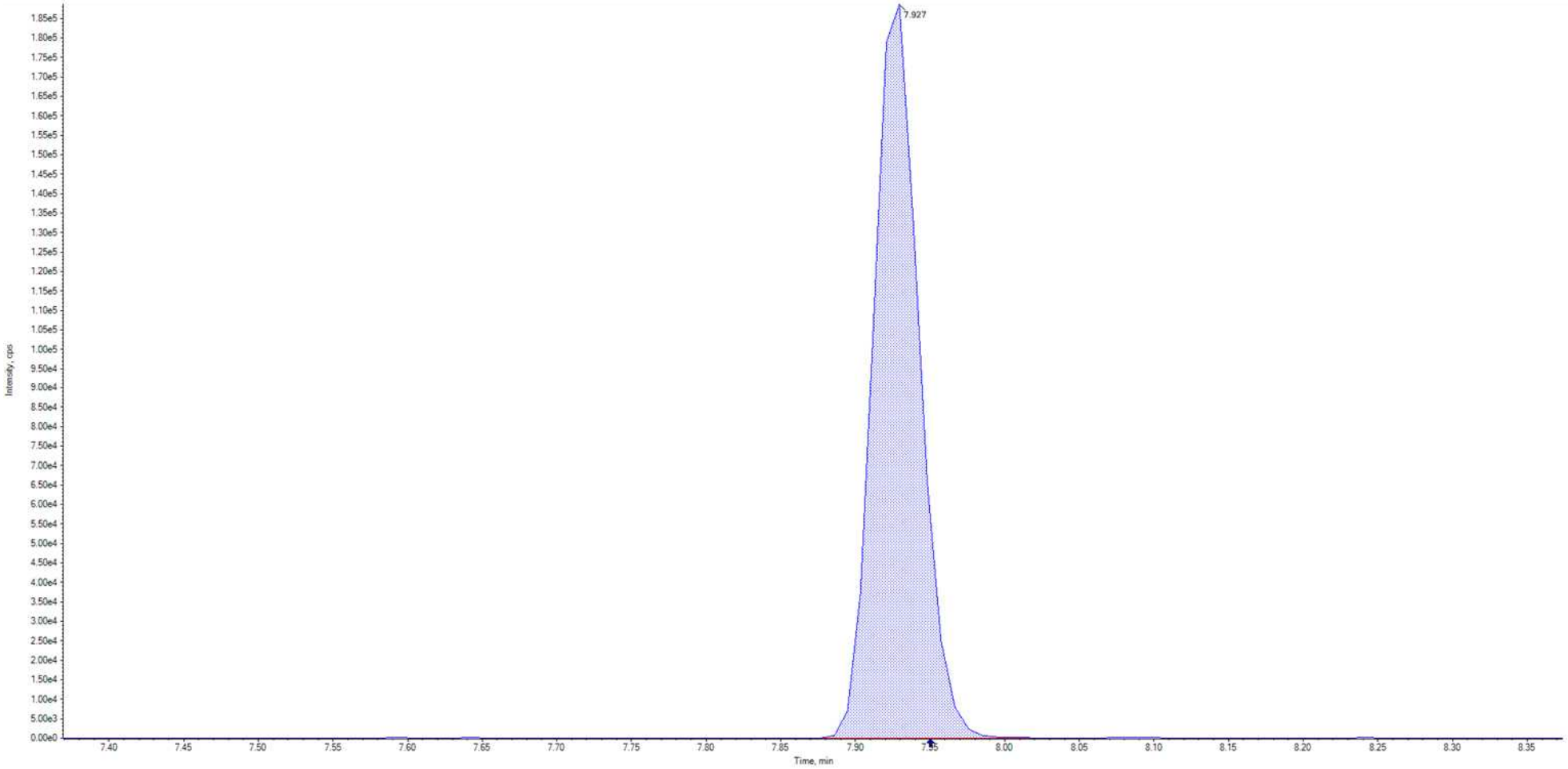
13C4-PFHpA
Sample: WG1972760-5



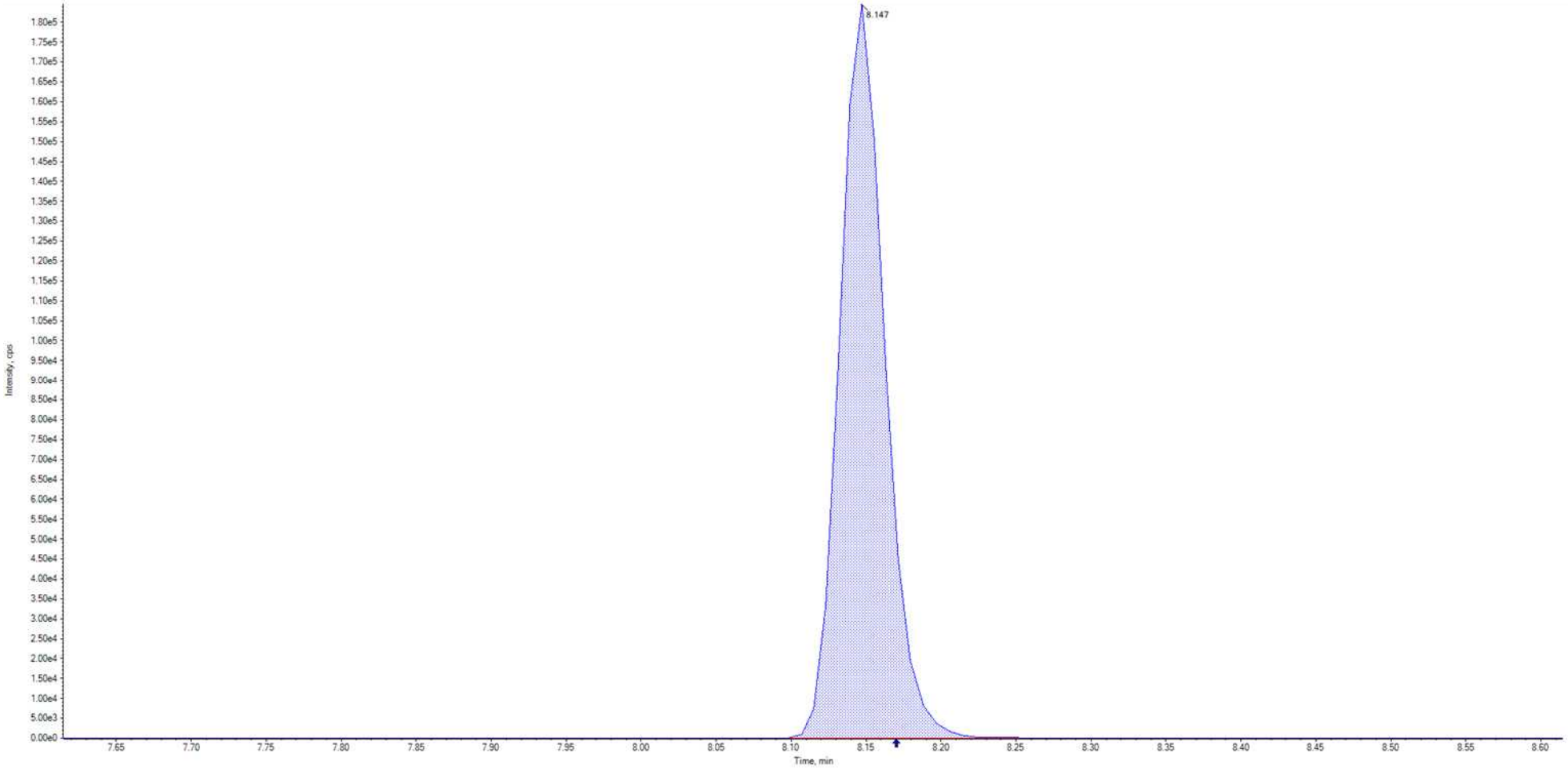
13C8-PFOA
Sample: WG1972760-5



13C9-PFNA
Sample: WG1972760-5

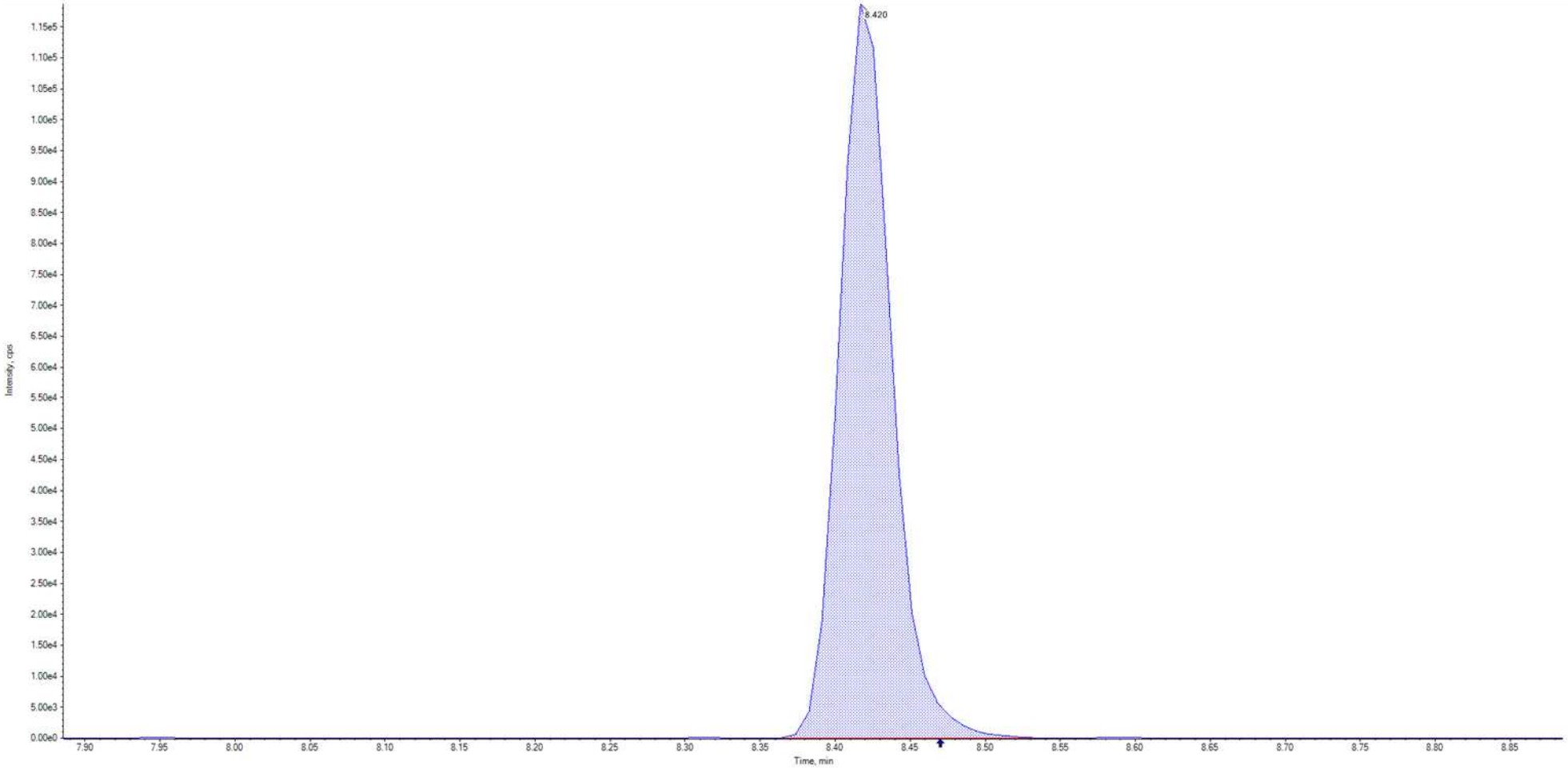


13C6-PFDA
Sample: WG1972760-5



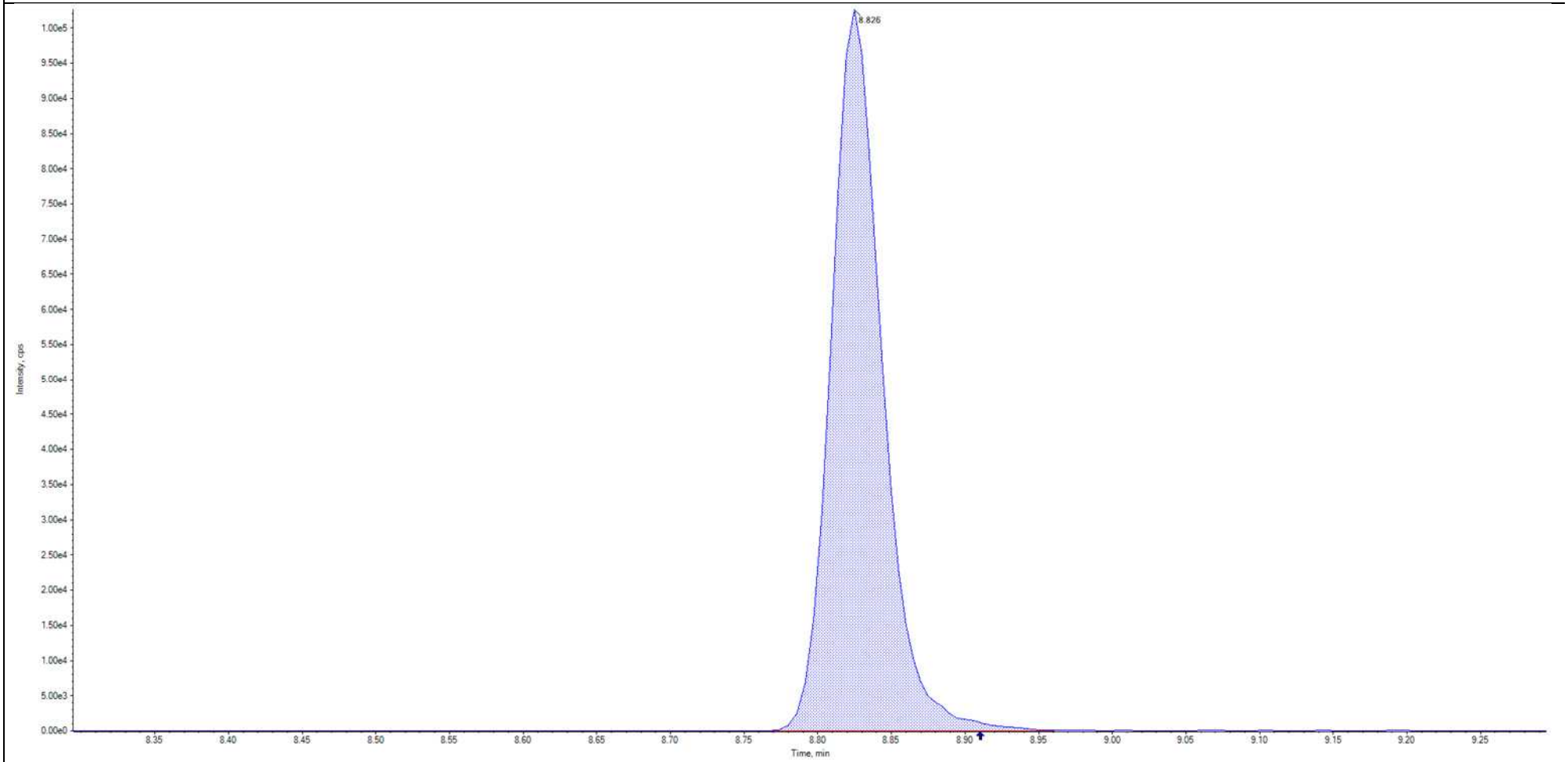
Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
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13C7-PFUnA
Sample: WG1972760-5

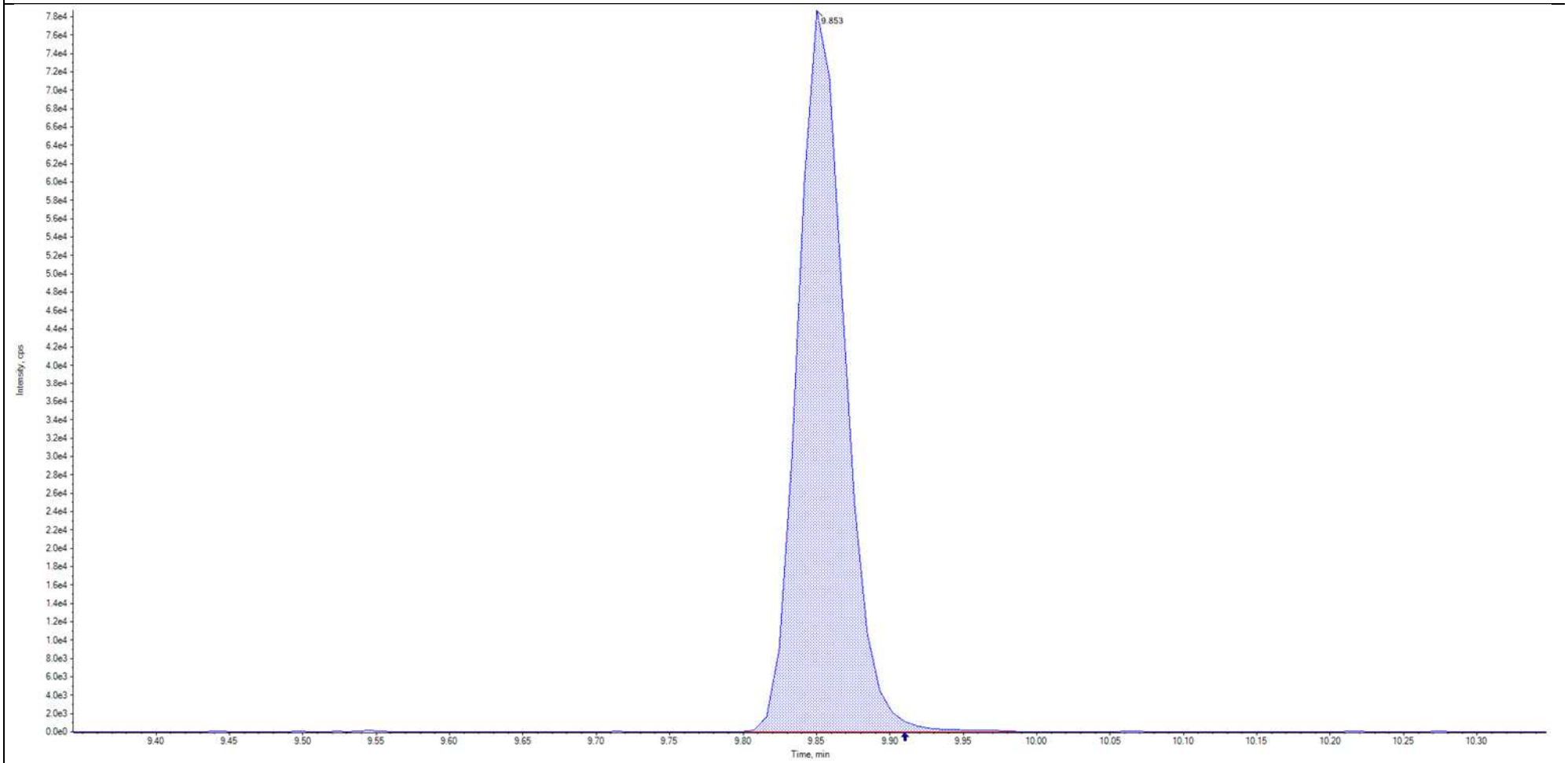


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
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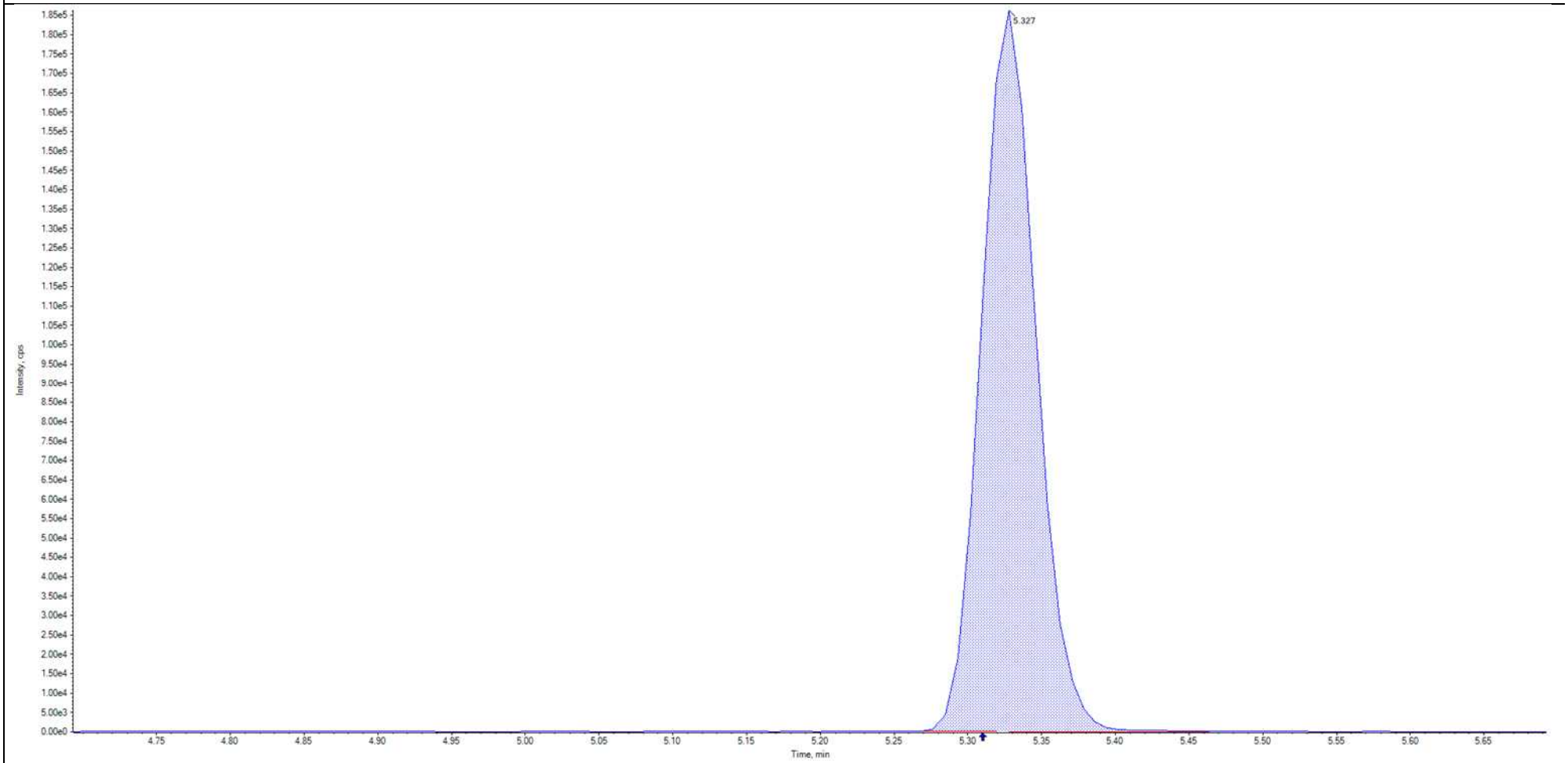
13C2-PFDoA
Sample: WG1972760-5



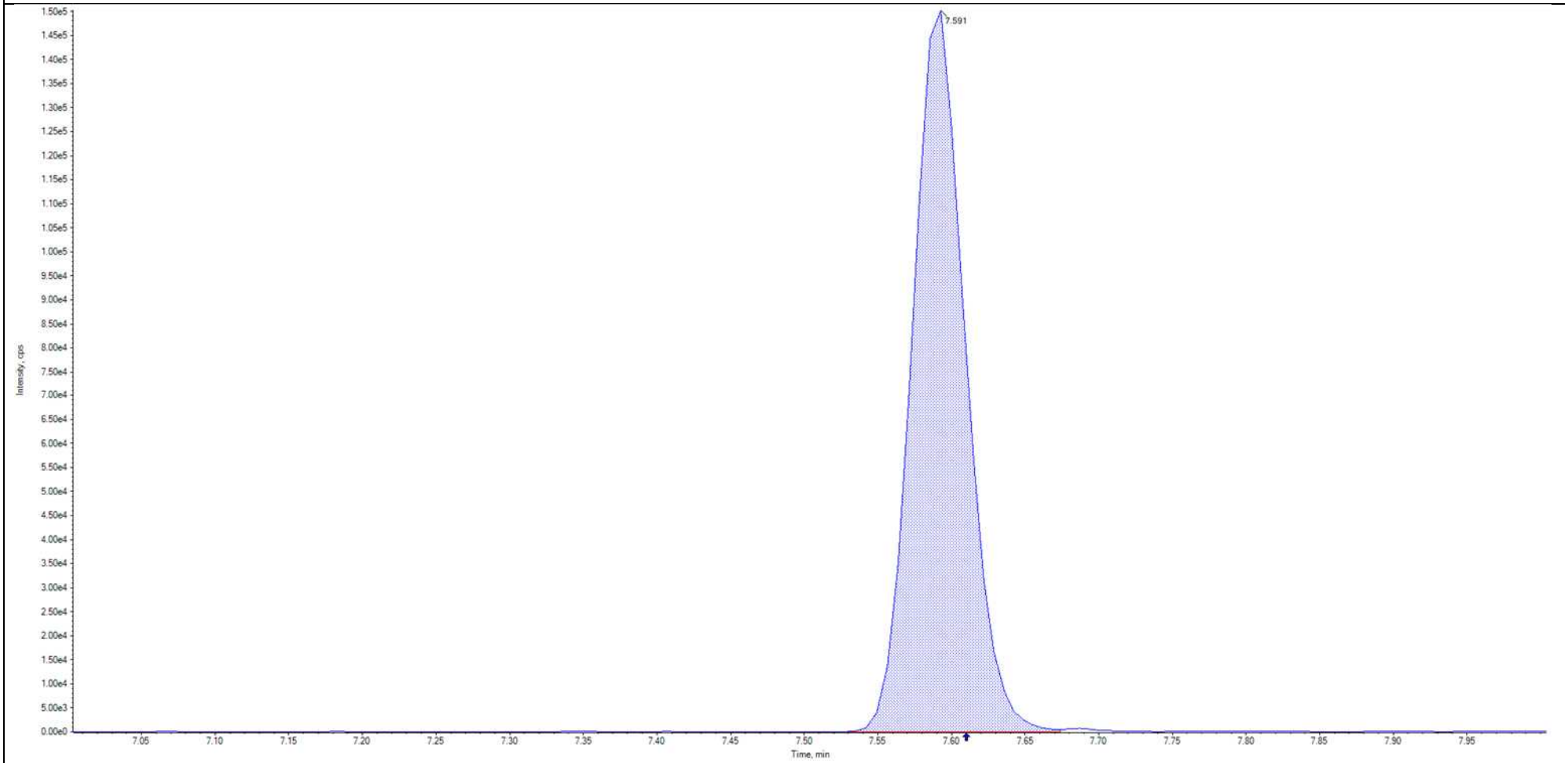
13C2-PFTeDA
Sample: WG1972760-5



13C3-PFBS
Sample: WG1972760-5

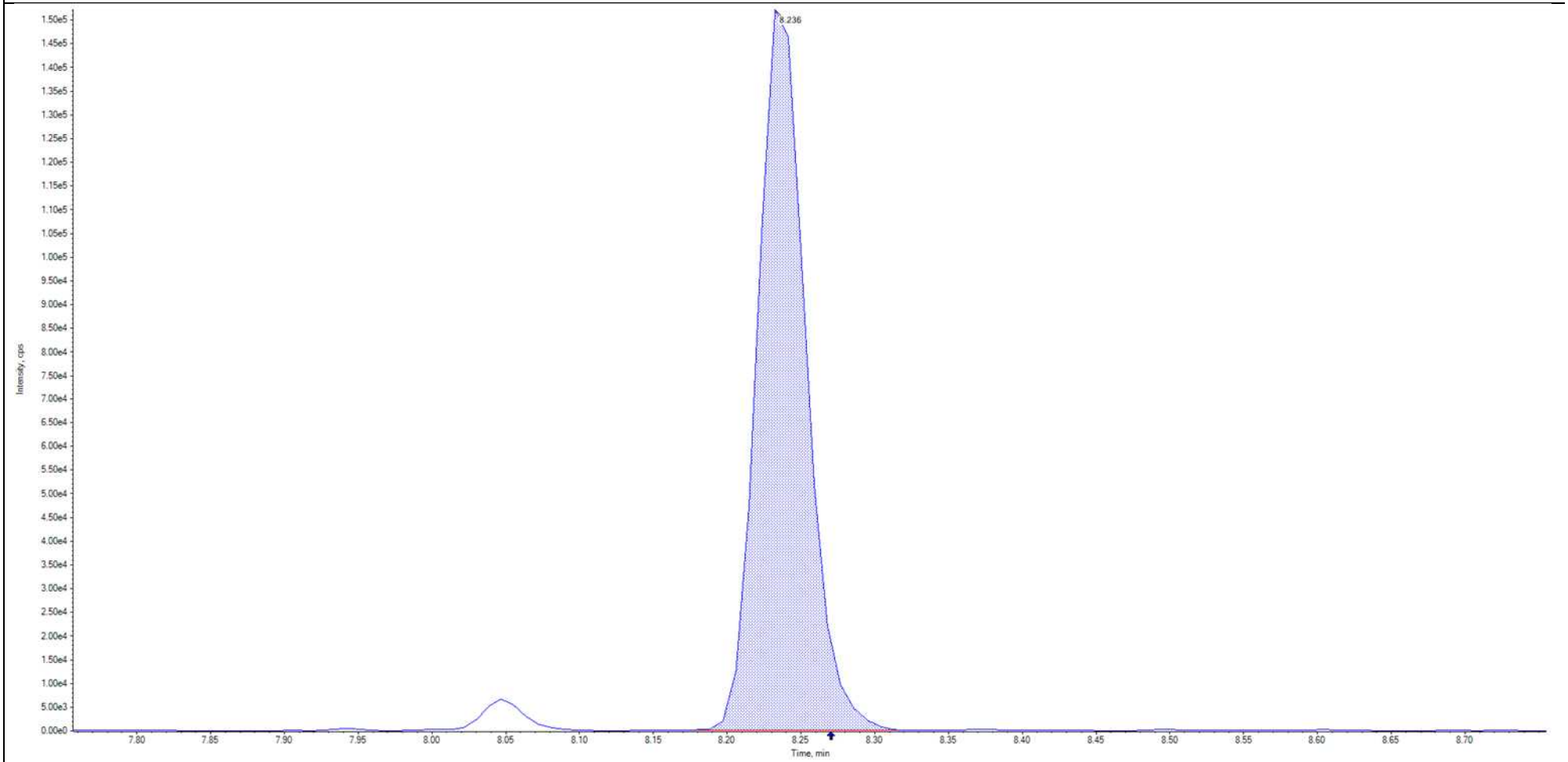


13C3-PFHxS
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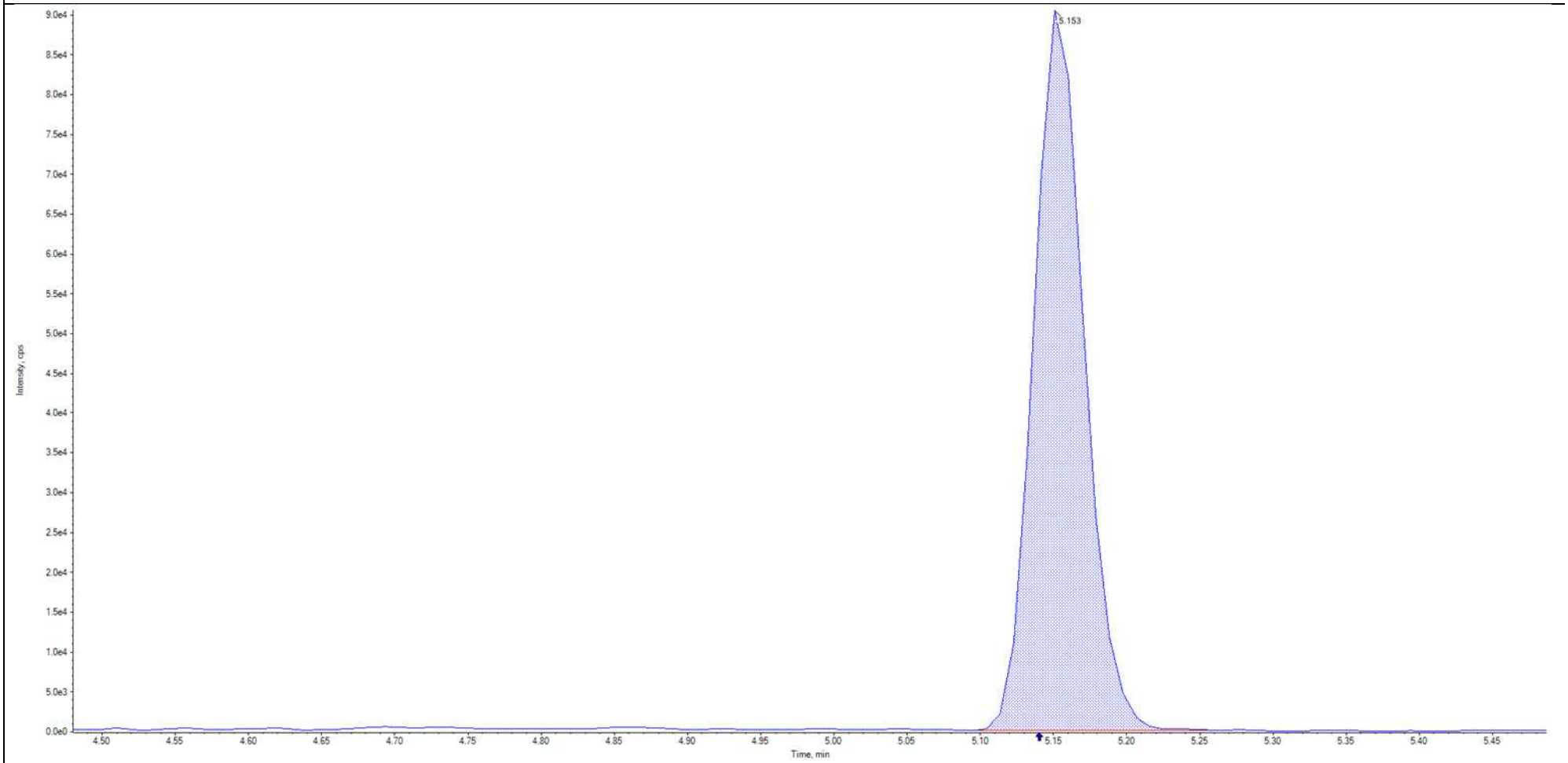


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13C8-PFOS
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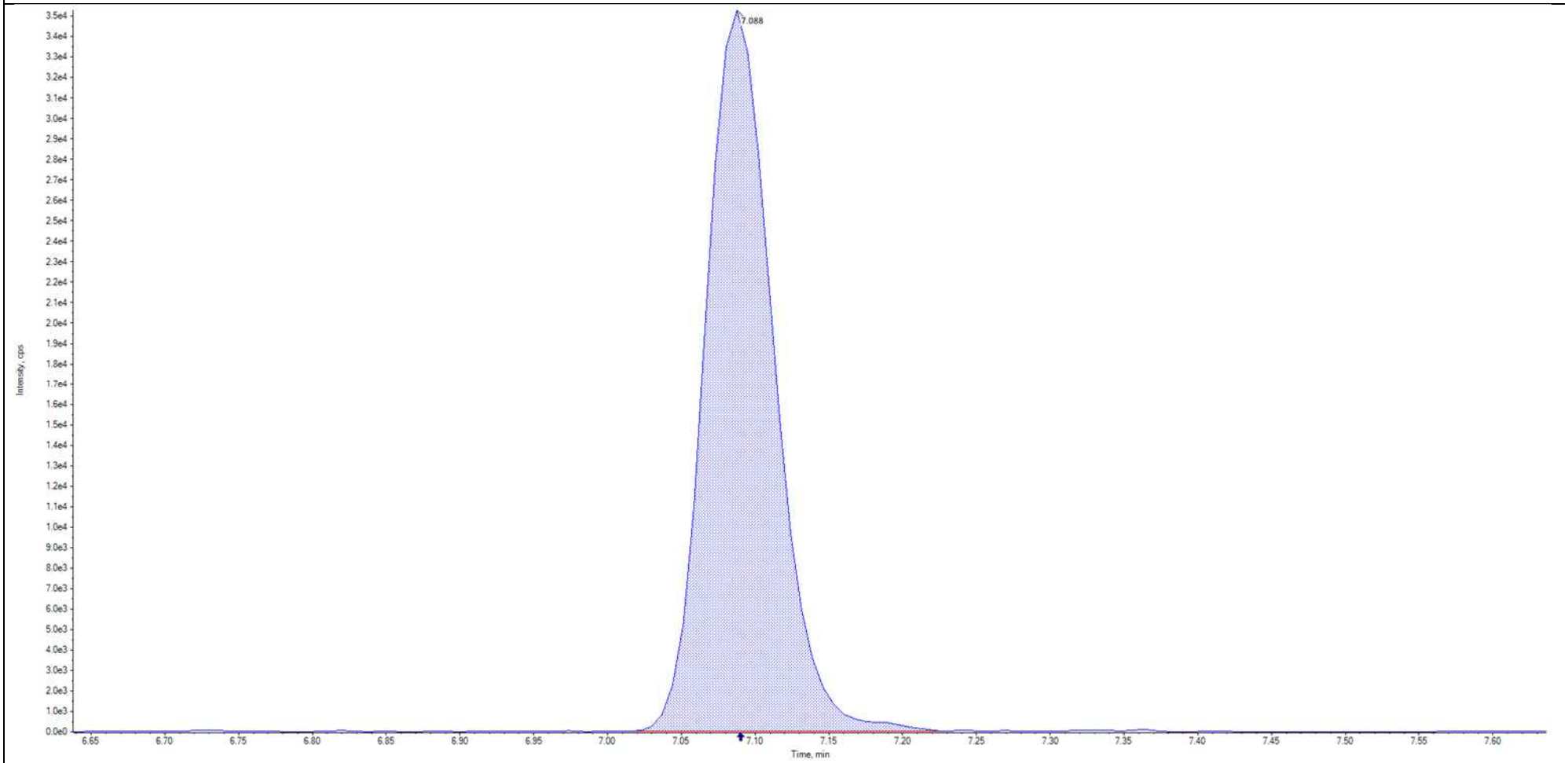


13C2-4:2FTS
Sample: WG1972760-5

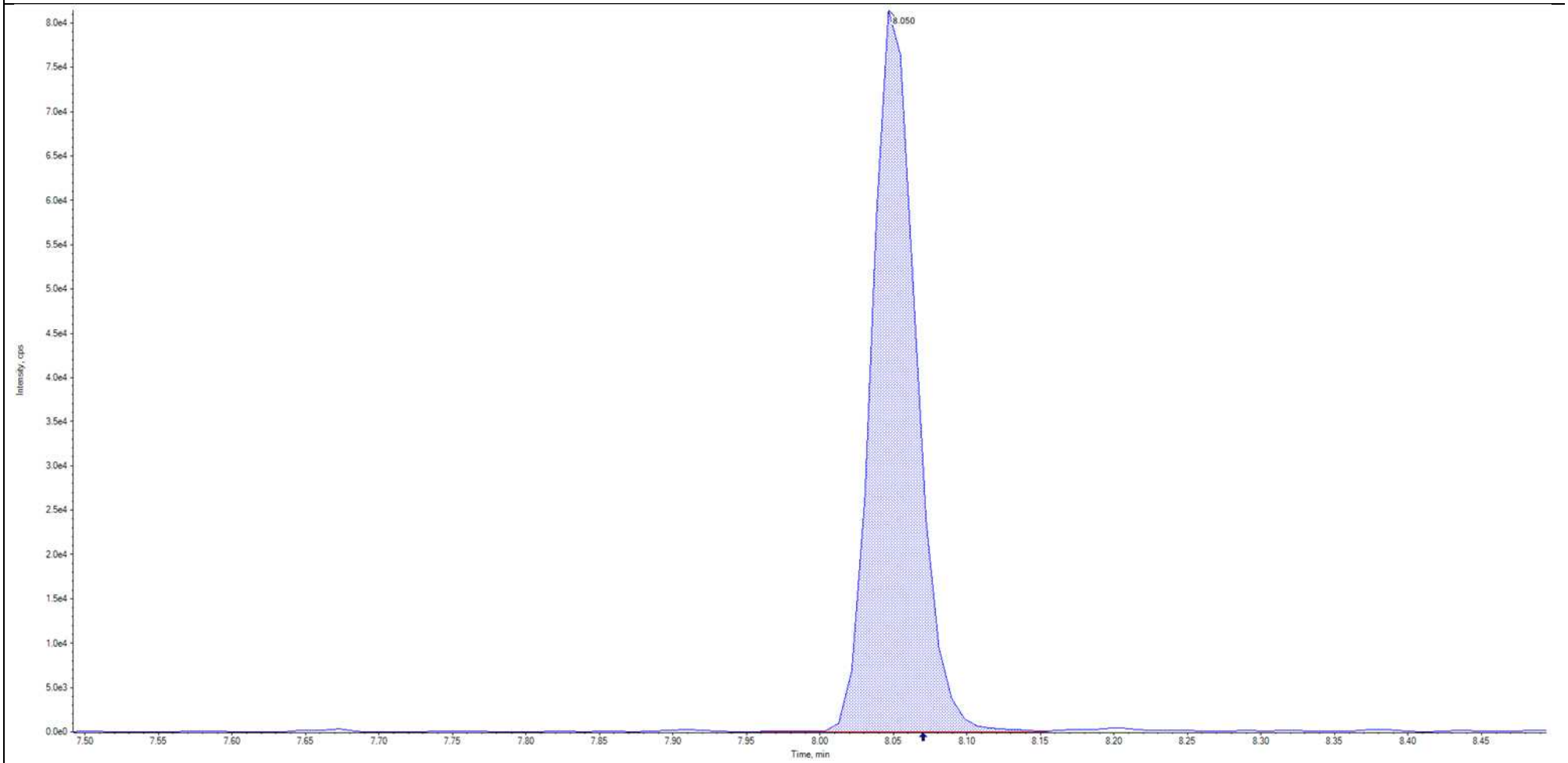


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
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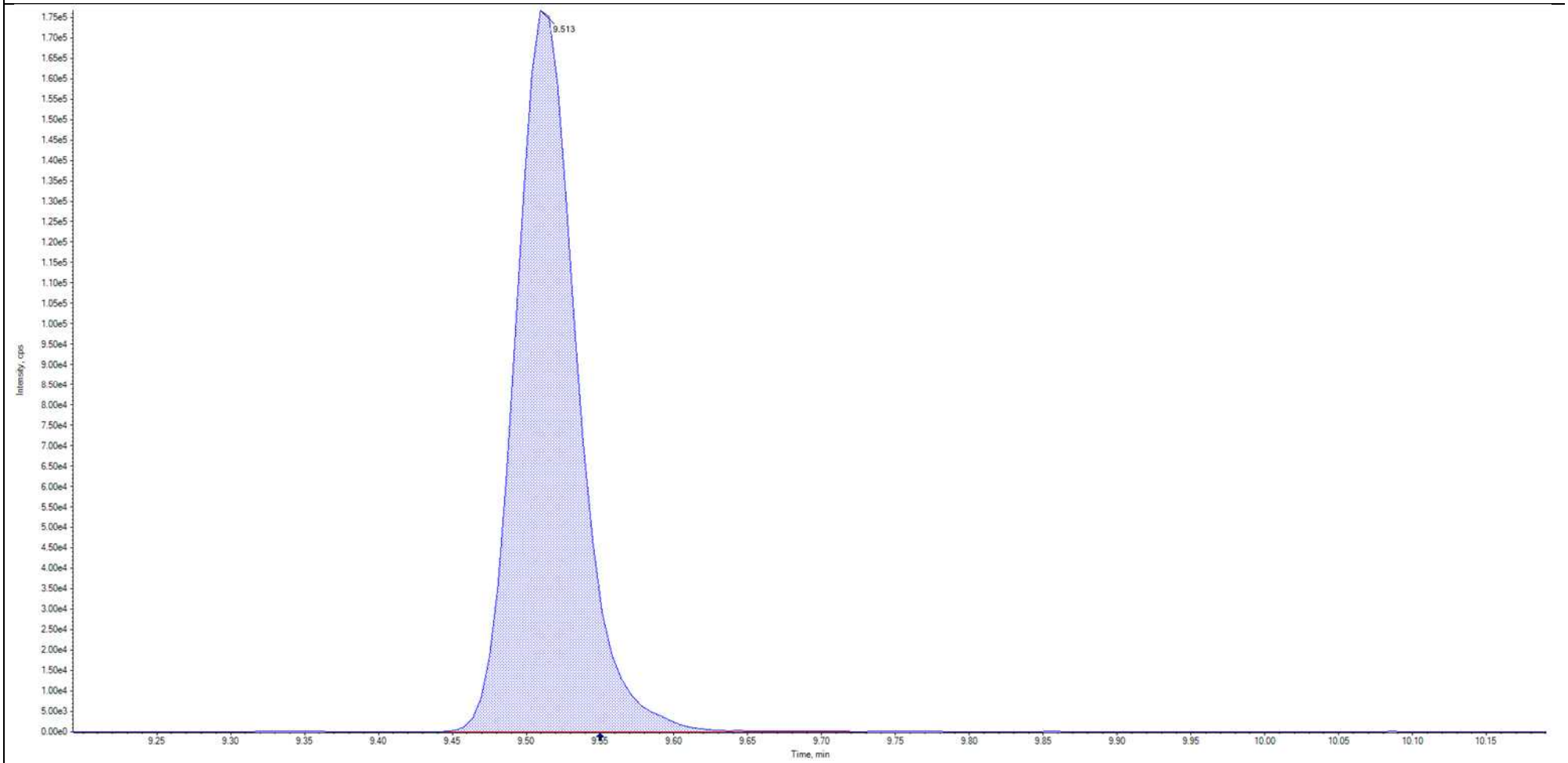
13C2-6:2FTS
Sample: WG1972760-5



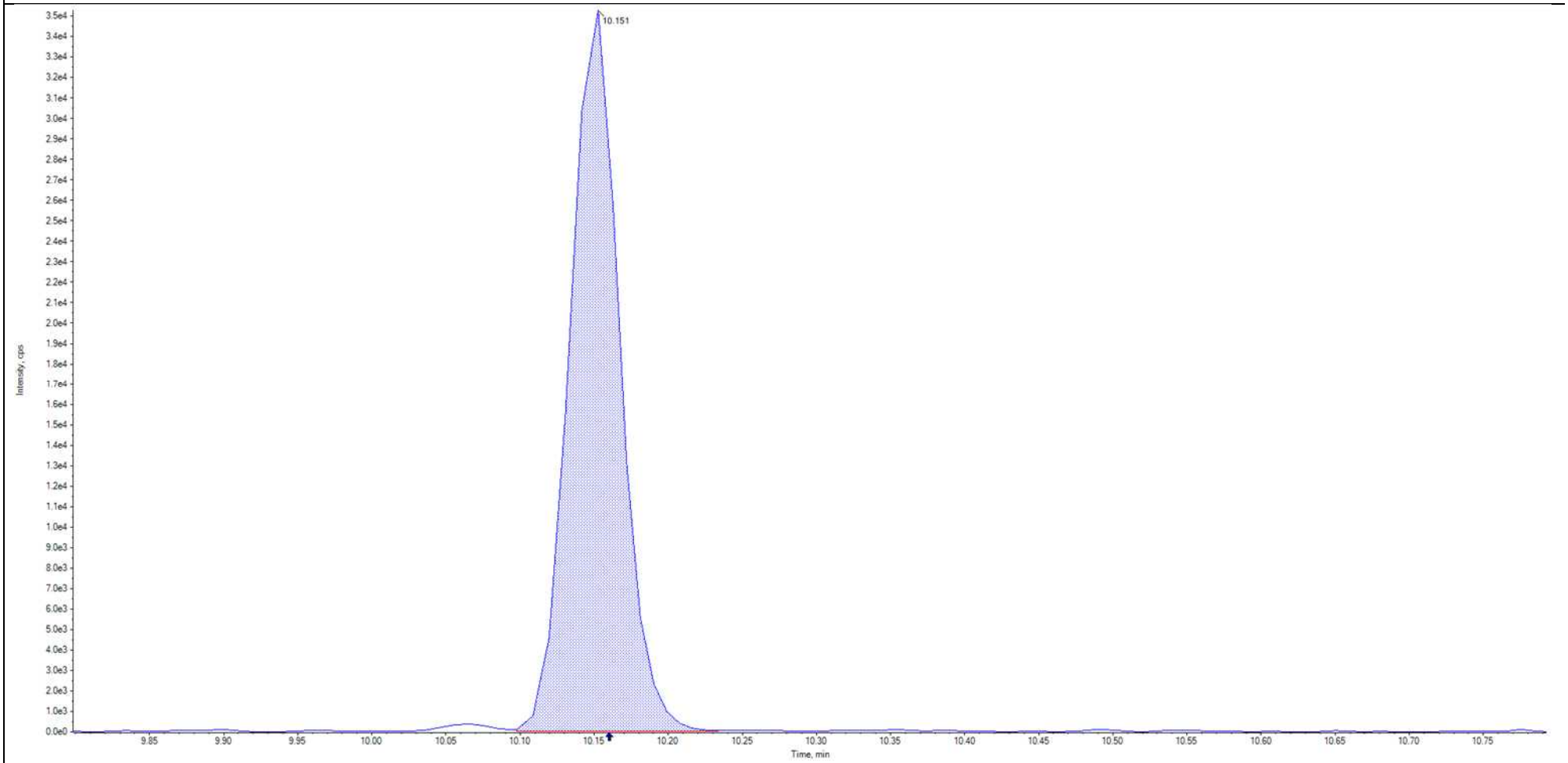
13C2-8:2FTS
Sample: WG1972760-5



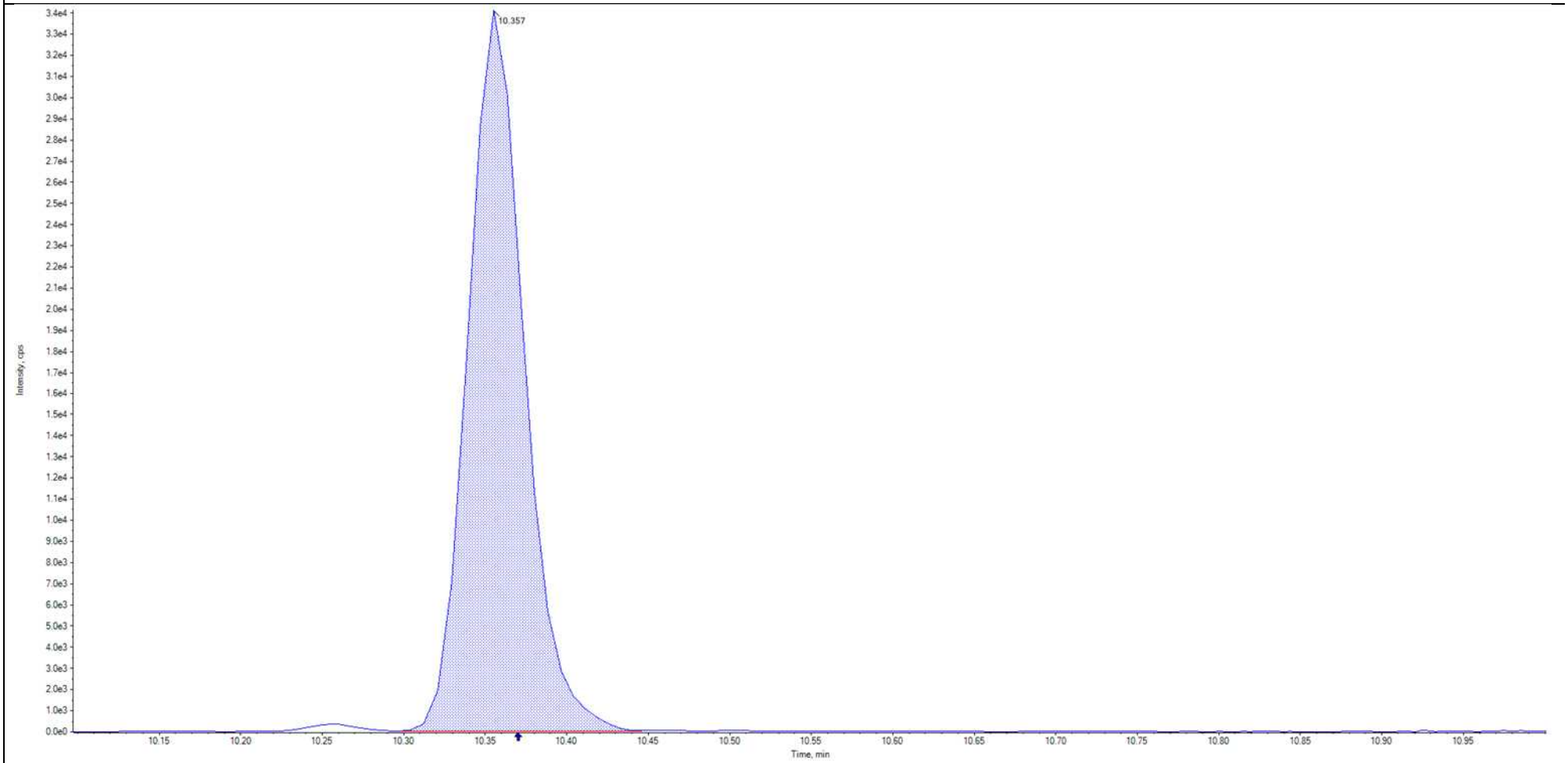
13C8-PFOSA
Sample: WG1972760-5



d3-NMeFOSA
Sample: WG1972760-5

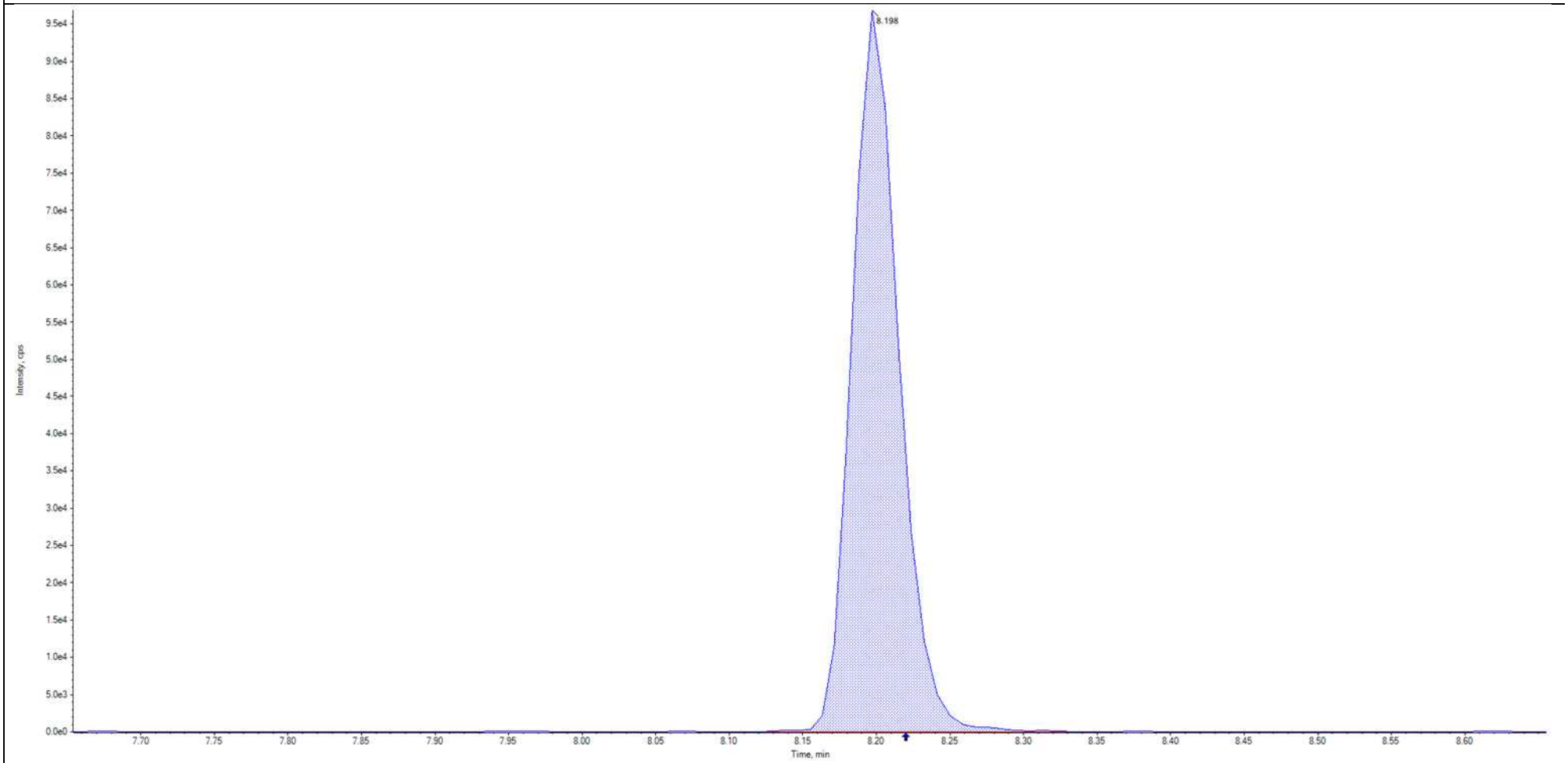


d5-NEtFOSA
Sample: WG1972760-5

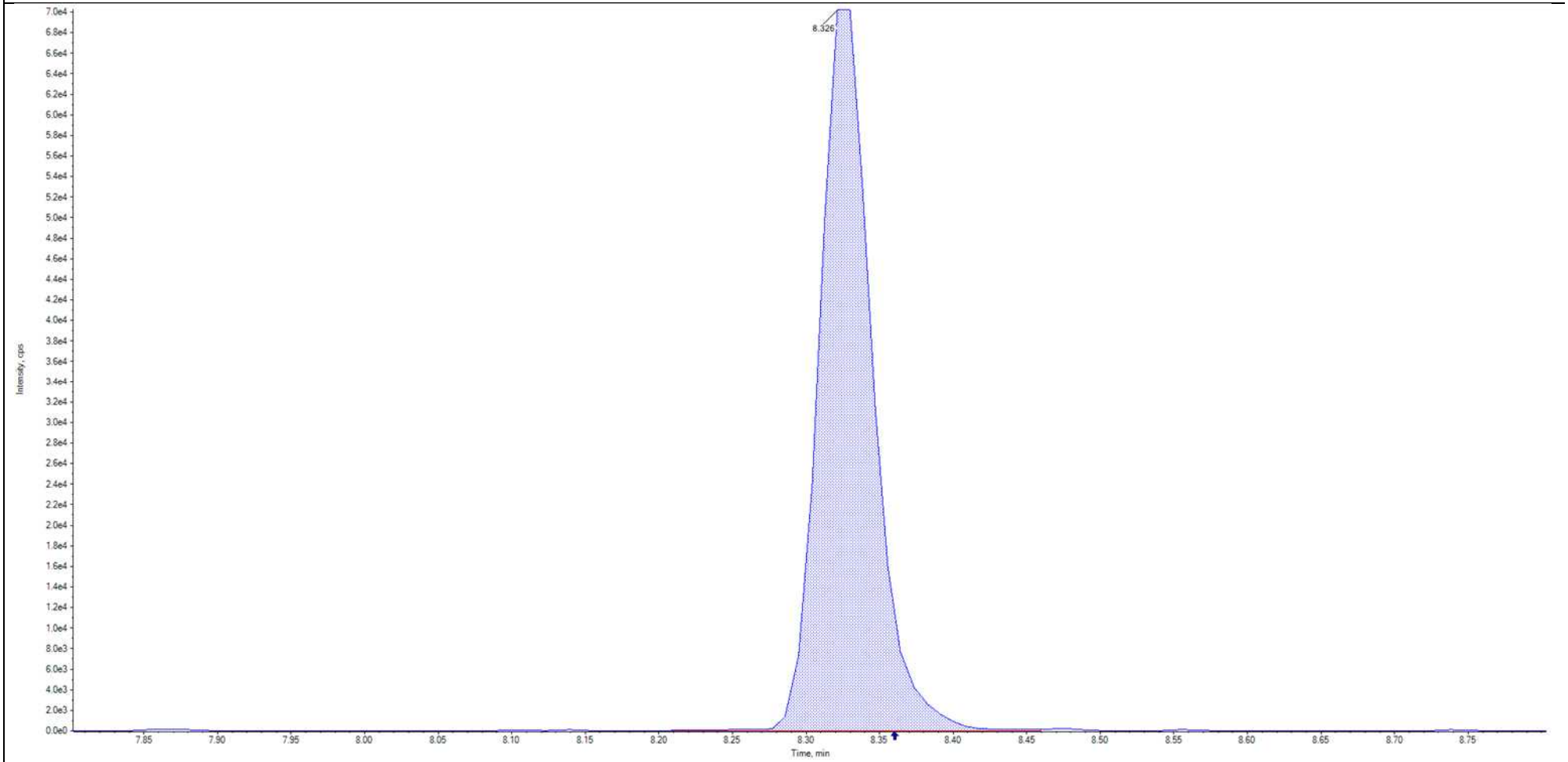


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
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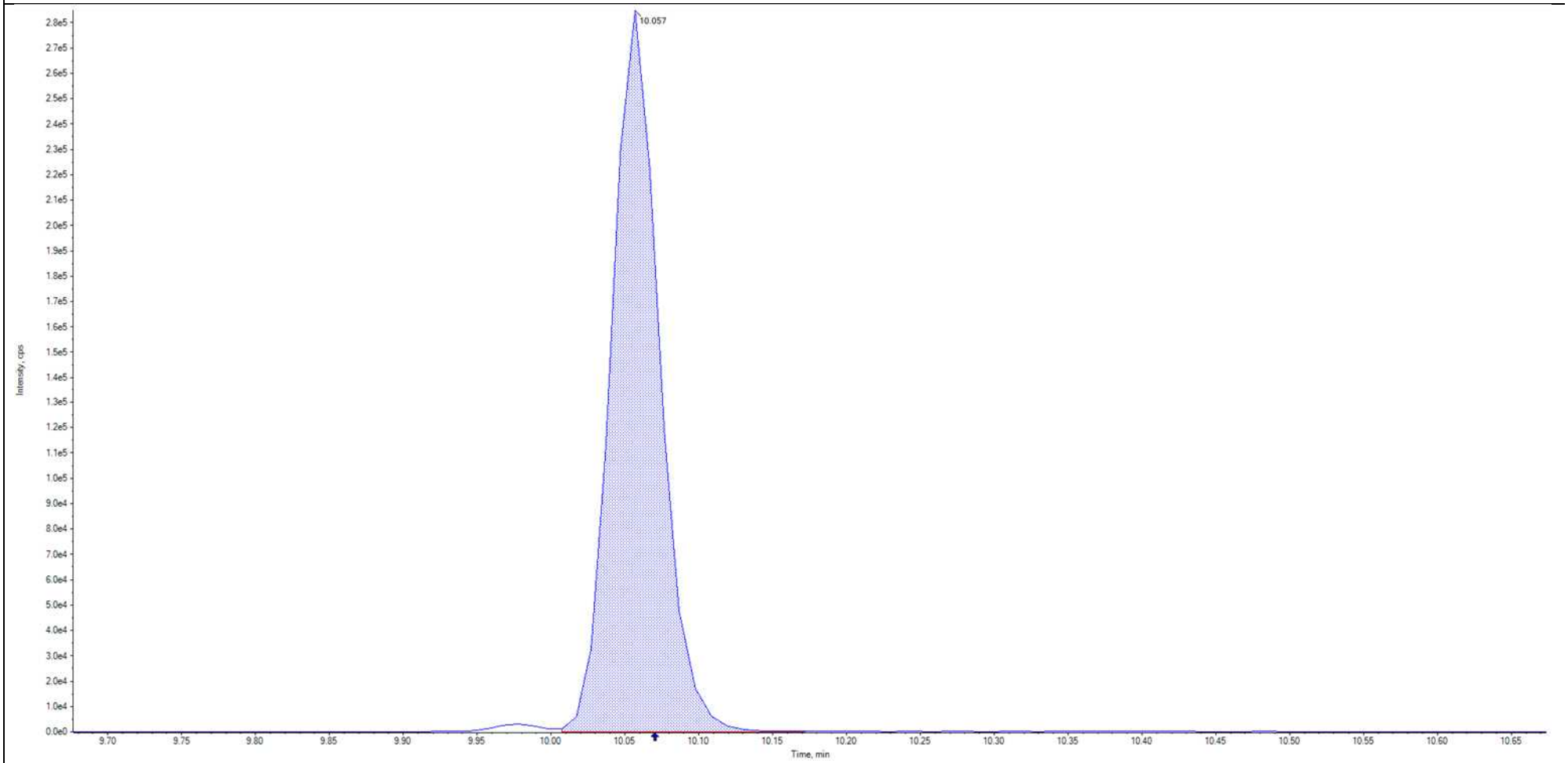
d3-NMeFOSAA
Sample: WG1972760-5



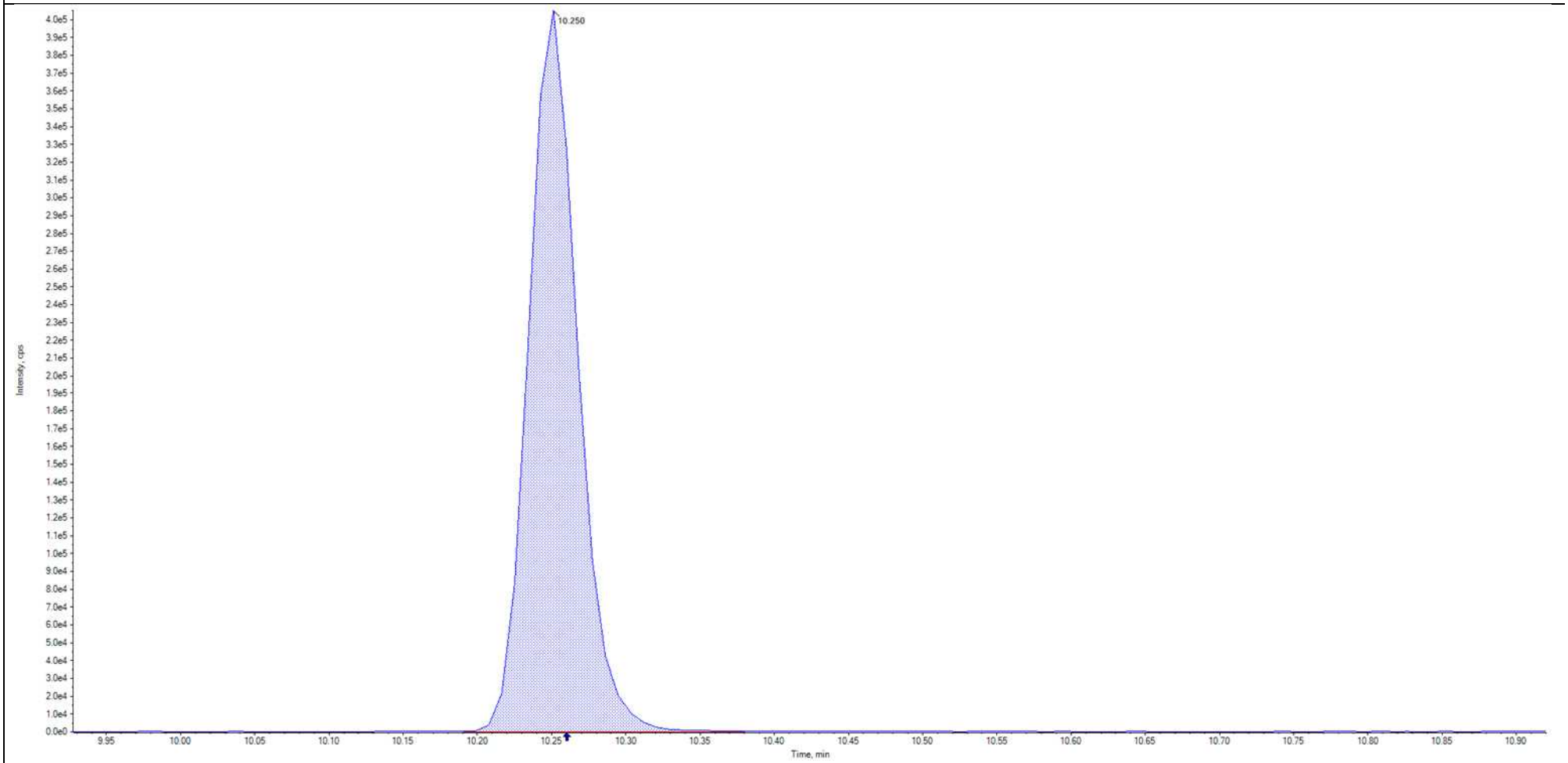
d5-NEtFOSAA
Sample: WG1972760-5



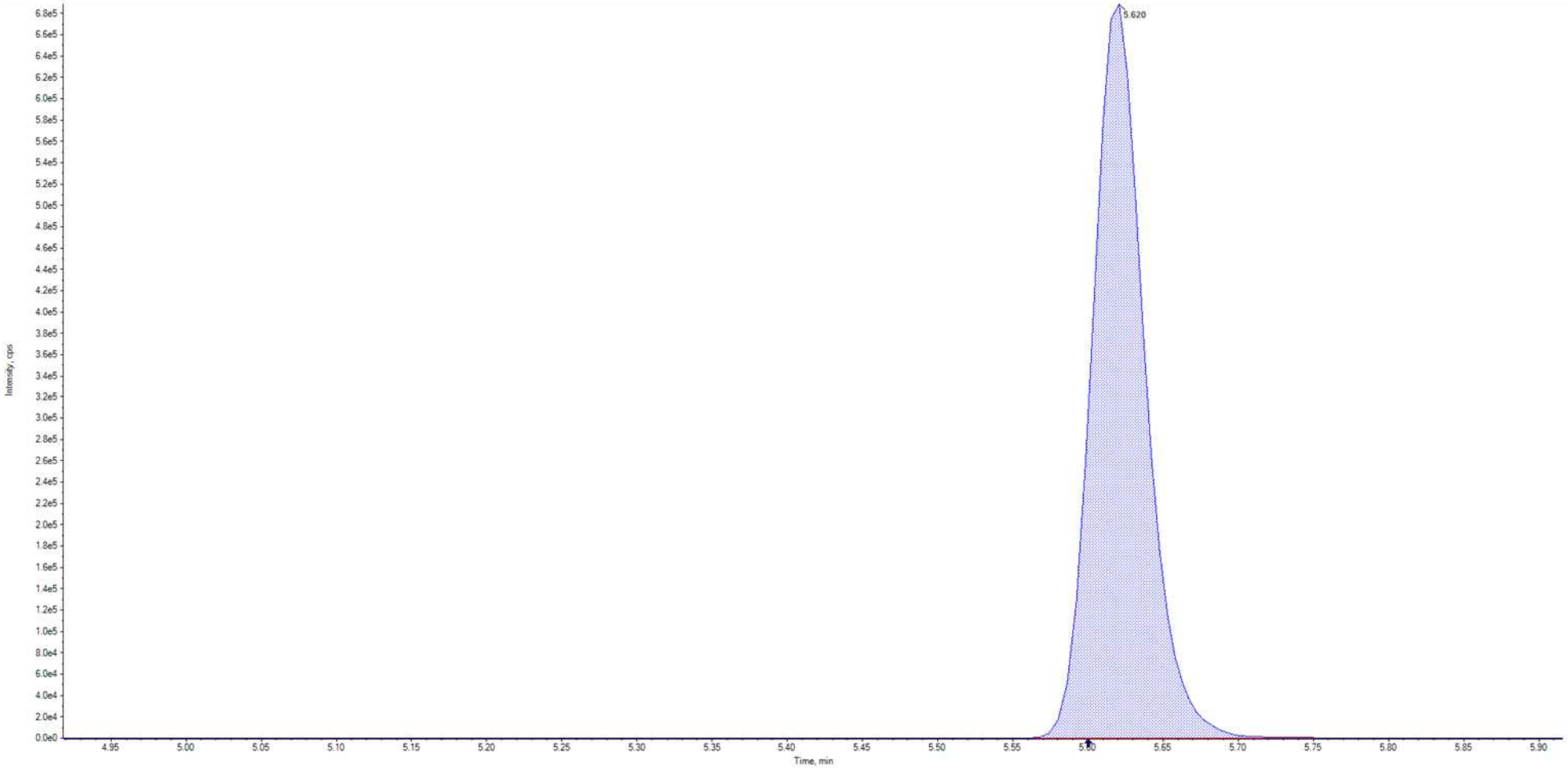
d7-NMeFOSE
Sample: WG1972760-5



d9-NEtFOSE
Sample: WG1972760-5

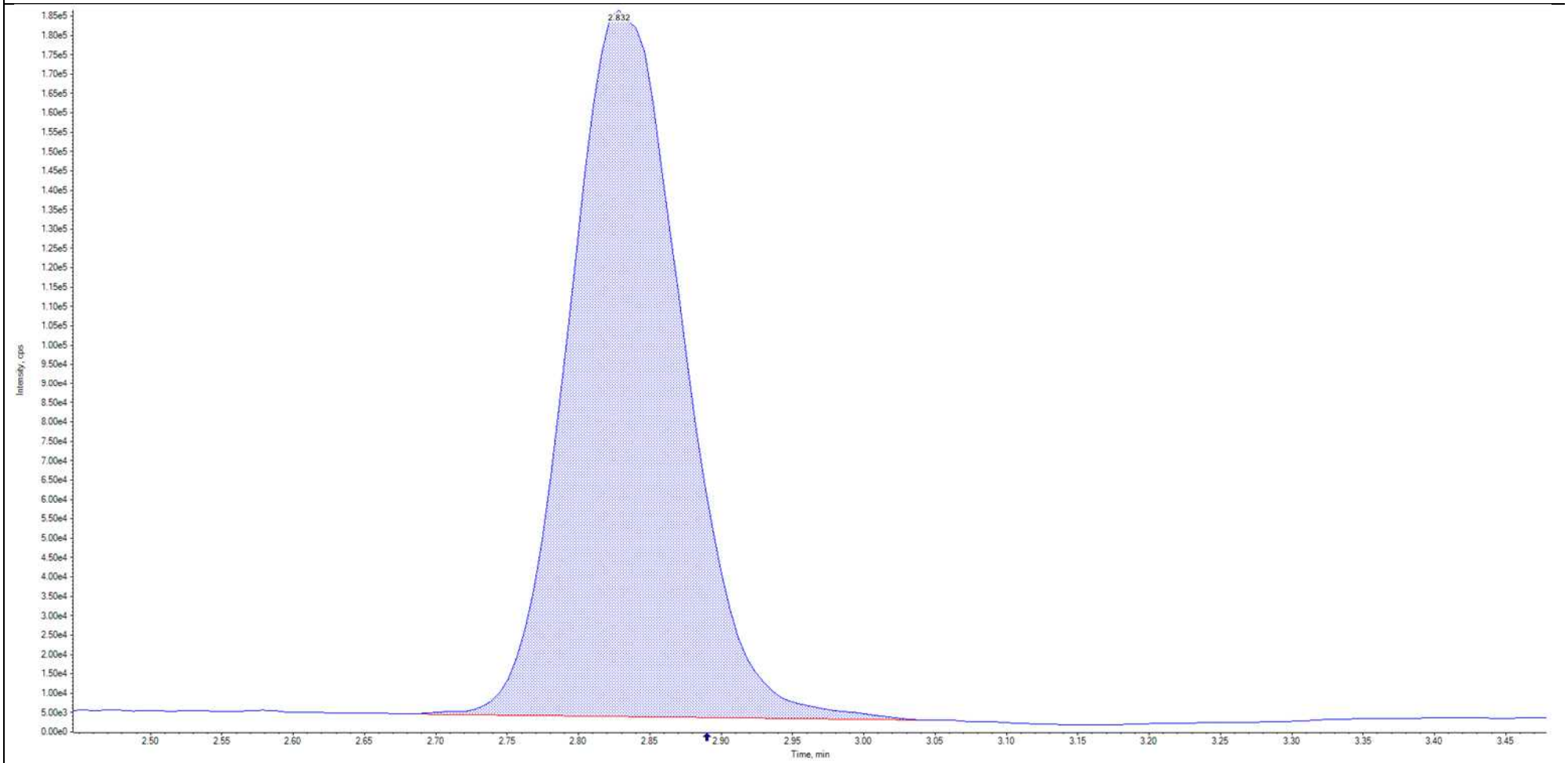


13C3-HFPO-DA
Sample: WG1972760-5

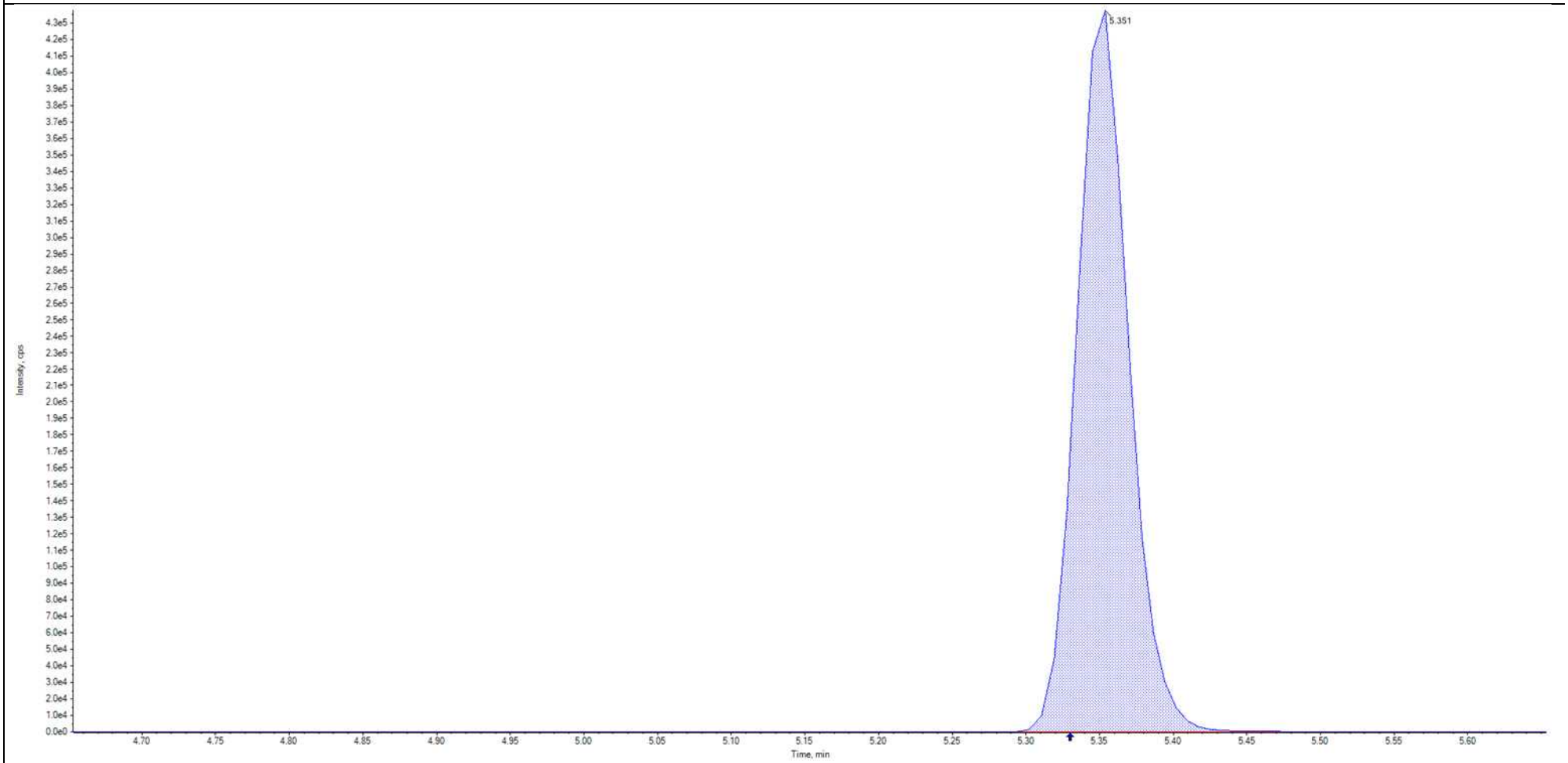


Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
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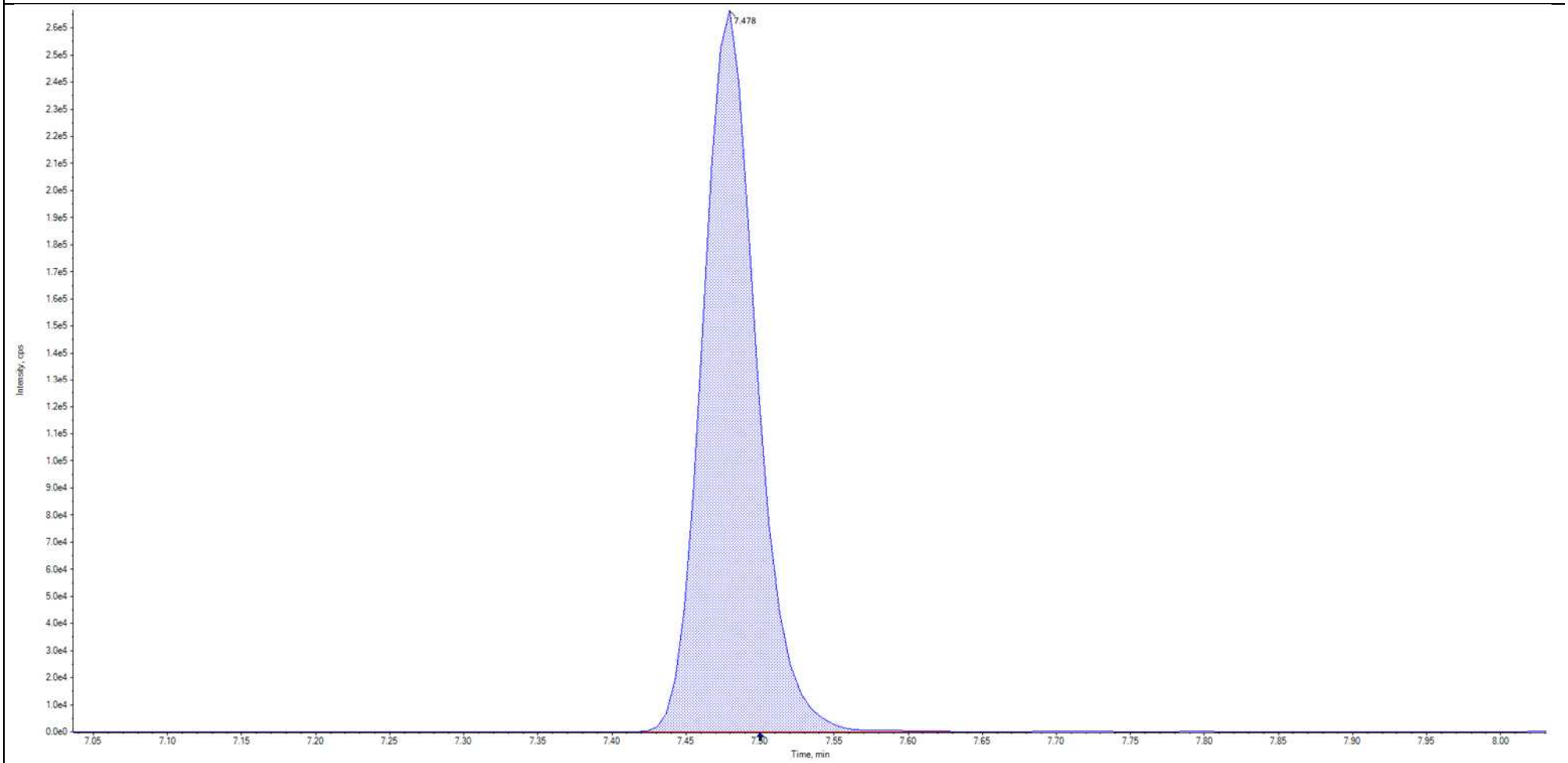
13C3-PFBA
Sample: WG1972760-5



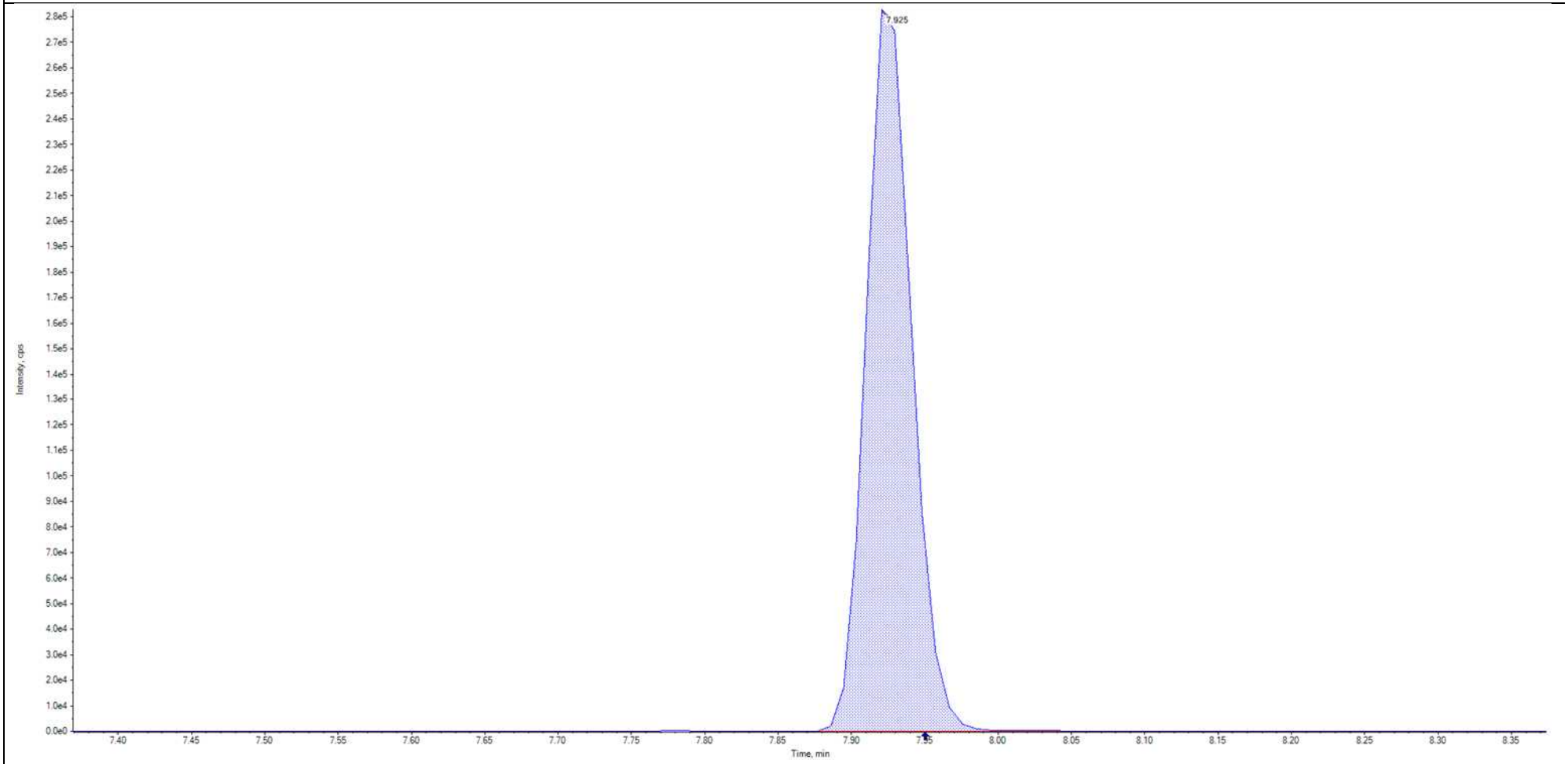
13C2-PFHxA
Sample: WG1972760-5



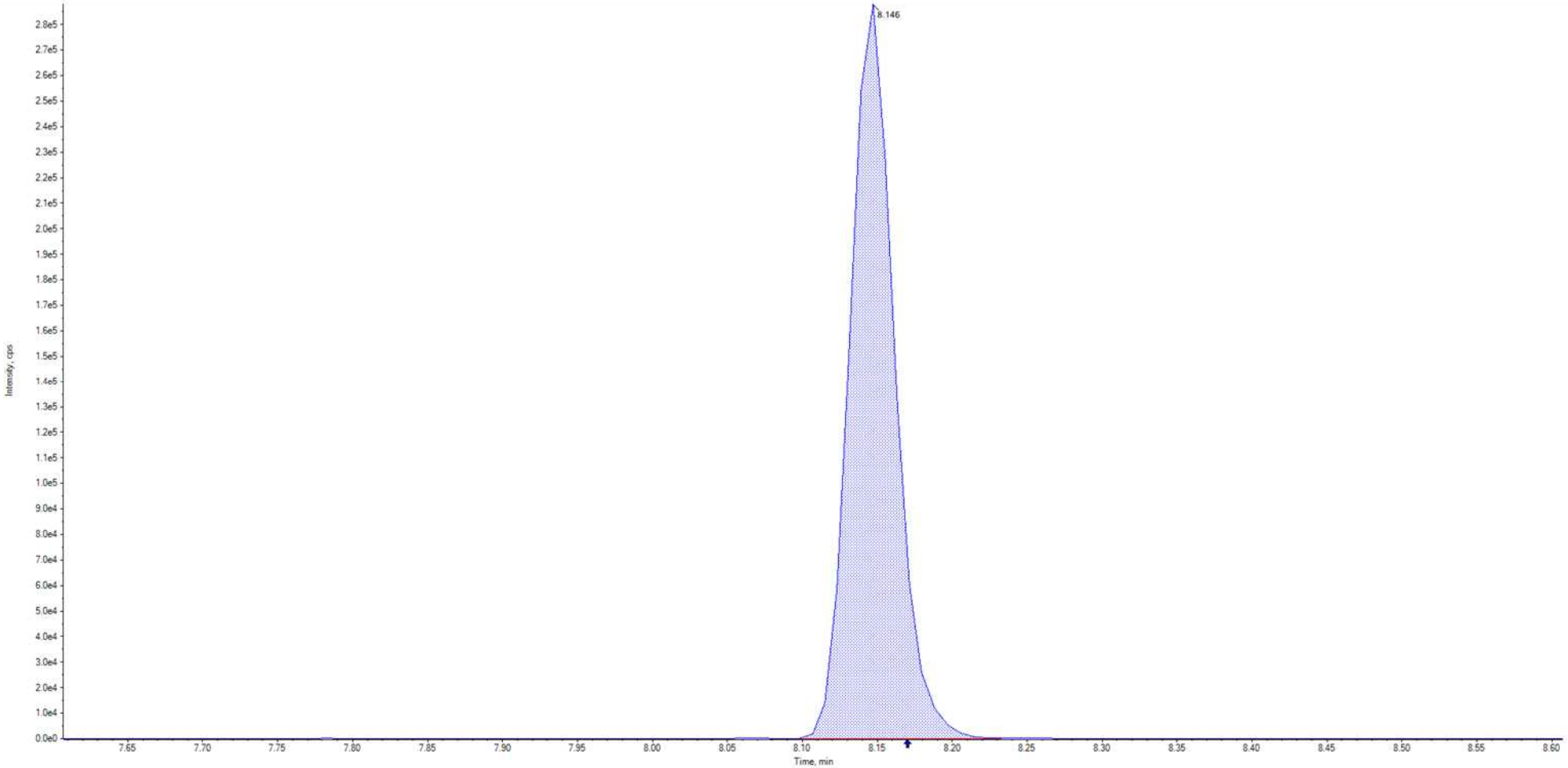
13C4-PFOA
Sample: WG1972760-5



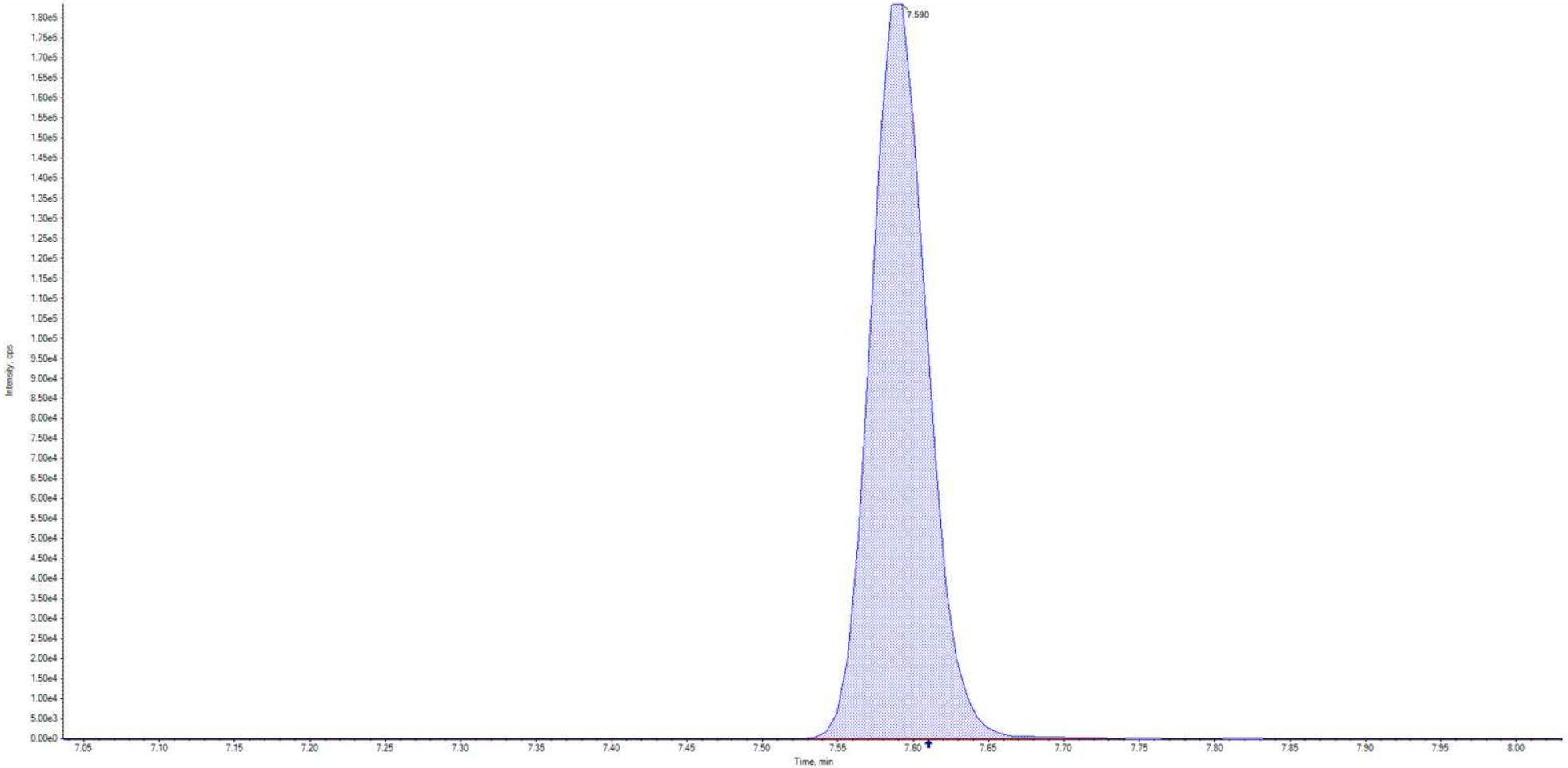
13C5-PFNA
Sample: WG1972760-5



13C2-PFDA
Sample: WG1972760-5

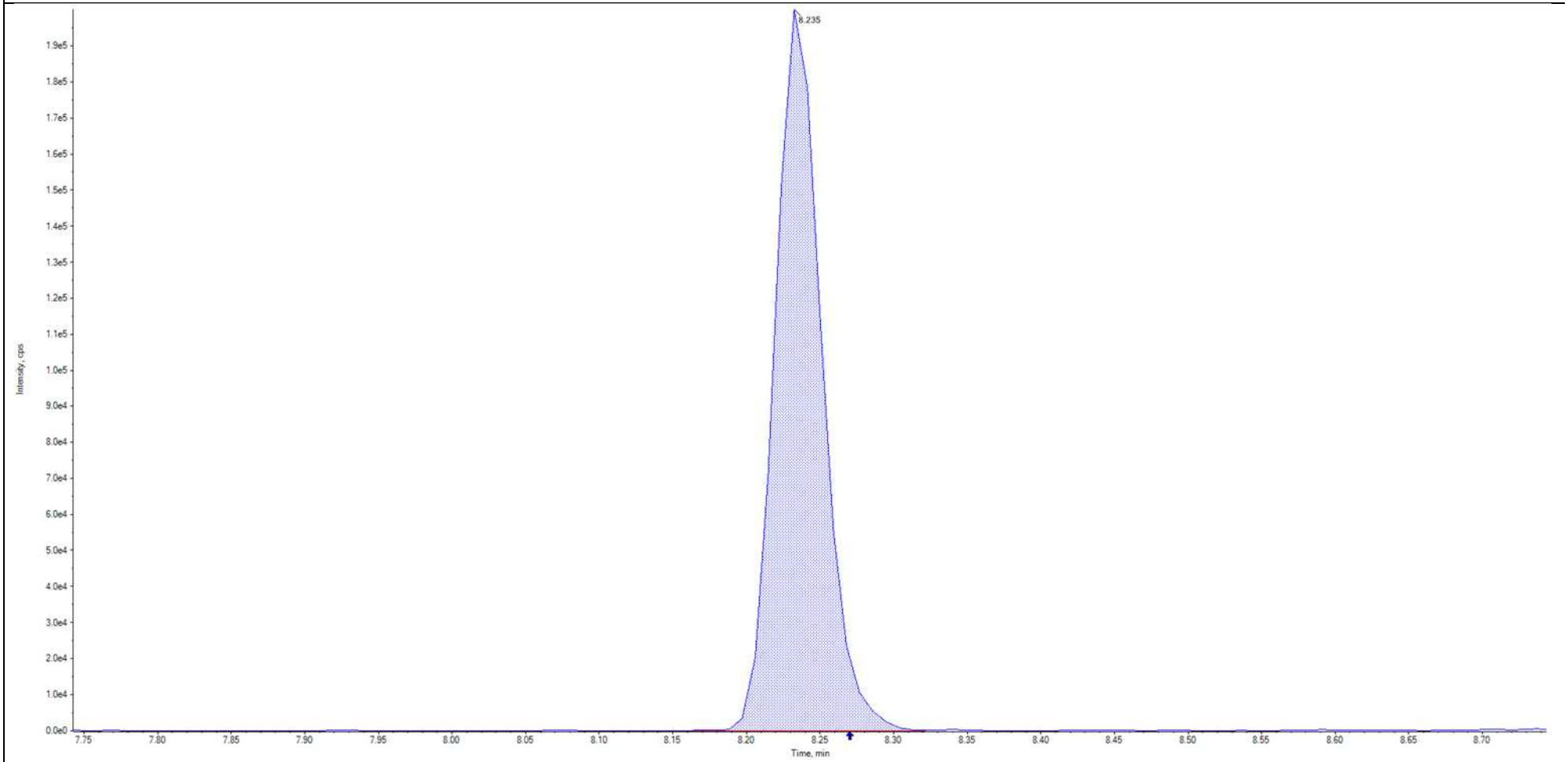


18O2-PFHxS
Sample: WG1972760-5



Quantify Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_23.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

13C4-PFOS
Sample: WG1972760-5



Quantity Sample Summary Report SCIEX OS Version 3.0.0.3339
Alpha Analytical Inc.
Dataset: D:\Analyst Data\Projects\PFAS\2024_09_18\Data\SCI05_240918_23.wiff
Last Altered: 9/18/2024 12:41:54 PM
Generated: 9/18/2024 6:35:36 AM

Calculation of Semi Volatile Organic Compounds

Aqueous Concentration Formula: Amt * DF * 1000 * (1/Vo) * Vf

Where:
DF = Dilution Factor
Vo = Volume of Sample (mL)
Vf = Extraction Lab Final Volume (mL)

Soil Concentration Formula: Amt * DF * 1000 * (1/Wt) * Vf * (100/TS)
Where:
DF = Dilution Factor
Wt = Weight of Sample (g)
Vf = Extraction Lab Final Volume (mL)
TS = Total Solids

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 18 2024, 05:32 pm

Work Group: WG1972760 for Department: 2 Organic Preparation

Created: 17-SEP-24 Due: Operator: brp

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2447306-01	HOLMES-TYPE II	S	A2-1633-DRAFT	WATER	DONE	U	0917	0918	NC	Plastic-A.5
L2447890-01	MW-3A	S	A2-1633-DRAFT	WATER	DONE	U	0918	0920	S0	Plastic-A.5
L2447890-02	MW-6A	S	A2-1633-DRAFT	WATER	DONE	U	0917	0920	S0	Plastic-A.5
L2447890-03	MW-6B	S	A2-1633-DRAFT	WATER	DONE	U	0917	0920	S0	Plastic-A.5
L2447890-11	MW-9B	S	A2-1633-DRAFT	WATER	DONE	U	0918	0920	S0	Plastic-A.5
L2447890-12	DUP	S	A2-1633-DRAFT	WATER	DONE	U	0918	0920	S0	Plastic-A.5
L2447890-13	FIELD BLANK	S	A2-1633-DRAFT	WATER	DONE	U	0918	0920	S0	Plastic-A.5
L2450460-01	INFLUENT	S	A2-1633-DRAFT	WATER	DONE	U	0930	0918	S0	Plastic-A.5
L2450460-02	EFFLUENT	S	A2-1633-DRAFT	WATER	DONE	U	0930	0918	S0	Plastic-A.5
L2450671-08	RES-7	S	A2-1633-DRAFT	WATER	DONE	U	1003	0919	S0	Plastic-A.5
L2450671-09	RES-10	S	A2-1633-DRAFT	WATER	DONE	U	1003	0919	S0	Plastic-A.5
L2450687-01	ART-SW-2024-09-05	S	A2-1633-DRAFT	WATER	DONE	U	1003	0919	S0	Plastic-A.5
L2450687-02	ARB1-SW-2024-09-05	S	A2-1633-DRAFT	WATER	DONE	U	1003	0919	S0	Plastic-A.5
L2450687-03	ARB2-SW-2024-09-05	S	A2-1633-DRAFT	WATER	DONE	U	1003	0919	S0	Plastic-A.5
L2450687-04	ARB3-SW-2024-09-05	S	A2-1633-DRAFT	WATER	DONE	U	1003	0919	S0	Plastic-A.5
L2450687-05	MEB-SW-2024-09-05	S	A2-1633-DRAFT	WATER	DONE	U	1003	0919	S0	Plastic-A.5
L2450687-06	MAB2-SW-2024-09-05	S	A2-1633-DRAFT	WATER	DONE	U	1003	0919	S0	Plastic-A.5
L2451197-02	BM-BLDG5-S-TANK	S	A2-1633-DRAFT	WATER	DONE	U	1004	0919	S0	Plastic-A.5
L2451197-03	BM-IDW-WATER	S	A2-1633-DRAFT	WATER	DONE	U	1004	0919	S0	Plastic-A.5
WG1972760-1	Laboratory Method Bl	S	A2-1633-DRAFT	WATER	DONE	U				
WG1972760-2	Laboratory Control S	S	A2-1633-DRAFT	WATER	DONE	U				
WG1972760-3	Laboratory Control S	S	A2-1633-DRAFT	WATER	DONE	U				
WG1972760-4	Matrix Spike	S	A2-1633-DRAFT	WATER	DONE	U				
WG1972760-5	Matrix Spike Duplica	S	A2-1633-DRAFT	WATER	DONE	U				

Comments:

WG1972760-4 L2447890-03
WG1972760-5 L2447890-03

Product:	**1633**
Run Date:	**8/13/2024**
Instrument:	**LCMS05**

ICAL info:	**ical21391**
CCAL LOTS:	40724G IS: 240724AA TOP: 240404 SOLV
Mobile Phase A:	EC081324A
Mobile Phase B:	64094
Bile Salts Standard:	240709_BILE , 240226_TRS

SAMPLE NAME	SAMPLE ID	VIAL	DATA FILE	SITUATION
Blank	WG1958909	2	SCI05_240813_70	
IA1633STD-.1	WG1958909,,,80ul IA1633STD-1.25	3	SCI05_240813_71	
IA1633STD-.2	WG1958909,,,80 ul IA1633STD-2.5	4	SCI05_240813_72	
IA1633STD-.5	WG1958909,,,100 ul IA1633STD-5	5	SCI05_240813_73	
IA1633STD-1.25	WG1958909,,,12.5 ul EPA1633_240813_CAL	6	SCI05_240813_74	
IA1633STD-2.5	WG1958909,,,25 ul EPA1633_240813_CAL	7	SCI05_240813_75	
IA1633STD-5	WG1958909,,,50 ul EPA1633_240813_CAL	8	SCI05_240813_76	
IA1633STD-12.5	WG1958909,,,125 ul EPA1633_240813_CAL	9	SCI05_240813_77	
IA1633STD-25	WG1958909,,,250 ul EPA1633_240813_CAL	10	SCI05_240813_78	
IA1633STD-62.5	WG1958909,,,625 ul EPA1633_240813_CAL	11	SCI05_240813_79	
WG1958909-2,INSTBLANK	WG1958909	12	SCI05_240813_80	
WG1958909-3,INSTBLANK	WG1958909	12	SCI05_240813_81	
CA1633STD-10	WG1958909,,,5 µl LCMS231120C	13	SCI05_240813_82	
WG1958909-4,TRS/-5,BSICS	WG1958909	14	SCI05_240813_83	
WG1958909-6,INSTBLANK	WG1958909	12	SCI05_240813_84	

Product:	1633
Run Date:	9/18/2024
Instrument:	LCMS05

ICAL info:	ICAL21391
CCAL LOTS:	40916C IS: LCMS240827AT/240913A TO
Mobile Phase A:	EC091624A
Mobile Phase B:	64179
Bile Salts Standard:	240822_BILE , 240829_TRS

SAMPLE NAME	SAMPLE ID	VIAL	DATA FILE	SITUATION
BLANK	BLANK	2	SCI05_240918_08	MCV: 6:06
WG1972930-2,1633LOW	***WG1972930,WG1970000,ICAL21391,1633LOW***	3	SCI05_240918_09	TARGET HIGH
WG1972930-3,1633MED	***WG1972930,WG1970000,ICAL21391,1633MED***	4	SCI05_240918_10	TARGET LOW - RERUN
WG1972930-3,1633MED	***WG1972930,WG1970000,ICAL21391,1633MED***	4	SCI05_240918_11	EIS OUT
WG1972930-4,INSTBLANK	WG1972930,WG1970000,ICAL21391	6	SCI05_240918_12	
WG1972930-5,TRS/-6,BSICS	WG1972930,WG1970000,ICAL21391	5	SCI05_240918_13	
WG1972930-7,INSTBLANK	WG1972930,WG1970000,ICAL21391	6	SCI05_240918_14	
WG1972760-1	WG1972930,WG1972760,ICAL21391	7	SCI05_240918_15	
WG1972760-2	WG1972930,WG1972760,ICAL21391	8	SCI05_240918_16	
WG1972760-3	WG1972930,WG1972760,ICAL21391	9	SCI05_240918_17	
L2447306-01	WG1972930,WG1972760,ICAL21391	10	SCI05_240918_18	
L2447890-01	WG1972930,WG1972760,ICAL21391	11	SCI05_240918_19	
L2447890-02	WG1972930,WG1972760,ICAL21391	12	SCI05_240918_20	
L2447890-03	WG1972930,WG1972760,ICAL21391	13	SCI05_240918_21	
WG1972760-4	WG1972930,WG1972760,ICAL21391	14	SCI05_240918_22	
WG1972760-5	WG1972930,WG1972760,ICAL21391	15	SCI05_240918_23	
L2447890-11	WG1972930,WG1972760,ICAL21391	16	SCI05_240918_24	
L2447890-12	WG1972930,WG1972760,ICAL21391	17	SCI05_240918_25	
L2447890-13	WG1972930,WG1972760,ICAL21391	18	SCI05_240918_26	
L2450460-01	WG1972930,WG1972760,ICAL21391	19	SCI05_240918_27	
BLANK3	CENTRIFUGE TUBE CHECK	42	SCI05_240918_28	
BLANK4	CENTRIFUGE TUBE CHECK	43	SCI05_240918_29	
WG1972930-8,1633MED	***WG1972930,WG1970000,ICAL21391,1633MED***	4	SCI05_240918_30	EIS OUT
WG1972930-9,INSTBLANK	WG1972930,WG1970000,ICAL21391	6	SCI05_240918_31	
L2450460-02	WG1972930,WG1972760,ICAL21391	20	SCI05_240918_32	
L2450671-08	WG1972930,WG1972760,ICAL21391	21	SCI05_240918_33	
L2450671-09	WG1972930,WG1972760,ICAL21391	22	SCI05_240918_34	
L2450687-01	WG1972930,WG1972760,ICAL21391	23	SCI05_240918_35	
L2450687-02	WG1972930,WG1972760,ICAL21391	24	SCI05_240918_36	
L2450687-03	WG1972930,WG1972760,ICAL21391	25	SCI05_240918_37	
L2450687-04	WG1972930,WG1972760,ICAL21391	26	SCI05_240918_38	
L2450687-05	WG1972930,WG1972760,ICAL21391	27	SCI05_240918_39	
L2450687-06	WG1972930,WG1972760,ICAL21391	28	SCI05_240918_40	

L2451197-02	WG1972930,WG1972760,ICAL21391	29	SCI05_240918_41	
WG1972930-10,1633MED	***WG1972930,WG1970000,ICAL21391,1633MED***	4	SCI05_240918_42	
WG1972930-11,INSTBLANK	WG1972930,WG1970000,ICAL21391	6	SCI05_240918_43	
L2451197-03	WG1972930,WG1972760,ICAL21391	30	SCI05_240918_44	
L2450621-08R	WG1972930,WG1972774,ICAL21391	31	SCI05_240918_45	
L2450621-12R	WG1972930,WG1972774,ICAL21391	32	SCI05_240918_46	
L2450621-14R	WG1972930,WG1972774,ICAL21391	33	SCI05_240918_47	
L2450621-16R	WG1972930,WG1972774,ICAL21391	34	SCI05_240918_48	
L2450621-15D,,10	WG1972930,WG1972774,ICAL21391	35	SCI05_240918_49	
L2450621-13D,,10	WG1972930,WG1972774,ICAL21391	36	SCI05_240918_50	
L2450621-10D,,10	WG1972930,WG1972774,ICAL21391	37	SCI05_240918_51	
L2450621-11R	WG1972930,WG1972774,ICAL21391	38	SCI05_240918_52	
L2450621-13R	WG1972930,WG1972774,ICAL21391	39	SCI05_240918_53	
WG1972930-12,1633MED	***WG1972930,WG1970000,ICAL21391,1633MED***	4	SCI05_240918_54	

ORGANIC ELN REPORT

Workgroup: WG1972760

Prep Method: EPA 1633
Solvent Type: 1% NH4OH **Lot #:** ECP090924G
Surrogate Type: 1633 **Lot #:** LCSM240916B/C
Spike Type: 1633 **Lot #:** EPA1633_240908_CAL
Spike Verify by: BFG
Lims Spikelot: 1633

Additional Reagents/Stds

0.1M Formic Acid	ECP090824C
0.3M Formic Acid	ECP091224M
1% NH4OH	ECP090924G
1:1 Formic Aid:MeOH	
Acetic Acid	2023111300
Filter	
GCB	B24-001445:1264
IS	LCMS240827AQ
pH Strip	10BDH5131

Conc.Method: NA
Solvent Type: NA
Lot #: N/A

Additional Reagents/Stds

Cleanup 1

Cleanup Method 1:
Cleanup Method 2:
Solvent Type: **Lot #:**

Additional Reagents/Stds

Extraction **Concentration**

Sample/ Type	Extract Date	Analyst	Initial Sample Weight	Final Weight g	Sample Vol g	Ph	Balance Id	Surr Amt ml	Spike Amt ml	Pipette Id	Lot: Spe Cartridge	Flow Rate ml/min	Final Vol ml
L2447306-01 SAMP	09/17/24 16:10 **9,4 403**	Blake Page	522.44	42.27	480.17	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
L2447890-01 SAMP	09/17/24 16:10 **9,5 306**	Blake Page	569.76	42.25	527.51	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
L2447890-02 SAMP	09/17/24 16:10 **9,6 414**	Blake Page	568.06	42.00	526.06	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
L2447890-03 SAMP	09/17/24 16:10 **10,1 420**	Blake Page	577.88	42.25	535.63	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
L2447890-11 SAMP	09/17/24 16:10 **10,4 925**	Blake Page	557.50	42.49	515.01	6	BAL-36	.02		322	S308-0174, S24-00293	5	4

Reported: 18-SEP-24 05:32 PM

ORGANIC ELN REPORT

Workgroup: WG1972760

Sample/ Type	Extraction											Concentration
	Extract Date	Analyst	Initial Sample Weight	Final Weight **g**	Sample Vol **g**	Ph	Balance Id	Surr Amt **ml**	Spike Amt **ml**	Pipette Id	Lot: Spe Cartridge	Flow Rate **ml/min**	Final Vol **ml**
L2447890-12 SAMP	09/17/24 16:10 **10,5 418**	Blake Page	567.27	42.67	524.6	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
L2447890-13 SAMP	09/17/24 16:10 **10,6 712**	Blake Page	543.45	42.30	501.15	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
L2450460-01 WATER	09/17/24 16:10 **11,1 802 200mL of sample diluted due to cloudy matrix 9/17/24 BRP**	Blake Page	200	0	200	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
L2450460-02 WATER	09/17/24 16:10 **11,2 415**	Blake Page	596.39	43.01	553.38	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
L2450671-08 SAMP	09/17/24 16:10 **11,3 701**	Blake Page	548.12	43.07	505.05	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
L2450671-09 SAMP	09/17/24 16:10 **11,4 715**	Blake Page	571.27	42.86	528.41	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
L2450687-01 SAMP	09/17/24 16:10 **11,5 501**	Blake Page	564.39	39.73	524.66	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
L2450687-02 SAMP	09/17/24 16:10 **11,6 14**	Blake Page	557.85	39.53	518.32	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
L2450687-03 SAMP	09/17/24 16:10 **12,1 605**	Blake Page	528.12	39.58	488.54	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
L2450687-04 SAMP	09/17/24 16:10 **12,2 917**	Blake Page	509.32	40.33	468.99	6	BAL-36	.02		322	S308-0174, S24-00293	5	4

Reported: 18-SEP-24 05:32 PM

ORGANIC ELN REPORT

Workgroup: WG1972760

Sample/ Type	Extraction											Concentration
	Extract Date	Analyst	Initial Sample Weight	Final Weight **g**	Sample Vol **g**	Ph	Balance Id	Surr Amt **ml**	Spike Amt **ml**	Pipette Id	Lot: Spe Cartridge	Flow Rate **ml/min**	Final Vol **ml**
L2450687-05 SAMP	09/17/24 16:10	Blake Page	2	0	2	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
	12,3 612 2mL of sample diluted per screen sheet 9/17/24 BRP												
L2450687-06 SAMP	09/17/24 16:10	Blake Page	20	0	20	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
	12,4 921 20mL of sample diluted per screen sheet 9/17/24 BRP												
L2451197-02 WATER	09/17/24 16:10	Blake Page	25	0	25	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
	12,5 920 25mL of sample diluted due to cloudy matrix 9/17/24 BRP												
L2451197-03 WATER	09/17/24 16:10	Blake Page	5	0	5	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
	12,6 508 5mL of sample diluted due to cloudy matrix 9/17/24 BRP												
WG1972760-1 BLANK	09/17/24 16:10	Blake Page	540	40	500	6	BAL-36	.02		322	S308-0174, S24-00293	5	4
	9,1 507												
WG1972760-2 LCS	09/17/24 16:10	Blake Page	540	40	500	6	BAL-36	.02	.016	322	S308-0174, S24-00293	5	4
	9,2 305												
WG1972760-3 LCS	09/17/24 16:10	Blake Page	540	40	500	6	BAL-36	.02	.1	322, 342	S308-0174, S24-00293	5	4
	9,3 210												
WG1972760-4 MS	09/17/24 16:10	Blake Page	578.10	42.17	535.93	6	BAL-36	.02	.1	322, 342	S308-0174, S24-00293	5	4
	10,2 604												
WG1972760-5 MSD	09/17/24 16:10	Blake Page	575.80	42.61	533.19	6	BAL-36	.02	.1	322, 342	S308-0174, S24-00293	5	4
	10,3 600												

Reported: 18-SEP-24 05:32 PM

Metals

Inorganic Data
(ICPMS Analysis)

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-01	**Date Collected**	: 08/21/24 11:10
Client ID	: MW-3A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 17:07
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Dissolved	0.0145	0.0100	0.00327	
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.01808	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	4.30	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00047	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	1.37	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.01384	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	1.68	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	6.58	0.100	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-02	**Date Collected**	: 08/20/24 16:40
Client ID	: MW-6A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 17:11
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.01941	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	22.9	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00030	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	0.00052	0.00050	0.00016	
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	5.24	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	4.660	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	3.04	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	13.9	0.100	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-03	**Date Collected**	: 08/20/24 14:55
Client ID	: MW-6B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 12:39
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Dissolved	0.00342	0.0100	0.00327	J
7440-36-0	Antimony, Dissolved	0.00073	0.00400	0.00042	J
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.04329	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	42.0	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00022	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	0.00052	0.00100	0.00038	J
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	9.94	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.08884	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	4.08	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	12.9	0.100	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-04	**Date Collected**	: 08/20/24 17:55
Client ID	: MW-6C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 17:16
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.04125	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	67.9	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00024	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	0.00053	0.00100	0.00038	J
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	15.9	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00915	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	4.79	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	13.9	0.100	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-05	**Date Collected**	: 08/20/24 16:30
Client ID	: MW-7A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 17:20
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Dissolved	0.00365	0.0100	0.00327	J
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.01662	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	16.9	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00069	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	5.98	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.02911	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	0.00056	0.00200	0.00055	J
7440-09-7	Potassium, Dissolved	1.81	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	10.2	0.100	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-06	**Date Collected**	: 08/21/24 09:20
Client ID	: MW-7B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 17:31
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-38-2	Arsenic, Dissolved	0.00019	0.00050	0.00016	J
7440-39-3	Barium, Dissolved	0.01855	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	20.9	0.100	0.0394	
7440-47-3	Chromium, Dissolved	ND	0.00100	0.00017	U
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	6.57	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00654	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	2.15	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	14.2	0.100	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-06	**Date Collected**	: 08/21/24 09:20
Client ID	: MW-7B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 18:22
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-07	**Date Collected**	: 08/21/24 10:50
Client ID	: MW-7C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 17:35
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.02228	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	17.9	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00073	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	8.70	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00061	0.00100	0.00044	J
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	1.93	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	13.9	0.100	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-08	**Date Collected**	: 08/21/24 13:05
Client ID	: MW-8A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 17:40
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.02906	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	32.1	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00105	0.00100	0.00017	
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	0.0238	0.0500	0.0191	J
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	10.7	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00100	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	0.00214	0.00200	0.00055	
7440-09-7	Potassium, Dissolved	1.92	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	6.53	0.100	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-09	**Date Collected**	: 08/21/24 14:35
Client ID	: MW-8B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 17:44
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.02566	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	31.6	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00022	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	5.92	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00116	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	2.93	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	11.2	0.100	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-10	**Date Collected**	: 08/21/24 13:40
Client ID	: MW-8C2	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 18:08
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.02940	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	39.6	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00019	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	8.14	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00085	0.00100	0.00044	J
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	3.69	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	13.6	0.100	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-11	**Date Collected**	: 08/21/24 09:00
Client ID	: MW-9B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 18:12
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Dissolved	0.00716	0.0100	0.00327	J
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.04681	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	17.4	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00110	0.00100	0.00017	
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	2.68	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00291	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	2.40	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	8.19	0.100	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-12	**Date Collected**	: 08/21/24 00:00
Client ID	: DUP	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 18:17
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Dissolved	0.0144	0.0100	0.00327	
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.04615	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	16.3	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00141	0.00100	0.00017	
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	2.51	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00295	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	2.34	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	7.65	0.100	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-13	**Date Collected**	: 08/21/24 09:30
Client ID	: FIELD BLANK	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 17:59
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Dissolved	0.00333	0.0100	0.00327	J
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	ND	0.00050	0.00017	U
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	0.0599	0.100	0.0394	J
7440-47-3	Chromium, Dissolved	ND	0.00100	0.00017	U
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	ND	0.0700	0.0242	U
7439-96-5	Manganese, Dissolved	ND	0.00100	0.00044	U
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	ND	0.100	0.0309	U
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	0.250	0.100	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964418-1	**Date Collected**	: NA
Client ID	: WG1964418-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/28/24 13:31
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	ND	0.00050	0.00017	U
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	0.0520	0.100	0.0394	J
7440-47-3	Chromium, Dissolved	ND	0.00100	0.00017	U
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	ND	0.0700	0.0242	U
7439-96-5	Manganese, Dissolved	ND	0.00100	0.00044	U
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	ND	0.100	0.0309	U
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	0.0414	0.100	0.0293	J
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964418-6	**Date Collected**	:
Client ID	: Serial Dilution	**Date Received**	:
Sample Location	:	**Date Analyzed**	: 08/28/24 12:57
Sample Matrix	: WATER	**Dilution Factor**	: 5
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-39-3	Barium, Dissolved	0.04556	0.00250	0.0009	
7440-70-2	Calcium, Dissolved	42.3	0.500	0.197	
7439-95-4	Magnesium, Dissolved	10.8	0.350	0.121	
7439-96-5	Manganese, Dissolved	0.08860	0.00500	0.0022	
7440-09-7	Potassium, Dissolved	3.98	0.500	0.154	
7440-23-5	Sodium, Dissolved	13.7	0.500	0.146	

Form 1
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Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-01	**Date Collected**	: 08/21/24 11:10
Client ID	: MW-3A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 20:47
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.01997	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	4.97	0.100	0.0394	
7440-47-3	Chromium, Total	0.00058	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	1.42	0.0700	0.0242	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	1.88	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-02	**Date Collected**	: 08/20/24 16:40
Client ID	: MW-6A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 20:51
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.02039	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	0.00007	0.00020	0.00005	J
7440-70-2	Calcium, Total	24.2	0.100	0.0394	
7440-47-3	Chromium, Total	0.00374	0.00100	0.00017	
7440-48-4	Cobalt, Total	0.00076	0.00050	0.00016	
7440-50-8	Copper, Total	0.00175	0.00100	0.00038	
7439-89-6	Iron, Total	0.0997	0.0500	0.0191	
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	5.18	0.0700	0.0242	
7440-02-0	Nickel, Total	0.00646	0.00200	0.00055	
7440-09-7	Potassium, Total	3.13	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-03	**Date Collected**	: 08/20/24 14:55
Client ID	: MW-6B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 20:20
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-36-0	Antimony, Total	0.00057	0.00400	0.00042	J
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.04484	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	43.3	0.100	0.0394	
7440-47-3	Chromium, Total	0.00043	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	0.00056	0.00100	0.00038	J
7439-89-6	Iron, Total	0.0228	0.0500	0.0191	J
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	10.2	0.0700	0.0242	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	4.23	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-04	**Date Collected**	: 08/20/24 17:55
Client ID	: MW-6C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 21:09
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	0.00017	0.00050	0.00016	J
7440-39-3	Barium, Total	0.04305	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	75.5	0.100	0.0394	
7440-47-3	Chromium, Total	0.00099	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	0.00066	0.00100	0.00038	J
7439-89-6	Iron, Total	0.0301	0.0500	0.0191	J
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	16.6	0.0700	0.0242	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	5.21	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-05	**Date Collected**	: 08/20/24 16:30
Client ID	: MW-7A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 21:14
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.01787	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	16.4	0.100	0.0394	
7440-47-3	Chromium, Total	0.00060	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	5.79	0.0700	0.0242	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	1.73	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

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Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-06	**Date Collected**	: 08/21/24 09:20
Client ID	: MW-7B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 21:18
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.01966	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	23.8	0.100	0.0394	
7440-47-3	Chromium, Total	0.00044	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	0.00059	0.00100	0.00038	J
7439-89-6	Iron, Total	0.0232	0.0500	0.0191	J
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	6.66	0.0700	0.0242	
7440-02-0	Nickel, Total	0.00086	0.00200	0.00055	J
7440-09-7	Potassium, Total	2.33	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

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Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-07	**Date Collected**	: 08/21/24 10:50
Client ID	: MW-7C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 21:23
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.02316	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	18.3	0.100	0.0394	
7440-47-3	Chromium, Total	0.00071	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	8.29	0.0700	0.0242	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	2.10	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

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Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-08	**Date Collected**	: 08/21/24 13:05
Client ID	: MW-8A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 21:27
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.03121	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	35.1	0.100	0.0394	
7440-47-3	Chromium, Total	0.00640	0.00100	0.00017	
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	0.00048	0.00100	0.00038	J
7439-89-6	Iron, Total	0.0579	0.0500	0.0191	
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	11.4	0.0700	0.0242	
7440-02-0	Nickel, Total	0.00419	0.00200	0.00055	
7440-09-7	Potassium, Total	2.10	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

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Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-09	**Date Collected**	: 08/21/24 14:35
Client ID	: MW-8B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 21:32
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.02695	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	33.0	0.100	0.0394	
7440-47-3	Chromium, Total	0.00022	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	0.00047	0.00100	0.00038	J
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	6.29	0.0700	0.0242	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	3.04	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

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METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-10	**Date Collected**	: 08/21/24 13:40
Client ID	: MW-8C2	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 21:36
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.02852	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	39.5	0.100	0.0394	
7440-47-3	Chromium, Total	0.00053	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	0.0265	0.0500	0.0191	J
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	8.24	0.0700	0.0242	
7440-02-0	Nickel, Total	0.00190	0.00200	0.00055	J
7440-09-7	Potassium, Total	3.64	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

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Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-11	**Date Collected**	: 08/21/24 09:00
Client ID	: MW-9B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 21:41
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.04752	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	17.6	0.100	0.0394	
7440-47-3	Chromium, Total	0.00140	0.00100	0.00017	
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	2.65	0.0700	0.0242	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	2.50	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

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METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-12	**Date Collected**	: 08/21/24 00:00
Client ID	: DUP	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 21:45
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.04662	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	16.6	0.100	0.0394	
7440-47-3	Chromium, Total	0.00096	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	2.57	0.0700	0.0242	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	2.34	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

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Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-13	**Date Collected**	: 08/21/24 09:30
Client ID	: FIELD BLANK	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 21:05
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	ND	0.00050	0.00017	U
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	ND	0.100	0.0394	U
7440-47-3	Chromium, Total	0.00020	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	ND	0.0700	0.0242	U
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	ND	0.100	0.0309	U
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

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METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-14	**Date Collected**	: 08/21/24 09:30
Client ID	: EQUIPMENT BLANK	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 21:59
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	ND	0.00050	0.00017	U
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	ND	0.100	0.0394	U
7440-47-3	Chromium, Total	0.00028	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	ND	0.0700	0.0242	U
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	ND	0.100	0.0309	U
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

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METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964440-1	**Date Collected**	: NA
Client ID	: WG1964440-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/28/24 20:11
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	ND	0.00050	0.00017	U
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	ND	0.100	0.0394	U
7440-47-3	Chromium, Total	ND	0.00100	0.00017	U
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	ND	0.0700	0.0242	U
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	ND	0.100	0.0309	U
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U

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METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964440-6	**Date Collected**	:
Client ID	: Serial Dilution	**Date Received**	:
Sample Location	:	**Date Analyzed**	: 08/28/24 20:38
Sample Matrix	: WATER	**Dilution Factor**	: 5
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1964735.pdf	**Instrument ID**	: ICPMSQ2
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7440-39-3	Barium, Total	0.04428	0.00250	0.0009	
7440-70-2	Calcium, Total	42.0	0.500	0.197	
7439-95-4	Magnesium, Total	9.81	0.350	0.121	
7440-09-7	Potassium, Total	4.18	0.500	0.154	

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-01	**Date Collected**	: 08/21/24 11:10
Client ID	: MW-3A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/29/24 14:20
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1965312.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Total	0.0176	0.0100	0.00327	
7439-96-5	Manganese, Total	0.01458	0.00100	0.00044	
7440-23-5	Sodium, Total	6.36	0.100	0.0293	

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-02	**Date Collected**	: 08/20/24 16:40
Client ID	: MW-6A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/29/24 14:25
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1965312.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Total	0.0238	0.0100	0.00327	
7439-96-5	Manganese, Total	4.600	0.00100	0.00044	
7440-23-5	Sodium, Total	12.3	0.100	0.0293	

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-03	**Date Collected**	: 08/20/24 14:55
Client ID	: MW-6B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/29/24 13:17
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1965312.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Total	0.0129	0.0100	0.00327	
7439-96-5	Manganese, Total	0.09071	0.00100	0.00044	
7440-23-5	Sodium, Total	12.5	0.100	0.0293	

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-04	**Date Collected**	: 08/20/24 17:55
Client ID	: MW-6C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/29/24 14:29
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1965312.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Total	0.0173	0.0100	0.00327	
7439-96-5	Manganese, Total	0.00548	0.00100	0.00044	
7440-23-5	Sodium, Total	13.7	0.100	0.0293	

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-05	**Date Collected**	: 08/20/24 16:30
Client ID	: MW-7A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/29/24 14:34
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1965312.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Total	0.00437	0.0100	0.00327	J
7439-96-5	Manganese, Total	0.03119	0.00100	0.00044	
7440-23-5	Sodium, Total	9.55	0.100	0.0293	

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-06	**Date Collected**	: 08/21/24 09:20
Client ID	: MW-7B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/29/24 14:39
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1965312.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Total	0.0239	0.0100	0.00327	
7439-96-5	Manganese, Total	0.00797	0.00100	0.00044	
7440-23-5	Sodium, Total	13.4	0.100	0.0293	

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-07	**Date Collected**	: 08/21/24 10:50
Client ID	: MW-7C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/29/24 14:43
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1965312.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Total	0.00362	0.0100	0.00327	J
7439-96-5	Manganese, Total	0.00062	0.00100	0.00044	J
7440-23-5	Sodium, Total	12.2	0.100	0.0293	

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-08	**Date Collected**	: 08/21/24 13:05
Client ID	: MW-8A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/29/24 14:48
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1965312.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Total	0.0234	0.0100	0.00327	
7439-96-5	Manganese, Total	0.00498	0.00100	0.00044	
7440-23-5	Sodium, Total	6.65	0.100	0.0293	

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-09	**Date Collected**	: 08/21/24 14:35
Client ID	: MW-8B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/29/24 14:53
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1965312.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Total	0.00678	0.0100	0.00327	J
7439-96-5	Manganese, Total	0.00114	0.00100	0.00044	
7440-23-5	Sodium, Total	10.5	0.100	0.0293	

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-10	**Date Collected**	: 08/21/24 13:40
Client ID	: MW-8C2	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/29/24 14:57
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1965312.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Total	0.0192	0.0100	0.00327	
7439-96-5	Manganese, Total	0.00208	0.00100	0.00044	
7440-23-5	Sodium, Total	12.6	0.100	0.0293	

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-11	**Date Collected**	: 08/21/24 09:00
Client ID	: MW-9B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/29/24 15:28
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1965312.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Total	0.0114	0.0100	0.00327	
7439-96-5	Manganese, Total	0.00260	0.00100	0.00044	
7440-23-5	Sodium, Total	7.37	0.100	0.0293	

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-12	**Date Collected**	: 08/21/24 00:00
Client ID	: DUP	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/29/24 15:33
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1965312.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Total	0.00822	0.0100	0.00327	J
7439-96-5	Manganese, Total	0.00258	0.00100	0.00044	
7440-23-5	Sodium, Total	7.41	0.100	0.0293	

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-13	**Date Collected**	: 08/21/24 09:30
Client ID	: FIELD BLANK	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/29/24 15:24
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1965312.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Total	ND	0.0100	0.00327	U
7439-96-5	Manganese, Total	ND	0.00100	0.00044	U
7440-23-5	Sodium, Total	ND	0.100	0.0293	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-14	**Date Collected**	: 08/21/24 09:30
Client ID	: EQUIPMENT BLANK	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/29/24 15:38
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1965312.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Total	ND	0.0100	0.00327	U
7439-96-5	Manganese, Total	ND	0.00100	0.00044	U
7440-23-5	Sodium, Total	ND	0.100	0.0293	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964440-1	**Date Collected**	: NA
Client ID	: WG1964440-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/29/24 13:08
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1965312.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7429-90-5	Aluminum, Total	ND	0.0100	0.00327	U
7439-96-5	Manganese, Total	ND	0.00100	0.00044	U
7440-23-5	Sodium, Total	ND	0.100	0.0293	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964440-6	**Date Collected**	:
Client ID	: Serial Dilution	**Date Received**	:
Sample Location	:	**Date Analyzed**	: 08/29/24 13:36
Sample Matrix	: WATER	**Dilution Factor**	: 5
Analytical Method	: 1,6020B	**Analyst**	: EJF
Lab File ID	: WG1965312.pdf	**Instrument ID**	: ICPMSQ
Sample Amount	: 50ml	**%Solids**	: N/A
Digestion Method	: EPA 3005A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-96-5	Manganese, Total	0.08690	0.00500	0.0022	
7440-23-5	Sodium, Total	12.6	0.500	0.146	

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :	R1869492-1			R1869492-4			R1869492-7		R1869492-9	
Date Analyzed :	08/28/24 05:30			08/28/24 05:56			08/28/24 07:48		08/28/24 08:43	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Aluminum	50.0	54.3000	109	60.0000	65.7	110	65.3	109	63.2	105
Antimony	50.0	50.6000	101	60.0000	60.7	101	59.3	99	59.8	100
Arsenic	50.0	53.0000	106	60.0000	62.5	104	62.6	104	62.0	103
Barium	50.0	49.9000	100	60.0000	61.4	102	60.3	100	60.6	101
Beryllium	50.0	51.9000	104	60.0000	62.8	105	61.6	103	62.1	104
Cadmium	50.0	51.4000	103	60.0000	61.7	103	60.5	101	61.7	103
Calcium	5000	5210.0000	104	6000.0000	6260	104	6100	102	6190	103
Chromium	50.0	52.9000	106	60.0000	62.5	104	60.9	102	61.8	103
Cobalt	50.0	53.8000	108	60.0000	62.4	104	61.7	103	61.9	103
Copper	50.0	52.5000	105	60.0000	63.9	106	61.2	102	60.0	100
Iron	5000	5360.0000	107	6000.0000	6230	104	6160	103	6180	103
Lead	50.0	52.3000	105	60.0000	63.8	106	61.1	102	61.4	102
Magnesium	5000	5390.0000	108	6000.0000	6290	105	6380	106	6230	104
Manganese	50.0	52.4000	105	60.0000	61.1	102	61.2	102	63.1	105
Nickel	50.0	52.9000	106	60.0000	64.1	107	60.8	101	60.8	101
Potassium	5000	5430.0000	109	6000.0000	6260	104	6200	103	6300	105
Selenium	50.0	52.5000	105	60.0000	61.3	102	62.2	104	60.0	100
Silver	50.0	49.1000	98	60.0000	61.9	103	61.1	102	61.4	102
Sodium	5000	5380.0000	108	6000.0000	6380	106	6450	108	6460	108
Thallium	50.0	51.3000	103	60.0000	61.8	103	60.8	101	61.0	102
Vanadium	50.0	52.8000	106	60.0000	61.0	102	61.4	102	61.8	103
Zinc	50.0	53.0000	106	60.0000	63.5	106	61.1	102	61.1	102

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869492-12			R1869492-14		R1869492-16	
Date Analyzed :				08/28/24 09:24			08/28/24 10:26		08/28/24 11:21	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Aluminum				60.0000	65.0	108	64.0	107	65.4	109
Antimony				60.0000	59.2	99	59.9	100	60.4	101
Arsenic				60.0000	61.4	102	61.4	102	61.0	102
Barium				60.0000	59.5	99	60.2	100	60.1	100
Beryllium				60.0000	61.4	102	62.3	104	61.7	103
Cadmium				60.0000	61.6	103	61.6	103	61.8	103
Calcium				6000.0000	6110	102	5920	99	6330	106
Chromium				60.0000	62.2	104	63.2	105	62.1	104
Cobalt				60.0000	61.7	103	62.8	105	61.2	102
Copper				60.0000	60.6	101	63.0	105	60.9	102
Iron				6000.0000	6190	103	6230	104	6260	104
Lead				60.0000	61.7	103	62.1	104	62.8	105
Magnesium				6000.0000	6310	105	6430	107	6290	105
Manganese				60.0000	61.3	102	62.4	104	64.6	108
Nickel				60.0000	62.5	104	62.2	104	62.6	104
Potassium				6000.0000	6230	104	6280	105	6220	104
Selenium				60.0000	60.3	100	60.9	102	58.4	97
Silver				60.0000	60.8	101	61.9	103	61.7	103
Sodium				6000.0000	6350	106	6530	109	6420	107
Thallium				60.0000	61.2	102	61.5	102	62.0	103
Vanadium				60.0000	63.1	105	61.6	103	62.2	104
Zinc				60.0000	61.6	103	60.8	101	63.3	106

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869492-18			R1869492-20		R1869492-23	
Date Analyzed:				08/28/24 12:16			08/28/24 13:15		08/28/24 14:18	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Aluminum				60.0000	63.8	106	64.0	107	69.8	116
Antimony				60.0000	60.9	102	59.7	100	60.4	101
Arsenic				60.0000	62.8	105	61.1	102	61.5	102
Barium				60.0000	60.4	101	59.3	99	60.0	100
Beryllium				60.0000	62.3	104	61.9	103	62.5	104
Cadmium				60.0000	62.4	104	60.4	101	61.1	102
Calcium				6000.0000	6240	104	6090	102	6340	106
Chromium				60.0000	63.2	105	62.8	105	62.4	104
Cobalt				60.0000	62.9	105	62.4	104	62.4	104
Copper				60.0000	62.7	104	61.3	102	60.9	102
Iron				6000.0000	6290	105	6270	104	6330	106
Lead				60.0000	63.0	105	61.7	103	62.4	104
Magnesium				6000.0000	6500	108	6500	108	6500	108
Manganese				60.0000	61.3	102	62.8	105	65.8	110
Nickel				60.0000	62.8	105	62.9	105	61.1	102
Potassium				6000.0000	6220	104	6260	104	6440	107
Selenium				60.0000	60.2	100	61.7	103	58.8	98
Silver				60.0000	62.5	104	61.0	102	61.7	103
Sodium				6000.0000	6560	109	6360	106	7370	123
Thallium				60.0000	62.4	104	61.4	102	61.7	103
Vanadium				60.0000	62.8	105	63.4	106	62.4	104
Zinc				60.0000	64.0	107	62.1	104	61.3	102

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869492-25			R1869492-27		R1869492-29	
Date Analyzed:				08/28/24 14:29			08/28/24 15:29		08/28/24 15:40	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Aluminum				60.0000	64.1	107	70.2	117	62.6	104
Antimony				60.0000	60.5	101	60.5	101	60.7	101
Arsenic				60.0000	61.6	103	61.8	103	62.5	104
Barium				60.0000	59.7	100	60.3	100	60.0	100
Beryllium				60.0000	62.5	104	63.4	106	63.3	106
Cadmium				60.0000	61.8	103	62.6	104	61.5	102
Calcium				6000.0000	6160	103	6220	104	5730	96
Chromium				60.0000	62.1	104	63.0	105	61.6	103
Cobalt				60.0000	61.2	102	63.1	105	61.2	102
Copper				60.0000	61.0	102	64.7	108	62.4	104
Iron				6000.0000	6210	104	6420	107	6180	103
Lead				60.0000	62.0	103	64.5	108	63.8	106
Magnesium				6000.0000	6370	106	6410	107	6240	104
Manganese				60.0000	63.2	105	63.7	106	61.9	103
Nickel				60.0000	62.3	104	63.0	105	63.4	106
Potassium				6000.0000	6370	106	6210	104	6000	100
Selenium				60.0000	60.5	101	63.0	105	60.9	102
Silver				60.0000	61.3	102	62.1	104	61.8	103
Sodium				6000.0000	6540	109	6750	112	6240	104
Thallium				60.0000	61.7	103	62.9	105	62.6	104
Vanadium				60.0000	62.3	104	63.2	105	61.7	103
Zinc				60.0000	61.6	103	63.1	105	62.4	104

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869492-31			R1869492-33		R1869492-35	
Date Analyzed:				08/28/24 16:34			08/28/24 16:44		08/28/24 17:49	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Aluminum				60.0000	73.3	122	65.9	110	62.6	104
Antimony				60.0000	60.4	101	60.5	101	61.0	102
Arsenic				60.0000	64.0	107	60.2	100	62.1	104
Barium				60.0000	61.4	102	61.8	103	60.7	101
Beryllium				60.0000	62.4	104	63.5	106	63.1	105
Cadmium				60.0000	60.8	101	60.4	101	62.4	104
Calcium				6000.0000	6300	105	6090	102	6280	105
Chromium				60.0000	62.9	105	59.9	100	62.4	104
Cobalt				60.0000	63.5	106	60.5	101	62.4	104
Copper				60.0000	62.6	104	61.2	102	61.2	102
Iron				6000.0000	6400	107	6050	101	6400	107
Lead				60.0000	62.0	103	62.4	104	62.8	105
Magnesium				6000.0000	6540	109	6520	109	6380	106
Manganese				60.0000	63.3	106	60.0	100	64.1	107
Nickel				60.0000	65.9	110	60.6	101	62.9	105
Potassium				6000.0000	6490	108	6310	105	6340	106
Selenium				60.0000	62.6	104	58.7	98	61.6	103
Silver				60.0000	61.5	102	61.1	102	61.8	103
Sodium				6000.0000	6610	110	6520	109	6370	106
Thallium				60.0000	61.1	102	61.6	103	62.0	103
Vanadium				60.0000	62.9	105	59.5	99	63.0	105
Zinc				60.0000	63.0	105	60.4	101	62.1	104

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869492-37			R1869492-39			
Date Analyzed:				08/28/24 18:49			08/28/24 19:03			
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Aluminum				60.0000	66.1	110	64.2	107		
Antimony				60.0000	60.2	100	57.2	95		
Arsenic				60.0000	61.7	103	59.3	99		
Barium				60.0000	60.7	101	61.0	102		
Beryllium				60.0000	63.3	106	62.7	104		
Cadmium				60.0000	61.3	102	60.6	101		
Calcium				6000.0000	6040	101	6050	101		
Chromium				60.0000	61.5	102	59.9	100		
Cobalt				60.0000	61.9	103	59.6	99		
Copper				60.0000	60.5	101	58.5	98		
Iron				6000.0000	6150	102	6080	101		
Lead				60.0000	62.5	104	62.0	103		
Magnesium				6000.0000	6630	110	6370	106		
Manganese				60.0000	62.2	104	60.6	101		
Nickel				60.0000	59.5	99	61.0	102		
Potassium				6000.0000	6350	106	6260	104		
Selenium				60.0000	63.1	105	57.8	96		
Silver				60.0000	60.9	102	61.1	102		
Sodium				6000.0000	7060	118	6360	106		
Thallium				60.0000	61.8	103	61.5	102		
Vanadium				60.0000	62.0	103	60.2	100		
Zinc				60.0000	61.2	102	59.9	100		

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :	R1869492-1			R1869492-4			R1869492-7		R1869492-9	
Date Analyzed:	08/28/24 05:30			08/28/24 05:56			08/28/24 07:48		08/28/24 08:43	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Antimony	50.0	50.6000	101	60.0000	60.7	101	59.3	99	59.8	100
Arsenic	50.0	53.0000	106	60.0000	62.5	104	62.6	104	62.0	103
Barium	50.0	49.9000	100	60.0000	61.4	102	60.3	100	60.6	101
Beryllium	50.0	51.9000	104	60.0000	62.8	105	61.6	103	62.1	104
Cadmium	50.0	51.4000	103	60.0000	61.7	103	60.5	101	61.7	103
Calcium	5000	5210.0000	104	6000.0000	6260	104	6100	102	6190	103
Chromium	50.0	52.9000	106	60.0000	62.5	104	60.9	102	61.8	103
Cobalt	50.0	53.8000	108	60.0000	62.4	104	61.7	103	61.9	103
Copper	50.0	52.5000	105	60.0000	63.9	106	61.2	102	60.0	100
Iron	5000	5360.0000	107	6000.0000	6230	104	6160	103	6180	103
Lead	50.0	52.3000	105	60.0000	63.8	106	61.1	102	61.4	102
Magnesium	5000	5390.0000	108	6000.0000	6290	105	6380	106	6230	104
Nickel	50.0	52.9000	106	60.0000	64.1	107	60.8	101	60.8	101
Potassium	5000	5430.0000	109	6000.0000	6260	104	6200	103	6300	105
Selenium	50.0	52.5000	105	60.0000	61.3	102	62.2	104	60.0	100
Silver	50.0	49.1000	98	60.0000	61.9	103	61.1	102	61.4	102
Thallium	50.0	51.3000	103	60.0000	61.8	103	60.8	101	61.0	102
Vanadium	50.0	52.8000	106	60.0000	61.0	102	61.4	102	61.8	103
Zinc	50.0	53.0000	106	60.0000	63.5	106	61.1	102	61.1	102

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869492-12			R1869492-14		R1869492-16	
Date Analyzed:				08/28/24 09:24			08/28/24 10:26		08/28/24 11:21	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Antimony				60.0000	59.2	99	59.9	100	60.4	101
Arsenic				60.0000	61.4	102	61.4	102	61.0	102
Barium				60.0000	59.5	99	60.2	100	60.1	100
Beryllium				60.0000	61.4	102	62.3	104	61.7	103
Cadmium				60.0000	61.6	103	61.6	103	61.8	103
Calcium				6000.0000	6110	102	5920	99	6330	106
Chromium				60.0000	62.2	104	63.2	105	62.1	104
Cobalt				60.0000	61.7	103	62.8	105	61.2	102
Copper				60.0000	60.6	101	63.0	105	60.9	102
Iron				6000.0000	6190	103	6230	104	6260	104
Lead				60.0000	61.7	103	62.1	104	62.8	105
Magnesium				6000.0000	6310	105	6430	107	6290	105
Nickel				60.0000	62.5	104	62.2	104	62.6	104
Potassium				6000.0000	6230	104	6280	105	6220	104
Selenium				60.0000	60.3	100	60.9	102	58.4	97
Silver				60.0000	60.8	101	61.9	103	61.7	103
Thallium				60.0000	61.2	102	61.5	102	62.0	103
Vanadium				60.0000	63.1	105	61.6	103	62.2	104
Zinc				60.0000	61.6	103	60.8	101	63.3	106

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869492-18			R1869492-20		R1869492-23	
Date Analyzed:				08/28/24 12:16			08/28/24 13:15		08/28/24 14:18	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Antimony				60.0000	60.9	102	59.7	100	60.4	101
Arsenic				60.0000	62.8	105	61.1	102	61.5	102
Barium				60.0000	60.4	101	59.3	99	60.0	100
Beryllium				60.0000	62.3	104	61.9	103	62.5	104
Cadmium				60.0000	62.4	104	60.4	101	61.1	102
Calcium				6000.0000	6240	104	6090	102	6340	106
Chromium				60.0000	63.2	105	62.8	105	62.4	104
Cobalt				60.0000	62.9	105	62.4	104	62.4	104
Copper				60.0000	62.7	104	61.3	102	60.9	102
Iron				6000.0000	6290	105	6270	104	6330	106
Lead				60.0000	63.0	105	61.7	103	62.4	104
Magnesium				6000.0000	6500	108	6500	108	6500	108
Nickel				60.0000	62.8	105	62.9	105	61.1	102
Potassium				6000.0000	6220	104	6260	104	6440	107
Selenium				60.0000	60.2	100	61.7	103	58.8	98
Silver				60.0000	62.5	104	61.0	102	61.7	103
Thallium				60.0000	62.4	104	61.4	102	61.7	103
Vanadium				60.0000	62.8	105	63.4	106	62.4	104
Zinc				60.0000	64.0	107	62.1	104	61.3	102

Acceptance Criteria:

ICV:	**95-105%**	**(Methods 200.7, 245.1)**
	90-110%	**(Methods 200.8, 6010, 6020, 7470, 7471, 7474)**
	85-115%	**(Method 1631)**
CCV:	**90-110%**	**(Methods 200.7, 245.1, 6010, 6020, 7474)**
	85-115%	**(Methods 200.8, 1631)**
	80-120%	**(Methods 7470, 7471)**

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869492-25			R1869492-27		R1869492-29	
Date Analyzed :				08/28/24 14:29			08/28/24 15:29		08/28/24 15:40	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Antimony				60.0000	60.5	101	60.5	101	60.7	101
Arsenic				60.0000	61.6	103	61.8	103	62.5	104
Barium				60.0000	59.7	100	60.3	100	60.0	100
Beryllium				60.0000	62.5	104	63.4	106	63.3	106
Cadmium				60.0000	61.8	103	62.6	104	61.5	102
Calcium				6000.0000	6160	103	6220	104	5730	96
Chromium				60.0000	62.1	104	63.0	105	61.6	103
Cobalt				60.0000	61.2	102	63.1	105	61.2	102
Copper				60.0000	61.0	102	64.7	108	62.4	104
Iron				6000.0000	6210	104	6420	107	6180	103
Lead				60.0000	62.0	103	64.5	108	63.8	106
Magnesium				6000.0000	6370	106	6410	107	6240	104
Nickel				60.0000	62.3	104	63.0	105	63.4	106
Potassium				6000.0000	6370	106	6210	104	6000	100
Selenium				60.0000	60.5	101	63.0	105	60.9	102
Silver				60.0000	61.3	102	62.1	104	61.8	103
Thallium				60.0000	61.7	103	62.9	105	62.6	104
Vanadium				60.0000	62.3	104	63.2	105	61.7	103
Zinc				60.0000	61.6	103	63.1	105	62.4	104

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869492-31			R1869492-33		R1869492-35	
Date Analyzed:				08/28/24 16:34			08/28/24 16:44		08/28/24 17:49	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Antimony				60.0000	60.4	101	60.5	101	61.0	102
Arsenic				60.0000	64.0	107	60.2	100	62.1	104
Barium				60.0000	61.4	102	61.8	103	60.7	101
Beryllium				60.0000	62.4	104	63.5	106	63.1	105
Cadmium				60.0000	60.8	101	60.4	101	62.4	104
Calcium				6000.0000	6300	105	6090	102	6280	105
Chromium				60.0000	62.9	105	59.9	100	62.4	104
Cobalt				60.0000	63.5	106	60.5	101	62.4	104
Copper				60.0000	62.6	104	61.2	102	61.2	102
Iron				6000.0000	6400	107	6050	101	6400	107
Lead				60.0000	62.0	103	62.4	104	62.8	105
Magnesium				6000.0000	6540	109	6520	109	6380	106
Nickel				60.0000	65.9	110	60.6	101	62.9	105
Potassium				6000.0000	6490	108	6310	105	6340	106
Selenium				60.0000	62.6	104	58.7	98	61.6	103
Silver				60.0000	61.5	102	61.1	102	61.8	103
Thallium				60.0000	61.1	102	61.6	103	62.0	103
Vanadium				60.0000	62.9	105	59.5	99	63.0	105
Zinc				60.0000	63.0	105	60.4	101	62.1	104

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869492-37			R1869492-39		R1869492-41	
Date Analyzed :				08/28/24 18:49			08/28/24 19:03		08/28/24 20:01	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Antimony				60.0000	60.2	100	57.2	95	58.4	97
Arsenic				60.0000	61.7	103	59.3	99	63.4	106
Barium				60.0000	60.7	101	61.0	102	61.1	102
Beryllium				60.0000	63.3	106	62.7	104	63.6	106
Cadmium				60.0000	61.3	102	60.6	101	62.4	104
Calcium				6000.0000	6040	101	6050	101	6450	108
Chromium				60.0000	61.5	102	59.9	100	64.0	107
Cobalt				60.0000	61.9	103	59.6	99	64.2	107
Copper				60.0000	60.5	101	58.5	98	63.8	106
Iron				6000.0000	6150	102	6080	101	6420	107
Lead				60.0000	62.5	104	62.0	103	62.3	104
Magnesium				6000.0000	6630	110	6370	106	6580	110
Nickel				60.0000	59.5	99	61.0	102	63.9	106
Potassium				6000.0000	6350	106	6260	104	6540	109
Selenium				60.0000	63.1	105	57.8	96	60.7	101
Silver				60.0000	60.9	102	61.1	102	61.9	103
Thallium				60.0000	61.8	103	61.5	102	62.4	104
Vanadium				60.0000	62.0	103	60.2	100	62.1	104
Zinc				60.0000	61.2	102	59.9	100	62.5	104

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869492-43			R1869492-45		R1869492-47	
Date Analyzed :				08/28/24 20:56			08/28/24 21:50		08/28/24 22:13	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Antimony				60.0000	57.6	96	58.0	97	57.5	96
Arsenic				60.0000	62.6	104	62.5	104	63.0	105
Barium				60.0000	60.5	101	61.4	102	60.7	101
Beryllium				60.0000	63.4	106	62.9	105	63.2	105
Cadmium				60.0000	61.4	102	61.3	102	60.3	100
Calcium				6000.0000	6570	110	6370	106	6480	108
Chromium				60.0000	62.6	104	62.3	104	62.3	104
Cobalt				60.0000	62.5	104	63.1	105	62.6	104
Copper				60.0000	60.9	102	62.4	104	61.7	103
Iron				6000.0000	6230	104	6320	105	6220	104
Lead				60.0000	61.8	103	62.6	104	62.5	104
Magnesium				6000.0000	6520	109	6510	108	6580	110
Nickel				60.0000	62.1	104	64.7	108	62.3	104
Potassium				6000.0000	6580	110	6560	109	6490	108
Selenium				60.0000	61.6	103	61.5	102	59.1	98
Silver				60.0000	60.8	101	61.2	102	61.3	102
Thallium				60.0000	61.2	102	61.7	103	61.4	102
Vanadium				60.0000	62.3	104	60.8	101	62.8	105
Zinc				60.0000	62.4	104	62.3	104	61.4	102

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :	R1869973-1			R1869973-5			R1869973-8		R1869973-11	
Date Analyzed :	08/29/24 05:31			08/29/24 06:02			08/29/24 07:25		08/29/24 08:22	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Aluminum	50.0	51.0000	102	60.0000	64.6	108	64.1	107	59.5	99
Manganese	50.0	51.3000	103	60.0000	61.2	102	61.4	102	61.1	102
Sodium	5000	5060.0000	101	6000.0000	6330	106	6180	103	6040	101

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869973-13			R1869973-15		R1869973-17	
Date Analyzed :				08/29/24 09:19			08/29/24 10:20		08/29/24 10:37	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Aluminum				60.0000	63.6	106	68.4	114	61.3	102
Manganese				60.0000	60.9	102	65.0	108	61.0	102
Sodium				6000.0000	6220	104	6520	109	6000	100

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869973-19			R1869973-21		R1869973-23	
Date Analyzed :				08/29/24 11:42			08/29/24 12:41		08/29/24 12:54	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Aluminum				60.0000	65.8	110	65.4	109	61.7	103
Manganese				60.0000	64.6	108	63.8	106	63.4	106
Sodium				6000.0000	6500	108	6660	111	6380	106

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869973-25			R1869973-27		R1869973-29	
Date Analyzed :				08/29/24 13:54			08/29/24 14:05		08/29/24 15:02	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Aluminum				60.0000	64.3	107	60.8	101	65.4	109
Manganese				60.0000	64.6	108	62.8	105	65.0	108
Sodium				6000.0000	6660	111	6210	104	6720	112

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ	**Units**	: ug/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869973-31			R1869973-33			
Date Analyzed :				08/29/24 15:13			08/29/24 15:44			
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Aluminum				60.0000	61.3	102	59.4	99		
Manganese				60.0000	63.6	106	62.5	104		
Sodium				6000.0000	6350	106	6220	104		

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :	R1869492-2		R1869492-5		R1869492-6		R1869492-8		WG1964418-1	
Date Analyzed :	08/28/24 05:34		08/28/24 06:01		08/28/24 06:14		08/28/24 07:52		08/28/24 13:31	
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q	mg/l	Q
Aluminum	3.27	U	4.32	J	3.27	U	3.27	U	0.00327	U
Antimony	0.429	U	0.429	U	0.429	U	0.429	U	0.00042	U
Arsenic	0.165	U	0.323	J	0.165	U	0.165	U	0.00016	U
Barium	0.173	U	0.781		0.173	U	0.173	U	0.00017	U
Beryllium	0.107	U	0.107	U	0.107	U	0.107	U	0.00010	U
Cadmium	0.0599	U	0.0599	U	0.0599	U	0.0599	U	0.00005	U
Calcium	39.4	U	39.4	U	39.4	U	39.4	U	0.0520	J
Chromium	0.178	U	0.178	U	0.178	U	0.178	U	0.00017	U
Cobalt	0.163	U	0.163	U	0.163	U	0.163	U	0.00016	U
Copper	0.384	U	0.721	J	0.384	U	0.384	U	0.00038	U
Iron	19.1	U	19.1	U	19.1	U	19.1	U	0.0191	U
Lead	0.343	U	1.05		0.343	U	0.343	U	0.00034	U
Magnesium	24.2	U	24.2	U	24.2	U	24.2	U	0.0242	U
Manganese	0.440	U	0.668	J	0.440	U	0.440	U	0.00044	U
Nickel	0.556	U	0.933	J	0.556	U	0.556	U	0.00055	U
Potassium	30.9	U	30.9	U	30.9	U	30.9	U	0.0309	U
Selenium	1.73	U	1.73	U	1.73	U	1.73	U	0.00173	U
Silver	0.163	U	0.163	U	0.163	U	0.163	U	0.00016	U
Sodium	29.3	U	29.3	U	29.3	U	29.3	U	0.0414	J
Thallium	0.304	J	0.275	J	0.143	U	0.240	J	0.00014	U
Vanadium	1.57	U	1.57	U	1.57	U	1.57	U	0.00157	U
Zinc	3.41	U	3.41	U	3.41	U	3.41	U	0.00341	U

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869492-10		R1869492-13		R1869492-15			
Date Analyzed :			08/28/24 08:47		08/28/24 09:28		08/28/24 10:30			
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Aluminum			3.27	U	3.27	U	3.27	U		
Antimony			0.429	U	0.429	U	0.429	U		
Arsenic			0.165	U	0.165	U	0.165	U		
Barium			0.173	U	0.173	U	0.173	U		
Beryllium			0.107	U	0.107	U	0.107	U		
Cadmium			0.0599	U	0.0599	U	0.0599	U		
Calcium			39.4	U	39.4	U	39.4	U		
Chromium			0.178	U	0.178	U	0.178	U		
Cobalt			0.163	U	0.163	U	0.163	U		
Copper			0.384	U	0.384	U	0.384	U		
Iron			19.1	U	19.1	U	19.1	U		
Lead			0.343	U	0.343	U	0.343	U		
Magnesium			24.2	U	24.2	U	24.2	U		
Manganese			0.440	U	0.440	U	0.440	U		
Nickel			0.556	U	0.556	U	0.556	U		
Potassium			30.9	U	30.9	U	30.9	U		
Selenium			1.73	U	1.73	U	1.73	U		
Silver			0.163	U	0.163	U	0.163	U		
Sodium			29.3	U	29.3	U	29.3	U		
Thallium			0.199	J	0.279	J	0.219	J		
Vanadium			1.57	U	1.57	U	1.57	U		
Zinc			3.41	U	3.41	U	3.41	U		

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869492-17		R1869492-19		R1869492-21			
Date Analyzed :			08/28/24 11:25		08/28/24 12:20		08/28/24 13:19			
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Aluminum			3.27	U	3.27	U	3.27	U		
Antimony			0.429	U	0.429	U	0.429	U		
Arsenic			0.165	U	0.165	U	0.165	U		
Barium			0.173	U	0.173	U	0.173	U		
Beryllium			0.107	U	0.107	U	0.107	U		
Cadmium			0.0599	U	0.0637	J	0.0633	J		
Calcium			39.4	U	39.4	U	136.			
Chromium			0.178	U	0.178	U	0.178	U		
Cobalt			0.163	U	0.163	U	0.163	U		
Copper			0.384	U	0.384	U	0.384	U		
Iron			19.1	U	19.1	U	19.1	U		
Lead			0.343	U	0.343	U	0.343	U		
Magnesium			24.2	U	24.2	U	66.1	J		
Manganese			0.888	J	0.440	U	0.864	J		
Nickel			0.556	U	0.556	U	0.556	U		
Potassium			30.9	U	30.9	U	30.9	U		
Selenium			1.73	U	1.73	U	1.73	U		
Silver			0.163	U	0.163	U	0.163	U		
Sodium			47.2	J	39.1	J	267.			
Thallium			0.270	J	0.286	J	0.308	J		
Vanadium			1.57	U	1.57	U	1.57	U		
Zinc			3.41	U	3.41	U	3.41	U		

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869492-22		R1869492-24		R1869492-26			
Date Analyzed:			08/28/24 13:26		08/28/24 14:23		08/28/24 14:36			
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Aluminum			3.27	U	3.27	U	3.27	U		
Antimony			0.429	U	0.429	U	0.429	U		
Arsenic			0.165	U	0.165	U	0.165	U		
Barium			0.173	U	0.173	U	0.173	U		
Beryllium			0.107	U	0.107	U	0.107	U		
Cadmium			0.0599	U	0.0792	J	0.0599	U		
Calcium			39.4	U	53.2	J	39.4	U		
Chromium			0.178	U	0.178	U	0.178	U		
Cobalt			0.163	U	0.163	U	0.163	U		
Copper			0.384	U	0.384	U	0.384	U		
Iron			19.1	U	19.1	U	19.1	U		
Lead			0.343	U	0.343	U	0.343	U		
Magnesium			24.2	U	24.2	U	24.2	U		
Manganese			0.440	U	1.87		0.440	U		
Nickel			0.556	U	0.556	U	0.556	U		
Potassium			30.9	U	30.9	U	30.9	U		
Selenium			1.73	U	1.73	U	1.73	U		
Silver			0.163	U	0.163	U	0.163	U		
Sodium			58.7	J	237.		29.3	U		
Thallium			0.143	U	0.242	J	0.143	U		
Vanadium			1.57	U	1.57	U	1.57	U		
Zinc			3.41	U	3.41	U	3.41	U		

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869492-28		R1869492-30		R1869492-32			
Date Analyzed:			08/28/24 15:33		08/28/24 15:46		08/28/24 16:39			
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Aluminum			3.27	U	3.27	U	3.27	U		
Antimony			0.429	U	0.429	U	0.429	U		
Arsenic			0.165	U	0.165	U	0.165	U		
Barium			0.173	U	0.173	U	0.173	U		
Beryllium			0.107	U	0.107	U	0.107	U		
Cadmium			0.0599	U	0.0599	U	0.0599	U		
Calcium			39.4	U	39.4	U	39.4	U		
Chromium			0.178	U	0.178	U	0.178	U		
Cobalt			0.163	U	0.163	U	0.163	U		
Copper			0.384	U	0.384	U	0.384	U		
Iron			19.1	U	19.1	U	19.1	U		
Lead			0.628	J	0.501	J	0.391	J		
Magnesium			24.2	U	24.2	U	24.2	U		
Manganese			0.440	U	0.440	U	0.440	U		
Nickel			0.556	U	0.556	U	0.556	U		
Potassium			30.9	U	30.9	U	30.9	U		
Selenium			1.73	U	1.73	U	1.73	U		
Silver			0.163	U	0.163	U	0.163	U		
Sodium			29.3	U	29.3	U	29.3	U		
Thallium			0.248	J	0.186	J	0.243	J		
Vanadium			1.57	U	1.57	U	1.57	U		
Zinc			3.41	U	3.41	U	3.41	U		

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869492-34		R1869492-36		R1869492-38			
Date Analyzed :			08/28/24 16:49		08/28/24 17:53		08/28/24 18:54			
Parameter	**ug/l**	**Q**	**ug/l**	**Q**	**ug/l**	**Q**	**ug/l**	**Q**		**Q**
Aluminum			3.27	U	3.27	U	3.27	U		
Antimony			0.429	U	0.429	U	0.429	U		
Arsenic			0.165	U	0.165	U	0.165	U		
Barium			0.173	U	0.173	U	0.173	U		
Beryllium			0.107	U	0.107	U	0.107	U		
Cadmium			0.0599	U	0.0599	U	0.0599	U		
Calcium			39.4	U	39.4	U	39.4	U		
Chromium			0.178	U	0.178	U	0.178	U		
Cobalt			0.163	U	0.163	U	0.163	U		
Copper			0.384	U	0.384	U	0.384	U		
Iron			19.1	U	19.1	U	19.1	U		
Lead			0.343	U	0.343	U	0.343	U		
Magnesium			24.2	U	24.2	U	24.2	U		
Manganese			0.440	U	0.440	U	0.440	U		
Nickel			0.556	U	0.556	U	0.556	U		
Potassium			30.9	U	30.9	U	30.9	U		
Selenium			1.73	U	1.73	U	1.73	U		
Silver			0.163	U	0.163	U	0.163	U		
Sodium			29.3	U	29.3	U	29.3	U		
Thallium			0.276	J	0.267	J	0.240	J		
Vanadium			1.57	U	1.57	U	1.57	U		
Zinc			3.41	U	3.41	U	3.41	U		

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869492-40							
Date Analyzed :			08/28/24 19:11							
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Aluminum			3.27	U						
Antimony			0.429	U						
Arsenic			0.165	U						
Barium			0.173	U						
Beryllium			0.107	U						
Cadmium			0.0599	U						
Calcium			39.4	U						
Chromium			0.178	U						
Cobalt			0.163	U						
Copper			0.384	U						
Iron			19.1	U						
Lead			0.343	U						
Magnesium			24.2	U						
Manganese			0.440	U						
Nickel			0.556	U						
Potassium			30.9	U						
Selenium			1.73	U						
Silver			0.163	U						
Sodium			29.3	U						
Thallium			0.143	U						
Vanadium			1.57	U						
Zinc			3.41	U						

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :	R1869492-2		R1869492-5		R1869492-6		R1869492-8		WG1964440-1	
Date Analyzed :	08/28/24 05:34		08/28/24 06:01		08/28/24 06:14		08/28/24 07:52		08/28/24 20:11	
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q	mg/l	Q
Antimony	0.429	U	0.429	U	0.429	U	0.429	U	0.00042	U
Arsenic	0.165	U	0.323	J	0.165	U	0.165	U	0.00016	U
Barium	0.173	U	0.781		0.173	U	0.173	U	0.00017	U
Beryllium	0.107	U	0.107	U	0.107	U	0.107	U	0.00010	U
Cadmium	0.0599	U	0.0599	U	0.0599	U	0.0599	U	0.00005	U
Calcium	39.4	U	39.4	U	39.4	U	39.4	U	0.0394	U
Chromium	0.178	U	0.178	U	0.178	U	0.178	U	0.00017	U
Cobalt	0.163	U	0.163	U	0.163	U	0.163	U	0.00016	U
Copper	0.384	U	0.721	J	0.384	U	0.384	U	0.00038	U
Iron	19.1	U	19.1	U	19.1	U	19.1	U	0.0191	U
Lead	0.343	U	1.05		0.343	U	0.343	U	0.00034	U
Magnesium	24.2	U	24.2	U	24.2	U	24.2	U	0.0242	U
Nickel	0.556	U	0.933	J	0.556	U	0.556	U	0.00055	U
Potassium	30.9	U	30.9	U	30.9	U	30.9	U	0.0309	U
Selenium	1.73	U	1.73	U	1.73	U	1.73	U	0.00173	U
Silver	0.163	U	0.163	U	0.163	U	0.163	U	0.00016	U
Thallium	0.304	J	0.275	J	0.143	U	0.240	J	0.00014	U
Vanadium	1.57	U	1.57	U	1.57	U	1.57	U	0.00157	U
Zinc	3.41	U	3.41	U	3.41	U	3.41	U	0.00341	U

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869492-10		R1869492-13		R1869492-15			
Date Analyzed :			08/28/24 08:47		08/28/24 09:28		08/28/24 10:30			
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Antimony			0.429	U	0.429	U	0.429	U		
Arsenic			0.165	U	0.165	U	0.165	U		
Barium			0.173	U	0.173	U	0.173	U		
Beryllium			0.107	U	0.107	U	0.107	U		
Cadmium			0.0599	U	0.0599	U	0.0599	U		
Calcium			39.4	U	39.4	U	39.4	U		
Chromium			0.178	U	0.178	U	0.178	U		
Cobalt			0.163	U	0.163	U	0.163	U		
Copper			0.384	U	0.384	U	0.384	U		
Iron			19.1	U	19.1	U	19.1	U		
Lead			0.343	U	0.343	U	0.343	U		
Magnesium			24.2	U	24.2	U	24.2	U		
Nickel			0.556	U	0.556	U	0.556	U		
Potassium			30.9	U	30.9	U	30.9	U		
Selenium			1.73	U	1.73	U	1.73	U		
Silver			0.163	U	0.163	U	0.163	U		
Thallium			0.199	J	0.279	J	0.219	J		
Vanadium			1.57	U	1.57	U	1.57	U		
Zinc			3.41	U	3.41	U	3.41	U		

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869492-17		R1869492-19		R1869492-21			
Date Analyzed :			08/28/24 11:25		08/28/24 12:20		08/28/24 13:19			
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Antimony			0.429	U	0.429	U	0.429	U		
Arsenic			0.165	U	0.165	U	0.165	U		
Barium			0.173	U	0.173	U	0.173	U		
Beryllium			0.107	U	0.107	U	0.107	U		
Cadmium			0.0599	U	0.0637	J	0.0633	J		
Calcium			39.4	U	39.4	U	136.			
Chromium			0.178	U	0.178	U	0.178	U		
Cobalt			0.163	U	0.163	U	0.163	U		
Copper			0.384	U	0.384	U	0.384	U		
Iron			19.1	U	19.1	U	19.1	U		
Lead			0.343	U	0.343	U	0.343	U		
Magnesium			24.2	U	24.2	U	66.1	J		
Nickel			0.556	U	0.556	U	0.556	U		
Potassium			30.9	U	30.9	U	30.9	U		
Selenium			1.73	U	1.73	U	1.73	U		
Silver			0.163	U	0.163	U	0.163	U		
Thallium			0.270	J	0.286	J	0.308	J		
Vanadium			1.57	U	1.57	U	1.57	U		
Zinc			3.41	U	3.41	U	3.41	U		

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869492-22		R1869492-24		R1869492-26			
Date Analyzed :			08/28/24 13:26		08/28/24 14:23		08/28/24 14:36			
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Antimony			0.429	U	0.429	U	0.429	U		
Arsenic			0.165	U	0.165	U	0.165	U		
Barium			0.173	U	0.173	U	0.173	U		
Beryllium			0.107	U	0.107	U	0.107	U		
Cadmium			0.0599	U	0.0792	J	0.0599	U		
Calcium			39.4	U	53.2	J	39.4	U		
Chromium			0.178	U	0.178	U	0.178	U		
Cobalt			0.163	U	0.163	U	0.163	U		
Copper			0.384	U	0.384	U	0.384	U		
Iron			19.1	U	19.1	U	19.1	U		
Lead			0.343	U	0.343	U	0.343	U		
Magnesium			24.2	U	24.2	U	24.2	U		
Nickel			0.556	U	0.556	U	0.556	U		
Potassium			30.9	U	30.9	U	30.9	U		
Selenium			1.73	U	1.73	U	1.73	U		
Silver			0.163	U	0.163	U	0.163	U		
Thallium			0.143	U	0.242	J	0.143	U		
Vanadium			1.57	U	1.57	U	1.57	U		
Zinc			3.41	U	3.41	U	3.41	U		

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869492-28		R1869492-30		R1869492-32			
Date Analyzed:			08/28/24 15:33		08/28/24 15:46		08/28/24 16:39			
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Antimony			0.429	U	0.429	U	0.429	U		
Arsenic			0.165	U	0.165	U	0.165	U		
Barium			0.173	U	0.173	U	0.173	U		
Beryllium			0.107	U	0.107	U	0.107	U		
Cadmium			0.0599	U	0.0599	U	0.0599	U		
Calcium			39.4	U	39.4	U	39.4	U		
Chromium			0.178	U	0.178	U	0.178	U		
Cobalt			0.163	U	0.163	U	0.163	U		
Copper			0.384	U	0.384	U	0.384	U		
Iron			19.1	U	19.1	U	19.1	U		
Lead			0.628	J	0.501	J	0.391	J		
Magnesium			24.2	U	24.2	U	24.2	U		
Nickel			0.556	U	0.556	U	0.556	U		
Potassium			30.9	U	30.9	U	30.9	U		
Selenium			1.73	U	1.73	U	1.73	U		
Silver			0.163	U	0.163	U	0.163	U		
Thallium			0.248	J	0.186	J	0.243	J		
Vanadium			1.57	U	1.57	U	1.57	U		
Zinc			3.41	U	3.41	U	3.41	U		

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869492-34		R1869492-36		R1869492-38			
Date Analyzed :			08/28/24 16:49		08/28/24 17:53		08/28/24 18:54			
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Antimony			0.429	U	0.429	U	0.429	U		
Arsenic			0.165	U	0.165	U	0.165	U		
Barium			0.173	U	0.173	U	0.173	U		
Beryllium			0.107	U	0.107	U	0.107	U		
Cadmium			0.0599	U	0.0599	U	0.0599	U		
Calcium			39.4	U	39.4	U	39.4	U		
Chromium			0.178	U	0.178	U	0.178	U		
Cobalt			0.163	U	0.163	U	0.163	U		
Copper			0.384	U	0.384	U	0.384	U		
Iron			19.1	U	19.1	U	19.1	U		
Lead			0.343	U	0.343	U	0.343	U		
Magnesium			24.2	U	24.2	U	24.2	U		
Nickel			0.556	U	0.556	U	0.556	U		
Potassium			30.9	U	30.9	U	30.9	U		
Selenium			1.73	U	1.73	U	1.73	U		
Silver			0.163	U	0.163	U	0.163	U		
Thallium			0.276	J	0.267	J	0.240	J		
Vanadium			1.57	U	1.57	U	1.57	U		
Zinc			3.41	U	3.41	U	3.41	U		

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869492-40		R1869492-42		R1869492-44			
Date Analyzed :			08/28/24 19:11		08/28/24 20:06		08/28/24 21:00			
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Antimony			0.429	U	0.525	J	0.488	J		
Arsenic			0.165	U	0.165	U	0.165	U		
Barium			0.173	U	0.173	U	0.173	U		
Beryllium			0.107	U	0.107	U	0.107	U		
Cadmium			0.0599	U	0.0599	U	0.0599	U		
Calcium			39.4	U	39.4	U	39.4	U		
Chromium			0.178	U	0.178	U	0.178	U		
Cobalt			0.163	U	0.163	U	0.163	U		
Copper			0.384	U	0.384	U	0.384	U		
Iron			19.1	U	19.1	U	19.1	U		
Lead			0.343	U	0.343	U	0.343	U		
Magnesium			24.2	U	24.2	U	24.2	U		
Nickel			0.556	U	0.556	U	0.556	U		
Potassium			30.9	U	30.9	U	30.9	U		
Selenium			1.73	U	1.73	U	1.73	U		
Silver			0.163	U	0.163	U	0.163	U		
Thallium			0.143	U	0.260	J	0.295	J		
Vanadium			1.57	U	1.57	U	1.57	U		
Zinc			3.41	U	3.41	U	3.41	U		

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869492-46		R1869492-48					
Date Analyzed :			08/28/24 21:55		08/28/24 22:17					
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Antimony			0.495	J	0.489	J				
Arsenic			0.165	U	0.165	U				
Barium			0.173	U	0.173	U				
Beryllium			0.107	U	0.107	U				
Cadmium			0.0665	J	0.0599	U				
Calcium			39.4	U	96.7	J				
Chromium			0.178	U	0.178	U				
Cobalt			0.163	U	0.163	U				
Copper			0.384	U	0.384	U				
Iron			19.1	U	19.1	U				
Lead			0.343	U	0.343	U				
Magnesium			24.2	U	24.2	U				
Nickel			0.556	U	0.556	U				
Potassium			30.9	U	30.9	U				
Selenium			1.73	U	1.73	U				
Silver			0.163	U	0.163	U				
Thallium			0.322	J	0.315	J				
Vanadium			1.57	U	1.57	U				
Zinc			3.41	U	3.41	U				

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ		

		Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID	:	R1869973-2		R1869973-6		R1869973-7		R1869973-9		WG1964440-1	
Date Analyzed	:	08/29/24 05:36		08/29/24 06:06		08/29/24 06:14		08/29/24 07:29		08/29/24 13:08	
Parameter		ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q	mg/l	Q
Aluminum		3.27	U	3.27	U	3.27	U	3.27	U	0.00327	U
Manganese		0.440	U	0.440	U	0.440	U	0.440	U	0.00044	U
Sodium		29.3	U	45.1	J	32.8	J	53.6	J	0.0293	U

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ		

		Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID	:	R1869973-3		R1869973-12		R1869973-14		R1869973-16			
Date Analyzed	:	08/29/24 05:42		08/29/24 08:26		08/29/24 09:24		08/29/24 10:24			
Parameter		ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Aluminum		3.27	U	3.27	U	3.27	U	3.27	U		
Manganese		0.440	U	0.440	U	0.440	U	0.440	U		
Sodium		29.3	U	29.3	U	29.3	U	29.3	U		

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869973-18		R1869973-20		R1869973-22			
Date Analyzed :			08/29/24 10:42		08/29/24 11:47		08/29/24 12:46			
Parameter	**ug/l**	**Q**	**ug/l**	**Q**	**ug/l**	**Q**	**ug/l**	**Q**		**Q**
Aluminum			3.27	U	3.27	U	3.27	U		
Manganese			0.440	U	0.440	U	0.440	U		
Sodium			29.3	U	29.3	U	36.3	J		

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869973-24		R1869973-26		R1869973-28			
Date Analyzed :			08/29/24 12:58		08/29/24 13:59		08/29/24 14:10			
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Aluminum			3.27	U	3.27	U	3.27	U		
Manganese			0.440	U	0.440	U	0.440	U		
Sodium			29.3	U	60.6	J	31.0	J		

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869973-30		R1869973-32		R1869973-34			
Date Analyzed :			08/29/24 15:07		08/29/24 15:18		08/29/24 15:49			
Parameter	ug/l	Q	ug/l	Q	ug/l	Q	ug/l	Q		Q
Aluminum			3.27	U	3.27	U	3.27	U		
Manganese			0.440	U	0.440	U	0.440	U		
Sodium			31.6	J	29.3	U	29.3	U		

Form 4a
Interference Check Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Concentration Units**	: ug/l

	True		Initial Found				Final Found			
Lab ID :			R1869492-3							
Analysis Date :			08/28/24 05:43							
Analyte	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Sol. A	%R	Sol. AB	%R
Aluminum	100000		95500	96						
Antimony			0.183							
Arsenic			0.379							
Barium			1.27							
Beryllium			0.0213							
Cadmium			0.530							
Calcium	300000		301000	100						
Chromium			1.55							
Cobalt			2.11							
Copper			0.994							
Iron	250000		238000	95						
Lead			1.50							
Magnesium	100000		93200	93						
Manganese			4.43							
Nickel			2.72							
Potassium	100000		102000	102						
Selenium			2.95							
Silver			0.0236							
Sodium	250000		240000	96						
Thallium			0.0859							
Vanadium			-0.0142							
Zinc			2.48							

Acceptance Criteria: Methods 200.7, 200.8, 6010, 6020

ICSA: 80-120%

ICSAB: 80-120%

Form 4a
Interference Check Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Concentration Units**	: ug/l

	True		Initial Found				Final Found			
Lab ID :			R1869492-3							
Analysis Date :			08/28/24 05:43							
Analyte	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Sol. A	%R	Sol. AB	%R
Antimony			0.183							
Arsenic			0.379							
Barium			1.27							
Beryllium			0.0213							
Cadmium			0.530							
Calcium	300000		301000	100						
Chromium			1.55							
Cobalt			2.11							
Copper			0.994							
Iron	250000		238000	95						
Lead			1.50							
Magnesium	100000		93200	93						
Nickel			2.72							
Potassium	100000		102000	102						
Selenium			2.95							
Silver			0.0236							
Thallium			0.0859							
Vanadium			-0.0142							
Zinc			2.48							

Acceptance Criteria: Methods 200.7, 200.8, 6010, 6020

ICSA: 80-120%

ICSAB: 80-120%

Form 4a
Interference Check Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ	**Concentration Units**	: ug/l

	True		Initial Found				Final Found			
Lab ID :			R1869973-4							
Analysis Date :			08/29/24 05:48							
Analyte	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Sol. A	%R	Sol. AB	%R
Aluminum	100000		93400	93						
Manganese			4.55							
Sodium	250000		242000	97						

Acceptance Criteria: Methods 200.7, 200.8, 6010, 6020

ICSA: 80-120%

ICSAB: 80-120%

Form 5a
Matrix Spike

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-6B	**Matrix**	: WATER
Lab Sample ID	: L2447890-03		
Matrix Spike	: WG1964418-3	**MS Analysis Date**	: 08/28/24 12:44
Matrix Spike Dup	: WG1964418-4	**MSD Analysis Date**	: 08/28/24 12:48

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Aluminum, Dissolved	0.00342J	2	2.03	102	2	2.04	102	0	75-125	20
Antimony, Dissolved	0.00073J	0.5	0.4888	98	0.5	0.4853	97	1	75-125	20
Arsenic, Dissolved	ND	0.12	0.1119	93	0.12	0.1092	91	2	75-125	20
Barium, Dissolved	0.04329	2	1.935	94	2	1.926	94	0	75-125	20
Beryllium, Dissolved	ND	0.05	0.05074	101	0.05	0.05052	101	0	75-125	20
Cadmium, Dissolved	ND	0.053	0.05018	95	0.053	0.05144	97	2	75-125	20
Calcium, Dissolved	42.0	10	52.4	104	10	50.3	83	4	75-125	20
Chromium, Dissolved	0.00022J	0.2	0.1995	100	0.2	0.2002	100	0	75-125	20
Cobalt, Dissolved	ND	0.5	0.4973	99	0.5	0.4985	100	0	75-125	20
Copper, Dissolved	0.00052J	0.25	0.2502	100	0.25	0.2490	100	0	75-125	20
Iron, Dissolved	ND	1	1.08	108	1	1.00	100	8	75-125	20
Lead, Dissolved	ND	0.53	0.5268	99	0.53	0.5079	96	4	75-125	20
Magnesium, Dissolved	9.94	10	19.4	95	10	20.0	101	3	75-125	20
Manganese, Dissolved	0.08884	0.5	0.5944	101	0.5	0.5904	100	1	75-125	20
Nickel, Dissolved	ND	0.5	0.4950	99	0.5	0.4909	98	1	75-125	20
Potassium, Dissolved	4.08	10	14.0	99	10	14.6	105	4	75-125	20
Selenium, Dissolved	ND	0.12	0.0935	78	0.12	0.101	84	8	75-125	20
Silver, Dissolved	ND	0.05	0.04784	96	0.05	0.04679	94	2	75-125	20
Sodium, Dissolved	12.9	10	23.0	101	10	23.4	105	2	75-125	20
Thallium, Dissolved	ND	0.12	0.1109	92	0.12	0.1067	89	4	75-125	20
Vanadium, Dissolved	ND	0.5	0.4994	100	0.5	0.4955	99	1	75-125	20
Zinc, Dissolved	ND	0.5	0.4911	98	0.5	0.4778	96	3	75-125	20

Form 5a
Matrix Spike

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-6B	**Matrix**	: WATER
Lab Sample ID	: L2447890-03		
Matrix Spike	: WG1964440-3	**MS Analysis Date**	: 08/28/24 20:24
Matrix Spike Dup	: WG1964440-4	**MSD Analysis Date**	: 08/28/24 20:29

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Antimony, Total	0.00057J	0.5	0.5044	101	0.5	0.4909	98	3	75-125	20
Arsenic, Total	ND	0.12	0.1152	96	0.12	0.1123	94	3	75-125	20
Barium, Total	0.04484	2	2.023	99	2	1.987	97	2	75-125	20
Beryllium, Total	ND	0.05	0.05270	105	0.05	0.05198	104	1	75-125	20
Cadmium, Total	ND	0.053	0.05334	101	0.053	0.05127	97	4	75-125	20
Calcium, Total	43.3	10	53.5	102	10	54.0	107	1	75-125	20
Chromium, Total	0.00043J	0.2	0.2078	104	0.2	0.2003	100	4	75-125	20
Cobalt, Total	ND	0.5	0.5053	101	0.5	0.5001	100	1	75-125	20
Copper, Total	0.00056J	0.25	0.2540	102	0.25	0.2542	102	0	75-125	20
Iron, Total	0.0228J	1	1.03	103	1	1.05	105	2	75-125	20
Lead, Total	ND	0.53	0.5235	99	0.53	0.5101	96	3	75-125	20
Magnesium, Total	10.2	10	20.5	103	10	20.7	105	1	75-125	20
Nickel, Total	ND	0.5	0.5028	100	0.5	0.5012	100	0	75-125	20
Potassium, Total	4.23	10	14.9	107	10	15.5	113	4	75-125	20
Selenium, Total	ND	0.12	0.106	88	0.12	0.104	87	2	75-125	20
Silver, Total	ND	0.05	0.04910	98	0.05	0.04824	96	2	75-125	20
Thallium, Total	ND	0.12	0.1088	91	0.12	0.1062	88	2	75-125	20
Vanadium, Total	ND	0.5	0.5177	104	0.5	0.5115	102	1	75-125	20
Zinc, Total	ND	0.5	0.5040	101	0.5	0.5048	101	0	75-125	20

Form 5a
Matrix Spike

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-6B	**Matrix**	: WATER
Lab Sample ID	: L2447890-03		
Matrix Spike	: WG1964440-3	**MS Analysis Date**	: 08/29/24 13:22
Matrix Spike Dup	: WG1964440-4	**MSD Analysis Date**	: 08/29/24 13:26

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Aluminum, Total	0.0129	2	2.05	102	2	1.99	99	3	75-125	20
Manganese, Total	0.09071	0.5	0.6057	103	0.5	0.5941	101	2	75-125	20
Sodium, Total	12.5	10	24.8	123	10	24.0	115	3	75-125	20

Form 7
Laboratory Control Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1964418-2	**LCS Analysis Date**	: 08/28/24 12:35
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (mg/l)	Found (mg/l)	%R	True (mg/l)	Found (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Aluminum, Dissolved	2.00	2.13	106.					80-120	20
Antimony, Dissolved	0.500	0.436	87.					80-120	20
Arsenic, Dissolved	0.120	0.108	90.					80-120	20
Barium, Dissolved	2.00	1.93	96.					80-120	20
Beryllium, Dissolved	0.0500	0.0506	101.					80-120	20
Cadmium, Dissolved	0.0530	0.0533	100.					80-120	20
Calcium, Dissolved	10.0	11.3	113.					80-120	20
Chromium, Dissolved	0.200	0.205	102.					80-120	20
Cobalt, Dissolved	0.500	0.508	102.					80-120	20
Copper, Dissolved	0.250	0.259	104.					80-120	20
Iron, Dissolved	1.00	1.12	112.					80-120	20
Lead, Dissolved	0.530	0.540	102.					80-120	20
Magnesium, Dissolved	10.0	10.9	109.					80-120	20
Manganese, Dissolved	0.500	0.519	104.					80-120	20
Nickel, Dissolved	0.500	0.504	101.					80-120	20
Potassium, Dissolved	10.0	10.4	104.					80-120	20
Selenium, Dissolved	0.120	0.102	85.					80-120	20
Silver, Dissolved	0.0500	0.0498	100.					80-120	20
Sodium, Dissolved	10.0	11.4	114.					80-120	20
Thallium, Dissolved	0.120	0.114	95.					80-120	20
Vanadium, Dissolved	0.500	0.513	102.					80-120	20
Zinc, Dissolved	0.500	0.505	101.					80-120	20

Form 7
Laboratory Control Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1964440-2	**LCS Analysis Date**	: 08/28/24 20:15
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Antimony, Total	0.500	0.442	88.					80-120	20
Arsenic, Total	0.120	0.112	94.					80-120	20
Barium, Total	2.00	1.91	96.					80-120	20
Beryllium, Total	0.0500	0.0508	102.					80-120	20
Cadmium, Total	0.0530	0.0500	94.					80-120	20
Calcium, Total	10.0	10.7	107.					80-120	20
Chromium, Total	0.200	0.195	97.					80-120	20
Cobalt, Total	0.500	0.500	100.					80-120	20
Copper, Total	0.250	0.251	100.					80-120	20
Iron, Total	1.00	1.11	111.					80-120	20
Lead, Total	0.530	0.512	96.					80-120	20
Magnesium, Total	10.0	11.3	113.					80-120	20
Nickel, Total	0.500	0.515	103.					80-120	20
Potassium, Total	10.0	10.6	106.					80-120	20
Selenium, Total	0.120	0.0972	81.					80-120	20
Silver, Total	0.0500	0.0476	95.					80-120	20
Thallium, Total	0.120	0.107	89.					80-120	20
Vanadium, Total	0.500	0.496	99.					80-120	20
Zinc, Total	0.500	0.498	100.					80-120	20

Form 7
Laboratory Control Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1964440-2	**LCS Analysis Date**	: 08/29/24 13:12
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Aluminum, Total	2.00	2.04	102.					80-120	20
Manganese, Total	0.500	0.512	102.					80-120	20
Sodium, Total	10.0	11.1	111.					80-120	20

Form 8
Serial Dilutions

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-6B	**Matrix**	: WATER
Lab Sample ID	: L2447890-03	**Analysis Date**	: 08/28/24 12:39
Serial Dilution ID	: WG1964418-6	**Analysis Date**	: 08/28/24 12:57

Parameter	Initial Sample Result (mg/l)	Serial Dilution Result (mg/l)	% Difference	%D Limit
Barium, Dissolved	0.04329	0.04556	5	20
Calcium, Dissolved	42.0	42.3	1	20
Magnesium, Dissolved	9.94	10.8	9	20
Manganese, Dissolved	0.08884	0.08860	0	20
Potassium, Dissolved	4.08	3.98	2	20
Sodium, Dissolved	12.9	13.7	6	20

Form 8
Serial Dilutions

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-6B	**Matrix**	: WATER
Lab Sample ID	: L2447890-03	**Analysis Date**	: 08/28/24 20:20
Serial Dilution ID	: WG1964440-6	**Analysis Date**	: 08/28/24 20:38

Parameter	Initial Sample Result (mg/l)	Serial Dilution Result (mg/l)	% Difference	%D Limit
Barium, Total	0.04484	0.04428	1	20
Calcium, Total	43.3	42.0	3	20
Magnesium, Total	10.2	9.81	4	20
Potassium, Total	4.23	4.18	1	20

Form 8
Serial Dilutions

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-6B	**Matrix**	: WATER
Lab Sample ID	: L2447890-03	**Analysis Date**	: 08/29/24 13:17
Serial Dilution ID	: WG1964440-6	**Analysis Date**	: 08/29/24 13:36

Parameter	Initial Sample Result (mg/l)	Serial Dilution Result (mg/l)	% Difference	%D Limit
Manganese, Total	0.09071	0.08690	4	20
Sodium, Total	12.5	12.6	1	20

Form 12
Preparation Log

Client	: **Alpha Geoscience**	**Lab Number**	: **L2447890**
Project Name	: **RANCO MINE**	**Project Number**	: **12123**
Matrix	: **WATER**	**Prep Method**	: **EPA 3005A**

Sample Number	Preparation Date	Weight (gram)	Volume (mL)
L2447890-01	08/27/24 18:13	-	50
L2447890-02	08/27/24 18:13	-	50
L2447890-03	08/27/24 18:13	-	50
L2447890-04	08/27/24 18:13	-	50
L2447890-05	08/27/24 18:13	-	50
L2447890-06	08/27/24 18:13	-	50
L2447890-07	08/27/24 18:13	-	50
L2447890-08	08/27/24 18:13	-	50
L2447890-09	08/27/24 18:13	-	50
L2447890-10	08/27/24 18:13	-	50
L2447890-11	08/27/24 18:13	-	50
L2447890-12	08/27/24 18:13	-	50
L2447890-13	08/27/24 18:13	-	50
WG1964418-1	08/27/24 18:13	-	50
WG1964418-2	08/27/24 18:13	-	50
WG1964418-3	08/27/24 18:13	-	50
WG1964418-4	08/27/24 18:13	-	50
WG1964418-6	08/27/24 18:13	-	50

Form 12
Preparation Log

Client	: **Alpha Geoscience**	**Lab Number**	: **L2447890**
Project Name	: **RANCO MINE**	**Project Number**	: **12123**
Matrix	: **WATER**	**Prep Method**	: **EPA 3005A**

Sample Number	Preparation Date	Weight (gram)	Volume (mL)
L2447890-01	08/27/24 14:25	-	50
L2447890-02	08/27/24 14:25	-	50
L2447890-03	08/27/24 14:25	-	50
L2447890-04	08/27/24 14:25	-	50
L2447890-05	08/27/24 14:25	-	50
L2447890-06	08/27/24 14:25	-	50
L2447890-07	08/27/24 14:25	-	50
L2447890-08	08/27/24 14:25	-	50
L2447890-09	08/27/24 14:25	-	50
L2447890-10	08/27/24 14:25	-	50
L2447890-11	08/27/24 14:25	-	50
L2447890-12	08/27/24 14:25	-	50
L2447890-13	08/27/24 14:25	-	50
L2447890-14	08/27/24 14:25	-	50
WG1964440-1	08/27/24 14:25	-	50
WG1964440-2	08/27/24 14:25	-	50
WG1964440-3	08/27/24 14:25	-	50
WG1964440-4	08/27/24 14:25	-	50
WG1964440-6	08/27/24 14:25	-	50

Form 12
Preparation Log

Client	: **Alpha Geoscience**	**Lab Number**	: **L2447890**
Project Name	: **RANCO MINE**	**Project Number**	: **12123**
Matrix	: **WATER**	**Prep Method**	: **EPA 3005A**

Sample Number	Preparation Date	Weight (gram)	Volume (mL)
L2447890-01	08/27/24 14:25	-	50
L2447890-02	08/27/24 14:25	-	50
L2447890-03	08/27/24 14:25	-	50
L2447890-04	08/27/24 14:25	-	50
L2447890-05	08/27/24 14:25	-	50
L2447890-06	08/27/24 14:25	-	50
L2447890-07	08/27/24 14:25	-	50
L2447890-08	08/27/24 14:25	-	50
L2447890-09	08/27/24 14:25	-	50
L2447890-10	08/27/24 14:25	-	50
L2447890-11	08/27/24 14:25	-	50
L2447890-12	08/27/24 14:25	-	50
L2447890-13	08/27/24 14:25	-	50
L2447890-14	08/27/24 14:25	-	50
WG1964440-1	08/27/24 14:25	-	50
WG1964440-2	08/27/24 14:25	-	50
WG1964440-3	08/27/24 14:25	-	50
WG1964440-4	08/27/24 14:25	-	50
WG1964440-6	08/27/24 14:25	-	50

Form 13
Analysis Run Log

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Analysis Method**	: 1,6020B
Start Date	: 08/28/24 04:33	**End Date**	: 08/28/24 19:11

Sample Number	Dilution Factor	Analysis Time	Aluminum, Dissolved	Antimony, Dissolved	Arsenic, Dissolved	Barium, Dissolved	Beryllium, Dissolved	Cadmium, Dissolved	Calcium, Dissolved	Chromium, Dissolved	Cobalt, Dissolved	Copper, Dissolved	Iron, Dissolved	Lead, Dissolved	Magnesium, Dissolved	Manganese, Dissolved	Nickel, Dissolved	Potassium, Dissolved	Selenium, Dissolved	Silver, Dissolved	Sodium, Dissolved	Thallium, Dissolved	Vanadium, Dissolved	Zinc, Dissolved
R1869492-11 TUNE		04:33:00																						
R1869492-1 ICV	1	05:30:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-2 ICB	1	05:34:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-3 ICSA	1	05:43:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-4 CCV	1	05:56:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-5 CCB	1	06:01:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-6 CCB	1	06:14:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-7 CCV	1	07:48:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-8 CCB	1	07:52:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-9 CCV	1	08:43:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-10 CCB	1	08:47:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-12 CCV	1	09:24:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-13 CCB	1	09:28:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-14 CCV	1	10:26:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-15 CCB	1	10:30:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-16 CCV	1	11:21:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-17 CCB	1	11:25:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-18 CCV	1	12:16:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-19 CCB	1	12:20:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WG1964418-2 LCS	10	12:35:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-03	1	12:39:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WG1964418-3 MS	10	12:44:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WG1964418-4 MSD	10	12:48:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WG1964418-6 SERDIL	5	12:57:31				X			X						X	X		X			X			
R1869492-20 CCV	1	13:15:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-21 CCB	1	13:19:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-22 CCB	1	13:26:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Form 13
Analysis Run Log

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Analysis Method**	: 1,6020B
Start Date	: 08/28/24 04:33	**End Date**	: 08/28/24 19:11

Sample Number	Dilution Factor	Analysis Time	Aluminum, Dissolved	Antimony, Dissolved	Arsenic, Dissolved	Barium, Dissolved	Beryllium, Dissolved	Cadmium, Dissolved	Calcium, Dissolved	Chromium, Dissolved	Cobalt, Dissolved	Copper, Dissolved	Iron, Dissolved	Lead, Dissolved	Magnesium, Dissolved	Manganese, Dissolved	Nickel, Dissolved	Potassium, Dissolved	Selenium, Dissolved	Silver, Dissolved	Sodium, Dissolved	Thallium, Dissolved	Vanadium, Dissolved	Zinc, Dissolved
WG1964418-1 BLANK	1	13:31:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-23 CCV	1	14:18:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-24 CCB	1	14:23:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-25 CCV	1	14:29:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-26 CCB	1	14:36:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-27 CCV	1	15:29:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-28 CCB	1	15:33:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-29 CCV	1	15:40:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-30 CCB	1	15:46:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-31 CCV	1	16:34:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-32 CCB	1	16:39:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-33 CCV	1	16:44:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-34 CCB	1	16:49:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-01	1	17:07:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-02	1	17:11:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-04	1	17:16:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-05	1	17:20:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-06	1	17:31:19	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-07	1	17:35:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-08	1	17:40:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-09	1	17:44:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-35 CCV	1	17:49:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-36 CCB	1	17:53:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-13	1	17:59:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-10	1	18:08:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-11	1	18:12:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-12	1	18:17:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Form 13
Analysis Run Log

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Analysis Method**	: 1,6020B
Start Date	: 08/28/24 04:33	**End Date**	: 08/28/24 19:11

Sample Number	Dilution Factor	Analysis Time	Aluminum, Dissolved	Antimony, Dissolved	Arsenic, Dissolved	Barium, Dissolved	Beryllium, Dissolved	Cadmium, Dissolved	Calcium, Dissolved	Chromium, Dissolved	Cobalt, Dissolved	Copper, Dissolved	Iron, Dissolved	Lead, Dissolved	Magnesium, Dissolved	Manganese, Dissolved	Nickel, Dissolved	Potassium, Dissolved	Selenium, Dissolved	Silver, Dissolved	Sodium, Dissolved	Thallium, Dissolved	Vanadium, Dissolved	Zinc, Dissolved
L2447890-06	1	18:22:23		X																				
R1869492-37 CCV	1	18:49:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-38 CCB	1	18:54:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-39 CCV	1	19:03:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-40 CCB	1	19:11:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Form 13
Analysis Run Log

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Analysis Method**	: 1,6020B
Start Date	: 08/28/24 04:33	**End Date**	: 08/28/24 22:17

Sample Number	Dilution Factor	Analysis Time	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Calcium, Total	Chromium, Total	Cobalt, Total	Copper, Total	Iron, Total	Lead, Total	Magnesium, Total	Nickel, Total	Potassium, Total	Selenium, Total	Silver, Total	Thallium, Total	Vanadium, Total	Zinc, Total
R1869492-11 TUNE		04:33:00																			
R1869492-1 ICV	1	05:30:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-2 ICB	1	05:34:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-3 ICSA	1	05:43:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-4 CCV	1	05:56:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-5 CCB	1	06:01:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-6 CCB	1	06:14:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-7 CCV	1	07:48:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-8 CCB	1	07:52:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-9 CCV	1	08:43:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-10 CCB	1	08:47:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-12 CCV	1	09:24:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-13 CCB	1	09:28:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-14 CCV	1	10:26:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-15 CCB	1	10:30:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-16 CCV	1	11:21:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-17 CCB	1	11:25:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-18 CCV	1	12:16:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-19 CCB	1	12:20:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-20 CCV	1	13:15:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-21 CCB	1	13:19:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-22 CCB	1	13:26:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-23 CCV	1	14:18:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-24 CCB	1	14:23:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-25 CCV	1	14:29:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-26 CCB	1	14:36:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-27 CCV	1	15:29:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Form 13
Analysis Run Log

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Analysis Method**	: 1,6020B
Start Date	: 08/28/24 04:33	**End Date**	: 08/28/24 22:17

Sample Number	Dilution Factor	Analysis Time	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Calcium, Total	Chromium, Total	Cobalt, Total	Copper, Total	Iron, Total	Lead, Total	Magnesium, Total	Nickel, Total	Potassium, Total	Selenium, Total	Silver, Total	Thallium, Total	Vanadium, Total	Zinc, Total
R1869492-28 CCB	1	15:33:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-29 CCV	1	15:40:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-30 CCB	1	15:46:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-31 CCV	1	16:34:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-32 CCB	1	16:39:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-33 CCV	1	16:44:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-34 CCB	1	16:49:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-35 CCV	1	17:49:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-36 CCB	1	17:53:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-37 CCV	1	18:49:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-38 CCB	1	18:54:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-39 CCV	1	19:03:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-40 CCB	1	19:11:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-41 CCV	1	20:01:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-42 CCB	1	20:06:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WG1964440-1 BLANK	1	20:11:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WG1964440-2 LCS	10	20:15:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-03	1	20:20:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WG1964440-3 MS	10	20:24:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WG1964440-4 MSD	10	20:29:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WG1964440-6 SERDIL	5	20:38:07			X			X						X		X					
L2447890-01	1	20:47:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-02	1	20:51:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-43 CCV	1	20:56:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-44 CCB	1	21:00:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-13	1	21:05:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-04	1	21:09:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Form 13
Analysis Run Log

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Analysis Method**	: 1,6020B
Start Date	: 08/28/24 04:33	**End Date**	: 08/28/24 22:17

Sample Number	Dilution Factor	Analysis Time	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Calcium, Total	Chromium, Total	Cobalt, Total	Copper, Total	Iron, Total	Lead, Total	Magnesium, Total	Nickel, Total	Potassium, Total	Selenium, Total	Silver, Total	Thallium, Total	Vanadium, Total	Zinc, Total
L2447890-05	1	21:14:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-06	1	21:18:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-07	1	21:23:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-08	1	21:27:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-09	1	21:32:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-10	1	21:36:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-11	1	21:41:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-12	1	21:45:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-45 CCV	1	21:50:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-46 CCB	1	21:55:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
L2447890-14	1	21:59:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-47 CCV	1	22:13:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
R1869492-48 CCB	1	22:17:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Form 13
Analysis Run Log

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ	**Analysis Method**	: 1,6020B
Start Date	: 08/29/24 04:30	**End Date**	: 08/29/24 15:49

Sample Number	Dilution Factor	Analysis Time	Aluminum, Total	Manganese, Total	Sodium, Total
R1869973-10 TUNE		04:30:00			
R1869973-1 ICV	1	05:31:59	X	X	X
R1869973-2 ICB	1	05:36:40	X	X	X
R1869973-3 ICB	1	05:42:11	X	X	X
R1869973-4 ICSA	1	05:48:10	X	X	X
R1869973-5 CCV	1	06:02:10	X	X	X
R1869973-6 CCB	1	06:06:52	X	X	X
R1869973-7 CCB	1	06:14:16	X	X	X
R1869973-8 CCV	1	07:25:00	X	X	X
R1869973-9 CCB	1	07:29:42	X	X	X
R1869973-11 CCV	1	08:22:11	X	X	X
R1869973-12 CCB	1	08:26:53	X	X	X
R1869973-13 CCV	1	09:19:49	X	X	X
R1869973-14 CCB	1	09:24:31	X	X	X
R1869973-15 CCV	1	10:20:02	X	X	X
R1869973-16 CCB	1	10:24:44	X	X	X
R1869973-17 CCV	1	10:37:48	X	X	X
R1869973-18 CCB	1	10:42:29	X	X	X
R1869973-19 CCV	1	11:42:16	X	X	X
R1869973-20 CCB	1	11:47:00	X	X	X
R1869973-21 CCV	1	12:41:36	X	X	X
R1869973-22 CCB	1	12:46:19	X	X	X
R1869973-23 CCV	1	12:54:13	X	X	X
R1869973-24 CCB	1	12:58:56	X	X	X
WG1964440-1 BLANK	1	13:08:04	X	X	X
WG1964440-2 LCS	10	13:12:44	X	X	X
L2447890-03	1	13:17:24	X	X	X

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Analysis Run Log

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ	**Analysis Method**	: 1,6020B
Start Date	: 08/29/24 04:30	**End Date**	: 08/29/24 15:49

Sample Number	Dilution Factor	Analysis Time	Aluminum, Total	Manganese, Total	Sodium, Total
WG1964440-3 MS	10	13:22:04	X	X	X
WG1964440-4 MSD	10	13:26:45	X	X	X
WG1964440-6 SERDIL	5	13:36:03		X	X
R1869973-25 CCV	1	13:54:39	X	X	X
R1869973-26 CCB	1	13:59:22	X	X	X
R1869973-27 CCV	1	14:05:52	X	X	X
R1869973-28 CCB	1	14:10:35	X	X	X
L2447890-01	1	14:20:26	X	X	X
L2447890-02	1	14:25:05	X	X	X
L2447890-04	1	14:29:45	X	X	X
L2447890-05	1	14:34:25	X	X	X
L2447890-06	1	14:39:06	X	X	X
L2447890-07	1	14:43:46	X	X	X
L2447890-08	1	14:48:26	X	X	X
L2447890-09	1	14:53:06	X	X	X
L2447890-10	1	14:57:45	X	X	X
R1869973-29 CCV	1	15:02:25	X	X	X
R1869973-30 CCB	1	15:07:08	X	X	X
R1869973-31 CCV	1	15:13:38	X	X	X
R1869973-32 CCB	1	15:18:21	X	X	X
L2447890-13	1	15:24:18	X	X	X
L2447890-11	1	15:28:57	X	X	X
L2447890-12	1	15:33:37	X	X	X
L2447890-14	1	15:38:16	X	X	X
R1869973-33 CCV	1	15:44:49	X	X	X
R1869973-34 CCB	1	15:49:32	X	X	X

Form 14
ICP-MS Tune

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab Sample ID	: R1869492-11	**Analysis Date**	: 08/28/24 04:33
ICP-MS Instrument	: iCAP Q		

Mass Element	Avg Measured Mass (amu)	Avg. Peak Width at 10% Peak Height (amu)	%RSD
59 Co	58.9433	0.676	0.7
115 In	114.8886	0.72	3.8
7 Li	7.0247	0.664	2.1
238 U	238.0355	0.721	1.2

Form 14
ICP-MS Tune

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab Sample ID	: R1869492-11	**Analysis Date**	: 08/28/24 04:33
ICP-MS Instrument	: iCAP Q		

Mass Element	Avg Measured Mass (amu)	Avg. Peak Width at 10% Peak Height (amu)	%RSD
59 Co	58.9433	0.676	0.7
115 In	114.8886	0.72	3.8
7 Li	7.0247	0.664	2.1
238 U	238.0355	0.721	1.2

Form 14
ICP-MS Tune

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab Sample ID	: R1869973-10	**Analysis Date**	: 08/29/24 04:30
ICP-MS Instrument	: iCAP Q		

Mass Element	Avg Measured Mass (amu)	Avg. Peak Width at 10% Peak Height (amu)	%RSD
59 Co	58.9389	0.701	0.7
115 In	114.9071	0.734	0.9
7 Li	7.0224	0.695	1.2
238 U	238.0836	0.732	1.6

Form 15
ICP-MS Internal Standards Relative Intensity Summary

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Analysis Method**	: 1,6020B
Start Date	: 08/28/24	**End Date**	: 08/28/24

Sample #	Time	Internal Standards %RI For:			
		Lithium	Scandium	Ge	In
R1869492-1 ICV	05:30:16	98	100	97	98
R1869492-2 ICB	05:34:46	99	100	100	100
R1869492-3 ICSA	05:43:07	83	87	98	91
R1869492-4 CCV	05:56:34	100	106	108	103
R1869492-5 CCB	06:01:05	100	100	100	101
R1869492-6 CCB	06:14:34	97	97	96	100
R1869492-7 CCV	07:48:23	99	104	104	103
R1869492-8 CCB	07:52:55	101	102	103	104
R1869492-9 CCV	08:43:21	98	102	104	101
R1869492-10 CCB	08:47:53	102	103	105	102
R1869492-12 CCV	09:24:05	98	102	102	98
R1869492-13 CCB	09:28:37	100	99	98	102
R1869492-14 CCV	10:26:18	99	103	105	100
R1869492-15 CCB	10:30:50	101	100	102	102
R1869492-16 CCV	11:21:10	103	105	107	101
R1869492-17 CCB	11:25:41	105	102	105	106
R1869492-18 CCV	12:16:24	104	105	104	102
R1869492-19 CCB	12:20:56	103	100	99	102
WG1964418-2 LCS	12:35:06	104	103	105	101
L2447890-03	12:39:35	104	106	101	103
WG1964418-3 MS	12:44:04	109	109	112	106
WG1964418-4 MSD	12:48:34	108	106	109	106
WG1964418-6 SERDIL	12:57:31	105	103	108	105
R1869492-20 CCV	13:15:25	103	104	108	105
R1869492-21 CCB	13:19:57	104	102	104	104
R1869492-22 CCB	13:26:52	102	100	98	99
WG1964418-1 BLANK	13:31:56	101	100	100	99

Form 15
ICP-MS Internal Standards Relative Intensity Summary

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Analysis Method**	: 1,6020B
Start Date	: 08/28/24	**End Date**	: 08/28/24

Sample #	Time	Internal Standards %RI For:			
		Lithium	Scandium	Ge	In
R1869492-23 CCV	14:18:06	102	104	105	100
R1869492-24 CCB	14:23:40	103	102	100	99
R1869492-25 CCV	14:29:41	101	101	104	100
R1869492-26 CCB	14:36:27	101	98	100	101
R1869492-27 CCV	15:29:27	100	104	106	100
R1869492-28 CCB	15:33:59	103	106	104	104
R1869492-29 CCV	15:40:10	98	102	103	101
R1869492-30 CCB	15:46:17	99	101	102	102
R1869492-31 CCV	16:34:53	104	107	109	107
R1869492-32 CCB	16:39:24	103	106	105	104
R1869492-33 CCV	16:44:44	100	105	107	102
R1869492-34 CCB	16:49:15	101	102	106	105
L2447890-01	17:07:16	100	104	101	98
L2447890-02	17:11:46	99	101	104	99
L2447890-04	17:16:16	105	110	114	107
L2447890-05	17:20:46	103	107	110	106
L2447890-06	17:31:19	98	105	103	109
L2447890-07	17:35:47	101	105	106	104
L2447890-08	17:40:16	102	104	112	104
L2447890-09	17:44:45	102	105	106	102
R1869492-35 CCV	17:49:15	102	105	103	99
R1869492-36 CCB	17:53:47	100	99	103	102
L2447890-13	17:59:03	98	97	100	97
L2447890-10	18:08:02	101	104	108	103
L2447890-11	18:12:31	99	102	100	100
L2447890-12	18:17:00	101	103	102	101
L2447890-06	18:22:23	151	5	106	98

Form 15
ICP-MS Internal Standards Relative Intensity Summary

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Analysis Method**	: 1,6020B
Start Date	: 08/28/24	**End Date**	: 08/28/24

Sample #	Time	Internal Standards %RI For:			
		Lithium	Scandium	Ge	In
R1869492-37 CCV	18:49:45	101	107	106	102
R1869492-38 CCB	18:54:17	103	104	108	103
R1869492-39 CCV	19:03:25	100	103	104	100
R1869492-40 CCB	19:11:04	101	102	99	98

Form 15
ICP-MS Internal Standards Relative Intensity Summary

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Analysis Method**	: 1,6020B
Start Date	: 08/28/24	**End Date**	: 08/28/24

Sample #	Time	Internal Standards %RI For:			
		Lithium	Scandium	Ge	In
R1869492-1 ICV	05:30:16	98	100	97	98
R1869492-2 ICB	05:34:46	99	100	100	100
R1869492-3 ICSA	05:43:07	83	87	98	91
R1869492-4 CCV	05:56:34	100	106	108	103
R1869492-5 CCB	06:01:05	100	100	100	101
R1869492-6 CCB	06:14:34	97	97	96	100
R1869492-7 CCV	07:48:23	99	104	104	103
R1869492-8 CCB	07:52:55	101	102	103	104
R1869492-9 CCV	08:43:21	98	102	104	101
R1869492-10 CCB	08:47:53	102	103	105	102
R1869492-12 CCV	09:24:05	98	102	102	98
R1869492-13 CCB	09:28:37	100	99	98	102
R1869492-14 CCV	10:26:18	99	103	105	100
R1869492-15 CCB	10:30:50	101	100	102	102
R1869492-16 CCV	11:21:10	103	105	107	101
R1869492-17 CCB	11:25:41	105	102	105	106
R1869492-18 CCV	12:16:24	104	105	104	102
R1869492-19 CCB	12:20:56	103	100	99	102
R1869492-20 CCV	13:15:25	103	104	108	105
R1869492-21 CCB	13:19:57	104	102	104	104
R1869492-22 CCB	13:26:52	102	100	98	99
R1869492-23 CCV	14:18:06	102	104	105	100
R1869492-24 CCB	14:23:40	103	102	100	99
R1869492-25 CCV	14:29:41	101	101	104	100
R1869492-26 CCB	14:36:27	101	98	100	101
R1869492-27 CCV	15:29:27	100	104	106	100
R1869492-28 CCB	15:33:59	103	106	104	104

Form 15
ICP-MS Internal Standards Relative Intensity Summary

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Analysis Method**	: 1,6020B
Start Date	: 08/28/24	**End Date**	: 08/28/24

Sample #	Time	Internal Standards %RI For:			
		Lithium	Scandium	Ge	In
R1869492-29 CCV	15:40:10	98	102	103	101
R1869492-30 CCB	15:46:17	99	101	102	102
R1869492-31 CCV	16:34:53	104	107	109	107
R1869492-32 CCB	16:39:24	103	106	105	104
R1869492-33 CCV	16:44:44	100	105	107	102
R1869492-34 CCB	16:49:15	101	102	106	105
R1869492-35 CCV	17:49:15	102	105	103	99
R1869492-36 CCB	17:53:47	100	99	103	102
R1869492-37 CCV	18:49:45	101	107	106	102
R1869492-38 CCB	18:54:17	103	104	108	103
R1869492-39 CCV	19:03:25	100	103	104	100
R1869492-40 CCB	19:11:04	101	102	99	98
R1869492-41 CCV	20:01:56	102	106	102	99
R1869492-42 CCB	20:06:29	102	104	102	99
WG1964440-1 BLANK	20:11:02	102	104	104	100
WG1964440-2 LCS	20:15:33	101	104	102	100
L2447890-03	20:20:04	103	109	108	106
WG1964440-3 MS	20:24:34	105	108	111	106
WG1964440-4 MSD	20:29:05	104	107	111	105
WG1964440-6 SERDIL	20:38:07	103	105	107	102
L2447890-01	20:47:08	98	101	106	102
L2447890-02	20:51:39	96	101	100	99
R1869492-43 CCV	20:56:10	100	106	103	102
R1869492-44 CCB	21:00:43	100	102	104	102
L2447890-13	21:05:16	101	105	103	102
L2447890-04	21:09:47	102	109	108	102
L2447890-05	21:14:18	99	106	103	101

Form 15
ICP-MS Internal Standards Relative Intensity Summary

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ2	**Analysis Method**	: 1,6020B
Start Date	: 08/28/24	**End Date**	: 08/28/24

Sample #	Time	Internal Standards %RI For:			
		Lithium	Scandium	Ge	In
L2447890-06	21:18:49	99	104	102	99
L2447890-07	21:23:20	99	103	103	98
L2447890-08	21:27:51	101	106	106	101
L2447890-09	21:32:22	100	105	102	99
L2447890-10	21:36:54	98	103	103	99
L2447890-11	21:41:25	97	101	99	96
L2447890-12	21:45:56	96	101	99	94
R1869492-45 CCV	21:50:27	99	105	97	97
R1869492-46 CCB	21:55:00	103	104	102	102
L2447890-14	21:59:33	102	103	100	101
R1869492-47 CCV	22:13:07	96	104	107	105
R1869492-48 CCB	22:17:39	98	103	104	99

Form 15
ICP-MS Internal Standards Relative Intensity Summary

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ	**Analysis Method**	: 1,6020B
Start Date	: 08/29/24	**End Date**	: 08/29/24

Sample #	Time	Internal Standards %RI For:			
		Lithium	Scandium	Ge	In
R1869973-1 ICV	05:31:59	95	102	98	98
R1869973-2 ICB	05:36:40	96	97	99	98
R1869973-3 ICB	05:42:11	95	97	98	100
R1869973-4 ICSA	05:48:10	85	115	98	87
R1869973-5 CCV	06:02:10	93	110	102	97
R1869973-6 CCB	06:06:52	92	99	100	97
R1869973-7 CCB	06:14:16	93	104	99	97
R1869973-8 CCV	07:25:00	103	125	105	101
R1869973-9 CCB	07:29:42	101	108	99	99
R1869973-11 CCV	08:22:11	93	112	93	92
R1869973-12 CCB	08:26:53	103	110	97	97
R1869973-13 CCV	09:19:49	104	126	113	109
R1869973-14 CCB	09:24:31	102	107	108	111
R1869973-15 CCV	10:20:02	122	132	115	109
R1869973-16 CCB	10:24:44	119	117	112	110
R1869973-17 CCV	10:37:48	116	140	117	116
R1869973-18 CCB	10:42:29	115	114	114	109
R1869973-19 CCV	11:42:16	123	138	116	116
R1869973-20 CCB	11:47:00	120	116	110	110
R1869973-21 CCV	12:41:36	108	118	111	103
R1869973-22 CCB	12:46:19	108	116	112	109
R1869973-23 CCV	12:54:13	106	121	106	103
R1869973-24 CCB	12:58:56	106	110	106	101
WG1964440-1 BLANK	13:08:04	112	110	112	107
WG1964440-2 LCS	13:12:44	105	110	111	103
L2447890-03	13:17:24	112	124	112	107
WG1964440-3 MS	13:22:04	109	119	113	106

Form 15
ICP-MS Internal Standards Relative Intensity Summary

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: ICPMSQ	**Analysis Method**	: 1,6020B
Start Date	: 08/29/24	**End Date**	: 08/29/24

Sample #	Time	Internal Standards %RI For:			
		Lithium	Scandium	Ge	In
WG1964440-4 MSD	13:26:45	109	122	116	110
WG1964440-6 SERDIL	13:36:03	106	114	112	110
R1869973-25 CCV	13:54:39	117	125	114	106
R1869973-26 CCB	13:59:22	117	118	111	108
R1869973-27 CCV	14:05:52	114	132	108	105
R1869973-28 CCB	14:10:35	113	113	104	98
L2447890-01	14:20:26	120	130	114	112
L2447890-02	14:25:05	115	123	112	109
L2447890-04	14:29:45	118	123	111	101
L2447890-05	14:34:25	117	117	107	101
L2447890-06	14:39:06	116	117	106	101
L2447890-07	14:43:46	116	116	109	103
L2447890-08	14:48:26	117	125	109	109
L2447890-09	14:53:06	115	124	111	108
L2447890-10	14:57:45	114	116	106	100
R1869973-29 CCV	15:02:25	106	113	100	96
R1869973-30 CCB	15:07:08	105	105	97	98
R1869973-31 CCV	15:13:38	103	110	98	96
R1869973-32 CCB	15:18:21	104	108	101	101
L2447890-13	15:24:18	115	123	112	110
L2447890-11	15:28:57	112	114	104	101
L2447890-12	15:33:37	114	113	110	105
L2447890-14	15:38:16	117	125	114	112
R1869973-33 CCV	15:44:49	105	122	106	104
R1869973-34 CCB	15:49:32	107	108	102	101

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Created By: Jason Hebert
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METALS by 6020B (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria	Holding Time	Container/Sample Preservation
Aluminum, Total	7429-90-5	0.01	0.00327	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Antimony, Total	7440-36-0	0.004	0.000429	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Arsenic, Total	7440-38-2	0.0005	0.000165	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Barium, Total	7440-39-3	0.0005	0.000173	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Beryllium, Total	7440-41-7	0.0005	0.000107	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Cadmium, Total	7440-43-9	0.0002	0.0000599	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Calcium, Total	7440-70-2	0.1	0.0394	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Chromium, Total	7440-47-3	0.001	0.000178	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Cobalt, Total	7440-48-4	0.0005	0.000163	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Copper, Total	7440-50-8	0.001	0.000384	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Lithium, Total	7439-93-2	0.001	0.000083	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Iron, Total	7439-89-6	0.05	0.0191	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Lead, Total	7439-92-1	0.001	0.000343	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Magnesium, Total	7439-95-4	0.07	0.0242	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Manganese, Total	7439-96-5	0.001	0.00044	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Nickel, Total	7440-02-0	0.002	0.000556	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Potassium, Total	7440-09-7	0.1	0.0309	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Selenium, Total	7782-49-2	0.005	0.00173	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Silver, Total	7440-22-4	0.0004	0.000163	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Sodium, Total	7440-23-5	0.1	0.0293	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Thallium, Total	7440-28-0	0.0005	0.000143	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Vanadium, Total	7440-62-2	0.005	0.00157	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved
Zinc, Total	7440-66-6	0.01	0.00341	mg/l	80-120		75-125	20	20		180 days	1 - Plastic 500ml HNO3 preserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Date Created: 01/22/21
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METALS by 6020B (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria	Holding Time	Container/Sample Preservation
Aluminum, Total	7429-90-5	10	1.48	mg/kg	48-151	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Antimony, Total	7440-36-0	0.16	0.01352	mg/kg	1-208	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Arsenic, Total	7440-38-2	0.05	0.0066	mg/kg	79-121	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Barium, Total	7440-39-3	0.3	0.02112	mg/kg	83-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Beryllium, Total	7440-41-7	0.03	0.00872	mg/kg	83-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Cadmium, Total	7440-43-9	0.02	0.00264	mg/kg	83-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Calcium, Total	7440-70-2	50	6.08	mg/kg	81-119	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Chromium, Total	7440-47-3	0.2	0.0468	mg/kg	80-120	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Cobalt, Total	7440-48-4	0.05	0.00532	mg/kg	84-115	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Copper, Total	7440-50-8	0.2	0.0194	mg/kg	81-118	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Iron, Total	7439-89-6	20	2.06	mg/kg	45-155	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Lead, Total	7439-92-1	0.06	0.0146	mg/kg	81-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Magnesium, Total	7439-95-4	10	1.232	mg/kg	76-124	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Manganese, Total	7439-96-5	0.2	0.0444	mg/kg	81-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Nickel, Total	7440-02-0	0.1	0.02672	mg/kg	83-117	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Potassium, Total	7440-09-7	10	1.588	mg/kg	71-129	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Selenium, Total	7782-49-2	0.2	0.0756	mg/kg	78-122	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Silver, Total	7440-22-4	0.05	0.00488	mg/kg	75-124	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Sodium, Total	7440-23-5	15	1.172	mg/kg	72-127	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Thallium, Total	7440-28-0	0.02	0.00516	mg/kg	80-120	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Vanadium, Total	7440-62-2	0.1	0.03792	mg/kg	78-122	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv
Zinc, Total	7440-66-6	1	0.26	mg/kg	82-118	20	75-125	20	20		180 days	Metals Only-Glass 60mL/2oz unpreserv

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Performance Report

System

Start time:	8/28/2024 4:33:52 AM
Instrument:	iCAP Q
Operator:	ALPHALAB\a2-icpmsq2
Template:	STD AGD
Instrument Serial Number:	Q01717
Last Autotune:	Autotune-Torch Position via In115 ONLY-20240627-201110165.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

Sensitivity & Stability Test

Result	Runs	Sweeps
Passed	5	10

Sensitivity

Analyte	Result	Value	Condition	Limit
Bkg4.5	Passed	0.0 CPS	Less than	5.0 CPS
Bkg220.7	Passed	0.0 CPS	Less than	5.0 CPS
7Li	Passed	11,357.0 CPS	Greater than	10,000.0 CPS
59Co	Passed	12,838.0 CPS	Greater than	1,000.0 CPS
238U	Passed	25,454.0 CPS	Greater than	20,000.0 CPS
140Ce.16O/140Ce	Passed	0.0119	Less than	0.025
137Ba++/137Ba	Passed	0.0147	Less than	0.034
115In	Passed	22,882.0 CPS	Greater than	5,000.0 CPS

Stability

Analyte	Value	Limit
7Li	2.1%	5
59Co	0.7%	5
238U	1.2%	5
140Ce.16O	5.7%	2
140Ce	0.7%	2
115In	3.8%	5

Mass Calibration Test

Result	Channels	Dwell	MeasureWidth	PointSpacing	Sweeps
Passed	75	0.04	1.5	0.02	10

Analyte	Result	Centroid Mass [u]	Offset	Peak width [u]	Peak width min [u]	Peak width max [u]
7Li	Passed	7.0247	0.0087	0.664	0.650	0.850
59Co	Passed	58.9433	0.0101	0.676	0.650	0.850
115In	Passed	114.8886	0.0152	0.720	0.650	0.850
238U	Passed	238.0355	0.0153	0.721	0.650	0.850

Tune Settings

Parameter	Value
Additional Gas Flow 1	41.00
Additional Gas Flow 2	0.00
Additional Gas Flow 3	0.00
Angular Deflection	-384.97
Auxilliary Flow	0.80
CCT Bias	-3.21
CCT Entry Lens	-70.02
CCT Exit Lens	-160.01
CCT Focus Lens	-11.56
CCT1 Flow	0.00
CCT1 Shut-Off Valve	0.00
CCT2 Flow	0.00
CCT2 Shut-Off Valve	0.00
Cool Flow	14.00
D1 Lens	-200.05
D2 Lens	-90.01
Deflection Entry Lens	-35.01
Dry Pump Speed	0.00
Extraction Lens 1 Negative	0.00
Extraction Lens 1 Polarity	0.00
Extraction Lens 1 Positive	0.00
Extraction Lens 2	-130.40
Focus Lens	21.00
Nebulizer Flow	0.54
Peristaltic Pump Speed	17.00
Plasma Power	1550.00
Pole Bias	1.00
Quad Entry Lens	-20.00
Sampling Depth	5.00
Spray Chamber Temperature	2.70
Torch Horizontal Position	-0.19
Torch Vertical Position	-0.84
Virtual CCT Mass Maximum Dac Limit Set	4095.00
Virtual CCT Mass parameter b	0.65
Virtual CCT Mass to Dac Factor	130.00
Virtual CCT Mass to Dac Offset	0.01

Vacuum Check

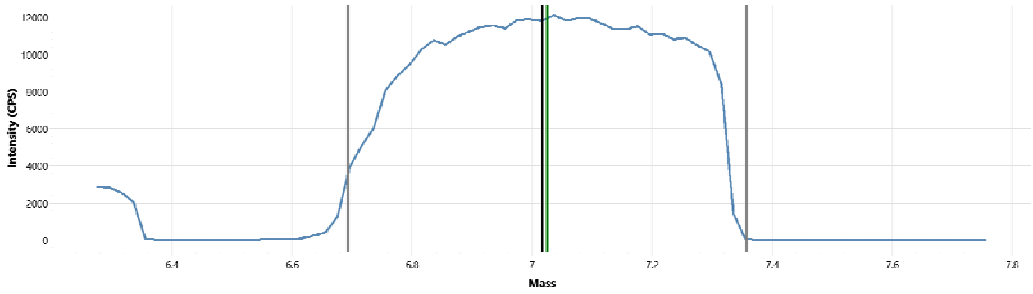
Parameter	Result	Value
Analyzer Pressure	Vacuum ok	3.078e-7
Interface Pressure		1.893e+0

Detector Voltages

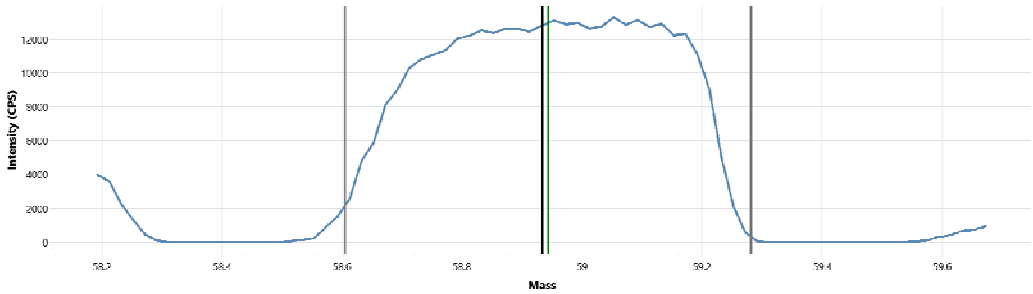
Analog	Counting
-2087.50	1662.50

Mass Calibration Peaks

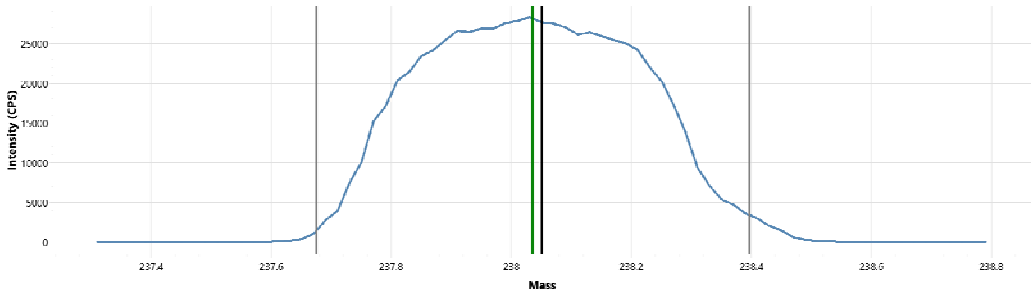
Analyte: 7Li



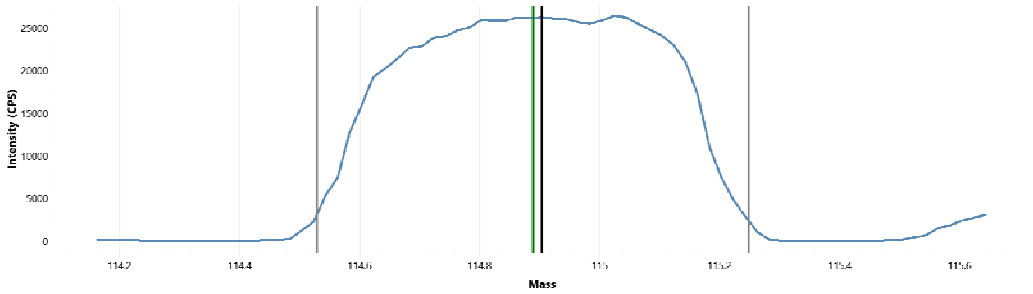
Analyte: 59Co



Analyte: 238U



Analyte: 115In



Performance Report

System

Start time:	8/29/2024 4:30:58 AM
Instrument:	iCAP Q
Operator:	ALPHALAB\Metals-Instrument
Template:	STD AGD
Instrument Serial Number:	03031R
Last Autotune:	Autotune-!InstallTune KEDS Line1-20240806-164005781.imatdat
Solution:	1 ppb Tune B in 2% HNO3 and 0.5% HCl.

Sensitivity & Stability Test

Result	Runs	Sweeps
Passed	5	10

Sensitivity

Analyte	Result	Value	Condition	Limit
Bkg4.5	Passed	0.6 CPS	Less than	5.0 CPS
Bkg220.7	Passed	0.0 CPS	Less than	5.0 CPS
7Li	Passed	12,273.0 CPS	Greater than	10,000.0 CPS
59Co	Passed	34,874.0 CPS	Greater than	1,000.0 CPS
238U	Passed	86,659.0 CPS	Greater than	20,000.0 CPS
140Ce.16O/140Ce	Passed	0.0119	Less than	0.025
137Ba++/137Ba	Passed	0.0055	Less than	0.034
115In	Passed	62,480.0 CPS	Greater than	5,000.0 CPS

Stability

Analyte	Value	Limit
7Li	1.2%	5
59Co	0.7%	5
238U	1.6%	5
140Ce.16O	4.2%	2
140Ce	0.6%	2
115In	0.9%	5

Mass Calibration Test

Result	Channels	Dwell	MeasureWidth	PointSpacing	Sweeps
Passed	75	0.04	1.5	0.02	10

Analyte	Result	Centroid Mass [u]	Offset	Peak width [u]	Peak width min [u]	Peak width max [u]
7Li	Passed	7.0224	0.0064	0.695	0.600	0.900
59Co	Passed	58.9389	0.0057	0.701	0.600	0.900
115In	Passed	114.9071	0.0033	0.734	0.600	0.900
238U	Passed	238.0836	0.0328	0.732	0.600	0.900

Tune Settings

Parameter	Value
Additional Gas Flow 1	35.00
Additional Gas Flow 2	0.00
Additional Gas Flow 3	0.00
Angular Deflection	-374.02
Auxilliary Flow	0.80
CCT Bias	-2.01
CCT Entry Lens	-105.98
CCT Exit Lens	-40.00
CCT Focus Lens	-4.88
CCT1 Flow	0.00
CCT1 Shut-Off Valve	0.00
CCT2 Flow	0.00
CCT2 Shut-Off Valve	0.00
Cool Flow	14.00
D1 Lens	-200.05
D2 Lens	-80.00
Deflection Entry Lens	-35.01
Dry Pump Speed	0.00
Extraction Lens 1 Negative	0.00
Extraction Lens 1 Polarity	0.00
Extraction Lens 1 Positive	0.00
Extraction Lens 2	-131.14
Focus Lens	18.09
Nebulizer Flow	0.41
Peristaltic Pump Speed	17.00
Plasma Power	1550.00
Pole Bias	-2.16
Quad Entry Lens	-19.00
Sampling Depth	5.00
Spray Chamber Temperature	2.70
Torch Horizontal Position	-0.32
Torch Vertical Position	0.62
Virtual CCT Mass Maximum Dac Limit Set	4095.00
Virtual CCT Mass parameter b	1.00
Virtual CCT Mass to Dac Factor	60.00
Virtual CCT Mass to Dac Offset	80.00

Vacuum Check

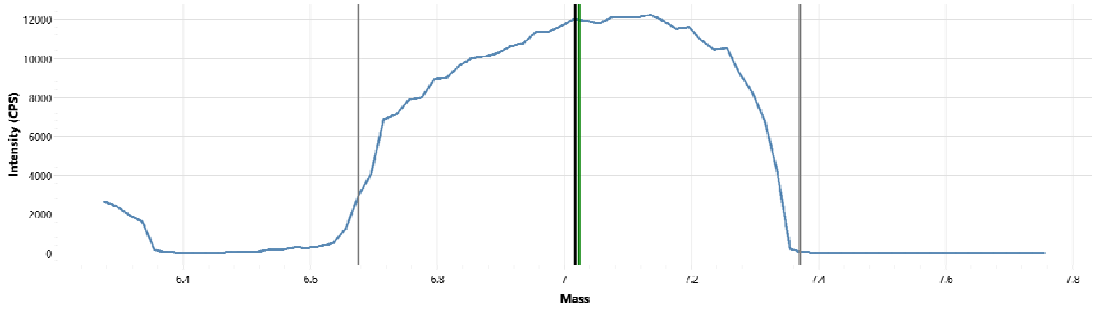
Parameter	Result	Value
Analyzer Pressure	Vacuum ok	2.007e-7
Interface Pressure		1.691e+0

Detector Voltages

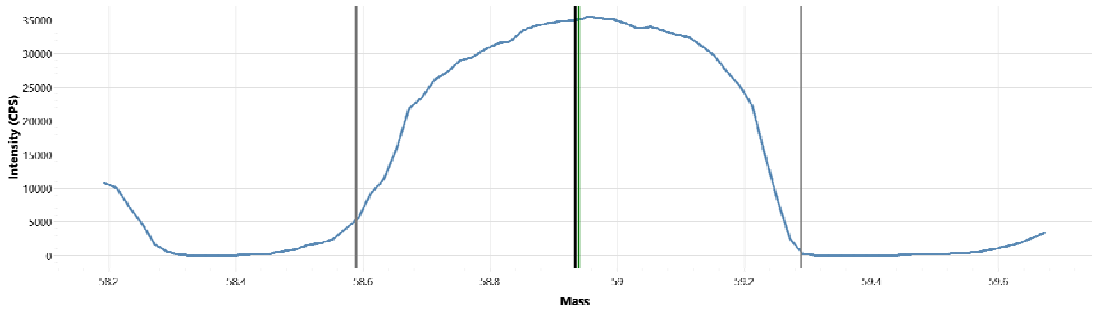
Analog	Counting
-1850.00	1625.00

Mass Calibration Peaks

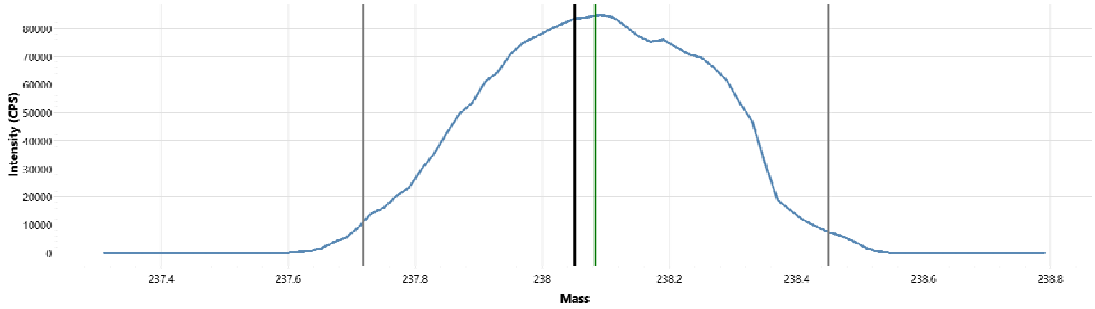
Analyte: 7Li



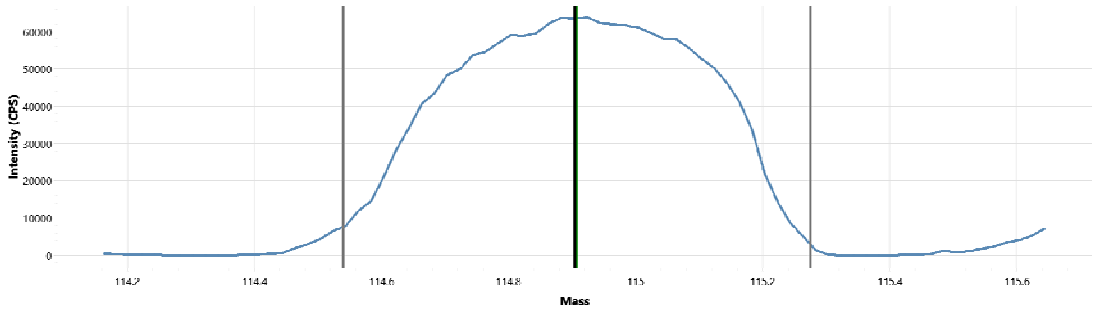
Analyte: 59Co



Analyte: 238U

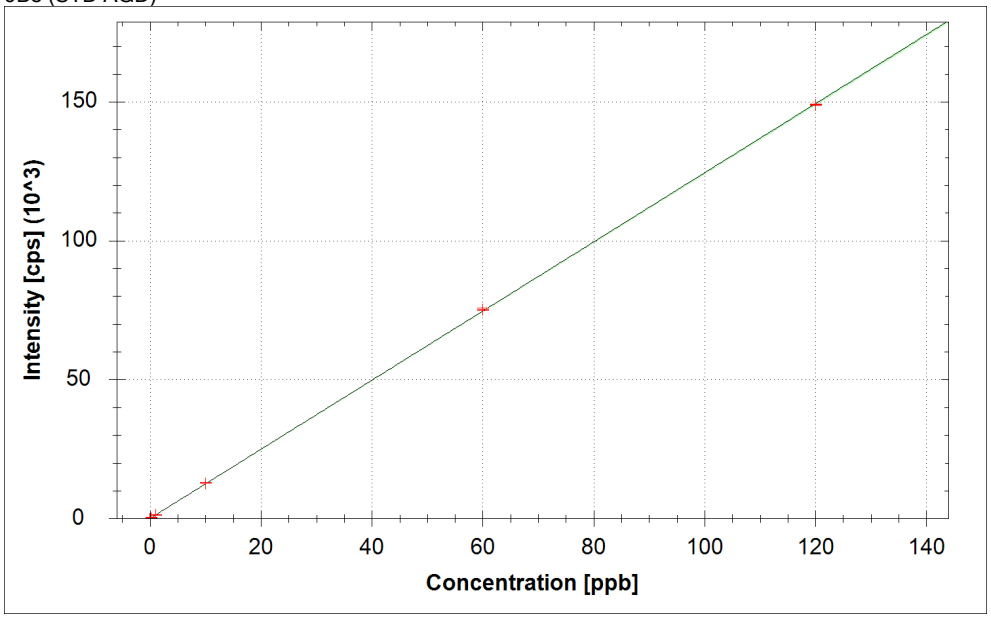


Analyte: 115In



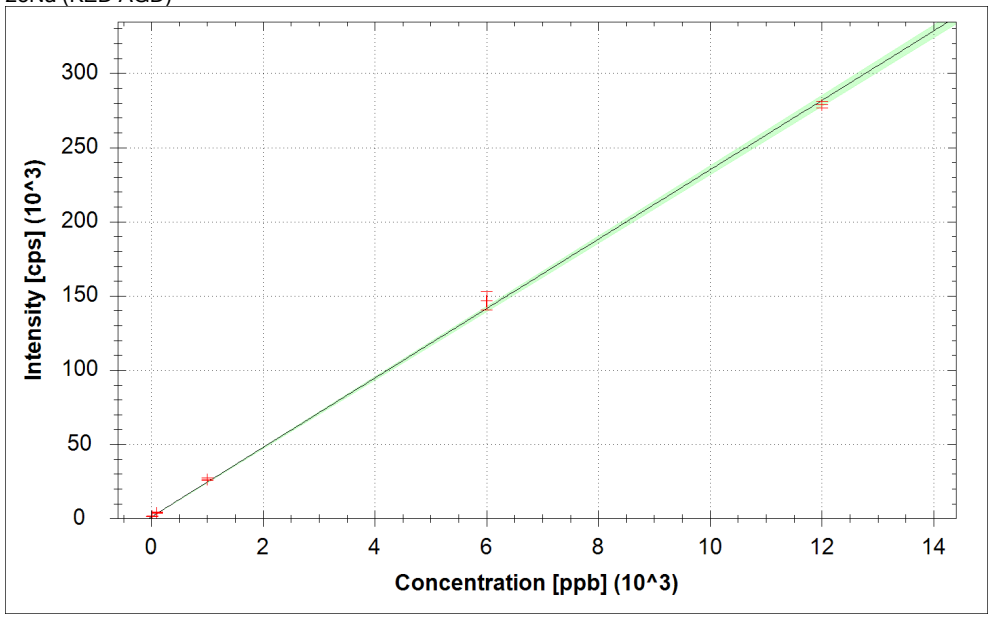
Calibration Curves:

9Be (STD AGD)



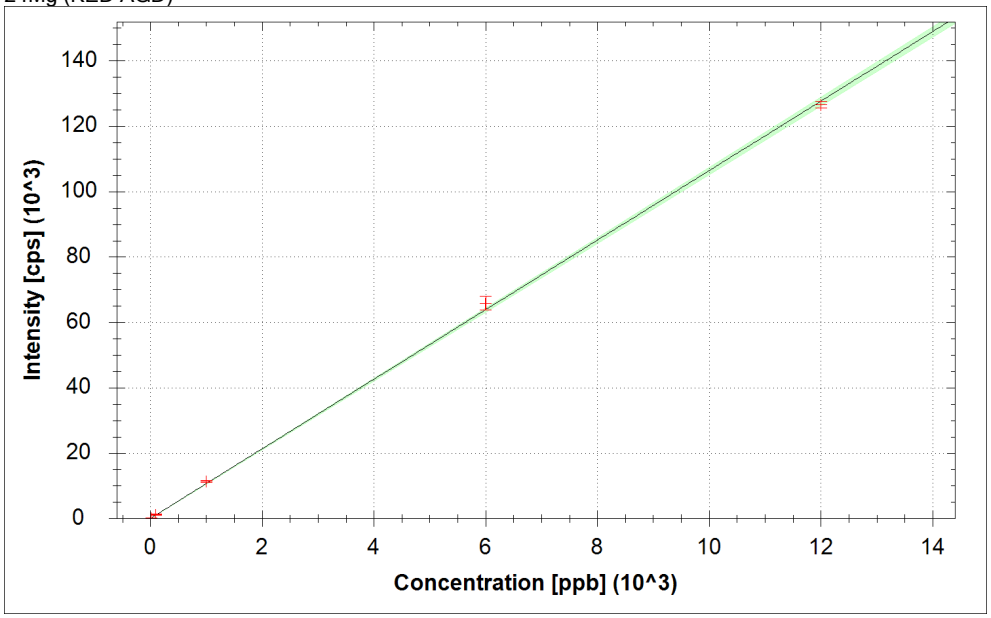
f(x) = 1243.8621*x + 20.4381
R² = 1.0000
BEC = 0.016 ppb
LoD = 0.0046 ppb

23Na (KED AGD)



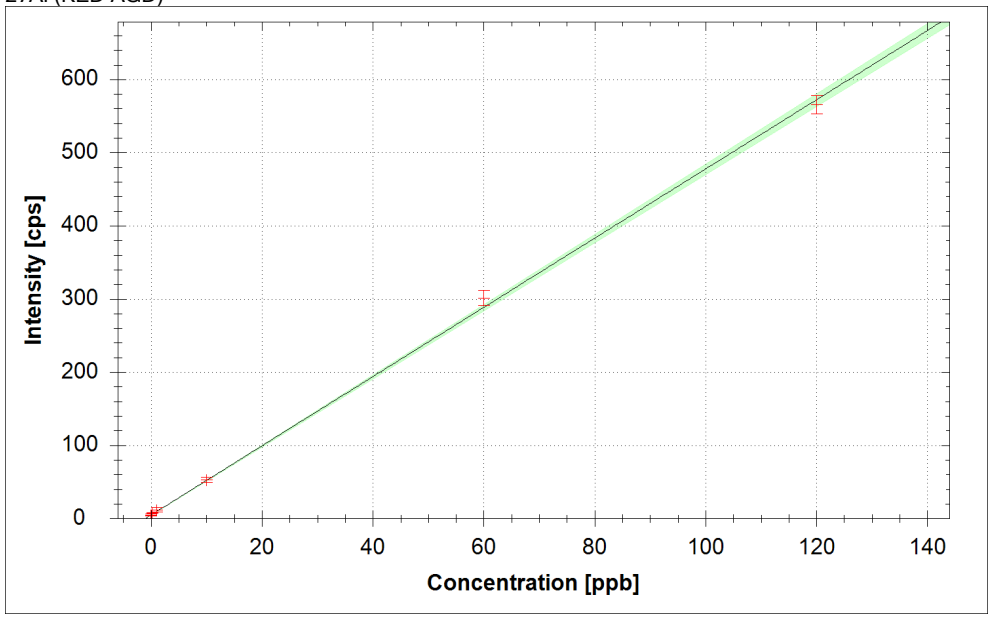
f(x) = 23.3788*x + 1063.7389
R² = 0.9994
BEC = 45.500 ppb
LoD = 8.9421 ppb

24Mg (KED AGD)



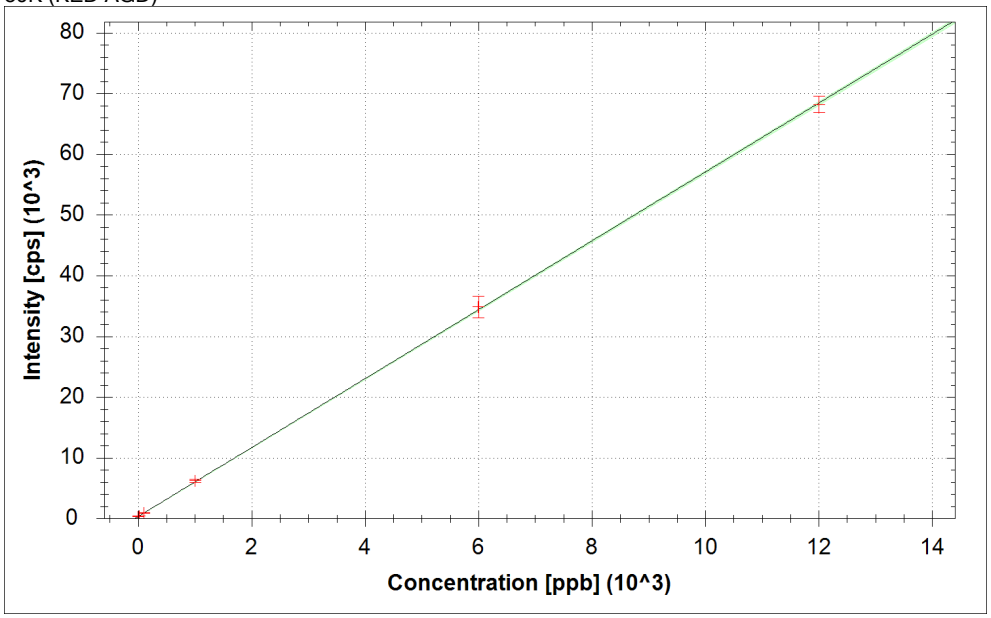
f(x) = 10.6328*x + 15.5729
R² = 0.9996
BEC = 1.465 ppb
LoD = 1.1187 ppb

27Al (KED AGD)



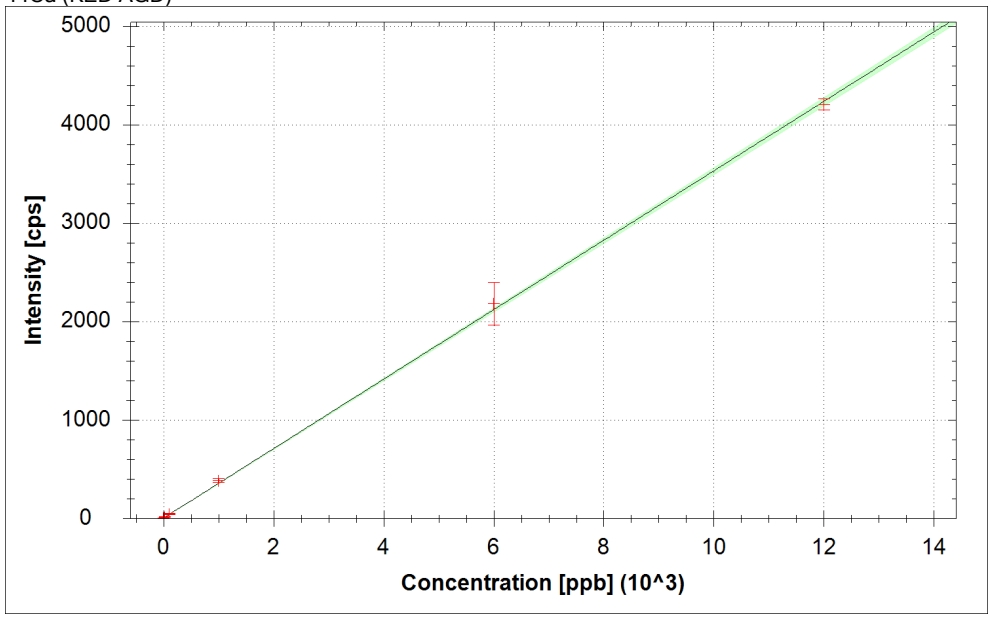
f(x) = 4.7287*x + 4.6677
R² = 0.9992
BEC = 0.987 ppb
LoD = 0.8534 ppb

39K (KED AGD)



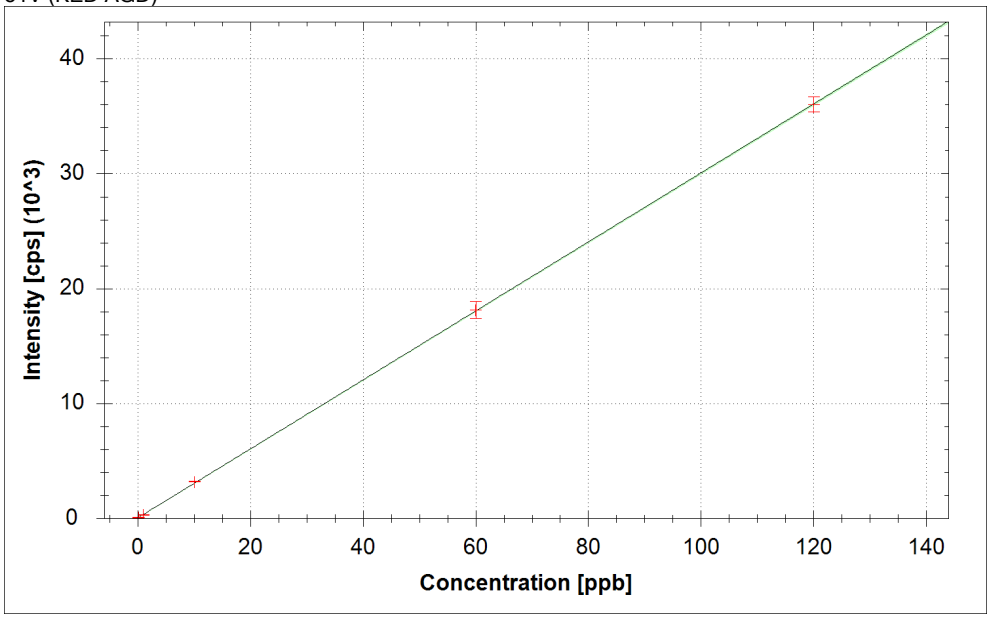
f(x) = 5.6733*x + 321.9025
R² = 0.9999
BEC = 56.740 ppb
LoD = 26.7417 ppb

44Ca (KED AGD)



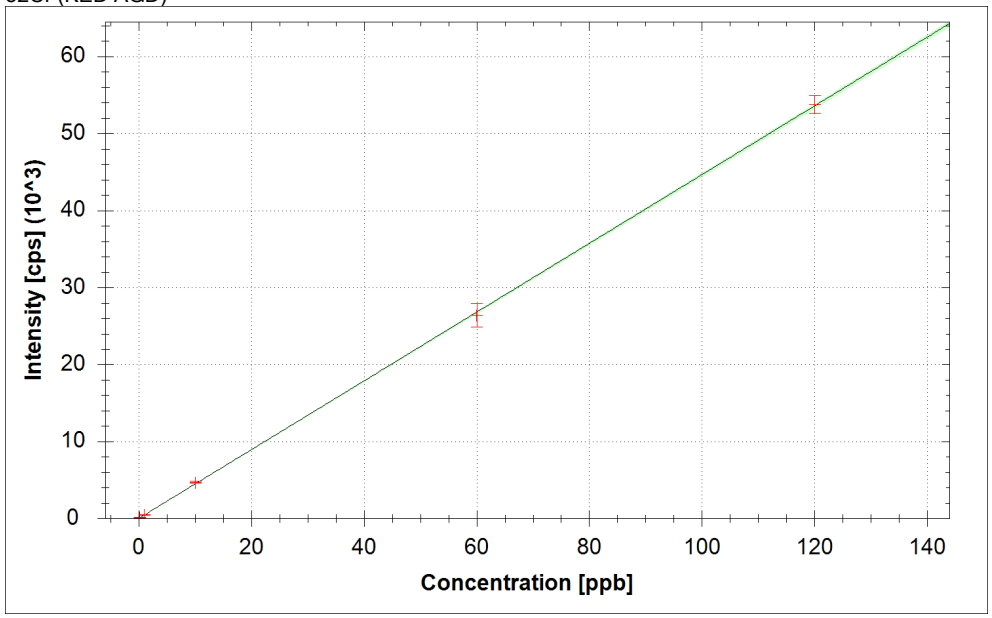
f(x) = 0.3526*x + 3.4761
R² = 0.9996
BEC = 9.859 ppb
LoD = 16.5031 ppb

51V (KED AGD)



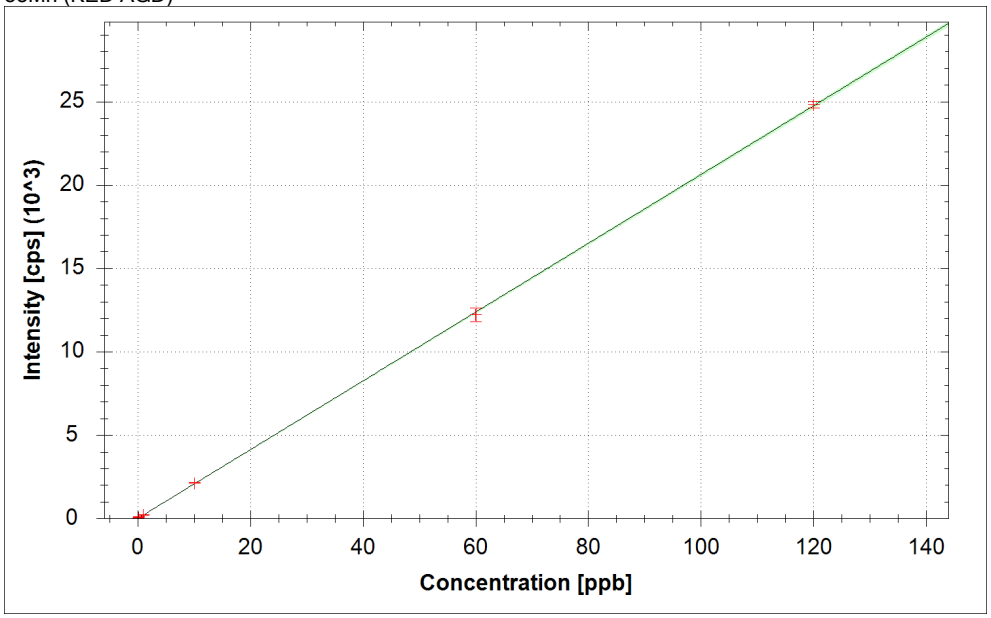
f(x) = 299.9380*x + 53.2935
R² = 1.0000
BEC = 0.178 ppb
LoD = 0.1734 ppb

52Cr (KED AGD)



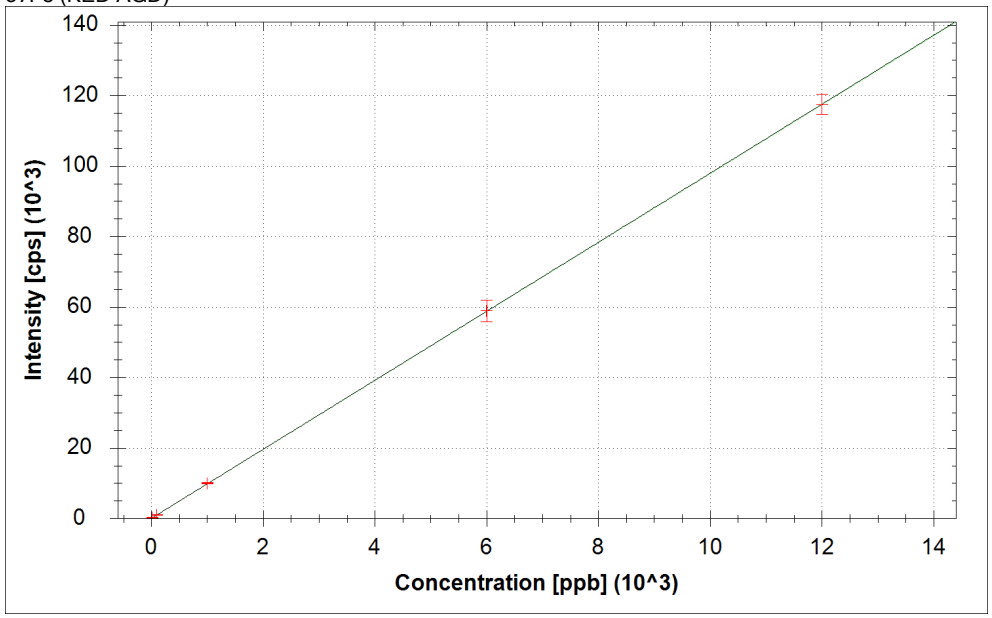
f(x) = 446.2704*x + 18.7525
R² = 0.9999
BEC = 0.042 ppb
LoD = 0.0533 ppb

55Mn (KED AGD)



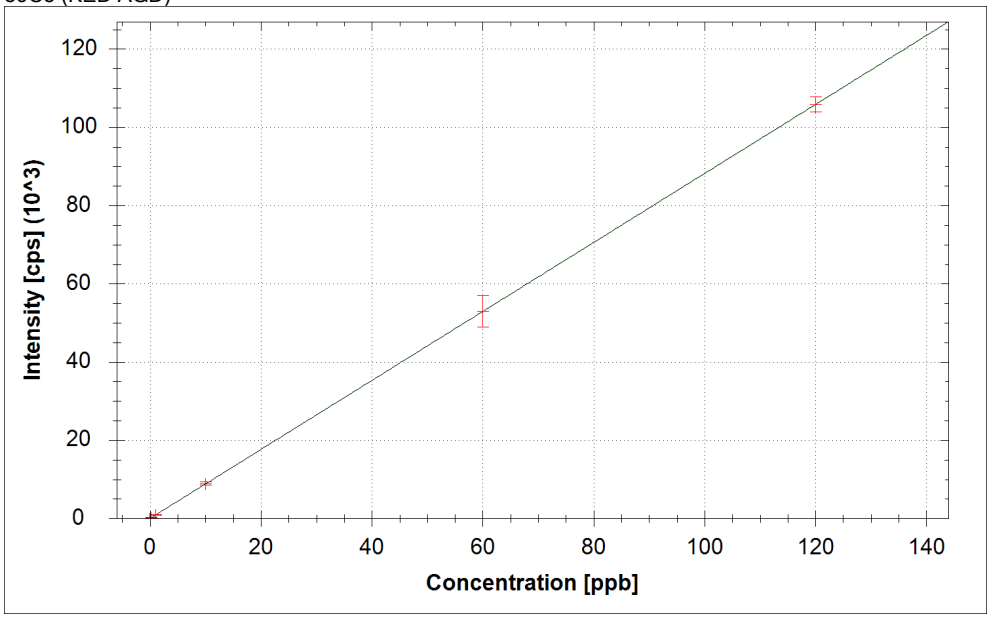
f(x) = 206.1116*x + 6.7158
R² = 0.9999
BEC = 0.033 ppb
LoD = 0.0994 ppb

57Fe (KED AGD)



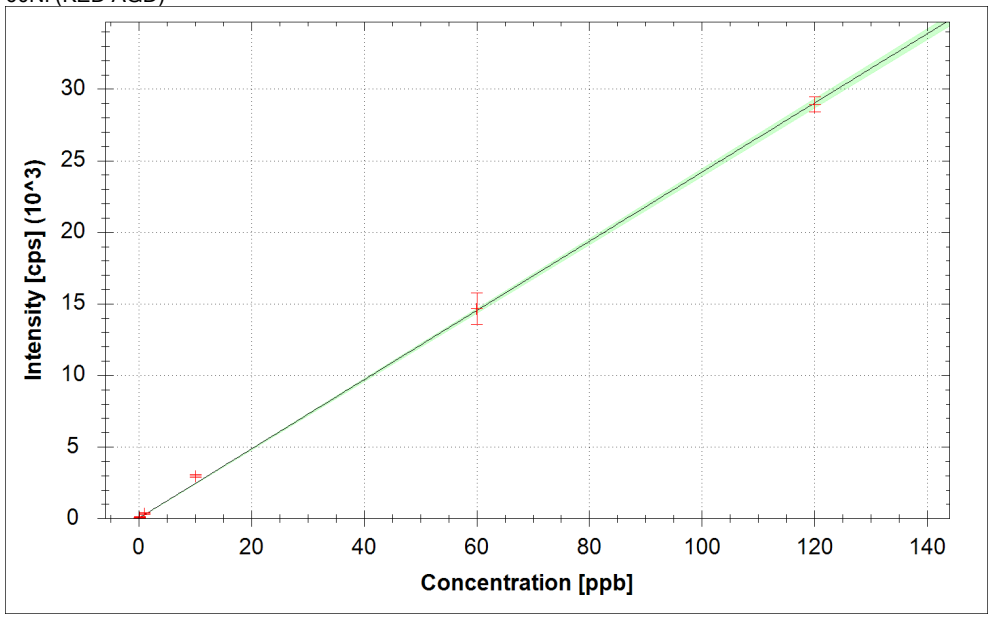
f(x) = 9.7873*x + 19.9410
R² = 1.0000
BEC = 2.037 ppb
LoD = 1.9337 ppb

59Co (KED AGD)



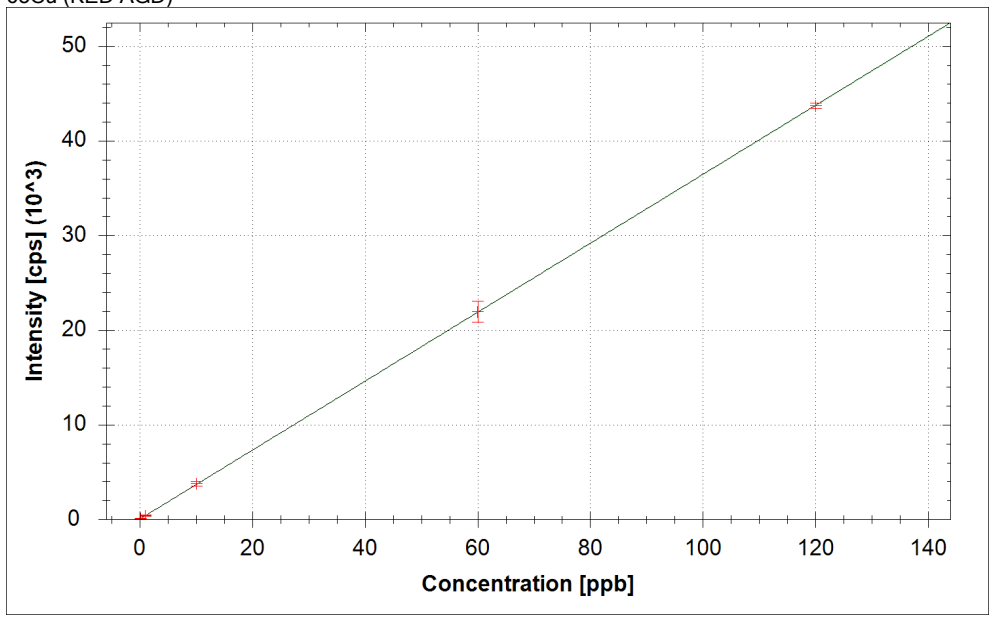
f(x) = 881.7987*x + 4.4686
R² = 1.0000
BEC = 0.005 ppb
LoD = 0.0263 ppb

60Ni (KED AGD)



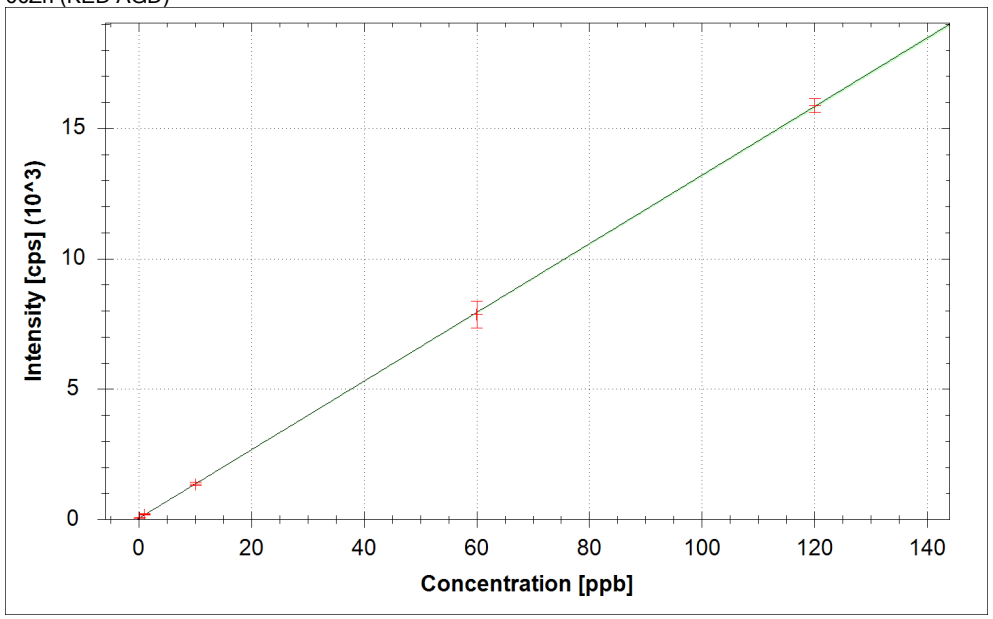
f(x) = 241.5860*x + 22.3133
R² = 0.9996
BEC = 0.092 ppb
LoD = 0.1292 ppb

65Cu (KED AGD)



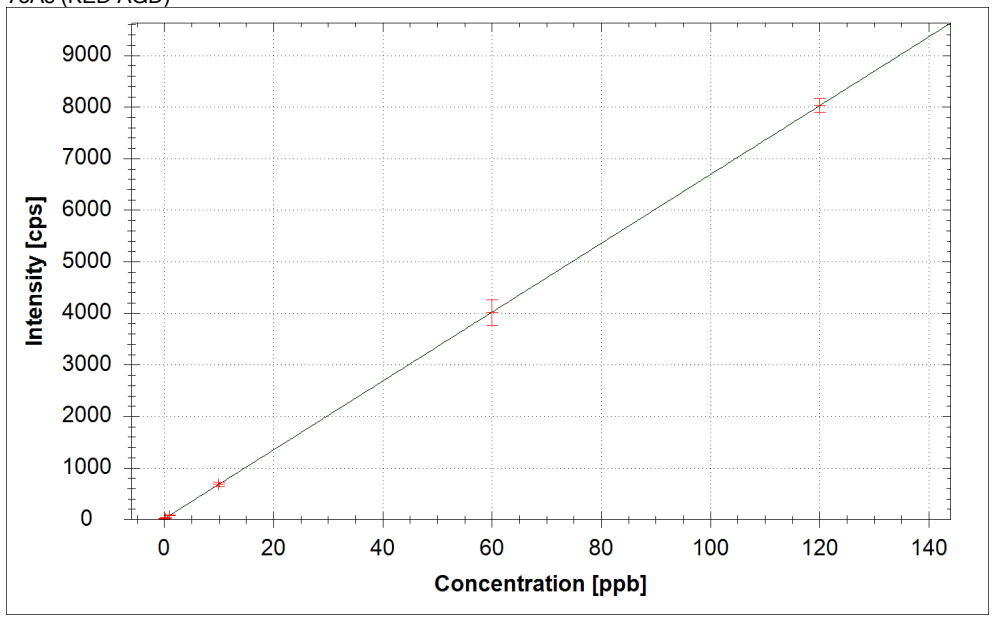
f(x) = 364.2182*x + 39.9580
R² = 1.0000
BEC = 0.110 ppb
LoD = 0.0935 ppb

66Zn (KED AGD)



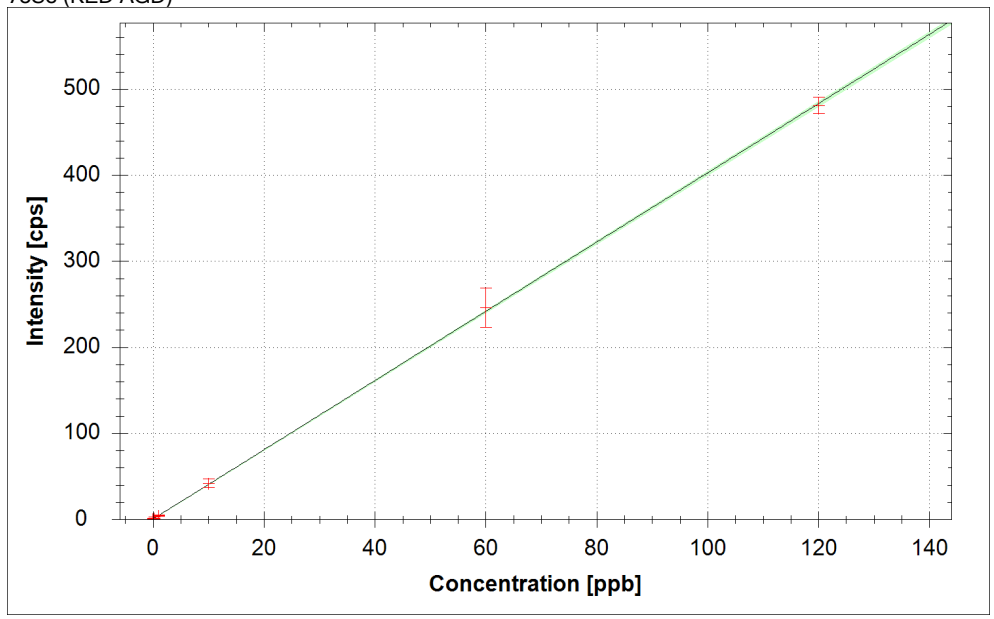
f(x) = 131.5588*x + 41.6726
R² = 1.0000
BEC = 0.317 ppb
LoD = 0.1634 ppb

75As (KED AGD)



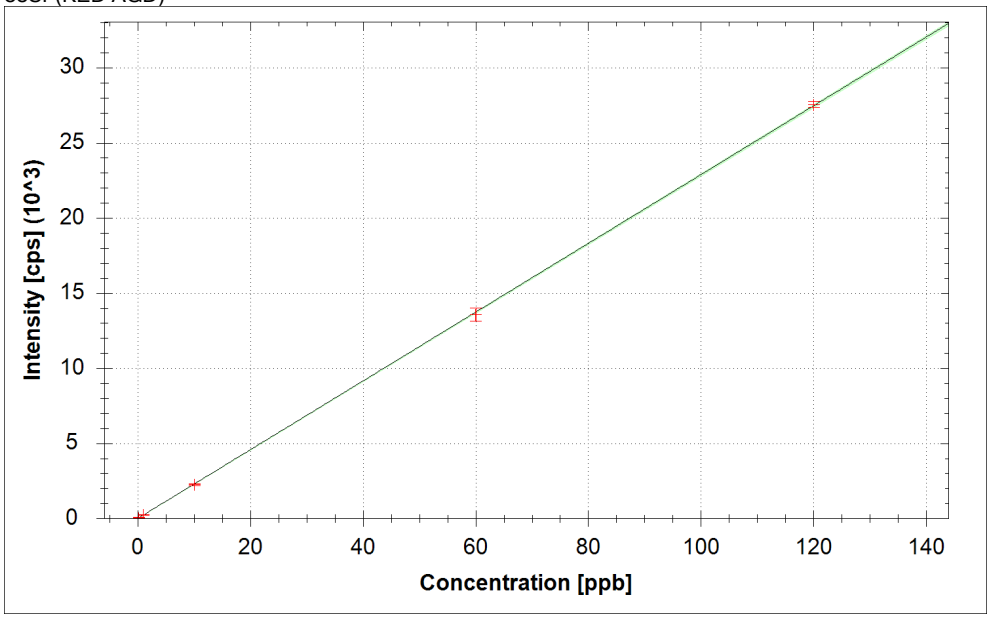
f(x) = 66.7502*x + 12.5108
R² = 1.0000
BEC = 0.187 ppb
LoD = 0.2498 ppb

78Se (KED AGD)



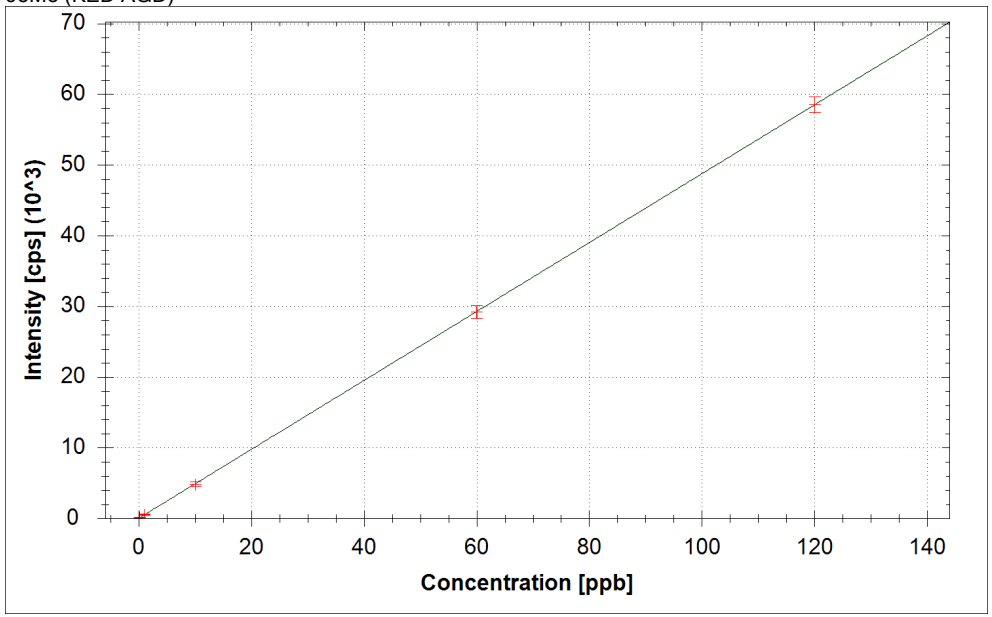
f(x) = 4.0200*x + 0.5006
R² = 0.9999
BEC = 0.125 ppb
LoD = 0.3540 ppb

88Sr (KED AGD)



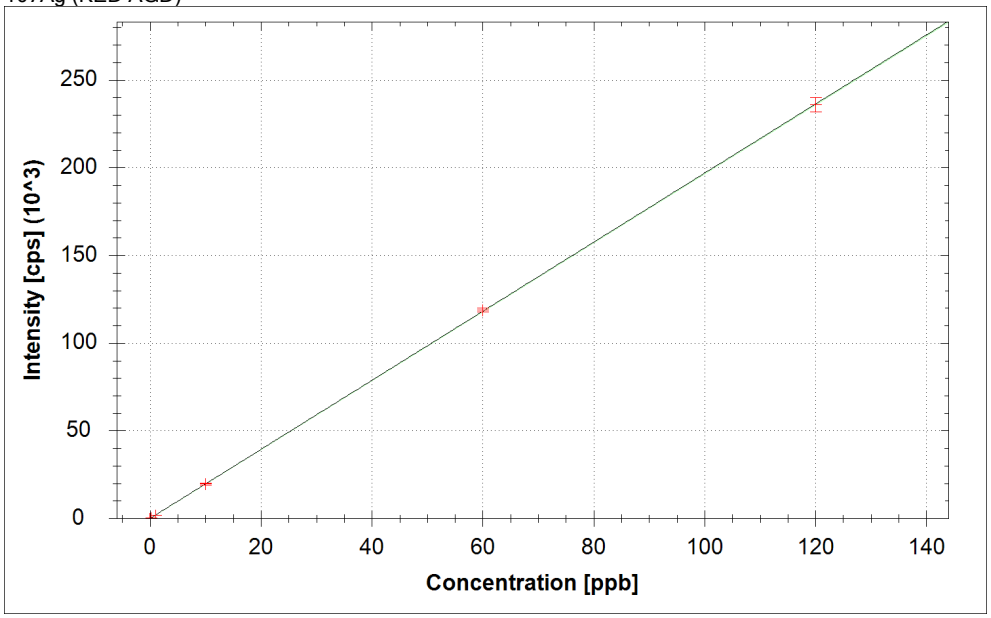
f(x) = 228.7478*x + 4.6979
R² = 0.9999
BEC = 0.021 ppb
LoD = 0.0215 ppb

95Mo (KED AGD)



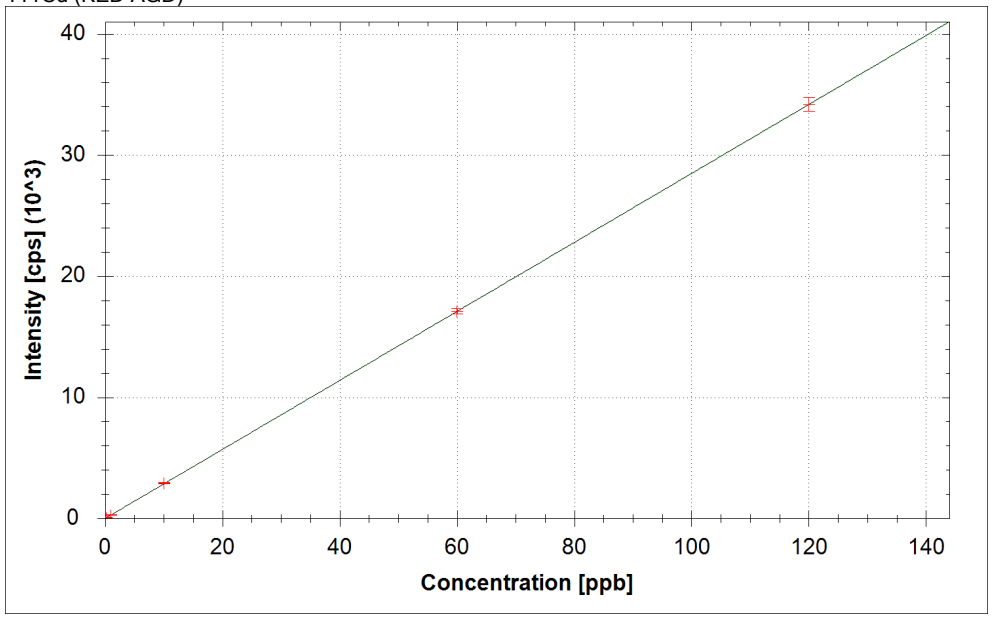
f(x) = 487.2207*x + 33.2794
R² = 1.0000
BEC = 0.068 ppb
LoD = 0.0384 ppb

107Ag (KED AGD)



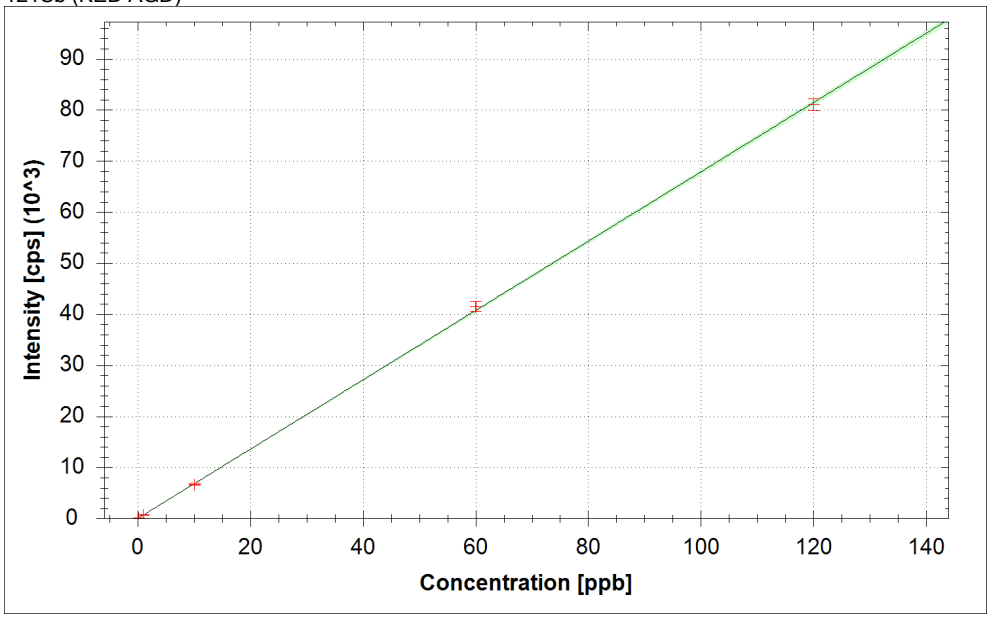
f(x) = 1968.3303*x + 5.5590
R² = 1.0000
BEC = 0.003 ppb
LoD = 0.0030 ppb

111Cd (KED AGD)



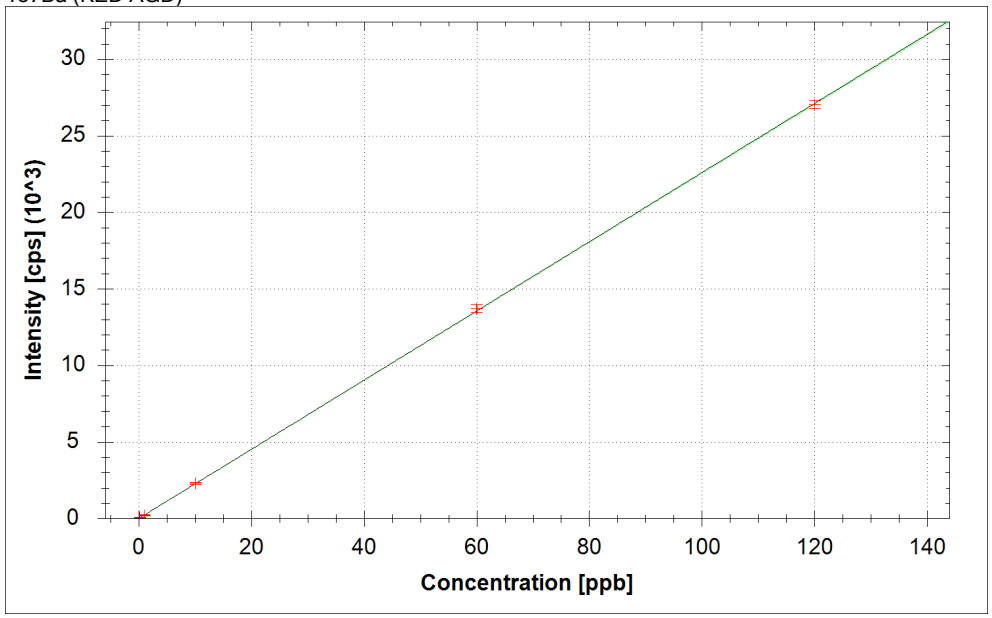
f(x) = 284.8484*x
R² = 1.0000
BEC = 0.000 ppb
LoD = 0.0000 ppb

121Sb (KED AGD)



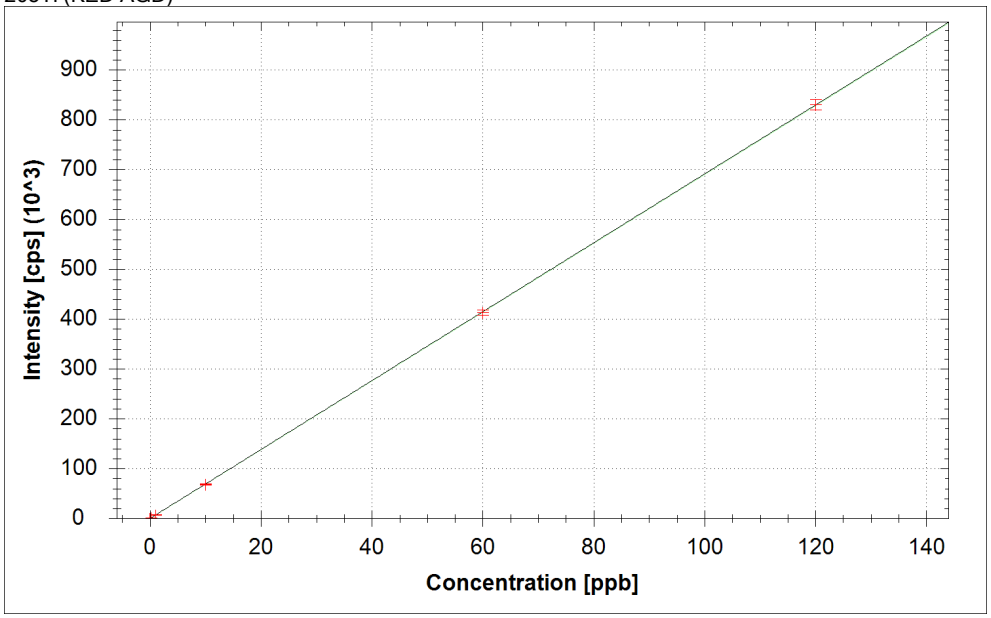
f(x) = 678.4779*x + 12.0005
R² = 0.9999
BEC = 0.018 ppb
LoD = 0.0004 ppb

137Ba (KED AGD)



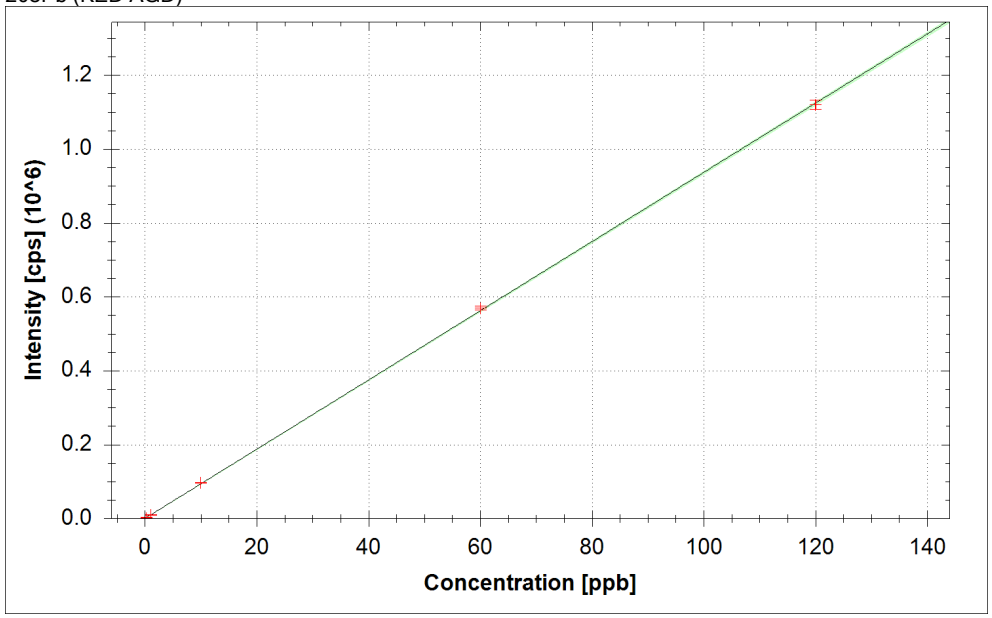
f(x) = 225.7821*x + 2.2132
R² = 1.0000
BEC = 0.010 ppb
LoD = 0.0509 ppb

205Tl (KED AGD)



f(x) = 6912.1426*x + 62.9562
R² = 1.0000
BEC = 0.009 ppb
LoD = 0.0157 ppb

208Pb (KED AGD)



f(x) = 9365.2681*x + 72.2135
R² = 0.9999
BEC = 0.008 ppb
LoD = 0.0043 ppb

Standards:

Analysis Index: 4
Analysis Name: 0.2/20 Cal
Analysis Type: STD
Analysis Started at: 8/28/2024 5:02:04 AM
Total Dilution Factor 50000
Rack 0
Vial 2

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	98.477 %	1.0 %		0.000 %
6Li (KED AGD)	111.788 %	4.5 %		0.000 %
9Be (STD AGD)	0.206 ppb	8.0 %	0.200 ppb	3.219 %
23Na (KED AGD)	15.576 ppb	10.1 %	20.000 ppb	22.121 %
24Mg (KED AGD)	17.887 ppb	12.0 %	20.000 ppb	10.567 %
27Al (KED AGD)	0.534 ppb	27.0 %	0.200 ppb	166.804 %
39K (KED AGD)	15.994 ppb	15.6 %	20.000 ppb	20.029 %
44Ca (KED AGD)	31.955 ppb	23.2 %	20.000 ppb	59.773 %
45Sc (STD AGD)	100.299 %	2.5 %		0.000 %
45Sc (KED AGD)	99.252 %	3.8 %		0.000 %
51V (KED AGD)	0.144 ppb	61.7 %	0.200 ppb	27.961 %
52Cr (KED AGD)	0.229 ppb	33.9 %	0.200 ppb	14.721 %
55Mn (KED AGD)	0.378 ppb	23.4 %	0.200 ppb	88.759 %
57Fe (KED AGD)	21.140 ppb	6.6 %	20.000 ppb	5.699 %
59Co (KED AGD)	0.214 ppb	8.4 %	0.200 ppb	7.089 %
60Ni (KED AGD)	0.213 ppb	67.8 %	0.200 ppb	6.354 %
65Cu (KED AGD)	0.237 ppb	16.9 %	0.200 ppb	18.721 %
66Zn (KED AGD)	0.229 ppb	15.8 %	0.200 ppb	14.507 %
74Ge (KED AGD)	100.741 %	2.0 %		0.000 %
75As (KED AGD)	0.160 ppb	49.4 %	0.200 ppb	20.107 %
78Se (KED AGD)	0.240 ppb	106.4 %	0.200 ppb	19.943 %
88Sr (KED AGD)	0.210 ppb	3.3 %	0.200 ppb	4.779 %
95Mo (KED AGD)	0.249 ppb	26.8 %	0.200 ppb	24.521 %
103Rh (KED AGD)	100.423 %	1.0 %		0.000 %
107Ag (KED AGD)	0.202 ppb	5.6 %	0.200 ppb	0.812 %
111Cd (KED AGD)	0.205 ppb	18.4 %	0.200 ppb	2.376 %
115In (KED AGD)	100.635 %	0.8 %		0.000 %
121Sb (KED AGD)	0.182 ppb	10.2 %	0.200 ppb	9.086 %
137Ba (KED AGD)	0.234 ppb	22.5 %	0.200 ppb	16.874 %
159Tb (KED AGD)	101.581 %	0.8 %		0.000 %
175Lu (KED AGD)	101.790 %	0.5 %		0.000 %
205Tl (KED AGD)	0.186 ppb	6.1 %	0.200 ppb	6.812 %
208Pb (KED AGD)	0.208 ppb	7.9 %	0.200 ppb	3.828 %

Standards:

Analysis Index: 5
Analysis Name: 1/100 Cal
Analysis Type: STD
Analysis Started at: 8/28/2024 5:06:31 AM
Total Dilution Factor 10000
Rack 0
Vial 3

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	100.671 %	0.4 %		0.000 %
6Li (KED AGD)	92.141 %	10.9 %		0.000 %
9Be (STD AGD)	1.006 ppb	3.6 %	1.000 ppb	0.579 %
23Na (KED AGD)	114.550 ppb	19.5 %	100.000 ppb	14.550 %
24Mg (KED AGD)	110.034 ppb	12.2 %	100.000 ppb	10.034 %
27Al (KED AGD)	1.504 ppb	40.8 %	1.000 ppb	50.428 %
39K (KED AGD)	100.239 ppb	10.2 %	100.000 ppb	0.239 %
44Ca (KED AGD)	113.900 ppb	13.5 %	100.000 ppb	13.900 %
45Sc (STD AGD)	101.681 %	0.8 %		0.000 %
45Sc (KED AGD)	101.069 %	1.8 %		0.000 %
51V (KED AGD)	0.852 ppb	10.9 %	1.000 ppb	14.828 %
52Cr (KED AGD)	1.025 ppb	10.0 %	1.000 ppb	2.464 %
55Mn (KED AGD)	0.972 ppb	15.2 %	1.000 ppb	2.814 %
57Fe (KED AGD)	101.588 ppb	9.3 %	100.000 ppb	1.588 %
59Co (KED AGD)	1.026 ppb	11.0 %	1.000 ppb	2.619 %
60Ni (KED AGD)	1.282 ppb	17.3 %	1.000 ppb	28.169 %
65Cu (KED AGD)	0.974 ppb	21.0 %	1.000 ppb	2.588 %
66Zn (KED AGD)	1.120 ppb	15.2 %	1.000 ppb	11.965 %
74Ge (KED AGD)	99.742 %	5.3 %		0.000 %
75As (KED AGD)	0.991 ppb	7.9 %	1.000 ppb	0.865 %
78Se (KED AGD)	0.962 ppb	10.4 %	1.000 ppb	3.821 %
88Sr (KED AGD)	0.993 ppb	4.3 %	1.000 ppb	0.702 %
95Mo (KED AGD)	0.972 ppb	22.8 %	1.000 ppb	2.821 %
103Rh (KED AGD)	100.319 %	0.9 %		0.000 %
107Ag (KED AGD)	0.954 ppb	3.2 %	1.000 ppb	4.575 %
111Cd (KED AGD)	0.951 ppb	6.5 %	1.000 ppb	4.894 %
115In (KED AGD)	101.624 %	1.1 %		0.000 %
121Sb (KED AGD)	1.000 ppb	7.1 %	1.000 ppb	0.029 %
137Ba (KED AGD)	0.925 ppb	22.7 %	1.000 ppb	7.517 %
159Tb (KED AGD)	101.840 %	0.7 %		0.000 %
175Lu (KED AGD)	102.904 %	0.9 %		0.000 %
205Tl (KED AGD)	0.930 ppb	9.6 %	1.000 ppb	6.962 %
208Pb (KED AGD)	0.981 ppb	3.0 %	1.000 ppb	1.921 %

Standards:

Analysis Index: 6
Analysis Name: 10/1000 Cal
Analysis Type: STD
Analysis Started at: 8/28/2024 5:10:59 AM
Total Dilution Factor 1000
Rack 0
Vial 4

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	99.185 %	1.1 %		0.000 %
6Li (KED AGD)	104.322 %	8.7 %		0.000 %
9Be (STD AGD)	10.239 ppb	0.4 %	10.000 ppb	2.391 %
23Na (KED AGD)	1,080.071 ppb	4.0 %	1,000.000 ppb	8.007 %
24Mg (KED AGD)	1,062.994 ppb	2.3 %	1,000.000 ppb	6.299 %
27Al (KED AGD)	10.157 ppb	8.0 %	10.000 ppb	1.568 %
39K (KED AGD)	1,040.587 ppb	4.6 %	1,000.000 ppb	4.059 %
44Ca (KED AGD)	1,073.658 ppb	5.1 %	1,000.000 ppb	7.366 %
45Sc (STD AGD)	100.638 %	0.8 %		0.000 %
45Sc (KED AGD)	102.833 %	0.9 %		0.000 %
51V (KED AGD)	10.501 ppb	1.6 %	10.000 ppb	5.009 %
52Cr (KED AGD)	10.472 ppb	2.1 %	10.000 ppb	4.715 %
55Mn (KED AGD)	10.270 ppb	1.3 %	10.000 ppb	2.696 %
57Fe (KED AGD)	1,019.818 ppb	2.0 %	1,000.000 ppb	1.982 %
59Co (KED AGD)	10.103 ppb	4.7 %	10.000 ppb	1.031 %
60Ni (KED AGD)	12.182 ppb	3.4 %	10.000 ppb	21.822 %
65Cu (KED AGD)	10.213 ppb	6.0 %	10.000 ppb	2.129 %
66Zn (KED AGD)	10.031 ppb	4.5 %	10.000 ppb	0.314 %
74Ge (KED AGD)	104.495 %	4.9 %		0.000 %
75As (KED AGD)	10.013 ppb	6.5 %	10.000 ppb	0.125 %
78Se (KED AGD)	10.296 ppb	11.9 %	10.000 ppb	2.961 %
88Sr (KED AGD)	9.792 ppb	2.8 %	10.000 ppb	2.085 %
95Mo (KED AGD)	9.842 ppb	6.2 %	10.000 ppb	1.580 %
103Rh (KED AGD)	98.735 %	2.1 %		0.000 %
107Ag (KED AGD)	9.966 ppb	2.6 %	10.000 ppb	0.337 %
111Cd (KED AGD)	10.151 ppb	1.8 %	10.000 ppb	1.506 %
115In (KED AGD)	99.638 %	2.0 %		0.000 %
121Sb (KED AGD)	9.799 ppb	2.7 %	10.000 ppb	2.009 %
137Ba (KED AGD)	10.119 ppb	2.7 %	10.000 ppb	1.190 %
159Tb (KED AGD)	100.675 %	2.5 %		0.000 %
175Lu (KED AGD)	100.540 %	2.8 %		0.000 %
205Tl (KED AGD)	9.890 ppb	1.8 %	10.000 ppb	1.102 %
208Pb (KED AGD)	10.284 ppb	0.9 %	10.000 ppb	2.835 %

Standards:

Analysis Index: 7
Analysis Name: 60/6000 Cal
Analysis Type: STD
Analysis Started at: 8/28/2024 5:15:27 AM
Total Dilution Factor 166.6666666
Rack 0
Vial 5

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	97.817 %	0.8 %		0.000 %
6Li (KED AGD)	106.287 %	8.9 %		0.000 %
9Be (STD AGD)	60.472 ppb	0.5 %	60.000 ppb	0.787 %
23Na (KED AGD)	6,225.862 ppb	4.3 %	6,000.000 ppb	3.764 %
24Mg (KED AGD)	6,185.820 ppb	3.2 %	6,000.000 ppb	3.097 %
27Al (KED AGD)	62.747 ppb	3.4 %	60.000 ppb	4.578 %
39K (KED AGD)	6,080.844 ppb	5.1 %	6,000.000 ppb	1.347 %
44Ca (KED AGD)	6,172.137 ppb	10.0 %	6,000.000 ppb	2.869 %
45Sc (STD AGD)	103.594 %	0.7 %		0.000 %
45Sc (KED AGD)	106.628 %	4.8 %		0.000 %
51V (KED AGD)	60.229 ppb	4.2 %	60.000 ppb	0.381 %
52Cr (KED AGD)	59.128 ppb	5.8 %	60.000 ppb	1.453 %
55Mn (KED AGD)	59.210 ppb	3.4 %	60.000 ppb	1.317 %
57Fe (KED AGD)	6,015.674 ppb	5.2 %	6,000.000 ppb	0.261 %
59Co (KED AGD)	60.081 ppb	7.5 %	60.000 ppb	0.135 %
60Ni (KED AGD)	60.516 ppb	7.6 %	60.000 ppb	0.861 %
65Cu (KED AGD)	60.109 ppb	5.2 %	60.000 ppb	0.181 %
66Zn (KED AGD)	59.384 ppb	6.5 %	60.000 ppb	1.026 %
74Ge (KED AGD)	97.524 %	1.8 %		0.000 %
75As (KED AGD)	59.943 ppb	6.2 %	60.000 ppb	0.095 %
78Se (KED AGD)	61.081 ppb	9.2 %	60.000 ppb	1.801 %
88Sr (KED AGD)	59.271 ppb	3.2 %	60.000 ppb	1.214 %
95Mo (KED AGD)	59.907 ppb	3.1 %	60.000 ppb	0.155 %
103Rh (KED AGD)	98.001 %	0.4 %		0.000 %
107Ag (KED AGD)	60.318 ppb	0.9 %	60.000 ppb	0.531 %
111Cd (KED AGD)	60.086 ppb	1.2 %	60.000 ppb	0.144 %
115In (KED AGD)	96.396 %	0.5 %		0.000 %
121Sb (KED AGD)	61.174 ppb	2.4 %	60.000 ppb	1.957 %
137Ba (KED AGD)	60.576 ppb	1.9 %	60.000 ppb	0.961 %
159Tb (KED AGD)	100.537 %	0.7 %		0.000 %
175Lu (KED AGD)	101.694 %	1.5 %		0.000 %
205Tl (KED AGD)	59.777 ppb	1.3 %	60.000 ppb	0.372 %
208Pb (KED AGD)	60.771 ppb	1.0 %	60.000 ppb	1.286 %

Standards:

Analysis Index: 8
Analysis Name: 120/12000 Cal
Analysis Type: STD
Analysis Started at: 8/28/2024 5:19:56 AM
Total Dilution Factor 83.33333333
Rack 0
Vial 6

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	93.733 %	0.4 %		0.000 %
6Li (KED AGD)	106.680 %	5.0 %		0.000 %
9Be (STD AGD)	119.744 ppb	0.1 %	120.000 ppb	0.214 %
23Na (KED AGD)	11,880.283 ppb	0.8 %	12,000.000 ppb	0.998 %
24Mg (KED AGD)	11,901.760 ppb	0.8 %	12,000.000 ppb	0.819 %
27Al (KED AGD)	118.609 ppb	2.3 %	120.000 ppb	1.159 %
39K (KED AGD)	11,956.201 ppb	2.0 %	12,000.000 ppb	0.365 %
44Ca (KED AGD)	11,907.657 ppb	1.4 %	12,000.000 ppb	0.770 %
45Sc (STD AGD)	101.121 %	1.1 %		0.000 %
45Sc (KED AGD)	102.619 %	4.7 %		0.000 %
51V (KED AGD)	119.845 ppb	1.8 %	120.000 ppb	0.129 %
52Cr (KED AGD)	120.396 ppb	2.2 %	120.000 ppb	0.330 %
55Mn (KED AGD)	120.372 ppb	0.8 %	120.000 ppb	0.310 %
57Fe (KED AGD)	11,990.496 ppb	2.4 %	12,000.000 ppb	0.079 %
59Co (KED AGD)	119.951 ppb	1.8 %	120.000 ppb	0.041 %
60Ni (KED AGD)	119.558 ppb	1.8 %	120.000 ppb	0.369 %
65Cu (KED AGD)	119.928 ppb	0.7 %	120.000 ppb	0.060 %
66Zn (KED AGD)	120.304 ppb	1.6 %	120.000 ppb	0.253 %
74Ge (KED AGD)	93.315 %	3.8 %		0.000 %
75As (KED AGD)	120.028 ppb	1.7 %	120.000 ppb	0.023 %
78Se (KED AGD)	119.435 ppb	2.0 %	120.000 ppb	0.471 %
88Sr (KED AGD)	120.382 ppb	0.7 %	120.000 ppb	0.318 %
95Mo (KED AGD)	120.060 ppb	1.9 %	120.000 ppb	0.050 %
103Rh (KED AGD)	95.181 %	1.6 %		0.000 %
107Ag (KED AGD)	119.844 ppb	1.8 %	120.000 ppb	0.130 %
111Cd (KED AGD)	119.945 ppb	1.7 %	120.000 ppb	0.046 %
115In (KED AGD)	94.661 %	2.1 %		0.000 %
121Sb (KED AGD)	119.430 ppb	1.4 %	120.000 ppb	0.475 %
137Ba (KED AGD)	119.702 ppb	0.9 %	120.000 ppb	0.248 %
159Tb (KED AGD)	99.835 %	0.4 %		0.000 %
175Lu (KED AGD)	100.865 %	0.4 %		0.000 %
205Tl (KED AGD)	120.121 ppb	1.2 %	120.000 ppb	0.101 %
208Pb (KED AGD)	119.591 ppb	1.1 %	120.000 ppb	0.341 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	1	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	Rinse	Rack	0		
Analysis started at:	8/28/2024 4:48:40 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.271 %	111.591 %	0.014 ppb	1.936 ppb	6.246 ppb	0.671 ppb	-3.684 ppb	5.664 ppb	101.805 %
Concentration per Run 1	102.308 %	109.037 %	0.011 ppb	-0.231 ppb	8.425 ppb	1.372 ppb	-11.597 ppb	7.696 ppb	101.007 %
Concentration per Run 2	102.239 %	120.825 %	0.020 ppb	2.946 ppb	5.858 ppb	0.298 ppb	-1.045 ppb	8.727 ppb	102.298 %
Concentration per Run 3	102.264 %	104.912 %	0.011 ppb	3.093 ppb	4.455 ppb	0.342 ppb	1.592 ppb	0.570 ppb	102.111 %
Concentration RSD	0.0 %	7.4 %	39.0 %	97.0 %	32.2 %	90.7 %	189.5 %	78.4 %	0.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	104.543 %	-0.037 ppb	0.035 ppb	0.439 ppb	10.412 ppb	0.017 ppb	0.689 ppb	0.371 ppb	2.118 ppb
Concentration per Run 1	106.307 %	-0.093 ppb	0.036 ppb	0.402 ppb	10.420 ppb	0.024 ppb	0.656 ppb	0.266 ppb	2.175 ppb
Concentration per Run 2	100.214 %	-0.133 ppb	0.032 ppb	0.516 ppb	16.981 ppb	0.002 ppb	0.733 ppb	0.438 ppb	2.158 ppb
Concentration per Run 3	107.109 %	0.117 ppb	0.036 ppb	0.399 ppb	3.835 ppb	0.024 ppb	0.679 ppb	0.408 ppb	2.020 ppb
Concentration RSD	3.6 %	366.5 %	6.0 %	15.2 %	63.1 %	73.9 %	5.7 %	24.7 %	4.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	100.458 %	-0.042 ppb	-0.114 ppb	0.012 ppb	0.013 ppb	101.321 %	0.002 ppb	0.005 ppb	102.098 %
Concentration per Run 1	100.458 %	-0.063 ppb	-0.130 ppb	0.018 ppb	0.054 ppb	100.572 %	0.004 ppb	0.009 ppb	102.793 %
Concentration per Run 2	100.385 %	-0.051 ppb	-0.150 ppb	0.010 ppb	-0.055 ppb	101.445 %	-0.001 ppb	0.000 ppb	101.094 %
Concentration per Run 3	100.530 %	-0.014 ppb	-0.062 ppb	0.009 ppb	0.039 ppb	101.945 %	0.002 ppb	0.005 ppb	102.408 %
Concentration RSD	0.1 %	60.6 %	40.2 %	41.2 %	456.1 %	0.7 %	157.3 %	100.1 %	0.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.018 ppb	0.024 ppb	103.854 %	105.878 %	0.009 ppb	0.048 ppb
Concentration per Run 1	0.019 ppb	0.019 ppb	103.567 %	104.999 %	0.007 ppb	0.049 ppb
Concentration per Run 2	0.025 ppb	0.005 ppb	103.373 %	105.954 %	0.006 ppb	0.052 ppb
Concentration per Run 3	0.011 ppb	0.047 ppb	104.621 %	106.680 %	0.013 ppb	0.041 ppb
Concentration RSD	38.4 %	92.1 %	0.6 %	0.8 %	42.7 %	11.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	2	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CAL LOT #M23-1225	Rack	0		
Analysis started at:	8/28/2024 4:53:06 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.645 %	98.625 %	0.019 ppb	4.851 ppb	3.861 ppb	1.350 ppb	-9.786 ppb	19.520 ppb	98.664 %
Concentration per Run 1	98.825 %	109.037 %	0.016 ppb	0.889 ppb	1.420 ppb	0.311 ppb	-22.036 ppb	14.404 ppb	98.940 %
Concentration per Run 2	100.842 %	92.534 %	0.028 ppb	4.843 ppb	6.489 ppb	2.428 ppb	-7.939 ppb	9.429 ppb	98.680 %
Concentration per Run 3	99.268 %	94.303 %	0.012 ppb	8.819 ppb	3.674 ppb	1.311 ppb	0.617 ppb	34.726 ppb	98.373 %
Concentration RSD	1.1 %	9.2 %	46.1 %	81.7 %	65.8 %	78.5 %	116.9 %	68.7 %	0.3 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	102.245 %	-0.005 ppb	0.022 ppb	0.453 ppb	13.289 ppb	0.000 ppb	0.613 ppb	0.329 ppb	2.555 ppb
Concentration per Run 1	108.232 %	0.030 ppb	0.014 ppb	0.486 ppb	8.917 ppb	-0.005 ppb	0.643 ppb	0.365 ppb	2.583 ppb
Concentration per Run 2	97.007 %	-0.109 ppb	0.050 ppb	0.396 ppb	22.235 ppb	0.003 ppb	0.636 ppb	0.297 ppb	2.556 ppb
Concentration per Run 3	101.497 %	0.063 ppb	0.002 ppb	0.478 ppb	8.714 ppb	0.002 ppb	0.561 ppb	0.324 ppb	2.526 ppb
Concentration RSD	5.5 %	1,729.3 %	112.8 %	10.9 %	58.3 %	21,260.9 %	7.4 %	10.5 %	1.1 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	101.084 %	-0.039 ppb	-0.033 ppb	0.014 ppb	-0.036 ppb	99.365 %	0.006 ppb	0.002 ppb	100.688 %
Concentration per Run 1	102.120 %	-0.065 ppb	-0.073 ppb	0.013 ppb	-0.027 ppb	98.482 %	0.001 ppb	0.000 ppb	99.213 %
Concentration per Run 2	99.952 %	0.000 ppb	0.031 ppb	0.016 ppb	-0.013 ppb	99.364 %	0.006 ppb	0.005 ppb	101.596 %
Concentration per Run 3	101.181 %	-0.052 ppb	-0.057 ppb	0.014 ppb	-0.068 ppb	100.248 %	0.012 ppb	0.000 ppb	101.254 %
Concentration RSD	1.1 %	88.2 %	170.9 %	9.7 %	79.0 %	0.9 %	95.0 %	173.2 %	1.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.010 ppb	0.034 ppb	101.625 %	102.357 %	0.007 ppb	0.048 ppb
Concentration per Run 1	0.010 ppb	0.049 ppb	101.656 %	101.617 %	-0.001 ppb	0.046 ppb
Concentration per Run 2	0.007 ppb	0.034 ppb	100.817 %	101.740 %	0.010 ppb	0.044 ppb
Concentration per Run 3	0.013 ppb	0.019 ppb	102.403 %	103.716 %	0.011 ppb	0.055 ppb
Concentration RSD	28.6 %	43.8 %	0.8 %	1.2 %	100.1 %	11.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	3	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	Blank EJF ICPMSQ2	Rack	4		
Analysis started at:	8/28/2024 4:57:32 AM	Vial	49		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration per Run	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration RSD	0.0 %	0.0 %	0.1 %	0.1 %	0.3 %	0.3 %	0.2 %	0.6 %	0.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb
Concentration per Run	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb
Concentration RSD	0.0 %	0.3 %	0.4 %	1.0 %	0.3 %	1.7 %	0.5 %	0.3 %	0.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb	100.000 %
Concentration per Run	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb	100.000 %
Concentration RSD	0.0 %	0.4 %	0.9 %	0.3 %	0.2 %	0.0 %	0.3 %		0.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.000 ppb	0.000 ppb	100.000 %	100.000 %	0.000 ppb	0.000 ppb
Concentration per Run	0.000 ppb	0.000 ppb	100.000 %	100.000 %	0.000 ppb	0.000 ppb
Concentration RSD	0.0 %	1.7 %	0.0 %	0.0 %	0.6 %	0.2 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	4	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	0.2/20 Cal	Rack	0		
Analysis started at:	8/28/2024 5:02:04 AM	Vial	2		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.477 %	111.788 %	0.206 ppb	15.576 ppb	17.887 ppb	0.534 ppb	15.994 ppb	31.955 ppb	100.299 %
Concentration per Run 1	97.394 %	115.521 %	0.212 ppb	13.778 ppb	15.738 ppb	0.575 ppb	18.822 ppb	25.687 ppb	97.383 %
Concentration per Run 2	99.003 %	106.090 %	0.219 ppb	16.737 ppb	17.902 ppb	0.652 ppb	15.023 ppb	30.022 ppb	101.538 %
Concentration per Run 3	99.035 %	113.753 %	0.188 ppb	16.213 ppb	20.020 ppb	0.374 ppb	14.138 ppb	40.155 ppb	101.977 %
Concentration RSD	1.0 %	4.5 %	8.0 %	10.1 %	12.0 %	27.0 %	15.6 %	23.2 %	2.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	99.252 %	0.144 ppb	0.229 ppb	0.378 ppb	21.140 ppb	0.214 ppb	0.213 ppb	0.237 ppb	0.229 ppb
Concentration per Run 1	102.138 %	0.063 ppb	0.319 ppb	0.479 ppb	20.226 ppb	0.235 ppb	0.072 ppb	0.274 ppb	0.200 ppb
Concentration per Run 2	100.695 %	0.130 ppb	0.194 ppb	0.318 ppb	22.758 ppb	0.203 ppb	0.206 ppb	0.195 ppb	0.218 ppb
Concentration per Run 3	94.922 %	0.239 ppb	0.176 ppb	0.336 ppb	20.435 ppb	0.205 ppb	0.360 ppb	0.244 ppb	0.269 ppb
Concentration RSD	3.8 %	61.7 %	33.9 %	23.4 %	6.6 %	8.4 %	67.8 %	16.9 %	15.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	100.741 %	0.160 ppb	0.240 ppb	0.210 ppb	0.249 ppb	100.423 %	0.202 ppb	0.205 ppb	100.635 %
Concentration per Run 1	99.301 %	0.102 ppb	0.184 ppb	0.210 ppb	0.180 ppb	99.284 %	0.192 ppb	0.246 ppb	101.461 %
Concentration per Run 2	102.988 %	0.128 ppb	0.017 ppb	0.203 ppb	0.255 ppb	101.239 %	0.199 ppb	0.173 ppb	99.805 %
Concentration per Run 3	99.935 %	0.250 ppb	0.518 ppb	0.217 ppb	0.313 ppb	100.746 %	0.214 ppb	0.195 ppb	100.637 %
Concentration RSD	2.0 %	49.4 %	106.4 %	3.3 %	26.8 %	1.0 %	5.6 %	18.4 %	0.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.182 ppb	0.234 ppb	101.581 %	101.790 %	0.186 ppb	0.208 ppb
Concentration per Run 1	0.203 ppb	0.238 ppb	101.200 %	101.238 %	0.173 ppb	0.191 ppb
Concentration per Run 2	0.173 ppb	0.284 ppb	101.083 %	101.829 %	0.194 ppb	0.223 ppb
Concentration per Run 3	0.169 ppb	0.179 ppb	102.459 %	102.302 %	0.192 ppb	0.209 ppb
Concentration RSD	10.2 %	22.5 %	0.8 %	0.5 %	6.1 %	7.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	5	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	1/100 Cal	Rack	0		
Analysis started at:	8/28/2024 5:06:31 AM	Vial	3		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.671 %	92.141 %	1.006 ppb	114.550 ppb	110.034 ppb	1.504 ppb	100.239 ppb	113.900 ppb	101.681 %
Concentration per Run 1	100.547 %	102.554 %	0.984 ppb	93.509 ppb	99.388 ppb	0.799 ppb	90.999 ppb	131.598 ppb	102.563 %
Concentration per Run 2	100.387 %	91.356 %	1.047 ppb	112.202 ppb	105.612 ppb	1.925 ppb	98.479 ppb	103.639 ppb	101.416 %
Concentration per Run 3	101.081 %	82.515 %	0.986 ppb	137.938 ppb	125.103 ppb	1.788 ppb	111.241 ppb	106.463 ppb	101.063 %
Concentration RSD	0.4 %	10.9 %	3.6 %	19.5 %	12.2 %	40.8 %	10.2 %	13.5 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	101.069 %	0.852 ppb	1.025 ppb	0.972 ppb	101.588 ppb	1.026 ppb	1.282 ppb	0.974 ppb	1.120 ppb
Concentration per Run 1	102.619 %	0.900 ppb	0.907 ppb	1.125 ppb	97.961 ppb	0.899 ppb	1.450 ppb	0.751 ppb	1.268 ppb
Concentration per Run 2	101.497 %	0.745 ppb	1.073 ppb	0.960 ppb	94.457 ppb	1.067 ppb	1.030 ppb	1.019 ppb	0.933 ppb
Concentration per Run 3	99.091 %	0.910 ppb	1.095 ppb	0.831 ppb	112.346 ppb	1.113 ppb	1.365 ppb	1.152 ppb	1.158 ppb
Concentration RSD	1.8 %	10.9 %	10.0 %	15.2 %	9.3 %	11.0 %	17.3 %	21.0 %	15.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	99.742 %	0.991 ppb	0.962 ppb	0.993 ppb	0.972 ppb	100.319 %	0.954 ppb	0.951 ppb	101.624 %
Concentration per Run 1	104.850 %	0.945 ppb	1.053 ppb	0.954 ppb	0.881 ppb	101.327 %	0.940 ppb	1.006 ppb	102.907 %
Concentration per Run 2	100.169 %	0.947 ppb	0.855 ppb	0.987 ppb	0.810 ppb	99.530 %	0.933 ppb	0.963 ppb	101.193 %
Concentration per Run 3	94.207 %	1.082 ppb	0.978 ppb	1.038 ppb	1.224 ppb	100.099 %	0.990 ppb	0.885 ppb	100.772 %
Concentration RSD	5.3 %	7.9 %	10.4 %	4.3 %	22.8 %	0.9 %	3.2 %	6.5 %	1.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	1.000 ppb	0.925 ppb	101.840 %	102.904 %	0.930 ppb	0.981 ppb
Concentration per Run 1	0.923 ppb	0.710 ppb	102.257 %	103.045 %	0.831 ppb	0.947 ppb
Concentration per Run 2	1.062 ppb	1.129 ppb	101.062 %	101.930 %	0.957 ppb	1.003 ppb
Concentration per Run 3	1.016 ppb	0.936 ppb	102.201 %	103.738 %	1.003 ppb	0.992 ppb
Concentration RSD	7.1 %	22.7 %	0.7 %	0.9 %	9.6 %	3.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	6	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	10/1000 Cal	Rack	0		
Analysis started at:	8/28/2024 5:10:59 AM	Vial	4		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.185 %	104.322 %	10.239 ppb	1,080.071 ppb	1,062.994 ppb	10.157 ppb	1,040.587 ppb	1,073.658 ppb	100.638 %
Concentration per Run 1	98.389 %	101.965 %	10.259 ppb	1,066.869 ppb	1,048.756 ppb	9.806 ppb	994.690 ppb	1,131.204 ppb	100.301 %
Concentration per Run 2	98.782 %	96.660 %	10.267 ppb	1,128.462 ppb	1,091.704 ppb	9.582 ppb	1,035.973 ppb	1,068.211 ppb	100.039 %
Concentration per Run 3	100.386 %	114.342 %	10.191 ppb	1,044.883 ppb	1,048.521 ppb	11.082 ppb	1,091.099 ppb	1,021.559 ppb	101.575 %
Concentration RSD	1.1 %	8.7 %	0.4 %	4.0 %	2.3 %	8.0 %	4.6 %	5.1 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	102.833 %	10.501 ppb	10.472 ppb	10.270 ppb	1,019.818 ppb	10.103 ppb	12.182 ppb	10.213 ppb	10.031 ppb
Concentration per Run 1	101.817 %	10.559 ppb	10.228 ppb	10.198 ppb	998.445 ppb	9.645 ppb	11.719 ppb	9.699 ppb	9.518 ppb
Concentration per Run 2	102.940 %	10.316 ppb	10.650 ppb	10.188 ppb	1,038.506 ppb	10.077 ppb	12.292 ppb	10.053 ppb	10.183 ppb
Concentration per Run 3	103.742 %	10.628 ppb	10.536 ppb	10.423 ppb	1,022.505 ppb	10.587 ppb	12.535 ppb	10.887 ppb	10.393 ppb
Concentration RSD	0.9 %	1.6 %	2.1 %	1.3 %	2.0 %	4.7 %	3.4 %	6.0 %	4.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	104.495 %	10.013 ppb	10.296 ppb	9.792 ppb	9.842 ppb	98.735 %	9.966 ppb	10.151 ppb	99.638 %
Concentration per Run 1	110.072 %	9.564 ppb	9.898 ppb	9.470 ppb	9.472 ppb	96.335 %	9.681 ppb	9.947 ppb	97.615 %
Concentration per Run 2	99.952 %	10.756 ppb	9.321 ppb	9.959 ppb	10.551 ppb	99.670 %	10.189 ppb	10.193 ppb	101.524 %
Concentration per Run 3	103.460 %	9.718 ppb	11.669 ppb	9.946 ppb	9.502 ppb	100.199 %	10.028 ppb	10.312 ppb	99.775 %
Concentration RSD	4.9 %	6.5 %	11.9 %	2.8 %	6.2 %	2.1 %	2.6 %	1.8 %	2.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	9.799 ppb	10.119 ppb	100.675 %	100.540 %	9.890 ppb	10.284 ppb
Concentration per Run 1	9.550 ppb	9.810 ppb	97.854 %	97.248 %	9.725 ppb	10.207 ppb
Concentration per Run 2	9.776 ppb	10.246 ppb	101.475 %	102.154 %	9.873 ppb	10.251 ppb
Concentration per Run 3	10.071 ppb	10.302 ppb	102.697 %	102.217 %	10.071 ppb	10.392 ppb
Concentration RSD	2.7 %	2.7 %	2.5 %	2.8 %	1.8 %	0.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	7	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	60/6000 Cal	Rack	0		
Analysis started at:	8/28/2024 5:15:27 AM	Vial	5		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.817 %	106.287 %	60.472 ppb	6,225.862 ppb	6,185.820 ppb	62.747 ppb	6,080.844 ppb	6,172.137 ppb	103.594 %
Concentration per Run 1	96.913 %	106.680 %	60.775 ppb	6,131.726 ppb	6,200.100 ppb	61.754 ppb	5,766.696 ppb	5,579.409 ppb	102.780 %
Concentration per Run 2	98.250 %	115.521 %	60.510 ppb	6,020.416 ppb	5,981.550 ppb	61.317 ppb	6,383.444 ppb	6,815.507 ppb	104.022 %
Concentration per Run 3	98.288 %	96.660 %	60.133 ppb	6,525.442 ppb	6,375.810 ppb	65.169 ppb	6,092.392 ppb	6,121.496 ppb	103.979 %
Concentration RSD	0.8 %	8.9 %	0.5 %	4.3 %	3.2 %	3.4 %	5.1 %	10.0 %	0.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	106.628 %	60.229 ppb	59.128 ppb	59.210 ppb	6,015.674 ppb	60.081 ppb	60.516 ppb	60.109 ppb	59.384 ppb
Concentration per Run 1	110.958 %	57.782 ppb	55.425 ppb	57.137 ppb	5,674.528 ppb	55.542 ppb	56.204 ppb	57.161 ppb	55.038 ppb
Concentration per Run 2	101.016 %	62.782 ppb	62.163 ppb	61.216 ppb	6,295.648 ppb	64.604 ppb	65.330 ppb	63.337 ppb	62.351 ppb
Concentration per Run 3	107.911 %	60.123 ppb	59.796 ppb	59.277 ppb	6,076.847 ppb	60.096 ppb	60.014 ppb	59.829 ppb	60.765 ppb
Concentration RSD	4.8 %	4.2 %	5.8 %	3.4 %	5.2 %	7.5 %	7.6 %	5.2 %	6.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	97.524 %	59.943 ppb	61.081 ppb	59.271 ppb	59.907 ppb	98.001 %	60.318 ppb	60.086 ppb	96.396 %
Concentration per Run 1	98.123 %	56.069 ppb	55.994 ppb	57.113 ppb	57.767 ppb	97.573 %	60.090 ppb	59.228 ppb	96.729 %
Concentration per Run 2	95.516 %	63.430 ppb	67.154 ppb	60.616 ppb	60.797 ppb	98.101 %	59.902 ppb	60.624 ppb	96.570 %
Concentration per Run 3	98.934 %	60.330 ppb	60.094 ppb	60.085 ppb	61.157 ppb	98.328 %	60.964 ppb	60.407 ppb	95.888 %
Concentration RSD	1.8 %	6.2 %	9.2 %	3.2 %	3.1 %	0.4 %	0.9 %	1.2 %	0.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	61.174 ppb	60.576 ppb	100.537 %	101.694 %	59.777 ppb	60.771 ppb
Concentration per Run 1	59.498 ppb	59.280 ppb	99.991 %	100.012 %	59.316 ppb	60.142 ppb
Concentration per Run 2	61.641 ppb	61.454 ppb	100.262 %	102.115 %	59.334 ppb	61.363 ppb
Concentration per Run 3	62.383 ppb	60.996 ppb	101.357 %	102.955 %	60.680 ppb	60.808 ppb
Concentration RSD	2.4 %	1.9 %	0.7 %	1.5 %	1.3 %	1.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	8	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	120/12000 Cal	Rack	0		
Analysis started at:	8/28/2024 5:19:56 AM	Vial	6		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	93.733 %	106.680 %	119.744 ppb	11,880.283 ppb	11,901.760 ppb	118.609 ppb	11,956.201 ppb	11,907.657 ppb	101.121 %
Concentration per Run 1	93.316 %	101.375 %	119.723 ppb	11,811.476 ppb	11,822.248 ppb	115.517 ppb	12,105.852 ppb	11,887.274 ppb	99.987 %
Concentration per Run 2	93.950 %	106.680 %	119.895 ppb	11,985.724 ppb	12,002.675 ppb	120.117 ppb	12,078.423 ppb	11,756.396 ppb	102.178 %
Concentration per Run 3	93.934 %	111.984 %	119.614 ppb	11,843.648 ppb	11,880.358 ppb	120.193 ppb	11,684.326 ppb	12,079.303 ppb	101.197 %
Concentration RSD	0.4 %	5.0 %	0.1 %	0.8 %	0.8 %	2.3 %	2.0 %	1.4 %	1.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	102.619 %	119.845 ppb	120.396 ppb	120.372 ppb	11,990.496 ppb	119.951 ppb	119.558 ppb	119.928 ppb	120.304 ppb
Concentration per Run 1	97.168 %	120.488 ppb	123.276 ppb	119.708 ppb	12,326.091 ppb	122.473 ppb	121.439 ppb	120.819 ppb	122.582 ppb
Concentration per Run 2	104.223 %	117.395 ppb	119.706 ppb	121.515 ppb	11,790.370 ppb	118.604 ppb	117.206 ppb	119.279 ppb	119.053 ppb
Concentration per Run 3	106.468 %	121.652 ppb	118.208 ppb	119.895 ppb	11,855.027 ppb	118.775 ppb	120.027 ppb	119.685 ppb	119.278 ppb
Concentration RSD	4.7 %	1.8 %	2.2 %	0.8 %	2.4 %	1.8 %	1.8 %	0.7 %	1.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	93.315 %	120.028 ppb	119.435 ppb	120.382 ppb	120.060 ppb	95.181 %	119.844 ppb	119.945 ppb	94.661 %
Concentration per Run 1	89.273 %	121.908 ppb	116.812 ppb	120.692 ppb	122.223 ppb	96.914 %	117.449 ppb	118.556 ppb	96.913 %
Concentration per Run 2	95.059 %	120.252 ppb	121.371 ppb	119.379 ppb	117.700 ppb	94.531 %	120.648 ppb	119.039 ppb	93.636 %
Concentration per Run 3	95.613 %	117.923 ppb	120.123 ppb	121.074 ppb	120.257 ppb	94.096 %	121.435 ppb	122.239 ppb	93.436 %
Concentration RSD	3.8 %	1.7 %	2.0 %	0.7 %	1.9 %	1.6 %	1.8 %	1.7 %	2.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	119.430 ppb	119.702 ppb	99.835 %	100.865 %	120.121 ppb	119.591 ppb
Concentration per Run 1	117.551 ppb	118.399 ppb	99.695 %	100.443 %	118.799 ppb	118.536 ppb
Concentration per Run 2	119.963 ppb	120.236 ppb	99.577 %	100.882 %	119.835 ppb	119.123 ppb
Concentration per Run 3	120.775 ppb	120.472 ppb	100.233 %	101.269 %	121.730 ppb	121.114 ppb
Concentration RSD	1.4 %	0.9 %	0.4 %	0.4 %	1.2 %	1.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	9	User name	ALPHALAB\a2-icpmsq2	Comment	Sr Inteference Check
Analysis label:	Sr 200ppb	Rack	4		
Analysis started at:	8/28/2024 5:25:45 AM	Vial	55		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.361 %	103.929 %	0.004 ppb	-5.324 ppb	1.117 ppb	0.117 ppb	-7.883 ppb	-1.115 ppb	98.483 %
Concentration per Run 1	98.178 %	84.872 %	0.001 ppb	-3.580 ppb	-0.784 ppb	0.222 ppb	-18.418 ppb	28.465 ppb	97.401 %
Concentration per Run 2	98.901 %	101.965 %	0.003 ppb	-4.558 ppb	2.840 ppb	-0.019 ppb	-9.494 ppb	-41.255 ppb	98.786 %
Concentration per Run 3	98.004 %	124.951 %	0.009 ppb	-7.833 ppb	1.297 ppb	0.150 ppb	4.264 ppb	9.444 ppb	99.261 %
Concentration RSD	0.5 %	19.4 %	92.7 %	41.8 %	162.7 %	105.4 %	145.0 %	3,231.6 %	1.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	100.909 %	-0.081 ppb	0.020 ppb	0.183 ppb	13.943 ppb	0.000 ppb	0.121 ppb	0.014 ppb	1.236 ppb
Concentration per Run 1	100.534 %	-0.022 ppb	0.033 ppb	0.196 ppb	20.006 ppb	-0.005 ppb	0.188 ppb	0.003 ppb	1.375 ppb
Concentration per Run 2	101.978 %	-0.134 ppb	0.024 ppb	0.256 ppb	11.496 ppb	-0.005 ppb	0.073 ppb	0.074 ppb	1.198 ppb
Concentration per Run 3	100.214 %	-0.089 ppb	0.003 ppb	0.098 ppb	10.325 ppb	0.010 ppb	0.103 ppb	-0.035 ppb	1.135 ppb
Concentration RSD	0.9 %	69.4 %	76.8 %	43.6 %	37.9 %	37,989.6 %	49.3 %	405.5 %	10.1 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	97.681 %	0.021 ppb	0.081 ppb	193.438 ppb	0.304 ppb	99.864 %	0.008 ppb	0.003 ppb	98.282 %
Concentration per Run 1	96.537 %	0.032 ppb	-0.065 ppb	192.421 ppb	0.207 ppb	100.248 %	0.009 ppb	0.000 ppb	97.715 %
Concentration per Run 2	98.795 %	0.015 ppb	0.285 ppb	193.052 ppb	0.305 ppb	98.909 %	0.013 ppb	0.005 ppb	98.224 %
Concentration per Run 3	97.711 %	0.017 ppb	0.024 ppb	194.840 ppb	0.398 ppb	100.435 %	0.002 ppb	0.005 ppb	98.907 %
Concentration RSD	1.2 %	44.7 %	223.8 %	0.6 %	31.4 %	0.8 %	65.9 %	86.6 %	0.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.015 ppb	0.197 ppb	101.648 %	103.631 %	0.281 ppb	0.197 ppb
Concentration per Run 1	0.008 ppb	0.228 ppb	100.973 %	101.752 %	0.260 ppb	0.199 ppb
Concentration per Run 2	0.018 ppb	0.198 ppb	100.880 %	104.812 %	0.295 ppb	0.193 ppb
Concentration per Run 3	0.018 ppb	0.166 ppb	103.091 %	104.329 %	0.289 ppb	0.199 ppb
Concentration RSD	37.8 %	15.8 %	1.2 %	1.6 %	6.7 %	1.7 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	10	User name	ALPHALAB\a2-icpmsq2	Comment	ICV
Analysis label:	ICV	Rack	0		
Analysis started at:	8/28/2024 5:30:16 AM	Vial	7		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.736 %	106.680 %	51.929 ppb	5,382.472 ppb	5,394.967 ppb	54.262 ppb	5,432.493 ppb	5,208.828 ppb	99.745 %
Concentration per Run 1	97.388 %	110.216 %	51.790 ppb	5,177.519 ppb	5,215.760 ppb	55.262 ppb	5,519.637 ppb	5,591.094 ppb	98.931 %
Concentration per Run 2	97.964 %	99.018 %	51.742 ppb	5,601.370 ppb	5,608.544 ppb	57.134 ppb	5,458.925 ppb	4,973.294 ppb	100.001 %
Concentration per Run 3	97.854 %	110.806 %	52.256 ppb	5,368.528 ppb	5,360.597 ppb	50.390 ppb	5,318.916 ppb	5,062.096 ppb	100.303 %
Recovery Percentage 1			103.859 %	107.649 %	107.899 %	108.524 %	108.650 %	104.177 %	
Concentration RSD	0.3 %	6.2 %	0.5 %	3.9 %	3.7 %	6.4 %	1.9 %	6.4 %	0.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	98.824 %	52.837 ppb	52.912 ppb	52.442 ppb	5,364.670 ppb	53.826 ppb	52.946 ppb	52.547 ppb	52.971 ppb
Concentration per Run 1	95.884 %	53.464 ppb	53.878 ppb	56.039 ppb	5,480.217 ppb	55.981 ppb	53.830 ppb	53.856 ppb	55.559 ppb
Concentration per Run 2	100.535 %	51.816 ppb	52.221 ppb	52.150 ppb	5,296.215 ppb	52.017 ppb	53.184 ppb	50.630 ppb	51.982 ppb
Concentration per Run 3	100.053 %	53.231 ppb	52.638 ppb	49.138 ppb	5,317.580 ppb	53.480 ppb	51.825 ppb	53.155 ppb	51.372 ppb
Recovery Percentage 1		105.674 %	105.825 %	104.884 %	107.293 %	107.652 %	105.893 %	105.094 %	105.942 %
Concentration RSD	2.6 %	1.7 %	1.6 %	6.6 %	1.9 %	3.7 %	1.9 %	3.2 %	4.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	97.376 %	52.998 ppb	52.546 ppb	49.158 ppb	51.239 ppb	98.762 %	49.090 ppb	51.430 ppb	98.423 %
Concentration per Run 1	91.953 %	56.128 ppb	57.497 ppb	49.919 ppb	51.560 ppb	100.120 %	48.182 ppb	50.861 ppb	99.505 %
Concentration per Run 2	99.237 %	50.647 ppb	48.972 ppb	49.150 ppb	51.523 ppb	96.926 %	50.138 ppb	52.624 ppb	95.945 %
Concentration per Run 3	100.937 %	52.218 ppb	51.168 ppb	48.404 ppb	50.634 ppb	99.240 %	48.950 ppb	50.805 ppb	99.819 %
Recovery Percentage 1		105.995 %	105.092 %	98.316 %	102.478 %		98.180 %	102.860 %	
Concentration RSD	4.9 %	5.3 %	8.4 %	1.5 %	1.0 %	1.7 %	2.0 %	2.0 %	2.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	50.578 ppb	49.868 ppb	102.074 %	102.859 %	51.307 ppb	52.288 ppb
Concentration per Run 1	49.855 ppb	49.238 ppb	101.380 %	101.743 %	50.357 ppb	51.716 ppb
Concentration per Run 2	50.970 ppb	50.980 ppb	102.888 %	102.800 %	51.418 ppb	52.572 ppb
Concentration per Run 3	50.911 ppb	49.387 ppb	101.953 %	104.036 %	52.147 ppb	52.577 ppb
Recovery Percentage 1	101.157 %	99.737 %			102.615 %	104.576 %
Concentration RSD	1.2 %	1.9 %	0.7 %	1.1 %	1.8 %	0.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	11	User name	ALPHALAB\a2-icpmsq2	Comment	ICB
Analysis label:	ICB	Rack	0		
Analysis started at:	8/28/2024 5:34:46 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.397 %	107.859 %	-0.003 ppb	-2.898 ppb	-0.052 ppb	-0.622 ppb	-8.321 ppb	-4.722 ppb	99.769 %
Concentration per Run 1	97.878 %	108.448 %	-0.001 ppb	-3.023 ppb	-1.465 ppb	-0.581 ppb	-15.164 ppb	-6.217 ppb	98.784 %
Concentration per Run 2	100.146 %	110.216 %	-0.003 ppb	-2.176 ppb	-0.218 ppb	-0.702 ppb	-4.669 ppb	-1.571 ppb	100.566 %
Concentration per Run 3	100.166 %	104.912 %	-0.005 ppb	-3.495 ppb	1.526 ppb	-0.584 ppb	-5.129 ppb	-6.379 ppb	99.958 %
Recovery Percentage 1			-0.553 %	-2.898 %	-0.074 %	-6.223 %	-8.321 %	-4.722 %	
Concentration RSD	1.3 %	2.5 %	64.7 %	23.1 %	2,889.4 %	11.1 %	71.3 %	57.8 %	0.9 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	98.183 %	-0.109 ppb	0.038 ppb	0.079 ppb	3.943 ppb	-0.005 ppb	0.059 ppb	-0.036 ppb	0.023 ppb
Concentration per Run 1	100.534 %	-0.133 ppb	0.048 ppb	0.033 ppb	4.862 ppb	-0.005 ppb	-0.008 ppb	0.003 ppb	0.089 ppb
Concentration per Run 2	89.310 %	-0.081 ppb	0.023 ppb	0.175 ppb	3.739 ppb	-0.005 ppb	0.196 ppb	-0.054 ppb	-0.048 ppb
Concentration per Run 3	104.704 %	-0.114 ppb	0.044 ppb	0.030 ppb	3.228 ppb	-0.005 ppb	-0.012 ppb	-0.056 ppb	0.029 ppb
Recovery Percentage 1		-2.184 %	3.834 %	7.917 %	7.886 %	-1.014 %	2.934 %	-3.561 %	0.467 %
Concentration RSD	8.1 %	24.2 %	35.6 %	104.8 %	21.2 %	0.0 %	203.1 %	93.7 %	294.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	99.802 %	-0.004 ppb	0.111 ppb	0.000 ppb	0.407 ppb	100.987 %	0.008 ppb	0.005 ppb	99.882 %
Concentration per Run 1	96.176 %	-0.019 ppb	0.031 ppb	-0.002 ppb	0.273 ppb	101.579 %	-0.001 ppb	0.000 ppb	99.776 %
Concentration per Run 2	101.470 %	-0.027 ppb	0.029 ppb	-0.001 ppb	0.475 ppb	100.457 %	0.007 ppb	0.000 ppb	100.020 %
Concentration per Run 3	101.759 %	0.033 ppb	0.273 ppb	0.002 ppb	0.473 ppb	100.924 %	0.017 ppb	0.014 ppb	99.851 %
Recovery Percentage 1		-0.864 %	2.224 %	-0.004 %	20.355 %		1.962 %	2.336 %	
Concentration RSD	3.1 %	763.7 %	126.4 %	479.1 %	28.4 %	0.6 %	118.2 %	173.2 %	0.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.043 ppb	0.015 ppb	102.653 %	103.656 %	0.304 ppb	0.018 ppb
Concentration per Run 1	0.045 ppb	0.019 ppb	102.722 %	103.293 %	0.270 ppb	0.023 ppb
Concentration per Run 2	0.035 ppb	0.034 ppb	101.817 %	102.736 %	0.340 ppb	0.013 ppb
Concentration per Run 3	0.049 ppb	-0.010 ppb	103.420 %	104.938 %	0.301 ppb	0.017 ppb
Recovery Percentage 1	1.077 %	2.910 %			30.364 %	1.781 %
Concentration RSD	16.4 %	153.5 %	0.8 %	1.1 %	11.6 %	28.2 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	12	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	ICSA	Rack	4		
Analysis started at:	8/28/2024 5:43:07 AM	Vial	53		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	83.061 %	88.212 %	0.021 ppb	239,709.928 ppb	93,256.086 ppb	95,521.367 ppb	101,569.204 ppb	301,427.401 ppb	86.902 %
Concentration per Run 1	82.997 %	77.800 %	0.016 ppb	254,307.173 ppb	89,694.269 ppb	91,568.539 ppb	101,883.342 ppb	299,031.507 ppb	86.079 %
Concentration per Run 2	83.529 %	82.515 %	0.026 ppb	247,727.357 ppb	92,898.424 ppb	94,182.196 ppb	95,282.037 ppb	279,339.894 ppb	86.822 %
Concentration per Run 3	82.656 %	104.322 %	0.022 ppb	217,095.255 ppb	97,175.564 ppb	100,813.365 ppb	107,542.233 ppb	325,910.803 ppb	87.804 %
Recovery Percentage 1			2.128 %	95.884 %	93.256 %	95.521 %	101.569 %	100.476 %	
Concentration RSD	0.5 %	16.0 %	23.9 %	8.3 %	4.0 %	5.0 %	6.0 %	7.8 %	1.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	101.497 %	-0.014 ppb	1.549 ppb	4.435 ppb	238,108.925 ppb	2.113 ppb	2.716 ppb	0.994 ppb	2.480 ppb
Concentration per Run 1	94.762 %	0.033 ppb	1.555 ppb	4.768 ppb	237,192.539 ppb	2.054 ppb	2.577 ppb	0.851 ppb	2.641 ppb
Concentration per Run 2	106.949 %	-0.093 ppb	1.467 ppb	4.379 ppb	230,644.122 ppb	2.183 ppb	2.624 ppb	0.972 ppb	2.231 ppb
Concentration per Run 3	102.780 %	0.017 ppb	1.623 ppb	4.157 ppb	246,490.113 ppb	2.102 ppb	2.946 ppb	1.157 ppb	2.569 ppb
Recovery Percentage 1		-0.285 %	46.925 %	77.805 %	95.244 %	73.621 %	44.519 %	121.174 %	21.756 %
Concentration RSD	6.1 %	481.9 %	5.1 %	7.0 %	3.3 %	3.1 %	7.4 %	15.5 %	8.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	98.176 %	0.379 ppb	2.947 ppb	2.372 ppb	2,117.967 ppb	86.132 %	0.024 ppb	0.530 ppb	90.866 %
Concentration per Run 1	95.453 %	0.364 ppb	2.956 ppb	2.273 ppb	2,084.533 ppb	82.847 %	0.025 ppb	0.483 ppb	86.579 %
Concentration per Run 2	96.593 %	0.396 ppb	2.731 ppb	2.343 ppb	2,126.384 ppb	85.991 %	0.024 ppb	0.566 ppb	89.829 %
Concentration per Run 3	102.482 %	0.375 ppb	3.154 ppb	2.501 ppb	2,142.984 ppb	89.558 %	0.021 ppb	0.543 ppb	96.188 %
Recovery Percentage 1		23.235 %	22.845 %	474.497 %	105.898 %		2.953 %	132.603 %	
Concentration RSD	3.8 %	4.3 %	7.2 %	4.9 %	1.4 %	3.9 %	9.3 %	8.1 %	5.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.183 ppb	1.271 ppb	98.168 %	100.336 %	0.086 ppb	1.504 ppb
Concentration per Run 1	0.190 ppb	1.639 ppb	96.111 %	97.307 %	0.085 ppb	1.518 ppb
Concentration per Run 2	0.158 ppb	1.036 ppb	96.591 %	98.797 %	0.089 ppb	1.539 ppb
Concentration per Run 3	0.201 ppb	1.139 ppb	101.800 %	104.906 %	0.084 ppb	1.455 ppb
Recovery Percentage 1	2.288 %	67.606 %			4.297 %	48.513 %
Concentration RSD	12.4 %	25.4 %	3.2 %	4.0 %	3.6 %	2.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	13	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	LDR	Rack	4		
Analysis started at:	8/28/2024 5:47:37 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.533 %	116.700 %	0.037 ppb	73.648 ppb	8.932 ppb	12.173 ppb	20.551 ppb	34.425 ppb	113.674 %
Concentration per Run 1	107.187 %	124.362 %	0.045 ppb	61.662 ppb	1.187 ppb	5.026 ppb	16.993 ppb	19.228 ppb	114.067 %
Concentration per Run 2	106.809 %	105.501 %	0.035 ppb	86.643 ppb	10.920 ppb	14.905 ppb	22.336 ppb	20.113 ppb	113.782 %
Concentration per Run 3	105.601 %	120.236 %	0.029 ppb	72.641 ppb	14.690 ppb	16.587 ppb	22.323 ppb	63.933 ppb	113.173 %
Recovery Percentage 1									
Concentration RSD	0.8 %	8.5 %	22.4 %	17.0 %	78.0 %	51.3 %	15.0 %	74.2 %	0.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	112.936 %	-0.058 ppb	0.076 ppb	9,513.917 ppb	48.680 ppb	0.071 ppb	9,381.849 ppb	9,170.457 ppb	10,833.651 ppb
Concentration per Run 1	111.118 %	0.022 ppb	0.058 ppb	8,336.964 ppb	24.116 ppb	0.062 ppb	9,190.810 ppb	8,860.155 ppb	10,356.629 ppb
Concentration per Run 2	107.269 %	-0.075 ppb	0.117 ppb	11,268.860 ppb	63.280 ppb	0.078 ppb	9,932.683 ppb	9,445.000 ppb	11,096.896 ppb
Concentration per Run 3	120.419 %	-0.122 ppb	0.052 ppb	8,935.926 ppb	58.644 ppb	0.072 ppb	9,022.054 ppb	9,206.217 ppb	11,047.430 ppb
Recovery Percentage 1				95.139 %			93.818 %	91.705 %	108.337 %
Concentration RSD	6.0 %	125.3 %	47.2 %	16.3 %	44.0 %	11.4 %	5.2 %	3.2 %	3.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	112.542 %	981.806 ppb	1.049 ppb	0.241 ppb	3.478 ppb	114.259 %	0.162 ppb	0.095 ppb	110.824 %
Concentration per Run 1	113.235 %	945.227 ppb	1.036 ppb	0.216 ppb	2.797 ppb	111.840 %	0.149 ppb	0.064 ppb	107.422 %
Concentration per Run 2	110.144 %	986.423 ppb	0.967 ppb	0.258 ppb	3.666 ppb	114.398 %	0.186 ppb	0.122 ppb	109.769 %
Concentration per Run 3	114.248 %	1,013.768 ppb	1.143 ppb	0.251 ppb	3.969 ppb	116.540 %	0.150 ppb	0.097 ppb	115.281 %
Recovery Percentage 1		98.181 %							
Concentration RSD	1.9 %	3.5 %	8.5 %	9.4 %	17.5 %	2.1 %	13.0 %	30.5 %	3.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	1.142 ppb	9,777.809 ppb	111.350 %	110.111 %	0.059 ppb	9,985.193 ppb
Concentration per Run 1	1.159 ppb	10,009.869 ppb	108.244 %	106.226 %	0.032 ppb	9,980.869 ppb
Concentration per Run 2	1.143 ppb	10,264.173 ppb	110.467 %	110.129 %	0.078 ppb	10,035.354 ppb
Concentration per Run 3	1.124 ppb	9,059.384 ppb	115.339 %	113.977 %	0.069 ppb	9,939.355 ppb
Recovery Percentage 1		97.778 %				0.000 %
Concentration RSD	1.5 %	6.5 %	3.3 %	3.5 %	41.0 %	0.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	14	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	Rinse	Rack	0		
Analysis started at:	8/28/2024 5:52:08 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.862 %	116.307 %	0.031 ppb	33.345 ppb	14.754 ppb	8.026 ppb	4.895 ppb	32.569 ppb	108.530 %
Concentration per Run 1	103.493 %	118.468 %	0.031 ppb	31.298 ppb	13.998 ppb	6.815 ppb	6.610 ppb	19.079 ppb	106.230 %
Concentration per Run 2	104.194 %	116.110 %	0.025 ppb	34.426 ppb	15.851 ppb	7.350 ppb	7.924 ppb	35.389 ppb	109.670 %
Concentration per Run 3	103.897 %	114.342 %	0.036 ppb	34.311 ppb	14.414 ppb	9.914 ppb	0.152 ppb	43.237 ppb	109.690 %
Concentration RSD	0.3 %	1.8 %	18.7 %	5.3 %	6.6 %	20.6 %	85.0 %	37.8 %	1.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	110.156 %	-0.144 ppb	0.022 ppb	1.856 ppb	33.071 ppb	0.013 ppb	2.127 ppb	2.077 ppb	4.763 ppb
Concentration per Run 1	116.570 %	-0.139 ppb	0.017 ppb	2.066 ppb	35.144 ppb	0.022 ppb	2.109 ppb	1.695 ppb	5.445 ppb
Concentration per Run 2	107.751 %	-0.157 ppb	0.028 ppb	1.889 ppb	35.977 ppb	0.002 ppb	2.216 ppb	2.451 ppb	4.556 ppb
Concentration per Run 3	106.147 %	-0.136 ppb	0.020 ppb	1.613 ppb	28.092 ppb	0.016 ppb	2.057 ppb	2.085 ppb	4.287 ppb
Concentration RSD	5.1 %	7.8 %	27.0 %	12.3 %	13.1 %	76.1 %	3.8 %	18.2 %	12.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	108.024 %	1.426 ppb	0.018 ppb	0.022 ppb	0.882 ppb	110.174 %	0.013 ppb	0.004 ppb	107.839 %
Concentration per Run 1	109.349 %	1.603 ppb	-0.129 ppb	0.022 ppb	0.717 ppb	112.398 %	0.008 ppb	0.008 ppb	110.662 %
Concentration per Run 2	102.843 %	1.376 ppb	0.016 ppb	0.028 ppb	0.923 ppb	107.551 %	0.013 ppb	0.004 ppb	105.541 %
Concentration per Run 3	111.879 %	1.297 ppb	0.168 ppb	0.017 ppb	1.005 ppb	110.573 %	0.019 ppb	0.000 ppb	107.315 %
Concentration RSD	4.3 %	11.1 %	810.2 %	24.9 %	16.8 %	2.2 %	41.9 %	98.5 %	2.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.046 ppb	1.371 ppb	107.327 %	106.859 %	0.035 ppb	2.759 ppb
Concentration per Run 1	0.048 ppb	1.470 ppb	108.784 %	108.239 %	0.019 ppb	3.209 ppb
Concentration per Run 2	0.031 ppb	1.308 ppb	105.022 %	104.102 %	0.048 ppb	2.741 ppb
Concentration per Run 3	0.059 ppb	1.333 ppb	108.175 %	108.235 %	0.038 ppb	2.328 ppb
Concentration RSD	31.1 %	6.4 %	1.9 %	2.2 %	41.2 %	16.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	15	User name	ALPHALAB\a2-icpmsq2	Comment	CCV/MCCV
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 5:56:34 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.186 %	114.342 %	62.819 ppb	6,384.068 ppb	6,294.958 ppb	65.746 ppb	6,258.801 ppb	6,263.041 ppb	105.815 %
Concentration per Run 1	100.569 %	111.984 %	62.880 ppb	6,268.080 ppb	6,186.925 ppb	71.959 ppb	6,042.158 ppb	6,233.888 ppb	104.866 %
Concentration per Run 2	100.200 %	109.037 %	62.632 ppb	6,614.800 ppb	6,542.804 ppb	60.811 ppb	6,292.720 ppb	6,252.693 ppb	106.368 %
Concentration per Run 3	99.788 %	122.004 %	62.943 ppb	6,269.323 ppb	6,155.145 ppb	64.468 ppb	6,441.524 ppb	6,302.543 ppb	106.210 %
Recovery Percentage 1			104.698 %	106.401 %	104.916 %	109.577 %	104.313 %	104.384 %	
Concentration RSD	0.4 %	5.9 %	0.3 %	3.1 %	3.4 %	8.6 %	3.2 %	0.6 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	113.951 %	60.962 ppb	62.507 ppb	61.081 ppb	6,226.422 ppb	62.398 ppb	64.078 ppb	63.947 ppb	63.513 ppb
Concentration per Run 1	117.853 %	60.103 ppb	60.600 ppb	59.768 ppb	6,026.586 ppb	61.474 ppb	63.587 ppb	62.782 ppb	62.882 ppb
Concentration per Run 2	112.561 %	61.868 ppb	62.574 ppb	63.467 ppb	6,210.296 ppb	61.628 ppb	61.384 ppb	63.782 ppb	63.236 ppb
Concentration per Run 3	111.439 %	60.916 ppb	64.348 ppb	60.007 ppb	6,442.383 ppb	64.090 ppb	67.264 ppb	65.278 ppb	64.422 ppb
Recovery Percentage 1		101.604 %	104.179 %	101.801 %	103.774 %	103.996 %	106.797 %	106.579 %	105.856 %
Concentration RSD	3.0 %	1.4 %	3.0 %	3.4 %	3.3 %	2.4 %	4.6 %	2.0 %	1.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	107.652 %	62.468 ppb	61.302 ppb	57.066 ppb	59.659 ppb	108.268 %	61.879 ppb	61.708 ppb	102.914 %
Concentration per Run 1	105.967 %	62.193 ppb	60.830 ppb	56.832 ppb	58.447 ppb	110.688 %	60.354 ppb	59.981 ppb	104.570 %
Concentration per Run 2	109.526 %	61.922 ppb	61.334 ppb	57.322 ppb	59.849 ppb	106.681 %	62.799 ppb	63.381 ppb	100.835 %
Concentration per Run 3	107.464 %	63.290 ppb	61.742 ppb	57.045 ppb	60.680 ppb	107.434 %	62.484 ppb	61.762 ppb	103.337 %
Recovery Percentage 1		104.113 %	102.170 %	95.110 %	99.431 %		103.132 %	102.847 %	
Concentration RSD	1.7 %	1.2 %	0.7 %	0.4 %	1.9 %	2.0 %	2.1 %	2.8 %	1.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	60.704 ppb	61.449 ppb	107.962 %	108.028 %	61.758 ppb	63.836 ppb
Concentration per Run 1	59.876 ppb	60.948 ppb	107.135 %	107.881 %	59.888 ppb	62.727 ppb
Concentration per Run 2	61.945 ppb	60.694 ppb	107.666 %	106.440 %	63.084 ppb	65.050 ppb
Concentration per Run 3	60.291 ppb	62.704 ppb	109.085 %	109.763 %	62.300 ppb	63.732 ppb
Recovery Percentage 1	101.173 %	102.415 %			102.929 %	106.394 %
Concentration RSD	1.8 %	1.8 %	0.9 %	1.5 %	2.7 %	1.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index: 16 User name ALPHALAB\a2-icpmsq2 Comment CCB
Analysis label: CCB Rack 0
Analysis started at: 8/28/2024 6:01:05 AM Vial 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.538 %	107.859 %	0.014 ppb	16.130 ppb	6.390 ppb	4.323 ppb	-1.115 ppb	21.160 ppb	100.182 %
Concentration per Run 1	98.389 %	105.501 %	0.026 ppb	23.505 ppb	10.340 ppb	4.925 ppb	-4.697 ppb	25.453 ppb	99.105 %
Concentration per Run 2	100.167 %	117.878 %	-0.001 ppb	7.826 ppb	7.317 ppb	3.852 ppb	9.831 ppb	17.430 ppb	99.589 %
Concentration per Run 3	100.058 %	100.196 %	0.018 ppb	17.060 ppb	1.512 ppb	4.192 ppb	-8.480 ppb	20.597 ppb	101.851 %
Recovery Percentage 1			2.826 %	16.130 %	9.128 %	43.229 %	-1.115 %	21.160 %	
Concentration RSD	1.0 %	8.4 %	99.8 %	48.9 %	70.2 %	12.7 %	866.7 %	19.1 %	1.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	105.612 %	-0.121 ppb	0.046 ppb	0.668 ppb	16.620 ppb	0.013 ppb	0.933 ppb	0.721 ppb	1.015 ppb
Concentration per Run 1	95.563 %	-0.109 ppb	0.104 ppb	0.796 ppb	16.022 ppb	0.033 ppb	1.194 ppb	0.588 ppb	1.275 ppb
Concentration per Run 2	109.995 %	-0.136 ppb	0.041 ppb	0.636 ppb	17.947 ppb	0.002 ppb	0.937 ppb	0.888 ppb	1.069 ppb
Concentration per Run 3	111.278 %	-0.116 ppb	-0.008 ppb	0.571 ppb	15.890 ppb	0.002 ppb	0.669 ppb	0.689 ppb	0.700 ppb
Recovery Percentage 1		-2.411 %	4.602 %	66.757 %	33.240 %	2.503 %	46.654 %	72.149 %	20.291 %
Concentration RSD	8.3 %	11.8 %	121.8 %	17.3 %	6.9 %	143.9 %	28.1 %	21.2 %	28.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	100.193 %	0.323 ppb	0.253 ppb	0.012 ppb	0.526 ppb	102.903 %	0.013 ppb	0.015 ppb	101.144 %
Concentration per Run 1	101.614 %	0.255 ppb	0.029 ppb	0.011 ppb	0.386 ppb	102.741 %	0.017 ppb	0.023 ppb	100.485 %
Concentration per Run 2	99.518 %	0.364 ppb	0.368 ppb	0.009 ppb	0.578 ppb	102.358 %	0.012 ppb	0.018 ppb	100.853 %
Concentration per Run 3	99.446 %	0.352 ppb	0.363 ppb	0.017 ppb	0.613 ppb	103.611 %	0.010 ppb	0.005 ppb	102.094 %
Recovery Percentage 1		64.688 %	5.065 %	0.124 %	26.283 %		3.296 %	7.692 %	
Concentration RSD	1.2 %	18.5 %	76.9 %	32.5 %	23.3 %	0.6 %	26.6 %	62.8 %	0.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.038 ppb	0.781 ppb	105.438 %	105.160 %	0.275 ppb	1.051 ppb
Concentration per Run 1	0.027 ppb	0.738 ppb	104.916 %	104.317 %	0.229 ppb	1.138 ppb
Concentration per Run 2	0.036 ppb	0.789 ppb	106.265 %	105.004 %	0.325 ppb	1.035 ppb
Concentration per Run 3	0.051 ppb	0.817 ppb	105.132 %	106.159 %	0.271 ppb	0.980 ppb
Recovery Percentage 1	0.957 %	156.194 %			27.500 %	105.094 %
Concentration RSD	32.0 %	5.1 %	0.7 %	0.9 %	17.6 %	7.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	17	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 6:14:34 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.174 %	102.751 %	-0.002 ppb	-2.401 ppb	0.187 ppb	-0.432 ppb	-6.906 ppb	5.374 ppb	96.889 %
Concentration per Run 1	97.348 %	105.501 %	-0.004 ppb	-5.518 ppb	0.370 ppb	-0.434 ppb	-16.817 ppb	16.689 ppb	96.682 %
Concentration per Run 2	97.215 %	92.534 %	-0.001 ppb	-3.374 ppb	-0.147 ppb	-0.692 ppb	-14.515 ppb	-6.074 ppb	97.658 %
Concentration per Run 3	96.959 %	110.216 %	-0.001 ppb	1.689 ppb	0.338 ppb	-0.169 ppb	10.614 ppb	5.508 ppb	96.327 %
Recovery Percentage 1			-0.417 %	-2.401 %	0.267 %	-4.318 %	-6.906 %	5.374 %	
Concentration RSD	0.2 %	8.9 %	92.4 %	154.1 %	155.1 %	60.6 %	220.3 %	211.8 %	0.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	98.290 %	-0.094 ppb	0.019 ppb	0.078 ppb	-0.408 ppb	-0.005 ppb	0.031 ppb	0.042 ppb	-0.034 ppb
Concentration per Run 1	99.091 %	-0.110 ppb	0.004 ppb	0.067 ppb	-2.037 ppb	-0.005 ppb	-0.007 ppb	0.120 ppb	-0.052 ppb
Concentration per Run 2	98.290 %	-0.087 ppb	0.050 ppb	0.067 ppb	0.071 ppb	-0.005 ppb	0.022 ppb	0.005 ppb	-0.010 ppb
Concentration per Run 3	97.488 %	-0.087 ppb	0.004 ppb	0.100 ppb	0.742 ppb	-0.005 ppb	0.076 ppb	0.002 ppb	-0.039 ppb
Recovery Percentage 1		-1.887 %	1.916 %	7.796 %	-0.816 %	-1.014 %	1.527 %	4.214 %	-0.670 %
Concentration RSD	0.8 %	14.1 %	139.0 %	24.0 %	355.4 %	0.0 %	137.9 %	159.7 %	63.1 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	95.976 %	0.025 ppb	-0.111 ppb	-0.005 ppb	0.037 ppb	99.917 %	0.001 ppb	0.002 ppb	99.933 %
Concentration per Run 1	94.169 %	0.157 ppb	-0.058 ppb	0.000 ppb	-0.012 ppb	98.522 %	0.004 ppb	0.005 ppb	97.346 %
Concentration per Run 2	94.964 %	-0.082 ppb	-0.135 ppb	-0.009 ppb	0.043 ppb	99.450 %	-0.003 ppb	0.000 ppb	97.521 %
Concentration per Run 3	98.796 %	0.002 ppb	-0.140 ppb	-0.005 ppb	0.081 ppb	101.778 %	0.000 ppb	0.000 ppb	104.933 %
Recovery Percentage 1		5.081 %	-2.221 %	-0.046 %	1.865 %		0.144 %	0.798 %	
Concentration RSD	2.6 %	477.4 %	41.2 %	99.0 %	125.2 %	1.7 %	600.8 %	173.2 %	4.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.000 ppb	0.033 ppb	103.543 %	105.969 %	0.039 ppb	0.174 ppb
Concentration per Run 1	-0.012 ppb	0.020 ppb	100.644 %	102.363 %	0.028 ppb	0.208 ppb
Concentration per Run 2	0.004 ppb	0.020 ppb	102.475 %	106.360 %	0.050 ppb	0.174 ppb
Concentration per Run 3	0.007 ppb	0.060 ppb	107.509 %	109.185 %	0.038 ppb	0.140 ppb
Recovery Percentage 1	-0.006 %	6.630 %			3.870 %	17.406 %
Concentration RSD	3,953.3 %	69.4 %	3.4 %	3.2 %	28.7 %	19.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	18	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964225-1 2008SL	Rack	1		
Analysis started at:	8/28/2024 6:53:52 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.162 %	91.356 %	-0.003 ppb	60.760 ppb	3.035 ppb	1.853 ppb	-1.265 ppb	12.076 ppb	92.899 %
Concentration per Run 1	95.339 %	91.356 %	-0.004 ppb	53.142 ppb	2.593 ppb	1.440 ppb	-0.383 ppb	21.957 ppb	91.921 %
Concentration per Run 2	96.431 %	84.283 %	0.000 ppb	76.600 ppb	4.826 ppb	2.280 ppb	1.870 ppb	5.648 ppb	92.619 %
Concentration per Run 3	96.716 %	98.428 %	-0.005 ppb	52.537 ppb	1.685 ppb	1.840 ppb	-5.283 ppb	8.623 ppb	94.158 %
Concentration RSD	0.8 %	7.7 %	97.4 %	22.6 %	53.3 %	22.7 %	289.0 %	71.9 %	1.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	97.060 %	-0.131 ppb	0.077 ppb	0.250 ppb	3.194 ppb	-0.002 ppb	0.211 ppb	0.144 ppb	0.682 ppb
Concentration per Run 1	94.281 %	-0.130 ppb	0.030 ppb	0.211 ppb	0.901 ppb	0.003 ppb	0.266 ppb	0.090 ppb	0.757 ppb
Concentration per Run 2	96.044 %	-0.107 ppb	0.092 ppb	0.277 ppb	3.777 ppb	-0.005 ppb	0.204 ppb	0.148 ppb	0.708 ppb
Concentration per Run 3	100.855 %	-0.155 ppb	0.108 ppb	0.263 ppb	4.903 ppb	-0.005 ppb	0.162 ppb	0.194 ppb	0.579 ppb
Concentration RSD	3.5 %	18.3 %	53.9 %	13.9 %	64.6 %	201.6 %	24.8 %	36.2 %	13.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	91.736 %	0.016 ppb	-0.103 ppb	0.028 ppb	0.602 ppb	96.676 %	-0.002 ppb	0.002 ppb	96.758 %
Concentration per Run 1	90.484 %	0.005 ppb	-0.130 ppb	0.028 ppb	0.459 ppb	98.057 %	-0.001 ppb	0.005 ppb	98.244 %
Concentration per Run 2	90.410 %	0.019 ppb	-0.130 ppb	0.029 ppb	0.667 ppb	96.622 %	-0.003 ppb	0.000 ppb	97.243 %
Concentration per Run 3	94.314 %	0.024 ppb	-0.047 ppb	0.028 ppb	0.680 ppb	95.349 %	-0.003 ppb	0.000 ppb	94.788 %
Concentration RSD	2.4 %	61.0 %	46.5 %	1.3 %	20.6 %	1.4 %	44.3 %	173.2 %	1.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.210 ppb	0.049 ppb	102.850 %	106.116 %	0.013 ppb	0.056 ppb
Concentration per Run 1	0.187 ppb	0.063 ppb	104.216 %	109.301 %	0.009 ppb	0.061 ppb
Concentration per Run 2	0.225 ppb	0.020 ppb	101.886 %	103.101 %	0.018 ppb	0.053 ppb
Concentration per Run 3	0.218 ppb	0.065 ppb	102.448 %	105.947 %	0.014 ppb	0.054 ppb
Concentration RSD	9.8 %	51.8 %	1.2 %	2.9 %	35.4 %	7.7 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	19	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964225-2d10 2008SL	Rack	1		
Analysis started at:	8/28/2024 6:58:20 AM	Vial	2		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.360 %	94.892 %	5.230 ppb	1,233.250 ppb	1,178.206 ppb	234.505 ppb	1,112.727 ppb	1,133.109 ppb	96.678 %
Concentration per Run 1	96.559 %	92.534 %	5.209 ppb	1,205.397 ppb	1,119.594 ppb	219.488 ppb	1,020.162 ppb	1,168.567 ppb	95.444 %
Concentration per Run 2	98.082 %	82.515 %	5.257 ppb	1,356.489 ppb	1,327.365 ppb	265.569 ppb	1,224.639 ppb	1,021.613 ppb	97.462 %
Concentration per Run 3	97.441 %	109.627 %	5.224 ppb	1,137.865 ppb	1,087.659 ppb	218.458 ppb	1,093.379 ppb	1,209.149 ppb	97.129 %
Concentration RSD	0.8 %	14.4 %	0.5 %	9.1 %	11.0 %	11.5 %	9.3 %	8.7 %	1.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	92.463 %	55.015 ppb	21.373 ppb	54.155 ppb	104.863 ppb	54.064 ppb	53.216 ppb	26.690 ppb	53.090 ppb
Concentration per Run 1	96.686 %	52.493 ppb	19.297 ppb	50.639 ppb	100.367 ppb	52.203 ppb	52.093 ppb	26.264 ppb	50.867 ppb
Concentration per Run 2	87.225 %	57.821 ppb	22.889 ppb	56.562 ppb	103.293 ppb	56.565 ppb	56.079 ppb	27.742 ppb	56.670 ppb
Concentration per Run 3	93.479 %	54.731 ppb	21.933 ppb	55.265 ppb	110.927 ppb	53.423 ppb	51.477 ppb	26.064 ppb	51.734 ppb
Concentration RSD	5.2 %	4.9 %	8.7 %	5.7 %	5.2 %	4.2 %	4.7 %	3.4 %	5.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	95.351 %	11.386 ppb	10.057 ppb	94.618 ppb	97.633 ppb	94.920 %	5.152 ppb	5.298 ppb	93.096 %
Concentration per Run 1	96.121 %	11.465 ppb	10.523 ppb	90.331 ppb	93.691 ppb	92.671 %	5.171 ppb	5.162 ppb	90.774 %
Concentration per Run 2	92.111 %	11.442 ppb	9.269 ppb	97.439 ppb	99.703 ppb	95.109 %	5.175 ppb	5.279 ppb	93.168 %
Concentration per Run 3	97.821 %	11.251 ppb	10.378 ppb	96.084 ppb	99.506 ppb	96.981 %	5.109 ppb	5.453 ppb	95.346 %
Concentration RSD	3.1 %	1.0 %	6.8 %	4.0 %	3.5 %	2.3 %	0.7 %	2.8 %	2.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	44.378 ppb	198.991 ppb	98.571 %	101.079 %	11.555 ppb	55.396 ppb
Concentration per Run 1	41.638 ppb	193.928 ppb	96.479 %	98.194 %	11.409 ppb	54.860 ppb
Concentration per Run 2	45.670 ppb	202.672 ppb	98.976 %	101.694 %	11.507 ppb	55.521 ppb
Concentration per Run 3	45.827 ppb	200.375 ppb	100.258 %	103.349 %	11.747 ppb	55.806 ppb
Concentration RSD	5.4 %	2.3 %	1.9 %	2.6 %	1.5 %	0.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	20	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448513-01 2008SL	Rack	1		
Analysis started at:	8/28/2024 7:02:47 AM	Vial	3		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.036 %	99.018 %	0.005 ppb	10,703.163 ppb	4,547.466 ppb	10.536 ppb	1,198.401 ppb	18,430.542 ppb	97.835 %
Concentration per Run 1	96.782 %	101.375 %	0.008 ppb	10,151.111 ppb	4,252.742 ppb	9.365 ppb	1,178.493 ppb	18,598.604 ppb	96.008 %
Concentration per Run 2	97.519 %	78.389 %	-0.003 ppb	12,109.185 ppb	5,148.241 ppb	14.316 ppb	1,177.250 ppb	18,261.556 ppb	98.644 %
Concentration per Run 3	96.807 %	117.289 %	0.010 ppb	9,849.192 ppb	4,241.415 ppb	7.927 ppb	1,239.460 ppb	18,431.466 ppb	98.852 %
Concentration RSD	0.4 %	19.8 %	145.3 %	11.5 %	11.4 %	31.8 %	3.0 %	0.9 %	1.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	97.862 %	0.133 ppb	0.170 ppb	1.498 ppb	16.534 ppb	0.034 ppb	0.904 ppb	1.387 ppb	2.349 ppb
Concentration per Run 1	92.677 %	-0.034 ppb	0.128 ppb	1.472 ppb	15.656 ppb	0.019 ppb	1.014 ppb	1.339 ppb	2.146 ppb
Concentration per Run 2	98.771 %	0.347 ppb	0.181 ppb	1.678 ppb	15.707 ppb	0.019 ppb	0.719 ppb	1.446 ppb	2.588 ppb
Concentration per Run 3	102.138 %	0.085 ppb	0.201 ppb	1.344 ppb	18.240 ppb	0.063 ppb	0.979 ppb	1.375 ppb	2.315 ppb
Concentration RSD	4.9 %	146.5 %	22.4 %	11.2 %	8.9 %	74.8 %	17.8 %	3.9 %	9.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	94.284 %	0.446 ppb	0.091 ppb	81.933 ppb	0.894 ppb	96.527 %	-0.001 ppb	0.008 ppb	94.423 %
Concentration per Run 1	92.001 %	0.504 ppb	0.027 ppb	82.012 ppb	0.826 ppb	95.905 %	-0.003 ppb	0.005 ppb	91.339 %
Concentration per Run 2	92.000 %	0.314 ppb	0.308 ppb	83.446 ppb	0.760 ppb	94.955 %	0.003 ppb	0.010 ppb	95.323 %
Concentration per Run 3	98.850 %	0.520 ppb	-0.061 ppb	80.340 ppb	1.096 ppb	98.723 %	-0.003 ppb	0.010 ppb	96.606 %
Concentration RSD	4.2 %	25.7 %	210.7 %	1.9 %	19.9 %	2.0 %	295.8 %	33.2 %	2.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	1.080 ppb	7.980 ppb	99.976 %	100.432 %	0.022 ppb	0.079 ppb
Concentration per Run 1	0.980 ppb	7.446 ppb	96.000 %	96.411 %	0.014 ppb	0.079 ppb
Concentration per Run 2	1.109 ppb	8.139 ppb	101.086 %	101.582 %	0.029 ppb	0.078 ppb
Concentration per Run 3	1.150 ppb	8.355 ppb	102.843 %	103.304 %	0.024 ppb	0.080 ppb
Concentration RSD	8.2 %	6.0 %	3.6 %	3.6 %	32.9 %	1.7 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	21	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964225-3d10 2008SL	Rack	1		
Analysis started at:	8/28/2024 7:07:15 AM	Vial	4		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.610 %	103.929 %	5.124 ppb	2,213.213 ppb	1,503.868 ppb	215.379 ppb	1,186.859 ppb	2,874.970 ppb	99.166 %
Concentration per Run 1	98.053 %	99.607 %	5.149 ppb	2,189.657 ppb	1,528.701 ppb	217.629 ppb	1,168.210 ppb	2,761.569 ppb	98.915 %
Concentration per Run 2	98.872 %	96.660 %	5.182 ppb	2,289.268 ppb	1,527.716 ppb	224.243 ppb	1,189.453 ppb	2,833.569 ppb	99.722 %
Concentration per Run 3	98.905 %	115.521 %	5.041 ppb	2,160.715 ppb	1,455.186 ppb	204.266 ppb	1,202.915 ppb	3,029.771 ppb	98.861 %
Concentration RSD	0.5 %	9.8 %	1.4 %	3.0 %	2.8 %	4.7 %	1.5 %	4.8 %	0.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	102.566 %	51.350 ppb	20.565 ppb	52.281 ppb	101.990 ppb	51.895 ppb	51.766 ppb	26.133 ppb	51.203 ppb
Concentration per Run 1	102.779 %	50.410 ppb	19.203 ppb	51.669 ppb	89.175 ppb	50.738 ppb	49.502 ppb	25.260 ppb	50.475 ppb
Concentration per Run 2	105.826 %	50.710 ppb	20.470 ppb	50.158 ppb	110.397 ppb	51.683 ppb	52.446 ppb	26.434 ppb	51.383 ppb
Concentration per Run 3	99.091 %	52.928 ppb	22.024 ppb	55.016 ppb	106.399 ppb	53.263 ppb	53.351 ppb	26.704 ppb	51.751 ppb
Concentration RSD	3.3 %	2.7 %	6.9 %	4.8 %	11.1 %	2.5 %	3.9 %	2.9 %	1.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	98.948 %	11.262 ppb	11.910 ppb	99.957 ppb	97.398 ppb	98.948 %	4.999 ppb	5.303 ppb	96.803 %
Concentration per Run 1	99.845 %	10.965 ppb	12.125 ppb	99.217 ppb	95.997 ppb	100.205 %	4.820 ppb	5.366 ppb	98.024 %
Concentration per Run 2	97.515 %	11.399 ppb	10.822 ppb	97.669 ppb	98.161 ppb	97.662 %	5.136 ppb	5.331 ppb	94.872 %
Concentration per Run 3	99.484 %	11.423 ppb	12.783 ppb	102.986 ppb	98.036 ppb	98.978 %	5.041 ppb	5.211 ppb	97.513 %
Concentration RSD	1.3 %	2.3 %	8.4 %	2.7 %	1.2 %	1.3 %	3.2 %	1.5 %	1.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	46.024 ppb	198.629 ppb	103.283 %	103.187 %	11.470 ppb	54.127 ppb
Concentration per Run 1	44.312 ppb	195.729 ppb	104.448 %	103.221 %	11.148 ppb	52.898 ppb
Concentration per Run 2	47.194 ppb	201.036 ppb	101.049 %	102.083 %	11.632 ppb	54.845 ppb
Concentration per Run 3	46.566 ppb	199.121 ppb	104.353 %	104.257 %	11.628 ppb	54.639 ppb
Concentration RSD	3.3 %	1.4 %	1.9 %	1.1 %	2.4 %	2.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	22	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964225-4 2008SL	Rack	1		
Analysis started at:	8/28/2024 7:11:42 AM	Vial	5		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.915 %	105.108 %	-0.002 ppb	10,229.677 ppb	4,322.630 ppb	9.243 ppb	1,152.971 ppb	17,704.594 ppb	101.052 %
Concentration per Run 1	99.201 %	101.375 %	-0.008 ppb	9,942.961 ppb	4,188.645 ppb	9.052 ppb	1,084.999 ppb	16,769.947 ppb	100.765 %
Concentration per Run 2	99.114 %	103.143 %	0.000 ppb	10,380.159 ppb	4,398.935 ppb	8.607 ppb	1,142.802 ppb	17,978.039 ppb	100.749 %
Concentration per Run 3	101.429 %	110.806 %	0.002 ppb	10,365.910 ppb	4,380.308 ppb	10.072 ppb	1,231.111 ppb	18,365.796 ppb	101.642 %
Concentration RSD	1.3 %	4.8 %	229.0 %	2.4 %	2.7 %	8.1 %	6.4 %	4.7 %	0.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	103.261 %	0.199 ppb	0.180 ppb	1.707 ppb	20.125 ppb	0.044 ppb	0.634 ppb	1.020 ppb	1.530 ppb
Concentration per Run 1	108.713 %	0.158 ppb	0.163 ppb	1.584 ppb	25.048 ppb	0.076 ppb	0.532 ppb	1.088 ppb	1.507 ppb
Concentration per Run 2	97.167 %	0.232 ppb	0.195 ppb	1.950 ppb	22.277 ppb	0.018 ppb	0.638 ppb	1.078 ppb	1.429 ppb
Concentration per Run 3	103.902 %	0.207 ppb	0.181 ppb	1.587 ppb	13.049 ppb	0.039 ppb	0.732 ppb	0.895 ppb	1.655 ppb
Concentration RSD	5.6 %	18.9 %	8.8 %	12.3 %	31.2 %	66.7 %	15.8 %	10.6 %	7.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	99.410 %	0.400 ppb	0.102 ppb	79.178 ppb	0.885 ppb	97.946 %	0.000 ppb	0.002 ppb	96.206 %
Concentration per Run 1	95.164 %	0.429 ppb	0.212 ppb	78.512 ppb	0.875 ppb	98.024 %	0.002 ppb	0.005 ppb	97.036 %
Concentration per Run 2	99.301 %	0.392 ppb	-0.086 ppb	80.329 ppb	0.820 ppb	94.117 %	-0.001 ppb	0.000 ppb	91.895 %
Concentration per Run 3	103.766 %	0.378 ppb	0.181 ppb	78.693 ppb	0.962 ppb	101.696 %	-0.001 ppb	0.000 ppb	99.689 %
Concentration RSD	4.3 %	6.5 %	160.5 %	1.3 %	8.1 %	3.9 %	2,752.4 %	173.2 %	4.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.997 ppb	7.711 ppb	102.487 %	102.937 %	0.017 ppb	0.071 ppb
Concentration per Run 1	0.968 ppb	7.497 ppb	103.569 %	102.700 %	0.010 ppb	0.076 ppb
Concentration per Run 2	0.977 ppb	7.684 ppb	98.855 %	99.865 %	0.026 ppb	0.065 ppb
Concentration per Run 3	1.045 ppb	7.952 ppb	105.036 %	106.246 %	0.015 ppb	0.072 ppb
Concentration RSD	4.2 %	3.0 %	3.2 %	3.1 %	49.7 %	7.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	23	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448514-01 2008SL	Rack	1		
Analysis started at:	8/28/2024 7:16:10 AM	Vial	6		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.024 %	104.912 %	0.008 ppb	15,164.095 ppb	4,587.257 ppb	38.544 ppb	1,540.332 ppb	23,567.456 ppb	102.809 %
Concentration per Run 1	98.736 %	116.110 %	0.014 ppb	14,596.249 ppb	4,453.390 ppb	31.018 ppb	1,620.008 ppb	24,912.402 ppb	101.441 %
Concentration per Run 2	99.502 %	93.713 %	0.008 ppb	16,156.671 ppb	4,849.652 ppb	43.355 ppb	1,584.801 ppb	24,332.320 ppb	102.791 %
Concentration per Run 3	98.836 %	104.912 %	0.001 ppb	14,739.366 ppb	4,458.728 ppb	41.260 ppb	1,416.186 ppb	21,457.645 ppb	104.196 %
Concentration RSD	0.4 %	10.7 %	85.3 %	5.7 %	5.0 %	17.1 %	7.1 %	7.8 %	1.3 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	106.682 %	0.476 ppb	0.144 ppb	3.931 ppb	106.554 ppb	0.062 ppb	0.461 ppb	1.414 ppb	1.192 ppb
Concentration per Run 1	98.450 %	0.364 ppb	0.208 ppb	4.107 ppb	110.752 ppb	0.072 ppb	0.524 ppb	1.359 ppb	1.341 ppb
Concentration per Run 2	103.902 %	0.531 ppb	0.110 ppb	3.975 ppb	100.938 ppb	0.032 ppb	0.336 ppb	1.565 ppb	1.253 ppb
Concentration per Run 3	117.693 %	0.534 ppb	0.114 ppb	3.711 ppb	107.972 ppb	0.082 ppb	0.522 ppb	1.316 ppb	0.982 ppb
Concentration RSD	9.3 %	20.4 %	38.9 %	5.1 %	4.7 %	43.2 %	23.4 %	9.4 %	15.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.578 %	0.654 ppb	0.107 ppb	125.500 ppb	0.900 ppb	100.074 %	0.000 ppb	0.005 ppb	98.008 %
Concentration per Run 1	98.434 %	0.611 ppb	0.117 ppb	128.719 ppb	0.845 ppb	101.095 %	-0.001 ppb	0.005 ppb	100.055 %
Concentration per Run 2	102.193 %	0.767 ppb	0.183 ppb	121.465 ppb	0.894 ppb	96.576 %	0.001 ppb	0.005 ppb	92.757 %
Concentration per Run 3	107.108 %	0.583 ppb	0.022 ppb	126.315 ppb	0.960 ppb	102.552 %	0.000 ppb	0.005 ppb	101.211 %
Concentration RSD	4.2 %	15.2 %	75.5 %	2.9 %	6.4 %	3.1 %	3,857.6 %	4.2 %	4.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.471 ppb	19.708 ppb	102.300 %	102.752 %	0.013 ppb	0.262 ppb
Concentration per Run 1	0.426 ppb	19.286 ppb	103.197 %	103.372 %	0.005 ppb	0.262 ppb
Concentration per Run 2	0.494 ppb	19.331 ppb	99.640 %	99.636 %	0.014 ppb	0.281 ppb
Concentration per Run 3	0.493 ppb	20.506 ppb	104.064 %	105.249 %	0.018 ppb	0.244 ppb
Concentration RSD	8.2 %	3.5 %	2.3 %	2.8 %	52.6 %	7.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	24	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964225-5d10 2008SL	Rack	1		
Analysis started at:	8/28/2024 7:20:39 AM	Vial	7		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.398 %	123.772 %	5.365 ppb	2,522.230 ppb	1,480.493 ppb	211.802 ppb	1,228.588 ppb	3,516.622 ppb	105.343 %
Concentration per Run 1	102.428 %	116.699 %	5.296 ppb	2,556.180 ppb	1,472.828 ppb	209.374 ppb	1,206.617 ppb	3,514.100 ppb	104.748 %
Concentration per Run 2	102.481 %	124.362 %	5.395 ppb	2,537.483 ppb	1,524.124 ppb	219.573 ppb	1,251.917 ppb	3,517.308 ppb	105.058 %
Concentration per Run 3	102.286 %	130.256 %	5.404 ppb	2,473.027 ppb	1,444.528 ppb	206.457 ppb	1,227.232 ppb	3,518.457 ppb	106.223 %
Concentration RSD	0.1 %	5.5 %	1.1 %	1.7 %	2.7 %	3.3 %	1.8 %	0.1 %	0.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	103.474 %	54.564 ppb	21.654 ppb	54.487 ppb	127.675 ppb	54.065 ppb	54.934 ppb	26.454 ppb	53.655 ppb
Concentration per Run 1	105.345 %	53.466 ppb	20.964 ppb	55.296 ppb	125.756 ppb	53.207 ppb	54.664 ppb	25.884 ppb	54.093 ppb
Concentration per Run 2	99.252 %	55.958 ppb	22.704 ppb	55.805 ppb	138.704 ppb	54.572 ppb	56.279 ppb	25.615 ppb	53.442 ppb
Concentration per Run 3	105.826 %	54.267 ppb	21.295 ppb	52.360 ppb	118.565 ppb	54.418 ppb	53.857 ppb	27.863 ppb	53.430 ppb
Concentration RSD	3.5 %	2.3 %	4.3 %	3.4 %	8.0 %	1.4 %	2.2 %	4.6 %	0.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.401 %	11.770 ppb	10.593 ppb	108.584 ppb	99.648 ppb	103.597 %	5.161 ppb	5.371 ppb	101.840 %
Concentration per Run 1	99.377 %	11.602 ppb	11.296 ppb	108.699 ppb	98.517 ppb	104.316 %	4.974 ppb	5.275 ppb	103.988 %
Concentration per Run 2	103.859 %	11.306 ppb	9.757 ppb	107.694 ppb	99.774 ppb	103.439 %	5.219 ppb	5.489 ppb	100.383 %
Concentration per Run 3	103.966 %	12.401 ppb	10.726 ppb	109.358 ppb	100.653 ppb	103.036 %	5.290 ppb	5.349 ppb	101.150 %
Concentration RSD	2.6 %	4.8 %	7.3 %	0.8 %	1.1 %	0.6 %	3.2 %	2.0 %	1.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	46.302 ppb	202.520 ppb	105.308 %	105.211 %	11.592 ppb	54.771 ppb
Concentration per Run 1	44.819 ppb	197.579 ppb	105.946 %	103.183 %	11.606 ppb	54.513 ppb
Concentration per Run 2	46.701 ppb	204.653 ppb	104.685 %	105.967 %	11.551 ppb	54.303 ppb
Concentration per Run 3	47.387 ppb	205.329 ppb	105.293 %	106.483 %	11.621 ppb	55.497 ppb
Concentration RSD	2.9 %	2.1 %	0.6 %	1.7 %	0.3 %	1.2 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	25	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964225-6 2008SL	Rack	1		
Analysis started at:	8/28/2024 7:25:07 AM	Vial	8		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.044 %	117.878 %	0.002 ppb	14,968.290 ppb	4,513.578 ppb	37.730 ppb	1,564.170 ppb	25,178.289 ppb	108.164 %
Concentration per Run 1	102.932 %	121.415 %	0.001 ppb	14,015.985 ppb	4,299.869 ppb	36.799 ppb	1,456.643 ppb	23,788.579 ppb	108.258 %
Concentration per Run 2	102.347 %	109.627 %	0.001 ppb	15,367.621 ppb	4,587.325 ppb	33.653 ppb	1,536.525 ppb	24,166.338 ppb	106.411 %
Concentration per Run 3	103.854 %	122.593 %	0.004 ppb	15,521.264 ppb	4,653.541 ppb	42.737 ppb	1,699.342 ppb	27,579.948 ppb	109.824 %
Concentration RSD	0.7 %	6.1 %	74.6 %	5.5 %	4.2 %	12.2 %	7.9 %	8.3 %	1.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	105.078 %	0.539 ppb	0.215 ppb	3.824 ppb	116.722 ppb	0.069 ppb	0.521 ppb	1.562 ppb	0.954 ppb
Concentration per Run 1	107.269 %	0.360 ppb	0.243 ppb	3.786 ppb	103.003 ppb	0.058 ppb	0.574 ppb	1.638 ppb	0.988 ppb
Concentration per Run 2	104.062 %	0.549 ppb	0.231 ppb	3.823 ppb	113.208 ppb	0.104 ppb	0.438 ppb	1.826 ppb	0.950 ppb
Concentration per Run 3	103.902 %	0.709 ppb	0.170 ppb	3.865 ppb	133.955 ppb	0.044 ppb	0.550 ppb	1.222 ppb	0.922 ppb
Concentration RSD	1.8 %	32.4 %	18.1 %	1.0 %	13.5 %	45.4 %	13.9 %	19.8 %	3.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	107.608 %	0.698 ppb	0.217 ppb	128.983 ppb	1.116 ppb	104.654 %	-0.001 ppb	0.006 ppb	105.294 %
Concentration per Run 1	108.192 %	0.656 ppb	0.160 ppb	122.941 ppb	1.002 ppb	105.341 %	-0.001 ppb	0.009 ppb	102.995 %
Concentration per Run 2	103.983 %	0.666 ppb	0.186 ppb	128.917 ppb	1.118 ppb	102.125 %	0.000 ppb	0.005 ppb	102.430 %
Concentration per Run 3	110.650 %	0.773 ppb	0.305 ppb	135.092 ppb	1.228 ppb	106.495 %	-0.001 ppb	0.004 ppb	110.457 %
Concentration RSD	3.1 %	9.3 %	35.7 %	4.7 %	10.1 %	2.2 %	151.2 %	44.5 %	4.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.936 ppb	19.735 ppb	107.553 %	107.940 %	0.021 ppb	0.234 ppb
Concentration per Run 1	0.888 ppb	19.227 ppb	106.716 %	106.964 %	0.015 ppb	0.233 ppb
Concentration per Run 2	0.866 ppb	19.948 ppb	106.657 %	104.885 %	0.026 ppb	0.237 ppb
Concentration per Run 3	1.055 ppb	20.029 ppb	109.287 %	111.971 %	0.022 ppb	0.233 ppb
Concentration RSD	11.0 %	2.2 %	1.4 %	3.4 %	27.7 %	1.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	26	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448513-02 2008SL	Rack	1		
Analysis started at:	8/28/2024 7:29:36 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.961 %	119.254 %	-0.001 ppb	10,330.033 ppb	4,441.671 ppb	7.007 ppb	1,189.581 ppb	18,381.194 ppb	109.440 %
Concentration per Run 1	103.214 %	122.004 %	-0.001 ppb	9,906.913 ppb	4,249.204 ppb	6.214 ppb	1,198.483 ppb	18,141.978 ppb	107.957 %
Concentration per Run 2	104.409 %	116.110 %	-0.006 ppb	10,686.374 ppb	4,530.800 ppb	6.958 ppb	1,191.837 ppb	19,505.439 ppb	109.629 %
Concentration per Run 3	104.259 %	119.646 %	0.003 ppb	10,396.814 ppb	4,545.008 ppb	7.848 ppb	1,178.422 ppb	17,496.164 ppb	110.734 %
Concentration RSD	0.6 %	2.5 %	338.3 %	3.8 %	3.8 %	11.7 %	0.9 %	5.6 %	1.3 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	110.156 %	0.142 ppb	0.131 ppb	0.552 ppb	15.831 ppb	0.025 ppb	0.537 ppb	0.907 ppb	0.432 ppb
Concentration per Run 1	106.307 %	0.220 ppb	0.162 ppb	0.577 ppb	14.664 ppb	0.031 ppb	0.559 ppb	1.101 ppb	0.354 ppb
Concentration per Run 2	101.497 %	0.107 ppb	0.112 ppb	0.573 ppb	23.453 ppb	0.010 ppb	0.587 ppb	0.809 ppb	0.461 ppb
Concentration per Run 3	122.664 %	0.098 ppb	0.119 ppb	0.507 ppb	9.375 ppb	0.033 ppb	0.466 ppb	0.812 ppb	0.481 ppb
Concentration RSD	10.1 %	48.1 %	20.6 %	7.1 %	44.9 %	52.2 %	11.7 %	18.5 %	15.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	107.325 %	0.506 ppb	0.036 ppb	81.626 ppb	0.389 ppb	106.321 %	-0.002 ppb	0.002 ppb	106.574 %
Concentration per Run 1	105.662 %	0.451 ppb	0.082 ppb	78.416 ppb	0.320 ppb	105.902 %	-0.001 ppb	0.005 ppb	102.943 %
Concentration per Run 2	101.614 %	0.524 ppb	0.099 ppb	82.794 ppb	0.418 ppb	104.922 %	-0.003 ppb	0.000 ppb	105.952 %
Concentration per Run 3	114.699 %	0.543 ppb	-0.074 ppb	83.670 ppb	0.429 ppb	108.139 %	-0.003 ppb	0.000 ppb	110.825 %
Concentration RSD	6.2 %	9.7 %	265.7 %	3.4 %	15.6 %	1.6 %	40.8 %	173.2 %	3.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.352 ppb	7.646 ppb	108.372 %	109.164 %	0.007 ppb	0.038 ppb
Concentration per Run 1	0.292 ppb	7.071 ppb	105.989 %	105.780 %	0.001 ppb	0.038 ppb
Concentration per Run 2	0.351 ppb	8.113 ppb	107.090 %	107.138 %	0.008 ppb	0.039 ppb
Concentration per Run 3	0.413 ppb	7.755 ppb	112.037 %	114.574 %	0.011 ppb	0.035 ppb
Concentration RSD	17.1 %	6.9 %	3.0 %	4.3 %	72.8 %	5.3 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	27	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448513-03 2008SL	Rack	1		
Analysis started at:	8/28/2024 7:34:06 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.329 %	121.808 %	-0.001 ppb	9,930.070 ppb	4,233.375 ppb	7.202 ppb	1,122.527 ppb	17,331.440 ppb	111.510 %
Concentration per Run 1	105.574 %	107.859 %	-0.006 ppb	10,598.269 ppb	4,593.738 ppb	7.828 ppb	1,212.763 ppb	17,910.127 ppb	109.496 %
Concentration per Run 2	106.958 %	132.613 %	0.000 ppb	9,138.752 ppb	3,843.173 ppb	6.045 ppb	1,043.978 ppb	16,564.778 ppb	112.056 %
Concentration per Run 3	106.455 %	124.951 %	0.005 ppb	10,053.189 ppb	4,263.215 ppb	7.733 ppb	1,110.839 ppb	17,519.416 ppb	112.978 %
Concentration RSD	0.7 %	10.4 %	764.0 %	7.4 %	8.9 %	13.9 %	7.6 %	4.0 %	1.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	118.174 %	0.200 ppb	0.134 ppb	1.423 ppb	30.454 ppb	0.023 ppb	1.049 ppb	0.916 ppb	0.769 ppb
Concentration per Run 1	109.515 %	0.349 ppb	0.189 ppb	1.585 ppb	40.650 ppb	0.002 ppb	1.234 ppb	0.801 ppb	0.774 ppb
Concentration per Run 2	120.900 %	0.138 ppb	0.121 ppb	1.166 ppb	25.032 ppb	0.040 ppb	1.081 ppb	0.739 ppb	0.746 ppb
Concentration per Run 3	124.107 %	0.113 ppb	0.093 ppb	1.517 ppb	25.680 ppb	0.026 ppb	0.831 ppb	1.209 ppb	0.786 ppb
Concentration RSD	6.5 %	64.6 %	37.0 %	15.8 %	29.0 %	85.0 %	19.4 %	27.9 %	2.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	113.555 %	0.450 ppb	0.012 ppb	77.893 ppb	0.333 ppb	110.663 %	-0.001 ppb	0.000 ppb	109.853 %
Concentration per Run 1	110.940 %	0.319 ppb	0.091 ppb	76.186 ppb	0.301 ppb	111.069 %	-0.001 ppb	0.000 ppb	108.937 %
Concentration per Run 2	114.537 %	0.598 ppb	-0.065 ppb	75.943 ppb	0.312 ppb	110.424 %	0.000 ppb	0.000 ppb	108.239 %
Concentration per Run 3	115.187 %	0.431 ppb	0.011 ppb	81.550 ppb	0.385 ppb	110.497 %	-0.003 ppb	0.000 ppb	112.383 %
Concentration RSD	2.0 %	31.3 %	631.4 %	4.1 %	13.6 %	0.3 %	120.3 %	N/A	2.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.261 ppb	7.413 ppb	110.483 %	110.933 %	0.006 ppb	0.038 ppb
Concentration per Run 1	0.248 ppb	7.703 ppb	108.916 %	109.426 %	-0.001 ppb	0.034 ppb
Concentration per Run 2	0.262 ppb	7.337 ppb	109.220 %	108.841 %	0.008 ppb	0.038 ppb
Concentration per Run 3	0.274 ppb	7.199 ppb	113.314 %	114.533 %	0.011 ppb	0.041 ppb
Concentration RSD	5.1 %	3.5 %	2.2 %	2.8 %	99.8 %	9.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	28	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	xCCV	Rack	0		
Analysis started at:	8/28/2024 7:38:36 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	254.656 %	137.132 %	0.061 ppb	5,665.803 ppb	5,627.219 ppb	57.799 ppb	6,026.111 ppb	6,347.964 ppb	14.500 %
Concentration per Run 1	245.569 %	116.699 %	0.068 ppb	6,460.578 ppb	6,391.345 ppb	64.211 ppb	6,458.263 ppb	6,649.252 ppb	13.021 %
Concentration per Run 2	264.887 %	120.236 %	0.059 ppb	6,464.776 ppb	6,391.574 ppb	66.036 ppb	6,308.565 ppb	6,709.405 ppb	15.776 %
Concentration per Run 3	253.513 %	174.461 %	0.057 ppb	4,072.055 ppb	4,098.737 ppb	43.150 ppb	5,311.506 ppb	5,685.237 ppb	14.704 %
Recovery Percentage 1			0.102 %	94.430 %	93.787 %	96.332 %	100.435 %	105.799 %	
Concentration RSD	3.8 %	23.6 %	9.3 %	24.4 %	23.5 %	22.0 %	10.3 %	9.1 %	9.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	101.604 %	59.797 ppb	59.188 ppb	57.461 ppb	5,776.569 ppb	57.993 ppb	57.403 ppb	55.036 ppb	54.499 ppb
Concentration per Run 1	107.590 %	63.220 ppb	63.362 ppb	62.931 ppb	6,540.593 ppb	65.834 ppb	64.448 ppb	64.533 ppb	63.078 ppb
Concentration per Run 2	107.109 %	64.589 ppb	65.418 ppb	63.398 ppb	6,536.795 ppb	65.130 ppb	65.806 ppb	63.793 ppb	64.566 ppb
Concentration per Run 3	90.112 %	51.581 ppb	48.783 ppb	46.053 ppb	4,252.318 ppb	43.014 ppb	41.955 ppb	36.784 ppb	35.853 ppb
Recovery Percentage 1		99.661 %	98.646 %	95.768 %	96.276 %	96.654 %	95.672 %	91.727 %	90.831 %
Concentration RSD	9.8 %	12.0 %	15.3 %	17.2 %	22.9 %	22.4 %	23.3 %	28.7 %	29.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	121.365 %	53.503 ppb	51.603 ppb	50.430 ppb	53.649 ppb	104.781 %	57.041 ppb	57.778 ppb	96.618 %
Concentration per Run 1	103.977 %	65.419 ppb	62.560 ppb	57.929 ppb	59.065 ppb	105.576 %	61.451 ppb	61.464 ppb	103.450 %
Concentration per Run 2	103.212 %	63.677 ppb	61.308 ppb	59.730 ppb	62.057 ppb	103.233 %	63.059 ppb	62.584 ppb	100.105 %
Concentration per Run 3	156.906 %	31.413 ppb	30.942 ppb	33.631 ppb	39.825 ppb	105.535 %	46.613 ppb	49.285 ppb	86.300 %
Recovery Percentage 1		89.172 %	86.006 %	84.050 %	89.415 %		95.068 %	96.297 %	
Concentration RSD	25.4 %	35.8 %	34.7 %	28.9 %	22.5 %	1.3 %	15.9 %	12.8 %	9.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	57.402 ppb	56.958 ppb	102.895 %	101.974 %	58.903 ppb	58.881 ppb
Concentration per Run 1	59.565 ppb	60.430 ppb	106.254 %	105.117 %	61.648 ppb	62.746 ppb
Concentration per Run 2	61.780 ppb	61.440 ppb	107.114 %	104.138 %	64.301 ppb	64.536 ppb
Concentration per Run 3	50.862 ppb	49.002 ppb	95.318 %	96.667 %	50.761 ppb	49.362 ppb
Recovery Percentage 1	95.670 %	94.929 %			98.172 %	98.135 %
Concentration RSD	10.1 %	12.1 %	6.4 %	4.5 %	12.2 %	14.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	29	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	xCCB	Rack	0		
Analysis started at:	8/28/2024 7:43:07 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.758 %	119.057 %	0.013 ppb	-1.154 ppb	2.376 ppb	-0.272 ppb	-10.275 ppb	17.977 ppb	105.205 %
Concentration per Run 1	102.078 %	117.878 %	0.009 ppb	-3.396 ppb	2.430 ppb	-0.609 ppb	-17.699 ppb	7.495 ppb	104.888 %
Concentration per Run 2	103.118 %	108.448 %	0.015 ppb	1.364 ppb	1.451 ppb	0.063 ppb	-13.817 ppb	21.577 ppb	103.963 %
Concentration per Run 3	103.077 %	130.845 %	0.015 ppb	-1.430 ppb	3.248 ppb	-0.270 ppb	0.692 ppb	24.858 ppb	106.764 %
Recovery Percentage 1			2.542 %	-1.154 %	3.395 %	-2.717 %	-10.275 %	17.977 %	
Concentration RSD	0.6 %	9.4 %	27.2 %	207.3 %	37.9 %	123.7 %	94.3 %	51.3 %	1.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	106.628 %	-0.094 ppb	0.054 ppb	0.038 ppb	4.155 ppb	0.016 ppb	0.072 ppb	0.017 ppb	-0.097 ppb
Concentration per Run 1	106.628 %	-0.073 ppb	0.021 ppb	0.059 ppb	5.028 ppb	0.016 ppb	0.090 ppb	-0.023 ppb	-0.154 ppb
Concentration per Run 2	106.468 %	-0.094 ppb	0.056 ppb	-0.002 ppb	5.623 ppb	0.009 ppb	0.063 ppb	0.096 ppb	-0.118 ppb
Concentration per Run 3	106.789 %	-0.115 ppb	0.084 ppb	0.059 ppb	1.815 ppb	0.023 ppb	0.064 ppb	-0.023 ppb	-0.019 ppb
Recovery Percentage 1		-1.883 %	5.389 %	3.846 %	8.311 %	3.261 %	3.613 %	1.657 %	-1.936 %
Concentration RSD	0.2 %	22.2 %	58.7 %	91.7 %	49.3 %	44.1 %	21.3 %	414.4 %	72.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.777 %	0.064 ppb	0.115 ppb	0.053 ppb	0.205 ppb	107.054 %	0.015 ppb	0.019 ppb	104.826 %
Concentration per Run 1	105.229 %	0.038 ppb	0.004 ppb	0.035 ppb	0.138 ppb	106.592 %	0.013 ppb	0.031 ppb	103.329 %
Concentration per Run 2	107.036 %	0.046 ppb	0.167 ppb	0.064 ppb	0.227 ppb	106.569 %	0.016 ppb	0.018 ppb	104.621 %
Concentration per Run 3	105.067 %	0.109 ppb	0.176 ppb	0.061 ppb	0.251 ppb	108.001 %	0.015 ppb	0.009 ppb	106.526 %
Recovery Percentage 1		12.874 %	2.309 %	0.532 %	10.255 %		3.674 %	9.652 %	
Concentration RSD	1.0 %	60.8 %	83.6 %	30.6 %	29.0 %	0.8 %	10.7 %	59.0 %	1.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.115 ppb	0.037 ppb	106.833 %	106.771 %	0.217 ppb	0.055 ppb
Concentration per Run 1	0.086 ppb	0.018 ppb	106.663 %	106.712 %	0.182 ppb	0.056 ppb
Concentration per Run 2	0.130 ppb	0.046 ppb	107.380 %	106.675 %	0.262 ppb	0.062 ppb
Concentration per Run 3	0.128 ppb	0.046 ppb	106.457 %	106.927 %	0.208 ppb	0.047 ppb
Recovery Percentage 1	2.872 %	7.325 %			21.735 %	5.497 %
Concentration RSD	21.5 %	43.3 %	0.5 %	0.1 %	18.7 %	13.3 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	30	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 7:48:23 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.396 %	109.627 %	61.580 ppb	6,451.256 ppb	6,382.111 ppb	65.339 ppb	6,202.285 ppb	6,096.491 ppb	103.574 %
Concentration per Run 1	99.648 %	110.216 %	61.391 ppb	6,359.148 ppb	6,374.209 ppb	70.113 ppb	6,290.444 ppb	6,312.994 ppb	104.716 %
Concentration per Run 2	99.302 %	103.733 %	61.985 ppb	6,544.817 ppb	6,339.738 ppb	59.524 ppb	6,047.875 ppb	5,645.312 ppb	103.734 %
Concentration per Run 3	99.237 %	114.931 %	61.363 ppb	6,449.804 ppb	6,432.385 ppb	66.380 ppb	6,268.537 ppb	6,331.167 ppb	102.271 %
Recovery Percentage 1			102.633 %	107.521 %	106.369 %	108.898 %	103.371 %	101.608 %	
Concentration RSD	0.2 %	5.1 %	0.6 %	1.4 %	0.7 %	8.2 %	2.2 %	6.4 %	1.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	112.080 %	61.374 ppb	60.877 ppb	61.200 ppb	6,165.292 ppb	61.671 ppb	60.793 ppb	61.250 ppb	61.133 ppb
Concentration per Run 1	104.383 %	64.746 ppb	63.259 ppb	60.302 ppb	6,226.002 ppb	63.103 ppb	65.132 ppb	62.889 ppb	61.497 ppb
Concentration per Run 2	112.722 %	60.196 ppb	59.740 ppb	61.524 ppb	6,290.756 ppb	61.644 ppb	60.207 ppb	62.593 ppb	62.338 ppb
Concentration per Run 3	119.136 %	59.181 ppb	59.633 ppb	61.775 ppb	5,979.117 ppb	60.267 ppb	57.040 ppb	58.267 ppb	59.565 ppb
Recovery Percentage 1		102.290 %	101.462 %	102.000 %	102.755 %	102.785 %	101.322 %	102.083 %	101.889 %
Concentration RSD	6.6 %	4.8 %	3.4 %	1.3 %	2.7 %	2.3 %	6.7 %	4.2 %	2.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.708 %	62.645 ppb	62.161 ppb	59.123 ppb	60.715 ppb	102.922 %	61.114 ppb	60.514 ppb	102.938 %
Concentration per Run 1	100.321 %	61.717 ppb	59.491 ppb	58.163 ppb	60.300 ppb	101.708 %	61.434 ppb	60.261 ppb	99.016 %
Concentration per Run 2	100.359 %	63.819 ppb	63.427 ppb	58.153 ppb	59.804 ppb	102.915 %	60.745 ppb	60.193 ppb	101.655 %
Concentration per Run 3	110.445 %	62.400 ppb	63.564 ppb	61.052 ppb	62.041 ppb	104.144 %	61.164 ppb	61.089 ppb	108.142 %
Recovery Percentage 1		104.409 %	103.601 %	98.538 %	101.192 %		101.857 %	100.857 %	
Concentration RSD	5.6 %	1.7 %	3.7 %	2.8 %	1.9 %	1.2 %	0.6 %	0.8 %	4.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	59.271 ppb	60.306 ppb	105.179 %	106.879 %	60.849 ppb	61.144 ppb
Concentration per Run 1	59.425 ppb	60.363 ppb	103.478 %	104.088 %	60.011 ppb	61.008 ppb
Concentration per Run 2	59.330 ppb	59.514 ppb	103.976 %	105.236 %	61.802 ppb	61.941 ppb
Concentration per Run 3	59.059 ppb	61.040 ppb	108.083 %	111.312 %	60.733 ppb	60.485 ppb
Recovery Percentage 1	98.785 %	100.510 %			101.415 %	101.907 %
Concentration RSD	0.3 %	1.3 %	2.4 %	3.6 %	1.5 %	1.2 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	31	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 7:52:55 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.919 %	103.733 %	0.010 ppb	-2.773 ppb	1.728 ppb	-0.492 ppb	-7.215 ppb	1.724 ppb	102.156 %
Concentration per Run 1	100.915 %	97.839 %	0.013 ppb	-2.590 ppb	3.022 ppb	-0.411 ppb	12.941 ppb	-2.285 ppb	102.049 %
Concentration per Run 2	101.275 %	114.342 %	0.009 ppb	-4.951 ppb	3.033 ppb	-0.606 ppb	-16.914 ppb	7.465 ppb	102.260 %
Concentration per Run 3	100.567 %	99.018 %	0.008 ppb	-0.778 ppb	-0.871 ppb	-0.459 ppb	-17.672 ppb	-0.008 ppb	102.160 %
Recovery Percentage 1			2.019 %	-2.773 %	2.468 %	-4.920 %	-7.215 %	1.724 %	
Concentration RSD	0.4 %	8.9 %	27.7 %	75.4 %	130.3 %	20.7 %	242.0 %	295.9 %	0.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	106.521 %	-0.109 ppb	0.029 ppb	0.048 ppb	4.873 ppb	0.009 ppb	0.058 ppb	-0.010 ppb	-0.066 ppb
Concentration per Run 1	97.808 %	-0.111 ppb	0.033 ppb	0.032 ppb	3.366 ppb	0.017 ppb	-0.011 ppb	0.015 ppb	-0.051 ppb
Concentration per Run 2	108.232 %	-0.157 ppb	0.021 ppb	-0.002 ppb	7.119 ppb	0.002 ppb	0.202 ppb	-0.038 ppb	-0.026 ppb
Concentration per Run 3	113.523 %	-0.059 ppb	0.032 ppb	0.113 ppb	4.135 ppb	0.009 ppb	-0.017 ppb	-0.008 ppb	-0.120 ppb
Recovery Percentage 1		-2.172 %	2.868 %	4.781 %	9.747 %	1.883 %	2.905 %	-1.031 %	-1.314 %
Concentration RSD	7.5 %	45.2 %	21.8 %	123.7 %	40.7 %	80.3 %	214.5 %	254.5 %	73.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.127 %	0.009 ppb	0.162 ppb	0.005 ppb	0.224 ppb	104.357 %	0.012 ppb	0.015 ppb	104.007 %
Concentration per Run 1	105.156 %	0.062 ppb	-0.050 ppb	0.004 ppb	0.168 ppb	103.643 %	0.017 ppb	0.009 ppb	101.097 %
Concentration per Run 2	98.344 %	-0.061 ppb	0.117 ppb	0.001 ppb	0.174 ppb	102.704 %	0.010 ppb	0.023 ppb	101.651 %
Concentration per Run 3	105.880 %	0.025 ppb	0.418 ppb	0.010 ppb	0.330 ppb	106.724 %	0.008 ppb	0.013 ppb	109.272 %
Recovery Percentage 1		1.739 %	3.231 %	0.050 %	11.213 %		2.963 %	7.513 %	
Concentration RSD	4.0 %	723.3 %	147.0 %	93.3 %	40.9 %	2.0 %	38.4 %	47.3 %	4.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.258 ppb	0.023 ppb	105.402 %	106.067 %	0.241 ppb	0.037 ppb
Concentration per Run 1	0.238 ppb	0.019 ppb	103.846 %	103.862 %	0.201 ppb	0.036 ppb
Concentration per Run 2	0.233 ppb	0.019 ppb	102.345 %	103.272 %	0.286 ppb	0.043 ppb
Concentration per Run 3	0.302 ppb	0.031 ppb	110.014 %	111.066 %	0.235 ppb	0.033 ppb
Recovery Percentage 1	6.446 %	4.583 %			24.057 %	3.725 %
Concentration RSD	14.9 %	29.0 %	3.9 %	4.1 %	17.7 %	13.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	32	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448513-04 2008SL	Rack	1		
Analysis started at:	8/28/2024 7:58:42 AM	Vial	11		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.851 %	110.609 %	0.008 ppb	10,377.067 ppb	4,399.734 ppb	10.733 ppb	1,124.183 ppb	17,467.907 ppb	108.147 %
Concentration per Run 1	102.721 %	107.269 %	0.013 ppb	10,465.018 ppb	4,519.197 ppb	11.387 ppb	1,097.914 ppb	17,099.042 ppb	106.060 %
Concentration per Run 2	104.479 %	112.574 %	0.007 ppb	10,212.471 ppb	4,235.921 ppb	9.625 ppb	1,121.287 ppb	17,420.904 ppb	108.826 %
Concentration per Run 3	104.353 %	111.984 %	0.005 ppb	10,453.711 ppb	4,444.085 ppb	11.189 ppb	1,153.349 ppb	17,883.775 ppb	109.554 %
Concentration RSD	0.9 %	2.6 %	47.9 %	1.4 %	3.3 %	9.0 %	2.5 %	2.3 %	1.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	109.835 %	0.147 ppb	0.084 ppb	1.045 ppb	16.761 ppb	0.034 ppb	0.669 ppb	0.842 ppb	0.596 ppb
Concentration per Run 1	117.533 %	0.166 ppb	0.119 ppb	0.947 ppb	12.749 ppb	0.028 ppb	0.630 ppb	0.825 ppb	0.649 ppb
Concentration per Run 2	105.826 %	0.182 ppb	0.065 ppb	1.048 ppb	16.854 ppb	0.024 ppb	0.781 ppb	0.737 ppb	0.622 ppb
Concentration per Run 3	106.147 %	0.092 ppb	0.069 ppb	1.139 ppb	20.679 ppb	0.051 ppb	0.595 ppb	0.964 ppb	0.518 ppb
Concentration RSD	6.1 %	32.6 %	35.6 %	9.2 %	23.7 %	42.5 %	14.8 %	13.5 %	11.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	108.361 %	0.469 ppb	0.156 ppb	78.118 ppb	1.917 ppb	105.624 %	0.014 ppb	0.009 ppb	106.350 %
Concentration per Run 1	111.807 %	0.495 ppb	-0.054 ppb	79.545 ppb	1.913 ppb	107.168 %	0.016 ppb	0.009 ppb	110.301 %
Concentration per Run 2	102.771 %	0.602 ppb	0.268 ppb	78.277 ppb	1.929 ppb	104.640 %	0.012 ppb	0.013 ppb	105.231 %
Concentration per Run 3	110.506 %	0.311 ppb	0.253 ppb	76.533 ppb	1.909 ppb	105.063 %	0.013 ppb	0.004 ppb	103.518 %
Concentration RSD	4.5 %	31.4 %	117.0 %	1.9 %	0.6 %	1.3 %	15.6 %	50.4 %	3.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.263 ppb	8.803 ppb	108.475 %	109.471 %	0.070 ppb	0.046 ppb
Concentration per Run 1	0.239 ppb	9.005 ppb	110.160 %	111.715 %	0.039 ppb	0.038 ppb
Concentration per Run 2	0.266 ppb	8.614 ppb	106.733 %	107.422 %	0.095 ppb	0.053 ppb
Concentration per Run 3	0.286 ppb	8.791 ppb	108.533 %	109.276 %	0.077 ppb	0.049 ppb
Concentration RSD	9.0 %	2.2 %	1.6 %	2.0 %	40.7 %	16.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	33	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448513-05 2008SL	Rack	1		
Analysis started at:	8/28/2024 8:03:12 AM	Vial	12		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.934 %	123.772 %	0.000 ppb	9,655.632 ppb	4,116.916 ppb	7.219 ppb	1,072.418 ppb	17,398.328 ppb	110.793 %
Concentration per Run 1	105.520 %	119.057 %	-0.002 ppb	9,725.415 ppb	4,219.450 ppb	8.802 ppb	1,045.701 ppb	16,909.506 ppb	110.927 %
Concentration per Run 2	106.258 %	116.700 %	0.000 ppb	10,013.665 ppb	4,213.204 ppb	6.855 ppb	1,084.919 ppb	17,768.275 ppb	110.229 %
Concentration per Run 3	106.023 %	135.560 %	0.002 ppb	9,227.816 ppb	3,918.092 ppb	6.000 ppb	1,086.634 ppb	17,517.202 ppb	111.223 %
Concentration RSD	0.4 %	8.3 %	658.8 %	4.1 %	4.2 %	19.9 %	2.2 %	2.5 %	0.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	111.546 %	0.148 ppb	0.193 ppb	0.869 ppb	20.101 ppb	0.022 ppb	0.454 ppb	1.025 ppb	0.744 ppb
Concentration per Run 1	111.920 %	0.098 ppb	0.150 ppb	0.738 ppb	25.530 ppb	0.035 ppb	0.343 ppb	0.815 ppb	0.600 ppb
Concentration per Run 2	110.316 %	0.168 ppb	0.232 ppb	0.921 ppb	14.963 ppb	0.016 ppb	0.472 ppb	1.193 ppb	0.872 ppb
Concentration per Run 3	112.401 %	0.179 ppb	0.197 ppb	0.947 ppb	19.809 ppb	0.015 ppb	0.547 ppb	1.066 ppb	0.759 ppb
Concentration RSD	1.0 %	29.5 %	21.4 %	13.1 %	26.3 %	50.5 %	22.7 %	18.8 %	18.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	111.102 %	0.500 ppb	0.158 ppb	76.033 ppb	0.394 ppb	109.208 %	0.004 ppb	0.006 ppb	108.459 %
Concentration per Run 1	116.127 %	0.577 ppb	0.074 ppb	73.038 ppb	0.361 ppb	109.840 %	0.008 ppb	0.013 ppb	107.762 %
Concentration per Run 2	105.156 %	0.453 ppb	0.342 ppb	77.998 ppb	0.506 ppb	108.073 %	0.003 ppb	0.004 ppb	108.089 %
Concentration per Run 3	112.024 %	0.471 ppb	0.058 ppb	77.062 ppb	0.316 ppb	109.711 %	0.000 ppb	0.000 ppb	109.525 %
Concentration RSD	5.0 %	13.4 %	101.3 %	3.5 %	25.1 %	0.9 %	99.8 %	114.4 %	0.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.184 ppb	8.067 ppb	109.767 %	109.089 %	0.045 ppb	0.038 ppb
Concentration per Run 1	0.177 ppb	7.930 ppb	110.563 %	107.944 %	0.032 ppb	0.036 ppb
Concentration per Run 2	0.186 ppb	7.568 ppb	108.966 %	109.402 %	0.057 ppb	0.038 ppb
Concentration per Run 3	0.190 ppb	8.702 ppb	109.772 %	109.921 %	0.045 ppb	0.040 ppb
Concentration RSD	3.8 %	7.2 %	0.7 %	0.9 %	27.0 %	5.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	34	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448513-06 2008SL	Rack	1		
Analysis started at:	8/28/2024 8:07:43 AM	Vial	13		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.225 %	115.521 %	-0.002 ppb	10,312.949 ppb	4,396.425 ppb	7.856 ppb	1,105.269 ppb	17,221.174 ppb	109.978 %
Concentration per Run 1	105.643 %	110.806 %	0.002 ppb	10,415.484 ppb	4,420.710 ppb	8.212 ppb	1,068.498 ppb	17,314.484 ppb	109.677 %
Concentration per Run 2	106.263 %	122.004 %	-0.005 ppb	10,273.438 ppb	4,339.097 ppb	6.712 ppb	1,176.969 ppb	18,211.755 ppb	110.569 %
Concentration per Run 3	106.769 %	113.753 %	-0.001 ppb	10,249.924 ppb	4,429.469 ppb	8.646 ppb	1,070.339 ppb	16,137.282 ppb	109.688 %
Concentration RSD	0.5 %	5.0 %	215.2 %	0.9 %	1.1 %	12.9 %	5.6 %	6.0 %	0.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	116.944 %	0.084 ppb	0.134 ppb	1.067 ppb	18.263 ppb	0.021 ppb	0.517 ppb	1.221 ppb	0.748 ppb
Concentration per Run 1	118.495 %	0.067 ppb	0.123 ppb	1.206 ppb	20.032 ppb	0.027 ppb	0.592 ppb	1.195 ppb	0.641 ppb
Concentration per Run 2	109.675 %	0.104 ppb	0.147 ppb	0.985 ppb	19.343 ppb	0.022 ppb	0.622 ppb	1.059 ppb	0.806 ppb
Concentration per Run 3	122.664 %	0.082 ppb	0.133 ppb	1.009 ppb	15.414 ppb	0.014 ppb	0.337 ppb	1.408 ppb	0.796 ppb
Concentration RSD	5.7 %	21.7 %	9.0 %	11.4 %	13.6 %	30.2 %	30.3 %	14.4 %	12.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	112.958 %	0.413 ppb	-0.071 ppb	78.387 ppb	0.270 ppb	111.689 %	0.002 ppb	0.003 ppb	109.480 %
Concentration per Run 1	115.566 %	0.397 ppb	-0.002 ppb	76.134 ppb	0.247 ppb	111.803 %	0.002 ppb	0.009 ppb	108.242 %
Concentration per Run 2	114.103 %	0.437 ppb	-0.138 ppb	77.685 ppb	0.237 ppb	111.075 %	0.003 ppb	0.000 ppb	109.972 %
Concentration per Run 3	109.204 %	0.406 ppb	-0.072 ppb	81.341 ppb	0.325 ppb	112.190 %	0.002 ppb	0.000 ppb	110.225 %
Concentration RSD	2.9 %	5.1 %	95.9 %	3.4 %	17.8 %	0.5 %	39.4 %	173.2 %	1.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.159 ppb	8.090 ppb	110.392 %	110.493 %	0.020 ppb	0.034 ppb
Concentration per Run 1	0.162 ppb	8.402 ppb	110.123 %	109.693 %	0.005 ppb	0.032 ppb
Concentration per Run 2	0.161 ppb	8.029 ppb	110.073 %	110.370 %	0.030 ppb	0.036 ppb
Concentration per Run 3	0.153 ppb	7.840 ppb	110.979 %	111.416 %	0.026 ppb	0.033 ppb
Concentration RSD	2.9 %	3.5 %	0.5 %	0.8 %	66.0 %	5.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	35	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448513-10 2008SL	Rack	1		
Analysis started at:	8/28/2024 8:12:09 AM	Vial	14		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	107.617 %	116.110 %	0.000 ppb	10,273.885 ppb	4,408.753 ppb	7.517 ppb	1,093.340 ppb	17,445.955 ppb	113.361 %
Concentration per Run 1	107.145 %	106.680 %	0.000 ppb	10,534.680 ppb	4,597.692 ppb	8.937 ppb	1,013.507 ppb	17,027.676 ppb	112.138 %
Concentration per Run 2	108.592 %	119.057 %	-0.004 ppb	10,188.885 ppb	4,321.083 ppb	7.005 ppb	1,119.567 ppb	17,904.507 ppb	114.292 %
Concentration per Run 3	107.114 %	122.593 %	0.004 ppb	10,098.091 ppb	4,307.485 ppb	6.609 ppb	1,146.946 ppb	17,405.680 ppb	113.653 %
Concentration RSD	0.8 %	7.2 %	3,469.6 %	2.2 %	3.7 %	16.6 %	6.4 %	2.5 %	1.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	117.586 %	0.176 ppb	0.117 ppb	0.682 ppb	13.612 ppb	0.023 ppb	0.432 ppb	0.986 ppb	0.597 ppb
Concentration per Run 1	119.617 %	0.157 ppb	0.146 ppb	0.753 ppb	12.226 ppb	0.027 ppb	0.555 ppb	1.195 ppb	0.584 ppb
Concentration per Run 2	114.165 %	0.192 ppb	0.095 ppb	0.563 ppb	12.300 ppb	0.015 ppb	0.392 ppb	0.838 ppb	0.626 ppb
Concentration per Run 3	118.976 %	0.178 ppb	0.109 ppb	0.730 ppb	16.309 ppb	0.027 ppb	0.349 ppb	0.924 ppb	0.580 ppb
Concentration RSD	2.5 %	10.1 %	22.2 %	15.2 %	17.2 %	30.1 %	25.2 %	18.9 %	4.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	117.152 %	0.400 ppb	0.046 ppb	76.177 ppb	0.294 ppb	111.885 %	0.000 ppb	0.001 ppb	111.484 %
Concentration per Run 1	119.074 %	0.507 ppb	0.053 ppb	75.350 ppb	0.274 ppb	109.119 %	0.000 ppb	0.000 ppb	109.006 %
Concentration per Run 2	113.814 %	0.449 ppb	0.017 ppb	76.806 ppb	0.245 ppb	113.674 %	0.000 ppb	0.004 ppb	112.907 %
Concentration per Run 3	118.568 %	0.245 ppb	0.070 ppb	76.375 ppb	0.362 ppb	112.863 %	-0.001 ppb	0.000 ppb	112.538 %
Concentration RSD	2.5 %	34.3 %	58.2 %	1.0 %	20.8 %	2.2 %	304.7 %	173.2 %	1.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.122 ppb	7.705 ppb	110.728 %	109.946 %	0.019 ppb	0.024 ppb
Concentration per Run 1	0.123 ppb	7.569 ppb	109.178 %	108.359 %	0.008 ppb	0.024 ppb
Concentration per Run 2	0.120 ppb	7.670 ppb	110.504 %	111.013 %	0.027 ppb	0.023 ppb
Concentration per Run 3	0.122 ppb	7.876 ppb	112.503 %	110.467 %	0.023 ppb	0.025 ppb
Concentration RSD	1.1 %	2.0 %	1.5 %	1.3 %	50.8 %	4.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	36	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448513-11 2008SL	Rack	1		
Analysis started at:	8/28/2024 8:16:35 AM	Vial	15		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	108.200 %	115.914 %	0.001 ppb	10,576.847 ppb	4,519.553 ppb	8.081 ppb	1,185.924 ppb	17,812.041 ppb	113.588 %
Concentration per Run 1	107.630 %	101.965 %	0.002 ppb	11,044.641 ppb	4,798.602 ppb	9.344 ppb	1,145.941 ppb	16,954.746 ppb	114.441 %
Concentration per Run 2	109.028 %	117.878 %	-0.003 ppb	10,566.288 ppb	4,485.143 ppb	7.077 ppb	1,231.755 ppb	18,778.562 ppb	113.551 %
Concentration per Run 3	107.942 %	127.898 %	0.002 ppb	10,119.611 ppb	4,274.914 ppb	7.822 ppb	1,180.076 ppb	17,702.816 ppb	112.772 %
Concentration RSD	0.7 %	11.3 %	428.2 %	4.4 %	5.8 %	14.3 %	3.6 %	5.1 %	0.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	115.555 %	0.292 ppb	0.120 ppb	0.800 ppb	20.268 ppb	0.039 ppb	0.776 ppb	0.995 ppb	0.561 ppb
Concentration per Run 1	120.419 %	0.251 ppb	0.096 ppb	0.815 ppb	22.806 ppb	0.014 ppb	0.872 ppb	1.072 ppb	0.644 ppb
Concentration per Run 2	109.996 %	0.366 ppb	0.140 ppb	0.844 ppb	23.770 ppb	0.063 ppb	0.678 ppb	1.139 ppb	0.574 ppb
Concentration per Run 3	116.250 %	0.260 ppb	0.124 ppb	0.741 ppb	14.229 ppb	0.040 ppb	0.777 ppb	0.775 ppb	0.465 ppb
Concentration RSD	4.5 %	21.8 %	18.7 %	6.6 %	25.9 %	62.4 %	12.5 %	19.4 %	16.1 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	115.024 %	0.494 ppb	0.002 ppb	78.541 ppb	2.027 ppb	113.660 %	0.001 ppb	0.000 ppb	110.321 %
Concentration per Run 1	114.320 %	0.501 ppb	-0.133 ppb	77.731 ppb	1.835 ppb	114.275 %	-0.001 ppb	0.000 ppb	111.420 %
Concentration per Run 2	112.079 %	0.369 ppb	0.140 ppb	79.998 ppb	2.057 ppb	112.908 %	0.003 ppb	0.000 ppb	110.654 %
Concentration per Run 3	118.674 %	0.613 ppb	-0.001 ppb	77.896 ppb	2.190 ppb	113.796 %	0.000 ppb	0.000 ppb	108.888 %
Concentration RSD	2.9 %	24.7 %	7,912.1 %	1.6 %	8.8 %	0.6 %	333.4 %	N/A	1.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.132 ppb	7.993 ppb	109.854 %	110.373 %	0.017 ppb	0.036 ppb
Concentration per Run 1	0.141 ppb	7.955 ppb	109.550 %	110.819 %	0.005 ppb	0.033 ppb
Concentration per Run 2	0.112 ppb	7.823 ppb	110.258 %	110.907 %	0.021 ppb	0.038 ppb
Concentration per Run 3	0.143 ppb	8.202 ppb	109.754 %	109.393 %	0.024 ppb	0.036 ppb
Concentration RSD	13.2 %	2.4 %	0.3 %	0.8 %	60.5 %	6.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	37	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448513-12 2008SL	Rack	1		
Analysis started at:	8/28/2024 8:21:02 AM	Vial	16		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	107.498 %	119.646 %	0.001 ppb	10,484.484 ppb	4,469.884 ppb	8.108 ppb	1,167.031 ppb	18,108.967 ppb	112.208 %
Concentration per Run 1	106.784 %	129.666 %	0.002 ppb	9,762.957 ppb	4,155.269 ppb	6.858 ppb	1,142.533 ppb	17,107.338 ppb	110.512 %
Concentration per Run 2	108.067 %	103.733 %	0.003 ppb	11,363.346 ppb	4,897.563 ppb	10.483 ppb	1,134.266 ppb	18,342.346 ppb	112.641 %
Concentration per Run 3	107.643 %	125.540 %	-0.003 ppb	10,327.150 ppb	4,356.819 ppb	6.983 ppb	1,224.294 ppb	18,877.218 ppb	113.472 %
Concentration RSD	0.6 %	11.6 %	380.5 %	7.7 %	8.6 %	25.4 %	4.3 %	5.0 %	1.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	114.860 %	0.265 ppb	0.162 ppb	0.786 ppb	19.666 ppb	0.033 ppb	0.528 ppb	1.076 ppb	1.038 ppb
Concentration per Run 1	119.136 %	0.239 ppb	0.130 ppb	0.749 ppb	18.049 ppb	0.041 ppb	0.583 ppb	1.059 ppb	1.117 ppb
Concentration per Run 2	109.675 %	0.343 ppb	0.186 ppb	0.834 ppb	23.420 ppb	0.028 ppb	0.518 ppb	0.996 ppb	1.003 ppb
Concentration per Run 3	115.769 %	0.214 ppb	0.169 ppb	0.775 ppb	17.527 ppb	0.029 ppb	0.483 ppb	1.172 ppb	0.995 ppb
Concentration RSD	4.2 %	25.8 %	17.6 %	5.6 %	16.6 %	21.7 %	9.7 %	8.3 %	6.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	110.434 %	0.472 ppb	0.035 ppb	79.381 ppb	1.279 ppb	110.893 %	-0.002 ppb	0.004 ppb	109.025 %
Concentration per Run 1	109.855 %	0.494 ppb	0.158 ppb	81.398 ppb	1.238 ppb	111.522 %	-0.001 ppb	0.000 ppb	109.290 %
Concentration per Run 2	116.217 %	0.340 ppb	0.002 ppb	78.297 ppb	1.255 ppb	109.960 %	-0.003 ppb	0.008 ppb	110.367 %
Concentration per Run 3	105.229 %	0.582 ppb	-0.056 ppb	78.450 ppb	1.343 ppb	111.197 %	-0.001 ppb	0.004 ppb	107.419 %
Concentration RSD	5.0 %	26.0 %	318.9 %	2.2 %	4.4 %	0.7 %	49.2 %	99.5 %	1.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.135 ppb	7.564 ppb	110.316 %	108.049 %	0.014 ppb	0.027 ppb
Concentration per Run 1	0.146 ppb	7.817 ppb	110.669 %	108.802 %	0.005 ppb	0.029 ppb
Concentration per Run 2	0.146 ppb	7.587 ppb	110.420 %	107.670 %	0.013 ppb	0.026 ppb
Concentration per Run 3	0.114 ppb	7.288 ppb	109.857 %	107.675 %	0.024 ppb	0.027 ppb
Concentration RSD	13.8 %	3.5 %	0.4 %	0.6 %	68.6 %	4.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	38	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448513-13 2008SL	Rack	1		
Analysis started at:	8/28/2024 8:25:29 AM	Vial	17		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	108.244 %	114.145 %	-0.004 ppb	60.580 ppb	2.125 ppb	5.452 ppb	10.723 ppb	33.675 ppb	113.036 %
Concentration per Run 1	108.006 %	120.236 %	-0.001 ppb	59.836 ppb	2.669 ppb	5.741 ppb	7.642 ppb	39.015 ppb	112.270 %
Concentration per Run 2	108.604 %	115.521 %	-0.008 ppb	60.040 ppb	2.907 ppb	5.655 ppb	8.143 ppb	32.865 ppb	113.547 %
Concentration per Run 3	108.123 %	106.680 %	-0.004 ppb	61.864 ppb	0.800 ppb	4.961 ppb	16.384 ppb	29.144 ppb	113.290 %
Concentration RSD	0.3 %	6.0 %	89.3 %	1.8 %	54.3 %	7.8 %	45.8 %	14.8 %	0.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	117.319 %	-0.013 ppb	0.106 ppb	0.236 ppb	5.219 ppb	-0.003 ppb	0.078 ppb	0.082 ppb	0.649 ppb
Concentration per Run 1	122.664 %	0.005 ppb	0.081 ppb	0.315 ppb	6.442 ppb	-0.005 ppb	-0.023 ppb	0.106 ppb	0.715 ppb
Concentration per Run 2	113.844 %	-0.001 ppb	0.123 ppb	0.313 ppb	7.070 ppb	-0.005 ppb	0.155 ppb	0.088 ppb	0.588 ppb
Concentration per Run 3	115.448 %	-0.042 ppb	0.114 ppb	0.081 ppb	2.144 ppb	0.002 ppb	0.102 ppb	0.052 ppb	0.643 ppb
Concentration RSD	4.0 %	205.3 %	21.0 %	57.0 %	51.4 %	134.4 %	117.6 %	33.2 %	9.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	113.097 %	-0.021 ppb	0.106 ppb	0.054 ppb	1.422 ppb	112.179 %	-0.002 ppb	0.003 ppb	111.147 %
Concentration per Run 1	117.428 %	-0.049 ppb	0.295 ppb	0.061 ppb	1.356 ppb	117.164 %	-0.003 ppb	0.000 ppb	119.148 %
Concentration per Run 2	109.838 %	-0.006 ppb	0.087 ppb	0.054 ppb	1.449 ppb	112.547 %	0.000 ppb	0.008 ppb	110.351 %
Concentration per Run 3	112.024 %	-0.009 ppb	-0.064 ppb	0.045 ppb	1.461 ppb	106.826 %	-0.003 ppb	0.000 ppb	103.942 %
Concentration RSD	3.5 %	114.1 %	169.4 %	14.9 %	4.1 %	4.6 %	96.4 %	173.2 %	6.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.207 ppb	0.798 ppb	108.882 %	109.187 %	0.009 ppb	0.019 ppb
Concentration per Run 1	0.183 ppb	0.675 ppb	113.690 %	114.933 %	0.002 ppb	0.020 ppb
Concentration per Run 2	0.205 ppb	0.904 ppb	109.441 %	108.426 %	0.008 ppb	0.018 ppb
Concentration per Run 3	0.234 ppb	0.816 ppb	103.515 %	104.203 %	0.017 ppb	0.018 ppb
Concentration RSD	12.3 %	14.5 %	4.7 %	5.0 %	80.7 %	8.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	39	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448514-02 2008SL	Rack	1		
Analysis started at:	8/28/2024 8:29:57 AM	Vial	18		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.342 %	108.252 %	0.002 ppb	15,528.835 ppb	4,624.252 ppb	56.658 ppb	1,509.966 ppb	23,736.165 ppb	106.973 %
Concentration per Run 1	102.678 %	92.534 %	0.000 ppb	17,086.236 ppb	5,079.438 ppb	68.473 ppb	1,651.908 ppb	25,122.080 ppb	105.911 %
Concentration per Run 2	104.530 %	115.521 %	0.004 ppb	14,562.041 ppb	4,338.031 ppb	50.059 ppb	1,391.802 ppb	22,815.502 ppb	107.373 %
Concentration per Run 3	102.817 %	116.700 %	0.001 ppb	14,938.227 ppb	4,455.287 ppb	51.443 ppb	1,486.187 ppb	23,270.913 ppb	107.635 %
Concentration RSD	1.0 %	12.6 %	107.6 %	8.8 %	8.6 %	18.1 %	8.7 %	5.1 %	0.9 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	112.080 %	0.602 ppb	0.191 ppb	5.141 ppb	121.968 ppb	0.040 ppb	0.998 ppb	1.502 ppb	1.655 ppb
Concentration per Run 1	113.684 %	0.483 ppb	0.226 ppb	6.114 ppb	118.270 ppb	0.054 ppb	1.129 ppb	1.424 ppb	1.686 ppb
Concentration per Run 2	113.844 %	0.487 ppb	0.214 ppb	4.696 ppb	108.984 ppb	0.015 ppb	0.856 ppb	1.490 ppb	1.697 ppb
Concentration per Run 3	108.713 %	0.837 ppb	0.132 ppb	4.615 ppb	138.648 ppb	0.052 ppb	1.008 ppb	1.593 ppb	1.583 ppb
Concentration RSD	2.6 %	33.7 %	26.7 %	16.4 %	12.4 %	54.6 %	13.7 %	5.7 %	3.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	110.669 %	0.735 ppb	0.165 ppb	127.810 ppb	0.435 ppb	106.647 %	0.004 ppb	0.012 ppb	106.908 %
Concentration per Run 1	116.723 %	0.702 ppb	0.234 ppb	130.429 ppb	0.485 ppb	109.287 %	0.002 ppb	0.000 ppb	112.751 %
Concentration per Run 2	113.036 %	0.665 ppb	0.093 ppb	123.489 ppb	0.350 ppb	105.994 %	0.005 ppb	0.022 ppb	103.860 %
Concentration per Run 3	102.248 %	0.837 ppb	0.169 ppb	129.513 ppb	0.471 ppb	104.659 %	0.004 ppb	0.013 ppb	104.113 %
Concentration RSD	6.8 %	12.4 %	42.6 %	2.9 %	17.0 %	2.2 %	48.5 %	94.3 %	4.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.207 ppb	20.667 ppb	108.893 %	109.218 %	0.012 ppb	0.247 ppb
Concentration per Run 1	0.183 ppb	20.209 ppb	110.591 %	111.882 %	0.003 ppb	0.243 ppb
Concentration per Run 2	0.206 ppb	21.346 ppb	108.415 %	108.681 %	0.018 ppb	0.250 ppb
Concentration per Run 3	0.232 ppb	20.447 ppb	107.672 %	107.092 %	0.014 ppb	0.249 ppb
Concentration RSD	11.8 %	2.9 %	1.4 %	2.2 %	67.6 %	1.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	40	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448514-03 2008SL	Rack	1		
Analysis started at:	8/28/2024 8:34:24 AM	Vial	19		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.292 %	115.128 %	0.004 ppb	14,971.502 ppb	4,525.738 ppb	47.183 ppb	1,505.539 ppb	23,529.861 ppb	107.178 %
Concentration per Run 1	102.946 %	108.448 %	0.005 ppb	15,241.515 ppb	4,651.585 ppb	47.998 ppb	1,554.561 ppb	23,321.612 ppb	106.567 %
Concentration per Run 2	103.655 %	123.183 %	0.005 ppb	14,589.944 ppb	4,373.499 ppb	42.408 ppb	1,502.489 ppb	23,833.347 ppb	108.282 %
Concentration per Run 3	103.275 %	113.753 %	0.002 ppb	15,083.048 ppb	4,552.129 ppb	51.142 ppb	1,459.568 ppb	23,434.624 ppb	106.685 %
Concentration RSD	0.3 %	6.5 %	41.9 %	2.3 %	3.1 %	9.4 %	3.2 %	1.1 %	0.9 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	114.486 %	0.558 ppb	0.256 ppb	3.278 ppb	108.996 ppb	0.056 ppb	0.521 ppb	1.772 ppb	1.163 ppb
Concentration per Run 1	114.967 %	0.669 ppb	0.297 ppb	3.538 ppb	111.156 ppb	0.064 ppb	0.486 ppb	1.858 ppb	1.229 ppb
Concentration per Run 2	117.051 %	0.398 ppb	0.255 ppb	3.090 ppb	112.707 ppb	0.061 ppb	0.561 ppb	1.722 ppb	1.086 ppb
Concentration per Run 3	111.439 %	0.607 ppb	0.215 ppb	3.208 ppb	103.126 ppb	0.043 ppb	0.515 ppb	1.735 ppb	1.175 ppb
Concentration RSD	2.5 %	25.5 %	15.9 %	7.1 %	4.7 %	19.7 %	7.3 %	4.2 %	6.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	107.488 %	0.681 ppb	-0.013 ppb	128.609 ppb	1.770 ppb	105.437 %	0.001 ppb	0.003 ppb	106.500 %
Concentration per Run 1	104.723 %	0.754 ppb	0.089 ppb	128.954 ppb	1.735 ppb	105.776 %	-0.001 ppb	0.004 ppb	109.558 %
Concentration per Run 2	111.067 %	0.691 ppb	-0.077 ppb	129.224 ppb	1.710 ppb	106.463 %	0.002 ppb	0.004 ppb	108.749 %
Concentration per Run 3	106.674 %	0.597 ppb	-0.051 ppb	127.648 ppb	1.864 ppb	104.072 %	0.004 ppb	0.000 ppb	101.191 %
Concentration RSD	3.0 %	11.6 %	676.4 %	0.7 %	4.7 %	1.2 %	171.3 %	86.6 %	4.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.190 ppb	20.239 ppb	107.735 %	108.176 %	0.009 ppb	0.274 ppb
Concentration per Run 1	0.180 ppb	20.597 ppb	108.569 %	109.150 %	0.008 ppb	0.265 ppb
Concentration per Run 2	0.182 ppb	19.887 ppb	106.923 %	107.976 %	0.012 ppb	0.277 ppb
Concentration per Run 3	0.208 ppb	20.235 ppb	107.712 %	107.403 %	0.007 ppb	0.282 ppb
Concentration RSD	8.2 %	1.8 %	0.8 %	0.8 %	32.0 %	3.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	41	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448514-04 2008SL	Rack	1		
Analysis started at:	8/28/2024 8:38:53 AM	Vial	20		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.080 %	114.735 %	0.001 ppb	14,635.097 ppb	4,439.980 ppb	58.807 ppb	1,515.506 ppb	23,152.650 ppb	108.478 %
Concentration per Run 1	103.235 %	106.090 %	0.002 ppb	15,228.694 ppb	4,625.619 ppb	52.373 ppb	1,501.144 ppb	22,995.597 ppb	107.382 %
Concentration per Run 2	105.123 %	120.236 %	-0.003 ppb	14,233.102 ppb	4,378.980 ppb	59.345 ppb	1,455.797 ppb	23,076.648 ppb	109.568 %
Concentration per Run 3	103.881 %	117.878 %	0.005 ppb	14,443.495 ppb	4,315.339 ppb	64.702 ppb	1,589.575 ppb	23,385.707 ppb	108.484 %
Concentration RSD	0.9 %	6.6 %	307.4 %	3.6 %	3.7 %	10.5 %	4.5 %	0.9 %	1.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	110.263 %	0.598 ppb	0.410 ppb	4.104 ppb	154.495 ppb	0.058 ppb	0.437 ppb	1.452 ppb	1.019 ppb
Concentration per Run 1	105.826 %	0.641 ppb	0.423 ppb	4.422 ppb	150.828 ppb	0.088 ppb	0.480 ppb	1.303 ppb	1.019 ppb
Concentration per Run 2	119.136 %	0.578 ppb	0.378 ppb	4.046 ppb	151.134 ppb	0.041 ppb	0.434 ppb	1.736 ppb	0.993 ppb
Concentration per Run 3	105.826 %	0.574 ppb	0.428 ppb	3.843 ppb	161.522 ppb	0.044 ppb	0.396 ppb	1.316 ppb	1.045 ppb
Concentration RSD	7.0 %	6.2 %	6.7 %	7.2 %	3.9 %	45.3 %	9.6 %	17.0 %	2.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	108.958 %	0.693 ppb	-0.020 ppb	124.438 ppb	0.981 ppb	104.561 %	-0.002 ppb	0.003 ppb	106.077 %
Concentration per Run 1	106.385 %	0.658 ppb	-0.002 ppb	120.296 ppb	1.000 ppb	104.571 %	-0.003 ppb	0.009 ppb	104.377 %
Concentration per Run 2	111.735 %	0.573 ppb	-0.073 ppb	129.666 ppb	0.904 ppb	107.065 %	-0.003 ppb	0.000 ppb	110.814 %
Concentration per Run 3	108.754 %	0.848 ppb	0.015 ppb	123.351 ppb	1.038 ppb	102.045 %	-0.001 ppb	0.000 ppb	103.039 %
Concentration RSD	2.5 %	20.3 %	237.4 %	3.8 %	7.0 %	2.4 %	42.0 %	173.2 %	3.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.170 ppb	19.784 ppb	107.489 %	107.446 %	0.011 ppb	0.243 ppb
Concentration per Run 1	0.153 ppb	18.939 ppb	106.655 %	105.389 %	0.002 ppb	0.255 ppb
Concentration per Run 2	0.151 ppb	19.553 ppb	109.293 %	111.159 %	0.013 ppb	0.235 ppb
Concentration per Run 3	0.206 ppb	20.862 ppb	106.519 %	105.790 %	0.016 ppb	0.240 ppb
Concentration RSD	18.4 %	5.0 %	1.5 %	3.0 %	69.4 %	4.2 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	42	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 8:43:21 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.589 %	107.662 %	62.093 ppb	6,459.895 ppb	6,227.787 ppb	63.204 ppb	6,295.169 ppb	6,192.521 ppb	102.055 %
Concentration per Run 1	99.126 %	107.859 %	61.934 ppb	6,433.713 ppb	6,102.160 ppb	57.218 ppb	6,173.004 ppb	6,422.658 ppb	100.066 %
Concentration per Run 2	98.237 %	123.772 %	62.234 ppb	6,240.011 ppb	6,273.272 ppb	63.627 ppb	6,141.238 ppb	6,074.594 ppb	103.282 %
Concentration per Run 3	98.405 %	91.356 %	62.110 ppb	6,705.962 ppb	6,307.930 ppb	68.769 ppb	6,571.265 ppb	6,080.310 ppb	102.816 %
Recovery Percentage 1			103.488 %	107.665 %	103.796 %	105.341 %	104.919 %	103.209 %	
Concentration RSD	0.5 %	15.1 %	0.2 %	3.6 %	1.8 %	9.2 %	3.8 %	3.2 %	1.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	109.621 %	61.789 ppb	61.801 ppb	63.062 ppb	6,185.028 ppb	61.932 ppb	60.796 ppb	59.969 ppb	61.099 ppb
Concentration per Run 1	107.269 %	62.114 ppb	61.989 ppb	61.501 ppb	6,203.426 ppb	62.756 ppb	61.024 ppb	60.334 ppb	61.059 ppb
Concentration per Run 2	117.372 %	60.383 ppb	60.284 ppb	61.878 ppb	5,884.861 ppb	59.715 ppb	56.718 ppb	57.761 ppb	60.948 ppb
Concentration per Run 3	104.223 %	62.870 ppb	63.131 ppb	65.808 ppb	6,466.798 ppb	63.326 ppb	64.648 ppb	61.812 ppb	61.290 ppb
Recovery Percentage 1		102.981 %	103.002 %	105.104 %	103.084 %	103.221 %	101.327 %	99.948 %	101.831 %
Concentration RSD	6.3 %	2.1 %	2.3 %	3.8 %	4.7 %	3.1 %	6.5 %	3.4 %	0.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	104.071 %	61.981 ppb	59.960 ppb	58.710 ppb	60.683 ppb	101.658 %	61.359 ppb	61.718 ppb	101.366 %
Concentration per Run 1	103.667 %	60.187 ppb	58.953 ppb	56.840 ppb	59.810 ppb	102.747 %	61.456 ppb	61.109 ppb	97.982 %
Concentration per Run 2	108.080 %	62.408 ppb	59.440 ppb	61.217 ppb	60.858 ppb	103.407 %	60.794 ppb	62.538 ppb	105.698 %
Concentration per Run 3	100.466 %	63.346 ppb	61.488 ppb	58.073 ppb	61.381 ppb	98.820 %	61.827 ppb	61.507 ppb	100.418 %
Recovery Percentage 1		103.301 %	99.934 %	97.850 %	101.138 %		102.265 %	102.863 %	
Concentration RSD	3.7 %	2.6 %	2.2 %	3.8 %	1.3 %	2.4 %	0.9 %	1.2 %	3.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	59.776 ppb	60.594 ppb	105.810 %	106.102 %	60.999 ppb	61.435 ppb
Concentration per Run 1	60.151 ppb	61.153 ppb	104.267 %	103.789 %	60.830 ppb	61.539 ppb
Concentration per Run 2	60.462 ppb	61.153 ppb	109.017 %	110.205 %	59.412 ppb	60.283 ppb
Concentration per Run 3	58.715 ppb	59.477 ppb	104.146 %	104.313 %	62.756 ppb	62.483 ppb
Recovery Percentage 1	99.627 %	100.991 %			101.666 %	102.391 %
Concentration RSD	1.6 %	1.6 %	2.6 %	3.4 %	2.8 %	1.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	43	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 8:47:53 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.987 %	106.876 %	0.004 ppb	-2.975 ppb	0.504 ppb	-0.226 ppb	-9.604 ppb	9.510 ppb	103.017 %
Concentration per Run 1	102.520 %	103.143 %	0.003 ppb	-1.414 ppb	-0.224 ppb	-0.287 ppb	-8.224 ppb	9.002 ppb	102.163 %
Concentration per Run 2	102.449 %	102.554 %	0.000 ppb	-2.377 ppb	-0.269 ppb	-0.585 ppb	-8.334 ppb	14.606 ppb	103.893 %
Concentration per Run 3	100.992 %	114.931 %	0.007 ppb	-5.134 ppb	2.005 ppb	0.195 ppb	-12.255 ppb	4.921 ppb	102.995 %
Recovery Percentage 1			0.708 %	-2.975 %	0.720 %	-2.259 %	-9.604 %	9.510 %	
Concentration RSD	0.8 %	6.5 %	93.2 %	64.9 %	257.9 %	174.3 %	23.9 %	51.1 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	102.352 %	-0.085 ppb	0.031 ppb	0.020 ppb	3.480 ppb	0.000 ppb	0.032 ppb	0.025 ppb	-0.054 ppb
Concentration per Run 1	98.610 %	-0.111 ppb	0.040 ppb	0.000 ppb	6.731 ppb	0.002 ppb	-0.011 ppb	0.015 ppb	-0.080 ppb
Concentration per Run 2	107.590 %	-0.033 ppb	0.000 ppb	-0.002 ppb	2.407 ppb	-0.005 ppb	0.036 ppb	0.027 ppb	-0.080 ppb
Concentration per Run 3	100.855 %	-0.112 ppb	0.054 ppb	0.063 ppb	1.300 ppb	0.002 ppb	0.069 ppb	0.033 ppb	-0.002 ppb
Recovery Percentage 1		-1.704 %	3.115 %	1.994 %	6.959 %	-0.023 %	1.582 %	2.499 %	-1.078 %
Concentration RSD	4.6 %	53.2 %	90.1 %	185.8 %	82.5 %	3,668.5 %	127.5 %	35.7 %	83.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	104.964 %	0.015 ppb	0.106 ppb	0.013 ppb	0.246 ppb	102.533 %	0.006 ppb	0.005 ppb	102.332 %
Concentration per Run 1	104.361 %	-0.008 ppb	0.071 ppb	0.025 ppb	0.240 ppb	101.130 %	0.014 ppb	0.000 ppb	97.906 %
Concentration per Run 2	106.819 %	0.000 ppb	0.071 ppb	0.008 ppb	0.218 ppb	104.256 %	0.002 ppb	0.004 ppb	108.047 %
Concentration per Run 3	103.711 %	0.053 ppb	0.176 ppb	0.006 ppb	0.278 ppb	102.214 %	0.001 ppb	0.009 ppb	101.044 %
Recovery Percentage 1		3.025 %	2.125 %	0.130 %	12.284 %		1.383 %	2.269 %	
Concentration RSD	1.6 %	220.8 %	57.2 %	82.4 %	12.3 %	1.5 %	134.9 %	101.7 %	5.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.215 ppb	0.014 ppb	103.983 %	105.051 %	0.199 ppb	0.025 ppb
Concentration per Run 1	0.216 ppb	0.020 ppb	101.809 %	100.996 %	0.164 ppb	0.030 ppb
Concentration per Run 2	0.206 ppb	0.018 ppb	106.419 %	109.950 %	0.240 ppb	0.023 ppb
Concentration per Run 3	0.223 ppb	0.005 ppb	103.720 %	104.206 %	0.192 ppb	0.021 ppb
Recovery Percentage 1	5.375 %	2.808 %			19.868 %	2.490 %
Concentration RSD	3.8 %	58.6 %	2.2 %	4.3 %	19.2 %	19.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	44	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448514-13 2008SL	Rack	1		
Analysis started at:	8/28/2024 8:57:16 AM	Vial	26		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.431 %	111.002 %	-0.001 ppb	76.458 ppb	3.621 ppb	2.667 ppb	40.198 ppb	41.353 ppb	99.315 %
Concentration per Run 1	99.201 %	113.753 %	0.003 ppb	66.698 ppb	3.163 ppb	2.292 ppb	33.720 ppb	55.792 ppb	98.784 %
Concentration per Run 2	99.425 %	122.593 %	-0.002 ppb	74.234 ppb	3.401 ppb	2.818 ppb	37.958 ppb	48.512 ppb	100.389 %
Concentration per Run 3	99.665 %	96.660 %	-0.004 ppb	88.442 ppb	4.298 ppb	2.891 ppb	48.915 ppb	19.757 ppb	98.773 %
Concentration RSD	0.2 %	11.9 %	360.5 %	14.4 %	16.5 %	12.3 %	19.5 %	46.1 %	0.9 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	103.261 %	-0.128 ppb	0.160 ppb	2.017 ppb	27.043 ppb	0.029 ppb	0.154 ppb	0.270 ppb	2.124 ppb
Concentration per Run 1	102.138 %	-0.113 ppb	0.139 ppb	2.036 ppb	26.285 ppb	0.039 ppb	0.094 ppb	0.364 ppb	2.354 ppb
Concentration per Run 2	108.232 %	-0.137 ppb	0.157 ppb	2.126 ppb	25.311 ppb	0.016 ppb	0.184 ppb	0.205 ppb	1.891 ppb
Concentration per Run 3	99.412 %	-0.133 ppb	0.184 ppb	1.890 ppb	29.534 ppb	0.033 ppb	0.186 ppb	0.241 ppb	2.127 ppb
Concentration RSD	4.4 %	10.1 %	13.9 %	5.9 %	8.2 %	41.4 %	34.0 %	30.9 %	10.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.253 %	0.046 ppb	-0.021 ppb	0.114 ppb	0.042 ppb	102.338 %	0.009 ppb	0.009 ppb	102.030 %
Concentration per Run 1	105.229 %	0.109 ppb	0.014 ppb	0.109 ppb	0.038 ppb	102.764 %	0.007 ppb	0.009 ppb	101.028 %
Concentration per Run 2	111.518 %	0.026 ppb	0.083 ppb	0.117 ppb	0.035 ppb	103.231 %	0.009 ppb	0.009 ppb	105.848 %
Concentration per Run 3	99.012 %	0.002 ppb	-0.160 ppb	0.116 ppb	0.054 ppb	101.018 %	0.011 ppb	0.009 ppb	99.215 %
Concentration RSD	5.9 %	124.1 %	594.0 %	3.9 %	24.4 %	1.1 %	20.3 %	2.5 %	3.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.261 ppb	0.070 ppb	105.893 %	107.544 %	0.035 ppb	0.113 ppb
Concentration per Run 1	0.251 ppb	0.076 ppb	105.101 %	107.471 %	0.025 ppb	0.113 ppb
Concentration per Run 2	0.288 ppb	0.087 ppb	108.204 %	110.690 %	0.041 ppb	0.111 ppb
Concentration per Run 3	0.244 ppb	0.048 ppb	104.375 %	104.470 %	0.039 ppb	0.114 ppb
Concentration RSD	9.0 %	28.3 %	1.9 %	2.9 %	23.9 %	1.3 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	45	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448514-05 2008SL	Rack	1		
Analysis started at:	8/28/2024 9:01:42 AM	Vial	21		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.738 %	106.680 %	0.003 ppb	14,871.255 ppb	4,459.363 ppb	69.559 ppb	1,511.549 ppb	23,617.427 ppb	97.036 %
Concentration per Run 1	95.736 %	114.342 %	0.004 ppb	13,613.921 ppb	4,050.873 ppb	60.509 ppb	1,406.265 ppb	21,330.744 ppb	96.042 %
Concentration per Run 2	98.026 %	99.607 %	-0.001 ppb	15,700.156 ppb	4,752.236 ppb	73.978 ppb	1,638.578 ppb	25,127.679 ppb	98.246 %
Concentration per Run 3	96.451 %	106.090 %	0.007 ppb	15,299.688 ppb	4,574.981 ppb	74.189 ppb	1,489.803 ppb	24,393.860 ppb	96.820 %
Concentration RSD	1.2 %	6.9 %	127.7 %	7.4 %	8.2 %	11.3 %	7.8 %	8.5 %	1.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	100.909 %	0.509 ppb	0.241 ppb	5.854 ppb	136.514 ppb	0.084 ppb	0.497 ppb	1.355 ppb	0.814 ppb
Concentration per Run 1	105.506 %	0.457 ppb	0.250 ppb	6.325 ppb	119.658 ppb	0.067 ppb	0.515 ppb	1.402 ppb	0.667 ppb
Concentration per Run 2	99.733 %	0.613 ppb	0.157 ppb	5.818 ppb	141.779 ppb	0.112 ppb	0.307 ppb	1.357 ppb	0.928 ppb
Concentration per Run 3	97.488 %	0.459 ppb	0.317 ppb	5.418 ppb	148.106 ppb	0.072 ppb	0.667 ppb	1.305 ppb	0.847 ppb
Concentration RSD	4.1 %	17.5 %	33.4 %	7.8 %	10.9 %	29.4 %	36.4 %	3.6 %	16.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.108 %	0.849 ppb	0.132 ppb	122.984 ppb	0.304 ppb	97.820 %	0.000 ppb	0.005 ppb	99.743 %
Concentration per Run 1	103.494 %	0.707 ppb	0.022 ppb	119.177 ppb	0.236 ppb	97.046 %	-0.001 ppb	0.000 ppb	98.737 %
Concentration per Run 2	107.108 %	0.724 ppb	0.262 ppb	125.504 ppb	0.313 ppb	98.014 %	0.001 ppb	0.009 ppb	102.731 %
Concentration per Run 3	98.723 %	1.115 ppb	0.112 ppb	124.271 ppb	0.362 ppb	98.402 %	0.001 ppb	0.005 ppb	97.762 %
Concentration RSD	4.1 %	27.2 %	91.7 %	2.7 %	20.9 %	0.7 %	2,595.7 %	98.9 %	2.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.196 ppb	19.892 ppb	101.781 %	103.685 %	0.024 ppb	0.249 ppb
Concentration per Run 1	0.179 ppb	20.219 ppb	100.684 %	101.170 %	0.014 ppb	0.243 ppb
Concentration per Run 2	0.206 ppb	19.851 ppb	102.923 %	106.493 %	0.022 ppb	0.254 ppb
Concentration per Run 3	0.202 ppb	19.605 ppb	101.736 %	103.391 %	0.036 ppb	0.250 ppb
Concentration RSD	7.5 %	1.6 %	1.1 %	2.6 %	46.3 %	2.2 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	46	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448514-06 2008SL	Rack	1		
Analysis started at:	8/28/2024 9:06:11 AM	Vial	22		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.646 %	116.307 %	0.005 ppb	14,537.747 ppb	4,352.465 ppb	65.752 ppb	1,446.292 ppb	23,717.343 ppb	104.515 %
Concentration per Run 1	100.153 %	102.554 %	0.002 ppb	15,138.082 ppb	4,586.622 ppb	66.823 ppb	1,477.857 ppb	22,922.743 ppb	104.096 %
Concentration per Run 2	101.137 %	120.236 %	0.006 ppb	14,078.442 ppb	4,180.823 ppb	60.433 ppb	1,390.697 ppb	23,705.311 ppb	104.741 %
Concentration per Run 3	100.647 %	126.130 %	0.008 ppb	14,396.716 ppb	4,289.950 ppb	70.001 ppb	1,470.320 ppb	24,523.973 ppb	104.707 %
Concentration RSD	0.5 %	10.5 %	61.8 %	3.7 %	4.8 %	7.4 %	3.3 %	3.4 %	0.3 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	107.002 %	0.457 ppb	0.228 ppb	4.606 ppb	111.735 ppb	0.039 ppb	0.503 ppb	1.362 ppb	0.627 ppb
Concentration per Run 1	104.383 %	0.420 ppb	0.223 ppb	4.414 ppb	106.745 ppb	0.031 ppb	0.572 ppb	1.285 ppb	0.505 ppb
Concentration per Run 2	104.543 %	0.509 ppb	0.247 ppb	4.747 ppb	103.604 ppb	0.076 ppb	0.476 ppb	1.428 ppb	0.667 ppb
Concentration per Run 3	112.081 %	0.443 ppb	0.214 ppb	4.656 ppb	124.858 ppb	0.009 ppb	0.462 ppb	1.372 ppb	0.711 ppb
Concentration RSD	4.1 %	10.2 %	7.5 %	3.7 %	10.3 %	88.7 %	11.9 %	5.3 %	17.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.386 %	0.696 ppb	0.050 ppb	126.811 ppb	0.419 ppb	101.741 %	0.002 ppb	0.009 ppb	103.150 %
Concentration per Run 1	103.332 %	0.707 ppb	0.102 ppb	121.924 ppb	0.413 ppb	101.857 %	-0.001 ppb	0.009 ppb	102.033 %
Concentration per Run 2	99.663 %	0.739 ppb	0.036 ppb	127.048 ppb	0.488 ppb	101.264 %	0.004 ppb	0.005 ppb	102.259 %
Concentration per Run 3	107.164 %	0.641 ppb	0.012 ppb	131.460 ppb	0.355 ppb	102.101 %	0.004 ppb	0.013 ppb	105.158 %
Concentration RSD	3.6 %	7.2 %	92.4 %	3.8 %	16.0 %	0.4 %	133.6 %	48.9 %	1.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.214 ppb	19.835 ppb	105.677 %	106.161 %	0.018 ppb	0.233 ppb
Concentration per Run 1	0.188 ppb	19.492 ppb	104.830 %	103.623 %	0.007 ppb	0.246 ppb
Concentration per Run 2	0.206 ppb	19.494 ppb	104.582 %	105.649 %	0.021 ppb	0.240 ppb
Concentration per Run 3	0.249 ppb	20.519 ppb	107.619 %	109.211 %	0.025 ppb	0.212 ppb
Concentration RSD	14.6 %	3.0 %	1.6 %	2.7 %	54.6 %	7.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	47	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448514-10 2008SL	Rack	1		
Analysis started at:	8/28/2024 9:10:40 AM	Vial	23		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.247 %	115.914 %	0.007 ppb	14,428.676 ppb	4,080.887 ppb	56.480 ppb	1,362.744 ppb	21,775.425 ppb	103.753 %
Concentration per Run 1	99.598 %	126.130 %	0.013 ppb	13,403.045 ppb	3,740.154 ppb	53.391 ppb	1,331.016 ppb	21,073.754 ppb	102.576 %
Concentration per Run 2	100.266 %	109.627 %	0.004 ppb	15,042.911 ppb	4,275.936 ppb	58.027 ppb	1,402.971 ppb	22,590.396 ppb	104.350 %
Concentration per Run 3	100.878 %	111.984 %	0.005 ppb	14,840.071 ppb	4,226.571 ppb	58.020 ppb	1,354.245 ppb	21,662.126 ppb	104.332 %
Concentration RSD	0.6 %	7.7 %	68.1 %	6.2 %	7.3 %	4.7 %	2.7 %	3.5 %	1.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	103.742 %	0.707 ppb	0.230 ppb	6.587 ppb	157.667 ppb	0.046 ppb	0.409 ppb	1.438 ppb	0.667 ppb
Concentration per Run 1	102.298 %	0.704 ppb	0.196 ppb	6.900 ppb	132.365 ppb	0.082 ppb	0.171 ppb	1.309 ppb	0.506 ppb
Concentration per Run 2	96.365 %	0.793 ppb	0.253 ppb	6.311 ppb	165.795 ppb	0.032 ppb	0.613 ppb	1.535 ppb	0.698 ppb
Concentration per Run 3	112.561 %	0.625 ppb	0.242 ppb	6.550 ppb	174.842 ppb	0.023 ppb	0.444 ppb	1.470 ppb	0.799 ppb
Concentration RSD	7.9 %	11.9 %	13.1 %	4.5 %	14.2 %	69.3 %	54.6 %	8.1 %	22.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	106.024 %	0.749 ppb	-0.038 ppb	102.209 ppb	0.304 ppb	102.943 %	-0.001 ppb	0.003 ppb	103.357 %
Concentration per Run 1	107.397 %	0.639 ppb	0.094 ppb	97.701 ppb	0.299 ppb	102.962 %	0.000 ppb	0.000 ppb	101.628 %
Concentration per Run 2	106.747 %	0.668 ppb	-0.065 ppb	99.006 ppb	0.199 ppb	100.918 %	-0.003 ppb	0.000 ppb	101.502 %
Concentration per Run 3	103.928 %	0.941 ppb	-0.144 ppb	109.920 ppb	0.415 ppb	104.949 %	-0.001 ppb	0.009 ppb	106.941 %
Concentration RSD	1.7 %	22.3 %	316.6 %	6.6 %	35.6 %	2.0 %	139.0 %	173.2 %	3.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.183 ppb	18.368 ppb	105.740 %	106.956 %	0.014 ppb	0.299 ppb
Concentration per Run 1	0.188 ppb	18.153 ppb	104.876 %	105.579 %	0.003 ppb	0.298 ppb
Concentration per Run 2	0.164 ppb	17.477 ppb	102.676 %	104.638 %	0.023 ppb	0.302 ppb
Concentration per Run 3	0.197 ppb	19.473 ppb	109.667 %	110.651 %	0.016 ppb	0.295 ppb
Concentration RSD	9.2 %	5.5 %	3.4 %	3.0 %	74.3 %	1.2 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	48	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448514-11 2008SL	Rack	1		
Analysis started at:	8/28/2024 9:15:09 AM	Vial	24		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.058 %	108.644 %	0.001 ppb	14,506.432 ppb	4,118.413 ppb	30.688 ppb	1,237.951 ppb	21,206.908 ppb	102.976 %
Concentration per Run 1	99.269 %	113.163 %	-0.007 ppb	13,947.162 ppb	3,966.050 ppb	28.132 ppb	1,258.651 ppb	20,944.773 ppb	101.839 %
Concentration per Run 2	100.451 %	111.395 %	0.003 ppb	14,201.821 ppb	4,060.042 ppb	32.898 ppb	1,195.557 ppb	21,074.078 ppb	104.947 %
Concentration per Run 3	100.455 %	101.375 %	0.007 ppb	15,370.312 ppb	4,329.147 ppb	31.036 ppb	1,259.647 ppb	21,601.874 ppb	102.142 %
Concentration RSD	0.7 %	5.9 %	704.7 %	5.2 %	4.6 %	7.8 %	3.0 %	1.6 %	1.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	104.062 %	0.593 ppb	0.150 ppb	2.667 ppb	110.541 ppb	0.056 ppb	0.591 ppb	1.478 ppb	1.327 ppb
Concentration per Run 1	107.109 %	0.550 ppb	0.140 ppb	2.484 ppb	123.857 ppb	0.052 ppb	0.633 ppb	1.337 ppb	1.439 ppb
Concentration per Run 2	103.100 %	0.706 ppb	0.182 ppb	2.476 ppb	95.677 ppb	0.054 ppb	0.630 ppb	1.469 ppb	1.156 ppb
Concentration per Run 3	101.978 %	0.524 ppb	0.128 ppb	3.040 ppb	112.090 ppb	0.063 ppb	0.511 ppb	1.627 ppb	1.385 ppb
Concentration RSD	2.6 %	16.6 %	19.2 %	12.1 %	12.8 %	10.3 %	11.8 %	9.8 %	11.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.813 %	0.730 ppb	0.018 ppb	100.925 ppb	1.655 ppb	102.670 %	-0.003 ppb	0.006 ppb	102.966 %
Concentration per Run 1	105.862 %	0.768 ppb	0.166 ppb	98.962 ppb	1.590 ppb	104.384 %	-0.003 ppb	0.004 ppb	105.023 %
Concentration per Run 2	103.277 %	0.744 ppb	-0.049 ppb	100.527 ppb	1.738 ppb	101.857 %	-0.003 ppb	0.005 ppb	101.710 %
Concentration per Run 3	99.301 %	0.679 ppb	-0.062 ppb	103.286 ppb	1.637 ppb	101.771 %	-0.003 ppb	0.009 ppb	102.166 %
Concentration RSD	3.2 %	6.3 %	696.5 %	2.2 %	4.6 %	1.4 %	0.0 %	44.1 %	1.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.212 ppb	17.024 ppb	105.153 %	105.593 %	0.014 ppb	0.206 ppb
Concentration per Run 1	0.221 ppb	16.833 ppb	106.086 %	106.712 %	0.004 ppb	0.195 ppb
Concentration per Run 2	0.190 ppb	17.371 ppb	104.567 %	104.885 %	0.019 ppb	0.215 ppb
Concentration per Run 3	0.224 ppb	16.870 ppb	104.805 %	105.181 %	0.019 ppb	0.208 ppb
Concentration RSD	8.9 %	1.8 %	0.8 %	0.9 %	62.3 %	4.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	49	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448514-12 2008SL	Rack	1		
Analysis started at:	8/28/2024 9:19:39 AM	Vial	25		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.183 %	111.591 %	0.001 ppb	13,833.112 ppb	3,907.537 ppb	43.051 ppb	1,209.536 ppb	20,132.293 ppb	104.063 %
Concentration per Run 1	100.026 %	106.680 %	0.002 ppb	14,102.153 ppb	3,990.605 ppb	43.118 ppb	1,221.534 ppb	19,999.575 ppb	102.848 %
Concentration per Run 2	102.561 %	109.037 %	0.001 ppb	13,925.533 ppb	3,866.244 ppb	42.070 ppb	1,152.845 ppb	19,861.578 ppb	106.135 %
Concentration per Run 3	100.961 %	119.057 %	0.001 ppb	13,471.649 ppb	3,865.762 ppb	43.965 ppb	1,254.229 ppb	20,535.725 ppb	103.205 %
Concentration RSD	1.3 %	5.9 %	51.9 %	2.4 %	1.8 %	2.2 %	4.3 %	1.8 %	1.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	107.644 %	0.537 ppb	0.166 ppb	2.944 ppb	123.857 ppb	0.040 ppb	0.449 ppb	1.341 ppb	0.701 ppb
Concentration per Run 1	107.430 %	0.470 ppb	0.134 ppb	3.025 ppb	132.337 ppb	0.031 ppb	0.486 ppb	1.209 ppb	0.707 ppb
Concentration per Run 2	109.033 %	0.544 ppb	0.145 ppb	2.687 ppb	119.989 ppb	0.045 ppb	0.454 ppb	1.337 ppb	0.689 ppb
Concentration per Run 3	106.468 %	0.598 ppb	0.219 ppb	3.118 ppb	119.247 ppb	0.045 ppb	0.405 ppb	1.477 ppb	0.707 ppb
Concentration RSD	1.2 %	12.0 %	27.8 %	7.7 %	5.9 %	20.1 %	9.1 %	10.0 %	1.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.392 %	0.594 ppb	0.180 ppb	100.218 ppb	0.375 ppb	101.309 %	-0.001 ppb	0.009 ppb	101.324 %
Concentration per Run 1	102.626 %	0.531 ppb	0.418 ppb	99.283 ppb	0.269 ppb	100.932 %	0.002 ppb	0.005 ppb	101.243 %
Concentration per Run 2	103.205 %	0.624 ppb	0.022 ppb	99.968 ppb	0.402 ppb	101.384 %	-0.001 ppb	0.018 ppb	102.444 %
Concentration per Run 3	104.344 %	0.627 ppb	0.100 ppb	101.402 ppb	0.453 ppb	101.610 %	-0.003 ppb	0.005 ppb	100.284 %
Concentration RSD	0.8 %	9.2 %	116.5 %	1.1 %	25.3 %	0.3 %	431.8 %	85.9 %	1.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.160 ppb	17.056 ppb	103.846 %	104.169 %	0.011 ppb	0.231 ppb
Concentration per Run 1	0.164 ppb	16.570 ppb	103.232 %	102.584 %	0.002 ppb	0.229 ppb
Concentration per Run 2	0.149 ppb	17.519 ppb	102.589 %	103.862 %	0.013 ppb	0.233 ppb
Concentration per Run 3	0.165 ppb	17.078 ppb	105.718 %	106.061 %	0.017 ppb	0.232 ppb
Concentration RSD	5.6 %	2.8 %	1.6 %	1.7 %	72.2 %	0.7 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	50	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 9:24:05 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.309 %	112.770 %	61.360 ppb	6,349.145 ppb	6,309.540 ppb	65.058 ppb	6,233.635 ppb	6,106.641 ppb	102.181 %
Concentration per Run 1	99.520 %	113.753 %	61.121 ppb	6,230.287 ppb	6,151.469 ppb	68.426 ppb	6,162.421 ppb	6,179.013 ppb	102.339 %
Concentration per Run 2	97.731 %	113.163 %	61.498 ppb	6,548.310 ppb	6,531.201 ppb	62.593 ppb	6,585.670 ppb	6,396.695 ppb	101.579 %
Concentration per Run 3	97.677 %	111.395 %	61.461 ppb	6,268.838 ppb	6,245.952 ppb	64.155 ppb	5,952.815 ppb	5,744.215 ppb	102.624 %
Recovery Percentage 1			102.267 %	105.819 %	105.159 %	108.430 %	103.894 %	101.777 %	
Concentration RSD	1.1 %	1.1 %	0.3 %	2.7 %	3.1 %	4.6 %	5.2 %	5.4 %	0.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	106.735 %	63.082 ppb	62.153 ppb	61.263 ppb	6,186.985 ppb	61.722 ppb	62.497 ppb	60.637 ppb	61.625 ppb
Concentration per Run 1	108.071 %	62.660 ppb	62.060 ppb	60.433 ppb	6,153.261 ppb	61.661 ppb	60.252 ppb	59.182 ppb	62.024 ppb
Concentration per Run 2	98.610 %	66.619 ppb	65.744 ppb	64.535 ppb	6,457.083 ppb	64.138 ppb	66.882 ppb	62.457 ppb	62.372 ppb
Concentration per Run 3	113.523 %	59.967 ppb	58.655 ppb	58.820 ppb	5,950.613 ppb	59.368 ppb	60.358 ppb	60.272 ppb	60.479 ppb
Recovery Percentage 1		105.136 %	103.588 %	102.104 %	103.116 %	102.871 %	104.162 %	101.062 %	102.708 %
Concentration RSD	7.1 %	5.3 %	5.7 %	4.8 %	4.1 %	3.9 %	6.1 %	2.8 %	1.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.146 %	61.387 ppb	60.299 ppb	56.570 ppb	58.767 ppb	100.172 %	60.860 ppb	61.637 ppb	97.793 %
Concentration per Run 1	100.741 %	61.942 ppb	60.062 ppb	54.839 ppb	56.877 ppb	99.215 %	60.102 ppb	59.807 ppb	96.878 %
Concentration per Run 2	102.621 %	61.677 ppb	59.848 ppb	57.837 ppb	59.924 ppb	100.096 %	61.038 ppb	62.909 ppb	98.285 %
Concentration per Run 3	103.075 %	60.541 ppb	60.986 ppb	57.033 ppb	59.499 ppb	101.204 %	61.439 ppb	62.195 ppb	98.215 %
Recovery Percentage 1		102.311 %	100.498 %	94.283 %	97.945 %		101.433 %	102.728 %	
Concentration RSD	1.2 %	1.2 %	1.0 %	2.7 %	2.8 %	1.0 %	1.1 %	2.6 %	0.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	59.152 ppb	59.512 ppb	103.206 %	103.990 %	61.175 ppb	61.706 ppb
Concentration per Run 1	58.074 ppb	57.066 ppb	100.689 %	101.809 %	60.947 ppb	61.127 ppb
Concentration per Run 2	59.843 ppb	61.863 ppb	104.460 %	104.938 %	61.656 ppb	62.084 ppb
Concentration per Run 3	59.540 ppb	59.607 ppb	104.469 %	105.222 %	60.922 ppb	61.908 ppb
Recovery Percentage 1	98.587 %	99.187 %			101.959 %	102.843 %
Concentration RSD	1.6 %	4.0 %	2.1 %	1.8 %	0.7 %	0.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	51	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 9:28:37 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.118 %	119.057 %	0.042 ppb	8.603 ppb	9.540 ppb	-0.350 ppb	-3.831 ppb	13.097 ppb	99.382 %
Concentration per Run 1	99.929 %	116.110 %	0.040 ppb	20.437 ppb	12.609 ppb	-0.586 ppb	10.736 ppb	19.931 ppb	98.920 %
Concentration per Run 2	99.887 %	115.521 %	0.042 ppb	7.044 ppb	7.754 ppb	-0.464 ppb	-8.938 ppb	15.510 ppb	99.499 %
Concentration per Run 3	100.537 %	125.540 %	0.045 ppb	-1.672 ppb	8.259 ppb	-0.002 ppb	-13.290 ppb	3.852 ppb	99.727 %
Recovery Percentage 1			8.497 %	8.603 %	13.629 %	-3.505 %	-3.831 %	13.097 %	
Concentration RSD	0.4 %	4.7 %	6.2 %	129.4 %	28.0 %	87.9 %	334.2 %	63.4 %	0.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	100.748 %	0.031 ppb	0.129 ppb	0.095 ppb	8.473 ppb	0.091 ppb	0.030 ppb	0.014 ppb	-0.024 ppb
Concentration per Run 1	96.205 %	0.077 ppb	0.207 ppb	0.001 ppb	8.650 ppb	0.098 ppb	0.139 ppb	0.006 ppb	-0.072 ppb
Concentration per Run 2	101.015 %	0.041 ppb	0.105 ppb	0.189 ppb	4.620 ppb	0.091 ppb	-0.012 ppb	-0.003 ppb	0.027 ppb
Concentration per Run 3	105.025 %	-0.027 ppb	0.074 ppb	0.095 ppb	12.149 ppb	0.086 ppb	-0.037 ppb	0.040 ppb	-0.026 ppb
Recovery Percentage 1		0.611 %	12.886 %	9.508 %	16.946 %	18.278 %	1.503 %	1.402 %	-0.476 %
Concentration RSD	4.4 %	172.3 %	54.0 %	98.8 %	44.5 %	6.8 %	316.5 %	161.6 %	207.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	97.928 %	0.163 ppb	0.132 ppb	0.136 ppb	0.291 ppb	102.937 %	0.069 ppb	0.050 ppb	102.019 %
Concentration per Run 1	94.748 %	0.259 ppb	0.108 ppb	0.219 ppb	0.283 ppb	103.600 %	0.099 ppb	0.078 ppb	101.128 %
Concentration per Run 2	104.144 %	0.088 ppb	0.185 ppb	0.099 ppb	0.225 ppb	102.226 %	0.062 ppb	0.037 ppb	101.734 %
Concentration per Run 3	94.892 %	0.141 ppb	0.103 ppb	0.089 ppb	0.366 ppb	102.985 %	0.045 ppb	0.036 ppb	103.196 %
Recovery Percentage 1		32.541 %	2.643 %	1.356 %	14.572 %		17.171 %	25.185 %	
Concentration RSD	5.5 %	53.8 %	34.7 %	53.4 %	24.4 %	0.7 %	40.6 %	47.6 %	1.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.247 ppb	0.071 ppb	105.011 %	105.418 %	0.279 ppb	0.085 ppb
Concentration per Run 1	0.274 ppb	0.134 ppb	104.369 %	104.861 %	0.271 ppb	0.119 ppb
Concentration per Run 2	0.226 ppb	0.019 ppb	105.293 %	105.720 %	0.312 ppb	0.074 ppb
Concentration per Run 3	0.239 ppb	0.061 ppb	105.370 %	105.673 %	0.254 ppb	0.063 ppb
Recovery Percentage 1	6.163 %	14.239 %			27.909 %	8.534 %
Concentration RSD	10.1 %	81.8 %	0.5 %	0.5 %	10.5 %	34.7 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	52	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964363-1 6020TL	Rack	1		
Analysis started at:	8/28/2024 9:41:36 AM	Vial	27		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.746 %	111.002 %	-0.001 ppb	-9.427 ppb	0.472 ppb	0.471 ppb	-15.454 ppb	3.342 ppb	95.500 %
Concentration per Run 1	96.406 %	110.806 %	-0.001 ppb	-11.285 ppb	2.117 ppb	0.368 ppb	-12.182 ppb	1.506 ppb	94.411 %
Concentration per Run 2	97.342 %	99.018 %	0.007 ppb	-6.088 ppb	-1.465 ppb	0.504 ppb	-17.135 ppb	11.013 ppb	96.178 %
Concentration per Run 3	96.490 %	123.183 %	-0.009 ppb	-10.907 ppb	0.765 ppb	0.541 ppb	-17.045 ppb	-2.492 ppb	95.911 %
Concentration RSD	0.5 %	10.9 %	830.5 %	30.7 %	382.9 %	19.4 %	18.3 %	207.6 %	1.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	102.192 %	-0.150 ppb	-0.010 ppb	0.096 ppb	-0.462 ppb	-0.005 ppb	0.008 ppb	-0.005 ppb	0.276 ppb
Concentration per Run 1	98.290 %	-0.178 ppb	-0.011 ppb	0.100 ppb	0.061 ppb	-0.005 ppb	0.050 ppb	0.023 ppb	0.365 ppb
Concentration per Run 2	108.232 %	-0.116 ppb	0.000 ppb	0.028 ppb	-0.763 ppb	-0.005 ppb	0.011 ppb	-0.110 ppb	0.238 ppb
Concentration per Run 3	100.053 %	-0.156 ppb	-0.020 ppb	0.160 ppb	-0.685 ppb	-0.005 ppb	-0.038 ppb	0.071 ppb	0.224 ppb
Concentration RSD	5.2 %	21.0 %	92.7 %	69.1 %	98.5 %	0.0 %	565.8 %	1,780.6 %	28.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	100.940 %	-0.040 ppb	-0.061 ppb	0.003 ppb	-0.009 ppb	99.293 %	0.002 ppb	0.008 ppb	100.073 %
Concentration per Run 1	96.049 %	-0.084 ppb	-0.054 ppb	0.003 ppb	-0.027 ppb	100.148 %	0.006 ppb	0.005 ppb	99.221 %
Concentration per Run 2	105.084 %	-0.045 ppb	-0.144 ppb	0.003 ppb	-0.041 ppb	98.769 %	0.001 ppb	0.009 ppb	102.142 %
Concentration per Run 3	101.687 %	0.009 ppb	0.014 ppb	0.004 ppb	0.041 ppb	98.963 %	0.001 ppb	0.009 ppb	98.858 %
Concentration RSD	4.5 %	117.5 %	129.3 %	18.4 %	500.5 %	0.8 %	128.8 %	34.5 %	1.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.030 ppb	0.034 ppb	102.985 %	106.851 %	0.025 ppb	0.012 ppb
Concentration per Run 1	0.018 ppb	0.020 ppb	102.122 %	104.511 %	0.015 ppb	0.016 ppb
Concentration per Run 2	0.028 ppb	0.047 ppb	104.014 %	109.067 %	0.027 ppb	0.013 ppb
Concentration per Run 3	0.044 ppb	0.034 ppb	102.818 %	106.976 %	0.033 ppb	0.007 ppb
Concentration RSD	43.3 %	41.5 %	0.9 %	2.1 %	35.5 %	40.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	53	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964363-2d10 6020TL	Rack	1		
Analysis started at:	8/28/2024 9:46:03 AM	Vial	28		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.447 %	102.947 %	5.261 ppb	1,165.359 ppb	1,096.845 ppb	219.220 ppb	1,031.041 ppb	980.071 ppb	97.180 %
Concentration per Run 1	97.120 %	101.965 %	5.240 ppb	1,137.993 ppb	1,100.265 ppb	210.428 ppb	980.285 ppb	931.149 ppb	97.134 %
Concentration per Run 2	97.575 %	107.269 %	5.304 ppb	1,136.047 ppb	1,072.275 ppb	220.551 ppb	1,027.564 ppb	1,123.432 ppb	97.478 %
Concentration per Run 3	97.647 %	99.607 %	5.240 ppb	1,222.037 ppb	1,117.996 ppb	226.681 ppb	1,085.274 ppb	885.632 ppb	96.928 %
Concentration RSD	0.3 %	3.8 %	0.7 %	4.2 %	2.1 %	3.7 %	5.1 %	12.9 %	0.3 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	108.018 %	49.852 ppb	20.234 ppb	51.230 ppb	104.669 ppb	51.114 ppb	51.566 ppb	25.913 ppb	52.705 ppb
Concentration per Run 1	107.911 %	49.423 ppb	19.978 ppb	50.482 ppb	98.003 ppb	49.869 ppb	51.037 ppb	25.100 ppb	52.252 ppb
Concentration per Run 2	101.176 %	51.229 ppb	20.909 ppb	49.924 ppb	117.747 ppb	54.114 ppb	53.902 ppb	26.686 ppb	52.787 ppb
Concentration per Run 3	114.967 %	48.903 ppb	19.814 ppb	53.284 ppb	98.258 ppb	49.358 ppb	49.760 ppb	25.953 ppb	53.077 ppb
Concentration RSD	6.4 %	2.4 %	2.9 %	3.5 %	10.8 %	5.1 %	4.1 %	3.1 %	0.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	99.604 %	11.106 ppb	11.375 ppb	94.357 ppb	97.389 ppb	98.616 %	5.140 ppb	5.440 ppb	99.010 %
Concentration per Run 1	98.888 %	10.786 ppb	9.507 ppb	91.521 ppb	97.324 ppb	98.179 %	5.223 ppb	5.724 ppb	97.754 %
Concentration per Run 2	98.544 %	11.016 ppb	11.746 ppb	92.264 ppb	95.496 ppb	97.556 %	5.167 ppb	5.319 ppb	94.724 %
Concentration per Run 3	101.381 %	11.517 ppb	12.873 ppb	99.287 ppb	99.347 ppb	100.114 %	5.030 ppb	5.277 ppb	104.553 %
Concentration RSD	1.6 %	3.4 %	15.1 %	4.5 %	2.0 %	1.4 %	1.9 %	4.5 %	5.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	46.922 ppb	200.593 ppb	102.706 %	104.286 %	11.207 ppb	53.354 ppb
Concentration per Run 1	46.167 ppb	194.489 ppb	101.529 %	102.164 %	11.053 ppb	53.110 ppb
Concentration per Run 2	47.582 ppb	203.379 ppb	101.692 %	102.343 %	11.565 ppb	54.352 ppb
Concentration per Run 3	47.018 ppb	203.911 ppb	104.898 %	108.352 %	11.004 ppb	52.600 ppb
Concentration RSD	1.5 %	2.6 %	1.8 %	3.4 %	2.8 %	1.7 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	54	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448039-05 6020TL	Rack	1		
Analysis started at:	8/28/2024 9:50:30 AM	Vial	29		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	87.885 %	108.841 %	0.002 ppb	462,055.669 ppb	74,473.916 ppb	9.778 ppb	15,177.678 ppb	157,127.224 ppb	95.264 %
Concentration per Run 1	87.690 %	103.143 %	0.004 ppb	484,617.617 ppb	77,855.727 ppb	9.739 ppb	16,157.177 ppb	169,363.338 ppb	94.180 %
Concentration per Run 2	87.551 %	106.680 %	0.002 ppb	458,748.133 ppb	73,620.448 ppb	10.422 ppb	14,543.534 ppb	151,781.758 ppb	94.727 %
Concentration per Run 3	88.415 %	116.699 %	0.000 ppb	442,801.257 ppb	71,945.573 ppb	9.173 ppb	14,832.323 ppb	150,236.577 ppb	96.883 %
Concentration RSD	0.5 %	6.5 %	89.5 %	4.6 %	4.1 %	6.4 %	5.7 %	6.8 %	1.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	100.802 %	0.079 ppb	0.465 ppb	1,017.561 ppb	201.010 ppb	12.190 ppb	8.224 ppb	11.767 ppb	1.011 ppb
Concentration per Run 1	89.791 %	0.090 ppb	0.448 ppb	1,051.857 ppb	200.699 ppb	12.529 ppb	7.938 ppb	12.494 ppb	1.092 ppb
Concentration per Run 2	101.336 %	-0.001 ppb	0.440 ppb	996.210 ppb	204.093 ppb	12.028 ppb	8.469 ppb	11.401 ppb	0.983 ppb
Concentration per Run 3	111.278 %	0.148 ppb	0.508 ppb	1,004.616 ppb	198.238 ppb	12.012 ppb	8.264 ppb	11.405 ppb	0.957 ppb
Concentration RSD	10.7 %	95.6 %	8.0 %	2.9 %	1.5 %	2.4 %	3.3 %	5.4 %	7.1 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	98.868 %	1.218 ppb	0.307 ppb	362.817 ppb	46.655 ppb	90.602 %	0.093 ppb	0.042 ppb	94.040 %
Concentration per Run 1	96.916 %	1.233 ppb	0.200 ppb	352.020 ppb	45.921 ppb	90.225 %	0.098 ppb	0.021 ppb	91.823 %
Concentration per Run 2	99.229 %	1.151 ppb	0.199 ppb	351.468 ppb	45.345 ppb	89.664 %	0.091 ppb	0.057 ppb	91.091 %
Concentration per Run 3	100.458 %	1.271 ppb	0.523 ppb	384.962 ppb	48.699 ppb	91.918 %	0.091 ppb	0.048 ppb	99.207 %
Concentration RSD	1.8 %	5.0 %	60.9 %	5.3 %	3.8 %	1.3 %	4.4 %	45.3 %	4.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.776 ppb	37.956 ppb	99.477 %	100.965 %	0.300 ppb	0.153 ppb
Concentration per Run 1	0.722 ppb	38.734 ppb	98.464 %	99.314 %	0.280 ppb	0.174 ppb
Concentration per Run 2	0.782 ppb	36.985 ppb	98.610 %	100.062 %	0.311 ppb	0.141 ppb
Concentration per Run 3	0.824 ppb	38.148 ppb	101.357 %	103.520 %	0.310 ppb	0.144 ppb
Concentration RSD	6.6 %	2.3 %	1.6 %	2.2 %	5.8 %	12.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	55	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964363-3d10 6020TL	Rack	1		
Analysis started at:	8/28/2024 9:54:58 AM	Vial	30		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.399 %	109.430 %	4.979 ppb	53,472.060 ppb	8,971.994 ppb	226.863 ppb	2,649.311 ppb	17,033.733 ppb	103.476 %
Concentration per Run 1	100.954 %	106.680 %	4.984 ppb	49,398.092 ppb	9,156.687 ppb	231.391 ppb	2,725.214 ppb	18,140.350 ppb	103.379 %
Concentration per Run 2	102.071 %	112.574 %	4.893 ppb	59,453.803 ppb	8,424.707 ppb	215.824 ppb	2,494.784 ppb	15,695.293 ppb	103.856 %
Concentration per Run 3	101.174 %	109.037 %	5.058 ppb	51,564.286 ppb	9,334.587 ppb	233.375 ppb	2,727.937 ppb	17,265.557 ppb	103.191 %
Concentration RSD	0.6 %	2.7 %	1.7 %	9.9 %	5.4 %	4.2 %	5.1 %	7.3 %	0.3 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	110.423 %	51.719 ppb	20.612 ppb	157.053 ppb	130.052 ppb	51.981 ppb	50.794 ppb	26.049 ppb	50.208 ppb
Concentration per Run 1	102.138 %	52.570 ppb	21.524 ppb	160.801 ppb	140.024 ppb	53.260 ppb	51.757 ppb	27.811 ppb	50.713 ppb
Concentration per Run 2	114.004 %	50.806 ppb	19.934 ppb	154.309 ppb	126.192 ppb	51.398 ppb	51.845 ppb	24.744 ppb	49.515 ppb
Concentration per Run 3	115.127 %	51.782 ppb	20.378 ppb	156.047 ppb	123.940 ppb	51.285 ppb	48.780 ppb	25.591 ppb	50.395 ppb
Concentration RSD	6.5 %	1.7 %	4.0 %	2.1 %	6.7 %	2.1 %	3.4 %	6.1 %	1.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	107.870 %	10.910 ppb	10.664 ppb	128.702 ppb	101.136 ppb	104.399 %	4.940 ppb	5.117 ppb	104.374 %
Concentration per Run 1	106.768 %	10.736 ppb	10.090 ppb	125.487 ppb	99.930 ppb	102.961 %	5.132 ppb	4.947 ppb	102.111 %
Concentration per Run 2	105.522 %	11.331 ppb	10.797 ppb	125.490 ppb	102.419 ppb	103.892 %	4.952 ppb	5.191 ppb	102.793 %
Concentration per Run 3	111.322 %	10.663 ppb	11.104 ppb	135.130 ppb	101.057 ppb	106.344 %	4.736 ppb	5.212 ppb	108.217 %
Concentration RSD	2.8 %	3.4 %	4.9 %	4.3 %	1.2 %	1.7 %	4.0 %	2.9 %	3.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	46.203 ppb	201.012 ppb	106.016 %	107.001 %	10.621 ppb	49.983 ppb
Concentration per Run 1	45.428 ppb	199.545 ppb	104.433 %	103.791 %	10.614 ppb	49.730 ppb
Concentration per Run 2	46.252 ppb	197.657 ppb	104.629 %	105.700 %	10.760 ppb	50.754 ppb
Concentration per Run 3	46.927 ppb	205.833 ppb	108.986 %	111.513 %	10.491 ppb	49.464 ppb
Concentration RSD	1.6 %	2.1 %	2.4 %	3.8 %	1.3 %	1.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	56	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964363-4d10 6020TL	Rack	1		
Analysis started at:	8/28/2024 9:59:26 AM	Vial	31		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.997 %	112.181 %	5.345 ppb	58,940.723 ppb	9,089.340 ppb	223.127 ppb	2,657.376 ppb	17,303.898 ppb	101.841 %
Concentration per Run 1	96.249 %	110.806 %	5.412 ppb	63,202.557 ppb	9,131.068 ppb	217.251 ppb	2,673.273 ppb	17,154.619 ppb	101.638 %
Concentration per Run 2	98.002 %	109.037 %	5.412 ppb	63,176.116 ppb	8,982.277 ppb	223.746 ppb	2,607.035 ppb	17,394.933 ppb	101.097 %
Concentration per Run 3	99.741 %	116.700 %	5.211 ppb	50,443.495 ppb	9,154.675 ppb	228.384 ppb	2,691.819 ppb	17,362.141 ppb	102.789 %
Concentration RSD	1.8 %	3.6 %	2.2 %	12.5 %	1.0 %	2.5 %	1.7 %	0.8 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	109.889 %	52.412 ppb	20.848 ppb	158.053 ppb	127.824 ppb	51.953 ppb	51.581 ppb	26.721 ppb	49.331 ppb
Concentration per Run 1	105.025 %	53.337 ppb	20.502 ppb	160.934 ppb	137.253 ppb	51.515 ppb	52.363 ppb	27.068 ppb	48.752 ppb
Concentration per Run 2	109.033 %	52.462 ppb	21.212 ppb	156.195 ppb	126.351 ppb	52.327 ppb	52.349 ppb	26.396 ppb	48.903 ppb
Concentration per Run 3	115.609 %	51.438 ppb	20.831 ppb	157.028 ppb	119.869 ppb	52.018 ppb	50.030 ppb	26.698 ppb	50.337 ppb
Concentration RSD	4.9 %	1.8 %	1.7 %	1.6 %	6.9 %	0.8 %	2.6 %	1.3 %	1.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	109.224 %	11.186 ppb	10.743 ppb	128.648 ppb	104.460 ppb	103.467 %	4.959 ppb	5.440 ppb	103.929 %
Concentration per Run 1	108.864 %	10.985 ppb	10.229 ppb	125.534 ppb	103.236 ppb	101.662 %	4.862 ppb	5.190 ppb	101.639 %
Concentration per Run 2	107.108 %	11.516 ppb	9.803 ppb	126.323 ppb	104.879 ppb	103.852 %	5.124 ppb	5.540 ppb	102.715 %
Concentration per Run 3	111.700 %	11.058 ppb	12.196 ppb	134.086 ppb	105.266 ppb	104.886 %	4.892 ppb	5.591 ppb	107.434 %
Concentration RSD	2.1 %	2.6 %	11.9 %	3.7 %	1.0 %	1.6 %	2.9 %	4.0 %	3.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	46.772 ppb	203.988 ppb	106.411 %	106.821 %	10.819 ppb	50.558 ppb
Concentration per Run 1	45.831 ppb	204.234 ppb	105.272 %	105.040 %	10.859 ppb	50.434 ppb
Concentration per Run 2	46.758 ppb	200.365 ppb	105.113 %	104.991 %	10.933 ppb	50.903 ppb
Concentration per Run 3	47.728 ppb	207.366 ppb	108.849 %	110.431 %	10.665 ppb	50.336 ppb
Concentration RSD	2.0 %	1.7 %	2.0 %	2.9 %	1.3 %	0.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	57	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964363-5d10 6020TL	Rack	1		
Analysis started at:	8/28/2024 10:03:54 AM	Vial	32		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.579 %	104.715 %	51.655 ppb	63,240.511 ppb	13,563.431 ppb	61.765 ppb	7,022.841 ppb	21,181.294 ppb	103.812 %
Concentration per Run 1	99.635 %	105.501 %	51.760 ppb	66,770.662 ppb	13,351.623 ppb	58.489 ppb	6,977.747 ppb	21,060.483 ppb	102.843 %
Concentration per Run 2	98.878 %	103.733 %	52.016 ppb	69,091.523 ppb	13,695.104 ppb	66.014 ppb	7,205.152 ppb	21,645.090 ppb	103.965 %
Concentration per Run 3	100.223 %	104.912 %	51.188 ppb	53,859.348 ppb	13,643.567 ppb	60.794 ppb	6,885.625 ppb	20,838.309 ppb	104.628 %
Concentration RSD	0.7 %	0.9 %	0.8 %	13.0 %	1.4 %	6.2 %	2.3 %	2.0 %	0.9 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	107.751 %	52.677 ppb	52.261 ppb	156.388 ppb	5,283.089 ppb	53.791 ppb	52.657 ppb	53.100 ppb	50.434 ppb
Concentration per Run 1	108.552 %	52.587 ppb	52.063 ppb	156.142 ppb	5,279.004 ppb	53.915 ppb	53.249 ppb	54.117 ppb	49.977 ppb
Concentration per Run 2	103.742 %	53.057 ppb	54.113 ppb	159.101 ppb	5,409.011 ppb	54.360 ppb	52.924 ppb	52.300 ppb	51.897 ppb
Concentration per Run 3	110.958 %	52.388 ppb	50.608 ppb	153.919 ppb	5,161.252 ppb	53.097 ppb	51.796 ppb	52.884 ppb	49.428 ppb
Concentration RSD	3.4 %	0.7 %	3.4 %	1.7 %	2.3 %	1.2 %	1.4 %	1.7 %	2.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	104.108 %	52.709 ppb	50.423 ppb	83.681 ppb	57.775 ppb	100.408 %	1.411 ppb	50.822 ppb	101.858 %
Concentration per Run 1	104.032 %	52.896 ppb	48.444 ppb	82.096 ppb	57.287 ppb	102.129 %	1.394 ppb	50.214 ppb	102.345 %
Concentration per Run 2	103.739 %	52.777 ppb	51.468 ppb	84.068 ppb	58.008 ppb	99.338 %	1.474 ppb	51.334 ppb	99.888 %
Concentration per Run 3	104.552 %	52.455 ppb	51.356 ppb	84.879 ppb	58.031 ppb	99.756 %	1.365 ppb	50.919 ppb	103.341 %
Concentration RSD	0.4 %	0.4 %	3.4 %	1.7 %	0.7 %	1.5 %	4.0 %	1.1 %	1.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	51.574 ppb	54.480 ppb	104.617 %	105.251 %	50.458 ppb	50.569 ppb
Concentration per Run 1	50.942 ppb	53.525 ppb	105.362 %	106.464 %	49.160 ppb	49.136 ppb
Concentration per Run 2	52.288 ppb	55.505 ppb	104.458 %	104.085 %	50.678 ppb	51.215 ppb
Concentration per Run 3	51.492 ppb	54.410 ppb	104.031 %	105.206 %	51.538 ppb	51.357 ppb
Concentration RSD	1.3 %	1.8 %	0.6 %	1.1 %	2.4 %	2.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	58	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964363-6d5 6020TL	Rack	1		
Analysis started at:	8/28/2024 10:08:22 AM	Vial	33		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.063 %	114.342 %	0.044 ppb	95,071.775 ppb	15,441.544 ppb	2.548 ppb	3,103.670 ppb	32,353.664 ppb	105.340 %
Concentration per Run 1	99.093 %	110.806 %	0.044 ppb	94,172.555 ppb	15,299.448 ppb	1.762 ppb	3,006.595 ppb	31,797.378 ppb	105.049 %
Concentration per Run 2	100.342 %	109.037 %	0.036 ppb	100,093.924 ppb	16,420.011 ppb	3.478 ppb	3,272.919 ppb	33,660.566 ppb	105.549 %
Concentration per Run 3	100.755 %	123.183 %	0.051 ppb	90,948.846 ppb	14,605.172 ppb	2.403 ppb	3,031.498 ppb	31,603.049 ppb	105.422 %
Concentration RSD	0.9 %	6.7 %	18.0 %	4.9 %	5.9 %	34.0 %	4.7 %	3.5 %	0.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	105.238 %	0.055 ppb	0.195 ppb	209.715 ppb	52.474 ppb	2.674 ppb	1.991 ppb	2.594 ppb	0.329 ppb
Concentration per Run 1	105.024 %	0.073 ppb	0.190 ppb	199.685 ppb	49.331 ppb	2.716 ppb	1.875 ppb	2.611 ppb	0.351 ppb
Concentration per Run 2	100.054 %	0.043 ppb	0.231 ppb	219.226 ppb	59.537 ppb	2.729 ppb	2.095 ppb	2.451 ppb	0.362 ppb
Concentration per Run 3	110.637 %	0.048 ppb	0.165 ppb	210.234 ppb	48.554 ppb	2.578 ppb	2.004 ppb	2.720 ppb	0.273 ppb
Concentration RSD	5.0 %	30.3 %	17.2 %	4.7 %	11.7 %	3.1 %	5.5 %	5.2 %	14.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.108 %	0.289 ppb	0.148 ppb	69.980 ppb	9.589 ppb	103.074 %	0.023 ppb	0.073 ppb	102.729 %
Concentration per Run 1	110.795 %	0.253 ppb	0.235 ppb	66.538 ppb	9.513 ppb	102.181 %	0.022 ppb	0.101 ppb	102.106 %
Concentration per Run 2	104.217 %	0.328 ppb	0.020 ppb	69.924 ppb	9.783 ppb	104.379 %	0.022 ppb	0.050 ppb	103.267 %
Concentration per Run 3	100.313 %	0.285 ppb	0.190 ppb	73.477 ppb	9.470 ppb	102.664 %	0.025 ppb	0.068 ppb	102.814 %
Concentration RSD	5.0 %	12.9 %	76.4 %	5.0 %	1.8 %	1.1 %	8.6 %	35.5 %	0.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.429 ppb	7.467 ppb	105.816 %	106.216 %	0.343 ppb	0.142 ppb
Concentration per Run 1	0.392 ppb	7.592 ppb	106.101 %	106.541 %	0.334 ppb	0.183 ppb
Concentration per Run 2	0.416 ppb	7.351 ppb	106.146 %	106.032 %	0.364 ppb	0.123 ppb
Concentration per Run 3	0.480 ppb	7.457 ppb	105.202 %	106.076 %	0.330 ppb	0.119 ppb
Concentration RSD	10.5 %	1.6 %	0.5 %	0.3 %	5.5 %	25.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	59	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447701-02 6020TL	Rack	1		
Analysis started at:	8/28/2024 10:12:51 AM	Vial	34		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	90.872 %	111.199 %	0.579 ppb	182,981.260 ppb	106,431.195 ppb	8,418.902 ppb	8,764.920 ppb	233,809.624 ppb	116.602 %
Concentration per Run 1	90.530 %	130.256 %	0.563 ppb	162,351.940 ppb	93,748.129 ppb	7,563.690 ppb	8,196.848 ppb	226,163.944 ppb	116.276 %
Concentration per Run 2	90.985 %	95.481 %	0.620 ppb	199,382.399 ppb	116,438.659 ppb	9,138.658 ppb	9,056.426 ppb	236,596.043 ppb	117.575 %
Concentration per Run 3	91.101 %	107.859 %	0.555 ppb	187,209.442 ppb	109,106.796 ppb	8,554.358 ppb	9,041.486 ppb	238,668.883 ppb	115.954 %
Concentration RSD	0.3 %	15.9 %	6.1 %	10.3 %	10.9 %	9.5 %	5.6 %	2.9 %	0.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	118.602 %	21.254 ppb	81.948 ppb	1,835.822 ppb	22,510.010 ppb	12.911 ppb	31.916 ppb	85.948 ppb	45.175 ppb
Concentration per Run 1	122.504 %	20.219 ppb	79.762 ppb	1,775.895 ppb	21,865.075 ppb	13.042 ppb	29.637 ppb	83.813 ppb	44.272 ppb
Concentration per Run 2	116.891 %	21.809 ppb	83.383 ppb	1,874.055 ppb	23,127.993 ppb	12.792 ppb	32.302 ppb	88.988 ppb	46.533 ppb
Concentration per Run 3	116.410 %	21.734 ppb	82.697 ppb	1,857.515 ppb	22,536.962 ppb	12.899 ppb	33.808 ppb	85.042 ppb	44.721 ppb
Concentration RSD	2.9 %	4.2 %	2.3 %	2.9 %	2.8 %	1.0 %	6.6 %	3.1 %	2.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.810 %	2.568 ppb	2.561 ppb	1,130.061 ppb	7.797 ppb	92.648 %	0.023 ppb	0.181 ppb	93.524 %
Concentration per Run 1	104.127 %	2.628 ppb	2.452 ppb	1,113.273 ppb	7.683 ppb	93.699 %	0.026 ppb	0.190 ppb	93.890 %
Concentration per Run 2	99.794 %	2.422 ppb	3.293 ppb	1,155.855 ppb	8.236 ppb	91.468 %	0.027 ppb	0.213 ppb	92.673 %
Concentration per Run 3	104.510 %	2.655 ppb	1.939 ppb	1,121.056 ppb	7.472 ppb	92.775 %	0.015 ppb	0.140 ppb	94.008 %
Concentration RSD	2.5 %	5.0 %	26.7 %	2.0 %	5.1 %	1.2 %	28.1 %	20.6 %	0.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.265 ppb	450.272 ppb	105.016 %	102.859 %	0.186 ppb	8.180 ppb
Concentration per Run 1	0.217 ppb	447.301 ppb	106.265 %	103.825 %	0.146 ppb	8.015 ppb
Concentration per Run 2	0.272 ppb	452.843 ppb	105.579 %	102.923 %	0.228 ppb	8.226 ppb
Concentration per Run 3	0.306 ppb	450.670 ppb	103.204 %	101.829 %	0.186 ppb	8.300 ppb
Concentration RSD	17.0 %	0.6 %	1.5 %	1.0 %	22.1 %	1.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	60	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447701-03 6020TL	Rack	1		
Analysis started at:	8/28/2024 10:17:20 AM	Vial	35		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.843 %	110.020 %	0.238 ppb	23,106.725 ppb	72,133.075 ppb	6,360.019 ppb	3,780.115 ppb	140,181.393 ppb	113.303 %
Concentration per Run 1	95.983 %	117.878 %	0.233 ppb	22,432.723 ppb	69,278.148 ppb	6,117.462 ppb	3,758.521 ppb	141,902.517 ppb	111.923 %
Concentration per Run 2	96.957 %	100.196 %	0.245 ppb	23,315.752 ppb	73,300.215 ppb	6,410.378 ppb	3,612.608 ppb	131,469.279 ppb	115.177 %
Concentration per Run 3	97.589 %	111.984 %	0.235 ppb	23,571.699 ppb	73,820.861 ppb	6,552.216 ppb	3,969.216 ppb	147,172.383 ppb	112.808 %
Concentration RSD	0.8 %	8.2 %	2.7 %	2.6 %	3.4 %	3.5 %	4.7 %	5.7 %	1.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	110.904 %	15.918 ppb	28.634 ppb	2,746.250 ppb	15,890.199 ppb	8.049 ppb	14.414 ppb	25.744 ppb	27.371 ppb
Concentration per Run 1	109.514 %	16.094 ppb	28.391 ppb	2,733.929 ppb	15,862.581 ppb	8.181 ppb	13.837 ppb	25.826 ppb	27.614 ppb
Concentration per Run 2	118.013 %	14.878 ppb	27.690 ppb	2,620.758 ppb	15,293.583 ppb	7.977 ppb	14.467 ppb	24.465 ppb	26.736 ppb
Concentration per Run 3	105.185 %	16.781 ppb	29.821 ppb	2,884.061 ppb	16,514.433 ppb	7.989 ppb	14.939 ppb	26.941 ppb	27.763 ppb
Concentration RSD	5.9 %	6.1 %	3.8 %	4.8 %	3.8 %	1.4 %	3.8 %	4.8 %	2.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	106.598 %	3.123 ppb	1.284 ppb	501.154 ppb	2.558 ppb	97.526 %	0.013 ppb	0.094 ppb	97.832 %
Concentration per Run 1	108.481 %	3.382 ppb	1.234 ppb	495.495 ppb	2.405 ppb	96.983 %	0.016 ppb	0.048 ppb	97.938 %
Concentration per Run 2	105.717 %	2.939 ppb	1.106 ppb	501.202 ppb	2.611 ppb	97.232 %	0.016 ppb	0.102 ppb	96.054 %
Concentration per Run 3	105.594 %	3.048 ppb	1.511 ppb	506.763 ppb	2.659 ppb	98.362 %	0.007 ppb	0.132 ppb	99.505 %
Concentration RSD	1.5 %	7.4 %	16.1 %	1.1 %	5.3 %	0.8 %	38.4 %	45.4 %	1.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.297 ppb	123.648 ppb	103.518 %	103.170 %	0.148 ppb	7.502 ppb
Concentration per Run 1	0.265 ppb	122.086 ppb	103.495 %	102.421 %	0.131 ppb	7.364 ppb
Concentration per Run 2	0.321 ppb	125.341 ppb	103.005 %	102.870 %	0.160 ppb	7.548 ppb
Concentration per Run 3	0.306 ppb	123.515 ppb	104.052 %	104.220 %	0.154 ppb	7.593 ppb
Concentration RSD	9.7 %	1.3 %	0.5 %	0.9 %	10.2 %	1.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	61	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447716-01 6020TL	Rack	1		
Analysis started at:	8/28/2024 10:21:49 AM	Vial	36		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.423 %	112.377 %	0.021 ppb	36,849.200 ppb	9,898.348 ppb	228.801 ppb	1,938.736 ppb	97,233.884 ppb	109.344 %
Concentration per Run 1	100.916 %	116.700 %	0.007 ppb	35,891.050 ppb	9,580.149 ppb	225.279 ppb	1,898.302 ppb	96,845.794 ppb	108.122 %
Concentration per Run 2	101.854 %	108.448 %	0.023 ppb	36,963.107 ppb	9,912.695 ppb	225.462 ppb	1,884.745 ppb	95,565.161 ppb	109.620 %
Concentration per Run 3	101.499 %	111.984 %	0.033 ppb	37,693.445 ppb	10,202.201 ppb	235.662 ppb	2,033.161 ppb	99,290.697 ppb	110.290 %
Concentration RSD	0.5 %	3.7 %	62.8 %	2.5 %	3.1 %	2.6 %	4.2 %	1.9 %	1.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	108.445 %	2.353 ppb	0.818 ppb	475.103 ppb	417.058 ppb	0.364 ppb	1.661 ppb	2.237 ppb	2.262 ppb
Concentration per Run 1	109.194 %	2.614 ppb	0.794 ppb	467.769 ppb	430.876 ppb	0.455 ppb	1.512 ppb	2.367 ppb	2.385 ppb
Concentration per Run 2	110.316 %	2.046 ppb	0.734 ppb	464.711 ppb	396.162 ppb	0.369 ppb	1.456 ppb	1.880 ppb	2.102 ppb
Concentration per Run 3	105.826 %	2.399 ppb	0.926 ppb	492.829 ppb	424.137 ppb	0.268 ppb	2.013 ppb	2.463 ppb	2.298 ppb
Concentration RSD	2.2 %	12.2 %	12.0 %	3.2 %	4.4 %	25.7 %	18.5 %	14.0 %	6.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	101.175 %	0.990 ppb	0.267 ppb	225.199 ppb	0.843 ppb	99.501 %	0.005 ppb	0.033 ppb	99.875 %
Concentration per Run 1	100.874 %	1.014 ppb	0.175 ppb	226.002 ppb	0.835 ppb	99.641 %	0.009 ppb	0.033 ppb	100.139 %
Concentration per Run 2	103.783 %	0.945 ppb	0.267 ppb	220.027 ppb	0.930 ppb	100.497 %	0.002 ppb	0.042 ppb	100.139 %
Concentration per Run 3	98.868 %	1.012 ppb	0.359 ppb	229.568 ppb	0.765 ppb	98.365 %	0.004 ppb	0.024 ppb	99.347 %
Concentration RSD	2.4 %	4.0 %	34.5 %	2.1 %	9.8 %	1.1 %	69.1 %	28.0 %	0.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.118 ppb	213.125 ppb	104.137 %	103.290 %	0.034 ppb	0.384 ppb
Concentration per Run 1	0.125 ppb	210.887 ppb	104.053 %	101.597 %	0.025 ppb	0.392 ppb
Concentration per Run 2	0.098 ppb	211.926 ppb	103.947 %	103.750 %	0.040 ppb	0.391 ppb
Concentration per Run 3	0.132 ppb	216.562 ppb	104.410 %	104.522 %	0.036 ppb	0.368 ppb
Concentration RSD	15.3 %	1.4 %	0.2 %	1.5 %	23.0 %	3.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index: 62
Analysis label: CCV
Analysis started at: 8/28/2024 10:26:18 AM
User name ALPHALAB\a2-icpmsq2
Rack 0
Vial 9
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.929 %	111.002 %	62.343 ppb	6,530.678 ppb	6,431.957 ppb	64.015 ppb	6,283.466 ppb	5,923.558 ppb	103.038 %
Concentration per Run 1	98.002 %	112.574 %	62.551 ppb	6,298.949 ppb	6,217.025 ppb	63.695 ppb	6,102.052 ppb	5,660.712 ppb	101.683 %
Concentration per Run 2	99.042 %	106.680 %	62.179 ppb	6,642.954 ppb	6,445.489 ppb	67.702 ppb	6,099.562 ppb	5,830.237 ppb	103.635 %
Concentration per Run 3	99.743 %	113.753 %	62.300 ppb	6,650.132 ppb	6,633.355 ppb	60.648 ppb	6,648.785 ppb	6,279.724 ppb	103.795 %
Recovery Percentage 1			103.906 %	108.845 %	107.199 %	106.692 %	104.724 %	98.726 %	
Concentration RSD	0.9 %	3.4 %	0.3 %	3.1 %	3.2 %	5.5 %	5.0 %	5.4 %	1.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	109.515 %	61.625 ppb	63.252 ppb	62.419 ppb	6,230.322 ppb	62.856 ppb	62.168 ppb	63.040 ppb	60.765 ppb
Concentration per Run 1	110.637 %	61.850 ppb	61.383 ppb	61.361 ppb	6,026.280 ppb	61.733 ppb	61.580 ppb	62.032 ppb	59.527 ppb
Concentration per Run 2	113.523 %	58.581 ppb	62.275 ppb	61.265 ppb	6,182.046 ppb	62.489 ppb	60.717 ppb	63.126 ppb	62.189 ppb
Concentration per Run 3	104.383 %	64.445 ppb	66.099 ppb	64.631 ppb	6,482.639 ppb	64.346 ppb	64.209 ppb	63.963 ppb	60.579 ppb
Recovery Percentage 1		102.708 %	105.420 %	104.032 %	103.839 %	104.760 %	103.614 %	105.067 %	101.275 %
Concentration RSD	4.3 %	4.8 %	4.0 %	3.1 %	3.7 %	2.1 %	2.9 %	1.5 %	2.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.208 %	61.450 ppb	60.942 ppb	57.713 ppb	59.333 ppb	102.590 %	61.872 ppb	61.585 ppb	99.524 %
Concentration per Run 1	105.615 %	60.398 ppb	59.967 ppb	59.029 ppb	59.164 ppb	101.734 %	61.549 ppb	60.524 ppb	97.879 %
Concentration per Run 2	103.688 %	64.076 ppb	62.618 ppb	57.651 ppb	59.649 ppb	102.901 %	62.099 ppb	62.923 ppb	99.566 %
Concentration per Run 3	106.321 %	59.876 ppb	60.241 ppb	56.460 ppb	59.187 ppb	103.136 %	61.967 ppb	61.307 ppb	101.126 %
Recovery Percentage 1		102.416 %	101.570 %	96.189 %	98.889 %		103.119 %	102.641 %	
Concentration RSD	1.3 %	3.7 %	2.4 %	2.2 %	0.5 %	0.7 %	0.5 %	2.0 %	1.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	59.926 ppb	60.211 ppb	102.628 %	102.809 %	61.474 ppb	62.090 ppb
Concentration per Run 1	59.409 ppb	59.859 ppb	99.758 %	97.997 %	61.179 ppb	61.795 ppb
Concentration per Run 2	60.834 ppb	59.771 ppb	103.993 %	105.469 %	61.268 ppb	62.485 ppb
Concentration per Run 3	59.536 ppb	61.004 ppb	104.134 %	104.962 %	61.974 ppb	61.991 ppb
Recovery Percentage 1	99.877 %	100.352 %			102.456 %	103.484 %
Concentration RSD	1.3 %	1.1 %	2.4 %	4.1 %	0.7 %	0.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	63	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 10:30:50 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.768 %	114.735 %	0.004 ppb	6.843 ppb	0.459 ppb	-0.335 ppb	-19.919 ppb	-2.497 ppb	100.499 %
Concentration per Run 1	100.504 %	113.163 %	0.002 ppb	8.299 ppb	1.412 ppb	-0.336 ppb	-19.970 ppb	-6.342 ppb	99.958 %
Concentration per Run 2	100.816 %	106.680 %	0.010 ppb	8.042 ppb	0.309 ppb	-0.322 ppb	-20.001 ppb	-2.749 ppb	100.645 %
Concentration per Run 3	100.983 %	124.362 %	0.002 ppb	4.189 ppb	-0.345 ppb	-0.346 ppb	-19.786 ppb	1.599 ppb	100.893 %
Recovery Percentage 1			0.898 %	6.843 %	0.655 %	-3.347 %	-19.919 %	-2.497 %	
Concentration RSD	0.2 %	7.8 %	109.1 %	33.6 %	193.7 %	3.6 %	0.6 %	159.2 %	0.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	102.352 %	-0.106 ppb	0.007 ppb	0.124 ppb	6.871 ppb	-0.003 ppb	0.088 ppb	0.022 ppb	-0.076 ppb
Concentration per Run 1	104.062 %	-0.091 ppb	0.002 ppb	0.094 ppb	9.332 ppb	0.002 ppb	0.126 ppb	0.091 ppb	-0.013 ppb
Concentration per Run 2	105.345 %	-0.093 ppb	0.008 ppb	0.213 ppb	3.773 ppb	-0.005 ppb	0.038 ppb	-0.040 ppb	-0.058 ppb
Concentration per Run 3	97.648 %	-0.133 ppb	0.011 ppb	0.065 ppb	7.510 ppb	-0.005 ppb	0.100 ppb	0.017 ppb	-0.157 ppb
Recovery Percentage 1		-2.116 %	0.666 %	12.388 %	13.743 %	-0.517 %	4.398 %	2.239 %	-1.521 %
Concentration RSD	4.0 %	22.0 %	70.3 %	63.2 %	41.2 %	166.4 %	51.0 %	294.0 %	96.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.506 %	-0.017 ppb	-0.035 ppb	-0.007 ppb	0.277 ppb	103.399 %	0.009 ppb	0.000 ppb	101.996 %
Concentration per Run 1	98.723 %	-0.036 ppb	-0.056 ppb	-0.002 ppb	0.187 ppb	103.234 %	0.014 ppb	0.000 ppb	101.508 %
Concentration per Run 2	105.735 %	0.002 ppb	-0.001 ppb	-0.009 ppb	0.220 ppb	104.072 %	0.004 ppb	0.000 ppb	102.116 %
Concentration per Run 3	103.060 %	-0.018 ppb	-0.049 ppb	-0.008 ppb	0.424 ppb	102.890 %	0.010 ppb	0.000 ppb	102.362 %
Recovery Percentage 1		-3.477 %	-0.707 %	-0.065 %	13.830 %		2.314 %	0.000 %	
Concentration RSD	3.5 %	107.9 %	85.2 %	60.2 %	46.4 %	0.6 %	54.7 %	N/A	0.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.226 ppb	0.000 ppb	104.424 %	104.419 %	0.219 ppb	0.014 ppb
Concentration per Run 1	0.218 ppb	0.005 ppb	104.249 %	103.156 %	0.169 ppb	0.017 ppb
Concentration per Run 2	0.195 ppb	-0.010 ppb	104.512 %	104.257 %	0.273 ppb	0.013 ppb
Concentration per Run 3	0.264 ppb	0.004 ppb	104.511 %	105.845 %	0.215 ppb	0.012 ppb
Recovery Percentage 1	5.638 %	-0.052 %			21.890 %	1.424 %
Concentration RSD	15.5 %	3,165.4 %	0.1 %	1.3 %	23.7 %	17.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	64	User name	ALPHALAB\a2-icpmsq2	Comment	FB
Analysis label:	L2447716-04 6020TL	Rack	1		
Analysis started at:	8/28/2024 10:36:32 AM	Vial	39		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.016 %	110.609 %	0.017 ppb	136.719 ppb	10.745 ppb	1.108 ppb	-7.394 ppb	27.645 ppb	98.366 %
Concentration per Run 1	98.188 %	100.786 %	0.029 ppb	144.031 ppb	12.150 ppb	0.861 ppb	-6.625 ppb	32.774 ppb	97.518 %
Concentration per Run 2	99.171 %	110.216 %	0.015 ppb	135.091 ppb	13.261 ppb	2.194 ppb	-8.092 ppb	36.338 ppb	99.410 %
Concentration per Run 3	99.688 %	120.825 %	0.007 ppb	131.036 ppb	6.825 ppb	0.269 ppb	-7.467 ppb	13.823 ppb	98.169 %
Concentration RSD	0.8 %	9.1 %	65.5 %	4.9 %	32.0 %	89.0 %	10.0 %	43.8 %	1.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	109.354 %	-0.088 ppb	0.072 ppb	0.323 ppb	4.836 ppb	0.021 ppb	0.004 ppb	0.050 ppb	0.228 ppb
Concentration per Run 1	111.920 %	-0.097 ppb	0.101 ppb	0.295 ppb	5.538 ppb	0.009 ppb	-0.015 ppb	0.029 ppb	0.253 ppb
Concentration per Run 2	111.278 %	-0.075 ppb	0.041 ppb	0.271 ppb	3.766 ppb	0.024 ppb	0.014 ppb	0.088 ppb	0.103 ppb
Concentration per Run 3	104.864 %	-0.092 ppb	0.073 ppb	0.404 ppb	5.205 ppb	0.032 ppb	0.015 ppb	0.033 ppb	0.327 ppb
Concentration RSD	3.6 %	12.9 %	42.0 %	21.9 %	19.5 %	53.3 %	377.4 %	65.3 %	50.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	100.428 %	-0.002 ppb	-0.026 ppb	0.232 ppb	0.049 ppb	102.022 %	0.013 ppb	0.012 ppb	102.776 %
Concentration per Run 1	102.193 %	-0.016 ppb	-0.048 ppb	0.231 ppb	0.011 ppb	103.140 %	0.014 ppb	0.018 ppb	104.699 %
Concentration per Run 2	97.622 %	-0.085 ppb	-0.135 ppb	0.235 ppb	0.054 ppb	101.665 %	0.010 ppb	0.009 ppb	102.614 %
Concentration per Run 3	101.470 %	0.096 ppb	0.106 ppb	0.230 ppb	0.080 ppb	101.261 %	0.014 ppb	0.009 ppb	101.015 %
Concentration RSD	2.4 %	4,457.8 %	472.1 %	1.3 %	71.4 %	1.0 %	15.0 %	41.7 %	1.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.138 ppb	0.242 ppb	104.306 %	105.541 %	0.062 ppb	0.024 ppb
Concentration per Run 1	0.136 ppb	0.257 ppb	105.481 %	105.957 %	0.039 ppb	0.021 ppb
Concentration per Run 2	0.114 ppb	0.234 ppb	103.197 %	104.567 %	0.069 ppb	0.029 ppb
Concentration per Run 3	0.164 ppb	0.235 ppb	104.241 %	106.098 %	0.078 ppb	0.022 ppb
Concentration RSD	18.1 %	5.4 %	1.1 %	0.8 %	33.4 %	20.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	65	User name	ALPHALAB\a2-icpmsq2	Comment	FB
Analysis label:	L2447815-05 6020TL	Rack	1		
Analysis started at:	8/28/2024 10:40:59 AM	Vial	40		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.975 %	108.841 %	-0.003 ppb	2.287 ppb	2.058 ppb	1.740 ppb	-10.219 ppb	-1.691 ppb	97.726 %
Concentration per Run 1	96.810 %	100.196 %	-0.001 ppb	5.195 ppb	2.172 ppb	1.453 ppb	-4.725 ppb	4.085 ppb	96.718 %
Concentration per Run 2	98.363 %	113.163 %	-0.003 ppb	2.096 ppb	3.167 ppb	1.505 ppb	4.134 ppb	-6.362 ppb	98.773 %
Concentration per Run 3	98.753 %	113.163 %	-0.004 ppb	-0.430 ppb	0.834 ppb	2.263 ppb	-30.067 ppb	-2.795 ppb	97.688 %
Concentration RSD	1.0 %	6.9 %	62.1 %	123.2 %	56.9 %	26.1 %	173.7 %	314.1 %	1.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	104.757 %	-0.070 ppb	0.025 ppb	0.196 ppb	0.601 ppb	0.005 ppb	-0.039 ppb	0.093 ppb	0.324 ppb
Concentration per Run 1	107.270 %	-0.157 ppb	0.049 ppb	0.273 ppb	0.539 ppb	-0.005 ppb	-0.040 ppb	0.100 ppb	0.410 ppb
Concentration per Run 2	102.619 %	-0.069 ppb	0.053 ppb	0.222 ppb	0.652 ppb	0.017 ppb	-0.065 ppb	0.145 ppb	0.299 ppb
Concentration per Run 3	104.383 %	0.015 ppb	-0.028 ppb	0.093 ppb	0.613 ppb	0.002 ppb	-0.012 ppb	0.034 ppb	0.262 ppb
Concentration RSD	2.2 %	123.0 %	182.4 %	47.3 %	9.6 %	234.9 %	68.9 %	60.0 %	23.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	101.205 %	-0.018 ppb	-0.108 ppb	0.009 ppb	-0.010 ppb	101.935 %	0.002 ppb	0.005 ppb	99.975 %
Concentration per Run 1	103.639 %	-0.067 ppb	-0.049 ppb	0.010 ppb	-0.002 ppb	103.669 %	-0.001 ppb	0.000 ppb	101.964 %
Concentration per Run 2	99.446 %	0.026 ppb	-0.145 ppb	0.010 ppb	-0.027 ppb	100.288 %	0.009 ppb	0.010 ppb	96.493 %
Concentration per Run 3	100.530 %	-0.014 ppb	-0.130 ppb	0.008 ppb	-0.001 ppb	101.848 %	-0.003 ppb	0.005 ppb	101.468 %
Concentration RSD	2.2 %	255.7 %	47.5 %	15.3 %	146.1 %	1.7 %	378.7 %	101.3 %	3.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.081 ppb	0.043 ppb	102.356 %	104.011 %	0.034 ppb	0.006 ppb
Concentration per Run 1	0.075 ppb	0.062 ppb	103.224 %	104.453 %	0.012 ppb	0.004 ppb
Concentration per Run 2	0.096 ppb	0.020 ppb	100.882 %	103.046 %	0.051 ppb	0.006 ppb
Concentration per Run 3	0.073 ppb	0.048 ppb	102.961 %	104.534 %	0.038 ppb	0.007 ppb
Concentration RSD	15.5 %	49.3 %	1.3 %	0.8 %	58.9 %	23.2 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	66	User name	ALPHALAB\a2-icpmsq2	Comment	FB
Analysis label:	L2447872-05 6020TL	Rack	1		
Analysis started at:	8/28/2024 10:45:26 AM	Vial	45		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.579 %	116.307 %	-0.002 ppb	-2.021 ppb	1.904 ppb	2.372 ppb	-10.230 ppb	8.975 ppb	99.402 %
Concentration per Run 1	99.776 %	120.236 %	-0.004 ppb	-4.229 ppb	4.117 ppb	2.696 ppb	-5.618 ppb	11.904 ppb	97.808 %
Concentration per Run 2	100.492 %	117.878 %	0.002 ppb	-1.465 ppb	0.789 ppb	3.235 ppb	-6.750 ppb	4.461 ppb	100.417 %
Concentration per Run 3	101.468 %	110.806 %	-0.005 ppb	-0.369 ppb	0.806 ppb	1.184 ppb	-18.324 ppb	10.559 ppb	99.982 %
Concentration RSD	0.8 %	4.2 %	156.2 %	98.4 %	100.6 %	44.8 %	68.7 %	44.2 %	1.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	105.559 %	-0.051 ppb	0.031 ppb	0.039 ppb	1.421 ppb	-0.005 ppb	0.047 ppb	0.111 ppb	0.181 ppb
Concentration per Run 1	103.100 %	-0.028 ppb	0.030 ppb	0.029 ppb	3.820 ppb	-0.005 ppb	-0.040 ppb	0.063 ppb	0.172 ppb
Concentration per Run 2	103.581 %	-0.050 ppb	0.065 ppb	-0.033 ppb	1.197 ppb	-0.005 ppb	0.090 ppb	0.148 ppb	0.187 ppb
Concentration per Run 3	109.996 %	-0.075 ppb	0.000 ppb	0.119 ppb	-0.752 ppb	-0.005 ppb	0.092 ppb	0.120 ppb	0.185 ppb
Concentration RSD	3.6 %	46.1 %	104.1 %	197.4 %	161.4 %	0.0 %	159.5 %	39.0 %	4.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.012 %	-0.052 ppb	-0.137 ppb	0.012 ppb	-0.047 ppb	103.476 %	-0.001 ppb	0.000 ppb	101.323 %
Concentration per Run 1	106.891 %	-0.094 ppb	-0.139 ppb	0.004 ppb	-0.042 ppb	103.724 %	-0.001 ppb	0.000 ppb	102.235 %
Concentration per Run 2	107.759 %	-0.037 ppb	-0.139 ppb	0.017 ppb	-0.029 ppb	103.560 %	-0.001 ppb	0.000 ppb	100.644 %
Concentration per Run 3	100.386 %	-0.026 ppb	-0.135 ppb	0.016 ppb	-0.068 ppb	103.144 %	-0.001 ppb	0.000 ppb	101.091 %
Concentration RSD	3.8 %	70.1 %	1.7 %	59.9 %	42.9 %	0.3 %	0.6 %	N/A	0.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.053 ppb	0.019 ppb	103.922 %	104.432 %	0.024 ppb	0.005 ppb
Concentration per Run 1	0.038 ppb	-0.010 ppb	103.854 %	103.789 %	0.008 ppb	0.007 ppb
Concentration per Run 2	0.050 ppb	0.048 ppb	104.043 %	104.042 %	0.035 ppb	0.002 ppb
Concentration per Run 3	0.071 ppb	0.019 ppb	103.869 %	105.465 %	0.028 ppb	0.007 ppb
Concentration RSD	31.8 %	151.6 %	0.1 %	0.9 %	59.3 %	56.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	67	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447716-02 6020TL	Rack	1		
Analysis started at:	8/28/2024 10:49:55 AM	Vial	37		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.510 %	113.556 %	0.043 ppb	24,212.124 ppb	23,480.389 ppb	672.275 ppb	1,576.364 ppb	82,085.069 ppb	103.797 %
Concentration per Run 1	100.981 %	115.521 %	0.039 ppb	23,427.586 ppb	22,996.253 ppb	659.432 ppb	1,547.034 ppb	80,347.071 ppb	102.769 %
Concentration per Run 2	101.606 %	103.143 %	0.038 ppb	25,283.810 ppb	24,285.738 ppb	702.311 ppb	1,541.525 ppb	81,075.652 ppb	105.540 %
Concentration per Run 3	101.944 %	122.004 %	0.051 ppb	23,924.978 ppb	23,159.175 ppb	655.082 ppb	1,640.535 ppb	84,832.484 ppb	103.084 %
Concentration RSD	0.5 %	8.4 %	16.7 %	4.0 %	3.0 %	3.9 %	3.5 %	2.9 %	1.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	104.757 %	3.948 ppb	1.540 ppb	77.519 ppb	700.990 ppb	0.663 ppb	2.158 ppb	2.060 ppb	8.998 ppb
Concentration per Run 1	104.864 %	3.704 ppb	1.388 ppb	77.699 ppb	673.025 ppb	0.573 ppb	2.292 ppb	1.869 ppb	9.010 ppb
Concentration per Run 2	108.071 %	3.880 ppb	1.480 ppb	77.501 ppb	722.533 ppb	0.628 ppb	2.252 ppb	2.096 ppb	8.497 ppb
Concentration per Run 3	101.337 %	4.260 ppb	1.752 ppb	77.357 ppb	707.413 ppb	0.789 ppb	1.930 ppb	2.214 ppb	9.486 ppb
Concentration RSD	3.2 %	7.2 %	12.3 %	0.2 %	3.6 %	16.9 %	9.2 %	8.5 %	5.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	99.663 %	1.112 ppb	0.024 ppb	256.537 ppb	1.884 ppb	98.449 %	0.002 ppb	0.022 ppb	98.732 %
Concentration per Run 1	99.012 %	1.175 ppb	0.107 ppb	256.561 ppb	1.797 ppb	96.994 %	0.006 ppb	0.038 ppb	99.516 %
Concentration per Run 2	99.374 %	1.032 ppb	-0.071 ppb	259.431 ppb	1.960 ppb	98.188 %	0.001 ppb	0.019 ppb	98.760 %
Concentration per Run 3	100.602 %	1.128 ppb	0.035 ppb	253.618 ppb	1.897 ppb	100.165 %	-0.001 ppb	0.009 ppb	97.920 %
Concentration RSD	0.8 %	6.6 %	379.9 %	1.1 %	4.3 %	1.6 %	203.7 %	65.4 %	0.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.135 ppb	209.337 ppb	103.754 %	103.740 %	0.032 ppb	0.628 ppb
Concentration per Run 1	0.116 ppb	207.484 ppb	101.968 %	100.974 %	0.025 ppb	0.628 ppb
Concentration per Run 2	0.144 ppb	209.037 ppb	104.205 %	106.030 %	0.034 ppb	0.622 ppb
Concentration per Run 3	0.145 ppb	211.491 ppb	105.088 %	104.217 %	0.039 ppb	0.633 ppb
Concentration RSD	12.2 %	1.0 %	1.5 %	2.5 %	21.6 %	0.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	68	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447716-03 6020TL	Rack	1		
Analysis started at:	8/28/2024 10:54:22 AM	Vial	38		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.408 %	104.912 %	0.040 ppb	18,160.853 ppb	27,941.572 ppb	704.483 ppb	987.476 ppb	128,155.926 ppb	107.677 %
Concentration per Run 1	102.141 %	117.878 %	0.044 ppb	17,053.789 ppb	26,290.099 ppb	662.757 ppb	982.863 ppb	128,118.341 ppb	105.870 %
Concentration per Run 2	105.189 %	91.945 %	0.028 ppb	19,275.076 ppb	29,230.443 ppb	738.998 ppb	978.506 ppb	126,063.109 ppb	109.428 %
Concentration per Run 3	102.896 %	104.912 %	0.047 ppb	18,153.696 ppb	28,304.174 ppb	711.693 ppb	1,001.060 ppb	130,286.328 ppb	107.732 %
Concentration RSD	1.5 %	12.4 %	25.3 %	6.1 %	5.4 %	5.5 %	1.2 %	1.6 %	1.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	107.216 %	5.037 ppb	1.254 ppb	73.002 ppb	757.460 ppb	0.763 ppb	1.950 ppb	2.078 ppb	3.596 ppb
Concentration per Run 1	107.109 %	5.119 ppb	1.183 ppb	74.645 ppb	767.531 ppb	0.730 ppb	1.903 ppb	2.014 ppb	3.426 ppb
Concentration per Run 2	108.071 %	4.945 ppb	1.218 ppb	69.298 ppb	764.777 ppb	0.759 ppb	1.656 ppb	2.052 ppb	3.781 ppb
Concentration per Run 3	106.468 %	5.048 ppb	1.361 ppb	75.063 ppb	740.071 ppb	0.801 ppb	2.290 ppb	2.169 ppb	3.581 ppb
Concentration RSD	0.8 %	1.7 %	7.5 %	4.4 %	2.0 %	4.7 %	16.4 %	3.9 %	4.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	98.567 %	1.126 ppb	0.139 ppb	285.145 ppb	0.246 ppb	96.817 %	0.001 ppb	0.013 ppb	96.737 %
Concentration per Run 1	100.530 %	1.130 ppb	-0.140 ppb	282.234 ppb	0.210 ppb	97.564 %	0.004 ppb	0.005 ppb	98.217 %
Concentration per Run 2	97.494 %	1.081 ppb	0.541 ppb	285.430 ppb	0.312 ppb	96.843 %	-0.001 ppb	0.010 ppb	96.846 %
Concentration per Run 3	97.677 %	1.168 ppb	0.015 ppb	287.772 ppb	0.215 ppb	96.045 %	0.001 ppb	0.025 ppb	95.149 %
Concentration RSD	1.7 %	3.9 %	257.4 %	1.0 %	23.5 %	0.8 %	210.9 %	79.2 %	1.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.073 ppb	114.906 ppb	102.611 %	103.193 %	0.027 ppb	0.611 ppb
Concentration per Run 1	0.040 ppb	111.393 ppb	103.293 %	102.595 %	0.018 ppb	0.613 ppb
Concentration per Run 2	0.073 ppb	118.231 ppb	101.518 %	103.129 %	0.038 ppb	0.607 ppb
Concentration per Run 3	0.105 ppb	115.093 ppb	103.020 %	103.854 %	0.026 ppb	0.612 ppb
Concentration RSD	44.7 %	3.0 %	0.9 %	0.6 %	36.6 %	0.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	69	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447872-01 6020TL	Rack	1		
Analysis started at:	8/28/2024 10:58:49 AM	Vial	41		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.139 %	118.271 %	0.008 ppb	7,460.135 ppb	14,812.382 ppb	45.072 ppb	4,426.295 ppb	212,204.444 ppb	102.923 %
Concentration per Run 1	97.223 %	132.024 %	0.009 ppb	6,747.517 ppb	13,160.295 ppb	39.842 ppb	4,143.130 ppb	198,696.521 ppb	101.570 %
Concentration per Run 2	97.714 %	118.468 %	0.010 ppb	7,121.982 ppb	14,384.706 ppb	41.443 ppb	4,198.258 ppb	206,376.192 ppb	102.683 %
Concentration per Run 3	99.479 %	104.322 %	0.004 ppb	8,510.908 ppb	16,892.146 ppb	53.932 ppb	4,937.498 ppb	231,540.618 ppb	104.517 %
Concentration RSD	1.2 %	11.7 %	41.5 %	12.5 %	12.8 %	17.1 %	10.0 %	8.1 %	1.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	101.337 %	3.622 ppb	0.764 ppb	87.161 ppb	78.874 ppb	0.385 ppb	47.521 ppb	2.697 ppb	7,740.446 ppb
Concentration per Run 1	108.071 %	3.493 ppb	0.747 ppb	82.686 ppb	60.763 ppb	0.401 ppb	45.237 ppb	2.259 ppb	7,538.565 ppb
Concentration per Run 2	100.856 %	3.413 ppb	0.765 ppb	85.419 ppb	91.779 ppb	0.325 ppb	46.514 ppb	2.773 ppb	7,544.104 ppb
Concentration per Run 3	95.082 %	3.959 ppb	0.780 ppb	93.378 ppb	84.080 ppb	0.428 ppb	50.812 ppb	3.060 ppb	8,138.668 ppb
Concentration RSD	6.4 %	8.1 %	2.2 %	6.4 %	20.5 %	14.0 %	6.1 %	15.0 %	4.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	101.744 %	0.385 ppb	5.944 ppb	770.428 ppb	3.767 ppb	98.111 %	0.015 ppb	0.732 ppb	98.825 %
Concentration per Run 1	103.783 %	0.511 ppb	6.620 ppb	746.987 ppb	3.601 ppb	99.507 %	0.019 ppb	0.803 ppb	99.840 %
Concentration per Run 2	101.024 %	0.320 ppb	5.221 ppb	767.415 ppb	3.670 ppb	97.484 %	0.014 ppb	0.649 ppb	98.403 %
Concentration per Run 3	100.424 %	0.323 ppb	5.991 ppb	796.881 ppb	4.029 ppb	97.341 %	0.011 ppb	0.746 ppb	98.233 %
Concentration RSD	1.8 %	28.5 %	11.8 %	3.3 %	6.1 %	1.2 %	27.6 %	10.6 %	0.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	7.282 ppb	106.419 ppb	103.746 %	104.355 %	0.037 ppb	5.063 ppb
Concentration per Run 1	6.984 ppb	104.137 ppb	103.295 %	102.388 %	0.033 ppb	5.036 ppb
Concentration per Run 2	7.418 ppb	106.943 ppb	104.881 %	106.500 %	0.046 ppb	5.010 ppb
Concentration per Run 3	7.446 ppb	108.176 ppb	103.062 %	104.177 %	0.033 ppb	5.142 ppb
Concentration RSD	3.6 %	1.9 %	1.0 %	2.0 %	19.9 %	1.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	70	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447872-02 6020TL	Rack	1		
Analysis started at:	8/28/2024 11:03:17 AM	Vial	42		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.013 %	113.949 %	0.004 ppb	89,885.736 ppb	17,478.754 ppb	61.118 ppb	8,049.890 ppb	65,300.097 ppb	105.540 %
Concentration per Run 1	95.705 %	110.806 %	0.005 ppb	89,309.207 ppb	17,395.905 ppb	61.600 ppb	7,842.760 ppb	62,759.545 ppb	105.972 %
Concentration per Run 2	95.926 %	119.646 %	0.000 ppb	84,561.939 ppb	16,376.963 ppb	56.332 ppb	7,696.529 ppb	63,493.017 ppb	105.352 %
Concentration per Run 3	96.407 %	111.395 %	0.006 ppb	95,786.063 ppb	18,663.394 ppb	65.422 ppb	8,610.380 ppb	69,647.729 ppb	105.295 %
Concentration RSD	0.4 %	4.3 %	82.7 %	6.3 %	6.6 %	7.5 %	6.1 %	5.8 %	0.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	109.515 %	0.329 ppb	0.701 ppb	1,402.532 ppb	8,023.743 ppb	0.444 ppb	2.193 ppb	0.331 ppb	10.948 ppb
Concentration per Run 1	115.448 %	0.298 ppb	0.695 ppb	1,331.308 ppb	7,683.806 ppb	0.402 ppb	2.175 ppb	0.399 ppb	13.701 ppb
Concentration per Run 2	107.109 %	0.398 ppb	0.714 ppb	1,406.889 ppb	7,955.702 ppb	0.492 ppb	2.367 ppb	0.397 ppb	10.816 ppb
Concentration per Run 3	105.987 %	0.290 ppb	0.695 ppb	1,469.398 ppb	8,431.720 ppb	0.437 ppb	2.036 ppb	0.198 ppb	8.325 ppb
Concentration RSD	4.7 %	18.3 %	1.6 %	4.9 %	4.7 %	10.2 %	7.6 %	34.9 %	24.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	97.151 %	20.973 ppb	0.038 ppb	301.259 ppb	6.684 ppb	96.869 %	0.001 ppb	0.010 ppb	97.951 %
Concentration per Run 1	99.301 %	19.883 ppb	0.033 ppb	295.148 ppb	7.150 ppb	95.163 %	-0.001 ppb	0.019 ppb	97.646 %
Concentration per Run 2	93.085 %	21.668 ppb	0.136 ppb	307.737 ppb	6.266 ppb	97.298 %	0.002 ppb	0.005 ppb	97.880 %
Concentration per Run 3	99.067 %	21.370 ppb	-0.056 ppb	300.891 ppb	6.635 ppb	98.145 %	0.002 ppb	0.005 ppb	98.325 %
Concentration RSD	3.6 %	4.6 %	254.9 %	2.1 %	6.6 %	1.6 %	161.5 %	87.3 %	0.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.152 ppb	91.201 ppb	101.691 %	102.479 %	0.014 ppb	0.102 ppb
Concentration per Run 1	0.124 ppb	88.403 ppb	103.333 %	104.092 %	0.004 ppb	0.109 ppb
Concentration per Run 2	0.157 ppb	90.384 ppb	97.487 %	97.878 %	0.018 ppb	0.101 ppb
Concentration per Run 3	0.175 ppb	94.816 ppb	104.252 %	105.467 %	0.019 ppb	0.096 ppb
Concentration RSD	16.9 %	3.6 %	3.6 %	3.9 %	59.7 %	6.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	71	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447872-03 6020TL	Rack	1		
Analysis started at:	8/28/2024 11:07:44 AM	Vial	43		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.686 %	113.753 %	0.020 ppb	72,559.329 ppb	28,216.855 ppb	80.612 ppb	11,208.489 ppb	97,046.080 ppb	108.139 %
Concentration per Run 1	94.469 %	111.395 %	0.011 ppb	72,556.323 ppb	28,028.982 ppb	79.073 ppb	11,151.138 ppb	96,354.675 ppb	106.751 %
Concentration per Run 2	94.809 %	116.700 %	0.025 ppb	70,748.887 ppb	27,430.950 ppb	76.994 ppb	10,873.098 ppb	93,711.267 ppb	108.864 %
Concentration per Run 3	94.780 %	113.163 %	0.025 ppb	74,372.778 ppb	29,190.633 ppb	85.770 ppb	11,601.232 ppb	101,072.299 ppb	108.801 %
Concentration RSD	0.2 %	2.4 %	41.3 %	2.5 %	3.2 %	5.7 %	3.3 %	3.8 %	1.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	107.430 %	1.482 ppb	0.670 ppb	6,102.009 ppb	22,712.892 ppb	2.350 ppb	1.591 ppb	1.711 ppb	4.269 ppb
Concentration per Run 1	106.628 %	1.355 ppb	0.769 ppb	6,118.193 ppb	22,839.489 ppb	2.364 ppb	1.572 ppb	1.789 ppb	4.407 ppb
Concentration per Run 2	110.156 %	1.153 ppb	0.620 ppb	5,881.544 ppb	21,910.913 ppb	2.232 ppb	1.857 ppb	1.688 ppb	4.267 ppb
Concentration per Run 3	105.505 %	1.937 ppb	0.620 ppb	6,306.290 ppb	23,388.272 ppb	2.453 ppb	1.343 ppb	1.654 ppb	4.133 ppb
Concentration RSD	2.3 %	27.5 %	12.9 %	3.5 %	3.3 %	4.7 %	16.2 %	4.1 %	3.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	98.982 %	2.598 ppb	0.314 ppb	497.202 ppb	1.695 ppb	94.820 %	0.003 ppb	0.026 ppb	94.794 %
Concentration per Run 1	95.976 %	2.896 ppb	0.465 ppb	510.523 ppb	1.739 ppb	95.175 %	0.001 ppb	0.025 ppb	94.584 %
Concentration per Run 2	102.465 %	2.304 ppb	0.187 ppb	494.970 ppb	1.688 ppb	95.473 %	0.003 ppb	0.029 ppb	95.084 %
Concentration per Run 3	98.506 %	2.593 ppb	0.289 ppb	486.114 ppb	1.658 ppb	93.813 %	0.004 ppb	0.025 ppb	94.714 %
Concentration RSD	3.3 %	11.4 %	44.8 %	2.5 %	2.4 %	0.9 %	71.5 %	10.4 %	0.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.225 ppb	180.714 ppb	101.593 %	102.177 %	0.010 ppb	0.316 ppb
Concentration per Run 1	0.213 ppb	178.929 ppb	101.631 %	101.609 %	0.001 ppb	0.303 ppb
Concentration per Run 2	0.241 ppb	180.669 ppb	101.062 %	102.598 %	0.013 ppb	0.323 ppb
Concentration per Run 3	0.223 ppb	182.542 ppb	102.085 %	102.325 %	0.015 ppb	0.322 ppb
Concentration RSD	6.3 %	1.0 %	0.5 %	0.5 %	75.6 %	3.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	72	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447872-04 6020TL	Rack	1		
Analysis started at:	8/28/2024 11:12:13 AM	Vial	44		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.647 %	116.503 %	0.002 ppb	7,766.016 ppb	15,257.871 ppb	47.665 ppb	4,370.015 ppb	215,386.577 ppb	106.773 %
Concentration per Run 1	100.229 %	126.130 %	-0.002 ppb	7,438.448 ppb	14,731.653 ppb	43.894 ppb	4,474.833 ppb	215,379.875 ppb	106.343 %
Concentration per Run 2	100.738 %	117.878 %	0.008 ppb	7,589.732 ppb	14,844.903 ppb	46.164 ppb	4,288.915 ppb	210,568.794 ppb	106.169 %
Concentration per Run 3	100.975 %	105.501 %	0.000 ppb	8,269.868 ppb	16,197.057 ppb	52.938 ppb	4,346.297 ppb	220,211.064 ppb	107.807 %
Concentration RSD	0.4 %	8.9 %	217.7 %	5.7 %	5.3 %	9.9 %	2.2 %	2.2 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	104.223 %	3.390 ppb	0.319 ppb	87.129 ppb	76.846 ppb	0.419 ppb	46.044 ppb	2.860 ppb	7,872.385 ppb
Concentration per Run 1	105.987 %	3.180 ppb	0.392 ppb	87.637 ppb	71.063 ppb	0.417 ppb	45.642 ppb	2.722 ppb	7,663.446 ppb
Concentration per Run 2	107.751 %	3.371 ppb	0.349 ppb	84.332 ppb	74.721 ppb	0.372 ppb	44.475 ppb	2.541 ppb	7,771.801 ppb
Concentration per Run 3	98.931 %	3.620 ppb	0.215 ppb	89.418 ppb	84.754 ppb	0.469 ppb	48.015 ppb	3.316 ppb	8,181.909 ppb
Concentration RSD	4.5 %	6.5 %	29.0 %	3.0 %	9.2 %	11.6 %	3.9 %	14.2 %	3.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	104.122 %	0.343 ppb	6.138 ppb	769.674 ppb	4.010 ppb	99.474 %	0.023 ppb	0.765 ppb	98.232 %
Concentration per Run 1	108.826 %	0.422 ppb	5.456 ppb	761.103 ppb	3.946 ppb	101.636 %	0.024 ppb	0.679 ppb	101.115 %
Concentration per Run 2	104.706 %	0.314 ppb	7.816 ppb	768.464 ppb	3.798 ppb	99.421 %	0.026 ppb	0.804 ppb	100.461 %
Concentration per Run 3	98.833 %	0.293 ppb	5.141 ppb	779.455 ppb	4.285 ppb	97.365 %	0.020 ppb	0.812 ppb	93.118 %
Concentration RSD	4.8 %	20.2 %	23.8 %	1.2 %	6.2 %	2.1 %	12.8 %	9.7 %	4.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	7.170 ppb	106.405 ppb	103.848 %	103.154 %	0.032 ppb	5.015 ppb
Concentration per Run 1	7.112 ppb	105.447 ppb	105.976 %	103.578 %	0.028 ppb	4.974 ppb
Concentration per Run 2	7.288 ppb	108.251 ppb	105.174 %	106.190 %	0.033 ppb	4.977 ppb
Concentration per Run 3	7.109 ppb	105.517 ppb	100.393 %	99.695 %	0.034 ppb	5.095 ppb
Concentration RSD	1.4 %	1.5 %	2.9 %	3.2 %	9.9 %	1.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	73	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448354-01 6020TL	Rack	1		
Analysis started at:	8/28/2024 11:16:41 AM	Vial	46		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.048 %	117.682 %	0.734 ppb	48,377.812 ppb	3,121.820 ppb	1,668.322 ppb	4,543.831 ppb	10,099.725 ppb	107.883 %
Concentration per Run 1	100.574 %	119.057 %	0.694 ppb	45,658.350 ppb	3,137.043 ppb	1,781.367 ppb	4,884.109 ppb	10,665.434 ppb	108.097 %
Concentration per Run 2	101.501 %	122.593 %	0.757 ppb	43,039.975 ppb	3,082.299 ppb	1,625.933 ppb	4,492.342 ppb	10,129.127 ppb	108.549 %
Concentration per Run 3	101.070 %	111.395 %	0.751 ppb	56,435.110 ppb	3,146.117 ppb	1,597.665 ppb	4,255.041 ppb	9,504.614 ppb	107.004 %
Concentration RSD	0.5 %	4.9 %	4.8 %	14.7 %	1.1 %	5.9 %	7.0 %	5.8 %	0.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	108.606 %	1.925 ppb	1.600 ppb	925.343 ppb	3,117.768 ppb	27.537 ppb	9.154 ppb	3.626 ppb	82.453 ppb
Concentration per Run 1	113.844 %	2.133 ppb	1.512 ppb	957.716 ppb	3,116.779 ppb	26.742 ppb	8.625 ppb	3.560 ppb	80.894 ppb
Concentration per Run 2	105.185 %	1.988 ppb	1.729 ppb	930.867 ppb	3,212.654 ppb	28.499 ppb	9.516 ppb	3.796 ppb	83.825 ppb
Concentration per Run 3	106.789 %	1.654 ppb	1.560 ppb	887.447 ppb	3,023.872 ppb	27.370 ppb	9.319 ppb	3.522 ppb	82.638 ppb
Concentration RSD	4.2 %	12.8 %	7.1 %	3.8 %	3.0 %	3.2 %	5.1 %	4.1 %	1.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.368 %	0.474 ppb	0.948 ppb	82.968 ppb	0.077 ppb	102.517 %	0.075 ppb	1.036 ppb	103.997 %
Concentration per Run 1	112.241 %	0.437 ppb	1.051 ppb	84.391 ppb	0.111 ppb	104.375 %	0.082 ppb	0.977 ppb	108.817 %
Concentration per Run 2	102.843 %	0.505 ppb	0.888 ppb	82.277 ppb	0.054 ppb	100.288 %	0.066 ppb	0.999 ppb	101.032 %
Concentration per Run 3	101.020 %	0.479 ppb	0.905 ppb	82.238 ppb	0.065 ppb	102.887 %	0.078 ppb	1.134 ppb	102.142 %
Concentration RSD	5.7 %	7.3 %	9.5 %	1.5 %	39.8 %	2.0 %	10.9 %	8.2 %	4.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.082 ppb	155.146 ppb	107.519 %	107.114 %	0.083 ppb	1.691 ppb
Concentration per Run 1	0.085 ppb	155.205 ppb	107.714 %	109.618 %	0.074 ppb	1.626 ppb
Concentration per Run 2	0.052 ppb	157.121 ppb	105.753 %	105.149 %	0.085 ppb	1.743 ppb
Concentration per Run 3	0.108 ppb	153.111 ppb	109.092 %	106.574 %	0.088 ppb	1.703 ppb
Concentration RSD	34.6 %	1.3 %	1.6 %	2.1 %	9.1 %	3.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	74	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 11:21:10 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.965 %	124.558 %	61.725 ppb	6,424.194 ppb	6,292.476 ppb	65.410 ppb	6,225.038 ppb	6,327.129 ppb	105.441 %
Concentration per Run 1	101.992 %	133.203 %	61.635 ppb	6,377.070 ppb	6,377.557 ppb	67.372 ppb	6,726.149 ppb	6,822.752 ppb	104.472 %
Concentration per Run 2	103.370 %	111.395 %	61.903 ppb	6,646.011 ppb	6,426.982 ppb	69.444 ppb	5,925.587 ppb	5,941.024 ppb	106.158 %
Concentration per Run 3	103.533 %	129.077 %	61.638 ppb	6,249.500 ppb	6,072.888 ppb	59.414 ppb	6,023.378 ppb	6,217.611 ppb	105.694 %
Recovery Percentage 1			102.876 %	107.070 %	104.875 %	109.017 %	103.751 %	105.452 %	
Concentration RSD	0.8 %	9.3 %	0.2 %	3.2 %	3.0 %	8.1 %	7.0 %	7.1 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	112.562 %	62.242 ppb	62.118 ppb	64.660 ppb	6,257.177 ppb	61.202 ppb	62.658 ppb	60.914 ppb	63.303 ppb
Concentration per Run 1	114.486 %	64.135 ppb	63.084 ppb	67.937 ppb	6,320.794 ppb	60.269 ppb	61.756 ppb	59.424 ppb	63.075 ppb
Concentration per Run 2	117.533 %	59.832 ppb	59.266 ppb	59.887 ppb	6,016.980 ppb	59.643 ppb	61.904 ppb	61.276 ppb	63.109 ppb
Concentration per Run 3	105.666 %	62.759 ppb	64.003 ppb	66.155 ppb	6,433.759 ppb	63.695 ppb	64.316 ppb	62.042 ppb	63.726 ppb
Recovery Percentage 1		103.737 %	103.530 %	107.766 %	104.286 %	102.004 %	104.431 %	101.523 %	105.505 %
Concentration RSD	5.5 %	3.5 %	4.0 %	6.5 %	3.4 %	3.6 %	2.3 %	2.2 %	0.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	107.277 %	60.970 ppb	58.451 ppb	57.289 ppb	59.651 ppb	105.036 %	61.705 ppb	61.760 ppb	101.345 %
Concentration per Run 1	114.042 %	60.155 ppb	57.057 ppb	58.013 ppb	59.463 ppb	106.751 %	60.963 ppb	61.559 ppb	108.174 %
Concentration per Run 2	103.254 %	63.334 ppb	58.957 ppb	56.990 ppb	59.961 ppb	104.568 %	61.871 ppb	62.942 ppb	100.409 %
Concentration per Run 3	104.534 %	59.420 ppb	59.337 ppb	56.863 ppb	59.528 ppb	103.790 %	62.281 ppb	60.779 ppb	95.453 %
Recovery Percentage 1		101.616 %	97.418 %	95.481 %	99.418 %		102.842 %	102.933 %	
Concentration RSD	5.5 %	3.4 %	2.1 %	1.1 %	0.5 %	1.5 %	1.1 %	1.8 %	6.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	60.452 ppb	60.093 ppb	105.100 %	105.628 %	62.017 ppb	62.769 ppb
Concentration per Run 1	59.356 ppb	60.657 ppb	109.808 %	110.909 %	59.741 ppb	60.275 ppb
Concentration per Run 2	60.699 ppb	59.898 ppb	105.286 %	105.251 %	62.799 ppb	63.675 ppb
Concentration per Run 3	61.301 ppb	59.724 ppb	100.207 %	100.724 %	63.510 ppb	64.357 ppb
Recovery Percentage 1	100.753 %	100.155 %			103.361 %	104.615 %
Concentration RSD	1.6 %	0.8 %	4.6 %	4.8 %	3.2 %	3.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	75	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 11:25:41 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.677 %	114.342 %	0.039 ppb	47.259 ppb	10.177 ppb	0.911 ppb	2.381 ppb	31.525 ppb	102.569 %
Concentration per Run 1	103.858 %	117.289 %	0.039 ppb	58.040 ppb	13.632 ppb	0.470 ppb	7.380 ppb	34.310 ppb	101.423 %
Concentration per Run 2	105.502 %	110.216 %	0.035 ppb	51.070 ppb	6.174 ppb	0.873 ppb	-2.393 ppb	25.761 ppb	103.173 %
Concentration per Run 3	104.671 %	115.521 %	0.043 ppb	32.667 ppb	10.726 ppb	1.390 ppb	2.157 ppb	34.505 ppb	103.112 %
Recovery Percentage 1			7.861 %	47.259 %	14.539 %	9.108 %	2.381 %	31.525 %	
Concentration RSD	0.8 %	3.2 %	9.6 %	27.7 %	36.9 %	50.6 %	205.4 %	15.8 %	1.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	105.666 %	-0.032 ppb	0.088 ppb	0.888 ppb	15.030 ppb	0.071 ppb	0.107 ppb	0.073 ppb	1.087 ppb
Concentration per Run 1	115.127 %	0.018 ppb	0.103 ppb	1.199 ppb	13.702 ppb	0.089 ppb	0.154 ppb	0.155 ppb	1.388 ppb
Concentration per Run 2	102.619 %	-0.049 ppb	0.052 ppb	0.650 ppb	15.547 ppb	0.074 ppb	0.091 ppb	0.046 ppb	1.031 ppb
Concentration per Run 3	99.252 %	-0.066 ppb	0.109 ppb	0.816 ppb	15.840 ppb	0.048 ppb	0.075 ppb	0.020 ppb	0.841 ppb
Recovery Percentage 1		-0.646 %	8.761 %	88.825 %	30.060 %	14.129 %	5.344 %	7.343 %	21.732 %
Concentration RSD	7.9 %	136.2 %	35.8 %	31.7 %	7.7 %	29.3 %	39.2 %	97.4 %	25.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.001 %	0.115 ppb	0.278 ppb	0.209 ppb	0.296 ppb	105.269 %	0.059 ppb	0.049 ppb	105.553 %
Concentration per Run 1	108.826 %	0.134 ppb	0.253 ppb	0.297 ppb	0.227 ppb	105.593 %	0.075 ppb	0.039 ppb	107.826 %
Concentration per Run 2	107.380 %	0.034 ppb	0.139 ppb	0.166 ppb	0.324 ppb	103.617 %	0.048 ppb	0.063 ppb	105.169 %
Concentration per Run 3	98.796 %	0.178 ppb	0.441 ppb	0.166 ppb	0.338 ppb	106.598 %	0.055 ppb	0.045 ppb	103.663 %
Recovery Percentage 1		23.059 %	5.557 %	2.094 %	14.817 %		14.808 %	24.449 %	
Concentration RSD	5.2 %	64.2 %	55.0 %	36.1 %	20.3 %	1.4 %	24.2 %	24.9 %	2.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.232 ppb	0.106 ppb	106.238 %	107.586 %	0.270 ppb	0.067 ppb
Concentration per Run 1	0.232 ppb	0.155 ppb	107.439 %	109.444 %	0.242 ppb	0.084 ppb
Concentration per Run 2	0.209 ppb	0.047 ppb	104.040 %	105.440 %	0.327 ppb	0.059 ppb
Concentration per Run 3	0.254 ppb	0.116 ppb	107.235 %	107.873 %	0.241 ppb	0.057 ppb
Recovery Percentage 1	5.791 %	21.177 %			26.999 %	6.681 %
Concentration RSD	9.8 %	51.8 %	1.8 %	1.9 %	18.2 %	21.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	76	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964182-1 6020TL	Rack	1		
Analysis started at:	8/28/2024 11:31:43 AM	Vial	47		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.163 %	111.788 %	0.015 ppb	20.035 ppb	5.066 ppb	1.797 ppb	-6.771 ppb	27.487 ppb	101.323 %
Concentration per Run 1	101.336 %	114.931 %	0.014 ppb	17.124 ppb	3.856 ppb	1.170 ppb	-7.916 ppb	20.910 ppb	99.431 %
Concentration per Run 2	102.243 %	116.700 %	0.016 ppb	13.070 ppb	6.068 ppb	2.445 ppb	0.202 ppb	31.578 ppb	101.988 %
Concentration per Run 3	102.910 %	103.733 %	0.015 ppb	29.910 ppb	5.275 ppb	1.775 ppb	-12.599 ppb	29.972 ppb	102.549 %
Concentration RSD	0.8 %	6.3 %	6.1 %	43.9 %	22.1 %	35.5 %	95.7 %	20.9 %	1.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	98.236 %	-0.043 ppb	0.006 ppb	0.539 ppb	11.193 ppb	0.025 ppb	0.036 ppb	-0.001 ppb	1.035 ppb
Concentration per Run 1	95.724 %	-0.085 ppb	0.012 ppb	0.435 ppb	14.100 ppb	0.018 ppb	0.021 ppb	-0.016 ppb	0.778 ppb
Concentration per Run 2	98.290 %	0.045 ppb	-0.012 ppb	0.386 ppb	9.433 ppb	0.040 ppb	0.016 ppb	-0.003 ppb	0.766 ppb
Concentration per Run 3	100.695 %	-0.090 ppb	0.017 ppb	0.797 ppb	10.047 ppb	0.017 ppb	0.071 ppb	0.016 ppb	1.561 ppb
Concentration RSD	2.5 %	177.7 %	273.6 %	41.7 %	22.7 %	50.5 %	83.7 %	1,538.5 %	44.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.091 %	0.011 ppb	0.024 ppb	0.127 ppb	0.064 ppb	104.390 %	0.028 ppb	0.026 ppb	102.581 %
Concentration per Run 1	99.013 %	-0.062 ppb	-0.130 ppb	0.084 ppb	0.077 ppb	105.236 %	0.051 ppb	0.014 ppb	100.540 %
Concentration per Run 2	104.723 %	0.039 ppb	0.099 ppb	0.085 ppb	0.037 ppb	104.256 %	0.013 ppb	0.036 ppb	104.555 %
Concentration per Run 3	102.537 %	0.056 ppb	0.103 ppb	0.212 ppb	0.077 ppb	103.677 %	0.020 ppb	0.027 ppb	102.647 %
Concentration RSD	2.8 %	569.6 %	553.7 %	57.9 %	36.9 %	0.8 %	71.3 %	43.5 %	2.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.071 ppb	0.098 ppb	106.166 %	107.057 %	0.063 ppb	0.030 ppb
Concentration per Run 1	0.078 ppb	0.077 ppb	104.557 %	104.878 %	0.050 ppb	0.036 ppb
Concentration per Run 2	0.070 ppb	0.046 ppb	106.100 %	108.045 %	0.071 ppb	0.025 ppb
Concentration per Run 3	0.066 ppb	0.173 ppb	107.841 %	108.247 %	0.067 ppb	0.029 ppb
Concentration RSD	8.2 %	67.0 %	1.5 %	1.8 %	17.5 %	18.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	77	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964182-2d10 6020TL	Rack	1		
Analysis started at:	8/28/2024 11:36:13 AM	Vial	48		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.340 %	119.646 %	5.245 ppb	1,165.360 ppb	1,039.522 ppb	215.804 ppb	1,071.146 ppb	1,012.336 ppb	103.713 %
Concentration per Run 1	103.062 %	117.878 %	5.229 ppb	1,202.733 ppb	1,053.423 ppb	224.667 ppb	1,182.131 ppb	1,056.838 ppb	102.795 %
Concentration per Run 2	102.783 %	123.183 %	5.289 ppb	1,121.065 ppb	1,008.969 ppb	204.890 ppb	995.430 ppb	996.414 ppb	104.031 %
Concentration per Run 3	104.175 %	117.878 %	5.217 ppb	1,172.283 ppb	1,056.174 ppb	217.856 ppb	1,035.875 ppb	983.757 ppb	104.313 %
Concentration RSD	0.7 %	2.6 %	0.7 %	3.5 %	2.5 %	4.7 %	9.2 %	3.9 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	108.339 %	50.737 ppb	20.654 ppb	52.724 ppb	107.184 ppb	51.788 ppb	52.468 ppb	26.229 ppb	53.031 ppb
Concentration per Run 1	98.771 %	54.266 ppb	21.545 ppb	57.168 ppb	117.251 ppb	54.609 ppb	55.005 ppb	26.946 ppb	53.155 ppb
Concentration per Run 2	112.401 %	49.936 ppb	19.792 ppb	49.403 ppb	106.537 ppb	50.074 ppb	50.997 ppb	26.070 ppb	53.436 ppb
Concentration per Run 3	113.844 %	48.008 ppb	20.626 ppb	51.602 ppb	97.763 ppb	50.681 ppb	51.403 ppb	25.671 ppb	52.503 ppb
Concentration RSD	7.7 %	6.3 %	4.2 %	7.6 %	9.1 %	4.8 %	4.2 %	2.5 %	0.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.020 %	11.711 ppb	10.528 ppb	91.117 ppb	98.135 ppb	103.674 %	5.019 ppb	5.327 ppb	101.200 %
Concentration per Run 1	101.580 %	11.736 ppb	10.266 ppb	91.997 ppb	97.162 ppb	104.267 %	5.015 ppb	5.078 ppb	102.861 %
Concentration per Run 2	101.546 %	11.973 ppb	10.975 ppb	89.135 ppb	99.139 ppb	101.246 %	5.089 ppb	5.386 ppb	96.559 %
Concentration per Run 3	105.935 %	11.423 ppb	10.341 ppb	92.220 ppb	98.103 ppb	105.509 %	4.954 ppb	5.517 ppb	104.181 %
Concentration RSD	2.4 %	2.4 %	3.7 %	1.9 %	1.0 %	2.1 %	1.3 %	4.2 %	4.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	42.169 ppb	195.553 ppb	105.192 %	105.471 %	11.603 ppb	55.377 ppb
Concentration per Run 1	40.587 ppb	192.521 ppb	106.710 %	105.703 %	11.233 ppb	54.607 ppb
Concentration per Run 2	42.907 ppb	197.942 ppb	102.192 %	102.282 %	11.911 ppb	56.284 ppb
Concentration per Run 3	43.014 ppb	196.197 ppb	106.673 %	108.429 %	11.664 ppb	55.240 ppb
Concentration RSD	3.3 %	1.4 %	2.5 %	2.9 %	3.0 %	1.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	78	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447798-01 6020TL	Rack	1		
Analysis started at:	8/28/2024 11:40:43 AM	Vial	49		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.259 %	111.591 %	0.008 ppb	332,653.390 ppb	51,134.804 ppb	2.153 ppb	1,260.386 ppb	85,628.623 ppb	102.829 %
Concentration per Run 1	95.692 %	114.931 %	0.006 ppb	326,254.620 ppb	50,330.993 ppb	2.307 ppb	1,225.627 ppb	85,495.866 ppb	102.549 %
Concentration per Run 2	96.509 %	107.269 %	0.018 ppb	330,686.399 ppb	51,063.104 ppb	2.103 ppb	1,233.128 ppb	86,372.987 ppb	102.429 %
Concentration per Run 3	96.577 %	112.574 %	-0.001 ppb	341,019.152 ppb	52,010.314 ppb	2.050 ppb	1,322.403 ppb	85,017.016 ppb	103.508 %
Concentration RSD	0.5 %	3.5 %	125.8 %	2.3 %	1.6 %	6.3 %	4.3 %	0.8 %	0.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	98.824 %	0.116 ppb	0.129 ppb	17.650 ppb	27.106 ppb	0.059 ppb	0.602 ppb	0.569 ppb	0.656 ppb
Concentration per Run 1	100.214 %	0.020 ppb	0.106 ppb	16.699 ppb	30.091 ppb	0.025 ppb	0.556 ppb	0.513 ppb	0.648 ppb
Concentration per Run 2	94.442 %	0.222 ppb	0.132 ppb	17.989 ppb	31.148 ppb	0.083 ppb	0.609 ppb	0.491 ppb	0.778 ppb
Concentration per Run 3	101.817 %	0.106 ppb	0.149 ppb	18.264 ppb	20.079 ppb	0.069 ppb	0.641 ppb	0.702 ppb	0.542 ppb
Concentration RSD	3.9 %	87.1 %	16.9 %	4.7 %	22.5 %	51.8 %	7.1 %	20.3 %	18.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	99.911 %	0.180 ppb	0.185 ppb	392.526 ppb	0.539 ppb	94.589 %	0.004 ppb	0.018 ppb	95.714 %
Concentration per Run 1	103.966 %	0.138 ppb	0.426 ppb	381.279 ppb	0.480 ppb	94.909 %	0.006 ppb	0.010 ppb	95.325 %
Concentration per Run 2	94.387 %	0.156 ppb	0.035 ppb	395.933 ppb	0.379 ppb	95.109 %	-0.001 ppb	0.020 ppb	94.475 %
Concentration per Run 3	101.380 %	0.245 ppb	0.093 ppb	400.366 ppb	0.760 ppb	93.748 %	0.006 ppb	0.024 ppb	97.340 %
Concentration RSD	5.0 %	31.8 %	114.2 %	2.5 %	36.6 %	0.8 %	110.9 %	41.2 %	1.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	1.031 ppb	69.050 ppb	102.623 %	102.793 %	0.030 ppb	0.075 ppb
Concentration per Run 1	0.978 ppb	69.708 ppb	102.628 %	102.591 %	0.021 ppb	0.079 ppb
Concentration per Run 2	1.039 ppb	68.502 ppb	101.570 %	102.625 %	0.044 ppb	0.068 ppb
Concentration per Run 3	1.077 ppb	68.942 ppb	103.670 %	103.162 %	0.025 ppb	0.078 ppb
Concentration RSD	4.8 %	0.9 %	1.0 %	0.3 %	40.3 %	7.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	79	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964182-3d10 6020TL	Rack	1		
Analysis started at:	8/28/2024 11:45:10 AM	Vial	50		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.845 %	125.737 %	5.166 ppb	41,478.913 ppb	5,975.098 ppb	212.989 ppb	1,170.093 ppb	9,194.095 ppb	108.379 %
Concentration per Run 1	106.009 %	134.971 %	5.194 ppb	38,703.236 ppb	5,577.382 ppb	197.272 ppb	1,131.829 ppb	8,636.518 ppb	107.056 %
Concentration per Run 2	107.090 %	123.183 %	5.148 ppb	42,585.892 ppb	6,171.822 ppb	220.952 ppb	1,233.547 ppb	9,520.768 ppb	108.849 %
Concentration per Run 3	107.435 %	119.057 %	5.155 ppb	43,147.611 ppb	6,176.092 ppb	220.744 ppb	1,144.904 ppb	9,425.000 ppb	109.231 %
Concentration RSD	0.7 %	6.6 %	0.5 %	5.8 %	5.8 %	6.4 %	4.7 %	5.3 %	1.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	119.350 %	49.230 ppb	20.552 ppb	52.232 ppb	110.407 ppb	50.586 ppb	51.027 ppb	25.807 ppb	50.238 ppb
Concentration per Run 1	125.069 %	48.412 ppb	19.988 ppb	51.119 ppb	105.712 ppb	50.144 ppb	49.676 ppb	25.649 ppb	49.895 ppb
Concentration per Run 2	112.080 %	52.024 ppb	21.268 ppb	53.278 ppb	114.608 ppb	52.843 ppb	53.340 ppb	25.981 ppb	51.440 ppb
Concentration per Run 3	120.900 %	47.253 ppb	20.399 ppb	52.297 ppb	110.900 ppb	48.771 ppb	50.065 ppb	25.791 ppb	49.378 ppb
Concentration RSD	5.6 %	5.1 %	3.2 %	2.1 %	4.0 %	4.1 %	3.9 %	0.6 %	2.1 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	114.230 %	11.500 ppb	10.074 ppb	126.845 ppb	99.667 ppb	109.324 %	5.031 ppb	5.356 ppb	105.963 %
Concentration per Run 1	114.626 %	11.741 ppb	10.089 ppb	128.555 ppb	100.525 ppb	110.966 %	5.008 ppb	5.399 ppb	107.619 %
Concentration per Run 2	112.189 %	11.894 ppb	9.595 ppb	122.820 ppb	97.130 ppb	107.190 %	4.992 ppb	5.360 ppb	103.606 %
Concentration per Run 3	115.876 %	10.865 ppb	10.539 ppb	129.161 ppb	101.346 ppb	109.817 %	5.092 ppb	5.311 ppb	106.665 %
Concentration RSD	1.6 %	4.8 %	4.7 %	2.8 %	2.2 %	1.8 %	1.1 %	0.8 %	2.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	47.077 ppb	202.009 ppb	109.356 %	107.917 %	11.323 ppb	53.472 ppb
Concentration per Run 1	47.137 ppb	204.109 ppb	109.381 %	108.223 %	11.339 ppb	53.188 ppb
Concentration per Run 2	46.471 ppb	198.039 ppb	106.797 %	104.523 %	11.623 ppb	54.924 ppb
Concentration per Run 3	47.622 ppb	203.879 ppb	111.889 %	111.007 %	11.007 ppb	52.304 ppb
Concentration RSD	1.2 %	1.7 %	2.3 %	3.0 %	2.7 %	2.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	80	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964182-4 6020TL	Rack	1		
Analysis started at:	8/28/2024 11:49:37 AM	Vial	51		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.450 %	118.271 %	0.009 ppb	330,415.038 ppb	50,697.678 ppb	3.585 ppb	1,248.712 ppb	85,068.604 ppb	105.153 %
Concentration per Run 1	97.185 %	132.024 %	0.003 ppb	309,988.097 ppb	47,904.695 ppb	3.081 ppb	1,215.988 ppb	84,474.061 ppb	104.533 %
Concentration per Run 2	97.992 %	112.574 %	0.006 ppb	331,452.343 ppb	50,506.385 ppb	3.974 ppb	1,260.934 ppb	85,038.235 ppb	105.778 %
Concentration per Run 3	97.174 %	110.216 %	0.019 ppb	349,804.673 ppb	53,681.954 ppb	3.700 ppb	1,269.213 ppb	85,693.516 ppb	105.148 %
Concentration RSD	0.5 %	10.1 %	85.8 %	6.0 %	5.7 %	12.8 %	2.3 %	0.7 %	0.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	103.688 %	0.248 ppb	0.144 ppb	17.998 ppb	28.049 ppb	0.146 ppb	0.720 ppb	0.572 ppb	0.858 ppb
Concentration per Run 1	105.666 %	0.265 ppb	0.128 ppb	18.525 ppb	25.801 ppb	0.146 ppb	0.853 ppb	0.518 ppb	0.968 ppb
Concentration per Run 2	98.771 %	0.363 ppb	0.155 ppb	17.710 ppb	35.346 ppb	0.110 ppb	0.750 ppb	0.599 ppb	0.809 ppb
Concentration per Run 3	106.628 %	0.115 ppb	0.148 ppb	17.758 ppb	22.998 ppb	0.180 ppb	0.559 ppb	0.600 ppb	0.795 ppb
Concentration RSD	4.1 %	50.5 %	9.7 %	2.5 %	23.1 %	24.1 %	20.7 %	8.2 %	11.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.602 %	0.199 ppb	0.025 ppb	392.955 ppb	0.676 ppb	98.958 %	0.013 ppb	0.022 ppb	99.721 %
Concentration per Run 1	104.578 %	0.135 ppb	0.100 ppb	389.690 ppb	0.499 ppb	99.948 %	0.011 ppb	0.018 ppb	102.026 %
Concentration per Run 2	97.856 %	0.221 ppb	-0.055 ppb	399.469 ppb	0.722 ppb	98.929 %	0.018 ppb	0.024 ppb	99.036 %
Concentration per Run 3	105.373 %	0.240 ppb	0.030 ppb	389.706 ppb	0.807 ppb	97.999 %	0.011 ppb	0.024 ppb	98.101 %
Concentration RSD	4.0 %	28.0 %	314.0 %	1.4 %	23.5 %	1.0 %	30.4 %	13.9 %	2.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.808 ppb	69.312 ppb	104.876 %	105.662 %	0.041 ppb	0.107 ppb
Concentration per Run 1	0.754 ppb	67.712 ppb	104.772 %	105.715 %	0.034 ppb	0.128 ppb
Concentration per Run 2	0.805 ppb	69.611 ppb	104.755 %	105.933 %	0.047 ppb	0.101 ppb
Concentration per Run 3	0.865 ppb	70.613 ppb	105.101 %	105.339 %	0.042 ppb	0.092 ppb
Concentration RSD	6.9 %	2.1 %	0.2 %	0.3 %	16.0 %	17.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	81	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964182-5d10 6020TL	Rack	1		
Analysis started at:	8/28/2024 11:54:04 AM	Vial	52		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.650 %	132.024 %	52.072 ppb	45,862.838 ppb	10,236.882 ppb	51.514 ppb	5,433.741 ppb	13,616.254 ppb	107.223 %
Concentration per Run 1	104.798 %	124.951 %	51.923 ppb	48,686.805 ppb	10,971.703 ppb	55.691 ppb	5,875.562 ppb	14,368.015 ppb	106.777 %
Concentration per Run 2	104.183 %	142.633 %	52.000 ppb	42,180.890 ppb	9,447.541 ppb	45.008 ppb	4,974.118 ppb	12,469.892 ppb	106.610 %
Concentration per Run 3	104.969 %	128.487 %	52.295 ppb	46,720.818 ppb	10,291.402 ppb	53.844 ppb	5,451.541 ppb	14,010.856 ppb	108.282 %
Concentration RSD	0.4 %	7.1 %	0.4 %	7.3 %	7.5 %	11.1 %	8.3 %	7.4 %	0.9 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	114.111 %	53.120 ppb	52.423 ppb	53.276 ppb	5,374.514 ppb	53.691 ppb	52.647 ppb	53.149 ppb	52.369 ppb
Concentration per Run 1	110.477 %	53.317 ppb	53.640 ppb	52.520 ppb	5,419.685 ppb	54.332 ppb	52.644 ppb	52.442 ppb	51.656 ppb
Concentration per Run 2	121.381 %	50.006 ppb	49.680 ppb	50.813 ppb	5,255.234 ppb	52.643 ppb	51.995 ppb	53.076 ppb	53.157 ppb
Concentration per Run 3	110.477 %	56.037 ppb	53.950 ppb	56.495 ppb	5,448.623 ppb	54.098 ppb	53.301 ppb	53.928 ppb	52.293 ppb
Concentration RSD	5.5 %	5.7 %	4.5 %	5.5 %	1.9 %	1.7 %	1.2 %	1.4 %	1.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	106.559 %	53.387 ppb	50.453 ppb	86.822 ppb	51.794 ppb	105.827 %	1.452 ppb	51.177 ppb	104.342 %
Concentration per Run 1	111.887 %	51.127 ppb	51.538 ppb	85.568 ppb	51.752 ppb	106.821 %	1.451 ppb	51.539 ppb	104.676 %
Concentration per Run 2	103.250 %	54.433 ppb	47.051 ppb	87.527 ppb	51.463 ppb	106.137 %	1.423 ppb	50.150 ppb	103.887 %
Concentration per Run 3	104.538 %	54.601 ppb	52.768 ppb	87.371 ppb	52.165 ppb	104.525 %	1.483 ppb	51.843 ppb	104.464 %
Concentration RSD	4.4 %	3.7 %	6.0 %	1.3 %	0.7 %	1.1 %	2.1 %	1.8 %	0.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	51.195 ppb	57.287 ppb	107.341 %	107.827 %	51.433 ppb	51.849 ppb
Concentration per Run 1	51.489 ppb	56.278 ppb	107.210 %	107.116 %	50.516 ppb	51.362 ppb
Concentration per Run 2	51.735 ppb	57.869 ppb	106.925 %	106.959 %	51.768 ppb	52.573 ppb
Concentration per Run 3	50.361 ppb	57.713 ppb	107.888 %	109.405 %	52.014 ppb	51.612 ppb
Concentration RSD	1.4 %	1.5 %	0.5 %	1.3 %	1.6 %	1.2 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	82	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964182-6d5 6020TL	Rack	1		
Analysis started at:	8/28/2024 11:58:32 AM	Vial	53		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.536 %	124.755 %	0.047 ppb	65,405.297 ppb	10,200.390 ppb	1.370 ppb	288.899 ppb	16,662.319 ppb	107.694 %
Concentration per Run 1	106.198 %	131.434 %	0.049 ppb	61,552.588 ppb	9,488.466 ppb	1.197 ppb	281.927 ppb	16,086.180 ppb	106.678 %
Concentration per Run 2	106.063 %	109.037 %	0.043 ppb	71,666.018 ppb	11,239.493 ppb	1.855 ppb	306.038 ppb	17,191.312 ppb	107.701 %
Concentration per Run 3	107.345 %	133.792 %	0.049 ppb	62,997.284 ppb	9,873.212 ppb	1.059 ppb	278.733 ppb	16,709.465 ppb	108.704 %
Concentration RSD	0.7 %	11.0 %	7.5 %	8.4 %	9.0 %	31.0 %	5.2 %	3.3 %	0.9 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	113.310 %	0.138 ppb	0.102 ppb	3.316 ppb	15.961 ppb	0.102 ppb	0.177 ppb	0.178 ppb	0.193 ppb
Concentration per Run 1	115.127 %	0.175 ppb	0.057 ppb	3.077 ppb	15.631 ppb	0.097 ppb	0.082 ppb	0.191 ppb	0.175 ppb
Concentration per Run 2	109.194 %	0.168 ppb	0.129 ppb	3.340 ppb	17.891 ppb	0.071 ppb	0.210 ppb	0.091 ppb	0.201 ppb
Concentration per Run 3	115.608 %	0.072 ppb	0.119 ppb	3.531 ppb	14.361 ppb	0.138 ppb	0.239 ppb	0.251 ppb	0.204 ppb
Concentration RSD	3.2 %	41.9 %	38.3 %	6.9 %	11.2 %	33.1 %	47.4 %	45.5 %	8.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	111.343 %	0.059 ppb	0.150 ppb	76.906 ppb	0.424 ppb	105.590 %	0.004 ppb	0.057 ppb	104.512 %
Concentration per Run 1	107.091 %	0.081 ppb	0.148 ppb	78.071 ppb	0.320 ppb	105.229 %	0.004 ppb	0.072 ppb	102.859 %
Concentration per Run 2	109.638 %	0.018 ppb	0.076 ppb	76.966 ppb	0.352 ppb	106.440 %	0.000 ppb	0.035 ppb	105.387 %
Concentration per Run 3	117.301 %	0.080 ppb	0.225 ppb	75.682 ppb	0.600 ppb	105.100 %	0.007 ppb	0.062 ppb	105.289 %
Concentration RSD	4.8 %	60.7 %	50.0 %	1.6 %	36.2 %	0.7 %	89.3 %	33.6 %	1.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.270 ppb	13.850 ppb	107.937 %	108.365 %	0.278 ppb	0.106 ppb
Concentration per Run 1	0.222 ppb	14.717 ppb	107.095 %	106.361 %	0.238 ppb	0.107 ppb
Concentration per Run 2	0.241 ppb	13.678 ppb	107.335 %	108.865 %	0.295 ppb	0.079 ppb
Concentration per Run 3	0.348 ppb	13.155 ppb	109.380 %	109.870 %	0.299 ppb	0.131 ppb
Concentration RSD	25.2 %	5.7 %	1.2 %	1.7 %	12.4 %	24.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	83	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447798-01d10 6020TL	Rack	2		
Analysis started at:	8/28/2024 12:03:00 PM	Vial	5		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	110.238 %	123.772 %	0.015 ppb	42,128.317 ppb	5,199.942 ppb	0.156 ppb	114.739 ppb	8,463.972 ppb	112.781 %
Concentration per Run 1	109.344 %	118.468 %	0.013 ppb	42,508.520 ppb	5,137.937 ppb	0.073 ppb	97.487 ppb	8,121.299 ppb	110.861 %
Concentration per Run 2	110.357 %	128.487 %	0.015 ppb	40,851.358 ppb	5,065.712 ppb	-0.169 ppb	134.346 ppb	8,347.767 ppb	113.438 %
Concentration per Run 3	111.012 %	124.362 %	0.016 ppb	43,025.073 ppb	5,396.176 ppb	0.564 ppb	112.386 ppb	8,922.851 ppb	114.045 %
Concentration RSD	0.8 %	4.1 %	11.6 %	2.7 %	3.3 %	239.8 %	16.2 %	4.9 %	1.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	115.875 %	0.053 ppb	0.057 ppb	1.807 ppb	9.460 ppb	0.054 ppb	0.140 ppb	0.441 ppb	0.282 ppb
Concentration per Run 1	120.740 %	0.084 ppb	0.065 ppb	1.726 ppb	7.272 ppb	0.066 ppb	0.169 ppb	0.497 ppb	0.277 ppb
Concentration per Run 2	114.005 %	-0.002 ppb	0.076 ppb	1.878 ppb	11.188 ppb	0.015 ppb	0.152 ppb	0.458 ppb	0.276 ppb
Concentration per Run 3	112.882 %	0.077 ppb	0.030 ppb	1.816 ppb	9.920 ppb	0.081 ppb	0.101 ppb	0.369 ppb	0.293 ppb
Concentration RSD	3.7 %	89.6 %	41.8 %	4.2 %	21.1 %	64.1 %	25.1 %	14.8 %	3.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	113.204 %	0.026 ppb	-0.063 ppb	38.114 ppb	0.089 ppb	109.745 %	-0.001 ppb	0.027 ppb	109.229 %
Concentration per Run 1	111.879 %	0.069 ppb	-0.138 ppb	38.146 ppb	0.018 ppb	111.492 %	-0.001 ppb	0.021 ppb	108.625 %
Concentration per Run 2	112.313 %	0.024 ppb	-0.134 ppb	38.048 ppb	0.169 ppb	108.399 %	-0.001 ppb	0.034 ppb	110.095 %
Concentration per Run 3	115.421 %	-0.014 ppb	0.084 ppb	38.148 ppb	0.080 ppb	109.345 %	0.000 ppb	0.026 ppb	108.967 %
Concentration RSD	1.7 %	157.9 %	202.5 %	0.2 %	85.9 %	1.4 %	118.1 %	24.1 %	0.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.148 ppb	6.690 ppb	110.289 %	109.184 %	0.087 ppb	0.189 ppb
Concentration per Run 1	0.156 ppb	6.822 ppb	110.070 %	109.493 %	0.070 ppb	0.191 ppb
Concentration per Run 2	0.129 ppb	6.895 ppb	109.717 %	106.449 %	0.103 ppb	0.184 ppb
Concentration per Run 3	0.160 ppb	6.351 ppb	111.078 %	111.611 %	0.090 ppb	0.192 ppb
Concentration RSD	11.5 %	4.4 %	0.6 %	2.4 %	19.0 %	2.3 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	84	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964182-4d10 6020TL	Rack	2		
Analysis started at:	8/28/2024 12:07:28 PM	Vial	6		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	109.909 %	132.024 %	0.002 ppb	40,290.407 ppb	4,992.445 ppb	0.238 ppb	120.838 ppb	8,231.227 ppb	112.671 %
Concentration per Run 1	110.003 %	119.646 %	0.000 ppb	42,867.910 ppb	5,298.149 ppb	0.090 ppb	142.522 ppb	8,456.870 ppb	111.361 %
Concentration per Run 2	109.627 %	149.116 %	-0.002 ppb	36,637.927 ppb	4,537.130 ppb	-0.142 ppb	116.850 ppb	8,209.776 ppb	112.548 %
Concentration per Run 3	110.096 %	127.309 %	0.008 ppb	41,365.384 ppb	5,142.056 ppb	0.765 ppb	103.143 ppb	8,027.037 ppb	114.104 %
Concentration RSD	0.2 %	11.6 %	248.2 %	8.1 %	8.1 %	198.4 %	16.5 %	2.6 %	1.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	117.105 %	0.006 ppb	0.041 ppb	1.750 ppb	5.543 ppb	0.025 ppb	0.081 ppb	0.457 ppb	0.196 ppb
Concentration per Run 1	116.250 %	-0.064 ppb	0.041 ppb	1.535 ppb	8.361 ppb	0.008 ppb	0.001 ppb	0.352 ppb	0.245 ppb
Concentration per Run 2	120.098 %	0.010 ppb	0.040 ppb	1.893 ppb	2.618 ppb	0.034 ppb	0.264 ppb	0.559 ppb	0.187 ppb
Concentration per Run 3	114.967 %	0.073 ppb	0.042 ppb	1.821 ppb	5.650 ppb	0.034 ppb	-0.021 ppb	0.462 ppb	0.158 ppb
Concentration RSD	2.3 %	1,061.5 %	2.9 %	10.8 %	51.8 %	60.2 %	194.5 %	22.6 %	22.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	116.168 %	0.027 ppb	0.021 ppb	36.667 ppb	0.090 ppb	111.794 %	0.000 ppb	0.011 ppb	110.629 %
Concentration per Run 1	120.265 %	0.062 ppb	0.006 ppb	36.088 ppb	0.039 ppb	112.771 %	0.002 ppb	0.008 ppb	112.063 %
Concentration per Run 2	112.747 %	0.045 ppb	-0.073 ppb	37.048 ppb	0.128 ppb	111.304 %	0.000 ppb	0.004 ppb	110.525 %
Concentration per Run 3	115.494 %	-0.025 ppb	0.129 ppb	36.863 ppb	0.102 ppb	111.307 %	-0.001 ppb	0.021 ppb	109.299 %
Concentration RSD	3.3 %	168.6 %	494.6 %	1.4 %	51.0 %	0.8 %	718.8 %	78.9 %	1.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.088 ppb	6.549 ppb	110.555 %	110.750 %	0.045 ppb	0.171 ppb
Concentration per Run 1	0.075 ppb	6.810 ppb	110.940 %	110.324 %	0.025 ppb	0.175 ppb
Concentration per Run 2	0.082 ppb	6.339 ppb	109.456 %	110.609 %	0.054 ppb	0.172 ppb
Concentration per Run 3	0.108 ppb	6.497 ppb	111.270 %	111.318 %	0.057 ppb	0.166 ppb
Concentration RSD	19.4 %	3.7 %	0.9 %	0.5 %	39.7 %	2.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	85	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964182-6d50 6020TL	Rack	2		
Analysis started at:	8/28/2024 12:11:56 PM	Vial	7		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	111.341 %	131.631 %	0.001 ppb	8,577.849 ppb	1,070.413 ppb	0.305 ppb	18.065 ppb	1,824.561 ppb	113.517 %
Concentration per Run 1	111.520 %	136.739 %	0.002 ppb	8,262.843 ppb	1,047.684 ppb	0.350 ppb	19.163 ppb	1,759.202 ppb	112.969 %
Concentration per Run 2	111.073 %	133.203 %	-0.007 ppb	8,622.064 ppb	1,052.580 ppb	-0.063 ppb	23.472 ppb	1,853.925 ppb	113.001 %
Concentration per Run 3	111.431 %	124.951 %	0.007 ppb	8,848.639 ppb	1,110.974 ppb	0.630 ppb	11.560 ppb	1,860.556 ppb	114.581 %
Concentration RSD	0.2 %	4.6 %	1,252.6 %	3.4 %	3.3 %	114.2 %	33.4 %	3.1 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	116.677 %	0.077 ppb	0.022 ppb	0.504 ppb	4.196 ppb	0.012 ppb	0.097 ppb	0.401 ppb	0.114 ppb
Concentration per Run 1	117.853 %	0.125 ppb	0.009 ppb	0.409 ppb	4.947 ppb	0.014 ppb	0.097 ppb	0.456 ppb	0.162 ppb
Concentration per Run 2	112.561 %	0.153 ppb	0.043 ppb	0.612 ppb	6.778 ppb	0.014 ppb	0.097 ppb	0.479 ppb	0.094 ppb
Concentration per Run 3	119.617 %	-0.046 ppb	0.015 ppb	0.489 ppb	0.863 ppb	0.008 ppb	0.097 ppb	0.269 ppb	0.086 ppb
Concentration RSD	3.1 %	139.8 %	81.7 %	20.3 %	72.2 %	30.9 %	0.1 %	28.7 %	36.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	116.939 %	-0.034 ppb	-0.049 ppb	7.810 ppb	0.042 ppb	114.891 %	-0.001 ppb	0.007 ppb	110.945 %
Concentration per Run 1	115.855 %	-0.015 ppb	-0.070 ppb	7.747 ppb	0.003 ppb	115.195 %	0.000 ppb	0.013 ppb	110.070 %
Concentration per Run 2	120.626 %	-0.042 ppb	-0.085 ppb	7.717 ppb	0.073 ppb	114.647 %	-0.001 ppb	0.004 ppb	112.551 %
Concentration per Run 3	114.337 %	-0.046 ppb	0.007 ppb	7.966 ppb	0.051 ppb	114.829 %	-0.001 ppb	0.004 ppb	110.213 %
Concentration RSD	2.8 %	49.0 %	100.3 %	1.7 %	84.8 %	0.2 %	103.2 %	69.7 %	1.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.065 ppb	1.402 ppb	112.853 %	111.806 %	0.024 ppb	0.149 ppb
Concentration per Run 1	0.068 ppb	1.304 ppb	112.377 %	111.804 %	0.015 ppb	0.150 ppb
Concentration per Run 2	0.056 ppb	1.467 ppb	113.437 %	112.089 %	0.027 ppb	0.143 ppb
Concentration per Run 3	0.073 ppb	1.434 ppb	112.743 %	111.524 %	0.030 ppb	0.153 ppb
Concentration RSD	13.6 %	6.1 %	0.5 %	0.3 %	34.6 %	3.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	86	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 12:16:24 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.519 %	121.611 %	62.324 ppb	6,556.184 ppb	6,500.224 ppb	63.776 ppb	6,224.705 ppb	6,245.040 ppb	105.443 %
Concentration per Run 1	103.672 %	116.110 %	61.819 ppb	6,882.643 ppb	6,839.391 ppb	63.551 ppb	6,470.941 ppb	6,573.379 ppb	105.647 %
Concentration per Run 2	104.058 %	120.236 %	62.330 ppb	6,533.446 ppb	6,486.895 ppb	67.156 ppb	6,436.724 ppb	6,149.467 ppb	105.255 %
Concentration per Run 3	102.827 %	128.487 %	62.823 ppb	6,252.462 ppb	6,174.385 ppb	60.621 ppb	5,766.451 ppb	6,012.274 ppb	105.427 %
Recovery Percentage 1			103.873 %	109.270 %	108.337 %	106.293 %	103.745 %	104.084 %	
Concentration RSD	0.6 %	5.2 %	0.8 %	4.8 %	5.1 %	5.1 %	6.4 %	4.7 %	0.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	114.486 %	62.789 ppb	63.183 ppb	61.306 ppb	6,286.084 ppb	62.875 ppb	62.837 ppb	62.663 ppb	63.990 ppb
Concentration per Run 1	111.439 %	65.348 ppb	64.982 ppb	64.499 ppb	6,473.405 ppb	64.818 ppb	64.717 ppb	64.806 ppb	64.600 ppb
Concentration per Run 2	110.958 %	64.192 ppb	64.203 ppb	60.462 ppb	6,388.496 ppb	64.006 ppb	63.800 ppb	63.440 ppb	66.028 ppb
Concentration per Run 3	121.060 %	58.826 ppb	60.365 ppb	58.959 ppb	5,996.353 ppb	59.802 ppb	59.992 ppb	59.742 ppb	61.342 ppb
Recovery Percentage 1		104.648 %	105.306 %	102.177 %	104.768 %	104.792 %	104.728 %	104.438 %	106.650 %
Concentration RSD	5.0 %	5.5 %	3.9 %	4.7 %	4.0 %	4.3 %	4.0 %	4.2 %	3.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.593 %	62.819 ppb	60.247 ppb	56.351 ppb	60.237 ppb	105.207 %	62.466 ppb	62.398 ppb	101.632 %
Concentration per Run 1	102.996 %	65.234 ppb	59.926 ppb	54.540 ppb	58.241 ppb	105.045 %	62.361 ppb	61.765 ppb	100.574 %
Concentration per Run 2	101.316 %	64.285 ppb	64.625 ppb	57.818 ppb	62.744 ppb	105.656 %	62.968 ppb	62.769 ppb	102.100 %
Concentration per Run 3	106.469 %	58.939 ppb	56.190 ppb	56.694 ppb	59.727 ppb	104.920 %	62.068 ppb	62.660 ppb	102.220 %
Recovery Percentage 1		104.699 %	100.412 %	93.918 %	100.395 %		104.110 %	103.997 %	
Concentration RSD	2.5 %	5.4 %	7.0 %	3.0 %	3.8 %	0.4 %	0.7 %	0.9 %	0.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	60.929 ppb	60.352 ppb	107.384 %	106.393 %	62.443 ppb	62.979 ppb
Concentration per Run 1	60.712 ppb	58.671 ppb	106.299 %	104.596 %	62.755 ppb	63.085 ppb
Concentration per Run 2	61.038 ppb	61.762 ppb	107.725 %	107.115 %	62.464 ppb	62.851 ppb
Concentration per Run 3	61.036 ppb	60.625 ppb	108.127 %	107.468 %	62.109 ppb	63.003 ppb
Recovery Percentage 1	101.548 %	100.587 %			104.071 %	104.966 %
Concentration RSD	0.3 %	2.6 %	0.9 %	1.5 %	0.5 %	0.2 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	87	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 12:20:56 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.063 %	117.289 %	0.077 ppb	39.100 ppb	11.494 ppb	-0.389 ppb	-3.728 ppb	26.586 ppb	100.313 %
Concentration per Run 1	102.393 %	107.269 %	0.080 ppb	54.331 ppb	12.380 ppb	-0.307 ppb	5.735 ppb	27.076 ppb	98.583 %
Concentration per Run 2	103.393 %	126.130 %	0.082 ppb	29.339 ppb	9.848 ppb	-0.619 ppb	-8.985 ppb	21.831 ppb	100.824 %
Concentration per Run 3	103.402 %	118.468 %	0.068 ppb	33.632 ppb	12.254 ppb	-0.242 ppb	-7.935 ppb	30.852 ppb	101.534 %
Recovery Percentage 1			15.338 %	39.100 %	16.420 %	-3.892 %	-3.728 %	26.586 %	
Concentration RSD	0.6 %	8.1 %	10.3 %	34.2 %	12.4 %	51.7 %	220.3 %	17.0 %	1.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	104.971 %	-0.070 ppb	0.103 ppb	0.105 ppb	11.211 ppb	0.052 ppb	0.078 ppb	0.076 ppb	0.020 ppb
Concentration per Run 1	100.535 %	-0.065 ppb	0.132 ppb	0.133 ppb	10.606 ppb	0.066 ppb	0.023 ppb	0.006 ppb	-0.016 ppb
Concentration per Run 2	105.025 %	-0.071 ppb	0.080 ppb	0.185 ppb	9.782 ppb	0.031 ppb	0.148 ppb	0.122 ppb	-0.001 ppb
Concentration per Run 3	109.354 %	-0.075 ppb	0.096 ppb	-0.002 ppb	13.244 ppb	0.059 ppb	0.063 ppb	0.099 ppb	0.078 ppb
Recovery Percentage 1		-1.409 %	10.285 %	10.531 %	22.422 %	10.384 %	3.893 %	7.556 %	0.408 %
Concentration RSD	4.2 %	7.0 %	26.2 %	92.0 %	16.1 %	34.8 %	82.1 %	80.7 %	248.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	99.146 %	0.102 ppb	0.168 ppb	0.085 ppb	0.315 ppb	104.859 %	0.053 ppb	0.064 ppb	102.014 %
Concentration per Run 1	91.929 %	0.110 ppb	0.120 ppb	0.084 ppb	0.271 ppb	104.244 %	0.047 ppb	0.064 ppb	100.413 %
Concentration per Run 2	101.903 %	0.106 ppb	0.114 ppb	0.072 ppb	0.273 ppb	105.272 %	0.050 ppb	0.058 ppb	103.968 %
Concentration per Run 3	103.604 %	0.090 ppb	0.270 ppb	0.100 ppb	0.402 ppb	105.061 %	0.062 ppb	0.068 ppb	101.660 %
Recovery Percentage 1		20.388 %	3.354 %	0.852 %	15.765 %		13.280 %	31.839 %	
Concentration RSD	6.4 %	10.6 %	52.8 %	16.7 %	23.9 %	0.5 %	15.5 %	7.9 %	1.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.232 ppb	0.104 ppb	105.755 %	106.387 %	0.286 ppb	0.068 ppb
Concentration per Run 1	0.229 ppb	0.062 ppb	105.032 %	104.274 %	0.230 ppb	0.061 ppb
Concentration per Run 2	0.212 ppb	0.131 ppb	105.918 %	107.912 %	0.316 ppb	0.057 ppb
Concentration per Run 3	0.255 ppb	0.118 ppb	106.315 %	106.975 %	0.311 ppb	0.084 ppb
Recovery Percentage 1	5.806 %	20.728 %			28.575 %	6.765 %
Concentration RSD	9.3 %	35.3 %	0.6 %	1.8 %	16.9 %	21.7 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	88	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447798-03 6020TL	Rack	1		
Analysis started at:	8/28/2024 12:26:38 PM	Vial	54		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.576 %	116.110 %	0.029 ppb	30,319.944 ppb	33,377.098 ppb	9.435 ppb	1,359.469 ppb	80,675.147 ppb	105.626 %
Concentration per Run 1	100.889 %	123.183 %	0.021 ppb	29,250.890 ppb	32,040.826 ppb	8.614 ppb	1,407.236 ppb	83,239.058 ppb	105.201 %
Concentration per Run 2	101.666 %	103.733 %	0.031 ppb	32,508.803 ppb	36,034.974 ppb	10.166 ppb	1,403.498 ppb	82,906.388 ppb	106.241 %
Concentration per Run 3	102.173 %	121.415 %	0.035 ppb	29,200.140 ppb	32,055.496 ppb	9.524 ppb	1,267.674 ppb	75,879.996 ppb	105.436 %
Concentration RSD	0.6 %	9.3 %	25.5 %	6.3 %	6.9 %	8.3 %	5.8 %	5.2 %	0.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	107.697 %	6.009 ppb	0.235 ppb	37.664 ppb	5,806.525 ppb	0.087 ppb	0.127 ppb	0.627 ppb	0.714 ppb
Concentration per Run 1	104.383 %	6.328 ppb	0.316 ppb	37.486 ppb	5,825.400 ppb	0.060 ppb	0.200 ppb	0.631 ppb	0.738 ppb
Concentration per Run 2	103.581 %	5.885 ppb	0.175 ppb	38.032 ppb	5,829.639 ppb	0.134 ppb	0.041 ppb	0.672 ppb	0.668 ppb
Concentration per Run 3	115.127 %	5.813 ppb	0.213 ppb	37.474 ppb	5,764.538 ppb	0.066 ppb	0.141 ppb	0.579 ppb	0.735 ppb
Concentration RSD	6.0 %	4.6 %	31.2 %	0.8 %	0.6 %	47.5 %	62.8 %	7.5 %	5.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	101.567 %	2.724 ppb	0.410 ppb	637.340 ppb	0.321 ppb	97.246 %	0.022 ppb	0.021 ppb	98.447 %
Concentration per Run 1	103.532 %	2.627 ppb	0.259 ppb	622.077 ppb	0.329 ppb	98.319 %	0.026 ppb	0.028 ppb	98.787 %
Concentration per Run 2	102.699 %	2.639 ppb	0.426 ppb	635.257 ppb	0.268 ppb	95.710 %	0.025 ppb	0.024 ppb	98.643 %
Concentration per Run 3	98.472 %	2.907 ppb	0.545 ppb	654.686 ppb	0.365 ppb	97.710 %	0.014 ppb	0.010 ppb	97.911 %
Concentration RSD	2.7 %	5.8 %	35.0 %	2.6 %	15.3 %	1.4 %	29.8 %	47.8 %	0.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.116 ppb	368.947 ppb	103.468 %	105.028 %	0.077 ppb	0.049 ppb
Concentration per Run 1	0.121 ppb	361.030 ppb	104.177 %	105.729 %	0.056 ppb	0.044 ppb
Concentration per Run 2	0.115 ppb	372.412 ppb	102.507 %	103.641 %	0.091 ppb	0.051 ppb
Concentration per Run 3	0.114 ppb	373.400 ppb	103.719 %	105.715 %	0.085 ppb	0.050 ppb
Concentration RSD	3.1 %	1.9 %	0.8 %	1.1 %	24.2 %	7.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	89	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964418-2d10 6020SL	Rack	2		
Analysis started at:	8/28/2024 12:35:06 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.787 %	119.057 %	5.056 ppb	1,142.163 ppb	1,093.857 ppb	212.891 ppb	1,035.811 ppb	1,130.726 ppb	103.035 %
Concentration per Run 1	102.398 %	114.342 %	5.096 ppb	1,113.160 ppb	1,063.929 ppb	202.777 ppb	965.779 ppb	1,104.864 ppb	101.204 %
Concentration per Run 2	103.482 %	117.878 %	5.007 ppb	1,192.060 ppb	1,144.118 ppb	223.683 ppb	1,062.872 ppb	1,198.884 ppb	103.278 %
Concentration per Run 3	105.479 %	124.951 %	5.063 ppb	1,121.269 ppb	1,073.523 ppb	212.213 ppb	1,078.782 ppb	1,088.430 ppb	104.623 %
Concentration RSD	1.5 %	4.5 %	0.9 %	3.8 %	4.0 %	4.9 %	5.9 %	5.3 %	1.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	104.490 %	51.289 ppb	20.465 ppb	51.901 ppb	112.071 ppb	50.825 ppb	50.391 ppb	25.910 ppb	50.530 ppb
Concentration per Run 1	107.590 %	48.227 ppb	19.713 ppb	48.541 ppb	105.212 ppb	49.228 ppb	48.941 ppb	25.077 ppb	50.166 ppb
Concentration per Run 2	99.412 %	54.267 ppb	20.898 ppb	53.765 ppb	111.748 ppb	51.485 ppb	52.544 ppb	26.277 ppb	50.545 ppb
Concentration per Run 3	106.468 %	51.374 ppb	20.785 ppb	53.397 ppb	119.253 ppb	51.763 ppb	49.686 ppb	26.374 ppb	50.880 ppb
Concentration RSD	4.2 %	5.9 %	3.2 %	5.6 %	6.3 %	2.7 %	3.8 %	2.8 %	0.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	104.966 %	10.843 ppb	10.167 ppb	89.861 ppb	95.487 ppb	103.587 %	4.981 ppb	5.327 ppb	101.011 %
Concentration per Run 1	103.911 %	10.377 ppb	10.326 ppb	89.834 ppb	95.699 ppb	103.067 %	5.130 ppb	5.286 ppb	100.304 %
Concentration per Run 2	108.014 %	10.733 ppb	10.399 ppb	87.893 ppb	93.827 ppb	105.438 %	4.950 ppb	5.432 ppb	100.968 %
Concentration per Run 3	102.974 %	11.418 ppb	9.775 ppb	91.856 ppb	96.933 ppb	102.255 %	4.861 ppb	5.263 ppb	101.760 %
Concentration RSD	2.6 %	4.9 %	3.4 %	2.2 %	1.6 %	1.6 %	2.8 %	1.7 %	0.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	43.559 ppb	192.664 ppb	104.379 %	105.208 %	11.392 ppb	54.004 ppb
Concentration per Run 1	42.252 ppb	188.262 ppb	102.370 %	100.886 %	11.576 ppb	54.255 ppb
Concentration per Run 2	44.590 ppb	195.371 ppb	104.999 %	107.781 %	11.202 ppb	53.718 ppb
Concentration per Run 3	43.836 ppb	194.360 ppb	105.766 %	106.958 %	11.398 ppb	54.041 ppb
Concentration RSD	2.7 %	2.0 %	1.7 %	3.6 %	1.6 %	0.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	90	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447890-03 6020SL	Rack	2		
Analysis started at:	8/28/2024 12:39:35 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.629 %	124.755 %	-0.001 ppb	12,874.961 ppb	9,941.621 ppb	3.422 ppb	4,079.687 ppb	41,954.425 ppb	105.819 %
Concentration per Run 1	103.069 %	119.057 %	-0.007 ppb	13,114.760 ppb	10,042.337 ppb	4.236 ppb	4,079.114 ppb	42,996.521 ppb	103.540 %
Concentration per Run 2	104.242 %	113.163 %	0.006 ppb	13,547.788 ppb	10,673.055 ppb	3.300 ppb	4,070.041 ppb	40,995.140 ppb	107.280 %
Concentration per Run 3	103.575 %	142.043 %	-0.003 ppb	11,962.335 ppb	9,109.472 ppb	2.728 ppb	4,089.907 ppb	41,871.613 ppb	106.638 %
Concentration RSD	0.6 %	12.2 %	515.3 %	6.4 %	7.9 %	22.2 %	0.2 %	2.4 %	1.9 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	106.628 %	0.135 ppb	0.223 ppb	88.835 ppb	6.382 ppb	0.063 ppb	0.172 ppb	0.526 ppb	0.349 ppb
Concentration per Run 1	98.450 %	0.049 ppb	0.240 ppb	87.159 ppb	4.226 ppb	0.057 ppb	0.134 ppb	0.547 ppb	0.370 ppb
Concentration per Run 2	110.637 %	0.169 ppb	0.219 ppb	88.854 ppb	6.870 ppb	0.038 ppb	0.168 ppb	0.607 ppb	0.305 ppb
Concentration per Run 3	110.797 %	0.188 ppb	0.211 ppb	90.494 ppb	8.051 ppb	0.093 ppb	0.216 ppb	0.425 ppb	0.372 ppb
Concentration RSD	6.6 %	55.8 %	6.6 %	1.9 %	30.7 %	45.3 %	24.1 %	17.7 %	10.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	101.049 %	0.042 ppb	-0.007 ppb	122.048 ppb	0.597 ppb	103.123 %	-0.001 ppb	0.003 ppb	102.710 %
Concentration per Run 1	97.062 %	-0.008 ppb	-0.145 ppb	119.681 ppb	0.392 ppb	102.675 %	0.002 ppb	0.005 ppb	101.511 %
Concentration per Run 2	101.976 %	0.045 ppb	0.104 ppb	123.531 ppb	0.653 ppb	102.707 %	-0.003 ppb	0.005 ppb	103.073 %
Concentration per Run 3	104.110 %	0.088 ppb	0.020 ppb	122.932 ppb	0.747 ppb	103.987 %	-0.001 ppb	0.000 ppb	103.546 %
Concentration RSD	3.6 %	114.8 %	1,851.9 %	1.7 %	30.8 %	0.7 %	405.1 %	86.6 %	1.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.736 ppb	43.295 ppb	106.548 %	107.426 %	0.031 ppb	0.019 ppb
Concentration per Run 1	0.647 ppb	43.564 ppb	105.457 %	105.698 %	0.026 ppb	0.025 ppb
Concentration per Run 2	0.767 ppb	43.879 ppb	105.641 %	107.004 %	0.036 ppb	0.020 ppb
Concentration per Run 3	0.793 ppb	42.441 ppb	108.547 %	109.576 %	0.031 ppb	0.011 ppb
Concentration RSD	10.6 %	1.7 %	1.6 %	1.8 %	16.0 %	37.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	91	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964418-3d10 6020SL	Rack	2		
Analysis started at:	8/28/2024 12:44:04 PM	Vial	11		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	109.172 %	136.739 %	5.074 ppb	2,297.586 ppb	1,944.262 ppb	202.894 ppb	1,401.579 ppb	5,236.262 ppb	109.146 %
Concentration per Run 1	108.762 %	124.951 %	5.011 ppb	2,331.103 ppb	1,991.621 ppb	205.362 ppb	1,342.342 ppb	5,027.810 ppb	107.873 %
Concentration per Run 2	109.265 %	143.222 %	5.072 ppb	2,254.151 ppb	1,860.317 ppb	198.196 ppb	1,400.701 ppb	5,256.808 ppb	109.627 %
Concentration per Run 3	109.490 %	142.044 %	5.138 ppb	2,307.504 ppb	1,980.848 ppb	205.124 ppb	1,461.694 ppb	5,424.168 ppb	109.937 %
Concentration RSD	0.3 %	7.5 %	1.3 %	1.7 %	3.7 %	2.0 %	4.3 %	3.8 %	1.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	116.250 %	49.942 ppb	19.951 ppb	59.445 ppb	107.753 ppb	49.727 ppb	49.502 ppb	25.015 ppb	49.106 ppb
Concentration per Run 1	119.777 %	46.764 ppb	18.776 ppb	58.371 ppb	90.732 ppb	48.937 ppb	48.157 ppb	24.901 ppb	47.938 ppb
Concentration per Run 2	116.089 %	51.925 ppb	20.594 ppb	61.466 ppb	109.572 ppb	50.602 ppb	49.820 ppb	25.613 ppb	50.985 ppb
Concentration per Run 3	112.882 %	51.136 ppb	20.483 ppb	58.499 ppb	122.953 ppb	49.642 ppb	50.530 ppb	24.533 ppb	48.396 ppb
Concentration RSD	3.0 %	5.6 %	5.1 %	2.9 %	15.0 %	1.7 %	2.5 %	2.2 %	3.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	111.580 %	11.195 ppb	9.354 ppb	98.167 ppb	95.171 ppb	110.259 %	4.784 ppb	5.018 ppb	106.468 %
Concentration per Run 1	112.457 %	10.860 ppb	8.210 ppb	93.266 ppb	94.438 ppb	108.704 %	4.769 ppb	5.124 ppb	103.937 %
Concentration per Run 2	106.929 %	11.703 ppb	10.809 ppb	102.365 ppb	96.073 ppb	111.782 %	4.719 ppb	4.800 ppb	108.686 %
Concentration per Run 3	115.353 %	11.021 ppb	9.043 ppb	98.871 ppb	95.001 ppb	110.292 %	4.864 ppb	5.130 ppb	106.782 %
Concentration RSD	3.8 %	4.0 %	14.2 %	4.7 %	0.9 %	1.4 %	1.5 %	3.8 %	2.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	48.883 ppb	193.530 ppb	110.089 %	108.956 %	11.087 ppb	52.678 ppb
Concentration per Run 1	48.344 ppb	188.322 ppb	106.978 %	104.641 %	11.335 ppb	53.265 ppb
Concentration per Run 2	49.469 ppb	195.873 ppb	111.672 %	111.832 %	10.914 ppb	52.459 ppb
Concentration per Run 3	48.837 ppb	196.397 ppb	111.616 %	110.395 %	11.012 ppb	52.310 ppb
Concentration RSD	1.2 %	2.3 %	2.4 %	3.5 %	2.0 %	1.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	92	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964418-4d10 6020SL	Rack	2		
Analysis started at:	8/28/2024 12:48:34 PM	Vial	12		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	107.891 %	128.684 %	5.052 ppb	2,343.186 ppb	1,997.069 ppb	204.098 ppb	1,460.294 ppb	5,028.030 ppb	106.009 %
Concentration per Run 1	106.461 %	136.150 %	5.174 ppb	2,274.188 ppb	1,921.078 ppb	197.748 ppb	1,438.403 ppb	5,207.462 ppb	103.974 %
Concentration per Run 2	108.026 %	130.256 %	4.990 ppb	2,291.134 ppb	1,968.704 ppb	198.023 ppb	1,436.106 ppb	4,931.063 ppb	105.689 %
Concentration per Run 3	109.186 %	119.647 %	4.991 ppb	2,464.236 ppb	2,101.425 ppb	216.525 ppb	1,506.374 ppb	4,945.565 ppb	108.364 %
Concentration RSD	1.3 %	6.5 %	2.1 %	4.5 %	4.7 %	5.3 %	2.7 %	3.1 %	2.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	113.791 %	49.547 ppb	20.019 ppb	59.042 ppb	100.431 ppb	49.846 ppb	49.092 ppb	24.897 ppb	47.778 ppb
Concentration per Run 1	109.515 %	48.932 ppb	20.283 ppb	59.302 ppb	95.373 ppb	50.324 ppb	49.445 ppb	25.326 ppb	46.823 ppb
Concentration per Run 2	118.334 %	48.384 ppb	19.459 ppb	59.302 ppb	95.953 ppb	49.453 ppb	49.163 ppb	24.680 ppb	48.401 ppb
Concentration per Run 3	113.523 %	51.325 ppb	20.313 ppb	58.524 ppb	109.967 ppb	49.761 ppb	48.669 ppb	24.684 ppb	48.108 ppb
Concentration RSD	3.9 %	3.2 %	2.4 %	0.8 %	8.2 %	0.9 %	0.8 %	1.5 %	1.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	109.069 %	10.916 ppb	10.128 ppb	96.856 ppb	93.263 ppb	108.659 %	4.679 ppb	5.144 ppb	105.826 %
Concentration per Run 1	105.106 %	11.461 ppb	8.644 ppb	94.006 ppb	93.153 ppb	109.296 %	4.659 ppb	5.169 ppb	105.241 %
Concentration per Run 2	109.549 %	10.743 ppb	10.459 ppb	99.080 ppb	94.119 ppb	109.132 %	4.677 ppb	5.110 ppb	107.018 %
Concentration per Run 3	112.551 %	10.544 ppb	11.282 ppb	97.483 ppb	92.515 ppb	107.549 %	4.702 ppb	5.154 ppb	105.220 %
Concentration RSD	3.4 %	4.4 %	13.3 %	2.7 %	0.9 %	0.9 %	0.5 %	0.6 %	1.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	48.533 ppb	192.594 ppb	108.499 %	109.691 %	10.675 ppb	50.791 ppb
Concentration per Run 1	47.923 ppb	190.693 ppb	108.281 %	108.692 %	10.506 ppb	50.142 ppb
Concentration per Run 2	48.609 ppb	193.324 ppb	109.714 %	111.277 %	10.595 ppb	50.958 ppb
Concentration per Run 3	49.066 ppb	193.764 ppb	107.501 %	109.104 %	10.924 ppb	51.271 ppb
Concentration RSD	1.2 %	0.9 %	1.0 %	1.3 %	2.1 %	1.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	93	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964418-5d10 6020SL	Rack	2		
Analysis started at:	8/28/2024 12:53:03 PM	Vial	13		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.907 %	127.505 %	53.484 ppb	6,698.841 ppb	6,376.551 ppb	54.591 ppb	5,771.810 ppb	9,486.480 ppb	104.728 %
Concentration per Run 1	104.301 %	136.150 %	53.224 ppb	6,249.028 ppb	5,952.439 ppb	53.225 ppb	5,410.072 ppb	9,045.413 ppb	105.268 %
Concentration per Run 2	104.559 %	120.825 %	53.239 ppb	6,942.566 ppb	6,584.028 ppb	53.827 ppb	5,948.117 ppb	9,803.781 ppb	104.354 %
Concentration per Run 3	102.861 %	125.540 %	53.989 ppb	6,904.929 ppb	6,593.185 ppb	56.719 ppb	5,957.240 ppb	9,610.245 ppb	104.560 %
Concentration RSD	0.9 %	6.2 %	0.8 %	5.8 %	5.8 %	3.4 %	5.4 %	4.2 %	0.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	109.247 %	53.840 ppb	53.075 ppb	61.702 ppb	5,374.895 ppb	53.498 ppb	52.790 ppb	53.050 ppb	52.836 ppb
Concentration per Run 1	116.570 %	51.241 ppb	50.387 ppb	60.210 ppb	5,254.691 ppb	52.480 ppb	52.321 ppb	53.423 ppb	52.447 ppb
Concentration per Run 2	103.260 %	54.676 ppb	55.136 ppb	62.664 ppb	5,457.126 ppb	54.017 ppb	53.495 ppb	53.189 ppb	52.441 ppb
Concentration per Run 3	107.911 %	55.605 ppb	53.701 ppb	62.232 ppb	5,412.870 ppb	53.997 ppb	52.553 ppb	52.538 ppb	53.622 ppb
Concentration RSD	6.2 %	4.3 %	4.6 %	2.1 %	2.0 %	1.6 %	1.2 %	0.9 %	1.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	106.202 %	52.456 ppb	50.175 ppb	58.534 ppb	51.150 ppb	104.060 %	1.412 ppb	52.768 ppb	101.823 %
Concentration per Run 1	103.646 %	53.227 ppb	51.869 ppb	58.881 ppb	51.037 ppb	105.790 %	1.453 ppb	53.230 ppb	102.508 %
Concentration per Run 2	109.030 %	50.702 ppb	52.343 ppb	57.681 ppb	52.318 ppb	102.140 %	1.384 ppb	52.266 ppb	100.851 %
Concentration per Run 3	105.929 %	53.439 ppb	46.313 ppb	59.040 ppb	50.096 ppb	104.250 %	1.399 ppb	52.807 ppb	102.111 %
Concentration RSD	2.5 %	2.9 %	6.7 %	1.3 %	2.2 %	1.8 %	2.6 %	0.9 %	0.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	51.942 ppb	55.565 ppb	106.266 %	107.388 %	51.915 ppb	52.582 ppb
Concentration per Run 1	51.215 ppb	53.817 ppb	106.711 %	107.406 %	51.032 ppb	51.998 ppb
Concentration per Run 2	52.208 ppb	57.114 ppb	105.555 %	106.968 %	51.920 ppb	52.607 ppb
Concentration per Run 3	52.404 ppb	55.764 ppb	106.533 %	107.791 %	52.792 ppb	53.142 ppb
Concentration RSD	1.2 %	3.0 %	0.6 %	0.4 %	1.7 %	1.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	94	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964418-6d5 6020SL	Rack	2		
Analysis started at:	8/28/2024 12:57:31 PM	Vial	14		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.742 %	115.521 %	0.035 ppb	2,742.815 ppb	2,154.614 ppb	1.118 ppb	795.649 ppb	8,467.023 ppb	103.053 %
Concentration per Run 1	104.791 %	123.772 %	0.050 ppb	2,489.198 ppb	1,963.725 ppb	0.335 ppb	780.231 ppb	7,962.907 ppb	102.886 %
Concentration per Run 2	105.174 %	106.680 %	0.021 ppb	3,005.697 ppb	2,359.638 ppb	1.868 ppb	851.372 ppb	9,048.458 ppb	102.683 %
Concentration per Run 3	104.261 %	116.110 %	0.034 ppb	2,733.549 ppb	2,140.479 ppb	1.150 ppb	755.343 ppb	8,389.702 ppb	103.589 %
Concentration RSD	0.4 %	7.4 %	41.1 %	9.4 %	9.2 %	68.6 %	6.3 %	6.5 %	0.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	110.263 %	0.052 ppb	0.103 ppb	17.719 ppb	7.914 ppb	0.092 ppb	0.120 ppb	0.508 ppb	0.201 ppb
Concentration per Run 1	111.760 %	0.005 ppb	0.122 ppb	17.207 ppb	4.281 ppb	0.108 ppb	0.243 ppb	0.499 ppb	0.196 ppb
Concentration per Run 2	110.316 %	0.023 ppb	0.079 ppb	17.652 ppb	10.240 ppb	0.090 ppb	0.057 ppb	0.531 ppb	0.092 ppb
Concentration per Run 3	108.713 %	0.129 ppb	0.109 ppb	18.299 ppb	9.220 ppb	0.078 ppb	0.060 ppb	0.495 ppb	0.315 ppb
Concentration RSD	1.4 %	128.4 %	21.0 %	3.1 %	40.3 %	16.2 %	89.3 %	3.9 %	55.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	107.759 %	0.049 ppb	0.322 ppb	24.381 ppb	0.469 ppb	104.833 %	0.002 ppb	0.066 ppb	104.790 %
Concentration per Run 1	102.193 %	0.069 ppb	0.849 ppb	24.628 ppb	0.332 ppb	102.618 %	0.005 ppb	0.088 ppb	100.794 %
Concentration per Run 2	111.879 %	0.014 ppb	-0.059 ppb	24.533 ppb	0.552 ppb	106.570 %	0.002 ppb	0.069 ppb	109.952 %
Concentration per Run 3	109.204 %	0.064 ppb	0.176 ppb	23.983 ppb	0.523 ppb	105.312 %	-0.001 ppb	0.040 ppb	103.624 %
Concentration RSD	4.6 %	62.5 %	146.3 %	1.4 %	25.5 %	1.9 %	162.8 %	36.2 %	4.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.203 ppb	9.111 ppb	106.991 %	107.706 %	0.276 ppb	0.234 ppb
Concentration per Run 1	0.227 ppb	8.975 ppb	104.940 %	105.214 %	0.256 ppb	0.276 ppb
Concentration per Run 2	0.190 ppb	9.228 ppb	109.027 %	110.256 %	0.322 ppb	0.217 ppb
Concentration per Run 3	0.194 ppb	9.131 ppb	107.005 %	107.648 %	0.249 ppb	0.209 ppb
Concentration RSD	9.9 %	1.4 %	1.9 %	2.3 %	14.6 %	15.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	95	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447813-01 6020SL	Rack	2		
Analysis started at:	8/28/2024 1:01:59 PM	Vial	17		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.968 %	119.057 %	0.022 ppb	98,208.085 ppb	29,789.032 ppb	2.883 ppb	13,578.309 ppb	94,748.577 ppb	103.432 %
Concentration per Run 1	97.635 %	120.236 %	0.025 ppb	96,300.580 ppb	28,723.028 ppb	2.223 ppb	13,700.348 ppb	94,777.247 ppb	102.267 %
Concentration per Run 2	99.636 %	129.077 %	0.022 ppb	94,930.219 ppb	29,599.555 ppb	2.686 ppb	13,796.180 ppb	97,500.547 ppb	103.886 %
Concentration per Run 3	99.633 %	107.859 %	0.020 ppb	103,393.455 ppb	31,044.512 ppb	3.740 ppb	13,238.400 ppb	91,967.937 ppb	104.144 %
Concentration RSD	1.2 %	9.0 %	11.4 %	4.6 %	3.9 %	27.0 %	2.2 %	2.9 %	1.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	106.040 %	0.547 ppb	0.152 ppb	548.347 ppb	7.292 ppb	0.336 ppb	6.039 ppb	1.115 ppb	1.139 ppb
Concentration per Run 1	100.855 %	0.638 ppb	0.151 ppb	548.946 ppb	8.768 ppb	0.257 ppb	6.228 ppb	1.251 ppb	1.160 ppb
Concentration per Run 2	110.317 %	0.656 ppb	0.129 ppb	556.144 ppb	8.661 ppb	0.380 ppb	5.621 ppb	1.004 ppb	1.156 ppb
Concentration per Run 3	106.949 %	0.347 ppb	0.177 ppb	539.950 ppb	4.447 ppb	0.370 ppb	6.268 ppb	1.090 ppb	1.102 ppb
Concentration RSD	4.5 %	31.8 %	15.7 %	1.5 %	33.8 %	20.3 %	6.0 %	11.3 %	2.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.832 %	0.599 ppb	1.165 ppb	322.940 ppb	1.327 ppb	97.060 %	0.001 ppb	0.064 ppb	100.387 %
Concentration per Run 1	100.874 %	0.519 ppb	1.271 ppb	314.828 ppb	1.106 ppb	96.688 %	0.001 ppb	0.048 ppb	98.958 %
Concentration per Run 2	105.284 %	0.621 ppb	1.301 ppb	335.565 ppb	1.405 ppb	98.443 %	0.002 ppb	0.078 ppb	104.652 %
Concentration per Run 3	102.337 %	0.656 ppb	0.923 ppb	318.426 ppb	1.471 ppb	96.047 %	0.001 ppb	0.068 ppb	97.552 %
Concentration RSD	2.2 %	11.9 %	18.0 %	3.4 %	14.6 %	1.3 %	75.9 %	23.7 %	3.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.195 ppb	55.410 ppb	104.817 %	106.201 %	0.109 ppb	0.045 ppb
Concentration per Run 1	0.190 ppb	53.372 ppb	103.090 %	104.769 %	0.088 ppb	0.054 ppb
Concentration per Run 2	0.196 ppb	57.457 ppb	106.846 %	109.239 %	0.117 ppb	0.046 ppb
Concentration per Run 3	0.200 ppb	55.400 ppb	104.516 %	104.596 %	0.124 ppb	0.037 ppb
Concentration RSD	2.6 %	3.7 %	1.8 %	2.5 %	17.7 %	19.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	96	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447813-02 6020SL	Rack	2		
Analysis started at:	8/28/2024 1:06:28 PM	Vial	18		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.071 %	119.057 %	0.025 ppb	137,644.680 ppb	33,464.222 ppb	2.391 ppb	19,833.121 ppb	92,857.314 ppb	104.633 %
Concentration per Run 1	96.823 %	113.753 %	0.011 ppb	139,742.114 ppb	33,917.318 ppb	1.986 ppb	20,084.425 ppb	94,105.733 ppb	102.443 %
Concentration per Run 2	98.388 %	119.057 %	0.035 ppb	137,686.501 ppb	33,578.682 ppb	2.991 ppb	19,701.313 ppb	89,863.538 ppb	104.506 %
Concentration per Run 3	99.002 %	124.362 %	0.030 ppb	135,505.424 ppb	32,896.665 ppb	2.196 ppb	19,713.626 ppb	94,602.671 ppb	106.950 %
Concentration RSD	1.1 %	4.5 %	49.2 %	1.5 %	1.6 %	22.2 %	1.1 %	2.8 %	2.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	111.332 %	2.411 ppb	0.230 ppb	1,111.963 ppb	139.176 ppb	0.285 ppb	4.546 ppb	0.157 ppb	0.375 ppb
Concentration per Run 1	105.025 %	2.651 ppb	0.301 ppb	1,117.304 ppb	145.946 ppb	0.337 ppb	4.268 ppb	0.227 ppb	0.321 ppb
Concentration per Run 2	121.702 %	1.992 ppb	0.154 ppb	1,061.951 ppb	129.585 ppb	0.258 ppb	4.488 ppb	0.135 ppb	0.410 ppb
Concentration per Run 3	107.269 %	2.591 ppb	0.236 ppb	1,156.633 ppb	141.998 ppb	0.261 ppb	4.883 ppb	0.109 ppb	0.393 ppb
Concentration RSD	8.1 %	15.1 %	32.1 %	4.3 %	6.1 %	15.7 %	6.9 %	39.3 %	12.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.519 %	2.097 ppb	0.042 ppb	295.697 ppb	8.530 ppb	96.591 %	0.001 ppb	0.006 ppb	99.743 %
Concentration per Run 1	102.626 %	2.019 ppb	0.095 ppb	284.304 ppb	8.385 ppb	96.162 %	0.004 ppb	0.010 ppb	97.465 %
Concentration per Run 2	107.742 %	2.067 ppb	0.095 ppb	304.122 ppb	8.489 ppb	98.308 %	-0.001 ppb	0.005 ppb	104.497 %
Concentration per Run 3	97.188 %	2.203 ppb	-0.065 ppb	298.666 ppb	8.715 ppb	95.304 %	0.001 ppb	0.005 ppb	97.269 %
Concentration RSD	5.1 %	4.6 %	221.6 %	3.5 %	2.0 %	1.6 %	216.0 %	44.9 %	4.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.316 ppb	28.749 ppb	103.839 %	106.296 %	0.042 ppb	0.024 ppb
Concentration per Run 1	0.307 ppb	27.962 ppb	102.199 %	103.382 %	0.027 ppb	0.026 ppb
Concentration per Run 2	0.331 ppb	29.009 ppb	106.898 %	111.058 %	0.049 ppb	0.021 ppb
Concentration per Run 3	0.311 ppb	29.276 ppb	102.419 %	104.447 %	0.049 ppb	0.024 ppb
Concentration RSD	4.1 %	2.4 %	2.6 %	3.9 %	30.7 %	11.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	97	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447813-03 6020SL	Rack	2		
Analysis started at:	8/28/2024 1:10:56 PM	Vial	19		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.174 %	132.417 %	0.015 ppb	136,865.646 ppb	32,728.893 ppb	3.335 ppb	14,838.471 ppb	111,475.523 ppb	105.525 %
Concentration per Run 1	99.153 %	126.130 %	0.003 ppb	139,088.365 ppb	33,484.271 ppb	2.754 ppb	14,822.114 ppb	114,380.924 ppb	105.121 %
Concentration per Run 2	100.789 %	125.540 %	0.019 ppb	141,011.259 ppb	33,531.421 ppb	4.514 ppb	15,073.167 ppb	108,728.361 ppb	106.108 %
Concentration per Run 3	100.579 %	145.580 %	0.024 ppb	130,497.315 ppb	31,170.987 ppb	2.736 ppb	14,620.130 ppb	111,317.285 ppb	105.345 %
Concentration RSD	0.9 %	8.6 %	72.0 %	4.1 %	4.1 %	30.6 %	1.5 %	2.5 %	0.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	108.392 %	0.260 ppb	0.071 ppb	25.507 ppb	19.073 ppb	0.600 ppb	5.976 ppb	1.057 ppb	0.706 ppb
Concentration per Run 1	101.817 %	0.280 ppb	0.061 ppb	25.249 ppb	12.651 ppb	0.632 ppb	6.531 ppb	1.270 ppb	0.745 ppb
Concentration per Run 2	116.089 %	0.131 ppb	0.062 ppb	25.960 ppb	20.599 ppb	0.711 ppb	5.819 ppb	0.909 ppb	0.714 ppb
Concentration per Run 3	107.269 %	0.367 ppb	0.092 ppb	25.312 ppb	23.969 ppb	0.459 ppb	5.579 ppb	0.991 ppb	0.658 ppb
Concentration RSD	6.6 %	46.1 %	25.0 %	1.5 %	30.5 %	21.5 %	8.3 %	17.9 %	6.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.139 %	0.345 ppb	0.200 ppb	368.017 ppb	0.570 ppb	98.871 %	0.001 ppb	0.025 ppb	100.751 %
Concentration per Run 1	102.320 %	0.423 ppb	0.329 ppb	359.036 ppb	0.605 ppb	98.600 %	-0.001 ppb	0.033 ppb	98.466 %
Concentration per Run 2	111.879 %	0.317 ppb	0.163 ppb	373.182 ppb	0.608 ppb	99.848 %	0.004 ppb	0.018 ppb	104.205 %
Concentration per Run 3	101.219 %	0.294 ppb	0.107 ppb	371.833 ppb	0.498 ppb	98.165 %	-0.001 ppb	0.024 ppb	99.583 %
Concentration RSD	5.6 %	20.0 %	57.9 %	2.1 %	10.9 %	0.9 %	521.8 %	30.4 %	3.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.155 ppb	43.454 ppb	105.227 %	106.096 %	0.056 ppb	0.032 ppb
Concentration per Run 1	0.157 ppb	41.335 ppb	104.220 %	102.940 %	0.047 ppb	0.037 ppb
Concentration per Run 2	0.157 ppb	44.591 ppb	106.214 %	109.405 %	0.055 ppb	0.031 ppb
Concentration per Run 3	0.153 ppb	44.437 ppb	105.246 %	105.942 %	0.066 ppb	0.029 ppb
Concentration RSD	1.6 %	4.2 %	0.9 %	3.0 %	16.5 %	12.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	98	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 1:15:25 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.329 %	136.346 %	61.864 ppb	6,355.318 ppb	6,499.469 ppb	63.950 ppb	6,261.421 ppb	6,091.643 ppb	104.309 %
Concentration per Run 1	102.437 %	137.918 %	61.815 ppb	6,271.675 ppb	6,384.890 ppb	60.886 ppb	6,042.497 ppb	5,935.406 ppb	102.669 %
Concentration per Run 2	103.642 %	115.521 %	61.739 ppb	6,900.696 ppb	6,305.511 ppb	62.476 ppb	6,168.245 ppb	5,763.757 ppb	104.922 %
Concentration per Run 3	103.908 %	155.600 %	62.038 ppb	5,893.582 ppb	6,808.006 ppb	68.489 ppb	6,573.521 ppb	6,575.765 ppb	105.336 %
Recovery Percentage 1			103.106 %	105.922 %	108.324 %	106.584 %	104.357 %	101.527 %	
Concentration RSD	0.8 %	14.7 %	0.3 %	8.0 %	4.2 %	6.3 %	4.4 %	7.0 %	1.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	112.561 %	63.418 ppb	62.844 ppb	62.815 ppb	6,273.575 ppb	62.413 ppb	62.910 ppb	61.340 ppb	62.090 ppb
Concentration per Run 1	108.873 %	62.444 ppb	63.249 ppb	61.880 ppb	6,458.312 ppb	64.439 ppb	64.094 ppb	62.941 ppb	63.967 ppb
Concentration per Run 2	111.278 %	60.850 ppb	62.237 ppb	63.759 ppb	6,103.955 ppb	61.552 ppb	63.155 ppb	61.578 ppb	60.723 ppb
Concentration per Run 3	117.533 %	66.960 ppb	63.045 ppb	62.807 ppb	6,258.458 ppb	61.248 ppb	61.482 ppb	59.502 ppb	61.578 ppb
Recovery Percentage 1		105.696 %	104.740 %	104.692 %	104.560 %	104.022 %	104.850 %	102.234 %	103.483 %
Concentration RSD	4.0 %	5.0 %	0.9 %	1.5 %	2.8 %	2.8 %	2.1 %	2.8 %	2.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	107.975 %	61.142 ppb	61.668 ppb	57.582 ppb	59.831 ppb	105.854 %	60.976 ppb	60.445 ppb	104.964 %
Concentration per Run 1	106.321 %	60.817 ppb	62.296 ppb	56.154 ppb	58.745 ppb	106.632 %	60.215 ppb	60.330 ppb	103.900 %
Concentration per Run 2	107.247 %	61.566 ppb	60.085 ppb	57.628 ppb	60.197 ppb	105.500 %	61.325 ppb	60.196 ppb	104.349 %
Concentration per Run 3	110.356 %	61.041 ppb	62.622 ppb	58.965 ppb	60.550 ppb	105.430 %	61.389 ppb	60.808 ppb	106.642 %
Recovery Percentage 1		101.903 %	102.780 %	95.971 %	99.718 %		101.627 %	100.741 %	
Concentration RSD	2.0 %	0.6 %	2.2 %	2.4 %	1.6 %	0.6 %	1.1 %	0.5 %	1.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	59.682 ppb	59.288 ppb	106.546 %	107.830 %	61.392 ppb	61.692 ppb
Concentration per Run 1	59.067 ppb	57.290 ppb	105.067 %	105.382 %	62.019 ppb	61.585 ppb
Concentration per Run 2	60.295 ppb	59.801 ppb	105.829 %	108.557 %	60.857 ppb	61.375 ppb
Concentration per Run 3	59.684 ppb	60.772 ppb	108.740 %	109.549 %	61.299 ppb	62.117 ppb
Recovery Percentage 1	99.470 %	98.813 %			102.319 %	102.821 %
Concentration RSD	1.0 %	3.0 %	1.8 %	2.0 %	1.0 %	0.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	99	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 1:19:57 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.261 %	127.505 %	0.066 ppb	267.044 ppb	66.107 ppb	0.105 ppb	25.843 ppb	135.974 ppb	101.841 %
Concentration per Run 1	104.147 %	116.700 %	0.066 ppb	281.214 ppb	76.344 ppb	0.254 ppb	32.759 ppb	211.754 ppb	101.238 %
Concentration per Run 2	104.562 %	130.845 %	0.070 ppb	314.448 ppb	76.113 ppb	0.276 ppb	25.678 ppb	110.400 ppb	102.565 %
Concentration per Run 3	104.074 %	134.971 %	0.063 ppb	205.471 ppb	45.862 ppb	-0.215 ppb	19.092 ppb	85.767 ppb	101.719 %
Recovery Percentage 1			13.261 %	267.044 %	94.438 %	1.048 %	25.843 %	135.974 %	
Concentration RSD	0.3 %	7.5 %	5.1 %	20.9 %	26.5 %	264.8 %	26.4 %	49.1 %	0.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	110.851 %	-0.032 ppb	0.091 ppb	0.864 ppb	9.902 ppb	0.062 ppb	0.087 ppb	0.136 ppb	-0.008 ppb
Concentration per Run 1	111.118 %	-0.096 ppb	0.068 ppb	1.023 ppb	11.398 ppb	0.066 ppb	0.091 ppb	0.103 ppb	-0.002 ppb
Concentration per Run 2	102.780 %	0.084 ppb	0.112 ppb	0.991 ppb	12.153 ppb	0.078 ppb	0.073 ppb	0.111 ppb	0.020 ppb
Concentration per Run 3	118.655 %	-0.083 ppb	0.092 ppb	0.577 ppb	6.156 ppb	0.041 ppb	0.098 ppb	0.193 ppb	-0.043 ppb
Recovery Percentage 1		-0.632 %	9.074 %	86.358 %	19.804 %	12.314 %	4.367 %	13.563 %	-0.164 %
Concentration RSD	7.2 %	318.6 %	24.3 %	28.8 %	33.0 %	30.9 %	15.1 %	36.8 %	387.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.687 %	0.063 ppb	0.194 ppb	0.551 ppb	0.334 ppb	103.637 %	0.073 ppb	0.063 ppb	103.852 %
Concentration per Run 1	99.879 %	0.075 ppb	0.026 ppb	0.580 ppb	0.202 ppb	101.848 %	0.085 ppb	0.069 ppb	101.910 %
Concentration per Run 2	98.000 %	0.080 ppb	0.033 ppb	0.610 ppb	0.322 ppb	103.243 %	0.083 ppb	0.064 ppb	101.091 %
Concentration per Run 3	113.181 %	0.034 ppb	0.523 ppb	0.462 ppb	0.477 ppb	105.820 %	0.050 ppb	0.057 ppb	108.555 %
Recovery Percentage 1		12.544 %	3.880 %	5.509 %	16.676 %		18.157 %	31.635 %	
Concentration RSD	8.0 %	40.3 %	146.8 %	14.2 %	41.4 %	1.9 %	27.6 %	9.9 %	3.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.263 ppb	0.123 ppb	105.329 %	106.334 %	0.308 ppb	0.086 ppb
Concentration per Run 1	0.217 ppb	0.148 ppb	103.336 %	102.323 %	0.273 ppb	0.094 ppb
Concentration per Run 2	0.311 ppb	0.148 ppb	104.359 %	105.142 %	0.371 ppb	0.098 ppb
Concentration per Run 3	0.261 ppb	0.072 ppb	108.293 %	111.538 %	0.281 ppb	0.065 ppb
Recovery Percentage 1	6.581 %	24.576 %			30.833 %	8.561 %
Concentration RSD	17.9 %	35.9 %	2.5 %	4.4 %	17.7 %	21.3 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	100	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 1:26:52 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.543 %	119.450 %	0.025 ppb	58.688 ppb	13.442 ppb	-0.484 ppb	1.078 ppb	31.687 ppb	100.382 %
Concentration per Run 1	100.999 %	110.806 %	0.023 ppb	40.050 ppb	6.094 ppb	-0.462 ppb	-13.247 ppb	11.376 ppb	99.017 %
Concentration per Run 2	103.625 %	114.931 %	0.038 ppb	63.406 ppb	14.751 ppb	-0.482 ppb	9.612 ppb	48.091 ppb	101.448 %
Concentration per Run 3	103.004 %	132.613 %	0.015 ppb	72.607 ppb	19.482 ppb	-0.508 ppb	6.868 ppb	35.595 ppb	100.681 %
Recovery Percentage 1			5.082 %	58.688 %	19.203 %	-4.838 %	1.078 %	31.687 %	
Concentration RSD	1.3 %	9.7 %	47.3 %	28.6 %	50.5 %	4.7 %	1,158.1 %	58.9 %	1.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	105.987 %	-0.050 ppb	0.075 ppb	0.363 ppb	1.265 ppb	0.010 ppb	0.124 ppb	0.023 ppb	-0.028 ppb
Concentration per Run 1	104.383 %	-0.070 ppb	0.052 ppb	0.221 ppb	-0.030 ppb	-0.005 ppb	0.126 ppb	-0.018 ppb	-0.083 ppb
Concentration per Run 2	108.873 %	-0.073 ppb	0.064 ppb	0.400 ppb	2.554 ppb	0.024 ppb	0.069 ppb	0.072 ppb	0.007 ppb
Concentration per Run 3	104.704 %	-0.006 ppb	0.109 ppb	0.469 ppb	1.271 ppb	0.010 ppb	0.177 ppb	0.016 ppb	-0.008 ppb
Recovery Percentage 1		-0.997 %	7.513 %	36.308 %	2.530 %	1.926 %	6.196 %	2.346 %	-0.557 %
Concentration RSD	2.4 %	75.5 %	40.1 %	35.3 %	102.1 %	152.5 %	43.5 %	195.2 %	174.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	98.428 %	-0.022 ppb	0.027 ppb	0.136 ppb	0.064 ppb	100.596 %	0.016 ppb	0.014 ppb	99.497 %
Concentration per Run 1	98.128 %	-0.098 ppb	0.118 ppb	0.060 ppb	0.041 ppb	100.952 %	0.006 ppb	0.014 ppb	99.292 %
Concentration per Run 2	96.699 %	0.058 ppb	0.010 ppb	0.166 ppb	0.072 ppb	98.067 %	0.025 ppb	0.000 ppb	96.726 %
Concentration per Run 3	100.458 %	-0.026 ppb	-0.047 ppb	0.181 ppb	0.079 ppb	102.770 %	0.019 ppb	0.027 ppb	102.474 %
Recovery Percentage 1		-4.447 %	0.538 %	1.358 %	3.197 %		4.097 %	6.908 %	
Concentration RSD	1.9 %	351.6 %	311.5 %	48.4 %	31.6 %	2.4 %	60.1 %	99.1 %	2.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.088 ppb	0.059 ppb	103.182 %	104.757 %	0.073 ppb	0.024 ppb
Concentration per Run 1	0.079 ppb	0.063 ppb	102.984 %	103.859 %	0.036 ppb	0.013 ppb
Concentration per Run 2	0.081 ppb	0.080 ppb	101.559 %	102.804 %	0.088 ppb	0.028 ppb
Concentration per Run 3	0.103 ppb	0.033 ppb	105.004 %	107.608 %	0.096 ppb	0.032 ppb
Recovery Percentage 1	2.189 %	11.708 %			7.339 %	2.449 %
Concentration RSD	15.0 %	40.4 %	1.7 %	2.4 %	44.5 %	40.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	101	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964418-1 6020SL	Rack	2		
Analysis started at:	8/28/2024 1:31:56 PM	Vial	8		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.437 %	123.379 %	0.023 ppb	41.366 ppb	11.802 ppb	2.498 ppb	-11.426 ppb	51.963 ppb	100.254 %
Concentration per Run 1	101.482 %	126.130 %	0.024 ppb	44.206 ppb	15.980 ppb	1.656 ppb	-6.531 ppb	54.573 ppb	100.602 %
Concentration per Run 2	100.869 %	127.898 %	0.020 ppb	37.664 ppb	8.511 ppb	2.239 ppb	-19.084 ppb	51.366 ppb	99.890 %
Concentration per Run 3	101.960 %	116.110 %	0.025 ppb	42.228 ppb	10.913 ppb	3.599 ppb	-8.662 ppb	49.952 ppb	100.272 %
Concentration RSD	0.5 %	5.2 %	11.5 %	8.1 %	32.3 %	39.9 %	58.8 %	4.6 %	0.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	108.445 %	-0.094 ppb	0.109 ppb	0.183 ppb	3.790 ppb	0.031 ppb	0.147 ppb	0.218 ppb	0.708 ppb
Concentration per Run 1	109.835 %	-0.157 ppb	0.061 ppb	0.117 ppb	4.932 ppb	0.023 ppb	0.062 ppb	0.098 ppb	0.613 ppb
Concentration per Run 2	109.514 %	-0.095 ppb	0.063 ppb	0.181 ppb	1.846 ppb	0.038 ppb	0.199 ppb	0.248 ppb	0.736 ppb
Concentration per Run 3	105.987 %	-0.029 ppb	0.202 ppb	0.249 ppb	4.591 ppb	0.032 ppb	0.178 ppb	0.309 ppb	0.774 ppb
Concentration RSD	2.0 %	68.7 %	74.4 %	36.1 %	44.6 %	24.5 %	50.2 %	49.8 %	11.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	100.524 %	-0.005 ppb	-0.030 ppb	0.104 ppb	0.009 ppb	99.647 %	0.017 ppb	0.011 ppb	99.095 %
Concentration per Run 1	104.217 %	-0.019 ppb	-0.069 ppb	0.111 ppb	0.000 ppb	98.880 %	0.021 ppb	0.014 ppb	97.656 %
Concentration per Run 2	99.157 %	-0.011 ppb	-0.061 ppb	0.100 ppb	0.014 ppb	100.031 %	0.014 ppb	0.014 ppb	98.819 %
Concentration per Run 3	98.200 %	0.016 ppb	0.039 ppb	0.102 ppb	0.014 ppb	100.030 %	0.016 ppb	0.005 ppb	100.809 %
Concentration RSD	3.2 %	374.6 %	197.4 %	5.4 %	87.8 %	0.7 %	21.8 %	50.1 %	1.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.050 ppb	0.107 ppb	103.211 %	102.922 %	0.045 ppb	0.020 ppb
Concentration per Run 1	0.042 ppb	0.167 ppb	102.390 %	101.398 %	0.029 ppb	0.026 ppb
Concentration per Run 2	0.047 ppb	0.048 ppb	104.479 %	104.477 %	0.048 ppb	0.021 ppb
Concentration per Run 3	0.060 ppb	0.106 ppb	102.765 %	102.891 %	0.059 ppb	0.014 ppb
Concentration RSD	18.3 %	55.5 %	1.1 %	1.5 %	32.8 %	30.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	102	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964756-1 2008TL	Rack	2		
Analysis started at:	8/28/2024 1:36:24 PM	Vial	34		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.598 %	115.521 %	0.002 ppb	16.232 ppb	6.920 ppb	1.464 ppb	-1.387 ppb	18.257 ppb	99.134 %
Concentration per Run 1	101.588 %	130.256 %	0.010 ppb	7.041 ppb	5.547 ppb	2.107 ppb	-2.797 ppb	8.571 ppb	99.003 %
Concentration per Run 2	101.615 %	108.448 %	0.002 ppb	16.941 ppb	7.832 ppb	1.411 ppb	5.041 ppb	5.928 ppb	98.855 %
Concentration per Run 3	101.592 %	107.859 %	-0.005 ppb	24.714 ppb	7.381 ppb	0.874 ppb	-6.404 ppb	40.274 ppb	99.544 %
Concentration RSD	0.0 %	11.0 %	331.0 %	54.6 %	17.5 %	42.3 %	421.9 %	104.7 %	0.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	99.038 %	-0.088 ppb	0.017 ppb	0.185 ppb	0.978 ppb	0.007 ppb	0.049 ppb	0.020 ppb	0.454 ppb
Concentration per Run 1	99.893 %	-0.088 ppb	0.025 ppb	0.097 ppb	0.701 ppb	0.010 ppb	0.019 ppb	0.056 ppb	0.388 ppb
Concentration per Run 2	92.677 %	-0.107 ppb	-0.018 ppb	0.207 ppb	2.279 ppb	-0.005 ppb	0.140 ppb	0.024 ppb	0.357 ppb
Concentration per Run 3	104.544 %	-0.070 ppb	0.045 ppb	0.250 ppb	-0.044 ppb	0.017 ppb	-0.011 ppb	-0.019 ppb	0.616 ppb
Concentration RSD	6.0 %	20.4 %	185.8 %	42.7 %	121.2 %	153.4 %	162.9 %	187.1 %	31.1 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	98.712 %	-0.044 ppb	-0.002 ppb	0.049 ppb	-0.009 ppb	101.552 %	0.008 ppb	0.006 ppb	100.448 %
Concentration per Run 1	98.923 %	-0.024 ppb	0.032 ppb	0.037 ppb	-0.014 ppb	102.298 %	0.009 ppb	0.005 ppb	100.918 %
Concentration per Run 2	97.550 %	-0.072 ppb	0.029 ppb	0.051 ppb	-0.014 ppb	100.946 %	0.007 ppb	0.009 ppb	100.255 %
Concentration per Run 3	99.663 %	-0.037 ppb	-0.067 ppb	0.059 ppb	-0.001 ppb	101.413 %	0.009 ppb	0.005 ppb	100.170 %
Concentration RSD	1.1 %	56.8 %	3,140.8 %	22.6 %	81.9 %	0.7 %	11.1 %	43.6 %	0.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.023 ppb	0.014 ppb	103.644 %	103.715 %	0.032 ppb	0.013 ppb
Concentration per Run 1	0.011 ppb	0.033 ppb	103.817 %	103.355 %	0.019 ppb	0.008 ppb
Concentration per Run 2	0.023 ppb	-0.010 ppb	103.281 %	103.454 %	0.039 ppb	0.012 ppb
Concentration per Run 3	0.033 ppb	0.019 ppb	103.836 %	104.335 %	0.039 ppb	0.018 ppb
Concentration RSD	48.0 %	154.5 %	0.3 %	0.5 %	34.9 %	37.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	103	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964756-2d10 2008TL	Rack	2		
Analysis started at:	8/28/2024 1:40:54 PM	Vial	35		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.234 %	119.843 %	5.295 ppb	1,176.260 ppb	1,107.071 ppb	212.414 ppb	1,070.169 ppb	1,100.433 ppb	102.540 %
Concentration per Run 1	102.512 %	116.110 %	5.329 ppb	1,177.199 ppb	1,029.988 ppb	207.197 ppb	1,078.421 ppb	1,146.362 ppb	101.730 %
Concentration per Run 2	103.557 %	123.183 %	5.251 ppb	1,154.270 ppb	1,178.507 ppb	206.628 ppb	1,083.020 ppb	1,038.036 ppb	103.285 %
Concentration per Run 3	103.632 %	120.236 %	5.305 ppb	1,197.310 ppb	1,112.717 ppb	223.418 ppb	1,049.065 ppb	1,116.903 ppb	102.606 %
Concentration RSD	0.6 %	3.0 %	0.8 %	1.8 %	6.7 %	4.5 %	1.7 %	5.1 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	107.269 %	52.623 ppb	20.811 ppb	52.028 ppb	100.363 ppb	52.015 ppb	51.065 ppb	25.281 ppb	51.689 ppb
Concentration per Run 1	112.401 %	49.751 ppb	20.338 ppb	48.150 ppb	95.242 ppb	50.222 ppb	50.265 ppb	24.441 ppb	50.435 ppb
Concentration per Run 2	103.261 %	54.582 ppb	20.955 ppb	54.582 ppb	97.721 ppb	52.529 ppb	50.229 ppb	26.350 ppb	51.638 ppb
Concentration per Run 3	106.147 %	53.536 ppb	21.140 ppb	53.353 ppb	108.126 ppb	53.294 ppb	52.700 ppb	25.052 ppb	52.993 ppb
Concentration RSD	4.4 %	4.8 %	2.0 %	6.6 %	6.8 %	3.1 %	2.8 %	3.9 %	2.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.087 %	11.631 ppb	11.017 ppb	91.036 ppb	98.974 ppb	102.178 %	5.091 ppb	5.451 ppb	100.287 %
Concentration per Run 1	101.363 %	11.809 ppb	10.370 ppb	90.871 ppb	97.238 ppb	104.356 %	5.070 ppb	5.311 ppb	100.652 %
Concentration per Run 2	101.240 %	11.053 ppb	12.184 ppb	87.686 ppb	99.823 ppb	99.566 %	5.241 ppb	5.718 ppb	95.738 %
Concentration per Run 3	103.659 %	12.029 ppb	10.495 ppb	94.551 ppb	99.862 ppb	102.612 %	4.963 ppb	5.323 ppb	104.470 %
Concentration RSD	1.3 %	4.4 %	9.2 %	3.8 %	1.5 %	2.4 %	2.7 %	4.2 %	4.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	42.909 ppb	196.405 ppb	103.895 %	104.545 %	11.631 ppb	55.254 ppb
Concentration per Run 1	41.649 ppb	195.859 ppb	103.333 %	103.937 %	11.529 ppb	54.686 ppb
Concentration per Run 2	43.945 ppb	197.319 ppb	102.688 %	102.453 %	11.674 ppb	56.580 ppb
Concentration per Run 3	43.132 ppb	196.036 ppb	105.664 %	107.244 %	11.690 ppb	54.497 ppb
Concentration RSD	2.7 %	0.4 %	1.5 %	2.3 %	0.8 %	2.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	104	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447813-04 6020SL	Rack	2		
Analysis started at:	8/28/2024 1:45:24 PM	Vial	20		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.673 %	107.466 %	0.001 ppb	194,726.229 ppb	14,374.682 ppb	4.253 ppb	18,828.811 ppb	86,003.335 ppb	105.034 %
Concentration per Run 1	95.170 %	106.090 %	0.001 ppb	194,976.623 ppb	14,449.336 ppb	3.263 ppb	19,072.540 ppb	88,185.524 ppb	103.380 %
Concentration per Run 2	95.707 %	103.143 %	0.002 ppb	199,096.772 ppb	14,504.576 ppb	5.440 ppb	18,617.185 ppb	83,839.285 ppb	104.848 %
Concentration per Run 3	96.142 %	113.163 %	-0.001 ppb	190,105.293 ppb	14,170.133 ppb	4.055 ppb	18,796.709 ppb	85,985.196 ppb	106.874 %
Concentration RSD	0.5 %	4.8 %	176.9 %	2.3 %	1.2 %	25.9 %	1.2 %	2.5 %	1.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	100.161 %	0.340 ppb	0.239 ppb	916.985 ppb	8,430.443 ppb	0.172 ppb	1.126 ppb	0.195 ppb	0.406 ppb
Concentration per Run 1	100.053 %	0.203 ppb	0.199 ppb	924.683 ppb	8,431.293 ppb	0.118 ppb	1.033 ppb	0.134 ppb	0.381 ppb
Concentration per Run 2	94.923 %	0.437 ppb	0.292 ppb	912.924 ppb	8,534.713 ppb	0.240 ppb	1.398 ppb	0.209 ppb	0.458 ppb
Concentration per Run 3	105.506 %	0.380 ppb	0.225 ppb	913.348 ppb	8,325.322 ppb	0.159 ppb	0.946 ppb	0.240 ppb	0.379 ppb
Concentration RSD	5.3 %	35.9 %	20.1 %	0.7 %	1.2 %	35.9 %	21.3 %	27.9 %	11.1 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	94.429 %	3.628 ppb	0.005 ppb	470.981 ppb	1.661 ppb	91.904 %	0.002 ppb	0.002 ppb	92.470 %
Concentration per Run 1	96.265 %	3.487 ppb	0.206 ppb	463.162 ppb	1.545 ppb	93.367 %	0.004 ppb	0.000 ppb	92.568 %
Concentration per Run 2	90.339 %	3.834 ppb	-0.055 ppb	466.395 ppb	1.629 ppb	90.270 %	0.005 ppb	0.005 ppb	90.004 %
Concentration per Run 3	96.682 %	3.563 ppb	-0.135 ppb	483.386 ppb	1.808 ppb	92.075 %	-0.003 ppb	0.000 ppb	94.838 %
Concentration RSD	3.8 %	5.0 %	3,435.2 %	2.3 %	8.1 %	1.7 %	202.9 %	173.2 %	2.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	1.170 ppb	70.207 ppb	100.504 %	101.118 %	0.025 ppb	0.066 ppb
Concentration per Run 1	1.145 ppb	68.479 ppb	101.556 %	101.677 %	0.019 ppb	0.070 ppb
Concentration per Run 2	1.094 ppb	71.598 ppb	98.639 %	98.611 %	0.031 ppb	0.064 ppb
Concentration per Run 3	1.272 ppb	70.543 ppb	101.318 %	103.066 %	0.024 ppb	0.064 ppb
Concentration RSD	7.8 %	2.3 %	1.6 %	2.3 %	24.6 %	5.3 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	105	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447813-05 6020SL	Rack	2		
Analysis started at:	8/28/2024 1:49:52 PM	Vial	21		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.702 %	110.216 %	0.002 ppb	248,972.836 ppb	47,329.802 ppb	12.667 ppb	21,642.809 ppb	72,135.312 ppb	104.158 %
Concentration per Run 1	96.475 %	105.501 %	-0.001 ppb	250,731.494 ppb	47,835.980 ppb	10.765 ppb	21,843.191 ppb	73,547.693 ppb	104.062 %
Concentration per Run 2	95.196 %	97.250 %	0.007 ppb	266,898.896 ppb	50,254.253 ppb	14.079 ppb	22,584.374 ppb	74,130.103 ppb	103.384 %
Concentration per Run 3	95.435 %	127.898 %	-0.001 ppb	229,288.116 ppb	43,899.174 ppb	13.157 ppb	20,500.862 ppb	68,728.140 ppb	105.026 %
Concentration RSD	0.7 %	14.4 %	261.9 %	7.6 %	6.8 %	13.5 %	4.9 %	4.1 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	102.993 %	0.939 ppb	0.337 ppb	660.270 ppb	2,716.089 ppb	0.184 ppb	5.157 ppb	0.225 ppb	0.402 ppb
Concentration per Run 1	101.176 %	1.016 ppb	0.285 ppb	666.046 ppb	2,705.210 ppb	0.185 ppb	5.174 ppb	0.204 ppb	0.421 ppb
Concentration per Run 2	100.855 %	0.997 ppb	0.376 ppb	678.891 ppb	2,779.068 ppb	0.215 ppb	5.269 ppb	0.113 ppb	0.422 ppb
Concentration per Run 3	106.949 %	0.802 ppb	0.350 ppb	635.874 ppb	2,663.988 ppb	0.152 ppb	5.028 ppb	0.357 ppb	0.363 ppb
Concentration RSD	3.3 %	12.6 %	13.8 %	3.3 %	2.1 %	17.4 %	2.4 %	54.9 %	8.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	100.482 %	1.798 ppb	-0.033 ppb	531.490 ppb	0.297 ppb	92.486 %	0.001 ppb	0.000 ppb	93.739 %
Concentration per Run 1	98.072 %	1.816 ppb	-0.145 ppb	534.280 ppb	0.241 ppb	90.790 %	0.003 ppb	0.000 ppb	91.735 %
Concentration per Run 2	97.928 %	1.945 ppb	0.025 ppb	535.304 ppb	0.266 ppb	92.735 %	0.003 ppb	0.000 ppb	92.741 %
Concentration per Run 3	105.446 %	1.631 ppb	0.021 ppb	524.886 ppb	0.383 ppb	93.933 %	-0.001 ppb	0.000 ppb	96.741 %
Concentration RSD	4.3 %	8.8 %	293.2 %	1.1 %	25.4 %	1.7 %	148.5 %	N/A	2.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.386 ppb	217.739 ppb	100.015 %	101.186 %	0.014 ppb	0.026 ppb
Concentration per Run 1	0.315 ppb	220.278 ppb	98.371 %	100.392 %	0.004 ppb	0.028 ppb
Concentration per Run 2	0.398 ppb	216.334 ppb	99.036 %	100.177 %	0.018 ppb	0.025 ppb
Concentration per Run 3	0.444 ppb	216.606 ppb	102.637 %	102.990 %	0.020 ppb	0.025 ppb
Concentration RSD	16.9 %	1.0 %	2.3 %	1.5 %	63.5 %	6.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	106	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2447965-01 2008TL	Rack	2		
Analysis started at:	8/28/2024 1:54:22 PM	Vial	36		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.643 %	114.538 %	0.008 ppb	60,708.970 ppb	2,751.536 ppb	23.016 ppb	10,057.817 ppb	14,194.163 ppb	102.665 %
Concentration per Run 1	101.815 %	120.236 %	0.007 ppb	70,960.897 ppb	2,769.924 ppb	22.345 ppb	10,799.105 ppb	15,536.479 ppb	101.385 %
Concentration per Run 2	101.162 %	109.037 %	0.009 ppb	56,447.266 ppb	2,776.748 ppb	21.986 ppb	10,058.101 ppb	14,195.785 ppb	102.832 %
Concentration per Run 3	101.951 %	114.342 %	0.008 ppb	54,718.746 ppb	2,707.936 ppb	24.718 ppb	9,316.246 ppb	12,850.224 ppb	103.780 %
Concentration RSD	0.4 %	4.9 %	14.3 %	14.7 %	1.4 %	6.5 %	7.4 %	9.5 %	1.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	104.490 %	0.377 ppb	0.545 ppb	51.535 ppb	132.787 ppb	0.360 ppb	1.564 ppb	6.874 ppb	14.731 ppb
Concentration per Run 1	96.686 %	0.315 ppb	0.550 ppb	51.966 ppb	145.753 ppb	0.333 ppb	1.887 ppb	7.451 ppb	14.770 ppb
Concentration per Run 2	105.987 %	0.428 ppb	0.596 ppb	51.175 ppb	125.338 ppb	0.320 ppb	1.298 ppb	7.069 ppb	14.554 ppb
Concentration per Run 3	110.797 %	0.388 ppb	0.489 ppb	51.464 ppb	127.270 ppb	0.426 ppb	1.508 ppb	6.101 ppb	14.868 ppb
Concentration RSD	6.9 %	15.2 %	9.9 %	0.8 %	8.5 %	16.1 %	19.1 %	10.1 %	1.1 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	108.037 %	0.318 ppb	0.142 ppb	73.693 ppb	1.934 ppb	103.231 %	0.019 ppb	0.017 ppb	101.473 %
Concentration per Run 1	109.205 %	0.305 ppb	0.149 ppb	72.751 ppb	1.969 ppb	103.065 %	0.029 ppb	0.018 ppb	101.610 %
Concentration per Run 2	108.337 %	0.309 ppb	0.020 ppb	73.945 ppb	1.900 ppb	102.764 %	0.010 ppb	0.019 ppb	100.115 %
Concentration per Run 3	106.568 %	0.340 ppb	0.256 ppb	74.384 ppb	1.933 ppb	103.863 %	0.017 ppb	0.014 ppb	102.694 %
Concentration RSD	1.2 %	6.1 %	83.3 %	1.1 %	1.8 %	0.6 %	49.3 %	16.5 %	1.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.478 ppb	12.783 ppb	104.503 %	105.217 %	0.033 ppb	0.441 ppb
Concentration per Run 1	0.481 ppb	12.341 ppb	104.976 %	105.530 %	0.024 ppb	0.459 ppb
Concentration per Run 2	0.476 ppb	12.778 ppb	103.794 %	104.520 %	0.034 ppb	0.436 ppb
Concentration per Run 3	0.477 ppb	13.230 ppb	104.739 %	105.602 %	0.041 ppb	0.428 ppb
Concentration RSD	0.5 %	3.5 %	0.6 %	0.6 %	26.4 %	3.7 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	107	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964756-3d10 2008TL	Rack	2		
Analysis started at:	8/28/2024 1:58:52 PM	Vial	37		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.713 %	119.843 %	5.046 ppb	7,684.331 ppb	1,350.300 ppb	214.076 ppb	1,969.143 ppb	2,438.749 ppb	105.851 %
Concentration per Run 1	106.420 %	129.666 %	5.011 ppb	7,357.591 ppb	1,295.281 ppb	209.127 ppb	1,963.777 ppb	2,320.801 ppb	104.594 %
Concentration per Run 2	107.250 %	117.289 %	5.102 ppb	7,495.249 ppb	1,327.769 ppb	206.988 ppb	1,876.427 ppb	2,348.803 ppb	106.902 %
Concentration per Run 3	106.467 %	112.574 %	5.026 ppb	8,200.153 ppb	1,427.848 ppb	226.114 ppb	2,067.225 ppb	2,646.642 ppb	106.058 %
Concentration RSD	0.4 %	7.4 %	1.0 %	5.9 %	5.1 %	4.9 %	4.9 %	7.4 %	1.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	112.294 %	49.647 ppb	20.055 ppb	55.118 ppb	118.750 ppb	49.479 ppb	49.989 ppb	26.055 ppb	51.454 ppb
Concentration per Run 1	110.797 %	47.934 ppb	19.186 ppb	53.802 ppb	121.209 ppb	48.522 ppb	49.828 ppb	25.455 ppb	50.585 ppb
Concentration per Run 2	116.891 %	49.197 ppb	19.963 ppb	55.823 ppb	104.277 ppb	49.269 ppb	49.958 ppb	26.900 ppb	50.908 ppb
Concentration per Run 3	109.194 %	51.810 ppb	21.017 ppb	55.728 ppb	130.765 ppb	50.645 ppb	50.182 ppb	25.810 ppb	52.868 ppb
Concentration RSD	3.6 %	4.0 %	4.6 %	2.1 %	11.3 %	2.2 %	0.4 %	2.9 %	2.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	107.440 %	10.580 ppb	10.659 ppb	95.173 ppb	94.689 ppb	105.953 %	4.745 ppb	4.909 ppb	104.688 %
Concentration per Run 1	108.843 %	10.758 ppb	10.557 ppb	93.846 ppb	92.311 ppb	104.880 %	4.659 ppb	4.740 ppb	104.887 %
Concentration per Run 2	105.373 %	10.402 ppb	11.810 ppb	95.324 ppb	94.987 ppb	106.134 %	4.777 ppb	5.010 ppb	104.616 %
Concentration per Run 3	108.103 %	10.580 ppb	9.609 ppb	96.351 ppb	96.770 ppb	106.847 %	4.799 ppb	4.978 ppb	104.560 %
Concentration RSD	1.7 %	1.7 %	10.4 %	1.3 %	2.4 %	0.9 %	1.6 %	3.0 %	0.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	42.567 ppb	190.421 ppb	106.264 %	106.845 %	10.663 ppb	50.757 ppb
Concentration per Run 1	41.682 ppb	187.992 ppb	105.585 %	104.599 %	10.729 ppb	50.360 ppb
Concentration per Run 2	42.241 ppb	189.809 ppb	104.683 %	107.184 %	10.537 ppb	51.224 ppb
Concentration per Run 3	43.779 ppb	193.463 ppb	108.523 %	108.751 %	10.723 ppb	50.687 ppb
Concentration RSD	2.6 %	1.5 %	1.9 %	2.0 %	1.0 %	0.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	108	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964756-4 2008TL	Rack	2		
Analysis started at:	8/28/2024 2:03:21 PM	Vial	38		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.504 %	125.540 %	0.003 ppb	51,815.418 ppb	2,541.036 ppb	24.016 ppb	9,979.019 ppb	14,679.419 ppb	104.412 %
Concentration per Run 1	103.808 %	117.289 %	0.004 ppb	52,768.740 ppb	2,572.322 ppb	22.302 ppb	9,823.035 ppb	14,463.627 ppb	103.006 %
Concentration per Run 2	103.547 %	128.487 %	0.001 ppb	50,354.385 ppb	2,503.634 ppb	23.834 ppb	9,975.950 ppb	14,638.724 ppb	104.988 %
Concentration per Run 3	103.157 %	130.845 %	0.004 ppb	52,323.128 ppb	2,547.153 ppb	25.912 ppb	10,138.070 ppb	14,935.905 ppb	105.241 %
Concentration RSD	0.3 %	5.8 %	55.9 %	2.5 %	1.4 %	7.5 %	1.6 %	1.6 %	1.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	104.330 %	0.467 ppb	0.574 ppb	52.779 ppb	128.443 ppb	0.294 ppb	1.324 ppb	6.350 ppb	14.697 ppb
Concentration per Run 1	106.307 %	0.384 ppb	0.593 ppb	52.513 ppb	119.654 ppb	0.325 ppb	1.367 ppb	6.215 ppb	14.070 ppb
Concentration per Run 2	105.345 %	0.499 ppb	0.498 ppb	50.476 ppb	136.229 ppb	0.327 ppb	1.355 ppb	6.571 ppb	15.270 ppb
Concentration per Run 3	101.336 %	0.520 ppb	0.631 ppb	55.348 ppb	129.446 ppb	0.230 ppb	1.249 ppb	6.263 ppb	14.753 ppb
Concentration RSD	2.5 %	15.7 %	12.0 %	4.6 %	6.5 %	18.8 %	4.9 %	3.0 %	4.1 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.946 %	0.262 ppb	0.045 ppb	75.234 ppb	2.270 ppb	99.858 %	0.007 ppb	0.013 ppb	98.408 %
Concentration per Run 1	109.132 %	0.237 ppb	-0.139 ppb	72.994 ppb	2.225 ppb	100.949 %	0.006 ppb	0.019 ppb	99.008 %
Concentration per Run 2	104.361 %	0.244 ppb	0.100 ppb	76.316 ppb	2.516 ppb	101.359 %	0.004 ppb	0.009 ppb	99.973 %
Concentration per Run 3	104.344 %	0.304 ppb	0.172 ppb	76.392 ppb	2.069 ppb	97.267 %	0.011 ppb	0.010 ppb	96.242 %
Concentration RSD	2.6 %	14.2 %	365.0 %	2.6 %	10.0 %	2.3 %	55.1 %	42.6 %	2.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	1.001 ppb	12.853 ppb	103.444 %	103.534 %	0.020 ppb	0.387 ppb
Concentration per Run 1	0.889 ppb	12.960 ppb	104.323 %	104.109 %	0.013 ppb	0.390 ppb
Concentration per Run 2	1.014 ppb	12.918 ppb	105.610 %	105.867 %	0.021 ppb	0.381 ppb
Concentration per Run 3	1.099 ppb	12.680 ppb	100.401 %	100.626 %	0.027 ppb	0.391 ppb
Concentration RSD	10.6 %	1.2 %	2.6 %	2.6 %	35.3 %	1.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	109	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2448899-01 2008TL	Rack	2		
Analysis started at:	8/28/2024 2:07:50 PM	Vial	39		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.948 %	118.468 %	0.006 ppb	173,516.489 ppb	33,905.830 ppb	44.299 ppb	3,772.105 ppb	96,031.425 ppb	98.575 %
Concentration per Run 1	94.953 %	123.183 %	0.006 ppb	172,453.658 ppb	33,904.995 ppb	43.831 ppb	3,778.217 ppb	96,064.579 ppb	97.602 %
Concentration per Run 2	95.033 %	114.342 %	0.009 ppb	176,826.826 ppb	34,596.929 ppb	43.201 ppb	3,873.212 ppb	97,723.820 ppb	98.418 %
Concentration per Run 3	94.857 %	117.878 %	0.002 ppb	171,268.983 ppb	33,215.565 ppb	45.864 ppb	3,664.886 ppb	94,305.876 ppb	99.706 %
Concentration RSD	0.1 %	3.8 %	69.2 %	1.7 %	2.0 %	3.1 %	2.8 %	1.8 %	1.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	106.414 %	0.211 ppb	0.051 ppb	2,897.355 ppb	56.337 ppb	2.112 ppb	1.633 ppb	1.676 ppb	5.310 ppb
Concentration per Run 1	116.410 %	0.252 ppb	0.057 ppb	2,818.368 ppb	53.204 ppb	2.069 ppb	1.544 ppb	1.442 ppb	5.504 ppb
Concentration per Run 2	99.893 %	0.205 ppb	0.094 ppb	2,953.984 ppb	58.751 ppb	2.222 ppb	1.873 ppb	1.818 ppb	5.615 ppb
Concentration per Run 3	102.940 %	0.174 ppb	0.002 ppb	2,919.715 ppb	57.056 ppb	2.044 ppb	1.482 ppb	1.766 ppb	4.810 ppb
Concentration RSD	8.3 %	18.7 %	90.2 %	2.4 %	5.0 %	4.6 %	12.9 %	12.2 %	8.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	97.031 %	0.201 ppb	0.306 ppb	757.862 ppb	0.562 ppb	92.908 %	0.054 ppb	0.255 ppb	95.092 %
Concentration per Run 1	103.277 %	0.140 ppb	0.241 ppb	778.200 ppb	0.351 ppb	95.956 %	0.063 ppb	0.232 ppb	103.182 %
Concentration per Run 2	94.080 %	0.118 ppb	0.472 ppb	761.612 ppb	0.577 ppb	92.918 %	0.048 ppb	0.266 ppb	93.669 %
Concentration per Run 3	93.735 %	0.346 ppb	0.204 ppb	733.773 ppb	0.759 ppb	89.850 %	0.052 ppb	0.269 ppb	88.426 %
Concentration RSD	5.6 %	62.6 %	47.4 %	3.0 %	36.4 %	3.3 %	13.8 %	7.9 %	7.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.233 ppb	123.767 ppb	100.255 %	101.752 %	0.013 ppb	0.172 ppb
Concentration per Run 1	0.201 ppb	126.316 ppb	104.323 %	107.270 %	0.010 ppb	0.166 ppb
Concentration per Run 2	0.234 ppb	124.332 ppb	99.914 %	101.677 %	0.013 ppb	0.169 ppb
Concentration per Run 3	0.265 ppb	120.652 ppb	96.528 %	96.309 %	0.015 ppb	0.182 ppb
Concentration RSD	13.8 %	2.3 %	3.9 %	5.4 %	20.2 %	4.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	110	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2448899-02 2008TL	Rack	2		
Analysis started at:	8/28/2024 2:12:19 PM	Vial	40		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.007 %	114.931 %	-0.001 ppb	274,316.174 ppb	15,703.262 ppb	15.786 ppb	3,951.517 ppb	52,370.277 ppb	100.512 %
Concentration per Run 1	93.491 %	108.448 %	-0.005 ppb	288,323.113 ppb	16,438.837 ppb	14.561 ppb	4,040.118 ppb	54,127.702 ppb	98.972 %
Concentration per Run 2	94.324 %	120.825 %	-0.003 ppb	256,934.802 ppb	14,735.453 ppb	16.674 ppb	3,681.522 ppb	48,652.335 ppb	101.088 %
Concentration per Run 3	94.207 %	115.521 %	0.004 ppb	277,690.606 ppb	15,935.496 ppb	16.123 ppb	4,132.910 ppb	54,330.793 ppb	101.475 %
Concentration RSD	0.5 %	5.4 %	354.1 %	5.8 %	5.6 %	6.9 %	6.0 %	6.2 %	1.3 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	103.742 %	0.591 ppb	0.055 ppb	3,380.654 ppb	20.426 ppb	1.347 ppb	1.176 ppb	0.520 ppb	9.376 ppb
Concentration per Run 1	107.430 %	0.698 ppb	0.049 ppb	3,436.553 ppb	28.207 ppb	1.305 ppb	1.164 ppb	0.414 ppb	9.453 ppb
Concentration per Run 2	106.949 %	0.474 ppb	0.057 ppb	3,192.990 ppb	15.541 ppb	1.315 ppb	1.128 ppb	0.583 ppb	9.003 ppb
Concentration per Run 3	96.846 %	0.600 ppb	0.058 ppb	3,512.419 ppb	17.531 ppb	1.421 ppb	1.236 ppb	0.564 ppb	9.671 ppb
Concentration RSD	5.8 %	19.0 %	8.8 %	4.9 %	33.3 %	4.8 %	4.7 %	17.7 %	3.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	101.097 %	1.183 ppb	0.053 ppb	513.582 ppb	1.295 ppb	94.621 %	0.024 ppb	0.021 ppb	95.786 %
Concentration per Run 1	103.621 %	1.117 ppb	0.270 ppb	527.427 ppb	1.233 ppb	95.573 %	0.016 ppb	0.024 ppb	98.588 %
Concentration per Run 2	101.326 %	1.171 ppb	-0.067 ppb	502.309 ppb	1.342 ppb	94.022 %	0.030 ppb	0.020 ppb	93.151 %
Concentration per Run 3	98.344 %	1.262 ppb	-0.045 ppb	511.011 ppb	1.309 ppb	94.268 %	0.026 ppb	0.020 ppb	95.620 %
Concentration RSD	2.6 %	6.2 %	357.6 %	2.5 %	4.3 %	0.9 %	28.3 %	11.3 %	2.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.652 ppb	119.475 ppb	100.874 %	102.662 %	0.015 ppb	0.051 ppb
Concentration per Run 1	0.619 ppb	120.810 ppb	101.643 %	102.960 %	0.015 ppb	0.050 ppb
Concentration per Run 2	0.706 ppb	118.802 ppb	100.700 %	102.417 %	0.018 ppb	0.053 ppb
Concentration per Run 3	0.632 ppb	118.812 ppb	100.280 %	102.608 %	0.013 ppb	0.049 ppb
Concentration RSD	7.2 %	1.0 %	0.7 %	0.3 %	16.9 %	4.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	111	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 2:18:06 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.391 %	114.735 %	62.521 ppb	7,371.575 ppb	6,499.932 ppb	69.752 ppb	6,435.773 ppb	6,337.263 ppb	104.178 %
Concentration per Run 1	101.906 %	115.521 %	62.113 ppb	7,255.219 ppb	6,224.447 ppb	67.815 ppb	6,468.558 ppb	6,259.211 ppb	102.961 %
Concentration per Run 2	102.468 %	111.395 %	63.108 ppb	7,462.361 ppb	6,720.092 ppb	73.559 ppb	6,372.753 ppb	6,348.045 ppb	103.461 %
Concentration per Run 3	102.800 %	117.289 %	62.342 ppb	7,397.145 ppb	6,555.256 ppb	67.882 ppb	6,466.009 ppb	6,404.534 ppb	106.112 %
Recovery Percentage 1			104.202 %	122.860 %	108.332 %	116.253 %	107.263 %	105.621 %	
Concentration RSD	0.4 %	2.6 %	0.8 %	1.4 %	3.9 %	4.7 %	0.8 %	1.2 %	1.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	111.439 %	62.352 ppb	62.367 ppb	65.791 ppb	6,330.731 ppb	62.420 ppb	61.149 ppb	60.918 ppb	61.265 ppb
Concentration per Run 1	121.702 %	58.036 ppb	58.541 ppb	63.063 ppb	5,963.185 ppb	57.721 ppb	56.884 ppb	55.669 ppb	59.065 ppb
Concentration per Run 2	108.232 %	63.311 ppb	63.000 ppb	68.663 ppb	6,482.402 ppb	64.448 ppb	61.652 ppb	63.199 ppb	62.446 ppb
Concentration per Run 3	104.383 %	65.710 ppb	65.559 ppb	65.646 ppb	6,546.607 ppb	65.090 ppb	64.912 ppb	63.887 ppb	62.285 ppb
Recovery Percentage 1		103.921 %	103.944 %	109.651 %	105.512 %	104.033 %	101.915 %	101.530 %	102.109 %
Concentration RSD	8.2 %	6.3 %	5.7 %	4.3 %	5.1 %	6.5 %	6.6 %	7.5 %	3.1 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.141 %	61.526 ppb	58.797 ppb	58.083 ppb	59.160 ppb	101.396 %	61.750 ppb	61.099 ppb	100.429 %
Concentration per Run 1	112.690 %	58.745 ppb	59.484 ppb	59.173 ppb	57.020 ppb	104.336 %	60.351 ppb	59.593 ppb	108.185 %
Concentration per Run 2	100.262 %	63.887 ppb	58.476 ppb	58.120 ppb	60.706 ppb	101.419 %	62.621 ppb	62.230 ppb	98.577 %
Concentration per Run 3	102.472 %	61.944 ppb	58.431 ppb	56.957 ppb	59.756 ppb	98.432 %	62.277 ppb	61.473 ppb	94.525 %
Recovery Percentage 1		102.543 %	97.995 %	96.805 %	98.601 %		102.916 %	101.831 %	
Concentration RSD	6.3 %	4.2 %	1.0 %	1.9 %	3.2 %	2.9 %	2.0 %	2.2 %	7.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	60.373 ppb	60.060 ppb	103.137 %	104.039 %	61.737 ppb	62.442 ppb
Concentration per Run 1	59.684 ppb	58.865 ppb	106.992 %	110.243 %	58.120 ppb	58.742 ppb
Concentration per Run 2	60.573 ppb	61.771 ppb	103.372 %	104.565 %	61.623 ppb	62.573 ppb
Concentration per Run 3	60.862 ppb	59.544 ppb	99.048 %	97.310 %	65.466 ppb	66.009 ppb
Recovery Percentage 1	100.622 %	100.099 %			102.894 %	104.069 %
Concentration RSD	1.0 %	2.5 %	3.9 %	6.2 %	6.0 %	5.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	112	User name	ALPHALAB\a2-icpmsq2	Comment	CCB
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 2:23:40 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.464 %	126.719 %	0.055 ppb	236.832 ppb	21.635 ppb	-0.077 ppb	14.493 ppb	53.225 ppb	102.131 %
Concentration per Run 1	103.025 %	130.256 %	0.060 ppb	321.249 ppb	28.780 ppb	0.590 ppb	16.372 ppb	75.122 ppb	100.303 %
Concentration per Run 2	103.453 %	118.468 %	0.063 ppb	219.800 ppb	23.564 ppb	-0.537 ppb	18.923 ppb	62.378 ppb	102.179 %
Concentration per Run 3	103.915 %	131.434 %	0.041 ppb	169.448 ppb	12.560 ppb	-0.285 ppb	8.183 ppb	22.175 ppb	103.911 %
Recovery Percentage 1			10.963 %	236.832 %	30.907 %	-0.772 %	14.493 %	53.225 %	
Concentration RSD	0.4 %	5.7 %	21.6 %	32.6 %	38.3 %	766.7 %	38.7 %	51.9 %	1.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	98.503 %	-0.027 ppb	0.095 ppb	1.868 ppb	9.038 ppb	0.099 ppb	0.063 ppb	0.050 ppb	0.071 ppb
Concentration per Run 1	97.969 %	0.002 ppb	0.123 ppb	2.498 ppb	11.524 ppb	0.137 ppb	0.071 ppb	0.016 ppb	0.119 ppb
Concentration per Run 2	96.205 %	-0.015 ppb	0.115 ppb	1.677 ppb	11.607 ppb	0.083 ppb	-0.034 ppb	0.066 ppb	0.094 ppb
Concentration per Run 3	101.336 %	-0.068 ppb	0.046 ppb	1.430 ppb	3.984 ppb	0.077 ppb	0.151 ppb	0.070 ppb	0.001 ppb
Recovery Percentage 1		-0.544 %	9.466 %	186.800 %	18.076 %	19.781 %	3.146 %	5.031 %	1.423 %
Concentration RSD	2.6 %	134.3 %	44.6 %	29.9 %	48.4 %	33.8 %	147.7 %	59.6 %	87.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	99.802 %	0.055 ppb	0.026 ppb	0.387 ppb	0.254 ppb	102.725 %	0.078 ppb	0.079 ppb	99.313 %
Concentration per Run 1	103.983 %	0.101 ppb	0.106 ppb	0.565 ppb	0.172 ppb	102.154 %	0.121 ppb	0.130 ppb	99.714 %
Concentration per Run 2	92.940 %	0.094 ppb	0.040 ppb	0.366 ppb	0.298 ppb	103.835 %	0.066 ppb	0.060 ppb	100.182 %
Concentration per Run 3	102.482 %	-0.029 ppb	-0.068 ppb	0.230 ppb	0.293 ppb	102.186 %	0.048 ppb	0.047 ppb	98.044 %
Recovery Percentage 1		11.025 %	0.518 %	3.871 %	12.711 %		19.575 %	39.578 %	
Concentration RSD	6.0 %	132.4 %	338.8 %	43.5 %	28.2 %	0.9 %	48.6 %	56.6 %	1.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.229 ppb	0.154 ppb	104.146 %	103.948 %	0.242 ppb	0.084 ppb
Concentration per Run 1	0.245 ppb	0.264 ppb	105.014 %	104.844 %	0.223 ppb	0.117 ppb
Concentration per Run 2	0.221 ppb	0.121 ppb	102.881 %	103.025 %	0.266 ppb	0.080 ppb
Concentration per Run 3	0.223 ppb	0.078 ppb	104.544 %	103.976 %	0.238 ppb	0.056 ppb
Recovery Percentage 1	5.733 %	30.863 %			24.233 %	8.430 %
Concentration RSD	5.8 %	63.3 %	1.1 %	0.9 %	9.1 %	36.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	113	User name	ALPHALAB\a2-icpmsq2	Comment	CCV/MCCV
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 2:29:41 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.935 %	122.790 %	62.486 ppb	6,541.871 ppb	6,370.162 ppb	64.127 ppb	6,368.417 ppb	6,157.235 ppb	101.470 %
Concentration per Run 1	100.312 %	130.256 %	62.137 ppb	6,226.959 ppb	6,112.459 ppb	62.599 ppb	6,058.036 ppb	5,992.999 ppb	99.998 %
Concentration per Run 2	101.938 %	119.647 %	62.638 ppb	6,709.891 ppb	6,556.319 ppb	67.795 ppb	6,497.193 ppb	6,141.992 ppb	102.936 %
Concentration per Run 3	100.556 %	118.468 %	62.683 ppb	6,688.763 ppb	6,441.707 ppb	61.986 ppb	6,550.022 ppb	6,336.714 ppb	101.475 %
Recovery Percentage 1			104.143 %	109.031 %	106.169 %	106.878 %	106.140 %	102.621 %	
Concentration RSD	0.9 %	5.3 %	0.5 %	4.2 %	3.6 %	5.0 %	4.2 %	2.8 %	1.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	109.140 %	62.333 ppb	62.123 ppb	63.259 ppb	6,208.474 ppb	61.223 ppb	62.296 ppb	61.042 ppb	61.643 ppb
Concentration per Run 1	111.118 %	62.224 ppb	61.322 ppb	62.736 ppb	6,127.565 ppb	62.123 ppb	63.161 ppb	61.439 ppb	61.904 ppb
Concentration per Run 2	108.713 %	61.873 ppb	62.879 ppb	64.505 ppb	6,399.856 ppb	61.574 ppb	63.623 ppb	62.873 ppb	63.529 ppb
Concentration per Run 3	107.590 %	62.902 ppb	62.166 ppb	62.535 ppb	6,098.000 ppb	59.972 ppb	60.104 ppb	58.814 ppb	59.495 ppb
Recovery Percentage 1		103.888 %	103.538 %	105.431 %	103.475 %	102.038 %	103.827 %	101.736 %	102.738 %
Concentration RSD	1.7 %	0.8 %	1.3 %	1.7 %	2.7 %	1.8 %	3.1 %	3.4 %	3.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.560 %	61.558 ppb	60.540 ppb	56.585 ppb	59.023 ppb	100.576 %	61.311 ppb	61.767 ppb	100.219 %
Concentration per Run 1	101.970 %	61.782 ppb	57.955 ppb	56.570 ppb	58.373 ppb	101.545 %	60.348 ppb	60.808 ppb	101.785 %
Concentration per Run 2	97.523 %	65.866 ppb	66.891 ppb	57.817 ppb	60.101 ppb	100.843 %	61.673 ppb	62.020 ppb	100.095 %
Concentration per Run 3	111.189 %	57.026 ppb	56.774 ppb	55.368 ppb	58.595 ppb	99.341 %	61.911 ppb	62.473 ppb	98.777 %
Recovery Percentage 1		102.597 %	100.900 %	94.308 %	98.371 %		102.185 %	102.945 %	
Concentration RSD	6.7 %	7.2 %	9.1 %	2.2 %	1.6 %	1.1 %	1.4 %	1.4 %	1.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	60.528 ppb	59.698 ppb	104.454 %	106.122 %	61.709 ppb	62.016 ppb
Concentration per Run 1	59.974 ppb	57.482 ppb	104.636 %	105.439 %	60.710 ppb	61.532 ppb
Concentration per Run 2	60.150 ppb	61.494 ppb	104.925 %	107.066 %	62.162 ppb	62.472 ppb
Concentration per Run 3	61.459 ppb	60.119 ppb	103.802 %	105.861 %	62.254 ppb	62.045 ppb
Recovery Percentage 1	100.880 %	99.497 %			102.848 %	103.361 %
Concentration RSD	1.3 %	3.4 %	0.6 %	0.8 %	1.4 %	0.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	114	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 2:36:27 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.644 %	119.646 %	0.008 ppb	18.512 ppb	3.520 ppb	-0.178 ppb	-2.568 ppb	6.795 ppb	98.356 %
Concentration per Run 1	98.983 %	129.666 %	0.006 ppb	17.363 ppb	4.848 ppb	-0.387 ppb	11.355 ppb	10.869 ppb	96.065 %
Concentration per Run 2	100.948 %	120.236 %	0.012 ppb	13.805 ppb	1.364 ppb	-0.471 ppb	0.292 ppb	16.171 ppb	100.075 %
Concentration per Run 3	102.000 %	109.037 %	0.005 ppb	24.369 ppb	4.349 ppb	0.322 ppb	-19.352 ppb	-6.655 ppb	98.927 %
Recovery Percentage 1			1.550 %	18.512 %	5.029 %	-1.785 %	-2.568 %	6.795 %	
Concentration RSD	1.5 %	8.6 %	51.6 %	29.0 %	53.5 %	244.2 %	605.5 %	175.8 %	2.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	104.437 %	-0.078 ppb	0.020 ppb	0.217 ppb	5.244 ppb	0.010 ppb	0.097 ppb	0.022 ppb	-0.056 ppb
Concentration per Run 1	106.949 %	-0.094 ppb	0.000 ppb	0.276 ppb	5.798 ppb	0.009 ppb	0.121 ppb	0.069 ppb	-0.069 ppb
Concentration per Run 2	99.893 %	-0.111 ppb	-0.005 ppb	0.130 ppb	4.118 ppb	0.003 ppb	0.157 ppb	-0.018 ppb	-0.001 ppb
Concentration per Run 3	106.468 %	-0.030 ppb	0.065 ppb	0.246 ppb	5.817 ppb	0.017 ppb	0.014 ppb	0.015 ppb	-0.099 ppb
Recovery Percentage 1		-1.561 %	2.018 %	21.732 %	10.489 %	1.922 %	4.869 %	2.215 %	-1.123 %
Concentration RSD	3.8 %	54.6 %	191.1 %	35.6 %	18.6 %	74.3 %	76.2 %	196.7 %	89.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	100.139 %	0.004 ppb	0.078 ppb	0.040 ppb	0.129 ppb	98.702 %	0.015 ppb	0.016 ppb	101.303 %
Concentration per Run 1	100.602 %	0.024 ppb	0.098 ppb	0.045 ppb	0.014 ppb	99.024 %	0.011 ppb	0.014 ppb	103.987 %
Concentration per Run 2	99.157 %	-0.011 ppb	0.028 ppb	0.035 ppb	0.100 ppb	97.346 %	0.023 ppb	0.014 ppb	98.878 %
Concentration per Run 3	100.658 %	-0.001 ppb	0.108 ppb	0.040 ppb	0.274 ppb	99.736 %	0.012 ppb	0.019 ppb	101.043 %
Recovery Percentage 1		0.752 %	1.559 %	0.402 %	6.459 %		3.846 %	7.768 %	
Concentration RSD	0.8 %	476.3 %	56.0 %	12.7 %	102.4 %	1.2 %	44.0 %	17.2 %	2.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.166 ppb	0.019 ppb	101.419 %	103.841 %	0.140 ppb	0.017 ppb
Concentration per Run 1	0.145 ppb	0.019 ppb	101.618 %	104.482 %	0.106 ppb	0.019 ppb
Concentration per Run 2	0.149 ppb	0.035 ppb	100.678 %	103.590 %	0.170 ppb	0.015 ppb
Concentration per Run 3	0.204 ppb	0.005 ppb	101.960 %	103.452 %	0.144 ppb	0.017 ppb
Recovery Percentage 1	4.150 %	3.883 %			13.976 %	1.696 %
Concentration RSD	19.7 %	76.9 %	0.7 %	0.5 %	23.0 %	12.7 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	115	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1955694-1d5 A2-SEM	Rack	2		
Analysis started at:	8/28/2024 2:44:32 PM	Vial	41		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.274 %	117.289 %	0.007 ppb	194.536 ppb	3.816 ppb	6.718 ppb	-9.628 ppb	12.858 ppb	102.274 %
Concentration per Run 1	103.338 %	114.931 %	0.005 ppb	189.186 ppb	3.041 ppb	6.653 ppb	-18.768 ppb	14.373 ppb	101.441 %
Concentration per Run 2	104.573 %	132.613 %	0.008 ppb	178.148 ppb	3.898 ppb	6.167 ppb	-1.290 ppb	20.191 ppb	102.617 %
Concentration per Run 3	104.911 %	104.322 %	0.006 ppb	216.274 ppb	4.510 ppb	7.334 ppb	-8.826 ppb	4.009 ppb	102.764 %
Concentration RSD	0.8 %	12.2 %	22.4 %	10.1 %	19.3 %	8.7 %	91.1 %	63.8 %	0.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	103.795 %	-0.013 ppb	1.561 ppb	0.461 ppb	17.275 ppb	0.024 ppb	1.030 ppb	1.493 ppb	1.726 ppb
Concentration per Run 1	107.109 %	-0.093 ppb	1.525 ppb	0.369 ppb	17.596 ppb	0.039 ppb	0.923 ppb	1.397 ppb	1.644 ppb
Concentration per Run 2	98.610 %	-0.020 ppb	1.615 ppb	0.524 ppb	21.402 ppb	0.003 ppb	1.108 ppb	1.574 ppb	1.732 ppb
Concentration per Run 3	105.666 %	0.075 ppb	1.544 ppb	0.489 ppb	12.827 ppb	0.031 ppb	1.060 ppb	1.508 ppb	1.803 ppb
Concentration RSD	4.4 %	658.9 %	3.0 %	17.6 %	24.9 %	79.0 %	9.3 %	6.0 %	4.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	101.295 %	0.101 ppb	-0.007 ppb	0.050 ppb	0.043 ppb	102.186 %	0.020 ppb	0.020 ppb	100.570 %
Concentration per Run 1	99.790 %	0.025 ppb	-0.072 ppb	0.056 ppb	0.053 ppb	102.463 %	0.016 ppb	0.014 ppb	99.700 %
Concentration per Run 2	99.084 %	0.228 ppb	0.110 ppb	0.038 ppb	0.027 ppb	101.404 %	0.021 ppb	0.032 ppb	100.921 %
Concentration per Run 3	105.012 %	0.051 ppb	-0.060 ppb	0.055 ppb	0.051 ppb	102.690 %	0.024 ppb	0.014 ppb	101.087 %
Concentration RSD	3.2 %	109.3 %	1,439.8 %	20.0 %	33.4 %	0.7 %	20.7 %	53.3 %	0.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.089 ppb	0.134 ppb	104.434 %	105.750 %	0.039 ppb	0.561 ppb
Concentration per Run 1	0.084 ppb	0.149 ppb	104.764 %	105.868 %	0.017 ppb	0.557 ppb
Concentration per Run 2	0.078 ppb	0.092 ppb	102.678 %	105.184 %	0.045 ppb	0.561 ppb
Concentration per Run 3	0.106 ppb	0.161 ppb	105.860 %	106.198 %	0.054 ppb	0.566 ppb
Concentration RSD	16.7 %	27.7 %	1.5 %	0.5 %	50.5 %	0.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	116	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1955694-2d10 A2-SEM	Rack	2		
Analysis started at:	8/28/2024 2:49:02 PM	Vial	42		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.545 %	126.130 %	0.002 ppb	421.794 ppb	4.280 ppb	2.668 ppb	-11.428 ppb	5.126 ppb	102.084 %
Concentration per Run 1	103.764 %	130.256 %	0.002 ppb	405.128 ppb	3.674 ppb	1.818 ppb	-17.960 ppb	-0.152 ppb	100.779 %
Concentration per Run 2	105.098 %	117.878 %	0.002 ppb	437.590 ppb	6.408 ppb	2.587 ppb	-6.942 ppb	4.333 ppb	103.336 %
Concentration per Run 3	104.773 %	130.256 %	0.001 ppb	422.665 ppb	2.759 ppb	3.598 ppb	-9.382 ppb	11.199 ppb	102.135 %
Concentration RSD	0.7 %	5.7 %	37.1 %	3.9 %	44.4 %	33.5 %	50.6 %	111.5 %	1.3 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	107.269 %	-0.053 ppb	0.522 ppb	0.333 ppb	8.952 ppb	0.019 ppb	54.929 ppb	56.950 ppb	273.076 ppb
Concentration per Run 1	112.401 %	-0.037 ppb	0.512 ppb	0.350 ppb	6.068 ppb	0.016 ppb	53.058 ppb	56.293 ppb	264.984 ppb
Concentration per Run 2	104.062 %	-0.071 ppb	0.626 ppb	0.403 ppb	11.068 ppb	0.039 ppb	55.811 ppb	56.241 ppb	277.247 ppb
Concentration per Run 3	105.345 %	-0.050 ppb	0.429 ppb	0.246 ppb	9.720 ppb	0.002 ppb	55.919 ppb	58.316 ppb	276.995 ppb
Concentration RSD	4.2 %	32.0 %	19.0 %	24.0 %	28.9 %	97.5 %	3.0 %	2.1 %	2.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.783 %	0.013 ppb	-0.070 ppb	0.036 ppb	-0.033 ppb	103.807 %	0.003 ppb	26.476 ppb	103.185 %
Concentration per Run 1	104.795 %	0.015 ppb	-0.158 ppb	0.041 ppb	-0.042 ppb	103.328 %	0.004 ppb	26.332 ppb	101.542 %
Concentration per Run 2	103.783 %	-0.019 ppb	0.025 ppb	0.028 ppb	-0.003 ppb	104.421 %	0.004 ppb	26.867 ppb	103.200 %
Concentration per Run 3	102.771 %	0.043 ppb	-0.078 ppb	0.039 ppb	-0.055 ppb	103.672 %	0.000 ppb	26.229 ppb	104.812 %
Concentration RSD	1.0 %	237.5 %	130.9 %	19.1 %	82.1 %	0.5 %	72.4 %	1.3 %	1.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.053 ppb	0.080 ppb	105.200 %	105.118 %	0.032 ppb	272.924 ppb
Concentration per Run 1	0.044 ppb	0.047 ppb	104.853 %	104.829 %	0.008 ppb	267.699 ppb
Concentration per Run 2	0.052 ppb	0.047 ppb	106.296 %	104.434 %	0.038 ppb	276.210 ppb
Concentration per Run 3	0.061 ppb	0.145 ppb	104.451 %	106.091 %	0.051 ppb	274.864 ppb
Concentration RSD	16.3 %	71.2 %	0.9 %	0.8 %	68.4 %	1.7 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	117	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2443048-13d5 A2-SEM	Rack	2		
Analysis started at:	8/28/2024 2:53:31 PM	Vial	43		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.219 %	117.878 %	0.749 ppb	4,665.634 ppb	4,682.449 ppb	6,844.633 ppb	1,344.559 ppb	44,361.255 ppb	110.264 %
Concentration per Run 1	98.330 %	113.163 %	0.716 ppb	4,738.359 ppb	4,657.620 ppb	6,947.964 ppb	1,372.889 ppb	44,410.600 ppb	108.645 %
Concentration per Run 2	99.833 %	116.699 %	0.763 ppb	4,739.380 ppb	4,833.474 ppb	6,807.265 ppb	1,304.236 ppb	44,884.404 ppb	110.610 %
Concentration per Run 3	99.493 %	123.772 %	0.767 ppb	4,519.163 ppb	4,556.254 ppb	6,778.669 ppb	1,356.553 ppb	43,788.761 ppb	111.538 %
Concentration RSD	0.8 %	4.6 %	3.8 %	2.7 %	3.0 %	1.3 %	2.7 %	1.2 %	1.3 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	114.058 %	45.233 ppb	10.881 ppb	1,023.774 ppb	27,792.929 ppb	13.833 ppb	13.028 ppb	315.984 ppb	249.941 ppb
Concentration per Run 1	113.043 %	45.816 ppb	10.816 ppb	1,027.931 ppb	27,792.101 ppb	13.839 ppb	12.866 ppb	307.609 ppb	243.604 ppb
Concentration per Run 2	113.523 %	45.853 ppb	10.758 ppb	1,023.142 ppb	28,104.387 ppb	14.055 ppb	13.959 ppb	321.467 ppb	255.802 ppb
Concentration per Run 3	115.608 %	44.030 ppb	11.068 ppb	1,020.249 ppb	27,482.299 ppb	13.606 ppb	12.259 ppb	318.877 ppb	250.417 ppb
Concentration RSD	1.2 %	2.3 %	1.5 %	0.4 %	1.1 %	1.6 %	6.6 %	2.3 %	2.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	106.203 %	8.130 ppb	2.994 ppb	170.288 ppb	0.279 ppb	98.912 %	0.098 ppb	0.707 ppb	97.508 %
Concentration per Run 1	108.196 %	7.925 ppb	3.125 ppb	168.505 ppb	0.363 ppb	98.929 %	0.080 ppb	0.565 ppb	97.222 %
Concentration per Run 2	104.042 %	8.326 ppb	3.016 ppb	173.115 ppb	0.207 ppb	97.862 %	0.110 ppb	0.738 ppb	96.698 %
Concentration per Run 3	106.372 %	8.140 ppb	2.841 ppb	169.245 ppb	0.268 ppb	99.945 %	0.104 ppb	0.818 ppb	98.602 %
Concentration RSD	2.0 %	2.5 %	4.8 %	1.5 %	28.3 %	1.1 %	16.4 %	18.3 %	1.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	1.711 ppb	109.628 ppb	107.656 %	106.246 %	0.067 ppb	408.567 ppb
Concentration per Run 1	1.665 ppb	109.845 ppb	106.294 %	103.893 %	0.055 ppb	411.002 ppb
Concentration per Run 2	1.754 ppb	109.842 ppb	109.115 %	107.949 %	0.079 ppb	406.224 ppb
Concentration per Run 3	1.715 ppb	109.196 ppb	107.559 %	106.895 %	0.067 ppb	408.473 ppb
Concentration RSD	2.6 %	0.3 %	1.3 %	2.0 %	18.2 %	0.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	118	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1955694-3d10 A2-SEM	Rack	2		
Analysis started at:	8/28/2024 2:58:00 PM	Vial	44		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.789 %	125.933 %	0.655 ppb	3,365.028 ppb	4,219.091 ppb	5,624.541 ppb	885.530 ppb	25,581.139 ppb	110.224 %
Concentration per Run 1	100.253 %	106.680 %	0.652 ppb	3,569.031 ppb	4,465.634 ppb	5,849.320 ppb	880.801 ppb	24,191.199 ppb	108.310 %
Concentration per Run 2	101.585 %	129.666 %	0.689 ppb	3,315.456 ppb	4,225.116 ppb	5,665.575 ppb	856.865 ppb	26,453.033 ppb	112.887 %
Concentration per Run 3	100.529 %	141.454 %	0.623 ppb	3,210.598 ppb	3,966.523 ppb	5,358.728 ppb	918.924 ppb	26,099.187 ppb	109.475 %
Concentration RSD	0.7 %	14.0 %	5.0 %	5.5 %	5.9 %	4.4 %	3.5 %	4.8 %	2.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	114.486 %	49.471 ppb	12.312 ppb	866.864 ppb	35,682.407 ppb	10.851 ppb	60.691 ppb	374.626 ppb	466.537 ppb
Concentration per Run 1	117.212 %	47.906 ppb	11.502 ppb	848.256 ppb	35,046.125 ppb	10.779 ppb	61.544 ppb	373.131 ppb	463.179 ppb
Concentration per Run 2	111.439 %	51.316 ppb	12.794 ppb	886.661 ppb	36,453.606 ppb	10.889 ppb	60.280 ppb	385.639 ppb	475.321 ppb
Concentration per Run 3	114.806 %	49.191 ppb	12.641 ppb	865.675 ppb	35,547.490 ppb	10.883 ppb	60.251 ppb	365.108 ppb	461.111 ppb
Concentration RSD	2.5 %	3.5 %	5.7 %	2.2 %	2.0 %	0.6 %	1.2 %	2.8 %	1.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	104.787 %	9.270 ppb	2.278 ppb	115.558 ppb	0.164 ppb	100.587 %	0.144 ppb	26.924 ppb	100.299 %
Concentration per Run 1	101.329 %	9.081 ppb	1.792 ppb	116.203 ppb	0.136 ppb	100.268 %	0.117 ppb	26.555 ppb	99.589 %
Concentration per Run 2	103.081 %	8.976 ppb	2.934 ppb	116.250 ppb	0.134 ppb	100.641 %	0.152 ppb	26.805 ppb	101.258 %
Concentration per Run 3	109.952 %	9.754 ppb	2.108 ppb	114.222 ppb	0.223 ppb	100.852 %	0.162 ppb	27.412 ppb	100.051 %
Concentration RSD	4.3 %	4.5 %	25.9 %	1.0 %	30.9 %	0.3 %	16.3 %	1.6 %	0.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	1.387 ppb	81.243 ppb	107.500 %	106.945 %	0.069 ppb	787.860 ppb
Concentration per Run 1	1.406 ppb	82.474 ppb	106.192 %	104.824 %	0.054 ppb	791.805 ppb
Concentration per Run 2	1.350 ppb	80.799 ppb	107.067 %	107.967 %	0.081 ppb	777.168 ppb
Concentration per Run 3	1.406 ppb	80.455 ppb	109.240 %	108.045 %	0.073 ppb	794.606 ppb
Concentration RSD	2.4 %	1.3 %	1.5 %	1.7 %	20.1 %	1.2 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	119	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1955694-4d5 A2-SEM	Rack	2		
Analysis started at:	8/28/2024 3:02:29 PM	Vial	45		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.769 %	129.470 %	0.797 ppb	5,288.357 ppb	4,908.861 ppb	4,974.513 ppb	1,405.091 ppb	42,796.128 ppb	103.344 %
Concentration per Run 1	98.491 %	133.792 %	0.799 ppb	5,091.356 ppb	4,801.025 ppb	4,897.536 ppb	1,363.475 ppb	43,150.843 ppb	102.764 %
Concentration per Run 2	98.827 %	126.719 %	0.777 ppb	5,380.490 ppb	4,908.171 ppb	4,951.417 ppb	1,472.429 ppb	41,623.564 ppb	103.893 %
Concentration per Run 3	98.987 %	127.898 %	0.815 ppb	5,393.224 ppb	5,017.386 ppb	5,074.587 ppb	1,379.370 ppb	43,613.976 ppb	103.375 %
Concentration RSD	0.3 %	2.9 %	2.4 %	3.2 %	2.2 %	1.8 %	4.2 %	2.4 %	0.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	112.187 %	49.920 ppb	10.084 ppb	1,173.901 ppb	29,559.067 ppb	12.538 ppb	13.149 ppb	511.592 ppb	270.815 ppb
Concentration per Run 1	112.722 %	49.073 ppb	9.951 ppb	1,146.926 ppb	29,208.760 ppb	12.373 ppb	12.318 ppb	505.764 ppb	265.095 ppb
Concentration per Run 2	112.241 %	50.678 ppb	10.247 ppb	1,157.542 ppb	28,942.323 ppb	12.542 ppb	13.252 ppb	496.363 ppb	263.978 ppb
Concentration per Run 3	111.599 %	50.010 ppb	10.055 ppb	1,217.235 ppb	30,526.117 ppb	12.698 ppb	13.876 ppb	532.647 ppb	283.372 ppb
Concentration RSD	0.5 %	1.6 %	1.5 %	3.2 %	2.9 %	1.3 %	6.0 %	3.7 %	4.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	101.468 %	11.194 ppb	2.289 ppb	192.774 ppb	0.288 ppb	97.286 %	0.195 ppb	1.062 ppb	96.773 %
Concentration per Run 1	102.881 %	10.780 ppb	2.583 ppb	190.419 ppb	0.209 ppb	97.083 %	0.215 ppb	1.066 ppb	97.079 %
Concentration per Run 2	104.764 %	10.686 ppb	2.508 ppb	188.567 ppb	0.347 ppb	96.600 %	0.191 ppb	1.016 ppb	97.536 %
Concentration per Run 3	96.758 %	12.116 ppb	1.775 ppb	199.337 ppb	0.310 ppb	98.176 %	0.180 ppb	1.106 ppb	95.702 %
Concentration RSD	4.1 %	7.1 %	19.5 %	3.0 %	24.7 %	0.8 %	9.3 %	4.2 %	1.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	2.306 ppb	113.231 ppb	105.656 %	105.528 %	0.074 ppb	763.286 ppb
Concentration per Run 1	2.228 ppb	111.654 ppb	105.816 %	104.886 %	0.055 ppb	755.035 ppb
Concentration per Run 2	2.239 ppb	114.747 ppb	103.912 %	104.997 %	0.083 ppb	770.119 ppb
Concentration per Run 3	2.451 ppb	113.290 ppb	107.241 %	106.700 %	0.084 ppb	764.705 ppb
Concentration RSD	5.5 %	1.4 %	1.6 %	1.0 %	21.9 %	1.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	120	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2443048-10d5 A2-SEM	Rack	2		
Analysis started at:	8/28/2024 3:06:58 PM	Vial	46		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	115.902 %	144.401 %	0.903 ppb	4,993.751 ppb	7,262.040 ppb	5,423.813 ppb	1,145.127 ppb	15,166.175 ppb	138.041 %
Concentration per Run 1	114.984 %	134.971 %	0.931 ppb	4,989.922 ppb	7,294.697 ppb	5,401.340 ppb	1,103.294 ppb	14,999.968 ppb	135.916 %
Concentration per Run 2	116.361 %	153.831 %	0.911 ppb	4,779.311 ppb	6,875.377 ppb	5,202.295 ppb	1,138.572 ppb	14,968.568 ppb	138.648 %
Concentration per Run 3	116.360 %	144.401 %	0.867 ppb	5,212.020 ppb	7,616.046 ppb	5,667.804 ppb	1,193.517 ppb	15,529.989 ppb	139.561 %
Concentration RSD	0.7 %	6.5 %	3.6 %	4.3 %	5.1 %	4.3 %	4.0 %	2.1 %	1.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	130.361 %	78.915 ppb	51.152 ppb	2,220.254 ppb	147,433.952 ppb	31.845 ppb	309.224 ppb	21,276.972 ppb	5,586.726 ppb
Concentration per Run 1	126.833 %	76.122 ppb	49.785 ppb	2,174.897 ppb	145,591.395 ppb	31.397 ppb	303.452 ppb	21,028.439 ppb	5,532.791 ppb
Concentration per Run 2	134.050 %	78.020 ppb	50.976 ppb	2,216.059 ppb	147,117.459 ppb	31.724 ppb	306.972 ppb	21,381.639 ppb	5,616.419 ppb
Concentration per Run 3	130.201 %	82.605 ppb	52.695 ppb	2,269.804 ppb	149,593.000 ppb	32.415 ppb	317.246 ppb	21,420.837 ppb	5,610.968 ppb
Concentration RSD	2.8 %	4.2 %	2.9 %	2.1 %	1.4 %	1.6 %	2.3 %	1.0 %	0.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	128.170 %	14.383 ppb	1.464 ppb	151.944 ppb	1.800 ppb	110.626 %	3.392 ppb	12.651 ppb	102.063 %
Concentration per Run 1	122.200 %	14.349 ppb	1.420 ppb	146.241 ppb	1.997 ppb	105.327 %	3.458 ppb	12.376 ppb	95.660 %
Concentration per Run 2	127.549 %	14.293 ppb	1.481 ppb	155.268 ppb	1.653 ppb	111.651 %	3.425 ppb	12.944 ppb	103.618 %
Concentration per Run 3	134.761 %	14.507 ppb	1.491 ppb	154.323 ppb	1.750 ppb	114.900 %	3.293 ppb	12.634 ppb	106.911 %
Concentration RSD	4.9 %	0.8 %	2.6 %	3.3 %	9.8 %	4.4 %	2.6 %	2.2 %	5.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	43.690 ppb	199.850 ppb	113.056 %	111.603 %	0.124 ppb	5,880.062 ppb
Concentration per Run 1	44.033 ppb	198.828 ppb	108.192 %	106.540 %	0.111 ppb	5,965.055 ppb
Concentration per Run 2	43.844 ppb	201.512 ppb	114.445 %	113.068 %	0.121 ppb	5,855.947 ppb
Concentration per Run 3	43.193 ppb	199.210 ppb	116.529 %	115.201 %	0.138 ppb	5,819.183 ppb
Concentration RSD	1.0 %	0.7 %	3.8 %	4.0 %	10.8 %	1.3 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	121	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2443048-11d5 A2-SEM	Rack	2		
Analysis started at:	8/28/2024 3:11:28 PM	Vial	47		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.163 %	129.273 %	0.081 ppb	1,223.311 ppb	10,695.589 ppb	1,050.036 ppb	444.050 ppb	5,444.738 ppb	125.098 %
Concentration per Run 1	105.837 %	124.362 %	0.080 ppb	1,161.723 ppb	10,187.464 ppb	995.934 ppb	432.859 ppb	5,309.057 ppb	125.114 %
Concentration per Run 2	104.653 %	126.719 %	0.086 ppb	1,262.001 ppb	10,969.756 ppb	1,074.263 ppb	444.535 ppb	5,451.366 ppb	124.150 %
Concentration per Run 3	104.998 %	136.739 %	0.077 ppb	1,246.211 ppb	10,929.548 ppb	1,079.912 ppb	454.755 ppb	5,573.791 ppb	126.030 %
Concentration RSD	0.6 %	5.1 %	5.3 %	4.4 %	4.1 %	4.5 %	2.5 %	2.4 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	126.192 %	198.790 ppb	621.571 ppb	4,111.316 ppb	701,091.872 ppb	126.363 ppb	755.596 ppb	8,796.252 ppb	1,419.235 ppb
Concentration per Run 1	128.598 %	187.580 ppb	589.840 ppb	3,884.538 ppb	671,741.323 ppb	121.821 ppb	731.264 ppb	8,546.320 ppb	1,356.949 ppb
Concentration per Run 2	126.032 %	203.317 ppb	632.933 ppb	4,248.886 ppb	719,743.569 ppb	128.884 ppb	773.310 ppb	9,021.344 ppb	1,469.627 ppb
Concentration per Run 3	123.947 %	205.474 ppb	641.940 ppb	4,200.526 ppb	711,790.723 ppb	128.384 ppb	762.214 ppb	8,821.090 ppb	1,431.130 ppb
Concentration RSD	1.8 %	4.9 %	4.5 %	4.8 %	3.7 %	3.1 %	2.9 %	2.7 %	4.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	176.785 %	55.286 ppb	0.103 ppb	66.908 ppb	24.650 ppb	109.961 %	0.119 ppb	4.614 ppb	99.385 %
Concentration per Run 1	178.827 %	52.610 ppb	-0.007 ppb	65.738 ppb	24.273 ppb	110.359 %	0.098 ppb	4.445 ppb	102.466 %
Concentration per Run 2	172.068 %	57.859 ppb	0.256 ppb	67.767 ppb	24.884 ppb	110.233 %	0.135 ppb	4.735 ppb	100.144 %
Concentration per Run 3	179.460 %	55.388 ppb	0.059 ppb	67.218 ppb	24.791 ppb	109.293 %	0.125 ppb	4.661 ppb	95.546 %
Concentration RSD	2.3 %	4.7 %	133.7 %	1.6 %	1.3 %	0.5 %	16.2 %	3.3 %	3.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	28.011 ppb	50.696 ppb	109.532 %	109.018 %	0.140 ppb	5,268.679 ppb
Concentration per Run 1	27.165 ppb	49.561 ppb	108.497 %	105.660 %	0.131 ppb	5,134.439 ppb
Concentration per Run 2	27.615 ppb	49.801 ppb	110.340 %	111.937 %	0.144 ppb	5,255.211 ppb
Concentration per Run 3	29.252 ppb	52.727 ppb	109.760 %	109.457 %	0.146 ppb	5,416.388 ppb
Concentration RSD	3.9 %	3.5 %	0.9 %	2.9 %	5.7 %	2.7 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	122	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2443048-12d5 A2-SEM	Rack	2		
Analysis started at:	8/28/2024 3:15:58 PM	Vial	48		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	115.903 %	143.812 %	0.708 ppb	3,432.176 ppb	5,405.098 ppb	5,932.153 ppb	1,354.378 ppb	9,978.633 ppb	134.471 %
Concentration per Run 1	116.318 %	134.971 %	0.706 ppb	3,503.334 ppb	5,481.253 ppb	6,027.632 ppb	1,406.698 ppb	10,360.244 ppb	135.166 %
Concentration per Run 2	115.591 %	147.937 %	0.684 ppb	3,379.377 ppb	5,313.860 ppb	5,881.336 ppb	1,359.284 ppb	9,953.141 ppb	133.688 %
Concentration per Run 3	115.801 %	148.527 %	0.734 ppb	3,413.818 ppb	5,420.180 ppb	5,887.492 ppb	1,297.151 ppb	9,622.515 ppb	134.558 %
Concentration RSD	0.3 %	5.3 %	3.6 %	1.9 %	1.6 %	1.4 %	4.1 %	3.7 %	0.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	133.195 %	49.752 ppb	16.429 ppb	599.979 ppb	25,825.862 ppb	11.478 ppb	23.814 ppb	6,446.599 ppb	934.498 ppb
Concentration per Run 1	123.466 %	50.887 ppb	16.863 ppb	600.858 ppb	25,930.083 ppb	11.777 ppb	25.179 ppb	6,467.637 ppb	927.237 ppb
Concentration per Run 2	134.210 %	49.340 ppb	16.484 ppb	600.236 ppb	26,080.178 ppb	11.302 ppb	22.912 ppb	6,523.853 ppb	954.442 ppb
Concentration per Run 3	141.908 %	49.031 ppb	15.941 ppb	598.842 ppb	25,467.325 ppb	11.356 ppb	23.352 ppb	6,348.306 ppb	921.814 ppb
Concentration RSD	7.0 %	2.0 %	2.8 %	0.2 %	1.2 %	2.3 %	5.0 %	1.4 %	1.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	125.226 %	7.605 ppb	3.088 ppb	101.871 ppb	0.302 ppb	117.626 %	0.440 ppb	1.447 ppb	112.520 %
Concentration per Run 1	120.648 %	7.399 ppb	3.046 ppb	97.499 ppb	0.389 ppb	115.153 %	0.450 ppb	1.485 ppb	106.547 %
Concentration per Run 2	123.649 %	7.873 ppb	2.708 ppb	104.326 ppb	0.275 ppb	117.843 %	0.411 ppb	1.381 ppb	114.415 %
Concentration per Run 3	131.380 %	7.543 ppb	3.509 ppb	103.789 ppb	0.243 ppb	119.882 %	0.461 ppb	1.476 ppb	116.597 %
Concentration RSD	4.4 %	3.2 %	13.0 %	3.7 %	25.4 %	2.0 %	5.9 %	4.0 %	4.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	7.687 ppb	100.709 ppb	116.727 %	111.309 %	0.040 ppb	1,996.995 ppb
Concentration per Run 1	7.765 ppb	100.840 ppb	114.407 %	107.484 %	0.030 ppb	1,995.408 ppb
Concentration per Run 2	7.554 ppb	99.380 ppb	116.808 %	111.798 %	0.045 ppb	1,995.305 ppb
Concentration per Run 3	7.741 ppb	101.907 ppb	118.967 %	114.645 %	0.045 ppb	2,000.271 ppb
Concentration RSD	1.5 %	1.3 %	2.0 %	3.2 %	21.0 %	0.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	123	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2443048-14d5 A2-SEM	Rack	2		
Analysis started at:	8/28/2024 3:20:28 PM	Vial	49		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.449 %	134.381 %	1.222 ppb	4,984.141 ppb	6,640.005 ppb	8,814.601 ppb	1,701.926 ppb	29,031.592 ppb	112.820 %
Concentration per Run 1	101.848 %	122.593 %	1.221 ppb	5,210.058 ppb	7,016.717 ppb	9,055.106 ppb	1,727.234 ppb	28,906.886 ppb	112.883 %
Concentration per Run 2	102.185 %	150.884 %	1.254 ppb	4,611.267 ppb	6,112.725 ppb	8,316.174 ppb	1,672.401 ppb	29,256.341 ppb	112.301 %
Concentration per Run 3	103.313 %	129.666 %	1.193 ppb	5,131.098 ppb	6,790.571 ppb	9,072.523 ppb	1,706.142 ppb	28,931.548 ppb	113.275 %
Concentration RSD	0.7 %	11.0 %	2.5 %	6.5 %	7.1 %	4.9 %	1.6 %	0.7 %	0.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	120.419 %	67.088 ppb	18.242 ppb	1,070.015 ppb	26,477.546 ppb	15.702 ppb	25.040 ppb	425.772 ppb	189.597 ppb
Concentration per Run 1	119.617 %	67.861 ppb	18.298 ppb	1,064.090 ppb	26,575.762 ppb	15.576 ppb	25.125 ppb	429.380 ppb	186.549 ppb
Concentration per Run 2	121.060 %	65.693 ppb	18.550 ppb	1,080.027 ppb	26,793.552 ppb	15.858 ppb	25.545 ppb	430.337 ppb	193.819 ppb
Concentration per Run 3	120.579 %	67.710 ppb	17.878 ppb	1,065.930 ppb	26,063.324 ppb	15.670 ppb	24.450 ppb	417.599 ppb	188.423 ppb
Concentration RSD	0.6 %	1.8 %	1.9 %	0.8 %	1.4 %	0.9 %	2.2 %	1.7 %	2.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	115.172 %	10.421 ppb	3.514 ppb	157.277 ppb	0.271 ppb	106.597 %	0.212 ppb	0.591 ppb	102.371 %
Concentration per Run 1	119.453 %	10.268 ppb	3.766 ppb	155.419 ppb	0.277 ppb	107.750 %	0.207 ppb	0.599 ppb	98.549 %
Concentration per Run 2	112.028 %	10.250 ppb	3.348 ppb	159.782 ppb	0.261 ppb	106.449 %	0.221 ppb	0.649 ppb	104.663 %
Concentration per Run 3	114.035 %	10.745 ppb	3.428 ppb	156.629 ppb	0.274 ppb	105.593 %	0.207 ppb	0.524 ppb	103.902 %
Concentration RSD	3.3 %	2.7 %	6.3 %	1.4 %	3.1 %	1.0 %	3.8 %	10.6 %	3.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	1.911 ppb	100.817 ppb	109.124 %	105.897 %	0.114 ppb	350.756 ppb
Concentration per Run 1	1.852 ppb	99.267 ppb	105.654 %	101.635 %	0.102 ppb	349.446 ppb
Concentration per Run 2	1.849 ppb	101.481 ppb	110.756 %	107.706 %	0.119 ppb	351.551 ppb
Concentration per Run 3	2.031 ppb	101.702 ppb	110.962 %	108.351 %	0.122 ppb	351.270 ppb
Concentration RSD	5.4 %	1.3 %	2.8 %	3.5 %	9.3 %	0.3 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	124	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2443048-15d5 A2-SEM	Rack	2		
Analysis started at:	8/28/2024 3:24:57 PM	Vial	50		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.864 %	115.324 %	0.585 ppb	4,208.696 ppb	4,254.400 ppb	5,167.255 ppb	1,131.916 ppb	51,178.515 ppb	109.820 %
Concentration per Run 1	99.144 %	110.216 %	0.582 ppb	4,110.739 ppb	4,135.944 ppb	4,996.900 ppb	1,097.525 ppb	48,107.773 ppb	109.829 %
Concentration per Run 2	99.075 %	119.646 %	0.558 ppb	4,094.291 ppb	4,169.513 ppb	5,121.486 ppb	1,135.865 ppb	51,502.431 ppb	110.046 %
Concentration per Run 3	98.372 %	116.110 %	0.616 ppb	4,421.060 ppb	4,457.743 ppb	5,383.378 ppb	1,162.357 ppb	53,925.342 ppb	109.586 %
Concentration RSD	0.4 %	4.1 %	5.0 %	4.4 %	4.2 %	3.8 %	2.9 %	5.7 %	0.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	119.991 %	44.713 ppb	11.436 ppb	908.794 ppb	20,269.780 ppb	10.319 ppb	11.728 ppb	757.491 ppb	217.832 ppb
Concentration per Run 1	126.673 %	41.756 ppb	10.881 ppb	861.092 ppb	19,325.877 ppb	9.964 ppb	11.683 ppb	738.831 ppb	210.130 ppb
Concentration per Run 2	117.212 %	45.815 ppb	11.791 ppb	916.739 ppb	20,330.774 ppb	10.474 ppb	12.322 ppb	749.899 ppb	217.269 ppb
Concentration per Run 3	116.089 %	46.567 ppb	11.635 ppb	948.551 ppb	21,152.690 ppb	10.519 ppb	11.180 ppb	783.744 ppb	226.096 ppb
Concentration RSD	4.8 %	5.8 %	4.3 %	4.9 %	4.5 %	3.0 %	4.9 %	3.1 %	3.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.047 %	7.648 ppb	3.328 ppb	169.927 ppb	0.269 ppb	102.040 %	0.209 ppb	0.607 ppb	96.215 %
Concentration per Run 1	104.255 %	7.635 ppb	3.456 ppb	170.766 ppb	0.235 ppb	103.342 %	0.203 ppb	0.666 ppb	96.918 %
Concentration per Run 2	107.656 %	7.372 ppb	3.621 ppb	161.890 ppb	0.310 ppb	98.908 %	0.227 ppb	0.583 ppb	93.799 %
Concentration per Run 3	103.229 %	7.938 ppb	2.908 ppb	177.126 ppb	0.262 ppb	103.869 %	0.198 ppb	0.572 ppb	97.929 %
Concentration RSD	2.2 %	3.7 %	11.2 %	4.5 %	14.0 %	2.7 %	7.4 %	8.5 %	2.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	2.458 ppb	83.939 ppb	107.912 %	104.028 %	0.044 ppb	633.242 ppb
Concentration per Run 1	2.467 ppb	83.720 ppb	105.942 %	103.243 %	0.033 ppb	623.386 ppb
Concentration per Run 2	2.392 ppb	82.923 ppb	106.844 %	102.308 %	0.049 ppb	639.876 ppb
Concentration per Run 3	2.513 ppb	85.174 ppb	110.950 %	106.532 %	0.048 ppb	636.465 ppb
Concentration RSD	2.5 %	1.4 %	2.5 %	2.1 %	20.2 %	1.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	125	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 3:29:27 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.274 %	117.485 %	63.412 ppb	6,754.778 ppb	6,414.833 ppb	70.156 ppb	6,209.712 ppb	6,219.491 ppb	104.348 %
Concentration per Run 1	100.643 %	114.342 %	63.080 ppb	6,507.015 ppb	6,517.899 ppb	73.587 ppb	5,962.265 ppb	6,083.177 ppb	104.988 %
Concentration per Run 2	100.674 %	120.825 %	63.775 ppb	6,968.922 ppb	6,413.342 ppb	66.387 ppb	6,285.159 ppb	6,264.264 ppb	104.128 %
Concentration per Run 3	99.505 %	117.289 %	63.381 ppb	6,788.399 ppb	6,313.258 ppb	70.493 ppb	6,381.711 ppb	6,311.032 ppb	103.929 %
Recovery Percentage 1			105.686 %	112.580 %	106.914 %	116.926 %	103.495 %	103.658 %	
Concentration RSD	0.7 %	2.8 %	0.5 %	3.4 %	1.6 %	5.1 %	3.5 %	1.9 %	0.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	112.080 %	63.206 ppb	63.057 ppb	63.703 ppb	6,419.396 ppb	63.114 ppb	63.022 ppb	64.727 ppb	63.100 ppb
Concentration per Run 1	114.005 %	62.375 ppb	61.408 ppb	62.540 ppb	6,296.707 ppb	62.279 ppb	62.024 ppb	64.132 ppb	64.443 ppb
Concentration per Run 2	108.071 %	64.797 ppb	64.202 ppb	64.134 ppb	6,519.797 ppb	64.616 ppb	63.496 ppb	65.619 ppb	63.752 ppb
Concentration per Run 3	114.165 %	62.445 ppb	63.561 ppb	64.436 ppb	6,441.685 ppb	62.447 ppb	63.545 ppb	64.430 ppb	61.104 ppb
Recovery Percentage 1		105.343 %	105.095 %	106.172 %	106.990 %	105.190 %	105.036 %	107.878 %	105.166 %
Concentration RSD	3.1 %	2.2 %	2.3 %	1.6 %	1.8 %	2.1 %	1.4 %	1.2 %	2.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.749 %	61.764 ppb	62.954 ppb	55.460 ppb	60.256 ppb	103.976 %	62.113 ppb	62.571 ppb	100.401 %
Concentration per Run 1	102.868 %	62.439 ppb	61.792 ppb	55.668 ppb	60.792 ppb	105.549 %	61.442 ppb	61.376 ppb	101.499 %
Concentration per Run 2	105.330 %	61.983 ppb	63.115 ppb	54.068 ppb	59.510 ppb	101.054 %	63.144 ppb	62.753 ppb	95.906 %
Concentration per Run 3	109.050 %	60.869 ppb	63.955 ppb	56.643 ppb	60.464 ppb	105.324 %	61.754 ppb	63.583 ppb	103.798 %
Recovery Percentage 1		102.939 %	104.923 %	92.433 %	100.426 %		103.522 %	104.284 %	
Concentration RSD	2.9 %	1.3 %	1.7 %	2.3 %	1.1 %	2.4 %	1.5 %	1.8 %	4.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	60.461 ppb	60.311 ppb	104.187 %	102.510 %	62.931 ppb	64.510 ppb
Concentration per Run 1	59.802 ppb	59.346 ppb	105.560 %	104.433 %	60.950 ppb	62.028 ppb
Concentration per Run 2	60.950 ppb	60.575 ppb	101.152 %	97.832 %	64.778 ppb	67.192 ppb
Concentration per Run 3	60.631 ppb	61.011 ppb	105.848 %	105.264 %	63.065 ppb	64.309 ppb
Recovery Percentage 1	100.768 %	100.518 %			104.885 %	107.517 %
Concentration RSD	1.0 %	1.4 %	2.5 %	4.0 %	3.0 %	4.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	126	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 3:33:59 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.863 %	116.110 %	-0.002 ppb	-5.885 ppb	0.122 ppb	0.592 ppb	-13.655 ppb	9.847 ppb	105.925 %
Concentration per Run 1	102.367 %	122.593 %	-0.008 ppb	-8.491 ppb	0.802 ppb	0.395 ppb	-3.393 ppb	24.019 ppb	105.515 %
Concentration per Run 2	103.494 %	104.322 %	-0.002 ppb	-4.385 ppb	-0.167 ppb	1.326 ppb	-18.595 ppb	8.653 ppb	106.850 %
Concentration per Run 3	102.728 %	121.415 %	0.003 ppb	-4.779 ppb	-0.269 ppb	0.055 ppb	-18.977 ppb	-3.133 ppb	105.411 %
Recovery Percentage 1			-0.446 %	-5.885 %	0.174 %	5.919 %	-13.655 %	9.847 %	
Concentration RSD	0.6 %	8.8 %	256.6 %	38.5 %	484.5 %	111.2 %	65.1 %	138.3 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	107.323 %	-0.108 ppb	0.002 ppb	0.110 ppb	7.215 ppb	0.007 ppb	0.022 ppb	0.240 ppb	0.046 ppb
Concentration per Run 1	110.477 %	-0.157 ppb	0.013 ppb	0.175 ppb	11.119 ppb	0.009 ppb	-0.016 ppb	0.401 ppb	0.155 ppb
Concentration per Run 2	101.177 %	-0.089 ppb	-0.027 ppb	0.129 ppb	8.195 ppb	0.018 ppb	0.046 ppb	0.260 ppb	-0.009 ppb
Concentration per Run 3	110.316 %	-0.076 ppb	0.019 ppb	0.027 ppb	2.331 ppb	-0.005 ppb	0.034 ppb	0.059 ppb	-0.008 ppb
Recovery Percentage 1		-2.154 %	0.157 %	11.023 %	14.430 %	1.434 %	1.079 %	24.006 %	0.919 %
Concentration RSD	5.0 %	40.4 %	1,594.0 %	69.0 %	62.0 %	160.1 %	153.0 %	71.5 %	205.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.911 %	0.020 ppb	0.040 ppb	0.009 ppb	0.152 ppb	105.679 %	0.003 ppb	0.010 ppb	103.686 %
Concentration per Run 1	106.241 %	0.036 ppb	0.008 ppb	0.024 ppb	0.075 ppb	104.963 %	0.005 ppb	0.014 ppb	102.649 %
Concentration per Run 2	97.984 %	-0.022 ppb	0.112 ppb	0.006 ppb	0.159 ppb	104.173 %	0.002 ppb	0.009 ppb	101.410 %
Concentration per Run 3	107.508 %	0.045 ppb	0.002 ppb	-0.002 ppb	0.224 ppb	107.902 %	0.000 ppb	0.009 ppb	106.998 %
Recovery Percentage 1		3.905 %	0.809 %	0.093 %	7.616 %		0.644 %	5.242 %	
Concentration RSD	5.0 %	186.2 %	153.0 %	138.3 %	49.1 %	1.9 %	98.0 %	25.6 %	2.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.130 ppb	0.023 ppb	105.067 %	103.929 %	0.248 ppb	0.628 ppb
Concentration per Run 1	0.104 ppb	0.004 ppb	105.073 %	103.573 %	0.199 ppb	0.718 ppb
Concentration per Run 2	0.133 ppb	0.034 ppb	103.097 %	102.051 %	0.301 ppb	0.631 ppb
Concentration per Run 3	0.153 ppb	0.032 ppb	107.031 %	106.163 %	0.243 ppb	0.534 ppb
Recovery Percentage 1	3.256 %	4.634 %			24.796 %	62.786 %
Concentration RSD	18.8 %	70.2 %	1.9 %	2.0 %	20.7 %	14.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	127	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 3:40:10 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.464 %	123.969 %	63.309 ppb	6,244.471 ppb	6,242.244 ppb	62.613 ppb	5,996.428 ppb	5,731.466 ppb	102.575 %
Concentration per Run 1	97.444 %	127.309 %	62.983 ppb	5,901.327 ppb	5,986.175 ppb	57.599 ppb	5,460.335 ppb	5,263.537 ppb	101.156 %
Concentration per Run 2	98.641 %	117.289 %	63.687 ppb	6,441.097 ppb	6,434.681 ppb	66.969 ppb	6,203.873 ppb	5,815.452 ppb	102.635 %
Concentration per Run 3	99.305 %	127.309 %	63.258 ppb	6,390.988 ppb	6,305.876 ppb	63.270 ppb	6,325.075 ppb	6,115.411 ppb	103.933 %
Recovery Percentage 1			105.516 %	104.075 %	104.037 %	104.354 %	99.940 %	95.524 %	
Concentration RSD	1.0 %	4.7 %	0.6 %	4.8 %	3.7 %	7.5 %	7.8 %	7.5 %	1.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	114.486 %	61.689 ppb	61.633 ppb	61.930 ppb	6,183.030 ppb	61.210 ppb	63.431 ppb	62.438 ppb	62.411 ppb
Concentration per Run 1	122.825 %	57.580 ppb	56.831 ppb	59.016 ppb	5,717.342 ppb	56.254 ppb	59.761 ppb	60.075 ppb	58.320 ppb
Concentration per Run 2	111.760 %	62.806 ppb	62.488 ppb	61.187 ppb	6,164.399 ppb	62.188 ppb	63.463 ppb	63.338 ppb	63.399 ppb
Concentration per Run 3	108.873 %	64.679 ppb	65.581 ppb	65.588 ppb	6,667.350 ppb	65.188 ppb	67.069 ppb	63.900 ppb	65.513 ppb
Recovery Percentage 1		102.814 %	102.722 %	103.217 %	103.051 %	102.016 %	105.718 %	104.063 %	104.018 %
Concentration RSD	6.4 %	6.0 %	7.2 %	5.4 %	7.7 %	7.4 %	5.8 %	3.3 %	5.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.900 %	62.474 ppb	60.873 ppb	57.354 ppb	59.830 ppb	101.971 %	61.807 ppb	61.549 ppb	100.884 %
Concentration per Run 1	105.491 %	59.138 ppb	57.143 ppb	55.846 ppb	57.559 ppb	101.167 %	61.050 ppb	60.870 ppb	102.270 %
Concentration per Run 2	102.999 %	63.227 ppb	60.421 ppb	57.642 ppb	60.647 ppb	100.760 %	62.309 ppb	62.300 ppb	100.341 %
Concentration per Run 3	100.211 %	65.057 ppb	65.056 ppb	58.575 ppb	61.283 ppb	103.984 %	62.063 ppb	61.476 ppb	100.041 %
Recovery Percentage 1		104.123 %	101.456 %	95.590 %	99.716 %		103.012 %	102.581 %	
Concentration RSD	2.6 %	4.9 %	6.5 %	2.4 %	3.3 %	1.7 %	1.1 %	1.2 %	1.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	60.677 ppb	59.983 ppb	103.679 %	103.986 %	62.643 ppb	63.799 ppb
Concentration per Run 1	59.785 ppb	58.417 ppb	101.906 %	102.744 %	62.037 ppb	63.565 ppb
Concentration per Run 2	60.591 ppb	61.418 ppb	103.968 %	103.769 %	62.831 ppb	64.163 ppb
Concentration per Run 3	61.655 ppb	60.113 ppb	105.163 %	105.445 %	63.062 ppb	63.670 ppb
Recovery Percentage 1	101.128 %	99.972 %			104.406 %	106.332 %
Concentration RSD	1.5 %	2.5 %	1.6 %	1.3 %	0.9 %	0.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	128	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 3:46:17 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.397 %	118.075 %	0.012 ppb	-10.647 ppb	0.888 ppb	-0.215 ppb	-9.895 ppb	-4.427 ppb	101.434 %
Concentration per Run 1	98.398 %	109.037 %	0.013 ppb	-10.794 ppb	0.805 ppb	-0.351 ppb	-14.677 ppb	0.114 ppb	101.258 %
Concentration per Run 2	99.597 %	126.130 %	0.009 ppb	-11.753 ppb	0.112 ppb	-0.152 ppb	-10.176 ppb	-6.672 ppb	101.506 %
Concentration per Run 3	100.195 %	119.057 %	0.012 ppb	-9.393 ppb	1.748 ppb	-0.142 ppb	-4.834 ppb	-6.722 ppb	101.538 %
Recovery Percentage 1			2.314 %	-10.647 %	1.269 %	-2.148 %	-9.895 %	-4.427 %	
Concentration RSD	0.9 %	7.3 %	16.7 %	11.2 %	92.4 %	54.8 %	49.8 %	88.8 %	0.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	112.775 %	-0.091 ppb	0.026 ppb	0.086 ppb	5.739 ppb	0.023 ppb	0.054 ppb	0.121 ppb	0.047 ppb
Concentration per Run 1	112.241 %	-0.158 ppb	0.026 ppb	0.056 ppb	6.133 ppb	0.009 ppb	0.062 ppb	0.254 ppb	0.020 ppb
Concentration per Run 2	111.278 %	-0.116 ppb	0.048 ppb	0.119 ppb	7.601 ppb	0.038 ppb	0.066 ppb	0.033 ppb	0.120 ppb
Concentration per Run 3	114.806 %	-0.001 ppb	0.004 ppb	0.083 ppb	3.483 ppb	0.022 ppb	0.033 ppb	0.076 ppb	0.002 ppb
Recovery Percentage 1		-1.829 %	2.600 %	8.614 %	11.478 %	4.624 %	2.675 %	12.084 %	0.942 %
Concentration RSD	1.6 %	89.0 %	83.3 %	36.3 %	36.4 %	63.0 %	33.5 %	96.7 %	135.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.392 %	0.028 ppb	0.054 ppb	0.010 ppb	0.159 ppb	102.349 %	0.018 ppb	0.021 ppb	102.567 %
Concentration per Run 1	102.916 %	-0.030 ppb	0.037 ppb	0.005 ppb	0.146 ppb	101.719 %	0.014 ppb	0.023 ppb	102.550 %
Concentration per Run 2	98.527 %	0.066 ppb	0.122 ppb	0.016 ppb	0.190 ppb	101.588 %	0.024 ppb	0.037 ppb	102.820 %
Concentration per Run 3	105.735 %	0.049 ppb	0.004 ppb	0.007 ppb	0.142 ppb	103.740 %	0.017 ppb	0.005 ppb	102.329 %
Recovery Percentage 1		5.662 %	1.084 %	0.095 %	7.960 %		4.531 %	10.667 %	
Concentration RSD	3.5 %	179.8 %	112.1 %	61.7 %	16.7 %	1.2 %	28.1 %	75.3 %	0.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.140 ppb	0.057 ppb	103.478 %	102.956 %	0.186 ppb	0.501 ppb
Concentration per Run 1	0.115 ppb	0.033 ppb	102.505 %	102.538 %	0.170 ppb	0.514 ppb
Concentration per Run 2	0.141 ppb	0.076 ppb	103.056 %	102.075 %	0.221 ppb	0.526 ppb
Concentration per Run 3	0.164 ppb	0.061 ppb	104.872 %	104.254 %	0.167 ppb	0.462 ppb
Recovery Percentage 1	3.497 %	11.406 %			18.592 %	50.077 %
Concentration RSD	17.7 %	38.2 %	1.2 %	1.1 %	16.6 %	6.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	129	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2443048-16d5 A2-SEM	Rack	2		
Analysis started at:	8/28/2024 3:51:21 PM	Vial	51		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.562 %	123.576 %	0.683 ppb	4,546.116 ppb	5,214.652 ppb	5,136.283 ppb	1,294.692 ppb	17,865.057 ppb	113.063 %
Concentration per Run 1	101.663 %	120.236 %	0.687 ppb	4,396.413 ppb	5,089.546 ppb	4,965.711 ppb	1,220.204 ppb	16,755.540 ppb	112.652 %
Concentration per Run 2	103.501 %	119.646 %	0.708 ppb	4,780.361 ppb	5,502.762 ppb	5,432.403 ppb	1,336.572 ppb	18,709.094 ppb	114.586 %
Concentration per Run 3	102.522 %	130.845 %	0.653 ppb	4,461.574 ppb	5,051.649 ppb	5,010.735 ppb	1,327.298 ppb	18,130.537 ppb	111.952 %
Concentration RSD	0.9 %	5.1 %	4.0 %	4.5 %	4.8 %	5.0 %	5.0 %	5.6 %	1.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	118.601 %	40.455 ppb	12.222 ppb	786.958 ppb	21,844.388 ppb	9.356 ppb	14.913 ppb	1,188.652 ppb	329.014 ppb
Concentration per Run 1	122.183 %	38.939 ppb	11.721 ppb	759.758 ppb	20,997.081 ppb	8.653 ppb	14.195 ppb	1,167.292 ppb	318.845 ppb
Concentration per Run 2	110.958 %	43.529 ppb	12.945 ppb	807.385 ppb	22,328.413 ppb	9.835 ppb	14.953 ppb	1,179.624 ppb	331.060 ppb
Concentration per Run 3	122.664 %	38.898 ppb	12.000 ppb	793.731 ppb	22,207.671 ppb	9.581 ppb	15.592 ppb	1,219.040 ppb	337.138 ppb
Concentration RSD	5.6 %	6.6 %	5.2 %	3.1 %	3.4 %	6.6 %	4.7 %	2.3 %	2.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	106.371 %	9.566 ppb	2.555 ppb	103.585 ppb	0.188 ppb	104.191 %	0.253 ppb	0.819 ppb	100.175 %
Concentration per Run 1	105.938 %	9.544 ppb	2.867 ppb	102.343 ppb	0.182 ppb	103.134 %	0.243 ppb	0.762 ppb	99.481 %
Concentration per Run 2	109.587 %	9.287 ppb	2.466 ppb	102.943 ppb	0.179 ppb	103.282 %	0.277 ppb	0.823 ppb	100.135 %
Concentration per Run 3	103.587 %	9.868 ppb	2.331 ppb	105.470 ppb	0.204 ppb	106.157 %	0.239 ppb	0.871 ppb	100.908 %
Concentration RSD	2.8 %	3.0 %	10.9 %	1.6 %	7.3 %	1.6 %	8.3 %	6.6 %	0.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	3.034 ppb	71.701 ppb	109.533 %	108.344 %	0.087 ppb	904.497 ppb
Concentration per Run 1	2.972 ppb	69.415 ppb	108.507 %	106.346 %	0.071 ppb	900.122 ppb
Concentration per Run 2	3.080 ppb	73.305 ppb	108.915 %	108.122 %	0.089 ppb	913.171 ppb
Concentration per Run 3	3.050 ppb	72.382 ppb	111.176 %	110.565 %	0.101 ppb	900.199 ppb
Concentration RSD	1.8 %	2.8 %	1.3 %	2.0 %	17.4 %	0.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	130	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2443048-17d5 A2-SEM	Rack	2		
Analysis started at:	8/28/2024 3:55:49 PM	Vial	52		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	108.369 %	141.651 %	1.065 ppb	6,048.976 ppb	10,341.855 ppb	11,421.692 ppb	2,567.020 ppb	32,823.315 ppb	124.874 %
Concentration per Run 1	108.426 %	146.759 %	1.065 ppb	6,029.282 ppb	10,313.924 ppb	11,546.420 ppb	2,701.941 ppb	35,658.636 ppb	124.061 %
Concentration per Run 2	108.903 %	133.792 %	1.030 ppb	6,184.333 ppb	10,525.411 ppb	11,539.544 ppb	2,559.606 ppb	31,790.848 ppb	124.686 %
Concentration per Run 3	107.777 %	144.401 %	1.100 ppb	5,933.314 ppb	10,186.230 ppb	11,179.112 ppb	2,439.513 ppb	31,020.462 ppb	125.876 %
Concentration RSD	0.5 %	4.9 %	3.3 %	2.1 %	1.7 %	1.8 %	5.1 %	7.6 %	0.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	126.299 %	103.847 ppb	20.136 ppb	905.127 ppb	81,961.021 ppb	18.274 ppb	26.947 ppb	1,752.054 ppb	877.213 ppb
Concentration per Run 1	112.561 %	109.010 ppb	21.308 ppb	960.254 ppb	85,720.933 ppb	19.366 ppb	27.815 ppb	1,793.307 ppb	889.743 ppb
Concentration per Run 2	130.682 %	102.662 ppb	20.146 ppb	873.875 ppb	80,459.406 ppb	17.864 ppb	27.295 ppb	1,716.634 ppb	870.035 ppb
Concentration per Run 3	135.653 %	99.869 ppb	18.954 ppb	881.251 ppb	79,702.722 ppb	17.593 ppb	25.732 ppb	1,746.222 ppb	871.861 ppb
Concentration RSD	9.6 %	4.5 %	5.8 %	5.3 %	4.0 %	5.2 %	4.0 %	2.2 %	1.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	115.903 %	14.207 ppb	3.968 ppb	191.720 ppb	0.678 ppb	107.724 %	0.174 ppb	1.223 ppb	101.800 %
Concentration per Run 1	113.711 %	14.503 ppb	3.756 ppb	189.619 ppb	0.664 ppb	106.409 %	0.161 ppb	1.240 ppb	100.258 %
Concentration per Run 2	116.348 %	14.458 ppb	4.055 ppb	191.775 ppb	0.706 ppb	107.022 %	0.176 ppb	1.274 ppb	101.415 %
Concentration per Run 3	117.649 %	13.662 ppb	4.094 ppb	193.767 ppb	0.665 ppb	109.742 %	0.184 ppb	1.155 ppb	103.727 %
Concentration RSD	1.7 %	3.3 %	4.7 %	1.1 %	3.5 %	1.6 %	6.8 %	5.0 %	1.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	9.994 ppb	138.706 ppb	112.963 %	109.839 %	0.108 ppb	2,114.853 ppb
Concentration per Run 1	9.955 ppb	138.045 ppb	110.910 %	108.255 %	0.097 ppb	2,097.543 ppb
Concentration per Run 2	10.162 ppb	138.091 ppb	113.519 %	108.795 %	0.126 ppb	2,141.709 ppb
Concentration per Run 3	9.866 ppb	139.980 ppb	114.461 %	112.468 %	0.102 ppb	2,105.308 ppb
Concentration RSD	1.5 %	0.8 %	1.6 %	2.1 %	14.1 %	1.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	131	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2443048-18d5 A2-SEM	Rack	2		
Analysis started at:	8/28/2024 4:00:19 PM	Vial	53		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	113.034 %	147.152 %	0.788 ppb	5,984.165 ppb	5,088.185 ppb	4,989.699 ppb	1,059.267 ppb	9,721.752 ppb	127.284 %
Concentration per Run 1	113.279 %	149.116 %	0.804 ppb	5,891.175 ppb	5,028.064 ppb	5,020.895 ppb	1,088.558 ppb	10,097.319 ppb	126.518 %
Concentration per Run 2	112.492 %	150.884 %	0.759 ppb	5,888.005 ppb	5,038.886 ppb	4,862.439 ppb	1,046.477 ppb	9,686.497 ppb	126.813 %
Concentration per Run 3	113.332 %	141.454 %	0.799 ppb	6,173.315 ppb	5,197.604 ppb	5,085.761 ppb	1,042.766 ppb	9,381.440 ppb	128.523 %
Concentration RSD	0.4 %	3.4 %	3.1 %	2.7 %	1.9 %	2.3 %	2.4 %	3.7 %	0.9 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	125.978 %	69.718 ppb	27.092 ppb	859.781 ppb	146,405.810 ppb	19.133 ppb	57.522 ppb	2,460.977 ppb	1,282.501 ppb
Concentration per Run 1	119.778 %	71.193 ppb	27.544 ppb	874.386 ppb	148,795.253 ppb	19.260 ppb	56.008 ppb	2,501.590 ppb	1,311.674 ppb
Concentration per Run 2	126.192 %	69.795 ppb	27.043 ppb	865.185 ppb	145,805.766 ppb	19.033 ppb	58.529 ppb	2,442.705 ppb	1,267.896 ppb
Concentration per Run 3	131.965 %	68.167 ppb	26.687 ppb	839.773 ppb	144,616.410 ppb	19.105 ppb	58.031 ppb	2,438.636 ppb	1,267.934 ppb
Concentration RSD	4.8 %	2.2 %	1.6 %	2.1 %	1.5 %	0.6 %	2.3 %	1.4 %	2.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	125.588 %	10.792 ppb	1.911 ppb	90.863 ppb	0.151 ppb	112.814 %	0.023 ppb	2.754 ppb	105.523 %
Concentration per Run 1	120.213 %	11.525 ppb	1.782 ppb	89.704 ppb	0.152 ppb	108.537 %	0.027 ppb	2.719 ppb	101.713 %
Concentration per Run 2	128.582 %	10.369 ppb	1.965 ppb	91.390 ppb	0.175 ppb	114.315 %	0.017 ppb	2.652 ppb	106.705 %
Concentration per Run 3	127.969 %	10.482 ppb	1.987 ppb	91.496 ppb	0.127 ppb	115.591 %	0.024 ppb	2.890 ppb	108.150 %
Concentration RSD	3.7 %	5.9 %	5.9 %	1.1 %	15.7 %	3.3 %	23.7 %	4.4 %	3.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	4.833 ppb	122.743 ppb	111.015 %	109.489 %	0.082 ppb	1,903.304 ppb
Concentration per Run 1	4.809 ppb	118.962 ppb	106.833 %	104.758 %	0.072 ppb	1,927.546 ppb
Concentration per Run 2	4.912 ppb	125.861 ppb	113.282 %	111.769 %	0.079 ppb	1,889.164 ppb
Concentration per Run 3	4.777 ppb	123.404 ppb	112.929 %	111.940 %	0.095 ppb	1,893.203 ppb
Concentration RSD	1.5 %	2.8 %	3.3 %	3.7 %	14.4 %	1.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	132	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2443048-19d5 A2-SEM	Rack	2		
Analysis started at:	8/28/2024 4:04:48 PM	Vial	54		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	116.392 %	143.419 %	0.864 ppb	8,434.028 ppb	6,575.327 ppb	5,580.861 ppb	1,789.333 ppb	13,328.481 ppb	134.221 %
Concentration per Run 1	116.691 %	136.150 %	0.881 ppb	8,454.861 ppb	6,742.574 ppb	5,555.248 ppb	1,739.386 ppb	13,773.757 ppb	133.103 %
Concentration per Run 2	116.788 %	151.474 %	0.842 ppb	8,214.974 ppb	6,283.532 ppb	5,441.304 ppb	1,822.368 ppb	13,089.803 ppb	134.026 %
Concentration per Run 3	115.697 %	142.633 %	0.870 ppb	8,632.250 ppb	6,699.875 ppb	5,746.030 ppb	1,806.244 ppb	13,121.883 ppb	135.534 %
Concentration RSD	0.5 %	5.4 %	2.3 %	2.5 %	3.9 %	2.8 %	2.5 %	2.9 %	0.9 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	125.390 %	61.076 ppb	23.237 ppb	672.504 ppb	71,055.420 ppb	11.316 ppb	25.315 ppb	6,940.322 ppb	2,551.886 ppb
Concentration per Run 1	121.221 %	61.606 ppb	23.464 ppb	685.506 ppb	71,319.344 ppb	11.457 ppb	24.962 ppb	7,029.158 ppb	2,542.769 ppb
Concentration per Run 2	126.192 %	60.838 ppb	22.889 ppb	667.209 ppb	71,155.338 ppb	11.154 ppb	25.400 ppb	6,973.450 ppb	2,574.746 ppb
Concentration per Run 3	128.758 %	60.782 ppb	23.358 ppb	664.797 ppb	70,691.580 ppb	11.338 ppb	25.583 ppb	6,818.357 ppb	2,538.144 ppb
Concentration RSD	3.1 %	0.8 %	1.3 %	1.7 %	0.5 %	1.4 %	1.3 %	1.6 %	0.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	127.347 %	7.056 ppb	2.511 ppb	86.447 ppb	0.326 ppb	115.818 %	0.323 ppb	0.740 ppb	110.452 %
Concentration per Run 1	124.789 %	7.165 ppb	2.613 ppb	85.435 ppb	0.303 ppb	110.344 %	0.315 ppb	0.702 ppb	105.767 %
Concentration per Run 2	127.787 %	7.197 ppb	2.004 ppb	86.364 ppb	0.338 ppb	118.693 %	0.304 ppb	0.724 ppb	112.345 %
Concentration per Run 3	129.467 %	6.805 ppb	2.915 ppb	87.544 ppb	0.337 ppb	118.417 %	0.351 ppb	0.794 ppb	113.244 %
Concentration RSD	1.9 %	3.1 %	18.5 %	1.2 %	6.2 %	4.1 %	7.7 %	6.5 %	3.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	1.914 ppb	72.960 ppb	114.834 %	109.380 %	0.095 ppb	1,050.978 ppb
Concentration per Run 1	1.811 ppb	71.126 ppb	109.405 %	101.646 %	0.087 ppb	1,065.081 ppb
Concentration per Run 2	1.946 ppb	73.686 ppb	117.691 %	113.062 %	0.086 ppb	1,048.733 ppb
Concentration per Run 3	1.984 ppb	74.067 ppb	117.406 %	113.431 %	0.111 ppb	1,039.119 ppb
Concentration RSD	4.7 %	2.2 %	4.1 %	6.1 %	14.8 %	1.2 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	133	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2443048-10d50 A2-SEM	Rack	2		
Analysis started at:	8/28/2024 4:22:57 PM	Vial	55		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	113.860 %	137.721 %	0.095 ppb	512.875 ppb	741.527 ppb	575.942 ppb	114.622 ppb	1,618.408 ppb	122.577 %
Concentration per Run 1	113.313 %	123.772 %	0.080 ppb	529.283 ppb	754.890 ppb	587.337 ppb	113.239 ppb	1,577.451 ppb	121.481 %
Concentration per Run 2	114.297 %	133.203 %	0.107 ppb	528.171 ppb	761.867 ppb	586.672 ppb	111.554 ppb	1,589.765 ppb	121.536 %
Concentration per Run 3	113.971 %	156.189 %	0.098 ppb	481.170 ppb	707.824 ppb	553.817 ppb	119.073 ppb	1,688.007 ppb	124.712 %
Concentration RSD	0.4 %	12.1 %	14.1 %	5.4 %	4.0 %	3.3 %	3.4 %	3.7 %	1.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	116.410 %	8.472 ppb	5.712 ppb	244.462 ppb	15,960.312 ppb	3.561 ppb	35.065 ppb	2,847.750 ppb	622.889 ppb
Concentration per Run 1	117.212 %	8.792 ppb	5.520 ppb	240.995 ppb	15,966.494 ppb	3.553 ppb	35.099 ppb	2,873.280 ppb	628.514 ppb
Concentration per Run 2	111.118 %	8.417 ppb	5.848 ppb	249.678 ppb	16,186.873 ppb	3.723 ppb	35.310 ppb	2,916.949 ppb	634.401 ppb
Concentration per Run 3	120.900 %	8.207 ppb	5.768 ppb	242.713 ppb	15,727.570 ppb	3.406 ppb	34.784 ppb	2,753.019 ppb	605.752 ppb
Concentration RSD	4.2 %	3.5 %	3.0 %	1.9 %	1.4 %	4.5 %	0.8 %	3.0 %	2.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	115.428 %	1.652 ppb	0.336 ppb	15.539 ppb	0.114 ppb	111.143 %	0.305 ppb	1.274 ppb	107.211 %
Concentration per Run 1	111.267 %	1.552 ppb	0.230 ppb	15.878 ppb	0.105 ppb	110.456 %	0.303 ppb	1.310 ppb	107.671 %
Concentration per Run 2	111.573 %	1.705 ppb	0.529 ppb	15.011 ppb	0.107 ppb	108.508 %	0.290 ppb	1.287 ppb	103.435 %
Concentration per Run 3	123.445 %	1.698 ppb	0.250 ppb	15.727 ppb	0.131 ppb	114.465 %	0.322 ppb	1.226 ppb	110.526 %
Concentration RSD	6.0 %	5.2 %	49.7 %	3.0 %	12.6 %	2.7 %	5.2 %	3.4 %	3.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	4.087 ppb	19.394 ppb	109.428 %	109.575 %	0.027 ppb	617.473 ppb
Concentration per Run 1	4.175 ppb	19.897 ppb	109.525 %	108.757 %	0.015 ppb	612.380 ppb
Concentration per Run 2	3.973 ppb	19.182 ppb	106.612 %	106.630 %	0.030 ppb	631.796 ppb
Concentration per Run 3	4.112 ppb	19.102 ppb	112.147 %	113.337 %	0.037 ppb	608.242 ppb
Concentration RSD	2.5 %	2.3 %	2.5 %	3.1 %	41.4 %	2.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	134	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 4:34:53 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.601 %	128.880 %	62.369 ppb	6,613.139 ppb	6,539.283 ppb	73.285 ppb	6,491.510 ppb	6,298.533 ppb	107.199 %
Concentration per Run 1	101.949 %	128.487 %	62.708 ppb	6,506.594 ppb	6,388.678 ppb	77.597 ppb	6,409.108 ppb	6,454.534 ppb	106.559 %
Concentration per Run 2	105.652 %	121.415 %	61.333 ppb	6,752.154 ppb	6,699.679 ppb	68.327 ppb	6,389.643 ppb	6,125.664 ppb	108.445 %
Concentration per Run 3	103.203 %	136.739 %	63.066 ppb	6,580.670 ppb	6,529.494 ppb	73.931 ppb	6,675.780 ppb	6,315.401 ppb	106.592 %
Recovery Percentage 1			103.949 %	110.219 %	108.988 %	122.142 %	108.192 %	104.976 %	
Concentration RSD	1.8 %	6.0 %	1.5 %	1.9 %	2.4 %	6.4 %	2.5 %	2.6 %	1.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	118.014 %	62.874 ppb	62.866 ppb	63.345 ppb	6,399.727 ppb	63.474 ppb	65.896 ppb	62.591 ppb	62.959 ppb
Concentration per Run 1	113.042 %	63.090 ppb	65.109 ppb	64.783 ppb	6,589.908 ppb	65.235 ppb	69.791 ppb	64.692 ppb	63.583 ppb
Concentration per Run 2	115.929 %	62.155 ppb	62.806 ppb	62.271 ppb	6,254.426 ppb	63.107 ppb	65.336 ppb	63.392 ppb	61.640 ppb
Concentration per Run 3	125.070 %	63.377 ppb	60.682 ppb	62.980 ppb	6,354.848 ppb	62.079 ppb	62.561 ppb	59.690 ppb	63.653 ppb
Recovery Percentage 1		104.790 %	104.776 %	105.575 %	106.662 %	105.789 %	109.827 %	104.319 %	104.931 %
Concentration RSD	5.3 %	1.0 %	3.5 %	2.0 %	2.7 %	2.5 %	5.5 %	4.1 %	1.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	108.918 %	63.956 ppb	62.623 ppb	58.498 ppb	60.257 ppb	108.240 %	61.522 ppb	60.819 ppb	106.807 %
Concentration per Run 1	107.264 %	63.329 ppb	59.064 ppb	57.789 ppb	59.537 ppb	108.259 %	61.673 ppb	59.666 ppb	106.780 %
Concentration per Run 2	108.280 %	63.297 ppb	62.480 ppb	56.790 ppb	59.347 ppb	106.466 %	61.673 ppb	60.687 ppb	103.441 %
Concentration per Run 3	111.210 %	65.241 ppb	66.326 ppb	60.915 ppb	61.888 ppb	109.995 %	61.220 ppb	62.103 ppb	110.198 %
Recovery Percentage 1		106.593 %	104.372 %	97.497 %	100.429 %		102.536 %	101.364 %	
Concentration RSD	1.9 %	1.7 %	5.8 %	3.7 %	2.3 %	1.6 %	0.4 %	2.0 %	3.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	60.352 ppb	61.384 ppb	107.769 %	109.264 %	61.104 ppb	61.978 ppb
Concentration per Run 1	58.953 ppb	59.835 ppb	107.970 %	108.636 %	60.756 ppb	61.955 ppb
Concentration per Run 2	60.741 ppb	61.675 ppb	106.342 %	106.160 %	62.703 ppb	63.189 ppb
Concentration per Run 3	61.363 ppb	62.641 ppb	108.995 %	112.996 %	59.853 ppb	60.790 ppb
Recovery Percentage 1	100.587 %	102.307 %			101.840 %	103.297 %
Concentration RSD	2.1 %	2.3 %	1.2 %	3.2 %	2.4 %	1.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	135	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 4:39:24 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.483 %	124.951 %	0.046 ppb	-6.365 ppb	3.180 ppb	-0.333 ppb	-4.713 ppb	5.028 ppb	105.584 %
Concentration per Run 1	102.745 %	131.434 %	0.060 ppb	-10.410 ppb	2.693 ppb	-0.070 ppb	-7.280 ppb	7.267 ppb	105.481 %
Concentration per Run 2	103.360 %	120.825 %	0.045 ppb	-5.053 ppb	5.145 ppb	-0.444 ppb	-11.041 ppb	11.295 ppb	104.895 %
Concentration per Run 3	104.344 %	122.593 %	0.033 ppb	-3.632 ppb	1.701 ppb	-0.485 ppb	4.182 ppb	-3.477 ppb	106.377 %
Recovery Percentage 1			9.138 %	-6.365 %	4.542 %	-3.331 %	-4.713 %	5.028 %	
Concentration RSD	0.8 %	4.5 %	29.4 %	56.2 %	55.8 %	68.6 %	168.3 %	151.9 %	0.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	109.408 %	-0.029 ppb	0.061 ppb	0.068 ppb	13.370 ppb	0.014 ppb	0.071 ppb	0.160 ppb	0.135 ppb
Concentration per Run 1	108.071 %	0.030 ppb	0.049 ppb	0.120 ppb	14.069 ppb	0.016 ppb	0.039 ppb	0.171 ppb	0.200 ppb
Concentration per Run 2	105.666 %	-0.136 ppb	0.071 ppb	0.059 ppb	13.475 ppb	0.031 ppb	0.117 ppb	0.203 ppb	0.136 ppb
Concentration per Run 3	114.486 %	0.019 ppb	0.064 ppb	0.025 ppb	12.566 ppb	-0.005 ppb	0.056 ppb	0.106 ppb	0.070 ppb
Recovery Percentage 1		-0.578 %	6.132 %	6.808 %	26.740 %	2.814 %	3.542 %	16.035 %	2.707 %
Concentration RSD	4.2 %	320.4 %	18.5 %	70.5 %	5.7 %	128.4 %	58.1 %	30.9 %	47.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.247 %	0.021 ppb	0.135 ppb	0.021 ppb	0.235 ppb	104.873 %	0.028 ppb	0.033 ppb	103.833 %
Concentration per Run 1	102.409 %	-0.005 ppb	0.331 ppb	0.027 ppb	0.131 ppb	103.405 %	0.045 ppb	0.051 ppb	100.912 %
Concentration per Run 2	104.995 %	0.003 ppb	-0.069 ppb	0.020 ppb	0.286 ppb	103.803 %	0.025 ppb	0.032 ppb	101.882 %
Concentration per Run 3	108.337 %	0.066 ppb	0.145 ppb	0.017 ppb	0.288 ppb	107.412 %	0.014 ppb	0.017 ppb	108.705 %
Recovery Percentage 1		4.295 %	2.709 %	0.211 %	11.746 %		7.049 %	16.643 %	
Concentration RSD	2.8 %	181.0 %	148.0 %	25.1 %	38.4 %	2.1 %	55.1 %	50.2 %	4.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.152 ppb	0.047 ppb	104.839 %	105.230 %	0.243 ppb	0.391 ppb
Concentration per Run 1	0.136 ppb	0.077 ppb	103.387 %	102.084 %	0.204 ppb	0.416 ppb
Concentration per Run 2	0.159 ppb	0.033 ppb	104.144 %	104.931 %	0.295 ppb	0.378 ppb
Concentration per Run 3	0.162 ppb	0.031 ppb	106.984 %	108.676 %	0.231 ppb	0.378 ppb
Recovery Percentage 1	3.805 %	9.425 %			24.322 %	39.080 %
Concentration RSD	9.4 %	54.8 %	1.8 %	3.1 %	19.3 %	5.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	136	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 4:44:44 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.048 %	117.878 %	63.497 ppb	6,523.472 ppb	6,521.516 ppb	65.946 ppb	6,311.624 ppb	6,087.248 ppb	104.687 %
Concentration per Run 1	99.827 %	143.812 %	63.702 ppb	6,134.191 ppb	5,479.146 ppb	57.169 ppb	5,676.663 ppb	5,840.637 ppb	103.848 %
Concentration per Run 2	100.206 %	105.501 %	63.312 ppb	6,572.086 ppb	6,980.026 ppb	70.828 ppb	6,574.650 ppb	6,149.364 ppb	105.230 %
Concentration per Run 3	100.113 %	104.322 %	63.478 ppb	6,864.140 ppb	7,105.377 ppb	69.840 ppb	6,683.559 ppb	6,271.742 ppb	104.983 %
Recovery Percentage 1			105.829 %	108.725 %	108.692 %	109.909 %	105.194 %	101.454 %	
Concentration RSD	0.2 %	19.1 %	0.3 %	5.6 %	13.9 %	11.5 %	8.8 %	3.6 %	0.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	116.089 %	59.509 ppb	59.868 ppb	60.049 ppb	6,049.208 ppb	60.502 ppb	60.561 ppb	61.225 ppb	60.408 ppb
Concentration per Run 1	118.495 %	56.855 ppb	56.808 ppb	56.067 ppb	5,911.496 ppb	58.999 ppb	59.538 ppb	60.610 ppb	59.917 ppb
Concentration per Run 2	119.938 %	59.751 ppb	59.681 ppb	61.590 ppb	6,040.913 ppb	59.993 ppb	59.693 ppb	60.825 ppb	59.841 ppb
Concentration per Run 3	109.835 %	61.920 ppb	63.116 ppb	62.489 ppb	6,195.217 ppb	62.513 ppb	62.452 ppb	62.238 ppb	61.467 ppb
Recovery Percentage 1		99.181 %	99.780 %	100.081 %	100.820 %	100.836 %	100.935 %	102.041 %	100.681 %
Concentration RSD	4.7 %	4.3 %	5.3 %	5.8 %	2.3 %	3.0 %	2.7 %	1.4 %	1.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	107.184 %	60.197 ppb	58.713 ppb	57.627 ppb	59.744 ppb	102.701 %	61.063 ppb	60.438 ppb	102.550 %
Concentration per Run 1	106.593 %	58.532 ppb	56.395 ppb	55.867 ppb	59.522 ppb	102.478 %	60.382 ppb	60.103 ppb	101.703 %
Concentration per Run 2	108.259 %	61.952 ppb	61.782 ppb	60.583 ppb	60.873 ppb	102.745 %	60.974 ppb	59.371 ppb	106.748 %
Concentration per Run 3	106.699 %	60.108 ppb	57.962 ppb	56.429 ppb	58.836 ppb	102.881 %	61.832 ppb	61.839 ppb	99.199 %
Recovery Percentage 1		100.329 %	97.855 %	96.045 %	99.573 %		101.771 %	100.730 %	
Concentration RSD	0.9 %	2.8 %	4.7 %	4.5 %	1.7 %	0.2 %	1.2 %	2.1 %	3.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	60.487 ppb	61.778 ppb	102.726 %	104.290 %	61.626 ppb	62.374 ppb
Concentration per Run 1	59.401 ppb	61.403 ppb	101.307 %	102.029 %	61.634 ppb	62.382 ppb
Concentration per Run 2	59.938 ppb	61.700 ppb	103.861 %	106.265 %	60.478 ppb	61.657 ppb
Concentration per Run 3	62.121 ppb	62.231 ppb	103.010 %	104.575 %	62.766 ppb	63.083 ppb
Recovery Percentage 1	100.811 %	102.963 %			102.710 %	103.957 %
Concentration RSD	2.4 %	0.7 %	1.3 %	2.0 %	1.9 %	1.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	137	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 4:49:15 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.237 %	112.377 %	0.013 ppb	-6.317 ppb	3.221 ppb	-0.102 ppb	-4.719 ppb	7.917 ppb	102.101 %
Concentration per Run 1	99.101 %	110.806 %	0.014 ppb	-1.418 ppb	3.833 ppb	-0.054 ppb	-9.931 ppb	4.790 ppb	100.193 %
Concentration per Run 2	102.732 %	111.984 %	0.008 ppb	-7.725 ppb	2.352 ppb	-0.377 ppb	10.271 ppb	9.116 ppb	103.540 %
Concentration per Run 3	101.877 %	114.342 %	0.018 ppb	-9.809 ppb	3.477 ppb	0.124 ppb	-14.498 ppb	9.846 ppb	102.570 %
Recovery Percentage 1			2.644 %	-6.317 %	4.601 %	-1.022 %	-4.719 %	7.917 %	
Concentration RSD	1.9 %	1.6 %	40.7 %	69.2 %	24.0 %	248.5 %	279.3 %	34.5 %	1.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	111.332 %	-0.109 ppb	0.058 ppb	0.038 ppb	6.111 ppb	0.018 ppb	0.120 ppb	0.077 ppb	0.125 ppb
Concentration per Run 1	101.497 %	-0.069 ppb	0.067 ppb	0.093 ppb	7.833 ppb	0.024 ppb	0.146 ppb	0.117 ppb	0.108 ppb
Concentration per Run 2	118.495 %	-0.139 ppb	0.055 ppb	-0.004 ppb	5.112 ppb	0.008 ppb	0.078 ppb	0.087 ppb	0.130 ppb
Concentration per Run 3	114.005 %	-0.118 ppb	0.052 ppb	0.026 ppb	5.388 ppb	0.023 ppb	0.135 ppb	0.027 ppb	0.137 ppb
Recovery Percentage 1		-2.180 %	5.773 %	3.806 %	12.222 %	3.657 %	5.997 %	7.699 %	2.500 %
Concentration RSD	7.9 %	33.0 %	14.3 %	130.8 %	24.5 %	47.8 %	30.5 %	60.0 %	12.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	106.434 %	0.059 ppb	0.329 ppb	0.015 ppb	0.214 ppb	104.451 %	0.027 ppb	0.024 ppb	104.660 %
Concentration per Run 1	106.385 %	0.000 ppb	0.169 ppb	0.014 ppb	0.153 ppb	104.420 %	0.031 ppb	0.031 ppb	104.106 %
Concentration per Run 2	108.410 %	0.124 ppb	0.174 ppb	0.016 ppb	0.152 ppb	104.482 %	0.027 ppb	0.026 ppb	109.534 %
Concentration per Run 3	104.506 %	0.051 ppb	0.645 ppb	0.015 ppb	0.338 ppb	104.450 %	0.022 ppb	0.014 ppb	100.339 %
Recovery Percentage 1		11.723 %	6.583 %	0.150 %	10.718 %		6.714 %	11.882 %	
Concentration RSD	1.8 %	105.8 %	83.1 %	6.5 %	49.8 %	0.0 %	17.7 %	38.0 %	4.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.140 ppb	0.047 ppb	103.759 %	104.979 %	0.276 ppb	0.294 ppb
Concentration per Run 1	0.103 ppb	0.090 ppb	103.486 %	101.803 %	0.232 ppb	0.309 ppb
Concentration per Run 2	0.136 ppb	0.031 ppb	105.425 %	108.189 %	0.322 ppb	0.291 ppb
Concentration per Run 3	0.182 ppb	0.019 ppb	102.365 %	104.946 %	0.275 ppb	0.283 ppb
Recovery Percentage 1	3.503 %	9.367 %			27.619 %	29.412 %
Concentration RSD	28.1 %	80.4 %	1.5 %	3.0 %	16.4 %	4.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	138	User name	ALPHALAB\a2-icpmsq2	Comment	NG
Analysis label:	L2447714-01d5 6020SL	Rack	2		
Analysis started at:	8/28/2024 4:58:19 PM	Vial	15		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.917 %	119.057 %	0.211 ppb	103,164.621 ppb	8,042.859 ppb	4.626 ppb	31,260.714 ppb	11,866.982 ppb	97.728 %
Concentration per Run 1	94.675 %	116.110 %	0.198 ppb	102,753.190 ppb	8,186.712 ppb	3.586 ppb	31,910.110 ppb	12,120.668 ppb	96.350 %
Concentration per Run 2	96.562 %	118.468 %	0.202 ppb	104,367.731 ppb	8,005.252 ppb	4.569 ppb	31,484.405 ppb	12,109.340 ppb	97.866 %
Concentration per Run 3	96.512 %	122.593 %	0.233 ppb	102,372.943 ppb	7,936.614 ppb	5.723 ppb	30,387.628 ppb	11,370.939 ppb	98.967 %
Concentration RSD	1.1 %	2.8 %	9.0 %	1.0 %	1.6 %	23.1 %	2.5 %	3.6 %	1.3 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	102.245 %	0.950 ppb	1.618 ppb	106.176 ppb	4,459.919 ppb	7.741 ppb	18.621 ppb	0.431 ppb	0.618 ppb
Concentration per Run 1	100.855 %	1.046 ppb	1.778 ppb	107.942 ppb	4,485.046 ppb	7.726 ppb	18.105 ppb	0.397 ppb	0.702 ppb
Concentration per Run 2	96.366 %	0.950 ppb	1.511 ppb	107.641 ppb	4,546.102 ppb	7.763 ppb	19.340 ppb	0.599 ppb	0.662 ppb
Concentration per Run 3	109.515 %	0.855 ppb	1.566 ppb	102.944 ppb	4,348.607 ppb	7.735 ppb	18.418 ppb	0.298 ppb	0.491 ppb
Concentration RSD	6.5 %	10.1 %	8.7 %	2.6 %	2.3 %	0.2 %	3.4 %	35.6 %	18.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	94.779 %	2.017 ppb	0.223 ppb	83.335 ppb	6.354 ppb	94.661 %	0.001 ppb	0.003 ppb	93.764 %
Concentration per Run 1	96.176 %	1.969 ppb	0.271 ppb	83.701 ppb	6.117 ppb	93.823 %	0.001 ppb	0.005 ppb	93.206 %
Concentration per Run 2	87.720 %	2.027 ppb	0.216 ppb	83.058 ppb	6.803 ppb	93.914 %	-0.001 ppb	0.000 ppb	92.204 %
Concentration per Run 3	100.441 %	2.053 ppb	0.182 ppb	83.247 ppb	6.141 ppb	96.248 %	0.002 ppb	0.005 ppb	95.881 %
Concentration RSD	6.8 %	2.1 %	20.1 %	0.4 %	6.1 %	1.5 %	232.0 %	86.6 %	2.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.120 ppb	103.413 ppb	100.593 %	102.358 %	0.050 ppb	0.454 ppb
Concentration per Run 1	0.143 ppb	105.728 ppb	98.787 %	101.543 %	0.032 ppb	0.448 ppb
Concentration per Run 2	0.117 ppb	102.332 ppb	100.382 %	102.068 %	0.065 ppb	0.456 ppb
Concentration per Run 3	0.100 ppb	102.178 ppb	102.609 %	103.462 %	0.052 ppb	0.458 ppb
Concentration RSD	18.1 %	1.9 %	1.9 %	1.0 %	32.9 %	1.2 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	139	User name	ALPHALAB\a2-icpmsq2	Comment	NG
Analysis label:	L2447714-02 6020SL	Rack	2		
Analysis started at:	8/28/2024 5:02:47 PM	Vial	16		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.284 %	123.183 %	12.355 ppb	54,110.294 ppb	10,834.932 ppb	2.909 ppb	20,091.416 ppb	71,421.065 ppb	104.515 %
Concentration per Run 1	102.394 %	119.057 %	12.251 ppb	55,792.132 ppb	11,185.975 ppb	2.244 ppb	20,263.736 ppb	72,756.444 ppb	104.235 %
Concentration per Run 2	101.977 %	111.984 %	12.472 ppb	54,864.580 ppb	10,860.490 ppb	3.845 ppb	19,496.083 ppb	69,587.961 ppb	104.789 %
Concentration per Run 3	102.482 %	138.507 %	12.341 ppb	51,674.169 ppb	10,458.330 ppb	2.638 ppb	20,514.430 ppb	71,918.790 ppb	104.522 %
Concentration RSD	0.3 %	11.1 %	0.9 %	4.0 %	3.4 %	28.7 %	2.6 %	2.3 %	0.3 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	101.604 %	-0.054 ppb	0.742 ppb	4,760.634 ppb	27,024.370 ppb	1.544 ppb	5.361 ppb	1.004 ppb	28.711 ppb
Concentration per Run 1	100.535 %	-0.022 ppb	0.766 ppb	4,876.392 ppb	27,582.479 ppb	1.582 ppb	5.150 ppb	0.969 ppb	28.639 ppb
Concentration per Run 2	99.092 %	-0.110 ppb	0.677 ppb	4,691.294 ppb	26,673.208 ppb	1.664 ppb	5.833 ppb	0.936 ppb	28.477 ppb
Concentration per Run 3	105.185 %	-0.029 ppb	0.782 ppb	4,714.217 ppb	26,817.423 ppb	1.386 ppb	5.100 ppb	1.106 ppb	29.017 ppb
Concentration RSD	3.1 %	91.7 %	7.7 %	2.1 %	1.8 %	9.2 %	7.6 %	8.9 %	1.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	98.723 %	0.463 ppb	0.953 ppb	293.902 ppb	6.954 ppb	93.624 %	0.001 ppb	0.007 ppb	94.664 %
Concentration per Run 1	97.494 %	0.556 ppb	1.178 ppb	293.334 ppb	5.790 ppb	94.803 %	0.003 ppb	0.020 ppb	95.315 %
Concentration per Run 2	97.495 %	0.364 ppb	0.983 ppb	292.989 ppb	7.676 ppb	92.441 %	0.001 ppb	0.000 ppb	93.221 %
Concentration per Run 3	101.181 %	0.468 ppb	0.698 ppb	295.383 ppb	7.395 ppb	93.628 %	0.001 ppb	0.000 ppb	95.457 %
Concentration RSD	2.2 %	20.7 %	25.4 %	0.4 %	14.6 %	1.3 %	72.5 %	173.2 %	1.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.067 ppb	137.745 ppb	100.752 %	104.318 %	0.119 ppb	0.376 ppb
Concentration per Run 1	0.058 ppb	133.693 ppb	100.629 %	104.611 %	0.108 ppb	0.379 ppb
Concentration per Run 2	0.078 ppb	138.289 ppb	99.956 %	103.479 %	0.131 ppb	0.372 ppb
Concentration per Run 3	0.064 ppb	141.253 ppb	101.671 %	104.863 %	0.116 ppb	0.376 ppb
Concentration RSD	15.7 %	2.8 %	0.9 %	0.7 %	9.8 %	1.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	140	User name	ALPHALAB\a2-icpmsq2	Comment	NG
Analysis label:	L2447890-01 6020SL	Rack	2		
Analysis started at:	8/28/2024 5:07:16 PM	Vial	22		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.448 %	106.876 %	0.019 ppb	6,585.126 ppb	1,369.081 ppb	14.462 ppb	1,682.222 ppb	4,300.768 ppb	104.186 %
Concentration per Run 1	99.395 %	100.786 %	0.018 ppb	6,905.363 ppb	1,407.962 ppb	15.444 ppb	1,790.949 ppb	4,479.076 ppb	103.567 %
Concentration per Run 2	101.308 %	92.534 %	0.015 ppb	6,840.723 ppb	1,427.474 ppb	13.054 ppb	1,535.377 ppb	3,922.032 ppb	104.185 %
Concentration per Run 3	100.640 %	127.309 %	0.023 ppb	6,009.291 ppb	1,271.806 ppb	14.887 ppb	1,720.341 ppb	4,501.194 ppb	104.805 %
Concentration RSD	1.0 %	17.0 %	20.6 %	7.6 %	6.2 %	8.6 %	7.8 %	7.6 %	0.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	102.940 %	0.023 ppb	0.478 ppb	13.839 ppb	13.463 ppb	0.005 ppb	0.025 ppb	0.233 ppb	0.232 ppb
Concentration per Run 1	98.450 %	-0.022 ppb	0.526 ppb	14.750 ppb	10.090 ppb	-0.005 ppb	0.043 ppb	0.211 ppb	0.194 ppb
Concentration per Run 2	103.421 %	-0.026 ppb	0.396 ppb	13.932 ppb	10.027 ppb	0.002 ppb	0.017 ppb	0.273 ppb	0.300 ppb
Concentration per Run 3	106.949 %	0.118 ppb	0.512 ppb	12.835 ppb	20.272 ppb	0.017 ppb	0.015 ppb	0.214 ppb	0.203 ppb
Concentration RSD	4.1 %	350.4 %	15.0 %	6.9 %	43.8 %	235.6 %	63.8 %	15.1 %	25.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	101.103 %	-0.051 ppb	-0.036 ppb	22.121 ppb	0.295 ppb	100.254 %	-0.002 ppb	0.035 ppb	98.410 %
Concentration per Run 1	104.867 %	-0.068 ppb	0.010 ppb	21.702 ppb	0.189 ppb	99.639 %	-0.003 ppb	0.033 ppb	98.701 %
Concentration per Run 2	99.085 %	-0.024 ppb	-0.056 ppb	22.268 ppb	0.315 ppb	100.122 %	-0.003 ppb	0.033 ppb	99.383 %
Concentration per Run 3	99.357 %	-0.062 ppb	-0.062 ppb	22.392 ppb	0.381 ppb	101.001 %	-0.001 ppb	0.038 ppb	97.147 %
Concentration RSD	3.2 %	47.0 %	112.2 %	1.7 %	33.1 %	0.7 %	43.4 %	8.4 %	1.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.041 ppb	18.081 ppb	101.194 %	101.223 %	0.026 ppb	0.225 ppb
Concentration per Run 1	0.036 ppb	17.900 ppb	99.826 %	99.018 %	0.014 ppb	0.239 ppb
Concentration per Run 2	0.034 ppb	17.377 ppb	101.382 %	102.759 %	0.028 ppb	0.216 ppb
Concentration per Run 3	0.053 ppb	18.966 ppb	102.374 %	101.893 %	0.036 ppb	0.220 ppb
Concentration RSD	25.4 %	4.5 %	1.3 %	1.9 %	43.2 %	5.3 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	141	User name	ALPHALAB\a2-icpmsq2	Comment	NG
Analysis label:	L2447890-02 6020SL	Rack	2		
Analysis started at:	8/28/2024 5:11:46 PM	Vial	23		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.094 %	112.967 %	-0.002 ppb	13,924.673 ppb	5,242.148 ppb	2.823 ppb	3,040.594 ppb	22,930.384 ppb	101.359 %
Concentration per Run 1	99.298 %	104.912 %	0.003 ppb	14,705.461 ppb	5,585.197 ppb	2.651 ppb	3,117.813 ppb	23,541.514 ppb	100.799 %
Concentration per Run 2	99.577 %	116.110 %	-0.006 ppb	13,653.976 ppb	5,042.617 ppb	3.188 ppb	3,051.792 ppb	21,826.160 ppb	102.060 %
Concentration per Run 3	98.408 %	117.878 %	-0.002 ppb	13,414.580 ppb	5,098.629 ppb	2.630 ppb	2,952.176 ppb	23,423.478 ppb	101.217 %
Concentration RSD	0.6 %	6.2 %	261.4 %	4.9 %	5.7 %	11.2 %	2.7 %	4.2 %	0.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	104.490 %	0.127 ppb	0.306 ppb	4,659.699 ppb	7.744 ppb	0.522 ppb	0.251 ppb	0.323 ppb	0.170 ppb
Concentration per Run 1	104.383 %	0.077 ppb	0.207 ppb	4,693.417 ppb	6.381 ppb	0.512 ppb	0.353 ppb	0.340 ppb	0.095 ppb
Concentration per Run 2	107.430 %	0.196 ppb	0.370 ppb	4,565.708 ppb	9.460 ppb	0.520 ppb	0.219 ppb	0.322 ppb	0.190 ppb
Concentration per Run 3	101.657 %	0.107 ppb	0.341 ppb	4,719.972 ppb	7.389 ppb	0.533 ppb	0.181 ppb	0.308 ppb	0.226 ppb
Concentration RSD	2.8 %	48.9 %	28.3 %	1.8 %	20.3 %	2.1 %	36.0 %	5.1 %	39.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	104.096 %	0.090 ppb	-0.087 ppb	65.837 ppb	0.983 ppb	100.198 %	-0.003 ppb	0.056 ppb	99.140 %
Concentration per Run 1	106.313 %	0.095 ppb	-0.061 ppb	65.525 ppb	0.823 ppb	103.603 %	-0.003 ppb	0.058 ppb	105.274 %
Concentration per Run 2	105.518 %	0.026 ppb	-0.144 ppb	66.368 ppb	1.128 ppb	100.389 %	-0.003 ppb	0.052 ppb	99.015 %
Concentration per Run 3	100.458 %	0.149 ppb	-0.057 ppb	65.617 ppb	0.996 ppb	96.602 %	-0.003 ppb	0.060 ppb	93.130 %
Concentration RSD	3.1 %	68.5 %	56.6 %	0.7 %	15.5 %	3.5 %	0.0 %	7.4 %	6.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.034 ppb	19.408 ppb	102.058 %	103.351 %	0.093 ppb	0.197 ppb
Concentration per Run 1	0.027 ppb	19.282 ppb	103.832 %	106.806 %	0.083 ppb	0.194 ppb
Concentration per Run 2	0.024 ppb	19.137 ppb	103.198 %	105.341 %	0.093 ppb	0.194 ppb
Concentration per Run 3	0.051 ppb	19.804 ppb	99.145 %	97.907 %	0.103 ppb	0.202 ppb
Concentration RSD	44.1 %	1.8 %	2.5 %	4.6 %	10.9 %	2.3 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	142	User name	ALPHALAB\a2-icpmsq2	Comment	NG
Analysis label:	L2447890-04 6020SL	Rack	2		
Analysis started at:	8/28/2024 5:16:16 PM	Vial	24		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.903 %	125.933 %	-0.004 ppb	13,930.256 ppb	15,923.661 ppb	3.117 ppb	4,791.667 ppb	67,879.103 ppb	109.510 %
Concentration per Run 1	103.016 %	124.362 %	-0.007 ppb	14,348.229 ppb	16,675.836 ppb	4.207 ppb	5,043.077 ppb	71,244.995 ppb	108.507 %
Concentration per Run 2	105.965 %	135.560 %	-0.003 ppb	12,770.761 ppb	14,708.993 ppb	1.890 ppb	4,528.939 ppb	64,146.606 ppb	110.809 %
Concentration per Run 3	105.729 %	117.878 %	0.000 ppb	14,671.778 ppb	16,386.155 ppb	3.255 ppb	4,802.984 ppb	68,245.709 ppb	109.215 %
Concentration RSD	1.6 %	7.1 %	96.4 %	7.3 %	6.7 %	37.4 %	5.4 %	5.2 %	1.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	118.548 %	0.225 ppb	0.247 ppb	9.155 ppb	12.392 ppb	0.068 ppb	0.296 ppb	0.530 ppb	0.350 ppb
Concentration per Run 1	120.259 %	0.322 ppb	0.238 ppb	10.142 ppb	9.904 ppb	0.090 ppb	0.277 ppb	0.534 ppb	0.277 ppb
Concentration per Run 2	120.419 %	0.121 ppb	0.228 ppb	8.702 ppb	14.169 ppb	0.053 ppb	0.309 ppb	0.506 ppb	0.384 ppb
Concentration per Run 3	114.967 %	0.233 ppb	0.274 ppb	8.622 ppb	13.104 ppb	0.062 ppb	0.302 ppb	0.551 ppb	0.389 ppb
Concentration RSD	2.6 %	44.7 %	9.7 %	9.3 %	17.9 %	27.9 %	5.7 %	4.3 %	18.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	113.946 %	0.141 ppb	0.127 ppb	180.331 ppb	0.294 ppb	104.793 %	-0.003 ppb	0.003 ppb	106.780 %
Concentration per Run 1	119.108 %	0.202 ppb	0.066 ppb	185.044 ppb	0.207 ppb	105.694 %	-0.003 ppb	0.004 ppb	112.175 %
Concentration per Run 2	113.814 %	0.088 ppb	0.153 ppb	175.152 ppb	0.356 ppb	103.500 %	-0.003 ppb	0.000 ppb	101.692 %
Concentration per Run 3	108.916 %	0.134 ppb	0.163 ppb	180.797 ppb	0.318 ppb	105.186 %	-0.003 ppb	0.004 ppb	106.473 %
Concentration RSD	4.5 %	40.7 %	41.8 %	2.8 %	26.4 %	1.1 %	0.0 %	86.6 %	4.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.026 ppb	41.252 ppb	106.032 %	107.101 %	0.016 ppb	0.190 ppb
Concentration per Run 1	0.025 ppb	41.589 ppb	107.243 %	109.773 %	0.007 ppb	0.186 ppb
Concentration per Run 2	0.027 ppb	41.911 ppb	105.753 %	105.712 %	0.022 ppb	0.176 ppb
Concentration per Run 3	0.027 ppb	40.255 ppb	105.098 %	105.818 %	0.020 ppb	0.207 ppb
Concentration RSD	4.4 %	2.1 %	1.0 %	2.2 %	49.0 %	8.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	143	User name	ALPHALAB\a2-icpmsq2	Comment	NG
Analysis label:	L2447890-05 6020SL	Rack	2		
Analysis started at:	8/28/2024 5:20:46 PM	Vial	25		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.757 %	126.719 %	0.001 ppb	10,256.731 ppb	5,982.662 ppb	3.649 ppb	1,812.076 ppb	16,943.210 ppb	107.385 %
Concentration per Run 1	103.134 %	122.004 %	-0.003 ppb	10,499.288 ppb	6,169.211 ppb	4.501 ppb	1,884.742 ppb	17,338.617 ppb	106.687 %
Concentration per Run 2	102.565 %	120.236 %	0.006 ppb	10,335.478 ppb	5,974.563 ppb	2.887 ppb	1,767.553 ppb	16,522.953 ppb	108.479 %
Concentration per Run 3	102.573 %	137.918 %	-0.002 ppb	9,935.426 ppb	5,804.211 ppb	3.560 ppb	1,783.934 ppb	16,968.060 ppb	106.988 %
Concentration RSD	0.3 %	7.7 %	932.4 %	2.8 %	3.1 %	22.2 %	3.5 %	2.4 %	0.9 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	107.964 %	0.191 ppb	0.690 ppb	29.111 ppb	3.381 ppb	0.020 ppb	0.564 ppb	0.366 ppb	0.309 ppb
Concentration per Run 1	105.345 %	0.136 ppb	0.716 ppb	29.457 ppb	3.676 ppb	0.044 ppb	0.625 ppb	0.295 ppb	0.280 ppb
Concentration per Run 2	106.468 %	0.239 ppb	0.680 ppb	28.988 ppb	3.068 ppb	-0.005 ppb	0.476 ppb	0.541 ppb	0.337 ppb
Concentration per Run 3	112.080 %	0.198 ppb	0.675 ppb	28.888 ppb	3.399 ppb	0.022 ppb	0.592 ppb	0.262 ppb	0.309 ppb
Concentration RSD	3.3 %	27.2 %	3.2 %	1.0 %	9.0 %	121.6 %	13.8 %	41.6 %	9.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	110.302 %	0.039 ppb	0.060 ppb	55.108 ppb	0.481 ppb	105.911 %	0.001 ppb	0.007 ppb	105.837 %
Concentration per Run 1	110.055 %	0.028 ppb	0.004 ppb	53.777 ppb	0.363 ppb	106.916 %	0.000 ppb	0.009 ppb	104.071 %
Concentration per Run 2	107.108 %	0.034 ppb	0.094 ppb	54.079 ppb	0.456 ppb	106.990 %	0.000 ppb	0.009 ppb	104.651 %
Concentration per Run 3	113.742 %	0.055 ppb	0.083 ppb	57.468 ppb	0.625 ppb	103.827 %	0.004 ppb	0.004 ppb	108.788 %
Concentration RSD	3.0 %	35.7 %	81.7 %	3.7 %	27.6 %	1.7 %	129.0 %	35.4 %	2.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.029 ppb	16.623 ppb	105.988 %	106.556 %	0.018 ppb	0.182 ppb
Concentration per Run 1	0.024 ppb	16.928 ppb	105.324 %	104.873 %	0.008 ppb	0.169 ppb
Concentration per Run 2	0.033 ppb	16.286 ppb	105.573 %	105.991 %	0.018 ppb	0.199 ppb
Concentration per Run 3	0.029 ppb	16.654 ppb	107.067 %	108.804 %	0.029 ppb	0.176 ppb
Concentration RSD	16.1 %	1.9 %	0.9 %	1.9 %	58.0 %	8.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	144	User name	ALPHALAB\a2-icpmsq2	Comment	NG
Analysis label:	L2447890-06 6020SL	Rack	2		
Analysis started at:	8/28/2024 5:31:19 PM	Vial	26		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.515 %	109.037 %	0.000 ppb	14,178.920 ppb	6,569.383 ppb	2.850 ppb	2,153.504 ppb	20,908.168 ppb	105.152 %
Concentration per Run 1	96.849 %	110.806 %	0.008 ppb	12,767.387 ppb	5,886.545 ppb	2.435 ppb	1,801.931 ppb	17,946.890 ppb	102.734 %
Concentration per Run 2	99.384 %	109.627 %	-0.002 ppb	14,532.960 ppb	6,781.409 ppb	2.617 ppb	2,252.615 ppb	21,814.961 ppb	106.680 %
Concentration per Run 3	99.313 %	106.680 %	-0.006 ppb	15,236.415 ppb	7,040.196 ppb	3.496 ppb	2,405.967 ppb	22,962.652 ppb	106.042 %
Concentration RSD	1.5 %	1.9 %	5,615.3 %	9.0 %	9.2 %	19.9 %	14.6 %	12.6 %	2.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	121.862 %	0.222 ppb	0.121 ppb	6.546 ppb	5.767 ppb	0.040 ppb	0.199 ppb	0.371 ppb	0.808 ppb
Concentration per Run 1	134.531 %	0.260 ppb	0.166 ppb	5.809 ppb	3.673 ppb	0.021 ppb	0.338 ppb	0.310 ppb	0.689 ppb
Concentration per Run 2	123.947 %	0.210 ppb	0.120 ppb	7.079 ppb	6.686 ppb	0.034 ppb	0.171 ppb	0.411 ppb	1.004 ppb
Concentration per Run 3	107.109 %	0.197 ppb	0.077 ppb	6.749 ppb	6.941 ppb	0.066 ppb	0.090 ppb	0.393 ppb	0.730 ppb
Concentration RSD	11.3 %	15.0 %	36.8 %	10.1 %	31.5 %	57.8 %	63.4 %	14.5 %	21.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.349 %	0.193 ppb	-0.046 ppb	81.422 ppb	0.597 ppb	101.330 %	-0.001 ppb	0.003 ppb	109.262 %
Concentration per Run 1	97.639 %	0.119 ppb	-0.066 ppb	80.726 ppb	0.442 ppb	99.776 %	-0.003 ppb	0.000 ppb	115.253 %
Concentration per Run 2	107.470 %	0.301 ppb	-0.007 ppb	84.732 ppb	0.686 ppb	101.891 %	0.000 ppb	0.004 ppb	111.675 %
Concentration per Run 3	104.939 %	0.158 ppb	-0.065 ppb	78.806 ppb	0.662 ppb	102.323 %	0.001 ppb	0.005 ppb	100.859 %
Concentration RSD	4.9 %	49.8 %	73.5 %	3.7 %	22.5 %	1.3 %	294.5 %	86.7 %	6.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	-12.225 ppb	18.551 ppb	106.502 %	108.963 %	-0.395 ppb	0.158 ppb
Concentration per Run 1	-12.932 ppb	17.332 ppb	106.982 %	109.186 %	0.236 ppb	0.153 ppb
Concentration per Run 2	-17.361 ppb	19.141 ppb	108.696 %	112.157 %	-1.737 ppb	0.161 ppb
Concentration per Run 3	-6.382 ppb	19.180 ppb	103.828 %	105.544 %	0.318 ppb	0.159 ppb
Concentration RSD	45.2 %	5.7 %	2.3 %	3.0 %	294.9 %	2.7 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	145	User name	ALPHALAB\a2-icpmsq2	Comment	NG
Analysis label:	L2447890-07 6020SL	Rack	2		
Analysis started at:	8/28/2024 5:35:47 PM	Vial	27		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.163 %	122.986 %	-0.001 ppb	13,890.502 ppb	8,701.379 ppb	3.083 ppb	1,933.317 ppb	17,935.544 ppb	104.786 %
Concentration per Run 1	102.127 %	114.931 %	0.001 ppb	14,182.476 ppb	8,904.267 ppb	3.263 ppb	2,017.368 ppb	18,338.583 ppb	103.852 %
Concentration per Run 2	101.995 %	131.434 %	-0.007 ppb	13,582.495 ppb	8,610.757 ppb	2.765 ppb	1,929.335 ppb	18,393.556 ppb	105.528 %
Concentration per Run 3	99.366 %	122.593 %	0.002 ppb	13,906.533 ppb	8,589.114 ppb	3.221 ppb	1,853.248 ppb	17,074.493 ppb	104.976 %
Concentration RSD	1.5 %	6.7 %	394.8 %	2.2 %	2.0 %	9.0 %	4.2 %	4.2 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	105.238 %	0.264 ppb	0.739 ppb	0.612 ppb	1.476 ppb	0.008 ppb	0.375 ppb	0.221 ppb	0.388 ppb
Concentration per Run 1	98.610 %	0.293 ppb	0.823 ppb	0.584 ppb	4.786 ppb	0.033 ppb	0.266 ppb	0.327 ppb	0.307 ppb
Concentration per Run 2	110.637 %	0.407 ppb	0.791 ppb	0.526 ppb	1.679 ppb	-0.005 ppb	0.460 ppb	0.241 ppb	0.433 ppb
Concentration per Run 3	106.468 %	0.093 ppb	0.603 ppb	0.725 ppb	-2.037 ppb	-0.005 ppb	0.399 ppb	0.096 ppb	0.423 ppb
Concentration RSD	5.8 %	60.0 %	16.1 %	16.8 %	231.5 %	289.8 %	26.5 %	52.8 %	18.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.892 %	0.084 ppb	-0.033 ppb	101.017 ppb	0.624 ppb	102.326 %	-0.002 ppb	0.007 ppb	103.945 %
Concentration per Run 1	101.542 %	0.095 ppb	0.029 ppb	98.934 ppb	0.471 ppb	101.453 %	-0.001 ppb	0.005 ppb	100.157 %
Concentration per Run 2	109.043 %	0.111 ppb	-0.071 ppb	105.309 ppb	0.521 ppb	102.842 %	-0.003 ppb	0.013 ppb	109.189 %
Concentration per Run 3	107.091 %	0.046 ppb	-0.056 ppb	98.808 ppb	0.880 ppb	102.681 %	-0.003 ppb	0.005 ppb	102.490 %
Concentration RSD	3.7 %	40.2 %	164.4 %	3.7 %	35.8 %	0.7 %	42.7 %	66.0 %	4.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.021 ppb	22.279 ppb	105.001 %	106.385 %	0.007 ppb	0.145 ppb
Concentration per Run 1	0.012 ppb	21.649 ppb	101.790 %	102.487 %	-0.002 ppb	0.150 ppb
Concentration per Run 2	0.022 ppb	22.302 ppb	108.420 %	109.695 %	0.013 ppb	0.136 ppb
Concentration per Run 3	0.030 ppb	22.886 ppb	104.794 %	106.974 %	0.010 ppb	0.149 ppb
Concentration RSD	43.5 %	2.8 %	3.2 %	3.4 %	108.4 %	5.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	146	User name	ALPHALAB\a2-icpmsq2	Comment	NG
Analysis label:	L2447890-08 6020SL	Rack	2		
Analysis started at:	8/28/2024 5:40:16 PM	Vial	28		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.517 %	123.772 %	-0.003 ppb	6,532.000 ppb	10,734.294 ppb	2.536 ppb	1,921.692 ppb	32,132.808 ppb	104.547 %
Concentration per Run 1	100.445 %	121.415 %	-0.002 ppb	6,506.389 ppb	10,753.788 ppb	2.492 ppb	2,013.901 ppb	32,943.920 ppb	103.438 %
Concentration per Run 2	101.971 %	130.256 %	-0.004 ppb	6,548.213 ppb	10,841.403 ppb	2.867 ppb	1,952.066 ppb	32,873.702 ppb	105.678 %
Concentration per Run 3	102.136 %	119.646 %	-0.003 ppb	6,541.397 ppb	10,607.691 ppb	2.248 ppb	1,799.109 ppb	30,580.800 ppb	104.526 %
Concentration RSD	0.9 %	4.6 %	42.7 %	0.3 %	1.1 %	12.3 %	5.8 %	4.2 %	1.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	113.951 %	0.139 ppb	1.059 ppb	1.003 ppb	23.816 ppb	0.060 ppb	2.144 ppb	0.208 ppb	0.367 ppb
Concentration per Run 1	106.628 %	0.276 ppb	1.168 ppb	0.980 ppb	22.334 ppb	0.085 ppb	2.275 ppb	0.172 ppb	0.379 ppb
Concentration per Run 2	119.297 %	0.047 ppb	1.005 ppb	1.090 ppb	23.974 ppb	0.046 ppb	2.327 ppb	0.282 ppb	0.369 ppb
Concentration per Run 3	115.929 %	0.094 ppb	1.005 ppb	0.938 ppb	25.139 ppb	0.049 ppb	1.829 ppb	0.171 ppb	0.353 ppb
Concentration RSD	5.8 %	86.7 %	8.9 %	7.9 %	5.9 %	35.9 %	12.8 %	30.6 %	3.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	112.163 %	0.029 ppb	0.286 ppb	78.692 ppb	1.320 ppb	103.430 %	-0.002 ppb	0.012 ppb	103.921 %
Concentration per Run 1	112.368 %	0.002 ppb	0.156 ppb	75.903 ppb	1.201 ppb	101.602 %	-0.003 ppb	0.027 ppb	102.946 %
Concentration per Run 2	115.783 %	0.029 ppb	0.524 ppb	81.377 ppb	1.272 ppb	105.355 %	-0.001 ppb	0.000 ppb	108.964 %
Concentration per Run 3	108.337 %	0.055 ppb	0.179 ppb	78.797 ppb	1.487 ppb	103.333 %	-0.003 ppb	0.009 ppb	99.852 %
Concentration RSD	3.3 %	92.3 %	71.9 %	3.5 %	11.3 %	1.8 %	40.0 %	114.0 %	4.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.024 ppb	29.056 ppb	104.982 %	105.808 %	0.010 ppb	0.137 ppb
Concentration per Run 1	0.019 ppb	29.098 ppb	103.746 %	103.511 %	0.004 ppb	0.131 ppb
Concentration per Run 2	0.024 ppb	29.418 ppb	106.925 %	108.343 %	0.014 ppb	0.139 ppb
Concentration per Run 3	0.029 ppb	28.653 ppb	104.276 %	105.570 %	0.012 ppb	0.141 ppb
Concentration RSD	22.4 %	1.3 %	1.6 %	2.3 %	53.5 %	4.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	147	User name	ALPHALAB\a2-icpmsq2	Comment	NG
Analysis label:	L2447890-09 6020SL	Rack	2		
Analysis started at:	8/28/2024 5:44:45 PM	Vial	29		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.494 %	128.487 %	-0.003 ppb	11,218.802 ppb	5,922.179 ppb	2.487 ppb	2,929.897 ppb	31,553.491 ppb	104.609 %
Concentration per Run 1	101.678 %	134.381 %	-0.003 ppb	10,759.748 ppb	5,765.083 ppb	3.038 ppb	2,870.487 ppb	32,091.333 ppb	103.707 %
Concentration per Run 2	102.554 %	124.951 %	0.000 ppb	11,389.336 ppb	5,950.274 ppb	1.326 ppb	2,805.890 ppb	30,037.835 ppb	104.085 %
Concentration per Run 3	103.249 %	126.130 %	-0.007 ppb	11,507.322 ppb	6,051.180 ppb	3.097 ppb	3,113.313 ppb	32,531.305 ppb	106.035 %
Concentration RSD	0.8 %	4.0 %	116.2 %	3.6 %	2.5 %	40.5 %	5.5 %	4.2 %	1.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	109.568 %	0.353 ppb	0.226 ppb	1.169 ppb	6.273 ppb	0.030 ppb	0.132 ppb	0.365 ppb	0.145 ppb
Concentration per Run 1	105.987 %	0.366 ppb	0.232 ppb	1.029 ppb	5.622 ppb	0.023 ppb	0.166 ppb	0.368 ppb	0.071 ppb
Concentration per Run 2	119.297 %	0.358 ppb	0.216 ppb	1.330 ppb	2.185 ppb	0.022 ppb	0.032 ppb	0.244 ppb	0.236 ppb
Concentration per Run 3	103.421 %	0.336 ppb	0.231 ppb	1.147 ppb	11.011 ppb	0.046 ppb	0.198 ppb	0.483 ppb	0.127 ppb
Concentration RSD	7.8 %	4.4 %	3.8 %	12.9 %	70.9 %	43.8 %	66.9 %	32.7 %	58.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.807 %	0.101 ppb	-0.065 ppb	78.613 ppb	2.637 ppb	101.217 %	-0.002 ppb	0.000 ppb	102.213 %
Concentration per Run 1	107.759 %	0.068 ppb	-0.061 ppb	75.335 ppb	2.219 ppb	102.696 %	-0.001 ppb	0.000 ppb	101.322 %
Concentration per Run 2	103.856 %	0.161 ppb	-0.069 ppb	82.027 ppb	2.719 ppb	101.450 %	-0.001 ppb	0.000 ppb	105.171 %
Concentration per Run 3	105.807 %	0.073 ppb	-0.065 ppb	78.478 ppb	2.973 ppb	99.504 %	-0.003 ppb	0.000 ppb	100.146 %
Concentration RSD	1.8 %	52.3 %	5.8 %	4.3 %	14.5 %	1.6 %	55.4 %	N/A	2.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.014 ppb	25.658 ppb	103.960 %	104.418 %	0.013 ppb	0.124 ppb
Concentration per Run 1	0.011 ppb	25.276 ppb	103.782 %	103.558 %	0.010 ppb	0.134 ppb
Concentration per Run 2	0.012 ppb	26.495 ppb	104.429 %	105.793 %	0.014 ppb	0.117 ppb
Concentration per Run 3	0.017 ppb	25.204 ppb	103.670 %	103.903 %	0.015 ppb	0.121 ppb
Concentration RSD	24.3 %	2.8 %	0.4 %	1.2 %	20.6 %	7.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	148	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 5:49:15 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.748 %	132.220 %	63.099 ppb	6,368.727 ppb	6,383.594 ppb	62.551 ppb	6,342.755 ppb	6,278.428 ppb	105.218 %
Concentration per Run 1	101.359 %	130.845 %	63.261 ppb	6,210.384 ppb	6,248.388 ppb	63.413 ppb	6,221.208 ppb	6,240.396 ppb	104.423 %
Concentration per Run 2	101.412 %	124.362 %	63.047 ppb	6,604.822 ppb	6,486.568 ppb	64.240 ppb	6,295.120 ppb	6,268.486 ppb	104.504 %
Concentration per Run 3	102.474 %	141.454 %	62.988 ppb	6,290.976 ppb	6,415.825 ppb	59.998 ppb	6,511.937 ppb	6,326.401 ppb	106.728 %
Recovery Percentage 1			105.164 %	106.145 %	106.393 %	104.251 %	105.713 %	104.640 %	
Concentration RSD	0.6 %	6.5 %	0.2 %	3.3 %	1.9 %	3.6 %	2.4 %	0.7 %	1.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	110.530 %	62.979 ppb	62.355 ppb	64.149 ppb	6,400.245 ppb	62.456 ppb	62.918 ppb	61.252 ppb	62.079 ppb
Concentration per Run 1	109.194 %	61.321 ppb	62.526 ppb	64.037 ppb	6,372.967 ppb	62.302 ppb	63.942 ppb	63.216 ppb	60.843 ppb
Concentration per Run 2	105.185 %	63.785 ppb	62.666 ppb	63.054 ppb	6,400.404 ppb	63.991 ppb	60.890 ppb	59.356 ppb	61.796 ppb
Concentration per Run 3	117.212 %	63.832 ppb	61.874 ppb	65.355 ppb	6,427.363 ppb	61.074 ppb	63.923 ppb	61.186 ppb	63.597 ppb
Recovery Percentage 1		104.966 %	103.925 %	106.914 %	106.671 %	104.093 %	104.864 %	102.087 %	103.465 %
Concentration RSD	5.5 %	2.3 %	0.7 %	1.8 %	0.4 %	2.3 %	2.8 %	3.2 %	2.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.431 %	62.060 ppb	61.595 ppb	58.257 ppb	60.977 ppb	100.678 %	61.806 ppb	62.393 ppb	99.051 %
Concentration per Run 1	101.175 %	62.306 ppb	58.944 ppb	57.004 ppb	60.534 ppb	100.185 %	60.924 ppb	62.408 ppb	97.810 %
Concentration per Run 2	105.271 %	58.348 ppb	58.773 ppb	56.067 ppb	60.345 ppb	100.311 %	62.587 ppb	62.797 ppb	96.126 %
Concentration per Run 3	103.846 %	65.527 ppb	67.069 ppb	61.699 ppb	62.053 ppb	101.539 %	61.905 ppb	61.975 ppb	103.216 %
Recovery Percentage 1		103.434 %	102.659 %	97.095 %	101.629 %		103.009 %	103.989 %	
Concentration RSD	2.0 %	5.8 %	7.7 %	5.2 %	1.5 %	0.7 %	1.4 %	0.7 %	3.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	60.997 ppb	60.746 ppb	102.442 %	103.086 %	61.999 ppb	62.775 ppb
Concentration per Run 1	60.193 ppb	60.168 ppb	100.625 %	100.038 %	62.665 ppb	63.685 ppb
Concentration per Run 2	60.572 ppb	59.726 ppb	102.094 %	102.065 %	62.513 ppb	63.411 ppb
Concentration per Run 3	62.228 ppb	62.343 ppb	104.606 %	107.154 %	60.820 ppb	61.230 ppb
Recovery Percentage 1	101.662 %	101.243 %			103.332 %	104.625 %
Concentration RSD	1.8 %	2.3 %	2.0 %	3.6 %	1.7 %	2.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	149	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 5:53:47 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.991 %	121.808 %	0.015 ppb	-0.322 ppb	4.405 ppb	-0.294 ppb	-0.663 ppb	18.355 ppb	99.270 %
Concentration per Run 1	98.651 %	128.487 %	0.015 ppb	-2.708 ppb	5.954 ppb	-0.449 ppb	-7.534 ppb	7.479 ppb	97.767 %
Concentration per Run 2	100.275 %	113.163 %	0.013 ppb	3.260 ppb	4.979 ppb	-0.121 ppb	4.359 ppb	19.867 ppb	100.530 %
Concentration per Run 3	101.048 %	123.772 %	0.016 ppb	-1.518 ppb	2.283 ppb	-0.312 ppb	1.188 ppb	27.719 ppb	99.512 %
Recovery Percentage 1			3.006 %	-0.322 %	6.293 %	-2.940 %	-0.663 %	18.355 %	
Concentration RSD	1.2 %	6.4 %	10.0 %	980.5 %	43.2 %	56.1 %	929.3 %	55.6 %	1.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	105.238 %	-0.055 ppb	0.043 ppb	0.060 ppb	4.937 ppb	0.017 ppb	0.050 ppb	0.032 ppb	0.036 ppb
Concentration per Run 1	106.468 %	-0.072 ppb	0.058 ppb	0.029 ppb	1.890 ppb	0.010 ppb	0.014 ppb	0.033 ppb	0.030 ppb
Concentration per Run 2	99.893 %	0.043 ppb	0.017 ppb	0.064 ppb	6.715 ppb	0.025 ppb	0.125 ppb	0.034 ppb	0.021 ppb
Concentration per Run 3	109.354 %	-0.137 ppb	0.055 ppb	0.088 ppb	6.207 ppb	0.016 ppb	0.011 ppb	0.028 ppb	0.056 ppb
Recovery Percentage 1		-1.102 %	4.316 %	6.013 %	9.875 %	3.360 %	2.506 %	3.178 %	0.714 %
Concentration RSD	4.6 %	165.5 %	51.9 %	48.6 %	53.7 %	45.5 %	129.7 %	9.5 %	51.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.760 %	-0.014 ppb	0.096 ppb	0.042 ppb	0.433 ppb	101.715 %	0.023 ppb	0.019 ppb	101.718 %
Concentration per Run 1	100.658 %	-0.101 ppb	0.112 ppb	0.036 ppb	0.362 ppb	102.320 %	0.026 ppb	0.005 ppb	100.083 %
Concentration per Run 2	102.988 %	0.007 ppb	-0.073 ppb	0.053 ppb	0.513 ppb	100.634 %	0.021 ppb	0.042 ppb	99.472 %
Concentration per Run 3	104.633 %	0.051 ppb	0.249 ppb	0.037 ppb	0.424 ppb	102.191 %	0.022 ppb	0.009 ppb	105.598 %
Recovery Percentage 1		-2.839 %	1.917 %	0.424 %	21.634 %		5.675 %	9.299 %	
Concentration RSD	1.9 %	550.6 %	168.6 %	22.3 %	17.5 %	0.9 %	10.9 %	110.5 %	3.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.132 ppb	0.029 ppb	102.857 %	103.252 %	0.267 ppb	0.156 ppb
Concentration per Run 1	0.108 ppb	0.019 ppb	101.718 %	101.711 %	0.205 ppb	0.156 ppb
Concentration per Run 2	0.142 ppb	0.034 ppb	102.095 %	101.386 %	0.328 ppb	0.167 ppb
Concentration per Run 3	0.146 ppb	0.032 ppb	104.759 %	106.660 %	0.269 ppb	0.143 ppb
Recovery Percentage 1	3.298 %	5.728 %			26.745 %	15.555 %
Concentration RSD	16.0 %	27.9 %	1.6 %	2.9 %	23.0 %	7.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	150	User name	ALPHALAB\a2-icpmsq2	Comment	fb
Analysis label:	L2447890-13 6020SL	Rack	2		
Analysis started at:	8/28/2024 5:59:03 PM	Vial	33		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.017 %	112.574 %	-0.003 ppb	250.530 ppb	10.186 ppb	3.329 ppb	2.343 ppb	59.877 ppb	97.003 %
Concentration per Run 1	95.403 %	127.898 %	0.003 ppb	218.290 ppb	5.616 ppb	3.130 ppb	-0.500 ppb	68.233 ppb	94.297 %
Concentration per Run 2	98.803 %	98.428 %	-0.001 ppb	280.116 ppb	14.577 ppb	3.015 ppb	5.238 ppb	61.443 ppb	97.581 %
Concentration per Run 3	99.844 %	111.395 %	-0.010 ppb	253.182 ppb	10.364 ppb	3.841 ppb	2.290 ppb	49.954 ppb	99.130 %
Concentration RSD	2.4 %	13.1 %	228.3 %	12.4 %	44.0 %	13.4 %	122.5 %	15.4 %	2.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	101.764 %	-0.068 ppb	0.160 ppb	0.405 ppb	4.939 ppb	0.015 ppb	0.182 ppb	0.189 ppb	0.654 ppb
Concentration per Run 1	100.214 %	-0.089 ppb	0.189 ppb	0.226 ppb	4.757 ppb	0.025 ppb	0.320 ppb	0.237 ppb	0.552 ppb
Concentration per Run 2	105.345 %	-0.050 ppb	0.144 ppb	0.464 ppb	5.161 ppb	0.017 ppb	0.120 ppb	0.156 ppb	0.754 ppb
Concentration per Run 3	99.733 %	-0.065 ppb	0.147 ppb	0.526 ppb	4.901 ppb	0.003 ppb	0.105 ppb	0.173 ppb	0.655 ppb
Concentration RSD	3.1 %	28.6 %	15.8 %	39.1 %	4.1 %	76.5 %	66.0 %	22.6 %	15.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	99.531 %	-0.054 ppb	-0.057 ppb	0.086 ppb	0.853 ppb	97.357 %	-0.001 ppb	0.003 ppb	97.421 %
Concentration per Run 1	100.313 %	-0.088 ppb	-0.145 ppb	0.079 ppb	0.784 ppb	96.974 %	0.001 ppb	0.005 ppb	95.995 %
Concentration per Run 2	102.320 %	0.008 ppb	0.029 ppb	0.086 ppb	0.944 ppb	97.235 %	-0.001 ppb	0.000 ppb	100.171 %
Concentration per Run 3	95.959 %	-0.083 ppb	-0.054 ppb	0.094 ppb	0.831 ppb	97.862 %	-0.001 ppb	0.005 ppb	96.098 %
Concentration RSD	3.3 %	99.6 %	153.1 %	8.4 %	9.6 %	0.5 %	204.2 %	86.6 %	2.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.189 ppb	0.090 ppb	99.671 %	102.013 %	0.062 ppb	0.100 ppb
Concentration per Run 1	0.180 ppb	0.111 ppb	99.131 %	99.849 %	0.047 ppb	0.102 ppb
Concentration per Run 2	0.186 ppb	0.064 ppb	100.312 %	103.086 %	0.079 ppb	0.107 ppb
Concentration per Run 3	0.202 ppb	0.096 ppb	99.570 %	103.103 %	0.061 ppb	0.090 ppb
Concentration RSD	6.0 %	26.8 %	0.6 %	1.8 %	26.1 %	8.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	151	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	zL2447890-06d2 6020SL	Rack	2		
Analysis started at:	8/28/2024 6:03:32 PM	Vial	56		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.504 %	125.933 %	-0.002 ppb	6,798.786 ppb	3,165.896 ppb	0.731 ppb	1,193.756 ppb	11,612.473 ppb	98.445 %
Concentration per Run 1	96.499 %	126.130 %	-0.006 ppb	6,706.176 ppb	3,083.265 ppb	1.025 ppb	1,208.328 ppb	11,480.556 ppb	95.441 %
Concentration per Run 2	98.973 %	129.666 %	-0.002 ppb	6,399.409 ppb	2,961.030 ppb	0.222 ppb	1,141.468 ppb	11,663.130 ppb	98.662 %
Concentration per Run 3	100.040 %	122.004 %	0.002 ppb	7,290.774 ppb	3,453.392 ppb	0.946 ppb	1,231.472 ppb	11,693.733 ppb	101.233 %
Concentration RSD	1.8 %	3.0 %	175.4 %	6.7 %	8.1 %	60.5 %	3.9 %	1.0 %	2.9 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	105.826 %	0.032 ppb	0.097 ppb	3.273 ppb	4.302 ppb	0.007 ppb	0.156 ppb	0.225 ppb	0.394 ppb
Concentration per Run 1	100.054 %	0.001 ppb	0.078 ppb	3.075 ppb	4.867 ppb	0.003 ppb	0.132 ppb	0.321 ppb	0.306 ppb
Concentration per Run 2	105.345 %	0.014 ppb	0.166 ppb	3.098 ppb	4.580 ppb	0.002 ppb	0.231 ppb	0.215 ppb	0.445 ppb
Concentration per Run 3	112.080 %	0.081 ppb	0.045 ppb	3.648 ppb	3.460 ppb	0.015 ppb	0.106 ppb	0.137 ppb	0.431 ppb
Concentration RSD	5.7 %	132.5 %	65.0 %	9.9 %	17.3 %	110.0 %	42.3 %	41.1 %	19.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.302 %	0.070 ppb	0.046 ppb	40.787 ppb	0.356 ppb	98.287 %	-0.002 ppb	0.009 ppb	100.014 %
Concentration per Run 1	96.682 %	0.084 ppb	-0.075 ppb	40.287 ppb	0.212 ppb	97.967 %	-0.003 ppb	0.019 ppb	98.818 %
Concentration per Run 2	99.501 %	0.064 ppb	0.200 ppb	40.285 ppb	0.368 ppb	96.503 %	-0.001 ppb	0.005 ppb	98.439 %
Concentration per Run 3	110.723 %	0.061 ppb	0.013 ppb	41.788 ppb	0.488 ppb	100.391 %	-0.001 ppb	0.005 ppb	102.785 %
Concentration RSD	7.3 %	17.5 %	305.6 %	2.1 %	38.9 %	2.0 %	58.6 %	87.4 %	2.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.017 ppb	9.310 ppb	101.635 %	103.319 %	0.036 ppb	0.108 ppb
Concentration per Run 1	0.014 ppb	8.890 ppb	100.589 %	100.573 %	0.023 ppb	0.112 ppb
Concentration per Run 2	0.012 ppb	9.447 ppb	99.847 %	101.931 %	0.041 ppb	0.103 ppb
Concentration per Run 3	0.026 ppb	9.593 ppb	104.469 %	107.453 %	0.044 ppb	0.110 ppb
Concentration RSD	43.5 %	4.0 %	2.4 %	3.5 %	31.7 %	4.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	152	User name	ALPHALAB\a2-icpmsq2	Comment	NG
Analysis label:	L2447890-10 6020SL	Rack	2		
Analysis started at:	8/28/2024 6:08:02 PM	Vial	30		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.079 %	125.148 %	0.005 ppb	13,615.384 ppb	8,136.115 ppb	3.208 ppb	3,688.519 ppb	39,557.982 ppb	103.601 %
Concentration per Run 1	100.608 %	120.236 %	0.010 ppb	13,934.214 ppb	8,191.460 ppb	4.688 ppb	3,715.092 ppb	40,311.113 ppb	103.474 %
Concentration per Run 2	101.586 %	122.004 %	0.000 ppb	13,294.520 ppb	7,941.598 ppb	1.984 ppb	3,400.413 ppb	36,718.339 ppb	103.809 %
Concentration per Run 3	101.043 %	133.203 %	0.005 ppb	13,617.418 ppb	8,275.285 ppb	2.953 ppb	3,950.052 ppb	41,644.495 ppb	103.520 %
Concentration RSD	0.5 %	5.6 %	95.4 %	2.3 %	2.1 %	42.7 %	7.5 %	6.4 %	0.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	110.691 %	0.199 ppb	0.193 ppb	0.854 ppb	0.052 ppb	0.023 ppb	0.084 ppb	0.261 ppb	0.158 ppb
Concentration per Run 1	104.543 %	0.202 ppb	0.199 ppb	1.006 ppb	1.170 ppb	0.030 ppb	0.037 ppb	0.300 ppb	0.165 ppb
Concentration per Run 2	115.769 %	0.214 ppb	0.222 ppb	0.602 ppb	-0.814 ppb	0.022 ppb	0.083 ppb	0.329 ppb	0.124 ppb
Concentration per Run 3	111.759 %	0.181 ppb	0.159 ppb	0.955 ppb	-0.200 ppb	0.015 ppb	0.131 ppb	0.154 ppb	0.186 ppb
Concentration RSD	5.1 %	8.3 %	16.5 %	25.7 %	1,953.0 %	33.3 %	56.2 %	35.9 %	19.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	108.018 %	0.114 ppb	0.033 ppb	105.266 ppb	0.826 ppb	100.866 %	-0.001 ppb	0.005 ppb	102.686 %
Concentration per Run 1	108.482 %	0.124 ppb	0.007 ppb	101.576 ppb	0.616 ppb	99.438 %	0.001 ppb	0.005 ppb	98.138 %
Concentration per Run 2	105.084 %	0.098 ppb	-0.069 ppb	103.389 ppb	0.815 ppb	101.187 %	-0.001 ppb	0.009 ppb	100.619 %
Concentration per Run 3	110.489 %	0.118 ppb	0.160 ppb	110.833 ppb	1.047 ppb	101.972 %	-0.001 ppb	0.000 ppb	109.302 %
Concentration RSD	2.5 %	12.1 %	359.6 %	4.7 %	26.1 %	1.3 %	175.1 %	99.3 %	5.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.023 ppb	29.405 ppb	104.012 %	105.133 %	0.026 ppb	0.083 ppb
Concentration per Run 1	0.028 ppb	28.085 ppb	102.126 %	104.293 %	0.013 ppb	0.083 ppb
Concentration per Run 2	0.019 ppb	29.778 ppb	103.735 %	102.557 %	0.038 ppb	0.081 ppb
Concentration per Run 3	0.022 ppb	30.351 ppb	106.176 %	108.550 %	0.027 ppb	0.085 ppb
Concentration RSD	19.6 %	4.0 %	2.0 %	2.9 %	49.7 %	2.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	153	User name	ALPHALAB\a2-icpmsq2	Comment	NG
Analysis label:	L2447890-11 6020SL	Rack	2		
Analysis started at:	8/28/2024 6:12:31 PM	Vial	31		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.479 %	114.538 %	0.006 ppb	8,194.424 ppb	2,675.469 ppb	7.166 ppb	2,403.659 ppb	17,435.919 ppb	101.826 %
Concentration per Run 1	99.281 %	103.733 %	0.009 ppb	8,439.945 ppb	2,721.970 ppb	5.243 ppb	2,320.302 ppb	16,260.428 ppb	101.427 %
Concentration per Run 2	99.509 %	112.574 %	0.000 ppb	8,205.281 ppb	2,670.409 ppb	6.578 ppb	2,353.169 ppb	17,168.361 ppb	101.532 %
Concentration per Run 3	99.647 %	127.309 %	0.008 ppb	7,938.047 ppb	2,634.027 ppb	9.677 ppb	2,537.506 ppb	18,878.969 ppb	102.520 %
Concentration RSD	0.2 %	10.4 %	91.6 %	3.1 %	1.7 %	31.7 %	4.9 %	7.6 %	0.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	99.038 %	0.135 ppb	1.104 ppb	2.915 ppb	4.840 ppb	0.030 ppb	0.287 ppb	0.265 ppb	0.804 ppb
Concentration per Run 1	100.214 %	0.177 ppb	1.119 ppb	3.058 ppb	3.384 ppb	0.033 ppb	0.292 ppb	0.217 ppb	0.689 ppb
Concentration per Run 2	97.327 %	0.074 ppb	1.028 ppb	2.337 ppb	6.404 ppb	0.034 ppb	0.279 ppb	0.308 ppb	0.850 ppb
Concentration per Run 3	99.572 %	0.155 ppb	1.166 ppb	3.349 ppb	4.732 ppb	0.025 ppb	0.291 ppb	0.270 ppb	0.873 ppb
Concentration RSD	1.5 %	39.9 %	6.3 %	17.9 %	31.3 %	16.0 %	2.5 %	17.1 %	12.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	99.724 %	0.066 ppb	-0.050 ppb	57.408 ppb	0.196 ppb	100.209 %	-0.002 ppb	0.029 ppb	100.522 %
Concentration per Run 1	100.947 %	0.134 ppb	-0.135 ppb	55.626 ppb	0.193 ppb	99.049 %	-0.003 ppb	0.028 ppb	99.764 %
Concentration per Run 2	96.121 %	0.020 ppb	-0.054 ppb	57.361 ppb	0.168 ppb	99.452 %	-0.003 ppb	0.029 ppb	96.980 %
Concentration per Run 3	102.103 %	0.045 ppb	0.038 ppb	59.237 ppb	0.226 ppb	102.127 %	0.000 ppb	0.032 ppb	104.822 %
Concentration RSD	3.2 %	90.4 %	171.4 %	3.1 %	15.1 %	1.7 %	109.8 %	6.1 %	4.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.034 ppb	46.812 ppb	102.309 %	103.126 %	0.017 ppb	0.089 ppb
Concentration per Run 1	0.035 ppb	45.903 ppb	100.907 %	100.610 %	0.011 ppb	0.085 ppb
Concentration per Run 2	0.031 ppb	46.587 ppb	102.332 %	103.795 %	0.024 ppb	0.090 ppb
Concentration per Run 3	0.037 ppb	47.947 ppb	103.689 %	104.974 %	0.016 ppb	0.093 ppb
Concentration RSD	9.5 %	2.2 %	1.4 %	2.2 %	39.1 %	4.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	154	User name	ALPHALAB\a2-icpmsq2	Comment	NG
Analysis label:	L2447890-12 6020SL	Rack	2		
Analysis started at:	8/28/2024 6:17:00 PM	Vial	32		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.130 %	122.790 %	0.000 ppb	7,647.067 ppb	2,514.412 ppb	14.394 ppb	2,344.015 ppb	16,268.856 ppb	103.329 %
Concentration per Run 1	100.818 %	127.898 %	-0.005 ppb	7,430.344 ppb	2,471.279 ppb	16.646 ppb	2,435.697 ppb	16,545.442 ppb	101.647 %
Concentration per Run 2	101.214 %	130.845 %	0.003 ppb	7,415.521 ppb	2,395.707 ppb	12.534 ppb	2,360.757 ppb	16,637.211 ppb	103.854 %
Concentration per Run 3	101.359 %	109.627 %	0.002 ppb	8,095.338 ppb	2,676.251 ppb	14.002 ppb	2,235.592 ppb	15,623.913 ppb	104.485 %
Concentration RSD	0.3 %	9.4 %	1,843.8 %	5.1 %	5.8 %	14.5 %	4.3 %	3.4 %	1.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	101.978 %	0.098 ppb	1.417 ppb	2.951 ppb	17.772 ppb	0.050 ppb	0.405 ppb	0.172 ppb	0.520 ppb
Concentration per Run 1	99.733 %	0.066 ppb	1.475 ppb	3.115 ppb	16.865 ppb	0.077 ppb	0.371 ppb	0.088 ppb	0.420 ppb
Concentration per Run 2	102.780 %	0.101 ppb	1.320 ppb	2.891 ppb	18.873 ppb	0.002 ppb	0.330 ppb	0.186 ppb	0.665 ppb
Concentration per Run 3	103.421 %	0.127 ppb	1.454 ppb	2.845 ppb	17.579 ppb	0.070 ppb	0.515 ppb	0.242 ppb	0.474 ppb
Concentration RSD	1.9 %	31.3 %	5.9 %	4.9 %	5.7 %	83.1 %	23.9 %	45.2 %	24.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	101.904 %	0.002 ppb	0.028 ppb	54.983 ppb	0.140 ppb	100.223 %	-0.003 ppb	0.020 ppb	100.627 %
Concentration per Run 1	102.554 %	-0.005 ppb	0.098 ppb	54.077 ppb	0.158 ppb	102.724 %	-0.003 ppb	0.009 ppb	98.912 %
Concentration per Run 2	106.313 %	-0.046 ppb	-0.051 ppb	54.483 ppb	0.095 ppb	98.723 %	-0.003 ppb	0.023 ppb	102.577 %
Concentration per Run 3	96.844 %	0.057 ppb	0.036 ppb	56.387 ppb	0.168 ppb	99.221 %	-0.003 ppb	0.028 ppb	100.390 %
Concentration RSD	4.7 %	2,480.1 %	268.5 %	2.2 %	28.4 %	2.2 %	0.0 %	48.1 %	1.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.012 ppb	46.148 ppb	102.452 %	102.492 %	0.013 ppb	0.092 ppb
Concentration per Run 1	0.008 ppb	45.827 ppb	102.864 %	100.987 %	0.007 ppb	0.098 ppb
Concentration per Run 2	0.011 ppb	46.294 ppb	101.886 %	102.759 %	0.015 ppb	0.098 ppb
Concentration per Run 3	0.017 ppb	46.323 ppb	102.607 %	103.730 %	0.017 ppb	0.080 ppb
Concentration RSD	39.6 %	0.6 %	0.5 %	1.4 %	43.4 %	11.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	155	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447890-06 6020SL	Rack	2		
Analysis started at:	8/28/2024 6:22:23 PM	Vial	26		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	151.226 %	121.611 %	-0.009 ppb	14,288.024 ppb	6,652.056 ppb	2.004 ppb	2,427.639 ppb	23,974.628 ppb	4.807 %
Concentration per Run 1	148.690 %	124.362 %	-0.012 ppb	14,206.145 ppb	6,537.931 ppb	2.385 ppb	2,432.800 ppb	23,880.522 ppb	4.506 %
Concentration per Run 2	42.167 %	118.468 %	0.000 ppb	14,245.140 ppb	6,658.082 ppb	1.926 ppb	2,473.014 ppb	23,589.762 ppb	1.410 %
Concentration per Run 3	262.822 %	122.004 %	-0.015 ppb	14,412.788 ppb	6,760.156 ppb	1.700 ppb	2,377.103 ppb	24,453.600 ppb	8.507 %
Concentration RSD	73.0 %	2.4 %	89.1 %	0.8 %	1.7 %	17.4 %	2.0 %	1.8 %	74.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	105.345 %	0.159 ppb	0.186 ppb	7.295 ppb	4.026 ppb	0.031 ppb	0.312 ppb	0.363 ppb	0.583 ppb
Concentration per Run 1	110.797 %	0.184 ppb	0.215 ppb	7.140 ppb	2.897 ppb	0.015 ppb	0.158 ppb	0.339 ppb	0.493 ppb
Concentration per Run 2	105.185 %	0.188 ppb	0.168 ppb	7.609 ppb	5.354 ppb	0.040 ppb	0.347 ppb	0.501 ppb	0.671 ppb
Concentration per Run 3	100.054 %	0.105 ppb	0.176 ppb	7.136 ppb	3.828 ppb	0.038 ppb	0.430 ppb	0.248 ppb	0.585 ppb
Concentration RSD	5.1 %	29.5 %	13.3 %	3.7 %	30.8 %	43.7 %	44.8 %	35.4 %	15.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.591 %	0.170 ppb	-0.007 ppb	80.102 ppb	0.589 ppb	100.141 %	-0.002 ppb	0.012 ppb	98.450 %
Concentration per Run 1	109.927 %	0.223 ppb	-0.076 ppb	80.885 ppb	0.555 ppb	100.609 %	-0.003 ppb	0.018 ppb	102.890 %
Concentration per Run 2	95.976 %	0.202 ppb	0.037 ppb	83.401 ppb	0.446 ppb	99.404 %	-0.001 ppb	0.005 ppb	95.704 %
Concentration per Run 3	110.868 %	0.084 ppb	0.018 ppb	76.020 ppb	0.766 ppb	100.411 %	-0.003 ppb	0.014 ppb	96.755 %
Concentration RSD	7.9 %	44.3 %	851.7 %	4.7 %	27.6 %	0.6 %	44.3 %	55.5 %	3.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.009 ppb	19.007 ppb	102.306 %	103.658 %	0.018 ppb	0.076 ppb
Concentration per Run 1	0.005 ppb	18.967 ppb	102.683 %	103.921 %	0.006 ppb	0.069 ppb
Concentration per Run 2	0.011 ppb	19.075 ppb	100.815 %	101.689 %	0.027 ppb	0.086 ppb
Concentration per Run 3	0.010 ppb	18.978 ppb	103.420 %	105.363 %	0.020 ppb	0.072 ppb
Concentration RSD	35.4 %	0.3 %	1.3 %	1.8 %	60.4 %	11.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	156	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2444134-01 6020TL	Rack	2		
Analysis started at:	8/28/2024 6:31:45 PM	Vial	57		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.173 %	114.342 %	-0.003 ppb	37.039 ppb	4.470 ppb	2.967 ppb	-9.645 ppb	99.892 ppb	99.847 %
Concentration per Run 1	100.259 %	117.289 %	0.003 ppb	33.979 ppb	4.167 ppb	2.846 ppb	-14.759 ppb	61.184 ppb	98.838 %
Concentration per Run 2	101.747 %	124.951 %	-0.004 ppb	32.122 ppb	3.729 ppb	2.890 ppb	-4.594 ppb	119.067 ppb	99.195 %
Concentration per Run 3	101.513 %	100.786 %	-0.008 ppb	45.017 ppb	5.515 ppb	3.164 ppb	-9.581 ppb	119.424 ppb	101.506 %
Concentration RSD	0.8 %	10.8 %	183.5 %	18.8 %	20.8 %	5.8 %	52.7 %	33.6 %	1.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	105.559 %	0.006 ppb	0.213 ppb	0.157 ppb	0.629 ppb	-0.005 ppb	-0.002 ppb	0.015 ppb	0.084 ppb
Concentration per Run 1	104.383 %	-0.027 ppb	0.256 ppb	0.157 ppb	1.978 ppb	-0.005 ppb	0.017 ppb	0.037 ppb	0.140 ppb
Concentration per Run 2	115.769 %	-0.119 ppb	0.227 ppb	0.082 ppb	-0.827 ppb	-0.005 ppb	-0.043 ppb	-0.010 ppb	0.051 ppb
Concentration per Run 3	96.526 %	0.165 ppb	0.157 ppb	0.232 ppb	0.736 ppb	-0.005 ppb	0.020 ppb	0.019 ppb	0.060 ppb
Concentration RSD	9.2 %	2,325.4 %	23.8 %	47.7 %	223.4 %	0.0 %	1,592.2 %	155.7 %	58.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.235 %	-0.052 ppb	-0.064 ppb	0.248 ppb	0.013 ppb	100.656 %	-0.001 ppb	0.000 ppb	100.824 %
Concentration per Run 1	98.072 %	-0.035 ppb	-0.150 ppb	0.260 ppb	-0.041 ppb	101.865 %	-0.001 ppb	0.000 ppb	100.974 %
Concentration per Run 2	107.976 %	-0.095 ppb	0.016 ppb	0.254 ppb	0.038 ppb	101.030 %	-0.003 ppb	0.000 ppb	103.071 %
Concentration per Run 3	100.658 %	-0.026 ppb	-0.057 ppb	0.230 ppb	0.042 ppb	99.072 %	0.001 ppb	0.000 ppb	98.426 %
Concentration RSD	5.0 %	72.0 %	131.1 %	6.3 %	364.2 %	1.4 %	152.1 %	N/A	2.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.029 ppb	0.178 ppb	102.583 %	104.219 %	0.009 ppb	0.073 ppb
Concentration per Run 1	0.039 ppb	0.238 ppb	101.954 %	104.365 %	-0.002 ppb	0.075 ppb
Concentration per Run 2	0.034 ppb	0.218 ppb	104.306 %	107.255 %	0.015 ppb	0.067 ppb
Concentration per Run 3	0.014 ppb	0.079 ppb	101.488 %	101.037 %	0.013 ppb	0.078 ppb
Concentration RSD	45.0 %	48.6 %	1.5 %	3.0 %	109.3 %	7.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	157	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2444134-02 6020TL	Rack	2		
Analysis started at:	8/28/2024 6:36:14 PM	Vial	58		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.656 %	127.702 %	-0.002 ppb	60.326 ppb	5.326 ppb	2.531 ppb	-8.954 ppb	76.023 ppb	103.495 %
Concentration per Run 1	103.559 %	124.951 %	0.001 ppb	60.570 ppb	6.009 ppb	2.652 ppb	-9.191 ppb	79.272 ppb	103.056 %
Concentration per Run 2	104.172 %	131.434 %	0.001 ppb	62.953 ppb	4.685 ppb	2.163 ppb	-7.601 ppb	76.793 ppb	103.809 %
Concentration per Run 3	103.238 %	126.719 %	-0.007 ppb	57.455 ppb	5.284 ppb	2.779 ppb	-10.070 ppb	72.003 ppb	103.619 %
Concentration RSD	0.5 %	2.6 %	293.1 %	4.6 %	12.4 %	12.9 %	14.0 %	4.9 %	0.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	111.439 %	0.010 ppb	0.195 ppb	0.076 ppb	1.722 ppb	-0.003 ppb	0.035 ppb	0.078 ppb	0.201 ppb
Concentration per Run 1	108.713 %	-0.012 ppb	0.140 ppb	0.090 ppb	1.842 ppb	-0.005 ppb	0.040 ppb	0.015 ppb	0.225 ppb
Concentration per Run 2	111.760 %	0.002 ppb	0.192 ppb	0.113 ppb	1.023 ppb	-0.005 ppb	0.106 ppb	0.072 ppb	0.268 ppb
Concentration per Run 3	113.844 %	0.041 ppb	0.253 ppb	0.026 ppb	2.303 ppb	0.002 ppb	-0.042 ppb	0.146 ppb	0.110 ppb
Concentration RSD	2.3 %	263.8 %	28.9 %	59.0 %	37.6 %	144.8 %	213.2 %	85.3 %	40.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.156 %	-0.017 ppb	-0.133 ppb	0.146 ppb	0.046 ppb	102.935 %	-0.002 ppb	0.000 ppb	103.972 %
Concentration per Run 1	100.602 %	-0.014 ppb	-0.140 ppb	0.150 ppb	-0.015 ppb	102.641 %	-0.003 ppb	0.000 ppb	102.387 %
Concentration per Run 2	110.650 %	-0.040 ppb	-0.134 ppb	0.138 ppb	0.047 ppb	105.056 %	-0.001 ppb	0.000 ppb	106.843 %
Concentration per Run 3	104.217 %	0.004 ppb	-0.125 ppb	0.151 ppb	0.106 ppb	101.107 %	-0.003 ppb	0.000 ppb	102.686 %
Concentration RSD	4.8 %	135.9 %	5.7 %	4.9 %	130.7 %	1.9 %	40.4 %	N/A	2.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.019 ppb	0.090 ppb	104.123 %	104.826 %	0.004 ppb	0.070 ppb
Concentration per Run 1	0.024 ppb	0.091 ppb	103.573 %	103.440 %	-0.004 ppb	0.073 ppb
Concentration per Run 2	0.010 ppb	0.060 ppb	106.014 %	107.596 %	0.005 ppb	0.069 ppb
Concentration per Run 3	0.022 ppb	0.120 ppb	102.782 %	103.442 %	0.010 ppb	0.068 ppb
Concentration RSD	41.6 %	33.4 %	1.6 %	2.3 %	187.2 %	3.3 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	158	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2444134-03 6020TL	Rack	2		
Analysis started at:	8/28/2024 6:40:44 PM	Vial	59		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	92.074 %	119.843 %	0.002 ppb	638,765.583 ppb	96,398.784 ppb	142.396 ppb	34,506.202 ppb	50,308.744 ppb	99.100 %
Concentration per Run 1	92.127 %	113.163 %	-0.004 ppb	638,846.141 ppb	96,595.756 ppb	136.503 ppb	33,831.363 ppb	49,663.243 ppb	98.936 %
Concentration per Run 2	92.178 %	132.024 %	0.006 ppb	607,738.586 ppb	91,726.135 ppb	145.672 ppb	33,951.366 ppb	50,003.659 ppb	99.037 %
Concentration per Run 3	91.917 %	114.342 %	0.004 ppb	669,712.023 ppb	100,874.461 ppb	145.014 ppb	35,735.878 ppb	51,259.328 ppb	99.329 %
Concentration RSD	0.2 %	8.8 %	241.7 %	4.9 %	4.7 %	3.6 %	3.1 %	1.7 %	0.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	102.619 %	1.730 ppb	1.017 ppb	114.702 ppb	1,152.605 ppb	1.000 ppb	10.215 ppb	183.070 ppb	62.956 ppb
Concentration per Run 1	98.771 %	1.602 ppb	1.010 ppb	116.502 ppb	1,161.570 ppb	1.039 ppb	10.273 ppb	182.914 ppb	63.092 ppb
Concentration per Run 2	108.392 %	2.135 ppb	1.025 ppb	113.221 ppb	1,126.462 ppb	0.994 ppb	9.790 ppb	183.956 ppb	64.306 ppb
Concentration per Run 3	100.695 %	1.453 ppb	1.017 ppb	114.384 ppb	1,169.784 ppb	0.967 ppb	10.582 ppb	182.338 ppb	61.470 ppb
Concentration RSD	5.0 %	20.7 %	0.7 %	1.5 %	2.0 %	3.6 %	3.9 %	0.4 %	2.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	99.989 %	1.709 ppb	-0.052 ppb	641.131 ppb	2.465 ppb	88.972 %	0.075 ppb	0.291 ppb	92.369 %
Concentration per Run 1	98.272 %	1.636 ppb	-0.044 ppb	623.496 ppb	2.513 ppb	88.475 %	0.069 ppb	0.300 ppb	91.329 %
Concentration per Run 2	100.224 %	1.763 ppb	-0.061 ppb	668.584 ppb	2.608 ppb	89.596 %	0.075 ppb	0.287 ppb	94.644 %
Concentration per Run 3	101.470 %	1.728 ppb	-0.051 ppb	631.312 ppb	2.273 ppb	88.847 %	0.080 ppb	0.285 ppb	91.133 %
Concentration RSD	1.6 %	3.9 %	16.2 %	3.8 %	7.0 %	0.6 %	7.5 %	2.9 %	2.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	35.591 ppb	59.028 ppb	97.845 %	98.233 %	0.013 ppb	187.175 ppb
Concentration per Run 1	35.278 ppb	59.255 ppb	96.948 %	96.546 %	0.009 ppb	186.265 ppb
Concentration per Run 2	35.516 ppb	58.690 ppb	99.875 %	100.819 %	0.014 ppb	183.712 ppb
Concentration per Run 3	35.978 ppb	59.139 ppb	96.712 %	97.333 %	0.017 ppb	191.549 ppb
Concentration RSD	1.0 %	0.5 %	1.8 %	2.3 %	27.6 %	2.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	159	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447709-01 6020TL	Rack	2		
Analysis started at:	8/28/2024 6:45:15 PM	Vial	60		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.700 %	125.737 %	2.378 ppb	60,751.910 ppb	8,996.862 ppb	259.485 ppb	14,015.563 ppb	119,665.596 ppb	106.505 %
Concentration per Run 1	99.063 %	120.825 %	2.341 ppb	72,851.848 ppb	9,176.185 ppb	258.261 ppb	14,245.974 ppb	123,048.223 ppb	104.802 %
Concentration per Run 2	100.239 %	130.845 %	2.438 ppb	53,825.377 ppb	8,679.462 ppb	261.844 ppb	13,930.116 ppb	119,382.353 ppb	106.744 %
Concentration per Run 3	99.798 %	125.540 %	2.356 ppb	55,578.504 ppb	9,134.938 ppb	258.349 ppb	13,870.600 ppb	116,566.210 ppb	107.968 %
Concentration RSD	0.6 %	4.0 %	2.2 %	17.3 %	3.1 %	0.8 %	1.4 %	2.7 %	1.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	107.323 %	0.345 ppb	0.583 ppb	1,654.081 ppb	681.783 ppb	1.651 ppb	1.594 ppb	3.841 ppb	178.235 ppb
Concentration per Run 1	100.855 %	0.454 ppb	0.579 ppb	1,665.136 ppb	671.487 ppb	1.676 ppb	1.479 ppb	3.776 ppb	176.810 ppb
Concentration per Run 2	107.911 %	0.280 ppb	0.582 ppb	1,659.854 ppb	670.929 ppb	1.756 ppb	1.484 ppb	4.077 ppb	181.166 ppb
Concentration per Run 3	113.203 %	0.300 ppb	0.587 ppb	1,637.253 ppb	702.932 ppb	1.522 ppb	1.820 ppb	3.670 ppb	176.730 ppb
Concentration RSD	5.8 %	27.7 %	0.7 %	0.9 %	2.7 %	7.2 %	12.3 %	5.5 %	1.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	104.976 %	0.330 ppb	0.618 ppb	321.681 ppb	6.485 ppb	98.044 %	0.009 ppb	0.936 ppb	99.091 %
Concentration per Run 1	106.241 %	0.260 ppb	0.626 ppb	308.904 ppb	6.599 ppb	98.131 %	0.009 ppb	1.034 ppb	96.917 %
Concentration per Run 2	102.320 %	0.387 ppb	0.738 ppb	329.745 ppb	6.503 ppb	97.616 %	0.011 ppb	0.894 ppb	100.494 %
Concentration per Run 3	106.368 %	0.342 ppb	0.491 ppb	326.395 ppb	6.353 ppb	98.385 %	0.006 ppb	0.881 ppb	99.861 %
Concentration RSD	2.2 %	19.5 %	20.0 %	3.5 %	1.9 %	0.4 %	30.6 %	9.1 %	1.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.645 ppb	73.326 ppb	103.431 %	103.858 %	0.077 ppb	1.540 ppb
Concentration per Run 1	0.641 ppb	72.496 ppb	101.539 %	100.317 %	0.080 ppb	1.557 ppb
Concentration per Run 2	0.609 ppb	72.784 ppb	104.530 %	106.264 %	0.064 ppb	1.486 ppb
Concentration per Run 3	0.687 ppb	74.698 ppb	104.223 %	104.992 %	0.086 ppb	1.576 ppb
Concentration RSD	6.1 %	1.6 %	1.6 %	3.0 %	14.3 %	3.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	160	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 6:49:45 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.465 %	117.485 %	63.331 ppb	7,057.875 ppb	6,633.571 ppb	66.109 ppb	6,354.708 ppb	6,044.961 ppb	106.630 %
Concentration per Run 1	101.105 %	109.037 %	63.255 ppb	7,164.773 ppb	6,142.600 ppb	59.553 ppb	6,278.310 ppb	6,016.151 ppb	105.551 %
Concentration per Run 2	101.732 %	124.951 %	63.285 ppb	7,173.622 ppb	6,937.028 ppb	66.203 ppb	6,262.021 ppb	6,057.918 ppb	106.940 %
Concentration per Run 3	101.558 %	118.468 %	63.453 ppb	6,835.229 ppb	6,821.085 ppb	72.572 ppb	6,523.792 ppb	6,060.814 ppb	107.398 %
Recovery Percentage 1			105.552 %	117.631 %	110.560 %	110.182 %	105.912 %	100.749 %	
Concentration RSD	0.3 %	6.8 %	0.2 %	2.7 %	6.5 %	9.8 %	2.3 %	0.4 %	0.9 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	114.379 %	62.010 ppb	61.520 ppb	62.215 ppb	6,148.419 ppb	61.908 ppb	59.470 ppb	60.527 ppb	61.176 ppb
Concentration per Run 1	112.401 %	61.678 ppb	61.165 ppb	59.492 ppb	6,036.910 ppb	61.474 ppb	58.622 ppb	59.233 ppb	59.175 ppb
Concentration per Run 2	108.392 %	64.127 ppb	63.936 ppb	65.082 ppb	6,378.997 ppb	64.377 ppb	63.392 ppb	64.688 ppb	64.341 ppb
Concentration per Run 3	122.343 %	60.225 ppb	59.460 ppb	62.070 ppb	6,029.350 ppb	59.874 ppb	56.396 ppb	57.661 ppb	60.011 ppb
Recovery Percentage 1		103.350 %	102.533 %	103.691 %	102.474 %	103.180 %	99.117 %	100.879 %	101.959 %
Concentration RSD	6.3 %	3.2 %	3.7 %	4.5 %	3.2 %	3.7 %	6.0 %	6.1 %	4.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	106.296 %	61.729 ppb	63.097 ppb	58.327 ppb	59.512 ppb	103.084 %	60.938 ppb	61.275 ppb	102.489 %
Concentration per Run 1	110.763 %	59.884 ppb	55.809 ppb	55.315 ppb	58.679 ppb	103.749 %	60.854 ppb	59.848 ppb	100.946 %
Concentration per Run 2	99.474 %	63.999 ppb	63.218 ppb	58.485 ppb	60.346 ppb	103.147 %	61.257 ppb	61.933 ppb	101.016 %
Concentration per Run 3	108.651 %	61.305 ppb	70.264 ppb	61.181 ppb	59.512 ppb	102.355 %	60.704 ppb	62.044 ppb	105.504 %
Recovery Percentage 1		102.882 %	105.162 %	97.211 %	99.187 %		101.564 %	102.125 %	
Concentration RSD	5.6 %	3.4 %	11.5 %	5.0 %	1.4 %	0.7 %	0.5 %	2.0 %	2.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	60.205 ppb	60.726 ppb	103.523 %	104.056 %	61.821 ppb	62.543 ppb
Concentration per Run 1	60.800 ppb	60.447 ppb	102.146 %	100.705 %	61.973 ppb	63.194 ppb
Concentration per Run 2	59.971 ppb	60.807 ppb	102.623 %	103.075 %	62.827 ppb	63.126 ppb
Concentration per Run 3	59.845 ppb	60.923 ppb	105.801 %	108.386 %	60.663 ppb	61.310 ppb
Recovery Percentage 1	100.342 %	101.209 %			103.035 %	104.239 %
Concentration RSD	0.9 %	0.4 %	1.9 %	3.8 %	1.8 %	1.7 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	161	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 6:54:17 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.871 %	124.165 %	0.001 ppb	22.869 ppb	1.120 ppb	-0.087 ppb	-2.037 ppb	2.725 ppb	103.949 %
Concentration per Run 1	102.004 %	124.951 %	-0.002 ppb	27.720 ppb	0.244 ppb	-0.376 ppb	6.373 ppb	11.122 ppb	103.694 %
Concentration per Run 2	102.907 %	115.521 %	-0.002 ppb	20.594 ppb	1.886 ppb	0.538 ppb	-2.471 ppb	0.635 ppb	104.250 %
Concentration per Run 3	103.700 %	132.024 %	0.005 ppb	20.293 ppb	1.229 ppb	-0.422 ppb	-10.013 ppb	-3.583 ppb	103.902 %
Recovery Percentage 1			0.111 %	22.869 %	1.599 %	-0.867 %	-2.037 %	2.725 %	
Concentration RSD	0.8 %	6.7 %	732.6 %	18.4 %	73.8 %	625.1 %	402.6 %	277.9 %	0.3 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	110.904 %	-0.109 ppb	0.010 ppb	0.065 ppb	2.290 ppb	0.002 ppb	0.077 ppb	0.057 ppb	-0.054 ppb
Concentration per Run 1	107.109 %	-0.116 ppb	0.041 ppb	0.088 ppb	4.296 ppb	0.002 ppb	0.241 ppb	0.009 ppb	-0.082 ppb
Concentration per Run 2	106.949 %	-0.053 ppb	-0.007 ppb	0.028 ppb	-0.115 ppb	-0.005 ppb	-0.014 ppb	0.029 ppb	-0.077 ppb
Concentration per Run 3	118.655 %	-0.159 ppb	-0.004 ppb	0.079 ppb	2.689 ppb	0.008 ppb	0.004 ppb	0.133 ppb	-0.002 ppb
Recovery Percentage 1		-2.179 %	1.029 %	6.503 %	4.580 %	0.333 %	3.843 %	5.696 %	-1.076 %
Concentration RSD	6.1 %	49.0 %	262.8 %	49.5 %	97.5 %	395.6 %	185.2 %	117.1 %	83.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	108.024 %	0.025 ppb	0.073 ppb	-0.004 ppb	0.247 ppb	104.149 %	0.001 ppb	0.002 ppb	103.273 %
Concentration per Run 1	108.193 %	-0.026 ppb	-0.057 ppb	-0.002 ppb	0.208 ppb	102.555 %	-0.001 ppb	0.005 ppb	100.866 %
Concentration per Run 2	105.373 %	0.038 ppb	0.112 ppb	-0.005 ppb	0.154 ppb	104.296 %	-0.001 ppb	0.000 ppb	101.233 %
Concentration per Run 3	110.506 %	0.061 ppb	0.164 ppb	-0.006 ppb	0.379 ppb	105.596 %	0.005 ppb	0.000 ppb	107.721 %
Recovery Percentage 1		4.911 %	1.459 %	-0.042 %	12.355 %		0.233 %	0.769 %	
Concentration RSD	2.4 %	183.3 %	158.0 %	52.2 %	47.7 %	1.5 %	391.7 %	173.2 %	3.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.089 ppb	0.004 ppb	104.064 %	105.520 %	0.240 ppb	0.103 ppb
Concentration per Run 1	0.093 ppb	0.005 ppb	104.334 %	103.229 %	0.192 ppb	0.113 ppb
Concentration per Run 2	0.081 ppb	0.005 ppb	101.761 %	103.673 %	0.302 ppb	0.102 ppb
Concentration per Run 3	0.094 ppb	0.004 ppb	106.098 %	109.659 %	0.227 ppb	0.093 ppb
Recovery Percentage 1	2.233 %	0.889 %			24.017 %	10.268 %
Concentration RSD	7.8 %	8.7 %	2.1 %	3.4 %	23.5 %	9.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	162	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 7:03:25 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.884 %	121.218 %	62.744 ppb	6,364.919 ppb	6,367.952 ppb	64.196 ppb	6,264.719 ppb	6,047.202 ppb	103.423 %
Concentration per Run 1	98.678 %	117.289 %	63.411 ppb	6,317.951 ppb	6,279.915 ppb	60.742 ppb	6,076.431 ppb	5,891.093 ppb	102.440 %
Concentration per Run 2	100.237 %	120.825 %	62.415 ppb	6,319.093 ppb	6,342.236 ppb	62.472 ppb	6,285.657 ppb	6,115.675 ppb	103.900 %
Concentration per Run 3	100.736 %	125.540 %	62.404 ppb	6,457.713 ppb	6,481.705 ppb	69.374 ppb	6,432.067 ppb	6,134.838 ppb	103.929 %
Recovery Percentage 1			104.573 %	106.082 %	106.133 %	106.993 %	104.412 %	100.787 %	
Concentration RSD	1.1 %	3.4 %	0.9 %	1.3 %	1.6 %	7.1 %	2.9 %	2.2 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	111.599 %	60.219 ppb	59.896 ppb	60.615 ppb	6,083.679 ppb	59.570 ppb	60.981 ppb	58.488 ppb	59.930 ppb
Concentration per Run 1	111.118 %	60.100 ppb	58.906 ppb	58.944 ppb	5,886.593 ppb	58.855 ppb	60.855 ppb	57.737 ppb	59.710 ppb
Concentration per Run 2	107.270 %	60.821 ppb	60.728 ppb	59.569 ppb	6,189.104 ppb	60.198 ppb	61.612 ppb	59.059 ppb	59.944 ppb
Concentration per Run 3	116.410 %	59.735 ppb	60.053 ppb	63.331 ppb	6,175.340 ppb	59.656 ppb	60.476 ppb	58.668 ppb	60.137 ppb
Recovery Percentage 1		100.364 %	99.826 %	101.025 %	101.395 %	99.283 %	101.635 %	97.480 %	99.884 %
Concentration RSD	4.1 %	0.9 %	1.5 %	3.9 %	2.8 %	1.1 %	0.9 %	1.2 %	0.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	104.586 %	59.272 ppb	57.806 ppb	57.710 ppb	59.821 ppb	99.006 %	61.120 ppb	60.607 ppb	100.404 %
Concentration per Run 1	103.791 %	57.398 ppb	55.310 ppb	55.853 ppb	59.273 ppb	98.305 %	60.707 ppb	59.939 ppb	99.047 %
Concentration per Run 2	102.761 %	59.940 ppb	56.522 ppb	56.877 ppb	59.786 ppb	98.308 %	60.837 ppb	61.573 ppb	97.683 %
Concentration per Run 3	107.205 %	60.476 ppb	61.587 ppb	60.400 ppb	60.405 ppb	100.406 %	61.815 ppb	60.309 ppb	104.481 %
Recovery Percentage 1		98.786 %	96.343 %	96.183 %	99.702 %		101.866 %	101.012 %	
Concentration RSD	2.2 %	2.8 %	5.8 %	4.1 %	0.9 %	1.2 %	1.0 %	1.4 %	3.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	57.172 ppb	60.972 ppb	104.777 %	106.265 %	61.531 ppb	61.963 ppb
Concentration per Run 1	55.744 ppb	60.716 ppb	104.609 %	104.698 %	61.309 ppb	62.043 ppb
Concentration per Run 2	57.645 ppb	60.760 ppb	102.077 %	104.412 %	62.629 ppb	62.724 ppb
Concentration per Run 3	58.127 ppb	61.440 ppb	107.646 %	109.686 %	60.656 ppb	61.122 ppb
Recovery Percentage 1	95.287 %	101.620 %			102.552 %	103.272 %
Concentration RSD	2.2 %	0.7 %	2.7 %	2.8 %	1.6 %	1.3 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	163	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 7:11:04 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.236 %	116.700 %	0.009 ppb	4.391 ppb	3.255 ppb	-0.519 ppb	-9.865 ppb	9.284 ppb	102.225 %
Concentration per Run 1	100.977 %	111.395 %	0.014 ppb	7.480 ppb	2.536 ppb	-0.601 ppb	-10.088 ppb	3.921 ppb	101.301 %
Concentration per Run 2	102.207 %	126.130 %	0.008 ppb	2.345 ppb	2.906 ppb	-0.363 ppb	-13.212 ppb	4.796 ppb	103.115 %
Concentration per Run 3	100.525 %	112.574 %	0.004 ppb	3.349 ppb	4.322 ppb	-0.594 ppb	-6.296 ppb	19.135 ppb	102.260 %
Recovery Percentage 1			1.722 %	4.391 %	4.650 %	-5.191 %	-9.865 %	9.284 %	
Concentration RSD	0.9 %	7.0 %	62.0 %	62.0 %	29.0 %	26.1 %	35.1 %	92.0 %	0.9 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	104.223 %	-0.135 ppb	0.045 ppb	-0.002 ppb	1.951 ppb	0.012 ppb	0.008 ppb	0.048 ppb	0.012 ppb
Concentration per Run 1	107.751 %	-0.136 ppb	0.043 ppb	0.029 ppb	3.194 ppb	0.002 ppb	-0.012 ppb	-0.020 ppb	-0.017 ppb
Concentration per Run 2	101.497 %	-0.155 ppb	0.048 ppb	-0.033 ppb	0.726 ppb	0.003 ppb	0.020 ppb	0.023 ppb	-0.043 ppb
Concentration per Run 3	103.421 %	-0.113 ppb	0.045 ppb	-0.001 ppb	1.932 ppb	0.032 ppb	0.015 ppb	0.140 ppb	0.098 ppb
Recovery Percentage 1		-2.695 %	4.516 %	-0.154 %	3.901 %	2.436 %	0.387 %	4.765 %	0.249 %
Concentration RSD	3.1 %	15.7 %	5.5 %	2,007.9 %	63.3 %	138.6 %	226.0 %	173.5 %	602.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	98.627 %	-0.048 ppb	0.027 ppb	0.014 ppb	0.116 ppb	99.088 %	0.026 ppb	0.022 ppb	97.737 %
Concentration per Run 1	99.084 %	-0.074 ppb	0.116 ppb	0.023 ppb	0.082 ppb	100.297 %	0.023 ppb	0.023 ppb	99.868 %
Concentration per Run 2	94.459 %	-0.042 ppb	-0.053 ppb	0.007 ppb	0.115 ppb	98.317 %	0.030 ppb	0.029 ppb	95.179 %
Concentration per Run 3	102.337 %	-0.029 ppb	0.019 ppb	0.012 ppb	0.151 ppb	98.652 %	0.026 ppb	0.014 ppb	98.164 %
Recovery Percentage 1		-9.664 %	0.542 %	0.140 %	5.804 %		6.600 %	11.145 %	
Concentration RSD	4.0 %	48.3 %	313.3 %	60.8 %	29.8 %	1.1 %	14.6 %	33.7 %	2.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.323 ppb	0.044 ppb	101.594 %	102.581 %	0.116 ppb	0.085 ppb
Concentration per Run 1	0.300 ppb	0.049 ppb	102.458 %	103.425 %	0.087 ppb	0.091 ppb
Concentration per Run 2	0.331 ppb	0.020 ppb	99.844 %	100.342 %	0.134 ppb	0.084 ppb
Concentration per Run 3	0.337 ppb	0.064 ppb	102.482 %	103.976 %	0.128 ppb	0.080 ppb
Recovery Percentage 1	8.063 %	8.855 %			11.626 %	8.470 %
Concentration RSD	6.1 %	49.6 %	1.5 %	1.9 %	21.6 %	6.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	164	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1964371-1d2 A2-6020T	Rack	3		
Analysis started at:	8/28/2024 7:16:52 PM	Vial	8		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.817 %	115.521 %	0.000 ppb	5.168 ppb	5.442 ppb	0.916 ppb	-13.346 ppb	8.945 ppb	101.380 %
Concentration per Run 1	100.198 %	112.574 %	0.002 ppb	6.502 ppb	5.585 ppb	1.013 ppb	-7.125 ppb	20.056 ppb	100.566 %
Concentration per Run 2	100.802 %	120.825 %	-0.002 ppb	6.033 ppb	7.241 ppb	0.863 ppb	-15.294 ppb	0.329 ppb	101.337 %
Concentration per Run 3	101.451 %	113.163 %	-0.001 ppb	2.970 ppb	3.498 ppb	0.871 ppb	-17.620 ppb	6.449 ppb	102.237 %
Concentration RSD	0.6 %	4.0 %	1,304.3 %	37.1 %	34.5 %	9.2 %	41.3 %	112.9 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	107.644 %	-0.065 ppb	0.003 ppb	0.100 ppb	4.189 ppb	0.004 ppb	0.075 ppb	0.111 ppb	0.467 ppb
Concentration per Run 1	99.893 %	-0.045 ppb	0.002 ppb	0.159 ppb	2.670 ppb	0.002 ppb	-0.011 ppb	0.141 ppb	0.406 ppb
Concentration per Run 2	108.713 %	-0.052 ppb	0.015 ppb	-0.001 ppb	3.923 ppb	-0.005 ppb	0.153 ppb	0.149 ppb	0.445 ppb
Concentration per Run 3	114.325 %	-0.099 ppb	-0.009 ppb	0.142 ppb	5.974 ppb	0.016 ppb	0.084 ppb	0.043 ppb	0.549 ppb
Concentration RSD	6.8 %	44.8 %	413.7 %	88.3 %	39.8 %	243.4 %	109.2 %	53.3 %	15.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	100.982 %	-0.006 ppb	-0.035 ppb	0.022 ppb	0.078 ppb	99.787 %	0.003 ppb	0.005 ppb	98.359 %
Concentration per Run 1	103.277 %	-0.030 ppb	-0.068 ppb	0.024 ppb	0.041 ppb	99.278 %	0.006 ppb	0.009 ppb	98.289 %
Concentration per Run 2	94.530 %	-0.003 ppb	0.023 ppb	0.020 ppb	0.128 ppb	98.837 %	0.006 ppb	0.000 ppb	97.030 %
Concentration per Run 3	105.139 %	0.015 ppb	-0.060 ppb	0.022 ppb	0.065 ppb	101.247 %	-0.003 ppb	0.005 ppb	99.757 %
Concentration RSD	5.6 %	371.8 %	144.9 %	8.9 %	57.6 %	1.3 %	170.9 %	100.6 %	1.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.171 ppb	0.083 ppb	101.537 %	101.978 %	0.051 ppb	0.090 ppb
Concentration per Run 1	0.160 ppb	0.064 ppb	100.813 %	100.434 %	0.030 ppb	0.098 ppb
Concentration per Run 2	0.180 ppb	0.035 ppb	101.456 %	101.929 %	0.067 ppb	0.094 ppb
Concentration per Run 3	0.175 ppb	0.151 ppb	102.342 %	103.570 %	0.055 ppb	0.078 ppb
Concentration RSD	6.1 %	72.4 %	0.8 %	1.5 %	37.3 %	11.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	165	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1964371-2d10 A2-6020T	Rack	3		
Analysis started at:	8/28/2024 7:21:23 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.757 %	123.183 %	10.643 ppb	2,275.794 ppb	2,170.139 ppb	428.241 ppb	2,227.454 ppb	2,165.460 ppb	103.332 %
Concentration per Run 1	102.047 %	109.037 %	10.612 ppb	2,388.210 ppb	2,246.556 ppb	440.921 ppb	2,249.121 ppb	2,022.413 ppb	104.135 %
Concentration per Run 2	102.376 %	132.024 %	10.586 ppb	2,158.430 ppb	2,078.375 ppb	406.747 ppb	2,157.374 ppb	2,302.591 ppb	102.984 %
Concentration per Run 3	100.849 %	128.487 %	10.732 ppb	2,280.744 ppb	2,185.485 ppb	437.056 ppb	2,275.868 ppb	2,171.375 ppb	102.877 %
Concentration RSD	0.8 %	10.0 %	0.7 %	5.1 %	3.9 %	4.4 %	2.8 %	6.5 %	0.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	107.804 %	102.577 ppb	41.881 ppb	105.772 ppb	208.799 ppb	103.383 ppb	103.380 ppb	52.576 ppb	104.011 ppb
Concentration per Run 1	108.713 %	99.621 ppb	41.190 ppb	106.296 ppb	216.020 ppb	101.391 ppb	100.401 ppb	52.664 ppb	102.650 ppb
Concentration per Run 2	106.468 %	104.671 ppb	42.693 ppb	104.318 ppb	204.845 ppb	105.483 ppb	103.046 ppb	51.506 ppb	103.951 ppb
Concentration per Run 3	108.232 %	103.440 ppb	41.762 ppb	106.702 ppb	205.531 ppb	103.275 ppb	106.692 ppb	53.558 ppb	105.432 ppb
Concentration RSD	1.1 %	2.6 %	1.8 %	1.2 %	3.0 %	2.0 %	3.1 %	2.0 %	1.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	101.281 %	23.511 ppb	24.042 ppb	190.177 ppb	202.593 ppb	100.034 %	10.258 ppb	11.107 ppb	96.776 %
Concentration per Run 1	101.167 %	23.567 ppb	24.201 ppb	190.030 ppb	201.236 ppb	98.454 %	10.238 ppb	10.741 ppb	96.958 %
Concentration per Run 2	99.828 %	23.418 ppb	26.332 ppb	190.724 ppb	201.674 ppb	100.640 %	10.575 ppb	11.476 ppb	95.065 %
Concentration per Run 3	102.847 %	23.548 ppb	21.592 ppb	189.776 ppb	204.868 ppb	101.009 %	9.962 ppb	11.103 ppb	98.307 %
Concentration RSD	1.5 %	0.3 %	9.9 %	0.3 %	1.0 %	1.4 %	3.0 %	3.3 %	1.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	99.219 ppb	404.094 ppb	102.252 %	103.288 %	23.058 ppb	111.164 ppb
Concentration per Run 1	98.745 ppb	399.346 ppb	101.623 %	102.438 %	22.598 ppb	109.409 ppb
Concentration per Run 2	100.106 ppb	407.262 ppb	101.629 %	102.930 %	23.101 ppb	111.829 ppb
Concentration per Run 3	98.804 ppb	405.674 ppb	103.504 %	104.494 %	23.475 ppb	112.254 ppb
Concentration RSD	0.8 %	1.0 %	1.1 %	1.0 %	1.9 %	1.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	166	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	WG1964371-3d10 A2-6020T	Rack	3		
Analysis started at:	8/28/2024 7:25:53 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.381 %	115.521 %	10.658 ppb	2,317.580 ppb	2,203.457 ppb	438.890 ppb	2,176.767 ppb	2,026.665 ppb	104.582 %
Concentration per Run 1	102.244 %	123.772 %	10.573 ppb	2,219.045 ppb	2,124.351 ppb	422.637 ppb	2,253.886 ppb	2,166.965 ppb	104.205 %
Concentration per Run 2	102.971 %	111.984 %	10.712 ppb	2,308.737 ppb	2,136.094 ppb	425.046 ppb	2,060.423 ppb	1,833.396 ppb	105.773 %
Concentration per Run 3	101.928 %	110.806 %	10.688 ppb	2,424.957 ppb	2,349.925 ppb	468.987 ppb	2,215.993 ppb	2,079.633 ppb	103.768 %
Concentration RSD	0.5 %	6.2 %	0.7 %	4.5 %	5.8 %	5.9 %	4.7 %	8.5 %	1.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	109.514 %	99.277 ppb	41.375 ppb	105.257 ppb	224.813 ppb	102.457 ppb	103.802 ppb	50.885 ppb	102.341 ppb
Concentration per Run 1	102.459 %	101.561 ppb	42.247 ppb	106.237 ppb	235.044 ppb	105.695 ppb	105.663 ppb	50.543 ppb	104.768 ppb
Concentration per Run 2	117.532 %	95.859 ppb	38.983 ppb	102.017 ppb	227.155 ppb	99.922 ppb	100.227 ppb	50.056 ppb	99.953 ppb
Concentration per Run 3	108.552 %	100.410 ppb	42.896 ppb	107.516 ppb	212.240 ppb	101.755 ppb	105.517 ppb	52.058 ppb	102.303 ppb
Concentration RSD	6.9 %	3.0 %	5.1 %	2.7 %	5.2 %	2.9 %	3.0 %	2.1 %	2.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.865 %	23.756 ppb	22.823 ppb	189.681 ppb	202.059 ppb	101.238 %	10.062 ppb	10.708 ppb	99.931 %
Concentration per Run 1	100.665 %	24.190 ppb	22.565 ppb	191.081 ppb	199.252 ppb	101.461 %	9.881 ppb	10.443 ppb	101.097 %
Concentration per Run 2	103.570 %	23.270 ppb	23.573 ppb	188.898 ppb	202.529 ppb	100.594 %	10.203 ppb	10.703 ppb	100.138 %
Concentration per Run 3	104.361 %	23.809 ppb	22.333 ppb	189.064 ppb	204.397 ppb	101.659 %	10.103 ppb	10.976 ppb	98.559 %
Concentration RSD	1.9 %	1.9 %	2.9 %	0.6 %	1.3 %	0.6 %	1.6 %	2.5 %	1.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	100.499 ppb	401.356 ppb	102.904 %	103.583 %	23.216 ppb	111.213 ppb
Concentration per Run 1	99.827 ppb	398.841 ppb	100.963 %	102.564 %	22.903 ppb	110.224 ppb
Concentration per Run 2	99.596 ppb	400.012 ppb	103.063 %	103.339 %	23.394 ppb	112.386 ppb
Concentration per Run 3	102.074 ppb	405.214 ppb	104.686 %	104.846 %	23.350 ppb	111.030 ppb
Concentration RSD	1.4 %	0.8 %	1.8 %	1.1 %	1.2 %	1.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	167	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	xL2444134-03d10 6020TL	Rack	3		
Analysis started at:	8/28/2024 7:30:24 PM	Vial	7		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.670 %	115.128 %	-0.004 ppb	63,548.511 ppb	9,665.023 ppb	12.628 ppb	3,406.450 ppb	4,960.693 ppb	101.755 %
Concentration per Run 1	99.658 %	118.468 %	-0.001 ppb	60,476.390 ppb	8,929.274 ppb	12.710 ppb	3,297.783 ppb	4,700.607 ppb	102.214 %
Concentration per Run 2	98.958 %	107.859 %	-0.002 ppb	66,329.772 ppb	10,202.110 ppb	12.112 ppb	3,542.917 ppb	5,072.562 ppb	101.359 %
Concentration per Run 3	100.395 %	119.057 %	-0.007 ppb	63,839.370 ppb	9,863.685 ppb	13.061 ppb	3,378.651 ppb	5,108.908 ppb	101.690 %
Concentration RSD	0.7 %	5.5 %	81.9 %	4.6 %	6.8 %	3.8 %	3.7 %	4.6 %	0.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	108.873 %	0.085 ppb	0.099 ppb	11.559 ppb	116.712 ppb	0.125 ppb	1.244 ppb	19.555 ppb	7.383 ppb
Concentration per Run 1	110.637 %	-0.034 ppb	0.075 ppb	12.019 ppb	117.054 ppb	0.095 ppb	1.375 ppb	19.993 ppb	7.334 ppb
Concentration per Run 2	107.430 %	0.240 ppb	0.106 ppb	11.264 ppb	116.974 ppb	0.161 ppb	1.277 ppb	19.608 ppb	7.773 ppb
Concentration per Run 3	108.552 %	0.048 ppb	0.116 ppb	11.394 ppb	116.107 ppb	0.121 ppb	1.079 ppb	19.064 ppb	7.040 ppb
Concentration RSD	1.5 %	166.7 %	21.4 %	3.5 %	0.5 %	26.3 %	12.1 %	2.4 %	5.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.621 %	0.201 ppb	0.129 ppb	61.401 ppb	0.914 ppb	97.392 %	0.011 ppb	0.032 ppb	96.790 %
Concentration per Run 1	100.369 %	0.261 ppb	0.110 ppb	61.218 ppb	0.806 ppb	93.541 %	0.014 ppb	0.031 ppb	91.337 %
Concentration per Run 2	102.320 %	0.240 ppb	0.181 ppb	62.643 ppb	0.962 ppb	98.508 %	0.011 ppb	0.033 ppb	99.295 %
Concentration per Run 3	108.175 %	0.102 ppb	0.094 ppb	60.341 ppb	0.975 ppb	100.129 %	0.007 ppb	0.033 ppb	99.737 %
Concentration RSD	3.9 %	43.1 %	36.3 %	1.9 %	10.3 %	3.5 %	29.6 %	4.4 %	4.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	4.061 ppb	5.670 ppb	101.761 %	101.398 %	0.112 ppb	20.172 ppb
Concentration per Run 1	4.040 ppb	5.610 ppb	98.861 %	96.977 %	0.086 ppb	20.338 ppb
Concentration per Run 2	4.184 ppb	5.614 ppb	102.852 %	103.077 %	0.131 ppb	19.989 ppb
Concentration per Run 3	3.958 ppb	5.785 ppb	103.570 %	104.141 %	0.119 ppb	20.189 ppb
Concentration RSD	2.8 %	1.8 %	2.5 %	3.8 %	21.0 %	0.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	168	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447709-02 6020TL	Rack	3		
Analysis started at:	8/28/2024 7:34:54 PM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.328 %	121.218 %	7.645 ppb	27,324.057 ppb	7,311.776 ppb	349.247 ppb	11,169.479 ppb	69,460.823 ppb	102.666 %
Concentration per Run 1	100.362 %	122.004 %	7.627 ppb	27,109.383 ppb	7,236.707 ppb	334.513 ppb	11,130.752 ppb	68,906.782 ppb	101.496 %
Concentration per Run 2	101.790 %	110.806 %	7.718 ppb	28,232.529 ppb	7,508.381 ppb	360.691 ppb	10,931.123 ppb	67,563.606 ppb	104.237 %
Concentration per Run 3	101.832 %	130.845 %	7.589 ppb	26,630.261 ppb	7,190.239 ppb	352.538 ppb	11,446.561 ppb	71,912.080 ppb	102.264 %
Concentration RSD	0.8 %	8.3 %	0.9 %	3.0 %	2.4 %	3.8 %	2.3 %	3.2 %	1.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	99.786 %	0.187 ppb	0.529 ppb	2,723.541 ppb	342.249 ppb	0.174 ppb	1.760 ppb	2.244 ppb	611.527 ppb
Concentration per Run 1	100.214 %	0.199 ppb	0.471 ppb	2,684.477 ppb	324.149 ppb	0.168 ppb	1.742 ppb	2.120 ppb	604.350 ppb
Concentration per Run 2	103.100 %	0.103 ppb	0.545 ppb	2,645.016 ppb	328.215 ppb	0.157 ppb	1.892 ppb	2.400 ppb	592.891 ppb
Concentration per Run 3	96.045 %	0.261 ppb	0.570 ppb	2,841.129 ppb	374.384 ppb	0.198 ppb	1.647 ppb	2.210 ppb	637.339 ppb
Concentration RSD	3.6 %	42.4 %	9.8 %	3.8 %	8.2 %	12.4 %	7.0 %	6.4 %	3.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	100.500 %	0.215 ppb	0.243 ppb	181.900 ppb	3.998 ppb	94.163 %	0.006 ppb	2.176 ppb	94.365 %
Concentration per Run 1	101.308 %	0.183 ppb	0.579 ppb	172.360 ppb	4.086 ppb	94.246 %	0.004 ppb	2.154 ppb	92.385 %
Concentration per Run 2	102.699 %	0.227 ppb	0.024 ppb	183.794 ppb	3.843 ppb	94.231 %	0.004 ppb	2.177 ppb	94.793 %
Concentration per Run 3	97.494 %	0.236 ppb	0.127 ppb	189.547 ppb	4.067 ppb	94.011 %	0.008 ppb	2.196 ppb	95.917 %
Concentration RSD	2.7 %	13.1 %	121.4 %	4.8 %	3.4 %	0.1 %	36.7 %	1.0 %	1.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.436 ppb	49.852 ppb	100.448 %	100.236 %	0.089 ppb	0.860 ppb
Concentration per Run 1	0.366 ppb	47.938 ppb	99.343 %	97.516 %	0.069 ppb	0.843 ppb
Concentration per Run 2	0.449 ppb	50.576 ppb	100.545 %	101.480 %	0.099 ppb	0.886 ppb
Concentration per Run 3	0.493 ppb	51.043 ppb	101.456 %	101.711 %	0.099 ppb	0.852 ppb
Concentration RSD	14.8 %	3.4 %	1.1 %	2.4 %	19.4 %	2.7 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	169	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447714-01d10 6020TL	Rack	3		
Analysis started at:	8/28/2024 7:39:24 PM	Vial	2		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.319 %	120.432 %	0.117 ppb	57,705.361 ppb	4,137.009 ppb	2.604 ppb	16,274.750 ppb	6,114.158 ppb	103.704 %
Concentration per Run 1	99.333 %	119.057 %	0.118 ppb	67,239.630 ppb	4,120.744 ppb	2.424 ppb	16,100.347 ppb	5,949.605 ppb	101.957 %
Concentration per Run 2	100.852 %	124.362 %	0.126 ppb	51,784.681 ppb	4,061.322 ppb	2.819 ppb	16,234.688 ppb	6,135.131 ppb	104.920 %
Concentration per Run 3	100.771 %	117.878 %	0.109 ppb	54,091.774 ppb	4,228.963 ppb	2.568 ppb	16,489.214 ppb	6,257.737 ppb	104.237 %
Concentration RSD	0.9 %	2.9 %	7.2 %	14.4 %	2.1 %	7.7 %	1.2 %	2.5 %	1.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	105.666 %	0.434 ppb	0.839 ppb	56.380 ppb	2,260.906 ppb	3.759 ppb	9.051 ppb	0.071 ppb	0.590 ppb
Concentration per Run 1	105.185 %	0.356 ppb	0.985 ppb	56.185 ppb	2,201.162 ppb	3.706 ppb	8.853 ppb	0.016 ppb	0.590 ppb
Concentration per Run 2	106.628 %	0.409 ppb	0.691 ppb	57.286 ppb	2,279.642 ppb	3.711 ppb	9.133 ppb	0.135 ppb	0.563 ppb
Concentration per Run 3	105.185 %	0.538 ppb	0.842 ppb	55.670 ppb	2,301.913 ppb	3.860 ppb	9.168 ppb	0.062 ppb	0.616 ppb
Concentration RSD	0.8 %	21.6 %	17.5 %	1.5 %	2.3 %	2.3 %	1.9 %	84.2 %	4.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.825 %	0.917 ppb	0.222 ppb	40.833 ppb	3.645 ppb	98.525 %	-0.002 ppb	0.006 ppb	97.430 %
Concentration per Run 1	100.458 %	0.845 ppb	0.421 ppb	39.654 ppb	3.246 ppb	96.858 %	-0.003 ppb	0.000 ppb	96.323 %
Concentration per Run 2	104.072 %	1.062 ppb	0.247 ppb	41.498 ppb	3.722 ppb	99.968 %	-0.003 ppb	0.005 ppb	100.033 %
Concentration per Run 3	106.946 %	0.843 ppb	-0.001 ppb	41.347 ppb	3.969 ppb	98.749 %	-0.001 ppb	0.014 ppb	95.934 %
Concentration RSD	3.1 %	13.7 %	95.5 %	2.5 %	10.1 %	1.6 %	44.5 %	115.7 %	2.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.155 ppb	51.969 ppb	101.980 %	102.070 %	0.025 ppb	0.065 ppb
Concentration per Run 1	0.133 ppb	50.552 ppb	99.634 %	98.764 %	0.010 ppb	0.076 ppb
Concentration per Run 2	0.158 ppb	52.990 ppb	103.190 %	103.849 %	0.032 ppb	0.056 ppb
Concentration per Run 3	0.173 ppb	52.365 ppb	103.117 %	103.597 %	0.032 ppb	0.062 ppb
Concentration RSD	13.2 %	2.4 %	2.0 %	2.8 %	50.5 %	15.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	170	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447714-02 6020TL	Rack	3		
Analysis started at:	8/28/2024 7:43:55 PM	Vial	3		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.311 %	129.666 %	12.809 ppb	59,082.012 ppb	10,750.999 ppb	6.659 ppb	20,983.251 ppb	74,892.188 ppb	108.368 %
Concentration per Run 1	102.833 %	129.077 %	12.947 ppb	68,793.832 ppb	10,635.962 ppb	6.331 ppb	20,288.221 ppb	72,256.825 ppb	104.948 %
Concentration per Run 2	104.407 %	132.024 %	12.978 ppb	52,868.307 ppb	10,615.169 ppb	7.515 ppb	21,745.965 ppb	78,455.555 ppb	107.570 %
Concentration per Run 3	105.692 %	127.898 %	12.502 ppb	55,583.898 ppb	11,001.865 ppb	6.130 ppb	20,915.566 ppb	73,964.182 ppb	112.586 %
Concentration RSD	1.4 %	1.6 %	2.1 %	14.4 %	2.0 %	11.2 %	3.5 %	4.3 %	3.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	102.726 %	-0.026 ppb	0.966 ppb	4,981.888 ppb	28,374.465 ppb	1.628 ppb	5.650 ppb	10.019 ppb	39.214 ppb
Concentration per Run 1	107.590 %	-0.031 ppb	0.921 ppb	4,814.601 ppb	27,512.288 ppb	1.451 ppb	5.826 ppb	10.457 ppb	38.890 ppb
Concentration per Run 2	93.159 %	-0.082 ppb	0.998 ppb	5,105.821 ppb	29,201.272 ppb	1.725 ppb	5.455 ppb	9.566 ppb	38.659 ppb
Concentration per Run 3	107.430 %	0.034 ppb	0.978 ppb	5,025.242 ppb	28,409.835 ppb	1.708 ppb	5.668 ppb	10.035 ppb	40.091 ppb
Concentration RSD	8.1 %	220.7 %	4.1 %	3.0 %	3.0 %	9.4 %	3.3 %	4.4 %	2.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	96.254 %	0.516 ppb	0.802 ppb	317.024 ppb	5.154 ppb	92.963 %	0.000 ppb	0.054 ppb	92.538 %
Concentration per Run 1	98.795 %	0.686 ppb	1.196 ppb	311.537 ppb	4.687 ppb	93.888 %	-0.001 ppb	0.051 ppb	91.829 %
Concentration per Run 2	93.881 %	0.425 ppb	0.706 ppb	316.256 ppb	5.454 ppb	92.561 %	-0.003 ppb	0.035 ppb	92.381 %
Concentration per Run 3	96.087 %	0.437 ppb	0.505 ppb	323.278 ppb	5.321 ppb	92.440 %	0.003 ppb	0.075 ppb	93.405 %
Concentration RSD	2.6 %	28.6 %	44.3 %	1.9 %	7.9 %	0.9 %	710.0 %	37.5 %	0.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.097 ppb	145.759 ppb	101.455 %	103.445 %	0.166 ppb	1.537 ppb
Concentration per Run 1	0.077 ppb	145.643 ppb	101.655 %	103.197 %	0.153 ppb	1.498 ppb
Concentration per Run 2	0.110 ppb	145.798 ppb	101.933 %	103.158 %	0.180 ppb	1.546 ppb
Concentration per Run 3	0.103 ppb	145.836 ppb	100.777 %	103.981 %	0.164 ppb	1.567 ppb
Concentration RSD	17.9 %	0.1 %	0.6 %	0.4 %	8.1 %	2.3 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	171	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447844-01d20 6020TL	Rack	3		
Analysis started at:	8/28/2024 7:48:25 PM	Vial	4		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.392 %	122.790 %	0.013 ppb	225,355.387 ppb	33,263.730 ppb	9.947 ppb	10,312.277 ppb	11,361.476 ppb	109.189 %
Concentration per Run 1	101.052 %	103.733 %	0.017 ppb	245,689.490 ppb	36,441.908 ppb	10.236 ppb	10,743.495 ppb	11,470.055 ppb	109.005 %
Concentration per Run 2	102.031 %	128.487 %	0.009 ppb	211,245.547 ppb	31,096.175 ppb	9.596 ppb	9,939.570 ppb	11,381.756 ppb	110.438 %
Concentration per Run 3	101.093 %	136.150 %	0.012 ppb	219,131.123 ppb	32,253.108 ppb	10.008 ppb	10,253.767 ppb	11,232.618 ppb	108.126 %
Concentration RSD	0.5 %	13.8 %	34.6 %	8.0 %	8.5 %	3.3 %	3.9 %	1.1 %	1.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	104.062 %	0.015 ppb	0.073 ppb	8.923 ppb	56.381 ppb	0.033 ppb	0.219 ppb	0.248 ppb	0.951 ppb
Concentration per Run 1	100.053 %	0.064 ppb	0.084 ppb	11.110 ppb	72.145 ppb	0.039 ppb	0.231 ppb	0.245 ppb	1.047 ppb
Concentration per Run 2	102.620 %	0.017 ppb	0.089 ppb	8.898 ppb	55.546 ppb	0.024 ppb	0.122 ppb	0.299 ppb	1.069 ppb
Concentration per Run 3	109.514 %	-0.037 ppb	0.046 ppb	6.762 ppb	41.451 ppb	0.036 ppb	0.303 ppb	0.200 ppb	0.737 ppb
Concentration RSD	4.7 %	339.6 %	32.2 %	24.4 %	27.3 %	23.6 %	41.7 %	19.9 %	19.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	107.175 %	0.115 ppb	-0.014 ppb	173.379 ppb	0.406 ppb	101.191 %	0.002 ppb	0.003 ppb	100.302 %
Concentration per Run 1	104.578 %	0.064 ppb	-0.069 ppb	170.579 ppb	0.418 ppb	99.905 %	0.006 ppb	0.005 ppb	99.979 %
Concentration per Run 2	103.333 %	0.139 ppb	0.017 ppb	176.882 ppb	0.376 ppb	100.959 %	0.001 ppb	0.005 ppb	99.203 %
Concentration per Run 3	113.614 %	0.143 ppb	0.010 ppb	172.676 ppb	0.424 ppb	102.710 %	0.000 ppb	0.000 ppb	101.725 %
Concentration RSD	5.2 %	38.9 %	338.8 %	1.9 %	6.4 %	1.4 %	133.0 %	86.6 %	1.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.064 ppb	1.291 ppb	103.777 %	103.122 %	0.020 ppb	0.144 ppb
Concentration per Run 1	0.061 ppb	1.068 ppb	102.736 %	102.373 %	0.008 ppb	0.165 ppb
Concentration per Run 2	0.063 ppb	1.210 ppb	104.143 %	102.763 %	0.033 ppb	0.138 ppb
Concentration per Run 3	0.069 ppb	1.594 ppb	104.453 %	104.231 %	0.019 ppb	0.129 ppb
Concentration RSD	6.7 %	21.1 %	0.9 %	0.9 %	60.9 %	12.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	172	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447844-02d20 6020TL	Rack	3		
Analysis started at:	8/28/2024 7:52:56 PM	Vial	5		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.312 %	114.342 %	0.007 ppb	249,722.927 ppb	36,410.025 ppb	8.931 ppb	10,733.467 ppb	11,375.219 ppb	109.551 %
Concentration per Run 1	101.648 %	110.216 %	0.014 ppb	253,265.426 ppb	36,799.911 ppb	10.475 ppb	10,661.201 ppb	11,546.890 ppb	108.823 %
Concentration per Run 2	102.888 %	111.395 %	0.001 ppb	248,310.226 ppb	36,433.608 ppb	8.561 ppb	10,645.615 ppb	10,950.871 ppb	109.733 %
Concentration per Run 3	102.401 %	121.415 %	0.006 ppb	247,593.130 ppb	35,996.555 ppb	7.758 ppb	10,893.584 ppb	11,627.896 ppb	110.096 %
Concentration RSD	0.6 %	5.4 %	89.1 %	1.2 %	1.1 %	15.6 %	1.3 %	3.3 %	0.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	111.011 %	0.057 ppb	0.068 ppb	5.855 ppb	36.307 ppb	0.013 ppb	0.131 ppb	0.335 ppb	0.569 ppb
Concentration per Run 1	111.118 %	0.043 ppb	0.066 ppb	6.647 ppb	41.205 ppb	0.016 ppb	0.183 ppb	0.341 ppb	0.515 ppb
Concentration per Run 2	107.430 %	0.091 ppb	0.083 ppb	6.494 ppb	30.259 ppb	0.009 ppb	0.036 ppb	0.417 ppb	0.625 ppb
Concentration per Run 3	114.485 %	0.036 ppb	0.056 ppb	4.425 ppb	37.459 ppb	0.015 ppb	0.175 ppb	0.245 ppb	0.569 ppb
Concentration RSD	3.2 %	52.3 %	19.9 %	21.2 %	15.3 %	27.4 %	63.0 %	25.7 %	9.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	109.903 %	0.074 ppb	-0.125 ppb	183.030 ppb	0.429 ppb	105.026 %	0.003 ppb	0.004 ppb	103.727 %
Concentration per Run 1	109.060 %	0.088 ppb	-0.152 ppb	181.572 ppb	0.335 ppb	103.757 %	0.000 ppb	0.000 ppb	102.510 %
Concentration per Run 2	107.759 %	0.044 ppb	-0.153 ppb	184.862 ppb	0.460 ppb	105.613 %	0.002 ppb	0.000 ppb	103.341 %
Concentration per Run 3	112.891 %	0.090 ppb	-0.068 ppb	182.657 ppb	0.491 ppb	105.708 %	0.005 ppb	0.013 ppb	105.330 %
Concentration RSD	2.4 %	34.6 %	39.0 %	0.9 %	19.3 %	1.0 %	94.5 %	173.2 %	1.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.051 ppb	1.039 ppb	104.832 %	102.753 %	0.012 ppb	0.134 ppb
Concentration per Run 1	0.036 ppb	1.241 ppb	105.199 %	103.437 %	0.005 ppb	0.137 ppb
Concentration per Run 2	0.057 ppb	0.964 ppb	102.951 %	100.644 %	0.013 ppb	0.133 ppb
Concentration per Run 3	0.061 ppb	0.911 ppb	106.348 %	104.177 %	0.017 ppb	0.133 ppb
Concentration RSD	26.1 %	17.1 %	1.6 %	1.8 %	52.7 %	1.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	173	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447844-03d20 6020TL	Rack	3		
Analysis started at:	8/28/2024 7:57:26 PM	Vial	6		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.336 %	124.558 %	-0.001 ppb	271,168.635 ppb	40,051.171 ppb	8.351 ppb	12,004.071 ppb	12,643.448 ppb	110.014 %
Concentration per Run 1	101.794 %	110.216 %	-0.001 ppb	286,393.378 ppb	42,169.049 ppb	7.313 ppb	12,000.810 ppb	12,287.567 ppb	108.797 %
Concentration per Run 2	103.331 %	133.203 %	-0.001 ppb	259,393.901 ppb	38,460.478 ppb	7.557 ppb	12,102.415 ppb	12,743.230 ppb	111.239 %
Concentration per Run 3	101.882 %	130.256 %	-0.002 ppb	267,718.625 ppb	39,523.986 ppb	10.183 ppb	11,908.988 ppb	12,899.547 ppb	110.005 %
Concentration RSD	0.8 %	10.0 %	48.6 %	5.1 %	4.8 %	19.1 %	0.8 %	2.5 %	1.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	112.241 %	0.034 ppb	0.076 ppb	3.098 ppb	23.297 ppb	0.015 ppb	0.105 ppb	0.330 ppb	0.364 ppb
Concentration per Run 1	116.891 %	0.033 ppb	0.061 ppb	3.418 ppb	19.286 ppb	0.008 ppb	0.197 ppb	0.373 ppb	0.352 ppb
Concentration per Run 2	106.468 %	0.030 ppb	0.056 ppb	2.564 ppb	25.267 ppb	0.002 ppb	0.062 ppb	0.315 ppb	0.463 ppb
Concentration per Run 3	113.363 %	0.039 ppb	0.111 ppb	3.311 ppb	25.338 ppb	0.036 ppb	0.056 ppb	0.302 ppb	0.277 ppb
Concentration RSD	4.7 %	13.4 %	39.8 %	15.0 %	14.9 %	117.5 %	76.0 %	11.4 %	25.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	110.241 %	0.032 ppb	-0.119 ppb	207.635 ppb	0.373 ppb	103.389 %	0.001 ppb	0.004 ppb	101.712 %
Concentration per Run 1	112.313 %	0.035 ppb	-0.147 ppb	203.032 ppb	0.353 ppb	105.335 %	-0.001 ppb	0.005 ppb	102.779 %
Concentration per Run 2	108.409 %	0.009 ppb	-0.148 ppb	210.754 ppb	0.343 ppb	101.167 %	0.004 ppb	0.000 ppb	97.656 %
Concentration per Run 3	110.000 %	0.051 ppb	-0.062 ppb	209.120 ppb	0.425 ppb	103.666 %	0.000 ppb	0.009 ppb	104.703 %
Concentration RSD	1.8 %	67.5 %	41.3 %	2.0 %	12.0 %	2.0 %	248.5 %	99.8 %	3.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.026 ppb	0.945 ppb	103.433 %	100.779 %	0.007 ppb	0.128 ppb
Concentration per Run 1	0.022 ppb	1.138 ppb	105.643 %	102.220 %	0.000 ppb	0.123 ppb
Concentration per Run 2	0.037 ppb	0.709 ppb	99.546 %	97.027 %	0.008 ppb	0.131 ppb
Concentration per Run 3	0.018 ppb	0.989 ppb	105.109 %	103.089 %	0.014 ppb	0.131 ppb
Concentration RSD	37.9 %	23.0 %	3.3 %	3.3 %	92.4 %	3.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	174	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 8:01:56 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.567 %	118.664 %	63.613 ppb	7,053.992 ppb	6,575.668 ppb	68.003 ppb	6,543.995 ppb	6,453.047 ppb	105.527 %
Concentration per Run 1	100.642 %	117.878 %	64.089 ppb	7,364.379 ppb	6,739.927 ppb	68.436 ppb	7,105.073 ppb	7,078.320 ppb	106.144 %
Concentration per Run 2	101.943 %	122.593 %	63.147 ppb	7,116.554 ppb	6,341.939 ppb	64.481 ppb	6,565.173 ppb	6,514.267 ppb	105.379 %
Concentration per Run 3	102.117 %	115.521 %	63.603 ppb	6,681.044 ppb	6,645.137 ppb	71.092 ppb	5,961.738 ppb	5,766.555 ppb	105.058 %
Recovery Percentage 1			106.022 %	117.567 %	109.594 %	113.338 %	109.067 %	107.551 %	
Concentration RSD	0.8 %	3.0 %	0.7 %	4.9 %	3.2 %	4.9 %	8.7 %	10.2 %	0.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	109.942 %	62.146 ppb	64.009 ppb	62.225 ppb	6,417.831 ppb	64.160 ppb	63.915 ppb	63.761 ppb	62.533 ppb
Concentration per Run 1	105.666 %	65.483 ppb	68.410 ppb	67.180 ppb	6,755.493 ppb	67.743 ppb	67.027 ppb	67.082 ppb	65.316 ppb
Concentration per Run 2	109.194 %	64.154 ppb	65.494 ppb	61.974 ppb	6,554.142 ppb	64.126 ppb	62.361 ppb	63.645 ppb	62.722 ppb
Concentration per Run 3	114.967 %	56.803 ppb	58.123 ppb	57.523 ppb	5,943.859 ppb	60.610 ppb	62.356 ppb	60.557 ppb	59.561 ppb
Recovery Percentage 1		103.577 %	106.682 %	103.709 %	106.964 %	106.933 %	106.525 %	106.269 %	104.222 %
Concentration RSD	4.3 %	7.5 %	8.3 %	7.8 %	6.6 %	5.6 %	4.2 %	5.1 %	4.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	101.655 %	63.371 ppb	60.669 ppb	58.059 ppb	60.323 ppb	103.473 %	61.912 ppb	62.373 ppb	99.287 %
Concentration per Run 1	104.207 %	65.331 ppb	59.551 ppb	58.505 ppb	59.173 ppb	105.960 %	61.102 ppb	60.901 ppb	102.833 %
Concentration per Run 2	102.208 %	64.935 ppb	64.281 ppb	58.484 ppb	60.579 ppb	103.030 %	61.918 ppb	63.020 ppb	98.924 %
Concentration per Run 3	98.549 %	59.847 ppb	58.176 ppb	57.188 ppb	61.218 ppb	101.430 %	62.718 ppb	63.199 ppb	96.105 %
Recovery Percentage 1		105.618 %	101.116 %	96.764 %	100.539 %		103.187 %	103.955 %	
Concentration RSD	2.8 %	4.8 %	5.3 %	1.3 %	1.7 %	2.2 %	1.3 %	2.0 %	3.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	58.399 ppb	61.105 ppb	102.266 %	102.413 %	62.359 ppb	62.283 ppb
Concentration per Run 1	57.097 ppb	60.065 ppb	102.535 %	101.512 %	62.420 ppb	62.552 ppb
Concentration per Run 2	58.373 ppb	61.508 ppb	102.251 %	103.559 %	61.736 ppb	61.466 ppb
Concentration per Run 3	59.729 ppb	61.742 ppb	102.013 %	102.167 %	62.922 ppb	62.831 ppb
Recovery Percentage 1	97.332 %	101.841 %			103.932 %	103.805 %
Concentration RSD	2.3 %	1.5 %	0.3 %	1.0 %	1.0 %	1.2 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	175	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 8:06:29 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.811 %	119.057 %	0.038 ppb	67.275 ppb	9.702 ppb	-0.164 ppb	-1.905 ppb	13.532 ppb	103.760 %
Concentration per Run 1	101.199 %	115.521 %	0.034 ppb	75.527 ppb	10.400 ppb	0.164 ppb	4.657 ppb	10.958 ppb	102.599 %
Concentration per Run 2	102.056 %	133.792 %	0.024 ppb	65.879 ppb	12.140 ppb	-0.184 ppb	-17.449 ppb	16.085 ppb	104.249 %
Concentration per Run 3	102.177 %	107.859 %	0.054 ppb	60.418 ppb	6.567 ppb	-0.472 ppb	7.079 ppb	13.552 ppb	104.431 %
Recovery Percentage 1			7.504 %	67.275 %	13.861 %	-1.640 %	-1.905 %	13.532 %	
Concentration RSD	0.5 %	11.2 %	39.7 %	11.4 %	29.4 %	194.3 %	709.7 %	18.9 %	1.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	110.049 %	-0.069 ppb	0.062 ppb	0.219 ppb	6.467 ppb	0.071 ppb	0.116 ppb	0.130 ppb	-0.015 ppb
Concentration per Run 1	105.666 %	-0.093 ppb	0.065 ppb	0.245 ppb	4.479 ppb	0.060 ppb	0.040 ppb	0.137 ppb	-0.111 ppb
Concentration per Run 2	113.523 %	-0.037 ppb	0.094 ppb	0.206 ppb	9.369 ppb	0.087 ppb	0.168 ppb	0.085 ppb	0.038 ppb
Concentration per Run 3	110.958 %	-0.076 ppb	0.026 ppb	0.207 ppb	5.553 ppb	0.065 ppb	0.140 ppb	0.168 ppb	0.030 ppb
Recovery Percentage 1		-1.373 %	6.164 %	21.927 %	12.934 %	14.192 %	5.801 %	13.001 %	-0.293 %
Concentration RSD	3.6 %	42.0 %	54.8 %	10.3 %	39.7 %	20.2 %	58.0 %	32.3 %	573.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	101.633 %	0.026 ppb	0.025 ppb	0.078 ppb	0.304 ppb	101.892 %	0.053 ppb	0.041 ppb	98.924 %
Concentration per Run 1	102.916 %	-0.066 ppb	-0.073 ppb	0.082 ppb	0.199 ppb	102.034 %	0.051 ppb	0.023 ppb	100.555 %
Concentration per Run 2	98.940 %	0.065 ppb	0.115 ppb	0.088 ppb	0.213 ppb	103.148 %	0.051 ppb	0.066 ppb	98.235 %
Concentration per Run 3	103.043 %	0.079 ppb	0.032 ppb	0.062 ppb	0.500 ppb	100.495 %	0.057 ppb	0.033 ppb	97.983 %
Recovery Percentage 1		5.188 %	0.494 %	0.776 %	15.205 %		13.147 %	20.322 %	
Concentration RSD	2.3 %	308.5 %	383.0 %	17.3 %	55.7 %	1.3 %	6.7 %	54.6 %	1.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.525 ppb	0.039 ppb	101.546 %	100.722 %	0.261 ppb	0.085 ppb
Concentration per Run 1	0.504 ppb	0.020 ppb	100.498 %	99.941 %	0.218 ppb	0.090 ppb
Concentration per Run 2	0.533 ppb	0.049 ppb	102.153 %	102.032 %	0.316 ppb	0.089 ppb
Concentration per Run 3	0.537 ppb	0.049 ppb	101.988 %	100.192 %	0.248 ppb	0.076 ppb
Recovery Percentage 1	13.120 %	7.865 %			26.058 %	8.533 %
Concentration RSD	3.4 %	43.5 %	0.9 %	1.1 %	19.2 %	9.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	176	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964440-1 6020TL	Rack	3		
Analysis started at:	8/28/2024 8:11:02 PM	Vial	12		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.202 %	115.128 %	0.019 ppb	19.813 ppb	4.569 ppb	2.501 ppb	-6.263 ppb	21.423 ppb	104.356 %
Concentration per Run 1	101.312 %	117.289 %	0.019 ppb	26.414 ppb	5.222 ppb	2.168 ppb	-4.772 ppb	35.475 ppb	103.528 %
Concentration per Run 2	102.309 %	114.931 %	0.021 ppb	17.350 ppb	2.434 ppb	2.657 ppb	-7.874 ppb	20.708 ppb	103.920 %
Concentration per Run 3	102.986 %	113.163 %	0.016 ppb	15.677 ppb	6.052 ppb	2.680 ppb	-6.143 ppb	8.085 ppb	105.619 %
Concentration RSD	0.8 %	1.8 %	14.8 %	29.2 %	41.5 %	11.6 %	24.8 %	64.0 %	1.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	106.575 %	-0.101 ppb	0.075 ppb	0.212 ppb	5.486 ppb	0.055 ppb	0.126 ppb	0.105 ppb	0.385 ppb
Concentration per Run 1	106.949 %	-0.095 ppb	0.091 ppb	0.240 ppb	4.966 ppb	0.059 ppb	0.140 ppb	0.147 ppb	0.517 ppb
Concentration per Run 2	109.835 %	-0.136 ppb	0.049 ppb	0.181 ppb	5.727 ppb	0.075 ppb	0.173 ppb	0.087 ppb	0.420 ppb
Concentration per Run 3	102.940 %	-0.071 ppb	0.087 ppb	0.215 ppb	5.763 ppb	0.031 ppb	0.065 ppb	0.080 ppb	0.218 ppb
Concentration RSD	3.2 %	33.1 %	31.0 %	13.9 %	8.2 %	40.4 %	43.9 %	34.9 %	39.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	104.410 %	-0.033 ppb	-0.092 ppb	0.052 ppb	0.080 ppb	100.849 %	0.011 ppb	0.022 ppb	100.461 %
Concentration per Run 1	107.036 %	-0.012 ppb	-0.085 ppb	0.066 ppb	0.035 ppb	104.914 %	0.012 ppb	0.022 ppb	106.434 %
Concentration per Run 2	98.795 %	-0.061 ppb	-0.061 ppb	0.049 ppb	0.000 ppb	100.717 %	0.014 ppb	0.019 ppb	100.734 %
Concentration per Run 3	107.397 %	-0.024 ppb	-0.129 ppb	0.042 ppb	0.206 ppb	96.915 %	0.006 ppb	0.025 ppb	94.214 %
Concentration RSD	4.7 %	78.2 %	37.7 %	23.3 %	136.8 %	4.0 %	39.0 %	13.9 %	6.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.152 ppb	0.092 ppb	100.832 %	100.699 %	0.070 ppb	0.038 ppb
Concentration per Run 1	0.143 ppb	0.116 ppb	104.912 %	104.978 %	0.038 ppb	0.039 ppb
Concentration per Run 2	0.171 ppb	0.107 ppb	101.764 %	101.257 %	0.085 ppb	0.040 ppb
Concentration per Run 3	0.143 ppb	0.052 ppb	95.818 %	95.861 %	0.085 ppb	0.035 ppb
Concentration RSD	10.8 %	37.5 %	4.6 %	4.6 %	39.1 %	7.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	177	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964440-2d10 6020TL	Rack	3		
Analysis started at:	8/28/2024 8:15:33 PM	Vial	13		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.138 %	106.680 %	5.083 ppb	1,169.485 ppb	1,130.340 ppb	229.097 ppb	1,058.140 ppb	1,073.238 ppb	104.201 %
Concentration per Run 1	100.517 %	118.468 %	5.052 ppb	1,121.548 ppb	1,129.376 ppb	218.698 ppb	1,064.293 ppb	1,155.252 ppb	103.472 %
Concentration per Run 2	101.050 %	101.965 %	5.130 ppb	1,180.073 ppb	1,120.493 ppb	233.277 ppb	1,115.968 ppb	1,020.181 ppb	104.438 %
Concentration per Run 3	101.846 %	99.607 %	5.066 ppb	1,206.834 ppb	1,141.152 ppb	235.317 ppb	994.160 ppb	1,044.280 ppb	104.694 %
Concentration RSD	0.7 %	9.6 %	0.8 %	3.7 %	0.9 %	4.0 %	5.8 %	6.7 %	0.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	108.873 %	49.585 ppb	19.488 ppb	50.004 ppb	111.400 ppb	49.963 ppb	51.489 ppb	25.145 ppb	49.766 ppb
Concentration per Run 1	111.920 %	48.836 ppb	19.352 ppb	50.566 ppb	119.763 ppb	48.361 ppb	49.739 ppb	25.389 ppb	49.259 ppb
Concentration per Run 2	104.062 %	50.374 ppb	19.598 ppb	50.111 ppb	108.906 ppb	51.953 ppb	54.486 ppb	25.496 ppb	50.993 ppb
Concentration per Run 3	110.637 %	49.544 ppb	19.514 ppb	49.336 ppb	105.531 ppb	49.574 ppb	50.242 ppb	24.550 ppb	49.046 ppb
Concentration RSD	3.9 %	1.6 %	0.6 %	1.2 %	6.7 %	3.7 %	5.1 %	2.1 %	2.1 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.394 %	11.236 ppb	9.724 ppb	89.138 ppb	93.510 ppb	101.774 %	4.761 ppb	4.996 ppb	100.546 %
Concentration per Run 1	106.351 %	10.957 ppb	10.539 ppb	92.761 ppb	91.413 ppb	105.255 %	4.710 ppb	4.886 ppb	106.014 %
Concentration per Run 2	97.405 %	11.561 ppb	9.083 ppb	90.580 ppb	97.213 ppb	101.669 %	4.736 ppb	5.106 ppb	99.205 %
Concentration per Run 3	103.425 %	11.191 ppb	9.551 ppb	84.074 ppb	91.903 ppb	98.398 %	4.838 ppb	4.996 ppb	96.420 %
Concentration RSD	4.5 %	2.7 %	7.6 %	5.1 %	3.4 %	3.4 %	1.4 %	2.2 %	4.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	44.213 ppb	191.132 ppb	102.282 %	102.761 %	10.675 ppb	51.189 ppb
Concentration per Run 1	43.416 ppb	194.110 ppb	103.645 %	106.183 %	10.276 ppb	49.170 ppb
Concentration per Run 2	44.753 ppb	190.388 ppb	103.547 %	102.483 %	10.679 ppb	51.214 ppb
Concentration per Run 3	44.470 ppb	188.899 ppb	99.654 %	99.618 %	11.071 ppb	53.184 ppb
Concentration RSD	1.6 %	1.4 %	2.2 %	3.2 %	3.7 %	3.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	178	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447890-03 6020TL	Rack	3		
Analysis started at:	8/28/2024 8:20:04 PM	Vial	14		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.714 %	124.951 %	0.002 ppb	13,530.877 ppb	10,198.844 ppb	13.123 ppb	4,232.121 ppb	43,308.868 ppb	109.264 %
Concentration per Run 1	102.488 %	129.077 %	0.004 ppb	13,398.071 ppb	10,139.570 ppb	11.856 ppb	4,284.110 ppb	43,794.731 ppb	108.792 %
Concentration per Run 2	102.858 %	117.878 %	0.004 ppb	13,792.392 ppb	10,303.958 ppb	14.195 ppb	4,263.292 ppb	43,098.033 ppb	109.036 %
Concentration per Run 3	102.795 %	127.898 %	-0.004 ppb	13,402.168 ppb	10,153.004 ppb	13.319 ppb	4,148.961 ppb	43,033.840 ppb	109.964 %
Concentration RSD	0.2 %	4.9 %	306.0 %	1.7 %	0.9 %	9.0 %	1.7 %	1.0 %	0.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	112.348 %	0.241 ppb	0.433 ppb	91.128 ppb	22.829 ppb	0.059 ppb	0.395 ppb	0.566 ppb	0.806 ppb
Concentration per Run 1	117.693 %	0.261 ppb	0.491 ppb	91.710 ppb	22.745 ppb	0.047 ppb	0.268 ppb	0.597 ppb	0.735 ppb
Concentration per Run 2	109.354 %	0.209 ppb	0.390 ppb	89.229 ppb	24.254 ppb	0.044 ppb	0.517 ppb	0.515 ppb	0.889 ppb
Concentration per Run 3	109.996 %	0.252 ppb	0.420 ppb	92.444 ppb	21.489 ppb	0.087 ppb	0.400 ppb	0.586 ppb	0.794 ppb
Concentration RSD	4.1 %	11.4 %	12.0 %	1.8 %	6.1 %	40.5 %	31.5 %	7.9 %	9.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	107.783 %	0.078 ppb	0.029 ppb	127.788 ppb	0.458 ppb	103.877 %	-0.003 ppb	0.008 ppb	105.661 %
Concentration per Run 1	112.241 %	0.136 ppb	0.150 ppb	128.970 ppb	0.424 ppb	107.022 %	-0.003 ppb	0.004 ppb	109.150 %
Concentration per Run 2	108.048 %	0.033 ppb	-0.080 ppb	124.695 ppb	0.406 ppb	102.217 %	-0.003 ppb	0.000 ppb	105.086 %
Concentration per Run 3	103.060 %	0.067 ppb	0.017 ppb	129.700 ppb	0.545 ppb	102.392 %	-0.003 ppb	0.018 ppb	102.747 %
Concentration RSD	4.3 %	67.0 %	398.7 %	2.1 %	16.5 %	2.6 %	0.0 %	126.8 %	3.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.571 ppb	44.840 ppb	104.924 %	106.085 %	0.042 ppb	0.064 ppb
Concentration per Run 1	0.503 ppb	44.947 ppb	106.174 %	108.596 %	0.027 ppb	0.055 ppb
Concentration per Run 2	0.550 ppb	44.713 ppb	104.291 %	105.744 %	0.048 ppb	0.065 ppb
Concentration per Run 3	0.660 ppb	44.859 ppb	104.307 %	103.915 %	0.051 ppb	0.072 ppb
Concentration RSD	14.1 %	0.3 %	1.0 %	2.2 %	31.2 %	13.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	179	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964440-3d10 6020TL	Rack	3		
Analysis started at:	8/28/2024 8:24:34 PM	Vial	15		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.109 %	133.203 %	5.270 ppb	2,405.013 ppb	2,050.399 ppb	211.310 ppb	1,489.996 ppb	5,350.841 ppb	108.304 %
Concentration per Run 1	104.399 %	126.130 %	5.269 ppb	2,473.690 ppb	2,128.692 ppb	222.058 ppb	1,547.888 ppb	5,643.911 ppb	106.291 %
Concentration per Run 2	105.951 %	130.845 %	5.193 ppb	2,401.941 ppb	2,067.625 ppb	212.978 ppb	1,440.579 ppb	5,000.957 ppb	108.367 %
Concentration per Run 3	104.978 %	142.633 %	5.348 ppb	2,339.410 ppb	1,954.878 ppb	198.893 ppb	1,481.522 ppb	5,407.654 ppb	110.254 %
Concentration RSD	0.7 %	6.4 %	1.5 %	2.8 %	4.3 %	5.5 %	3.6 %	6.1 %	1.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	115.555 %	51.768 ppb	20.781 ppb	62.037 ppb	102.963 ppb	50.534 ppb	50.281 ppb	25.401 ppb	50.403 ppb
Concentration per Run 1	113.524 %	52.180 ppb	20.722 ppb	62.534 ppb	113.526 ppb	49.414 ppb	49.050 ppb	24.288 ppb	48.302 ppb
Concentration per Run 2	121.702 %	49.185 ppb	19.803 ppb	59.442 ppb	92.048 ppb	49.296 ppb	48.413 ppb	25.040 ppb	49.561 ppb
Concentration per Run 3	111.439 %	53.937 ppb	21.818 ppb	64.135 ppb	103.316 ppb	52.892 ppb	53.379 ppb	26.874 ppb	53.347 ppb
Concentration RSD	4.7 %	4.6 %	4.9 %	3.8 %	10.4 %	4.0 %	5.4 %	5.2 %	5.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	110.983 %	11.524 ppb	10.617 ppb	107.582 ppb	97.459 ppb	106.373 %	4.910 ppb	5.334 ppb	105.774 %
Concentration per Run 1	115.532 %	11.077 ppb	9.842 ppb	108.082 ppb	94.982 ppb	107.778 %	4.844 ppb	5.360 ppb	108.025 %
Concentration per Run 2	112.785 %	11.070 ppb	9.711 ppb	105.736 ppb	97.803 ppb	106.543 %	4.949 ppb	5.137 ppb	106.093 %
Concentration per Run 3	104.633 %	12.424 ppb	12.300 ppb	108.927 ppb	99.592 ppb	104.797 %	4.937 ppb	5.505 ppb	103.204 %
Concentration RSD	5.1 %	6.8 %	13.7 %	1.5 %	2.4 %	1.4 %	1.2 %	3.5 %	2.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	50.438 ppb	202.261 ppb	106.030 %	106.447 %	10.884 ppb	52.347 ppb
Concentration per Run 1	50.392 ppb	203.716 ppb	107.199 %	107.493 %	10.691 ppb	51.307 ppb
Concentration per Run 2	50.697 ppb	203.603 ppb	105.460 %	108.004 %	10.635 ppb	51.579 ppb
Concentration per Run 3	50.225 ppb	199.464 ppb	105.430 %	103.845 %	11.325 ppb	54.156 ppb
Concentration RSD	0.5 %	1.2 %	1.0 %	2.1 %	3.5 %	3.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	180	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964440-4d10 6020TL	Rack	3		
Analysis started at:	8/28/2024 8:29:05 PM	Vial	16		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.002 %	120.825 %	5.198 ppb	2,445.708 ppb	2,069.353 ppb	218.302 ppb	1,547.282 ppb	5,404.154 ppb	107.209 %
Concentration per Run 1	103.128 %	122.004 %	5.182 ppb	2,329.291 ppb	1,980.401 ppb	200.752 ppb	1,443.451 ppb	4,932.900 ppb	104.418 %
Concentration per Run 2	104.558 %	125.540 %	5.232 ppb	2,457.122 ppb	2,068.472 ppb	220.889 ppb	1,581.964 ppb	5,587.154 ppb	108.081 %
Concentration per Run 3	104.321 %	114.931 %	5.180 ppb	2,550.710 ppb	2,159.187 ppb	233.265 ppb	1,616.431 ppb	5,692.408 ppb	109.129 %
Concentration RSD	0.7 %	4.5 %	0.6 %	4.5 %	4.3 %	7.5 %	5.9 %	7.6 %	2.3 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	111.813 %	51.153 ppb	20.034 ppb	59.514 ppb	105.447 ppb	50.009 ppb	50.118 ppb	25.416 ppb	50.477 ppb
Concentration per Run 1	112.561 %	48.718 ppb	19.540 ppb	57.730 ppb	104.249 ppb	50.469 ppb	49.927 ppb	25.919 ppb	50.553 ppb
Concentration per Run 2	116.731 %	52.212 ppb	20.243 ppb	60.486 ppb	117.710 ppb	47.630 ppb	49.475 ppb	24.497 ppb	50.221 ppb
Concentration per Run 3	106.147 %	52.529 ppb	20.319 ppb	60.328 ppb	94.383 ppb	51.928 ppb	50.953 ppb	25.833 ppb	50.657 ppb
Concentration RSD	4.8 %	4.1 %	2.1 %	2.6 %	11.1 %	4.4 %	1.5 %	3.1 %	0.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	111.359 %	11.233 ppb	10.451 ppb	103.557 ppb	94.789 ppb	105.564 %	4.824 ppb	5.127 ppb	105.325 %
Concentration per Run 1	108.485 %	10.880 ppb	10.205 ppb	100.133 ppb	92.874 ppb	106.211 %	4.849 ppb	5.164 ppb	102.170 %
Concentration per Run 2	116.455 %	11.294 ppb	9.807 ppb	107.402 ppb	95.300 ppb	107.140 %	4.882 ppb	5.096 ppb	111.093 %
Concentration per Run 3	109.136 %	11.525 ppb	11.342 ppb	103.134 ppb	96.192 ppb	103.340 %	4.741 ppb	5.121 ppb	102.711 %
Concentration RSD	4.0 %	2.9 %	7.6 %	3.5 %	1.8 %	1.9 %	1.5 %	0.7 %	4.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	49.090 ppb	198.711 ppb	104.053 %	105.889 %	10.625 ppb	51.009 ppb
Concentration per Run 1	48.922 ppb	194.807 ppb	103.586 %	104.189 %	10.519 ppb	50.369 ppb
Concentration per Run 2	48.666 ppb	200.192 ppb	105.310 %	109.668 %	10.370 ppb	50.311 ppb
Concentration per Run 3	49.681 ppb	201.134 ppb	103.262 %	103.810 %	10.987 ppb	52.348 ppb
Concentration RSD	1.1 %	1.7 %	1.1 %	3.1 %	3.0 %	2.3 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	181	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964440-5d10 6020TL	Rack	3		
Analysis started at:	8/28/2024 8:33:36 PM	Vial	17		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.430 %	123.183 %	55.485 ppb	7,032.286 ppb	6,712.351 ppb	60.584 ppb	6,173.195 ppb	10,057.346 ppb	105.195 %
Concentration per Run 1	100.341 %	110.216 %	55.717 ppb	7,464.262 ppb	7,071.849 ppb	63.057 ppb	6,058.595 ppb	10,115.951 ppb	104.463 %
Concentration per Run 2	100.627 %	130.256 %	55.379 ppb	6,959.234 ppb	6,745.936 ppb	61.407 ppb	6,421.247 ppb	10,438.420 ppb	105.610 %
Concentration per Run 3	100.321 %	129.077 %	55.360 ppb	6,673.363 ppb	6,319.267 ppb	57.289 ppb	6,039.744 ppb	9,617.667 ppb	105.513 %
Concentration RSD	0.2 %	9.1 %	0.4 %	5.7 %	5.6 %	4.9 %	3.5 %	4.1 %	0.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	112.508 %	54.291 ppb	53.949 ppb	63.779 ppb	5,477.420 ppb	54.392 ppb	54.662 ppb	53.954 ppb	54.537 ppb
Concentration per Run 1	108.713 %	54.320 ppb	54.983 ppb	63.816 ppb	5,360.024 ppb	54.805 ppb	54.213 ppb	51.543 ppb	52.861 ppb
Concentration per Run 2	117.052 %	54.856 ppb	54.261 ppb	65.625 ppb	5,702.667 ppb	55.145 ppb	54.215 ppb	54.348 ppb	56.440 ppb
Concentration per Run 3	111.760 %	53.698 ppb	52.602 ppb	61.897 ppb	5,369.569 ppb	53.227 ppb	55.557 ppb	55.972 ppb	54.309 ppb
Concentration RSD	3.8 %	1.1 %	2.3 %	2.9 %	3.6 %	1.9 %	1.4 %	4.2 %	3.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.636 %	54.324 ppb	54.908 ppb	63.772 ppb	53.350 ppb	103.532 %	1.641 ppb	53.203 ppb	102.413 %
Concentration per Run 1	109.781 %	50.865 ppb	51.146 ppb	60.284 ppb	52.892 ppb	103.655 %	1.643 ppb	51.915 ppb	100.807 %
Concentration per Run 2	103.952 %	57.532 ppb	62.200 ppb	68.016 ppb	54.290 ppb	105.030 %	1.635 ppb	52.786 ppb	108.192 %
Concentration per Run 3	103.174 %	54.574 ppb	51.378 ppb	63.014 ppb	52.868 ppb	101.911 %	1.644 ppb	54.907 ppb	98.240 %
Concentration RSD	3.4 %	6.1 %	11.5 %	6.1 %	1.5 %	1.5 %	0.3 %	2.9 %	5.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	53.057 ppb	57.562 ppb	104.572 %	105.307 %	52.232 ppb	53.009 ppb
Concentration per Run 1	51.926 ppb	55.868 ppb	103.375 %	103.471 %	52.195 ppb	53.109 ppb
Concentration per Run 2	52.622 ppb	56.990 ppb	106.597 %	108.111 %	51.558 ppb	52.216 ppb
Concentration per Run 3	54.622 ppb	59.828 ppb	103.745 %	104.340 %	52.942 ppb	53.702 ppb
Concentration RSD	2.6 %	3.5 %	1.7 %	2.3 %	1.3 %	1.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	182	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	wg1964440-6d5 6020TL	Rack	3		
Analysis started at:	8/28/2024 8:38:07 PM	Vial	18		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.837 %	120.825 %	0.062 ppb	2,609.648 ppb	1,961.819 ppb	2.885 ppb	835.342 ppb	8,391.465 ppb	105.285 %
Concentration per Run 1	101.718 %	120.825 %	0.069 ppb	2,532.547 ppb	1,866.389 ppb	3.310 ppb	806.386 ppb	8,062.431 ppb	104.157 %
Concentration per Run 2	103.356 %	133.792 %	0.062 ppb	2,494.067 ppb	1,927.007 ppb	2.565 ppb	815.890 ppb	8,826.046 ppb	105.312 %
Concentration per Run 3	103.437 %	107.859 %	0.054 ppb	2,802.331 ppb	2,092.062 ppb	2.781 ppb	883.751 ppb	8,285.917 ppb	106.386 %
Concentration RSD	0.9 %	10.7 %	12.1 %	6.4 %	6.0 %	13.3 %	5.1 %	4.7 %	1.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	110.851 %	-0.023 ppb	0.148 ppb	17.498 ppb	14.788 ppb	0.097 ppb	0.142 ppb	0.282 ppb	0.469 ppb
Concentration per Run 1	109.675 %	-0.055 ppb	0.157 ppb	16.539 ppb	14.313 ppb	0.051 ppb	0.035 ppb	0.163 ppb	0.429 ppb
Concentration per Run 2	113.844 %	-0.040 ppb	0.163 ppb	17.084 ppb	14.324 ppb	0.103 ppb	0.302 ppb	0.449 ppb	0.494 ppb
Concentration per Run 3	109.033 %	0.028 ppb	0.124 ppb	18.870 ppb	15.726 ppb	0.136 ppb	0.088 ppb	0.235 ppb	0.485 ppb
Concentration RSD	2.4 %	195.9 %	14.2 %	7.0 %	5.5 %	44.5 %	99.4 %	52.7 %	7.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	107.253 %	0.065 ppb	0.155 ppb	24.130 ppb	0.461 ppb	102.935 %	0.000 ppb	0.061 ppb	102.582 %
Concentration per Run 1	106.385 %	0.071 ppb	0.551 ppb	23.166 ppb	0.327 ppb	103.010 %	-0.001 ppb	0.078 ppb	101.033 %
Concentration per Run 2	110.361 %	0.073 ppb	0.066 ppb	25.131 ppb	0.617 ppb	104.078 %	-0.001 ppb	0.049 ppb	106.627 %
Concentration per Run 3	105.012 %	0.051 ppb	-0.153 ppb	24.092 ppb	0.438 ppb	101.717 %	0.002 ppb	0.056 ppb	100.086 %
Concentration RSD	2.6 %	19.2 %	233.4 %	4.1 %	31.8 %	1.1 %	3,213.9 %	25.3 %	3.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.207 ppb	8.857 ppb	103.860 %	104.918 %	0.314 ppb	0.128 ppb
Concentration per Run 1	0.182 ppb	8.566 ppb	102.475 %	103.182 %	0.238 ppb	0.120 ppb
Concentration per Run 2	0.185 ppb	9.007 ppb	104.939 %	107.595 %	0.367 ppb	0.125 ppb
Concentration per Run 3	0.252 ppb	8.997 ppb	104.166 %	103.976 %	0.336 ppb	0.139 ppb
Concentration RSD	19.0 %	2.8 %	1.2 %	2.2 %	21.4 %	8.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	183	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	I2446178-02d2 A2-6020T	Rack	3		
Analysis started at:	8/28/2024 8:42:38 PM	Vial	11		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.750 %	128.094 %	0.021 ppb	201.934 ppb	117.236 ppb	13.657 ppb	21.372 ppb	671.603 ppb	107.565 %
Concentration per Run 1	104.274 %	123.772 %	0.019 ppb	187.786 ppb	111.466 ppb	11.874 ppb	12.522 ppb	588.969 ppb	106.289 %
Concentration per Run 2	105.118 %	148.527 %	0.028 ppb	188.883 ppb	101.122 ppb	13.489 ppb	24.513 ppb	692.219 ppb	108.855 %
Concentration per Run 3	104.858 %	111.984 %	0.015 ppb	229.133 ppb	139.120 ppb	15.608 ppb	27.081 ppb	733.619 ppb	107.552 %
Concentration RSD	0.4 %	14.6 %	31.8 %	11.7 %	16.8 %	13.7 %	36.4 %	11.1 %	1.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	114.379 %	0.076 ppb	0.458 ppb	1.083 ppb	44.090 ppb	0.049 ppb	0.251 ppb	0.491 ppb	4.869 ppb
Concentration per Run 1	117.853 %	0.130 ppb	0.456 ppb	1.156 ppb	38.733 ppb	0.055 ppb	0.349 ppb	0.551 ppb	4.786 ppb
Concentration per Run 2	111.439 %	0.001 ppb	0.430 ppb	1.000 ppb	41.366 ppb	0.055 ppb	0.200 ppb	0.452 ppb	5.001 ppb
Concentration per Run 3	113.844 %	0.098 ppb	0.488 ppb	1.092 ppb	52.171 ppb	0.036 ppb	0.205 ppb	0.470 ppb	4.818 ppb
Concentration RSD	2.8 %	88.4 %	6.4 %	7.2 %	16.2 %	23.1 %	33.7 %	10.8 %	2.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	110.597 %	0.065 ppb	0.028 ppb	1.846 ppb	0.196 ppb	105.874 %	0.003 ppb	0.019 ppb	104.764 %
Concentration per Run 1	107.597 %	0.103 ppb	0.006 ppb	1.809 ppb	0.099 ppb	105.659 %	0.000 ppb	0.023 ppb	100.992 %
Concentration per Run 2	115.205 %	0.062 ppb	0.140 ppb	1.845 ppb	0.182 ppb	107.274 %	0.003 ppb	0.009 ppb	107.258 %
Concentration per Run 3	108.988 %	0.031 ppb	-0.062 ppb	1.884 ppb	0.306 ppb	104.688 %	0.004 ppb	0.027 ppb	106.042 %
Concentration RSD	3.7 %	55.5 %	365.7 %	2.0 %	53.3 %	1.2 %	71.9 %	48.6 %	3.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.160 ppb	1.317 ppb	105.427 %	105.108 %	0.102 ppb	0.203 ppb
Concentration per Run 1	0.157 ppb	1.446 ppb	103.883 %	103.216 %	0.074 ppb	0.209 ppb
Concentration per Run 2	0.157 ppb	1.290 ppb	106.332 %	106.391 %	0.112 ppb	0.197 ppb
Concentration per Run 3	0.166 ppb	1.215 ppb	106.065 %	105.717 %	0.120 ppb	0.202 ppb
Concentration RSD	3.3 %	8.9 %	1.3 %	1.6 %	24.2 %	3.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	184	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447890-01 6020TL	Rack	3		
Analysis started at:	8/28/2024 8:47:08 PM	Vial	23		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.008 %	112.770 %	0.020 ppb	6,893.054 ppb	1,425.955 ppb	18.850 ppb	1,881.701 ppb	4,971.726 ppb	100.784 %
Concentration per Run 1	96.537 %	106.090 %	0.035 ppb	6,982.225 ppb	1,417.983 ppb	17.727 ppb	1,827.747 ppb	4,652.864 ppb	99.243 %
Concentration per Run 2	98.657 %	116.699 %	0.010 ppb	6,648.856 ppb	1,358.632 ppb	18.470 ppb	1,759.053 ppb	5,038.314 ppb	100.873 %
Concentration per Run 3	98.832 %	115.521 %	0.017 ppb	7,048.081 ppb	1,501.251 ppb	20.353 ppb	2,058.305 ppb	5,223.999 ppb	102.235 %
Concentration RSD	1.3 %	5.2 %	62.7 %	3.1 %	5.0 %	7.2 %	8.3 %	5.9 %	1.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	102.459 %	0.009 ppb	0.586 ppb	15.148 ppb	5.142 ppb	0.012 ppb	0.075 ppb	0.024 ppb	0.500 ppb
Concentration per Run 1	102.138 %	0.038 ppb	0.618 ppb	15.187 ppb	5.199 ppb	0.017 ppb	0.040 ppb	0.013 ppb	0.391 ppb
Concentration per Run 2	101.817 %	-0.025 ppb	0.544 ppb	15.655 ppb	3.299 ppb	0.010 ppb	0.097 ppb	0.016 ppb	0.436 ppb
Concentration per Run 3	103.421 %	0.013 ppb	0.597 ppb	14.601 ppb	6.927 ppb	0.009 ppb	0.088 ppb	0.042 ppb	0.672 ppb
Concentration RSD	0.8 %	363.9 %	6.5 %	3.5 %	35.3 %	36.0 %	40.3 %	69.0 %	30.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	106.217 %	-0.023 ppb	-0.013 ppb	23.916 ppb	0.056 ppb	101.031 %	-0.002 ppb	0.047 ppb	101.721 %
Concentration per Run 1	105.518 %	-0.033 ppb	-0.069 ppb	23.313 ppb	-0.014 ppb	99.510 %	-0.001 ppb	0.033 ppb	99.266 %
Concentration per Run 2	102.554 %	-0.029 ppb	-0.053 ppb	23.734 ppb	0.107 ppb	100.743 %	-0.003 ppb	0.047 ppb	100.262 %
Concentration per Run 3	110.578 %	-0.006 ppb	0.084 ppb	24.700 ppb	0.075 ppb	102.839 %	-0.003 ppb	0.063 ppb	105.634 %
Concentration RSD	3.8 %	63.3 %	656.9 %	3.0 %	112.3 %	1.7 %	43.6 %	31.3 %	3.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.064 ppb	19.966 ppb	101.931 %	103.359 %	0.053 ppb	0.023 ppb
Concentration per Run 1	0.040 ppb	20.744 ppb	99.809 %	99.312 %	0.030 ppb	0.025 ppb
Concentration per Run 2	0.068 ppb	19.492 ppb	101.756 %	103.110 %	0.065 ppb	0.022 ppb
Concentration per Run 3	0.083 ppb	19.663 ppb	104.229 %	107.657 %	0.065 ppb	0.023 ppb
Concentration RSD	34.6 %	3.4 %	2.2 %	4.0 %	38.2 %	5.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	185	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447890-02 6020TL	Rack	3		
Analysis started at:	8/28/2024 8:51:39 PM	Vial	24		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.383 %	112.770 %	-0.002 ppb	14,005.792 ppb	5,184.339 ppb	27.544 ppb	3,127.182 ppb	24,172.203 ppb	101.338 %
Concentration per Run 1	95.980 %	110.216 %	-0.006 ppb	14,210.780 ppb	5,408.913 ppb	29.982 ppb	3,139.037 ppb	24,676.454 ppb	101.016 %
Concentration per Run 2	95.679 %	112.574 %	0.000 ppb	13,823.440 ppb	5,030.833 ppb	24.494 ppb	3,064.085 ppb	24,346.740 ppb	100.810 %
Concentration per Run 3	97.491 %	115.521 %	0.000 ppb	13,983.155 ppb	5,113.270 ppb	28.156 ppb	3,178.425 ppb	23,493.416 ppb	102.187 %
Concentration RSD	1.0 %	2.4 %	186.3 %	1.4 %	3.8 %	10.1 %	1.9 %	2.5 %	0.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	104.971 %	0.242 ppb	3.744 ppb	4,960.555 ppb	99.690 ppb	0.767 ppb	6.468 ppb	1.751 ppb	0.654 ppb
Concentration per Run 1	98.290 %	0.139 ppb	3.973 ppb	5,020.071 ppb	96.165 ppb	0.824 ppb	6.264 ppb	1.690 ppb	0.649 ppb
Concentration per Run 2	101.817 %	0.350 ppb	3.466 ppb	4,899.238 ppb	94.423 ppb	0.690 ppb	6.207 ppb	1.882 ppb	0.655 ppb
Concentration per Run 3	114.807 %	0.238 ppb	3.792 ppb	4,962.357 ppb	108.483 ppb	0.787 ppb	6.932 ppb	1.681 ppb	0.660 ppb
Concentration RSD	8.3 %	43.7 %	6.9 %	1.2 %	7.7 %	9.0 %	6.2 %	6.5 %	0.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	99.790 %	0.101 ppb	0.015 ppb	72.652 ppb	1.085 ppb	96.896 %	-0.002 ppb	0.078 ppb	99.165 %
Concentration per Run 1	98.795 %	0.179 ppb	-0.071 ppb	70.753 ppb	1.146 ppb	96.140 %	-0.001 ppb	0.092 ppb	97.028 %
Concentration per Run 2	98.093 %	0.080 ppb	0.194 ppb	71.406 ppb	0.991 ppb	96.445 %	-0.003 ppb	0.063 ppb	97.355 %
Concentration per Run 3	102.482 %	0.044 ppb	-0.078 ppb	75.796 ppb	1.117 ppb	98.102 %	-0.003 ppb	0.078 ppb	103.113 %
Concentration RSD	2.4 %	69.1 %	1,034.7 %	3.8 %	7.6 %	1.1 %	45.3 %	18.8 %	3.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.046 ppb	20.387 ppb	99.941 %	101.119 %	0.104 ppb	0.064 ppb
Concentration per Run 1	0.057 ppb	20.116 ppb	98.277 %	97.818 %	0.085 ppb	0.061 ppb
Concentration per Run 2	0.017 ppb	20.525 ppb	99.095 %	99.692 %	0.117 ppb	0.066 ppb
Concentration per Run 3	0.064 ppb	20.520 ppb	102.450 %	105.847 %	0.111 ppb	0.064 ppb
Concentration RSD	56.0 %	1.2 %	2.2 %	4.2 %	16.5 %	3.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	186	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 8:56:10 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.547 %	118.075 %	63.354 ppb	6,700.392 ppb	6,517.252 ppb	66.318 ppb	6,577.268 ppb	6,574.765 ppb	105.974 %
Concentration per Run 1	99.778 %	120.825 %	62.292 ppb	6,525.717 ppb	6,079.896 ppb	60.680 ppb	6,623.401 ppb	6,602.218 ppb	105.660 %
Concentration per Run 2	99.383 %	109.037 %	64.334 ppb	6,751.366 ppb	6,840.477 ppb	70.055 ppb	6,302.220 ppb	6,293.344 ppb	105.558 %
Concentration per Run 3	99.479 %	124.362 %	63.436 ppb	6,824.093 ppb	6,631.384 ppb	68.218 ppb	6,806.184 ppb	6,828.733 ppb	106.705 %
Recovery Percentage 1			105.590 %	111.673 %	108.621 %	110.530 %	109.621 %	109.579 %	
Concentration RSD	0.2 %	6.8 %	1.6 %	2.3 %	6.0 %	7.5 %	3.9 %	4.1 %	0.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	109.140 %	62.344 ppb	62.658 ppb	67.596 ppb	6,233.696 ppb	62.480 ppb	62.116 ppb	60.941 ppb	62.435 ppb
Concentration per Run 1	102.780 %	63.992 ppb	63.890 ppb	67.012 ppb	6,310.476 ppb	63.263 ppb	62.745 ppb	61.283 ppb	61.488 ppb
Concentration per Run 2	112.561 %	60.545 ppb	60.954 ppb	70.476 ppb	6,233.631 ppb	63.215 ppb	62.920 ppb	61.949 ppb	62.766 ppb
Concentration per Run 3	112.080 %	62.496 ppb	63.130 ppb	65.300 ppb	6,156.982 ppb	60.962 ppb	60.684 ppb	59.591 ppb	63.050 ppb
Recovery Percentage 1		103.907 %	104.430 %	112.660 %	103.895 %	104.133 %	103.527 %	101.568 %	104.058 %
Concentration RSD	5.1 %	2.8 %	2.4 %	3.9 %	1.2 %	2.1 %	2.0 %	2.0 %	1.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.734 %	62.659 ppb	61.626 ppb	59.653 ppb	60.120 ppb	101.091 %	60.791 ppb	61.449 ppb	102.008 %
Concentration per Run 1	103.467 %	61.344 ppb	56.546 ppb	56.960 ppb	57.826 ppb	101.874 %	60.444 ppb	60.774 ppb	99.589 %
Concentration per Run 2	98.270 %	64.031 ppb	64.258 ppb	59.392 ppb	60.875 ppb	99.894 %	61.615 ppb	61.946 ppb	98.810 %
Concentration per Run 3	106.466 %	62.601 ppb	64.075 ppb	62.607 ppb	61.657 ppb	101.505 %	60.312 ppb	61.628 ppb	107.626 %
Recovery Percentage 1		104.432 %	102.710 %	99.422 %	100.199 %		101.318 %	102.416 %	
Concentration RSD	4.0 %	2.1 %	7.1 %	4.7 %	3.4 %	1.0 %	1.2 %	1.0 %	4.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	57.586 ppb	60.469 ppb	102.227 %	103.220 %	61.254 ppb	61.819 ppb
Concentration per Run 1	56.916 ppb	60.516 ppb	102.588 %	102.191 %	60.521 ppb	60.421 ppb
Concentration per Run 2	58.337 ppb	59.594 ppb	100.740 %	101.081 %	62.625 ppb	63.817 ppb
Concentration per Run 3	57.505 ppb	61.297 ppb	103.355 %	106.387 %	60.617 ppb	61.219 ppb
Recovery Percentage 1	95.977 %	100.782 %			102.091 %	103.032 %
Concentration RSD	1.2 %	1.4 %	1.3 %	2.7 %	1.9 %	2.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	187	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 9:00:43 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.729 %	130.452 %	0.052 ppb	8.243 ppb	9.221 ppb	-0.624 ppb	-7.040 ppb	34.862 ppb	101.706 %
Concentration per Run 1	98.438 %	130.256 %	0.051 ppb	11.993 ppb	12.160 ppb	-0.867 ppb	-14.320 ppb	34.967 ppb	100.455 %
Concentration per Run 2	100.966 %	121.415 %	0.055 ppb	8.270 ppb	9.033 ppb	-0.359 ppb	-5.059 ppb	32.764 ppb	102.558 %
Concentration per Run 3	99.782 %	139.686 %	0.050 ppb	4.465 ppb	6.470 ppb	-0.647 ppb	-1.741 ppb	36.855 ppb	102.103 %
Recovery Percentage 1			10.376 %	8.243 %	13.173 %	-6.242 %	-7.040 %	34.862 %	
Concentration RSD	1.3 %	7.0 %	4.6 %	45.7 %	30.9 %	40.9 %	92.6 %	5.9 %	1.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	107.483 %	-0.038 ppb	0.102 ppb	2.970 ppb	6.924 ppb	0.071 ppb	0.133 ppb	0.099 ppb	0.011 ppb
Concentration per Run 1	107.269 %	0.052 ppb	0.119 ppb	3.447 ppb	8.890 ppb	0.088 ppb	0.143 ppb	0.030 ppb	0.050 ppb
Concentration per Run 2	104.223 %	-0.049 ppb	0.088 ppb	2.965 ppb	5.274 ppb	0.076 ppb	0.124 ppb	0.143 ppb	0.014 ppb
Concentration per Run 3	110.958 %	-0.117 ppb	0.100 ppb	2.499 ppb	6.609 ppb	0.050 ppb	0.133 ppb	0.124 ppb	-0.031 ppb
Recovery Percentage 1		-0.763 %	10.245 %	297.027 %	13.849 %	14.267 %	6.665 %	9.880 %	0.222 %
Concentration RSD	3.1 %	222.9 %	15.3 %	16.0 %	26.4 %	27.3 %	7.0 %	61.4 %	364.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	104.495 %	0.119 ppb	0.305 ppb	0.104 ppb	0.305 ppb	102.062 %	0.059 ppb	0.054 ppb	101.792 %
Concentration per Run 1	104.127 %	0.137 ppb	0.256 ppb	0.109 ppb	0.333 ppb	101.510 %	0.075 ppb	0.070 ppb	99.035 %
Concentration per Run 2	100.024 %	0.087 ppb	0.114 ppb	0.105 ppb	0.298 ppb	101.250 %	0.046 ppb	0.051 ppb	99.432 %
Concentration per Run 3	109.332 %	0.133 ppb	0.545 ppb	0.098 ppb	0.283 ppb	103.426 %	0.055 ppb	0.040 ppb	106.907 %
Recovery Percentage 1		23.767 %	6.092 %	1.040 %	15.240 %		14.666 %	26.937 %	
Concentration RSD	4.5 %	23.2 %	72.1 %	5.6 %	8.4 %	1.2 %	24.8 %	28.5 %	4.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.488 ppb	0.081 ppb	102.559 %	104.021 %	0.295 ppb	0.083 ppb
Concentration per Run 1	0.501 ppb	0.108 ppb	100.688 %	100.780 %	0.260 ppb	0.094 ppb
Concentration per Run 2	0.426 ppb	0.034 ppb	101.816 %	103.978 %	0.347 ppb	0.087 ppb
Concentration per Run 3	0.537 ppb	0.102 ppb	105.175 %	107.306 %	0.278 ppb	0.068 ppb
Recovery Percentage 1	12.195 %	16.284 %			29.487 %	8.313 %
Concentration RSD	11.6 %	50.4 %	2.3 %	3.1 %	15.6 %	16.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	188	User name	ALPHALAB\a2-icpmsq2	Comment	fb
Analysis label:	L2447890-13 6020TL	Rack	3		
Analysis started at:	8/28/2024 9:05:16 PM	Vial	34		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.435 %	119.450 %	0.030 ppb	2.602 ppb	10.351 ppb	1.718 ppb	-11.673 ppb	25.101 ppb	105.244 %
Concentration per Run 1	100.907 %	110.806 %	0.033 ppb	6.807 ppb	14.583 ppb	1.854 ppb	-8.963 ppb	41.925 ppb	104.078 %
Concentration per Run 2	101.093 %	113.163 %	0.022 ppb	4.386 ppb	6.722 ppb	2.073 ppb	-10.268 ppb	28.497 ppb	105.311 %
Concentration per Run 3	102.304 %	134.381 %	0.035 ppb	-3.388 ppb	9.748 ppb	1.227 ppb	-15.788 ppb	4.880 ppb	106.343 %
Concentration RSD	0.7 %	10.9 %	24.1 %	204.7 %	38.3 %	25.6 %	31.0 %	74.7 %	1.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	107.430 %	-0.114 ppb	0.207 ppb	1.756 ppb	5.727 ppb	0.029 ppb	0.137 ppb	0.190 ppb	0.083 ppb
Concentration per Run 1	107.750 %	-0.136 ppb	0.155 ppb	2.147 ppb	3.806 ppb	0.053 ppb	0.199 ppb	0.121 ppb	0.137 ppb
Concentration per Run 2	116.891 %	-0.120 ppb	0.219 ppb	1.620 ppb	5.808 ppb	0.008 ppb	0.056 ppb	0.139 ppb	0.025 ppb
Concentration per Run 3	97.648 %	-0.087 ppb	0.246 ppb	1.503 ppb	7.567 ppb	0.025 ppb	0.157 ppb	0.310 ppb	0.087 ppb
Concentration RSD	9.0 %	21.6 %	22.5 %	19.5 %	32.9 %	77.7 %	53.7 %	54.7 %	68.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.229 %	-0.019 ppb	0.019 ppb	0.089 ppb	0.131 ppb	102.908 %	0.034 ppb	0.044 ppb	101.822 %
Concentration per Run 1	100.892 %	-0.051 ppb	0.096 ppb	0.122 ppb	0.091 ppb	103.901 %	0.051 ppb	0.082 ppb	102.660 %
Concentration per Run 2	107.180 %	0.034 ppb	-0.139 ppb	0.071 ppb	0.157 ppb	101.974 %	0.027 ppb	0.032 ppb	100.827 %
Concentration per Run 3	101.614 %	-0.040 ppb	0.100 ppb	0.075 ppb	0.145 ppb	102.850 %	0.024 ppb	0.018 ppb	101.978 %
Concentration RSD	3.3 %	243.9 %	714.5 %	31.7 %	26.8 %	0.9 %	44.1 %	75.5 %	0.9 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.182 ppb	0.111 ppb	101.857 %	102.664 %	0.114 ppb	0.055 ppb
Concentration per Run 1	0.159 ppb	0.135 ppb	101.309 %	102.388 %	0.092 ppb	0.065 ppb
Concentration per Run 2	0.169 ppb	0.136 ppb	102.031 %	102.752 %	0.124 ppb	0.054 ppb
Concentration per Run 3	0.219 ppb	0.062 ppb	102.231 %	102.853 %	0.125 ppb	0.046 ppb
Concentration RSD	17.7 %	37.9 %	0.5 %	0.2 %	16.4 %	17.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	189	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447890-04 6020TL	Rack	3		
Analysis started at:	8/28/2024 9:09:47 PM	Vial	25		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.645 %	120.825 %	0.005 ppb	14,354.436 ppb	16,551.995 ppb	16.229 ppb	5,210.344 ppb	75,535.504 ppb	109.240 %
Concentration per Run 1	100.366 %	120.825 %	0.004 ppb	13,947.806 ppb	16,160.676 ppb	15.170 ppb	5,034.792 ppb	72,804.117 ppb	107.253 %
Concentration per Run 2	102.018 %	119.057 %	0.007 ppb	14,256.975 ppb	16,292.419 ppb	16.520 ppb	4,943.127 ppb	71,747.076 ppb	109.636 %
Concentration per Run 3	102.551 %	122.593 %	0.005 ppb	14,858.527 ppb	17,202.889 ppb	16.995 ppb	5,653.114 ppb	82,055.319 ppb	110.831 %
Concentration RSD	1.1 %	1.5 %	26.9 %	3.2 %	3.4 %	5.8 %	7.4 %	7.5 %	1.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	106.414 %	0.246 ppb	0.992 ppb	5.449 ppb	30.129 ppb	0.091 ppb	0.553 ppb	0.662 ppb	0.358 ppb
Concentration per Run 1	108.713 %	0.318 ppb	0.507 ppb	5.772 ppb	35.648 ppb	0.080 ppb	0.662 ppb	0.673 ppb	0.300 ppb
Concentration per Run 2	110.316 %	0.185 ppb	1.857 ppb	5.314 ppb	31.384 ppb	0.126 ppb	0.384 ppb	0.590 ppb	0.366 ppb
Concentration per Run 3	100.214 %	0.235 ppb	0.612 ppb	5.261 ppb	23.357 ppb	0.067 ppb	0.612 ppb	0.724 ppb	0.406 ppb
Concentration RSD	5.1 %	27.2 %	75.7 %	5.2 %	20.7 %	33.9 %	26.8 %	10.2 %	15.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	108.085 %	0.176 ppb	0.005 ppb	189.715 ppb	0.172 ppb	100.073 %	0.021 ppb	0.017 ppb	101.587 %
Concentration per Run 1	103.711 %	0.223 ppb	0.017 ppb	191.980 ppb	0.151 ppb	98.171 %	0.025 ppb	0.014 ppb	100.786 %
Concentration per Run 2	109.693 %	0.167 ppb	0.163 ppb	188.115 ppb	0.213 ppb	99.398 %	0.016 ppb	0.023 ppb	102.930 %
Concentration per Run 3	110.850 %	0.140 ppb	-0.166 ppb	189.050 ppb	0.153 ppb	102.649 %	0.022 ppb	0.014 ppb	101.044 %
Concentration RSD	3.5 %	23.9 %	3,483.2 %	1.1 %	20.2 %	2.3 %	22.0 %	30.9 %	1.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.099 ppb	43.053 ppb	102.465 %	103.351 %	0.061 ppb	0.051 ppb
Concentration per Run 1	0.088 ppb	43.202 ppb	100.733 %	102.411 %	0.047 ppb	0.057 ppb
Concentration per Run 2	0.097 ppb	42.724 ppb	102.364 %	102.732 %	0.073 ppb	0.051 ppb
Concentration per Run 3	0.112 ppb	43.232 ppb	104.298 %	104.909 %	0.062 ppb	0.046 ppb
Concentration RSD	12.5 %	0.7 %	1.7 %	1.3 %	21.2 %	10.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	190	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447890-05 6020TL	Rack	3		
Analysis started at:	8/28/2024 9:14:18 PM	Vial	26		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.114 %	122.790 %	0.004 ppb	9,975.060 ppb	5,791.732 ppb	3.372 ppb	1,728.478 ppb	16,412.186 ppb	105.679 %
Concentration per Run 1	98.532 %	111.395 %	0.008 ppb	10,486.653 ppb	6,019.703 ppb	3.189 ppb	1,723.080 ppb	15,763.608 ppb	105.253 %
Concentration per Run 2	98.800 %	132.024 %	0.005 ppb	9,759.145 ppb	5,594.817 ppb	3.381 ppb	1,751.499 ppb	17,452.429 ppb	104.861 %
Concentration per Run 3	100.010 %	124.951 %	0.000 ppb	9,679.382 ppb	5,760.676 ppb	3.546 ppb	1,710.856 ppb	16,020.521 ppb	106.924 %
Concentration RSD	0.8 %	8.5 %	102.4 %	4.5 %	3.7 %	5.3 %	1.2 %	5.5 %	1.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	108.820 %	0.170 ppb	0.608 ppb	30.242 ppb	4.773 ppb	0.035 ppb	0.278 ppb	0.222 ppb	0.222 ppb
Concentration per Run 1	111.439 %	0.265 ppb	0.534 ppb	30.441 ppb	6.063 ppb	0.044 ppb	0.390 ppb	0.162 ppb	0.182 ppb
Concentration per Run 2	102.619 %	0.039 ppb	0.673 ppb	29.778 ppb	4.622 ppb	0.017 ppb	0.151 ppb	0.285 ppb	0.319 ppb
Concentration per Run 3	112.401 %	0.205 ppb	0.617 ppb	30.505 ppb	3.634 ppb	0.044 ppb	0.294 ppb	0.221 ppb	0.167 ppb
Concentration RSD	5.0 %	68.9 %	11.5 %	1.3 %	25.6 %	44.2 %	43.2 %	27.7 %	37.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.368 %	0.042 ppb	0.097 ppb	57.651 ppb	0.044 ppb	101.299 %	0.006 ppb	0.015 ppb	101.377 %
Concentration per Run 1	106.313 %	0.048 ppb	-0.001 ppb	56.794 ppb	0.051 ppb	101.630 %	0.002 ppb	0.023 ppb	102.358 %
Concentration per Run 2	101.814 %	0.021 ppb	0.268 ppb	58.048 ppb	0.013 ppb	101.187 %	0.011 ppb	0.009 ppb	101.651 %
Concentration per Run 3	101.976 %	0.057 ppb	0.023 ppb	58.110 ppb	0.067 ppb	101.078 %	0.006 ppb	0.014 ppb	100.121 %
Concentration RSD	2.5 %	44.8 %	153.7 %	1.3 %	63.9 %	0.3 %	69.1 %	45.2 %	1.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.076 ppb	17.873 ppb	102.362 %	102.526 %	0.042 ppb	0.028 ppb
Concentration per Run 1	0.080 ppb	17.449 ppb	100.790 %	101.394 %	0.028 ppb	0.032 ppb
Concentration per Run 2	0.067 ppb	17.725 ppb	103.497 %	102.931 %	0.049 ppb	0.029 ppb
Concentration per Run 3	0.080 ppb	18.444 ppb	102.798 %	103.253 %	0.048 ppb	0.023 ppb
Concentration RSD	10.0 %	2.9 %	1.4 %	1.0 %	27.9 %	16.1 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	191	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447890-06 6020TL	Rack	3		
Analysis started at:	8/28/2024 9:18:49 PM	Vial	27		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.493 %	116.503 %	0.003 ppb	14,330.699 ppb	6,661.454 ppb	24.287 ppb	2,332.312 ppb	23,777.018 ppb	104.068 %
Concentration per Run 1	98.500 %	120.236 %	0.000 ppb	13,885.174 ppb	6,535.123 ppb	23.072 ppb	2,285.186 ppb	24,387.838 ppb	102.113 %
Concentration per Run 2	99.739 %	100.786 %	0.007 ppb	15,851.920 ppb	7,372.965 ppb	25.241 ppb	2,483.698 ppb	24,369.326 ppb	104.325 %
Concentration per Run 3	100.241 %	128.487 %	0.001 ppb	13,255.001 ppb	6,076.274 ppb	24.548 ppb	2,228.051 ppb	22,573.891 ppb	105.766 %
Concentration RSD	0.9 %	12.2 %	158.4 %	9.5 %	9.9 %	4.6 %	5.8 %	4.4 %	1.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	103.742 %	0.237 ppb	0.448 ppb	7.917 ppb	23.213 ppb	0.063 ppb	0.869 ppb	0.594 ppb	0.645 ppb
Concentration per Run 1	102.619 %	0.148 ppb	0.360 ppb	7.094 ppb	30.678 ppb	0.062 ppb	0.747 ppb	0.665 ppb	0.751 ppb
Concentration per Run 2	98.290 %	0.246 ppb	0.512 ppb	8.404 ppb	23.618 ppb	0.010 ppb	1.239 ppb	0.568 ppb	0.619 ppb
Concentration per Run 3	110.316 %	0.316 ppb	0.471 ppb	8.254 ppb	15.342 ppb	0.117 ppb	0.619 ppb	0.549 ppb	0.564 ppb
Concentration RSD	5.9 %	35.6 %	17.6 %	9.1 %	33.1 %	85.3 %	37.7 %	10.5 %	14.9 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	101.735 %	0.095 ppb	0.054 ppb	83.590 ppb	0.105 ppb	99.456 %	0.006 ppb	0.008 ppb	98.793 %
Concentration per Run 1	101.181 %	0.097 ppb	-0.062 ppb	82.997 ppb	0.110 ppb	98.992 %	0.009 ppb	0.009 ppb	99.015 %
Concentration per Run 2	104.578 %	0.100 ppb	0.105 ppb	81.998 ppb	0.081 ppb	99.435 %	0.007 ppb	0.010 ppb	97.922 %
Concentration per Run 3	99.446 %	0.089 ppb	0.120 ppb	85.774 ppb	0.124 ppb	99.942 %	0.001 ppb	0.005 ppb	99.441 %
Concentration RSD	2.6 %	5.9 %	186.3 %	2.3 %	20.8 %	0.5 %	79.4 %	35.0 %	0.8 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.153 ppb	19.665 ppb	99.672 %	100.475 %	0.032 ppb	0.046 ppb
Concentration per Run 1	0.159 ppb	19.108 ppb	97.939 %	99.433 %	0.014 ppb	0.047 ppb
Concentration per Run 2	0.168 ppb	19.871 ppb	100.096 %	100.639 %	0.041 ppb	0.044 ppb
Concentration per Run 3	0.130 ppb	20.015 ppb	100.980 %	101.354 %	0.041 ppb	0.047 ppb
Concentration RSD	13.1 %	2.5 %	1.6 %	1.0 %	49.5 %	3.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	192	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447890-07 6020TL	Rack	3		
Analysis started at:	8/28/2024 9:23:20 PM	Vial	28		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.984 %	115.128 %	-0.001 ppb	13,572.643 ppb	8,294.446 ppb	2.532 ppb	2,102.606 ppb	18,286.041 ppb	103.034 %
Concentration per Run 1	98.570 %	113.163 %	-0.001 ppb	13,973.774 ppb	8,528.405 ppb	2.566 ppb	2,235.361 ppb	19,333.802 ppb	103.205 %
Concentration per Run 2	98.890 %	115.521 %	-0.002 ppb	13,432.494 ppb	8,151.522 ppb	2.933 ppb	1,992.069 ppb	17,967.577 ppb	103.753 %
Concentration per Run 3	99.491 %	116.700 %	0.002 ppb	13,311.660 ppb	8,203.412 ppb	2.097 ppb	2,080.386 ppb	17,556.744 ppb	102.144 %
Concentration RSD	0.5 %	1.6 %	364.6 %	2.6 %	2.5 %	16.6 %	5.9 %	5.1 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	99.893 %	0.139 ppb	0.713 ppb	0.650 ppb	2.149 ppb	0.015 ppb	0.261 ppb	0.172 ppb	0.387 ppb
Concentration per Run 1	94.601 %	0.123 ppb	0.741 ppb	0.634 ppb	0.056 ppb	0.018 ppb	0.300 ppb	0.239 ppb	0.475 ppb
Concentration per Run 2	101.336 %	0.196 ppb	0.742 ppb	0.609 ppb	0.668 ppb	0.025 ppb	0.237 ppb	0.146 ppb	0.310 ppb
Concentration per Run 3	103.742 %	0.099 ppb	0.657 ppb	0.706 ppb	5.722 ppb	0.002 ppb	0.247 ppb	0.131 ppb	0.378 ppb
Concentration RSD	4.7 %	36.5 %	6.8 %	7.8 %	144.7 %	78.1 %	13.0 %	34.1 %	21.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.108 %	-0.006 ppb	-0.003 ppb	101.296 ppb	-0.028 ppb	99.648 %	0.002 ppb	0.003 ppb	98.341 %
Concentration per Run 1	101.904 %	-0.016 ppb	0.100 ppb	100.824 ppb	-0.055 ppb	100.363 %	-0.001 ppb	0.000 ppb	97.804 %
Concentration per Run 2	99.807 %	0.000 ppb	-0.130 ppb	103.454 ppb	-0.055 ppb	99.352 %	0.001 ppb	0.005 ppb	98.096 %
Concentration per Run 3	107.614 %	-0.001 ppb	0.022 ppb	99.610 ppb	0.026 ppb	99.229 %	0.006 ppb	0.005 ppb	99.123 %
Concentration RSD	3.9 %	157.2 %	4,636.3 %	1.9 %	167.8 %	0.6 %	205.5 %	86.6 %	0.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.030 ppb	23.158 ppb	101.292 %	101.959 %	0.020 ppb	0.013 ppb
Concentration per Run 1	0.010 ppb	23.248 ppb	99.530 %	100.365 %	0.004 ppb	0.014 ppb
Concentration per Run 2	0.028 ppb	23.499 ppb	102.282 %	102.257 %	0.028 ppb	0.012 ppb
Concentration per Run 3	0.051 ppb	22.729 ppb	102.065 %	103.255 %	0.029 ppb	0.014 ppb
Concentration RSD	68.7 %	1.7 %	1.5 %	1.4 %	70.2 %	9.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	193	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447890-08 6020TL	Rack	3		
Analysis started at:	8/28/2024 9:27:51 PM	Vial	29		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.105 %	112.181 %	0.004 ppb	6,922.642 ppb	11,406.962 ppb	24.166 ppb	2,098.557 ppb	35,073.179 ppb	106.140 %
Concentration per Run 1	100.621 %	117.878 %	0.001 ppb	6,933.124 ppb	11,501.427 ppb	26.662 ppb	2,258.636 ppb	38,150.954 ppb	105.619 %
Concentration per Run 2	101.513 %	110.806 %	0.001 ppb	6,775.309 ppb	10,985.307 ppb	24.828 ppb	1,947.654 ppb	32,582.062 ppb	106.669 %
Concentration per Run 3	101.179 %	107.859 %	0.009 ppb	7,059.493 ppb	11,734.152 ppb	21.009 ppb	2,089.382 ppb	34,486.520 ppb	106.133 %
Concentration RSD	0.4 %	4.6 %	126.2 %	2.1 %	3.4 %	11.9 %	7.4 %	8.1 %	0.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	108.499 %	0.361 ppb	6.409 ppb	5.533 ppb	57.865 ppb	0.141 ppb	4.190 ppb	0.482 ppb	0.603 ppb
Concentration per Run 1	98.771 %	0.399 ppb	6.710 ppb	5.945 ppb	72.999 ppb	0.180 ppb	4.274 ppb	0.632 ppb	0.435 ppb
Concentration per Run 2	118.014 %	0.267 ppb	6.159 ppb	5.202 ppb	60.552 ppb	0.158 ppb	4.723 ppb	0.466 ppb	0.625 ppb
Concentration per Run 3	108.713 %	0.416 ppb	6.357 ppb	5.453 ppb	40.044 ppb	0.086 ppb	3.574 ppb	0.347 ppb	0.750 ppb
Concentration RSD	8.9 %	22.7 %	4.4 %	6.8 %	28.8 %	35.0 %	13.8 %	29.8 %	26.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.862 %	0.041 ppb	0.453 ppb	83.128 ppb	0.293 ppb	100.857 %	0.000 ppb	0.014 ppb	101.383 %
Concentration per Run 1	105.790 %	0.061 ppb	0.409 ppb	82.969 ppb	0.294 ppb	100.631 %	0.001 ppb	0.014 ppb	102.031 %
Concentration per Run 2	103.711 %	0.005 ppb	0.338 ppb	84.263 ppb	0.296 ppb	100.681 %	0.001 ppb	0.005 ppb	102.080 %
Concentration per Run 3	108.086 %	0.056 ppb	0.612 ppb	82.152 ppb	0.290 ppb	101.258 %	-0.001 ppb	0.023 ppb	100.038 %
Concentration RSD	2.1 %	75.4 %	31.4 %	1.3 %	1.0 %	0.3 %	3,054.2 %	67.2 %	1.1 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.049 ppb	31.209 ppb	103.076 %	102.543 %	0.016 ppb	0.064 ppb
Concentration per Run 1	0.050 ppb	31.230 ppb	102.848 %	101.187 %	0.005 ppb	0.064 ppb
Concentration per Run 2	0.044 ppb	30.794 ppb	103.301 %	102.254 %	0.022 ppb	0.063 ppb
Concentration per Run 3	0.053 ppb	31.603 ppb	103.078 %	104.188 %	0.021 ppb	0.065 ppb
Concentration RSD	9.3 %	1.3 %	0.2 %	1.5 %	61.2 %	1.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	194	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447890-09 6020TL	Rack	3		
Analysis started at:	8/28/2024 9:32:22 PM	Vial	30		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.667 %	113.753 %	-0.001 ppb	12,009.352 ppb	6,287.049 ppb	6.972 ppb	3,041.094 ppb	32,994.874 ppb	105.008 %
Concentration per Run 1	98.898 %	121.415 %	-0.005 ppb	11,327.229 ppb	5,914.266 ppb	6.253 ppb	2,977.609 ppb	32,452.413 ppb	105.203 %
Concentration per Run 2	99.682 %	110.216 %	-0.002 ppb	12,001.749 ppb	6,278.569 ppb	4.964 ppb	2,969.393 ppb	31,637.544 ppb	103.712 %
Concentration per Run 3	100.420 %	109.627 %	0.005 ppb	12,699.079 ppb	6,668.312 ppb	9.700 ppb	3,176.278 ppb	34,894.664 ppb	106.108 %
Concentration RSD	0.8 %	5.8 %	661.9 %	5.7 %	6.0 %	35.1 %	3.9 %	5.1 %	1.2 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	104.383 %	0.396 ppb	0.229 ppb	1.230 ppb	3.026 ppb	0.025 ppb	0.176 ppb	0.474 ppb	0.404 ppb
Concentration per Run 1	105.666 %	0.395 ppb	0.222 ppb	1.333 ppb	2.549 ppb	0.024 ppb	0.094 ppb	0.496 ppb	0.424 ppb
Concentration per Run 2	107.911 %	0.260 ppb	0.232 ppb	1.099 ppb	3.138 ppb	0.009 ppb	0.224 ppb	0.491 ppb	0.291 ppb
Concentration per Run 3	99.572 %	0.534 ppb	0.234 ppb	1.258 ppb	3.392 ppb	0.040 ppb	0.210 ppb	0.435 ppb	0.496 ppb
Concentration RSD	4.1 %	34.5 %	2.8 %	9.7 %	14.3 %	62.7 %	40.4 %	7.2 %	25.8 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	101.536 %	0.050 ppb	-0.114 ppb	82.258 ppb	1.839 ppb	98.988 %	-0.001 ppb	0.003 ppb	99.333 %
Concentration per Run 1	101.542 %	0.046 ppb	-0.154 ppb	81.764 ppb	2.025 ppb	99.430 %	-0.001 ppb	0.005 ppb	100.292 %
Concentration per Run 2	101.597 %	0.046 ppb	-0.058 ppb	82.491 ppb	1.821 ppb	98.342 %	-0.003 ppb	0.000 ppb	97.987 %
Concentration per Run 3	101.470 %	0.059 ppb	-0.130 ppb	82.520 ppb	1.673 ppb	99.192 %	0.001 ppb	0.005 ppb	99.719 %
Concentration RSD	0.1 %	14.3 %	44.2 %	0.5 %	9.6 %	0.6 %	151.9 %	86.6 %	1.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.032 ppb	26.950 ppb	101.020 %	101.873 %	0.020 ppb	0.031 ppb
Concentration per Run 1	0.031 ppb	26.092 ppb	101.224 %	101.144 %	0.011 ppb	0.030 ppb
Concentration per Run 2	0.036 ppb	27.661 ppb	100.649 %	102.753 %	0.022 ppb	0.030 ppb
Concentration per Run 3	0.028 ppb	27.098 ppb	101.186 %	101.723 %	0.025 ppb	0.033 ppb
Concentration RSD	13.8 %	2.9 %	0.3 %	0.8 %	36.9 %	4.5 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	195	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447890-10 6020TL	Rack	3		
Analysis started at:	8/28/2024 9:36:54 PM	Vial	31		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.379 %	112.967 %	-0.004 ppb	13,738.392 ppb	8,243.201 ppb	19.856 ppb	3,644.228 ppb	39,538.165 ppb	103.479 %
Concentration per Run 1	97.548 %	116.110 %	-0.007 ppb	13,374.951 ppb	7,898.819 ppb	19.850 ppb	3,514.868 ppb	38,191.103 ppb	101.640 %
Concentration per Run 2	98.953 %	106.090 %	0.000 ppb	14,045.286 ppb	8,454.949 ppb	24.451 ppb	3,558.111 ppb	38,347.032 ppb	104.194 %
Concentration per Run 3	98.637 %	116.699 %	-0.005 ppb	13,794.939 ppb	8,375.837 ppb	15.266 ppb	3,859.706 ppb	42,076.360 ppb	104.603 %
Concentration RSD	0.7 %	5.3 %	85.3 %	2.5 %	3.6 %	23.1 %	5.2 %	5.6 %	1.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	107.483 %	0.192 ppb	0.537 ppb	1.885 ppb	26.513 ppb	0.048 ppb	1.908 ppb	0.376 ppb	0.333 ppb
Concentration per Run 1	110.316 %	0.168 ppb	0.546 ppb	2.169 ppb	26.870 ppb	0.030 ppb	0.342 ppb	0.369 ppb	0.271 ppb
Concentration per Run 2	110.797 %	0.170 ppb	0.489 ppb	1.325 ppb	29.936 ppb	0.045 ppb	5.014 ppb	0.420 ppb	0.350 ppb
Concentration per Run 3	101.336 %	0.238 ppb	0.576 ppb	2.162 ppb	22.732 ppb	0.069 ppb	0.368 ppb	0.339 ppb	0.378 ppb
Concentration RSD	5.0 %	20.8 %	8.2 %	25.8 %	13.6 %	41.3 %	141.0 %	10.9 %	16.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.819 %	0.059 ppb	0.023 ppb	106.193 ppb	0.515 ppb	98.969 %	-0.001 ppb	0.002 ppb	99.173 %
Concentration per Run 1	105.663 %	0.109 ppb	0.103 ppb	103.918 ppb	0.458 ppb	99.862 %	-0.003 ppb	0.000 ppb	98.762 %
Concentration per Run 2	100.458 %	-0.001 ppb	-0.140 ppb	108.198 ppb	0.420 ppb	97.132 %	0.004 ppb	0.005 ppb	99.030 %
Concentration per Run 3	102.337 %	0.069 ppb	0.105 ppb	106.463 ppb	0.666 ppb	99.914 %	-0.003 ppb	0.000 ppb	99.728 %
Concentration RSD	2.6 %	94.0 %	620.9 %	2.0 %	25.8 %	1.6 %	777.4 %	173.2 %	0.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.025 ppb	28.526 ppb	101.554 %	101.115 %	0.016 ppb	0.028 ppb
Concentration per Run 1	0.016 ppb	28.364 ppb	102.237 %	100.370 %	0.008 ppb	0.028 ppb
Concentration per Run 2	0.028 ppb	28.330 ppb	101.799 %	102.058 %	0.023 ppb	0.021 ppb
Concentration per Run 3	0.032 ppb	28.883 ppb	100.625 %	100.918 %	0.018 ppb	0.034 ppb
Concentration RSD	32.3 %	1.1 %	0.8 %	0.9 %	47.0 %	24.3 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	196	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447890-11 6020TL	Rack	3		
Analysis started at:	8/28/2024 9:41:25 PM	Vial	32		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.618 %	102.947 %	0.005 ppb	8,297.815 ppb	2,654.563 ppb	12.786 ppb	2,497.553 ppb	17,590.561 ppb	100.941 %
Concentration per Run 1	96.706 %	101.375 %	0.003 ppb	8,501.457 ppb	2,729.034 ppb	16.021 ppb	2,601.002 ppb	17,889.000 ppb	100.041 %
Concentration per Run 2	96.239 %	108.448 %	0.004 ppb	7,924.213 ppb	2,511.738 ppb	11.086 ppb	2,344.763 ppb	17,396.145 ppb	101.215 %
Concentration per Run 3	96.910 %	99.018 %	0.007 ppb	8,467.776 ppb	2,722.918 ppb	11.253 ppb	2,546.894 ppb	17,486.537 ppb	101.565 %
Concentration RSD	0.4 %	4.8 %	40.5 %	3.9 %	4.7 %	21.9 %	5.4 %	1.5 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	97.969 %	0.063 ppb	1.404 ppb	2.636 ppb	7.664 ppb	0.028 ppb	0.412 ppb	0.107 ppb	0.495 ppb
Concentration per Run 1	94.762 %	0.008 ppb	1.474 ppb	3.012 ppb	9.191 ppb	0.049 ppb	0.445 ppb	0.076 ppb	0.453 ppb
Concentration per Run 2	100.053 %	0.045 ppb	1.465 ppb	2.148 ppb	8.942 ppb	0.010 ppb	0.298 ppb	0.131 ppb	0.525 ppb
Concentration per Run 3	99.091 %	0.137 ppb	1.272 ppb	2.749 ppb	4.858 ppb	0.026 ppb	0.495 ppb	0.113 ppb	0.506 ppb
Concentration RSD	2.9 %	104.9 %	8.1 %	16.8 %	31.8 %	69.5 %	24.8 %	26.4 %	7.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	98.940 %	0.015 ppb	-0.010 ppb	57.164 ppb	0.035 ppb	96.404 %	-0.001 ppb	0.031 ppb	96.353 %
Concentration per Run 1	100.313 %	0.024 ppb	0.016 ppb	56.713 ppb	0.016 ppb	96.674 %	-0.003 ppb	0.029 ppb	96.763 %
Concentration per Run 2	98.145 %	0.054 ppb	-0.060 ppb	56.958 ppb	0.031 ppb	96.102 %	0.001 ppb	0.029 ppb	97.677 %
Concentration per Run 3	98.362 %	-0.035 ppb	0.014 ppb	57.820 ppb	0.059 ppb	96.437 %	-0.001 ppb	0.034 ppb	94.618 %
Concentration RSD	1.2 %	311.6 %	429.8 %	1.0 %	62.1 %	0.3 %	164.3 %	10.2 %	1.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.030 ppb	47.523 ppb	99.072 %	98.854 %	0.013 ppb	0.017 ppb
Concentration per Run 1	0.023 ppb	46.460 ppb	98.261 %	97.852 %	0.015 ppb	0.012 ppb
Concentration per Run 2	0.031 ppb	47.839 ppb	99.010 %	99.905 %	0.012 ppb	0.021 ppb
Concentration per Run 3	0.038 ppb	48.271 ppb	99.947 %	98.805 %	0.011 ppb	0.018 ppb
Concentration RSD	24.8 %	2.0 %	0.9 %	1.0 %	14.0 %	26.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	197	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447890-12 6020TL	Rack	3		
Analysis started at:	8/28/2024 9:45:56 PM	Vial	33		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.961 %	105.305 %	-0.001 ppb	7,902.057 ppb	2,569.793 ppb	6.641 ppb	2,343.878 ppb	16,606.655 ppb	101.435 %
Concentration per Run 1	95.353 %	101.375 %	-0.004 ppb	7,999.309 ppb	2,553.176 ppb	6.816 ppb	2,387.595 ppb	16,387.333 ppb	100.937 %
Concentration per Run 2	96.087 %	106.090 %	0.000 ppb	7,907.779 ppb	2,581.315 ppb	5.391 ppb	2,350.201 ppb	17,024.726 ppb	102.253 %
Concentration per Run 3	96.442 %	108.448 %	0.001 ppb	7,799.084 ppb	2,574.887 ppb	7.716 ppb	2,293.838 ppb	16,407.906 ppb	101.115 %
Concentration RSD	0.6 %	3.4 %	328.7 %	1.3 %	0.6 %	17.7 %	2.0 %	2.2 %	0.7 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	97.007 %	0.127 ppb	0.970 ppb	2.728 ppb	2.132 ppb	0.023 ppb	0.425 ppb	0.233 ppb	0.754 ppb
Concentration per Run 1	97.648 %	0.006 ppb	1.012 ppb	2.837 ppb	2.244 ppb	0.019 ppb	0.547 ppb	0.319 ppb	0.645 ppb
Concentration per Run 2	93.800 %	0.239 ppb	0.989 ppb	2.789 ppb	0.738 ppb	0.033 ppb	0.352 ppb	0.198 ppb	0.772 ppb
Concentration per Run 3	99.573 %	0.134 ppb	0.909 ppb	2.558 ppb	3.415 ppb	0.018 ppb	0.377 ppb	0.183 ppb	0.846 ppb
Concentration RSD	3.0 %	92.0 %	5.6 %	5.5 %	62.9 %	37.3 %	25.0 %	32.0 %	13.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	99.055 %	0.017 ppb	-0.088 ppb	56.218 ppb	0.018 ppb	94.536 %	0.005 ppb	0.025 ppb	94.352 %
Concentration per Run 1	92.345 %	-0.052 ppb	-0.068 ppb	58.057 ppb	0.034 ppb	93.642 %	0.003 ppb	0.035 ppb	93.051 %
Concentration per Run 2	104.361 %	0.005 ppb	-0.129 ppb	54.541 ppb	-0.012 ppb	94.849 %	0.010 ppb	0.010 ppb	94.981 %
Concentration per Run 3	100.458 %	0.099 ppb	-0.067 ppb	56.055 ppb	0.031 ppb	95.118 %	0.003 ppb	0.030 ppb	95.024 %
Concentration RSD	6.2 %	447.5 %	40.9 %	3.1 %	146.4 %	0.8 %	83.1 %	53.4 %	1.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.012 ppb	46.626 ppb	96.661 %	97.244 %	0.009 ppb	0.028 ppb
Concentration per Run 1	-0.007 ppb	46.931 ppb	96.049 %	95.841 %	0.003 ppb	0.030 ppb
Concentration per Run 2	0.015 ppb	47.127 ppb	95.402 %	96.133 %	0.015 ppb	0.027 ppb
Concentration per Run 3	0.028 ppb	45.820 ppb	98.532 %	99.757 %	0.007 ppb	0.027 ppb
Concentration RSD	147.8 %	1.5 %	1.7 %	2.2 %	72.0 %	6.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	198	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 9:50:27 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.312 %	114.931 %	62.896 ppb	6,549.344 ppb	6,510.084 ppb	64.824 ppb	6,560.376 ppb	6,368.183 ppb	105.130 %
Concentration per Run 1	99.039 %	107.859 %	62.841 ppb	6,712.055 ppb	6,554.278 ppb	65.417 ppb	6,504.505 ppb	6,135.052 ppb	104.954 %
Concentration per Run 2	99.235 %	122.593 %	63.128 ppb	6,441.842 ppb	6,506.043 ppb	64.185 ppb	6,687.984 ppb	6,713.083 ppb	104.411 %
Concentration per Run 3	99.663 %	114.342 %	62.720 ppb	6,494.135 ppb	6,469.930 ppb	64.871 ppb	6,488.639 ppb	6,256.414 ppb	106.024 %
Recovery Percentage 1			104.827 %	109.156 %	108.501 %	108.040 %	109.340 %	106.136 %	
Concentration RSD	0.3 %	6.4 %	0.3 %	2.2 %	0.7 %	1.0 %	1.7 %	4.8 %	0.8 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	106.788 %	60.852 ppb	62.345 ppb	63.386 ppb	6,318.829 ppb	63.112 ppb	64.661 ppb	62.396 ppb	62.345 ppb
Concentration per Run 1	109.033 %	62.052 ppb	60.976 ppb	59.660 ppb	6,212.760 ppb	61.482 ppb	63.098 ppb	60.416 ppb	61.213 ppb
Concentration per Run 2	101.015 %	61.253 ppb	65.917 ppb	67.088 ppb	6,623.553 ppb	67.341 ppb	67.403 ppb	65.179 ppb	65.393 ppb
Concentration per Run 3	110.316 %	59.251 ppb	60.141 ppb	63.409 ppb	6,120.174 ppb	60.514 ppb	63.481 ppb	61.593 ppb	60.427 ppb
Recovery Percentage 1		101.420 %	103.908 %	105.643 %	105.314 %	105.187 %	107.768 %	103.993 %	103.908 %
Concentration RSD	4.7 %	2.4 %	5.0 %	5.9 %	4.2 %	5.9 %	3.7 %	4.0 %	4.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	97.125 %	62.469 ppb	61.464 ppb	58.673 ppb	59.138 ppb	99.530 %	61.184 ppb	61.331 ppb	97.152 %
Concentration per Run 1	98.624 %	61.599 ppb	63.290 ppb	57.391 ppb	57.953 ppb	100.832 %	60.343 ppb	60.209 ppb	96.734 %
Concentration per Run 2	93.169 %	64.932 ppb	60.413 ppb	60.038 ppb	59.951 ppb	98.746 %	61.572 ppb	61.975 ppb	97.601 %
Concentration per Run 3	99.581 %	60.877 ppb	60.689 ppb	58.589 ppb	59.510 ppb	99.012 %	61.638 ppb	61.810 ppb	97.121 %
Recovery Percentage 1		104.116 %	102.440 %	97.788 %	98.564 %		101.974 %	102.219 %	
Concentration RSD	3.6 %	3.5 %	2.6 %	2.3 %	1.8 %	1.1 %	1.2 %	1.6 %	0.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	58.007 ppb	61.370 ppb	101.552 %	101.363 %	61.735 ppb	62.634 ppb
Concentration per Run 1	57.760 ppb	60.687 ppb	101.952 %	100.853 %	60.639 ppb	62.154 ppb
Concentration per Run 2	58.173 ppb	62.565 ppb	101.263 %	102.048 %	61.564 ppb	62.776 ppb
Concentration per Run 3	58.088 ppb	60.859 ppb	101.442 %	101.189 %	63.000 ppb	62.972 ppb
Recovery Percentage 1	96.678 %	102.284 %			102.891 %	104.390 %
Concentration RSD	0.4 %	1.7 %	0.4 %	0.6 %	1.9 %	0.7 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	199	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 9:55:00 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.770 %	119.057 %	0.042 ppb	2.163 ppb	9.588 ppb	-0.195 ppb	-4.065 ppb	20.998 ppb	104.148 %
Concentration per Run 1	102.498 %	129.666 %	0.060 ppb	-1.492 ppb	7.032 ppb	-0.380 ppb	-10.130 ppb	21.975 ppb	103.871 %
Concentration per Run 2	103.084 %	113.163 %	0.033 ppb	2.937 ppb	8.520 ppb	-0.239 ppb	1.534 ppb	19.741 ppb	104.617 %
Concentration per Run 3	102.730 %	114.342 %	0.034 ppb	5.045 ppb	13.211 ppb	0.033 ppb	-3.601 ppb	21.278 ppb	103.956 %
Recovery Percentage 1			8.458 %	2.163 %	13.697 %	-1.952 %	-4.065 %	20.998 %	
Concentration RSD	0.3 %	7.7 %	35.9 %	154.3 %	33.6 %	107.7 %	143.8 %	5.4 %	0.4 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	108.232 %	0.004 ppb	0.129 ppb	0.140 ppb	6.791 ppb	0.058 ppb	0.073 ppb	0.066 ppb	0.031 ppb
Concentration per Run 1	104.543 %	0.058 ppb	0.138 ppb	0.156 ppb	9.234 ppb	0.106 ppb	0.043 ppb	0.089 ppb	0.033 ppb
Concentration per Run 2	112.882 %	-0.097 ppb	0.100 ppb	0.205 ppb	6.782 ppb	0.023 ppb	0.114 ppb	0.065 ppb	0.081 ppb
Concentration per Run 3	107.269 %	0.051 ppb	0.147 ppb	0.058 ppb	4.356 ppb	0.045 ppb	0.063 ppb	0.046 ppb	-0.020 ppb
Recovery Percentage 1		0.080 %	12.853 %	13.972 %	13.581 %	11.561 %	3.665 %	6.631 %	0.623 %
Concentration RSD	3.9 %	2,189.6 %	19.2 %	53.4 %	35.9 %	74.1 %	50.2 %	32.5 %	162.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.356 %	0.068 ppb	0.290 ppb	0.072 ppb	0.251 ppb	104.810 %	0.066 ppb	0.066 ppb	102.539 %
Concentration per Run 1	100.169 %	0.074 ppb	0.107 ppb	0.068 ppb	0.209 ppb	104.943 %	0.057 ppb	0.086 ppb	102.497 %
Concentration per Run 2	101.380 %	0.022 ppb	0.278 ppb	0.079 ppb	0.275 ppb	104.613 %	0.061 ppb	0.054 ppb	102.968 %
Concentration per Run 3	105.518 %	0.108 ppb	0.486 ppb	0.070 ppb	0.270 ppb	104.874 %	0.080 ppb	0.059 ppb	102.151 %
Recovery Percentage 1		13.599 %	5.803 %	0.720 %	12.567 %		16.520 %	33.232 %	
Concentration RSD	2.7 %	64.2 %	65.3 %	8.0 %	14.6 %	0.2 %	18.7 %	25.8 %	0.4 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.495 ppb	0.099 ppb	105.477 %	105.120 %	0.322 ppb	0.079 ppb
Concentration per Run 1	0.431 ppb	0.147 ppb	104.946 %	105.518 %	0.252 ppb	0.083 ppb
Concentration per Run 2	0.451 ppb	0.118 ppb	104.894 %	104.366 %	0.378 ppb	0.071 ppb
Concentration per Run 3	0.602 ppb	0.033 ppb	106.590 %	105.477 %	0.335 ppb	0.083 ppb
Recovery Percentage 1	12.367 %	19.830 %			32.159 %	7.894 %
Concentration RSD	18.9 %	59.9 %	0.9 %	0.6 %	19.9 %	9.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	200	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447890-14 6020TL	Rack	3		
Analysis started at:	8/28/2024 9:59:33 PM	Vial	35		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.892 %	118.468 %	0.032 ppb	1.444 ppb	7.192 ppb	2.613 ppb	-7.038 ppb	21.072 ppb	103.471 %
Concentration per Run 1	101.294 %	122.593 %	0.034 ppb	3.753 ppb	5.028 ppb	2.329 ppb	0.788 ppb	31.415 ppb	102.520 %
Concentration per Run 2	101.970 %	120.825 %	0.038 ppb	-1.904 ppb	9.459 ppb	1.739 ppb	-7.492 ppb	7.038 ppb	103.477 %
Concentration per Run 3	102.412 %	111.984 %	0.022 ppb	2.483 ppb	7.089 ppb	3.772 ppb	-14.410 ppb	24.762 ppb	104.415 %
Concentration RSD	0.6 %	4.8 %	26.3 %	205.6 %	30.8 %	40.0 %	108.1 %	59.8 %	0.9 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	107.804 %	-0.031 ppb	0.287 ppb	0.255 ppb	5.564 ppb	0.048 ppb	0.112 ppb	0.303 ppb	0.290 ppb
Concentration per Run 1	108.071 %	-0.073 ppb	0.339 ppb	0.337 ppb	6.437 ppb	0.053 ppb	0.121 ppb	0.195 ppb	0.310 ppb
Concentration per Run 2	107.750 %	0.033 ppb	0.270 ppb	0.278 ppb	3.892 ppb	0.010 ppb	0.150 ppb	0.419 ppb	0.291 ppb
Concentration per Run 3	107.590 %	-0.052 ppb	0.253 ppb	0.151 ppb	6.364 ppb	0.081 ppb	0.066 ppb	0.295 ppb	0.269 ppb
Concentration RSD	0.2 %	181.8 %	15.7 %	37.2 %	26.0 %	75.1 %	38.4 %	37.0 %	7.1 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	99.646 %	0.018 ppb	-0.012 ppb	0.077 ppb	0.115 ppb	102.173 %	0.039 ppb	0.056 ppb	100.797 %
Concentration per Run 1	99.429 %	-0.024 ppb	-0.061 ppb	0.082 ppb	0.014 ppb	99.278 %	0.049 ppb	0.067 ppb	96.603 %
Concentration per Run 2	97.205 %	0.082 ppb	0.098 ppb	0.085 ppb	0.146 ppb	104.336 %	0.043 ppb	0.050 ppb	102.155 %
Concentration per Run 3	102.303 %	-0.004 ppb	-0.073 ppb	0.064 ppb	0.185 ppb	102.904 %	0.025 ppb	0.050 ppb	103.634 %
Concentration RSD	2.6 %	318.4 %	784.7 %	14.6 %	77.7 %	2.6 %	31.7 %	17.9 %	3.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.194 ppb	0.106 ppb	102.813 %	104.091 %	0.119 ppb	0.063 ppb
Concentration per Run 1	0.148 ppb	0.111 ppb	99.617 %	100.977 %	0.095 ppb	0.074 ppb
Concentration per Run 2	0.220 ppb	0.119 ppb	103.793 %	105.625 %	0.135 ppb	0.054 ppb
Concentration per Run 3	0.213 ppb	0.089 ppb	105.030 %	105.670 %	0.128 ppb	0.061 ppb
Concentration RSD	20.4 %	14.5 %	2.8 %	2.6 %	17.9 %	16.7 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	201	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448012-01 6020TL	Rack	3		
Analysis started at:	8/28/2024 10:04:04 PM	Vial	36		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.867 %	114.931 %	0.017 ppb	30,616.837 ppb	27,872.312 ppb	150.613 ppb	4,084.057 ppb	223,624.936 ppb	106.471 %
Concentration per Run 1	94.132 %	114.342 %	0.008 ppb	30,111.997 ppb	27,315.850 ppb	147.942 ppb	4,078.891 ppb	222,665.373 ppb	103.278 %
Concentration per Run 2	96.567 %	114.342 %	0.024 ppb	30,109.102 ppb	27,462.529 ppb	149.633 ppb	3,926.256 ppb	214,246.148 ppb	108.434 %
Concentration per Run 3	96.902 %	116.110 %	0.018 ppb	31,629.412 ppb	28,838.557 ppb	154.264 ppb	4,247.023 ppb	233,963.288 ppb	107.701 %
Concentration RSD	1.6 %	0.9 %	47.4 %	2.9 %	3.0 %	2.2 %	3.9 %	4.4 %	2.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	108.713 %	0.841 ppb	0.434 ppb	1,396.040 ppb	1,886.249 ppb	2.021 ppb	6.640 ppb	1.170 ppb	13.386 ppb
Concentration per Run 1	108.392 %	0.856 ppb	0.403 ppb	1,359.388 ppb	1,882.447 ppb	1.980 ppb	6.618 ppb	1.107 ppb	13.124 ppb
Concentration per Run 2	113.203 %	0.661 ppb	0.469 ppb	1,344.240 ppb	1,834.338 ppb	1.911 ppb	5.649 ppb	1.069 ppb	12.846 ppb
Concentration per Run 3	104.543 %	1.007 ppb	0.429 ppb	1,484.491 ppb	1,941.963 ppb	2.172 ppb	7.653 ppb	1.335 ppb	14.188 ppb
Concentration RSD	4.0 %	20.6 %	7.6 %	5.5 %	2.9 %	6.7 %	15.1 %	12.3 %	5.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.139 %	1.071 ppb	0.221 ppb	634.854 ppb	0.406 ppb	97.820 %	0.020 ppb	0.195 ppb	100.215 %
Concentration per Run 1	103.983 %	1.064 ppb	0.102 ppb	620.641 ppb	0.319 ppb	96.989 %	0.016 ppb	0.218 ppb	99.734 %
Concentration per Run 2	104.361 %	0.975 ppb	0.031 ppb	629.105 ppb	0.439 ppb	97.993 %	0.026 ppb	0.220 ppb	101.027 %
Concentration per Run 3	98.072 %	1.174 ppb	0.531 ppb	654.817 ppb	0.460 ppb	98.479 %	0.018 ppb	0.146 ppb	99.883 %
Concentration RSD	3.5 %	9.3 %	122.2 %	2.8 %	18.8 %	0.8 %	27.0 %	21.7 %	0.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.200 ppb	43.731 ppb	105.188 %	105.723 %	0.071 ppb	2.206 ppb
Concentration per Run 1	0.190 ppb	42.339 ppb	103.800 %	103.066 %	0.062 ppb	2.187 ppb
Concentration per Run 2	0.216 ppb	43.591 ppb	105.134 %	107.456 %	0.080 ppb	2.193 ppb
Concentration per Run 3	0.195 ppb	45.263 ppb	106.629 %	106.648 %	0.071 ppb	2.238 ppb
Concentration RSD	7.0 %	3.4 %	1.3 %	2.2 %	12.4 %	1.3 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	202	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2448012-02 6020TL	Rack	3		
Analysis started at:	8/28/2024 10:08:35 PM	Vial	37		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.025 %	121.808 %	0.037 ppb	78,424.765 ppb	13,766.765 ppb	306.477 ppb	4,939.706 ppb	162,873.757 ppb	111.903 %
Concentration per Run 1	99.792 %	130.845 %	0.044 ppb	75,786.613 ppb	13,386.397 ppb	304.075 ppb	4,912.986 ppb	162,942.384 ppb	110.508 %
Concentration per Run 2	100.478 %	124.951 %	0.041 ppb	76,305.112 ppb	13,471.255 ppb	297.835 ppb	4,965.032 ppb	163,148.342 ppb	111.798 %
Concentration per Run 3	99.805 %	109.627 %	0.025 ppb	83,182.570 ppb	14,442.644 ppb	317.522 ppb	4,941.100 ppb	162,530.544 ppb	113.404 %
Concentration RSD	0.4 %	9.0 %	27.9 %	5.3 %	4.3 %	3.3 %	0.5 %	0.2 %	1.3 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	114.111 %	0.949 ppb	1.280 ppb	241.149 ppb	8,387.603 ppb	1.101 ppb	1.541 ppb	4.045 ppb	34.889 ppb
Concentration per Run 1	111.439 %	1.145 ppb	1.462 ppb	242.473 ppb	8,362.188 ppb	1.169 ppb	1.362 ppb	4.235 ppb	35.210 ppb
Concentration per Run 2	114.325 %	0.852 ppb	1.166 ppb	242.521 ppb	8,563.111 ppb	1.120 ppb	1.575 ppb	3.924 ppb	35.526 ppb
Concentration per Run 3	116.570 %	0.850 ppb	1.212 ppb	238.454 ppb	8,237.510 ppb	1.013 ppb	1.685 ppb	3.977 ppb	33.933 ppb
Concentration RSD	2.3 %	17.9 %	12.4 %	1.0 %	2.0 %	7.2 %	10.6 %	4.1 %	2.4 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	106.837 %	1.866 ppb	0.244 ppb	420.379 ppb	0.465 ppb	102.194 %	0.035 ppb	0.195 ppb	103.604 %
Concentration per Run 1	108.698 %	1.734 ppb	0.164 ppb	411.538 ppb	0.453 ppb	103.569 %	0.035 ppb	0.202 ppb	104.698 %
Concentration per Run 2	104.506 %	1.929 ppb	0.240 ppb	423.552 ppb	0.492 ppb	101.905 %	0.034 ppb	0.154 ppb	103.886 %
Concentration per Run 3	107.308 %	1.934 ppb	0.329 ppb	426.047 ppb	0.451 ppb	101.107 %	0.037 ppb	0.230 ppb	102.229 %
Concentration RSD	2.0 %	6.1 %	33.8 %	1.8 %	4.9 %	1.2 %	5.4 %	19.6 %	1.2 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.264 ppb	84.693 ppb	108.138 %	107.093 %	0.049 ppb	14.794 ppb
Concentration per Run 1	0.255 ppb	82.724 ppb	108.253 %	107.509 %	0.031 ppb	14.539 ppb
Concentration per Run 2	0.278 ppb	84.925 ppb	107.795 %	105.688 %	0.061 ppb	15.012 ppb
Concentration per Run 3	0.259 ppb	86.430 ppb	108.367 %	108.083 %	0.054 ppb	14.832 ppb
Concentration RSD	4.6 %	2.2 %	0.3 %	1.2 %	31.7 %	1.6 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	203	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 10:13:07 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.452 %	121.808 %	63.209 ppb	6,821.473 ppb	6,585.616 ppb	67.482 ppb	6,487.261 ppb	6,484.267 ppb	103.793 %
Concentration per Run 1	96.572 %	130.256 %	63.279 ppb	6,544.297 ppb	6,095.398 ppb	66.209 ppb	6,506.793 ppb	6,650.984 ppb	103.149 %
Concentration per Run 2	96.173 %	116.699 %	63.278 ppb	6,966.928 ppb	6,785.050 ppb	67.878 ppb	6,330.392 ppb	6,483.511 ppb	104.101 %
Concentration per Run 3	96.612 %	118.468 %	63.070 ppb	6,953.194 ppb	6,876.400 ppb	68.361 ppb	6,624.599 ppb	6,318.308 ppb	104.131 %
Recovery Percentage 1			105.348 %	113.691 %	109.760 %	112.470 %	108.121 %	108.071 %	
Concentration RSD	0.3 %	6.1 %	0.2 %	3.5 %	6.5 %	1.7 %	2.3 %	2.6 %	0.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	115.661 %	62.771 ppb	62.329 ppb	61.825 ppb	6,224.363 ppb	62.558 ppb	62.281 ppb	61.700 ppb	61.456 ppb
Concentration per Run 1	115.127 %	62.234 ppb	62.706 ppb	63.018 ppb	6,300.596 ppb	63.126 ppb	62.754 ppb	62.075 ppb	61.546 ppb
Concentration per Run 2	115.929 %	64.494 ppb	62.300 ppb	61.429 ppb	6,171.814 ppb	61.549 ppb	61.633 ppb	61.707 ppb	62.431 ppb
Concentration per Run 3	115.929 %	61.584 ppb	61.982 ppb	61.028 ppb	6,200.679 ppb	62.998 ppb	62.457 ppb	61.317 ppb	60.392 ppb
Recovery Percentage 1		104.618 %	103.882 %	103.042 %	103.739 %	104.263 %	103.802 %	102.833 %	102.427 %
Concentration RSD	0.4 %	2.4 %	0.6 %	1.7 %	1.1 %	1.4 %	0.9 %	0.6 %	1.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	107.218 %	62.972 ppb	59.084 ppb	59.014 ppb	59.324 ppb	107.217 %	61.329 ppb	60.282 ppb	104.814 %
Concentration per Run 1	107.549 %	61.992 ppb	58.354 ppb	58.715 ppb	57.272 ppb	107.764 %	60.209 ppb	60.441 ppb	104.778 %
Concentration per Run 2	105.598 %	63.199 ppb	60.184 ppb	59.159 ppb	60.497 ppb	107.563 %	61.454 ppb	60.162 ppb	104.095 %
Concentration per Run 3	108.506 %	63.725 ppb	58.714 ppb	59.168 ppb	60.203 ppb	106.326 %	62.326 ppb	60.241 ppb	105.569 %
Recovery Percentage 1		104.954 %	98.473 %	98.357 %	98.873 %		102.216 %	100.469 %	
Concentration RSD	1.4 %	1.4 %	1.6 %	0.4 %	3.0 %	0.7 %	1.7 %	0.2 %	0.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	57.548 ppb	60.669 ppb	107.592 %	107.292 %	61.381 ppb	62.543 ppb
Concentration per Run 1	57.163 ppb	60.230 ppb	107.191 %	106.347 %	61.137 ppb	62.087 ppb
Concentration per Run 2	57.857 ppb	60.160 ppb	107.140 %	106.857 %	61.021 ppb	62.270 ppb
Concentration per Run 3	57.623 ppb	61.616 ppb	108.446 %	108.672 %	61.985 ppb	63.273 ppb
Recovery Percentage 1	95.913 %	101.114 %			102.302 %	104.239 %
Concentration RSD	0.6 %	1.4 %	0.7 %	1.1 %	0.9 %	1.0 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	204	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 10:17:39 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.209 %	116.307 %	0.023 ppb	57.143 ppb	16.057 ppb	-0.047 ppb	6.898 ppb	96.741 ppb	102.879 %
Concentration per Run 1	97.514 %	117.878 %	0.029 ppb	66.257 ppb	22.300 ppb	-0.722 ppb	13.709 ppb	122.540 ppb	101.147 %
Concentration per Run 2	98.477 %	110.806 %	0.023 ppb	57.808 ppb	13.317 ppb	0.164 ppb	3.166 ppb	85.834 ppb	105.155 %
Concentration per Run 3	98.636 %	120.236 %	0.019 ppb	47.363 ppb	12.555 ppb	0.418 ppb	3.817 ppb	81.850 ppb	102.334 %
Recovery Percentage 1			4.693 %	57.143 %	22.939 %	-0.469 %	6.898 %	96.741 %	
Concentration RSD	0.6 %	4.2 %	19.9 %	16.6 %	33.8 %	1,277.4 %	85.7 %	23.2 %	2.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	102.833 %	-0.092 ppb	0.084 ppb	0.701 ppb	11.620 ppb	0.064 ppb	0.085 ppb	0.104 ppb	0.040 ppb
Concentration per Run 1	96.846 %	-0.110 ppb	0.087 ppb	0.851 ppb	11.695 ppb	0.086 ppb	0.018 ppb	0.181 ppb	0.075 ppb
Concentration per Run 2	109.675 %	-0.055 ppb	0.055 ppb	0.688 ppb	10.652 ppb	0.044 ppb	0.114 ppb	0.063 ppb	0.019 ppb
Concentration per Run 3	101.978 %	-0.113 ppb	0.111 ppb	0.565 ppb	12.513 ppb	0.061 ppb	0.121 ppb	0.067 ppb	0.025 ppb
Recovery Percentage 1		-1.847 %	8.423 %	70.141 %	23.240 %	12.754 %	4.235 %	10.367 %	0.793 %
Concentration RSD	6.3 %	35.3 %	33.6 %	20.5 %	8.0 %	32.9 %	68.1 %	64.5 %	77.0 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	103.687 %	0.026 ppb	0.314 ppb	0.369 ppb	0.289 ppb	99.932 %	0.054 ppb	0.052 ppb	99.115 %
Concentration per Run 1	102.554 %	0.080 ppb	0.170 ppb	0.443 ppb	0.187 ppb	101.797 %	0.059 ppb	0.052 ppb	98.232 %
Concentration per Run 2	104.072 %	0.029 ppb	0.272 ppb	0.362 ppb	0.286 ppb	98.878 %	0.050 ppb	0.061 ppb	101.037 %
Concentration per Run 3	104.434 %	-0.032 ppb	0.501 ppb	0.300 ppb	0.394 ppb	99.121 %	0.054 ppb	0.043 ppb	98.077 %
Recovery Percentage 1		5.172 %	6.280 %	3.686 %	14.452 %		13.591 %	25.875 %	
Concentration RSD	1.0 %	217.2 %	54.0 %	19.4 %	35.9 %	1.6 %	8.9 %	17.3 %	1.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.489 ppb	0.163 ppb	100.487 %	100.579 %	0.315 ppb	0.085 ppb
Concentration per Run 1	0.477 ppb	0.124 ppb	99.880 %	99.779 %	0.273 ppb	0.096 ppb
Concentration per Run 2	0.469 ppb	0.180 ppb	100.797 %	101.126 %	0.375 ppb	0.077 ppb
Concentration per Run 3	0.521 ppb	0.183 ppb	100.784 %	100.833 %	0.298 ppb	0.081 ppb
Recovery Percentage 1	12.228 %	32.529 %			31.548 %	8.482 %
Concentration RSD	5.8 %	20.4 %	0.5 %	0.7 %	16.9 %	11.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	205	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447852-08d10 6020TL	Rack	3		
Analysis started at:	8/28/2024 10:22:13 PM	Vial	19		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	117.267 %	138.704 %	-0.001 ppb	171,346.015 ppb	11,600.263 ppb	15.171 ppb	64,145.815 ppb	5,817.857 ppb	101.940 %
Concentration per Run 1	116.105 %	147.348 %	-0.001 ppb	162,677.014 ppb	11,192.752 ppb	14.211 ppb	63,194.854 ppb	5,801.054 ppb	99.467 %
Concentration per Run 2	117.913 %	133.203 %	0.006 ppb	174,145.734 ppb	11,699.871 ppb	15.079 ppb	65,006.268 ppb	5,784.095 ppb	103.059 %
Concentration per Run 3	117.783 %	135.560 %	-0.006 ppb	177,215.296 ppb	11,908.167 ppb	16.224 ppb	64,236.323 ppb	5,868.421 ppb	103.294 %
Concentration RSD	0.9 %	5.5 %	811.1 %	4.5 %	3.2 %	6.7 %	1.4 %	0.8 %	2.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	105.933 %	1.552 ppb	12.968 ppb	10.591 ppb	99.797 ppb	1.636 ppb	12.257 ppb	0.588 ppb	2.968 ppb
Concentration per Run 1	104.544 %	1.928 ppb	13.138 ppb	10.011 ppb	97.104 ppb	1.522 ppb	13.215 ppb	0.652 ppb	2.943 ppb
Concentration per Run 2	105.826 %	1.491 ppb	12.696 ppb	11.164 ppb	104.030 ppb	1.746 ppb	12.121 ppb	0.507 ppb	3.022 ppb
Concentration per Run 3	107.430 %	1.239 ppb	13.068 ppb	10.598 ppb	98.259 ppb	1.640 ppb	11.435 ppb	0.605 ppb	2.941 ppb
Concentration RSD	1.4 %	22.4 %	1.8 %	5.4 %	3.7 %	6.9 %	7.3 %	12.6 %	1.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	102.072 %	3.122 ppb	0.159 ppb	111.721 ppb	0.344 ppb	95.638 %	0.013 ppb	0.015 ppb	95.594 %
Concentration per Run 1	99.301 %	3.387 ppb	0.107 ppb	112.033 ppb	0.299 ppb	95.985 %	0.008 ppb	0.010 ppb	97.893 %
Concentration per Run 2	103.060 %	3.031 ppb	0.257 ppb	110.845 ppb	0.380 ppb	95.472 %	0.004 ppb	0.010 ppb	92.797 %
Concentration per Run 3	103.855 %	2.947 ppb	0.113 ppb	112.285 ppb	0.352 ppb	95.458 %	0.025 ppb	0.024 ppb	96.093 %
Concentration RSD	2.4 %	7.5 %	53.6 %	0.7 %	12.0 %	0.3 %	90.9 %	57.5 %	2.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.901 ppb	37.319 ppb	99.954 %	100.321 %	0.068 ppb	0.246 ppb
Concentration per Run 1	0.861 ppb	37.087 ppb	99.726 %	99.643 %	0.031 ppb	0.253 ppb
Concentration per Run 2	0.980 ppb	37.986 ppb	99.919 %	100.482 %	0.088 ppb	0.243 ppb
Concentration per Run 3	0.861 ppb	36.883 ppb	100.216 %	100.838 %	0.084 ppb	0.244 ppb
Concentration RSD	7.6 %	1.6 %	0.2 %	0.6 %	47.5 %	2.2 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	206	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447852-10d10 6020TL	Rack	3		
Analysis started at:	8/28/2024 10:26:44 PM	Vial	20		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	119.362 %	144.205 %	-0.002 ppb	208,293.754 ppb	14,138.328 ppb	14.360 ppb	80,703.888 ppb	7,849.206 ppb	100.712 %
Concentration per Run 1	119.326 %	149.706 %	-0.002 ppb	199,392.499 ppb	13,594.608 ppb	14.421 ppb	79,343.605 ppb	7,544.273 ppb	100.946 %
Concentration per Run 2	119.458 %	147.937 %	-0.001 ppb	204,370.318 ppb	13,847.515 ppb	14.130 ppb	78,693.774 ppb	7,994.816 ppb	100.112 %
Concentration per Run 3	119.302 %	134.971 %	-0.005 ppb	221,118.443 ppb	14,972.861 ppb	14.530 ppb	84,074.286 ppb	8,008.530 ppb	101.077 %
Concentration RSD	0.1 %	5.6 %	75.7 %	5.5 %	5.2 %	1.4 %	3.6 %	3.4 %	0.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	102.192 %	1.860 ppb	16.090 ppb	13.576 ppb	127.003 ppb	2.031 ppb	14.525 ppb	0.823 ppb	3.416 ppb
Concentration per Run 1	102.780 %	1.846 ppb	16.497 ppb	13.183 ppb	124.090 ppb	2.114 ppb	13.611 ppb	0.873 ppb	3.198 ppb
Concentration per Run 2	101.817 %	1.778 ppb	15.844 ppb	13.560 ppb	126.615 ppb	2.060 ppb	15.457 ppb	0.670 ppb	3.565 ppb
Concentration per Run 3	101.978 %	1.954 ppb	15.928 ppb	13.986 ppb	130.306 ppb	1.919 ppb	14.506 ppb	0.925 ppb	3.485 ppb
Concentration RSD	0.5 %	4.8 %	2.2 %	3.0 %	2.5 %	4.9 %	6.4 %	16.4 %	5.6 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.681 %	3.554 ppb	0.040 ppb	133.776 ppb	0.393 ppb	96.313 %	0.008 ppb	0.008 ppb	95.830 %
Concentration per Run 1	104.995 %	3.329 ppb	0.001 ppb	131.412 ppb	0.385 ppb	97.567 %	0.004 ppb	0.019 ppb	95.571 %
Concentration per Run 2	104.000 %	3.508 ppb	0.103 ppb	135.640 ppb	0.434 ppb	95.836 %	0.008 ppb	0.005 ppb	95.847 %
Concentration per Run 3	108.048 %	3.827 ppb	0.017 ppb	134.276 ppb	0.360 ppb	95.538 %	0.011 ppb	0.000 ppb	96.070 %
Concentration RSD	2.0 %	7.1 %	135.5 %	1.6 %	9.5 %	1.1 %	46.2 %	124.8 %	0.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	1.023 ppb	46.084 ppb	100.566 %	100.638 %	0.029 ppb	0.262 ppb
Concentration per Run 1	0.931 ppb	45.745 ppb	99.722 %	98.955 %	0.013 ppb	0.262 ppb
Concentration per Run 2	1.083 ppb	46.721 ppb	101.124 %	100.978 %	0.043 ppb	0.264 ppb
Concentration per Run 3	1.055 ppb	45.787 ppb	100.851 %	101.980 %	0.032 ppb	0.260 ppb
Concentration RSD	7.9 %	1.2 %	0.7 %	1.5 %	52.3 %	0.8 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	207	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447852-15d10 6020TL	Rack	3		
Analysis started at:	8/28/2024 10:31:15 PM	Vial	21		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	119.878 %	140.472 %	-0.002 ppb	193,278.661 ppb	13,121.979 ppb	14.210 ppb	73,786.830 ppb	6,968.127 ppb	103.561 %
Concentration per Run 1	119.802 %	137.918 %	0.001 ppb	190,956.254 ppb	12,995.850 ppb	13.715 ppb	71,674.931 ppb	6,623.925 ppb	103.472 %
Concentration per Run 2	120.151 %	136.739 %	0.000 ppb	196,766.193 ppb	13,230.236 ppb	13.254 ppb	72,362.769 ppb	6,900.407 ppb	103.599 %
Concentration per Run 3	119.682 %	146.759 %	-0.006 ppb	192,113.536 ppb	13,139.851 ppb	15.662 ppb	77,322.790 ppb	7,380.049 ppb	103.612 %
Concentration RSD	0.2 %	3.9 %	203.6 %	1.6 %	0.9 %	9.0 %	4.2 %	5.5 %	0.1 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	102.298 %	1.848 ppb	14.816 ppb	11.404 ppb	112.053 ppb	1.763 ppb	13.746 ppb	0.693 ppb	3.147 ppb
Concentration per Run 1	104.383 %	1.620 ppb	14.484 ppb	11.566 ppb	94.247 ppb	1.718 ppb	14.053 ppb	0.783 ppb	3.214 ppb
Concentration per Run 2	103.421 %	1.906 ppb	14.078 ppb	11.676 ppb	119.842 ppb	1.707 ppb	12.929 ppb	0.642 ppb	2.885 ppb
Concentration per Run 3	99.091 %	2.016 ppb	15.887 ppb	10.971 ppb	122.071 ppb	1.864 ppb	14.254 ppb	0.653 ppb	3.340 ppb
Concentration RSD	2.8 %	11.1 %	6.4 %	3.3 %	13.8 %	5.0 %	5.2 %	11.3 %	7.5 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.175 %	3.451 ppb	0.171 ppb	122.046 ppb	0.218 ppb	96.435 %	0.004 ppb	0.010 ppb	95.972 %
Concentration per Run 1	101.742 %	3.452 ppb	0.343 ppb	123.440 ppb	0.227 ppb	95.738 %	0.006 ppb	0.000 ppb	95.388 %
Concentration per Run 2	108.771 %	3.511 ppb	0.084 ppb	119.465 ppb	0.246 ppb	96.903 %	0.002 ppb	0.019 ppb	97.035 %
Concentration per Run 3	105.012 %	3.389 ppb	0.086 ppb	123.233 ppb	0.181 ppb	96.663 %	0.004 ppb	0.010 ppb	95.493 %
Concentration RSD	3.3 %	1.8 %	87.2 %	1.8 %	15.4 %	0.6 %	42.8 %	99.6 %	1.0 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.990 ppb	40.518 ppb	100.809 %	100.626 %	0.025 ppb	0.235 ppb
Concentration per Run 1	1.008 ppb	40.456 ppb	99.652 %	99.883 %	0.013 ppb	0.239 ppb
Concentration per Run 2	0.917 ppb	39.755 ppb	102.335 %	101.173 %	0.030 ppb	0.223 ppb
Concentration per Run 3	1.045 ppb	41.343 ppb	100.439 %	100.821 %	0.031 ppb	0.242 ppb
Concentration RSD	6.6 %	2.0 %	1.4 %	0.7 %	40.5 %	4.3 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	208	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	L2447852-18d10 6020TL	Rack	3		
Analysis started at:	8/28/2024 10:35:46 PM	Vial	22		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	120.497 %	152.456 %	-0.001 ppb	189,011.334 ppb	12,761.244 ppb	14.287 ppb	73,633.009 ppb	6,980.633 ppb	103.369 %
Concentration per Run 1	119.860 %	155.010 %	-0.001 ppb	183,650.629 ppb	12,499.307 ppb	13.143 ppb	73,852.632 ppb	7,252.400 ppb	102.183 %
Concentration per Run 2	121.024 %	172.103 %	-0.001 ppb	172,718.016 ppb	11,504.728 ppb	12.380 ppb	71,151.311 ppb	6,896.356 ppb	103.750 %
Concentration per Run 3	120.607 %	130.256 %	-0.002 ppb	210,665.357 ppb	14,279.696 ppb	17.340 ppb	75,895.083 ppb	6,793.143 ppb	104.173 %
Concentration RSD	0.5 %	13.8 %	37.7 %	10.3 %	11.0 %	18.7 %	3.2 %	3.5 %	1.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	105.025 %	1.723 ppb	15.059 ppb	11.860 ppb	106.711 ppb	1.799 ppb	13.068 ppb	0.628 ppb	2.989 ppb
Concentration per Run 1	102.459 %	1.520 ppb	15.224 ppb	11.254 ppb	104.366 ppb	1.859 ppb	13.441 ppb	0.566 ppb	2.970 ppb
Concentration per Run 2	107.109 %	1.791 ppb	14.954 ppb	11.752 ppb	113.421 ppb	1.832 ppb	12.623 ppb	0.605 ppb	2.811 ppb
Concentration per Run 3	105.506 %	1.858 ppb	14.998 ppb	12.575 ppb	102.346 ppb	1.706 ppb	13.139 ppb	0.712 ppb	3.187 ppb
Concentration RSD	2.2 %	10.4 %	1.0 %	5.6 %	5.5 %	4.5 %	3.2 %	12.0 %	6.3 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	107.464 %	3.289 ppb	0.120 ppb	123.724 ppb	0.290 ppb	97.866 %	0.007 ppb	0.010 ppb	97.288 %
Concentration per Run 1	107.036 %	3.170 ppb	0.106 ppb	122.882 ppb	0.272 ppb	98.016 %	0.006 ppb	0.005 ppb	96.968 %
Concentration per Run 2	107.759 %	3.370 ppb	0.091 ppb	123.700 ppb	0.315 ppb	96.846 %	0.009 ppb	0.019 ppb	98.831 %
Concentration per Run 3	107.597 %	3.327 ppb	0.164 ppb	124.589 ppb	0.283 ppb	98.737 %	0.006 ppb	0.005 ppb	96.064 %
Concentration RSD	0.4 %	3.2 %	32.1 %	0.7 %	7.7 %	1.0 %	28.8 %	86.0 %	1.5 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.945 ppb	41.933 ppb	102.474 %	101.569 %	0.018 ppb	0.240 ppb
Concentration per Run 1	1.013 ppb	41.746 ppb	103.232 %	101.864 %	0.001 ppb	0.248 ppb
Concentration per Run 2	0.879 ppb	40.714 ppb	102.231 %	100.828 %	0.025 ppb	0.230 ppb
Concentration per Run 3	0.944 ppb	43.339 ppb	101.958 %	102.016 %	0.029 ppb	0.243 ppb
Concentration RSD	7.1 %	3.2 %	0.7 %	0.6 %	81.1 %	3.9 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	209	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/28/2024 10:40:17 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.000 %	112.181 %	63.632 ppb	6,758.806 ppb	6,623.308 ppb	66.644 ppb	6,369.822 ppb	6,406.637 ppb	107.153 %
Concentration per Run 1	98.083 %	126.719 %	63.404 ppb	6,255.904 ppb	6,132.032 ppb	64.214 ppb	6,257.669 ppb	6,443.224 ppb	105.357 %
Concentration per Run 2	98.963 %	104.322 %	64.273 ppb	6,904.937 ppb	6,731.119 ppb	67.731 ppb	6,448.872 ppb	6,370.025 ppb	108.298 %
Concentration per Run 3	99.955 %	105.501 %	63.221 ppb	7,115.579 ppb	7,006.772 ppb	67.986 ppb	6,402.925 ppb	6,406.661 ppb	107.805 %
Recovery Percentage 1			106.054 %	112.647 %	110.388 %	111.073 %	106.164 %	106.777 %	
Concentration RSD	0.9 %	11.2 %	0.9 %	6.6 %	6.8 %	3.2 %	1.6 %	0.6 %	1.5 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	110.156 %	62.233 ppb	62.819 ppb	61.333 ppb	6,219.415 ppb	61.530 ppb	62.055 ppb	62.105 ppb	61.857 ppb
Concentration per Run 1	109.835 %	63.980 ppb	63.307 ppb	61.653 ppb	6,237.519 ppb	62.387 ppb	62.032 ppb	63.296 ppb	62.074 ppb
Concentration per Run 2	114.806 %	59.615 ppb	60.919 ppb	58.218 ppb	6,134.125 ppb	60.531 ppb	61.701 ppb	61.229 ppb	61.076 ppb
Concentration per Run 3	105.826 %	63.105 ppb	64.230 ppb	64.128 ppb	6,286.603 ppb	61.671 ppb	62.431 ppb	61.789 ppb	62.422 ppb
Recovery Percentage 1		103.722 %	104.698 %	102.222 %	103.657 %	102.549 %	103.424 %	103.508 %	103.096 %
Concentration RSD	4.1 %	3.7 %	2.7 %	4.8 %	1.3 %	1.5 %	0.6 %	1.7 %	1.1 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	104.565 %	60.475 ppb	61.778 ppb	58.184 ppb	59.683 ppb	102.224 %	61.594 ppb	61.575 ppb	100.058 %
Concentration per Run 1	105.185 %	61.220 ppb	61.314 ppb	57.842 ppb	58.937 ppb	104.659 %	60.371 ppb	60.400 ppb	102.587 %
Concentration per Run 2	103.127 %	60.653 ppb	62.519 ppb	58.487 ppb	59.489 ppb	100.826 %	61.984 ppb	62.771 ppb	98.247 %
Concentration per Run 3	105.385 %	59.552 ppb	61.503 ppb	58.222 ppb	60.623 ppb	101.187 %	62.428 ppb	61.554 ppb	99.340 %
Recovery Percentage 1		100.792 %	102.964 %	96.973 %	99.471 %		102.657 %	102.625 %	
Concentration RSD	1.2 %	1.4 %	1.0 %	0.6 %	1.4 %	2.1 %	1.8 %	1.9 %	2.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	57.828 ppb	60.265 ppb	102.477 %	102.628 %	59.597 ppb	62.123 ppb
Concentration per Run 1	57.345 ppb	60.759 ppb	101.942 %	102.526 %	58.699 ppb	60.493 ppb
Concentration per Run 2	58.052 ppb	60.143 ppb	103.267 %	103.003 %	58.984 ppb	62.422 ppb
Concentration per Run 3	58.088 ppb	59.894 ppb	102.223 %	102.356 %	61.106 ppb	63.454 ppb
Recovery Percentage 1	96.380 %	100.442 %			99.328 %	103.538 %
Concentration RSD	0.7 %	0.7 %	0.7 %	0.3 %	2.2 %	2.4 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	210	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 10:44:50 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.638 %	115.324 %	0.001 ppb	15.366 ppb	-0.888 ppb	-0.680 ppb	7.008 ppb	2.328 ppb	104.011 %
Concentration per Run 1	99.107 %	114.342 %	0.005 ppb	20.675 ppb	-0.883 ppb	-0.723 ppb	5.155 ppb	-6.224 ppb	103.420 %
Concentration per Run 2	100.933 %	110.216 %	0.001 ppb	18.590 ppb	-0.868 ppb	-0.581 ppb	10.874 ppb	1.436 ppb	104.646 %
Concentration per Run 3	98.874 %	121.415 %	-0.001 ppb	6.833 ppb	-0.911 ppb	-0.735 ppb	4.994 ppb	11.772 ppb	103.965 %
Recovery Percentage 1			0.289 %	15.366 %	-1.268 %	-6.799 %	7.008 %	2.328 %	
Concentration RSD	1.1 %	4.9 %	230.1 %	48.6 %	2.5 %	12.6 %	47.8 %	387.9 %	0.6 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	101.122 %	-0.112 ppb	0.017 ppb	0.021 ppb	3.134 ppb	-0.003 ppb	0.082 ppb	0.109 ppb	0.019 ppb
Concentration per Run 1	100.374 %	-0.155 ppb	-0.005 ppb	0.065 ppb	2.056 ppb	-0.005 ppb	0.101 ppb	0.148 ppb	0.050 ppb
Concentration per Run 2	99.091 %	-0.088 ppb	0.055 ppb	-0.033 ppb	3.415 ppb	-0.005 ppb	0.128 ppb	0.054 ppb	-0.015 ppb
Concentration per Run 3	103.902 %	-0.092 ppb	0.001 ppb	0.030 ppb	3.931 ppb	0.002 ppb	0.015 ppb	0.124 ppb	0.022 ppb
Recovery Percentage 1		-2.236 %	1.739 %	2.074 %	6.268 %	-0.522 %	4.081 %	10.860 %	0.382 %
Concentration RSD	2.5 %	33.8 %	190.4 %	237.5 %	30.9 %	163.2 %	72.1 %	44.8 %	169.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	100.428 %	0.036 ppb	0.024 ppb	-0.001 ppb	0.242 ppb	101.338 %	0.012 ppb	0.000 ppb	98.128 %
Concentration per Run 1	99.084 %	0.014 ppb	0.106 ppb	-0.001 ppb	0.096 ppb	100.208 %	0.021 ppb	0.000 ppb	97.518 %
Concentration per Run 2	101.164 %	0.072 ppb	-0.053 ppb	-0.001 ppb	0.187 ppb	101.954 %	0.002 ppb	0.000 ppb	98.018 %
Concentration per Run 3	101.036 %	0.023 ppb	0.019 ppb	-0.002 ppb	0.443 ppb	101.851 %	0.012 ppb	0.000 ppb	98.848 %
Recovery Percentage 1		7.221 %	0.484 %	-0.011 %	12.111 %		2.963 %	0.000 %	
Concentration RSD	1.2 %	86.1 %	327.5 %	43.2 %	74.3 %	1.0 %	79.5 %	N/A	0.7 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.467 ppb	0.015 ppb	100.870 %	100.800 %	0.466 ppb	0.019 ppb
Concentration per Run 1	0.404 ppb	0.020 ppb	99.609 %	99.435 %	0.340 ppb	0.023 ppb
Concentration per Run 2	0.498 ppb	-0.010 ppb	100.582 %	101.398 %	0.540 ppb	0.016 ppb
Concentration per Run 3	0.499 ppb	0.034 ppb	102.419 %	101.566 %	0.518 ppb	0.016 ppb
Recovery Percentage 1	11.672 %	2.971 %			46.614 %	1.857 %
Concentration RSD	11.6 %	151.3 %	1.4 %	1.2 %	23.6 %	22.7 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index: 211
Analysis label: CCV
Analysis started at: 8/28/2024 10:49:23 PM
User name ALPHALAB\a2-icpmsq2
Rack 0
Vial 9
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.222 %	113.163 %	62.618 ppb	6,527.177 ppb	6,409.714 ppb	64.794 ppb	6,366.489 ppb	6,051.951 ppb	106.432 %
Concentration per Run 1	97.602 %	117.878 %	62.466 ppb	6,273.201 ppb	6,146.452 ppb	61.113 ppb	6,031.438 ppb	5,684.163 ppb	106.442 %
Concentration per Run 2	98.713 %	111.395 %	62.316 ppb	6,634.721 ppb	6,621.771 ppb	66.410 ppb	6,511.298 ppb	6,056.881 ppb	106.404 %
Concentration per Run 3	98.350 %	110.216 %	63.072 ppb	6,673.610 ppb	6,460.921 ppb	66.860 ppb	6,556.731 ppb	6,414.811 ppb	106.450 %
Recovery Percentage 1			104.363 %	108.786 %	106.829 %	107.991 %	106.108 %	100.866 %	
Concentration RSD	0.6 %	3.6 %	0.6 %	3.4 %	3.8 %	4.9 %	4.6 %	6.0 %	0.0 %

Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	108.606 %	61.412 ppb	61.385 ppb	61.107 ppb	6,179.632 ppb	62.230 ppb	62.866 ppb	60.721 ppb	62.485 ppb
Concentration per Run 1	112.722 %	59.355 ppb	59.056 ppb	58.443 ppb	5,971.403 ppb	59.982 ppb	62.733 ppb	59.968 ppb	60.810 ppb
Concentration per Run 2	103.421 %	63.506 ppb	63.967 ppb	64.221 ppb	6,440.495 ppb	64.363 ppb	63.449 ppb	61.054 ppb	64.681 ppb
Concentration per Run 3	109.675 %	61.376 ppb	61.133 ppb	60.658 ppb	6,126.998 ppb	62.346 ppb	62.417 ppb	61.142 ppb	61.963 ppb
Recovery Percentage 1		102.354 %	102.309 %	101.845 %	102.994 %	103.717 %	104.777 %	101.202 %	104.141 %
Concentration RSD	4.4 %	3.4 %	4.0 %	4.8 %	3.9 %	3.5 %	0.8 %	1.1 %	3.2 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	100.717 %	61.410 ppb	59.117 ppb	57.766 ppb	59.644 ppb	100.591 %	61.223 ppb	60.294 ppb	98.687 %
Concentration per Run 1	99.747 %	61.173 ppb	59.843 ppb	57.883 ppb	59.411 ppb	102.267 %	61.070 ppb	59.698 ppb	98.702 %
Concentration per Run 2	100.741 %	61.709 ppb	57.934 ppb	57.417 ppb	59.369 ppb	100.234 %	61.327 ppb	59.691 ppb	98.983 %
Concentration per Run 3	101.664 %	61.347 ppb	59.575 ppb	57.997 ppb	60.153 ppb	99.272 %	61.270 ppb	61.493 ppb	98.376 %
Recovery Percentage 1		102.349 %	98.528 %	96.276 %	99.407 %		102.038 %	100.490 %	
Concentration RSD	1.0 %	0.4 %	1.7 %	0.5 %	0.7 %	1.5 %	0.2 %	1.7 %	0.3 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	57.948 ppb	60.405 ppb	101.713 %	102.777 %	59.959 ppb	61.755 ppb
Concentration per Run 1	56.455 ppb	60.322 ppb	103.784 %	102.931 %	58.563 ppb	60.931 ppb
Concentration per Run 2	58.301 ppb	59.551 ppb	100.763 %	102.645 %	59.549 ppb	61.934 ppb
Concentration per Run 3	59.088 ppb	61.344 ppb	100.592 %	102.755 %	61.764 ppb	62.400 ppb
Recovery Percentage 1	96.580 %	100.675 %			99.931 %	102.925 %
Concentration RSD	2.3 %	1.5 %	1.8 %	0.1 %	2.7 %	1.2 %

Alpha ICPMSQ2 Data with SRD

8/29/2024 6:22:12 AM

Analysis index:	212	User name	ALPHALAB\a2-icpmsq2	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/28/2024 10:53:56 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.453 %	112.770 %	0.005 ppb	5.561 ppb	0.714 ppb	-0.041 ppb	0.343 ppb	-2.370 ppb	104.942 %
Concentration per Run 1	99.148 %	110.216 %	0.003 ppb	8.342 ppb	-0.273 ppb	0.363 ppb	-11.398 ppb	5.204 ppb	104.467 %
Concentration per Run 2	99.915 %	116.110 %	0.012 ppb	5.978 ppb	0.329 ppb	-0.439 ppb	10.959 ppb	-9.951 ppb	105.795 %
Concentration per Run 3	99.296 %	111.984 %	-0.001 ppb	2.362 ppb	2.086 ppb	-0.047 ppb	1.469 ppb	-2.364 ppb	104.565 %
Recovery Percentage 1			0.932 %	5.561 %	1.020 %	-0.410 %	0.343 %	-2.370 %	
Concentration RSD	0.4 %	2.7 %	151.3 %	54.2 %	171.6 %	979.3 %	3,267.9 %	319.7 %	0.7 %

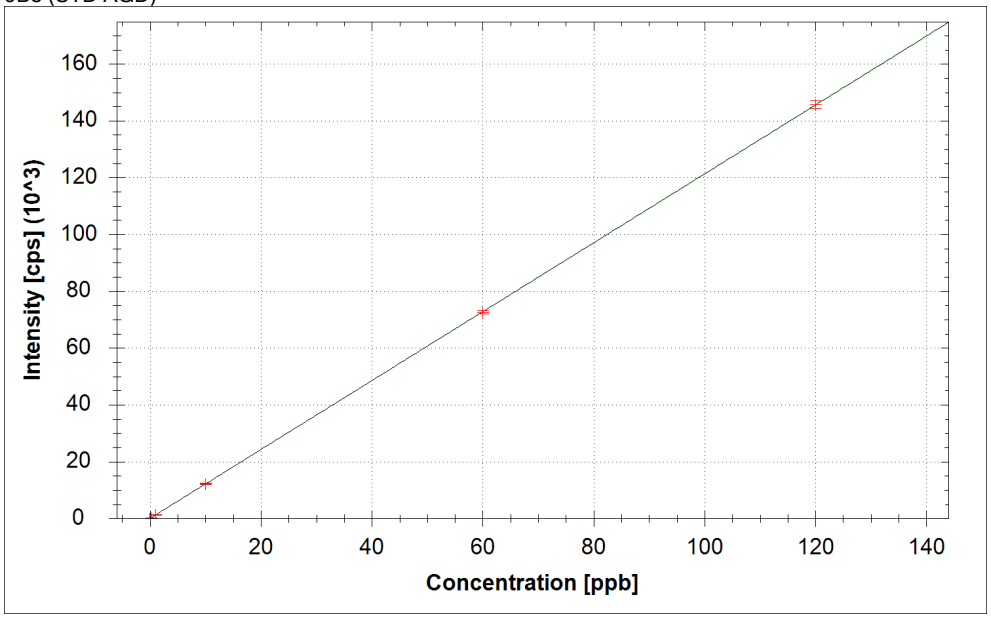
Category	45Sc (KED AGD)	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)
Concentration average	96.686 %	-0.131 ppb	0.036 ppb	0.065 ppb	3.644 ppb	0.000 ppb	0.027 ppb	0.082 ppb	-0.032 ppb
Concentration per Run 1	99.412 %	-0.156 ppb	0.053 ppb	-0.001 ppb	4.486 ppb	-0.005 ppb	0.038 ppb	0.026 ppb	-0.111 ppb
Concentration per Run 2	91.715 %	-0.082 ppb	0.046 ppb	0.070 ppb	5.134 ppb	0.003 ppb	0.080 ppb	0.154 ppb	0.047 ppb
Concentration per Run 3	98.931 %	-0.156 ppb	0.010 ppb	0.127 ppb	1.312 ppb	0.002 ppb	-0.038 ppb	0.067 ppb	-0.033 ppb
Recovery Percentage 1		-2.626 %	3.620 %	6.533 %	7.288 %	0.008 %	1.337 %	8.244 %	-0.645 %
Concentration RSD	4.5 %	32.2 %	63.5 %	98.6 %	56.1 %	11,739.0 %	225.4 %	79.2 %	244.7 %

Category	74Ge (KED AGD)	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)
Concentration average	105.573 %	-0.037 ppb	0.168 ppb	-0.004 ppb	0.257 ppb	101.934 %	0.008 ppb	0.003 ppb	101.062 %
Concentration per Run 1	111.518 %	-0.064 ppb	0.153 ppb	-0.004 ppb	0.114 ppb	102.750 %	0.012 ppb	0.005 ppb	101.700 %
Concentration per Run 2	99.628 %	-0.025 ppb	0.109 ppb	-0.007 ppb	0.311 ppb	101.419 %	0.006 ppb	0.005 ppb	101.074 %
Concentration per Run 3	105.573 %	-0.022 ppb	0.241 ppb	-0.001 ppb	0.345 ppb	101.634 %	0.006 ppb	0.000 ppb	100.413 %
Recovery Percentage 1		-7.349 %	3.360 %	-0.037 %	12.830 %		1.928 %	1.535 %	
Concentration RSD	5.6 %	64.2 %	40.0 %	77.3 %	48.6 %	0.7 %	48.8 %	86.6 %	0.6 %

Category	121Sb (KED AGD)	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.446 ppb	0.010 ppb	101.956 %	103.206 %	0.488 ppb	0.018 ppb
Concentration per Run 1	0.411 ppb	0.019 ppb	101.870 %	102.143 %	0.339 ppb	0.019 ppb
Concentration per Run 2	0.499 ppb	0.005 ppb	101.930 %	102.826 %	0.604 ppb	0.016 ppb
Concentration per Run 3	0.428 ppb	0.005 ppb	102.069 %	104.649 %	0.520 ppb	0.019 ppb
Recovery Percentage 1	11.147 %	1.915 %			48.777 %	1.815 %
Concentration RSD	10.5 %	87.1 %	0.1 %	1.3 %	27.7 %	9.6 %

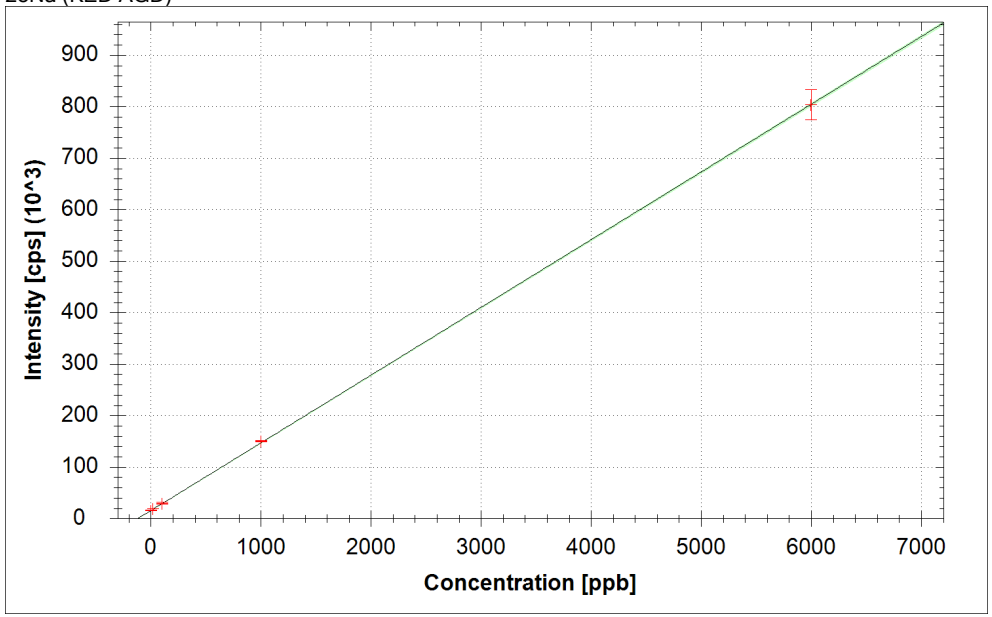
Calibration Curves:

9Be (STD AGD)



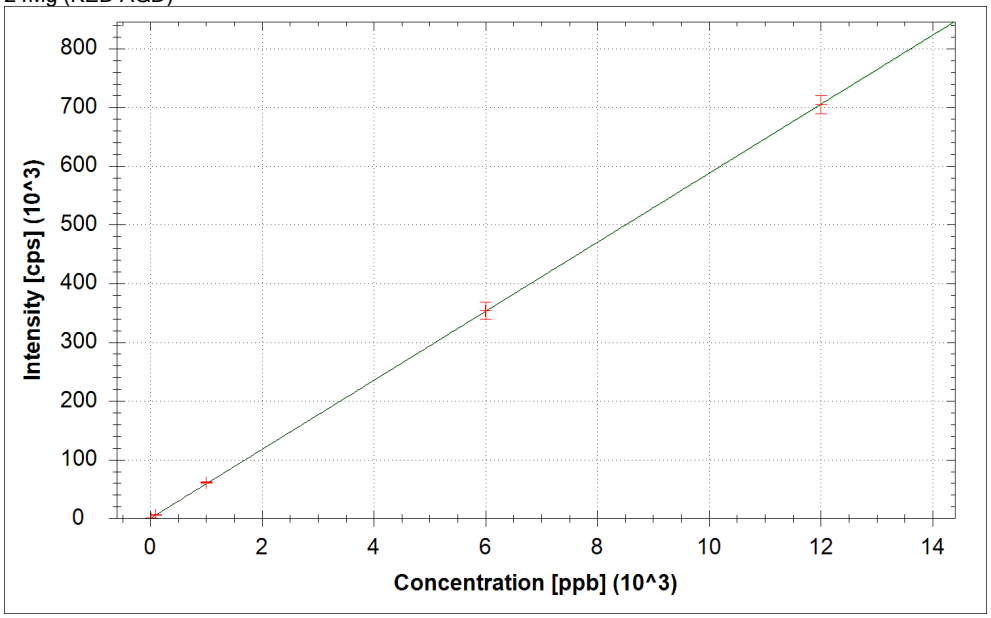
f(x) = 1212.6609*x + 23.4800
R² = 1.0000
BEC = 0.019 ppb
LoD = 0.0173 ppb

23Na (KED AGD)



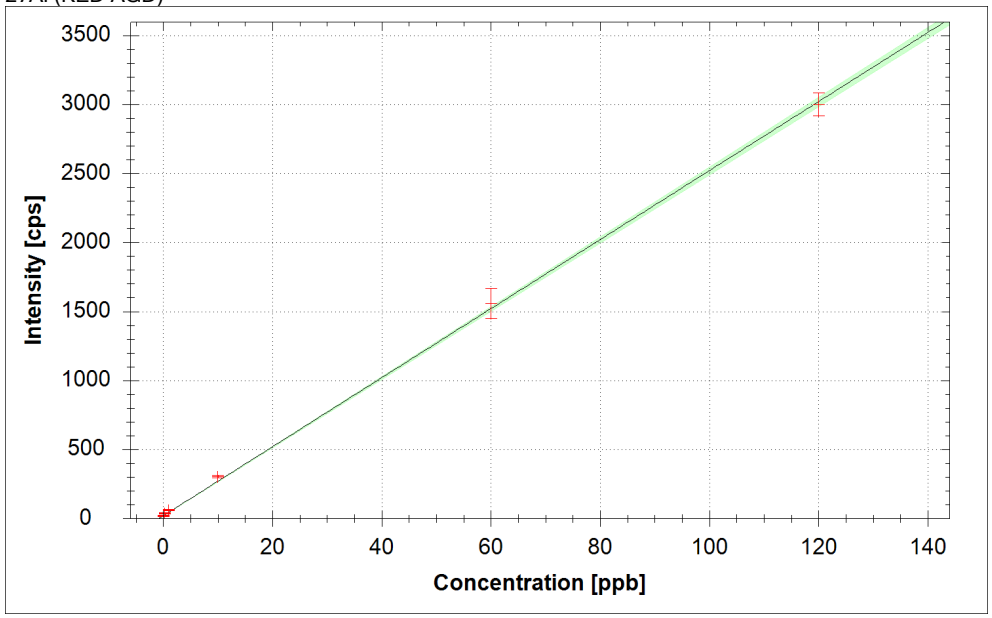
f(x) = 131.5398*x + 15220.5449
R² = 1.0000
BEC = 115.711 ppb
LoD = 14.1934 ppb

24Mg (KED AGD)



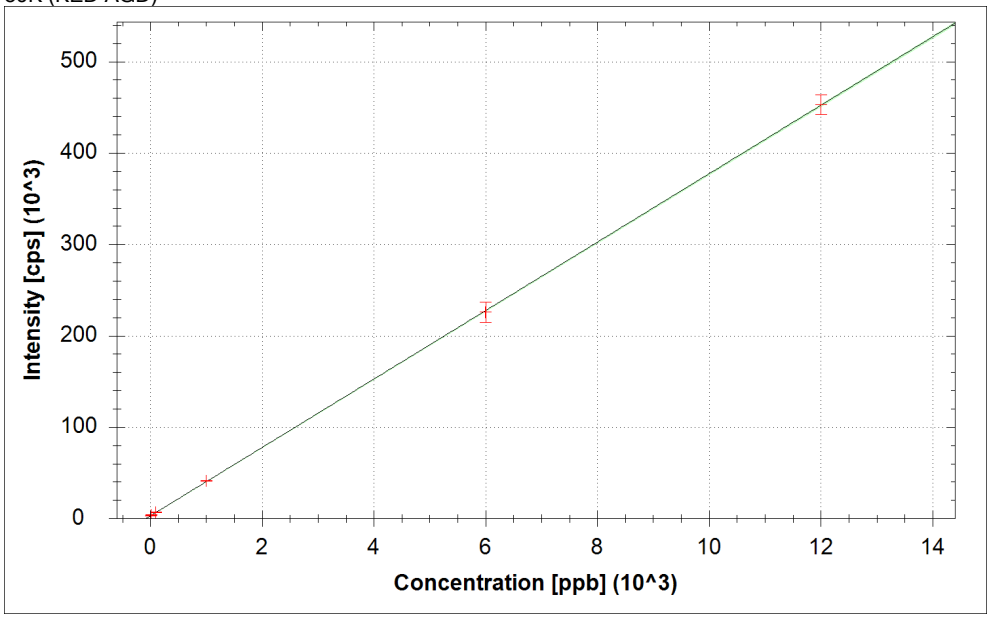
f(x) = 58.7554*x + 51.1283
R² = 1.0000
BEC = 0.870 ppb
LoD = 0.1964 ppb

27Al (KED AGD)



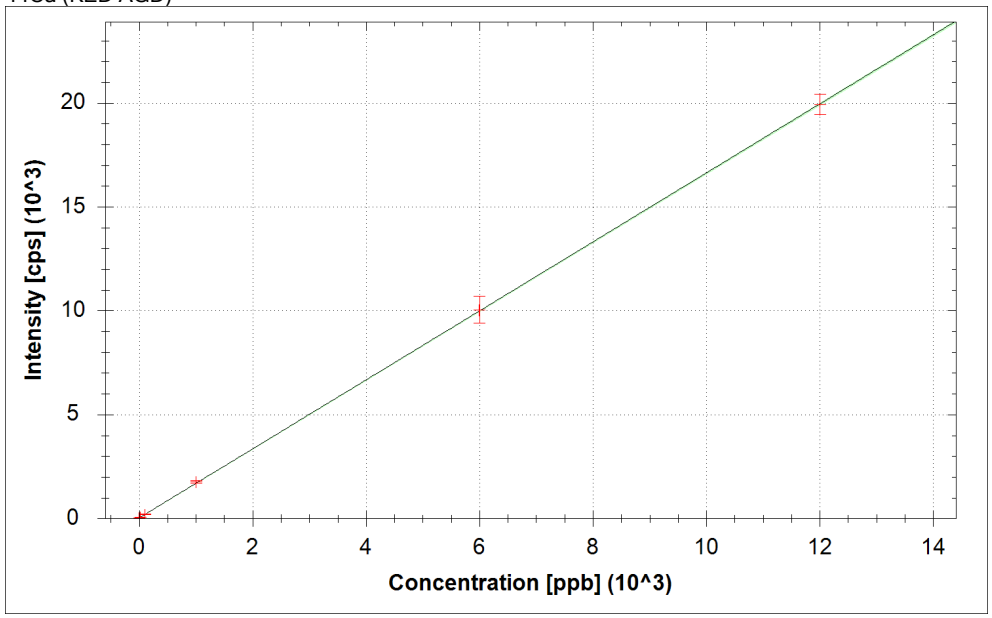
f(x) = 25.0014*x + 19.2328
R² = 0.9995
BEC = 0.769 ppb
LoD = 0.6399 ppb

39K (KED AGD)



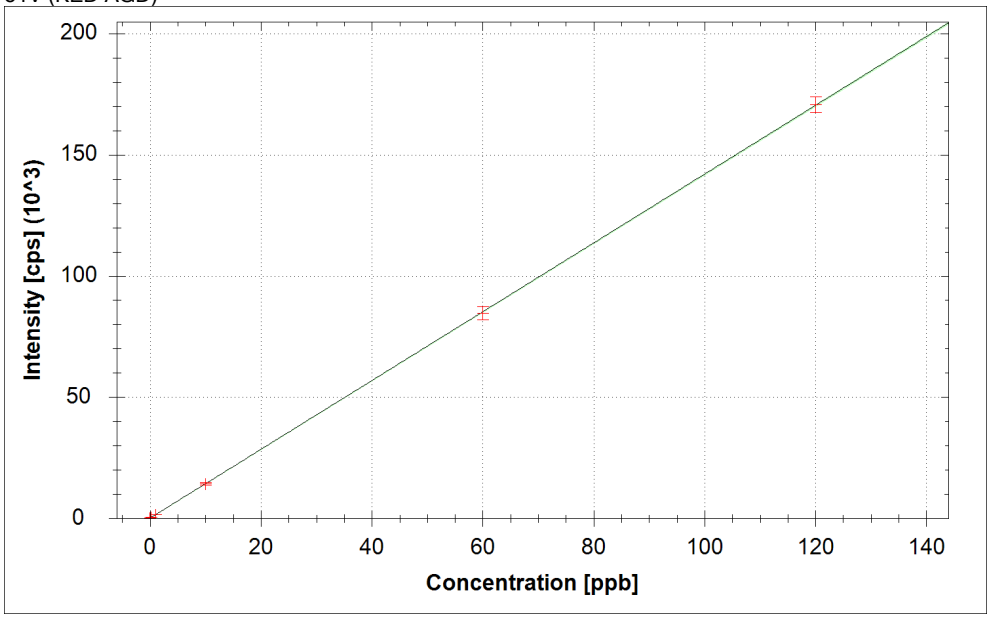
f(x) = 37.4378*x + 2792.0385
R² = 1.0000
BEC = 74.578 ppb
LoD = 3.2664 ppb

44Ca (KED AGD)



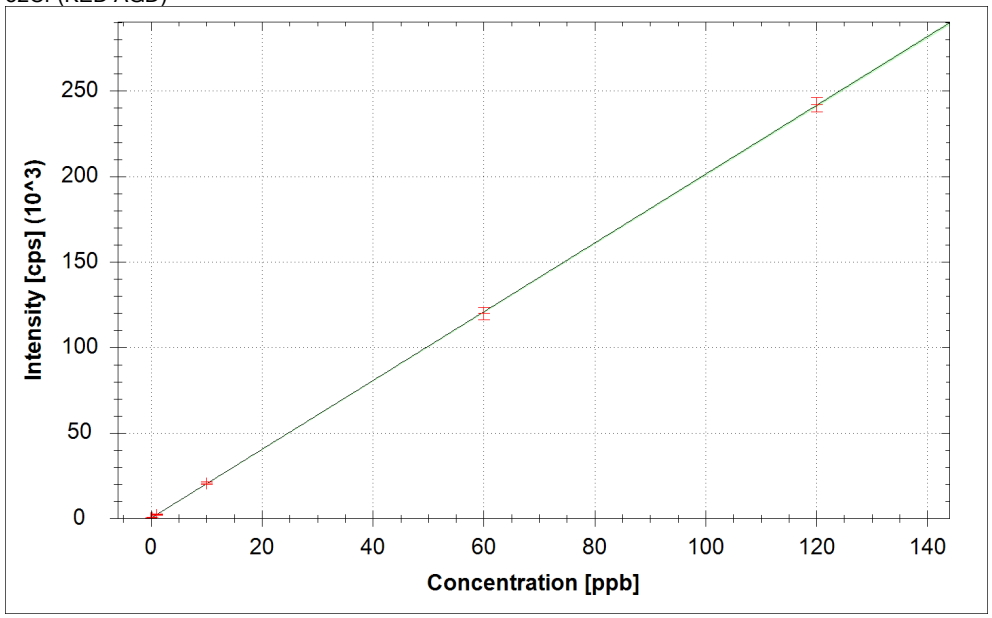
f(x) = 1.6604*x + 25.4885
R² = 1.0000
BEC = 15.350 ppb
LoD = 4.0283 ppb

51V (KED AGD)



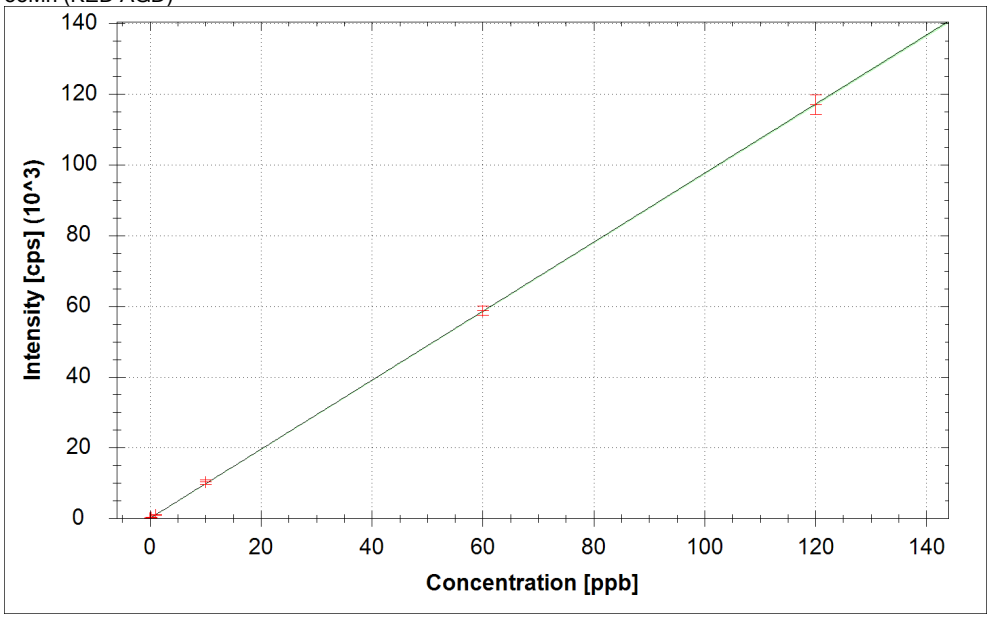
f(x) = 1418.3693*x + 149.8452
R² = 1.0000
BEC = 0.106 ppb
LoD = 0.1256 ppb

52Cr (KED AGD)



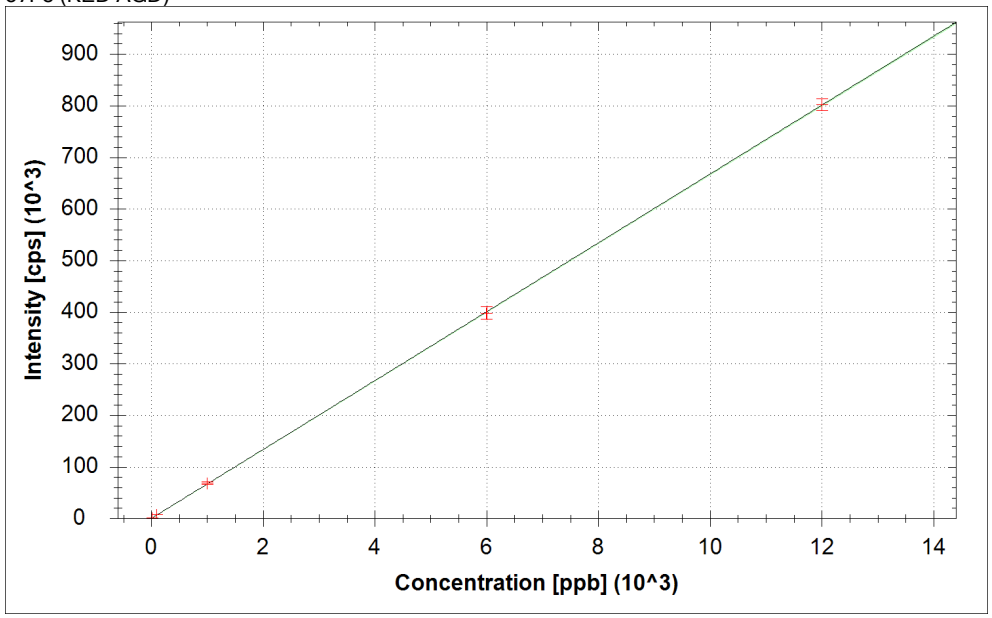
f(x) = 2011.0107*x + 167.4728
R² = 1.0000
BEC = 0.083 ppb
LoD = 0.0527 ppb

55Mn (KED AGD)



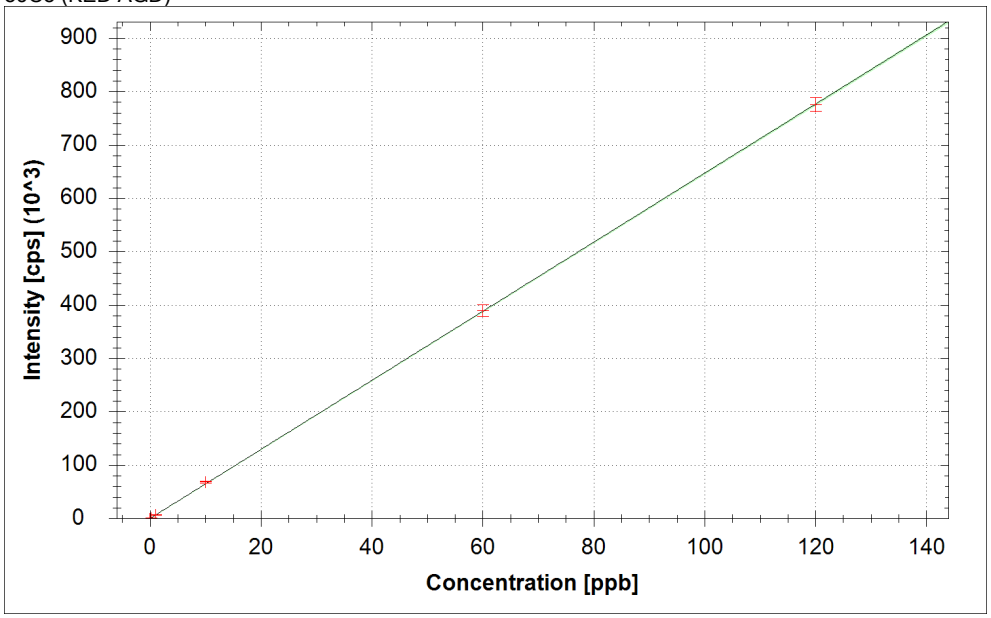
f(x) = 975.6628*x + 47.2176
R² = 1.0000
BEC = 0.048 ppb
LoD = 0.0745 ppb

57Fe (KED AGD)



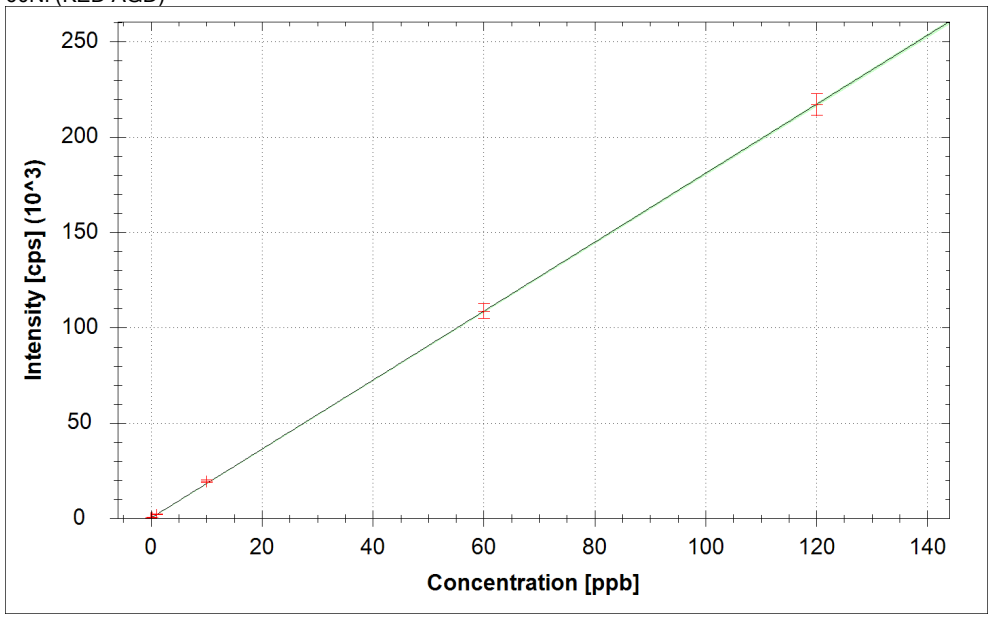
f(x) = 66.7355*x + 53.4979
R² = 1.0000
BEC = 0.802 ppb
LoD = 0.3723 ppb

59Co (KED AGD)



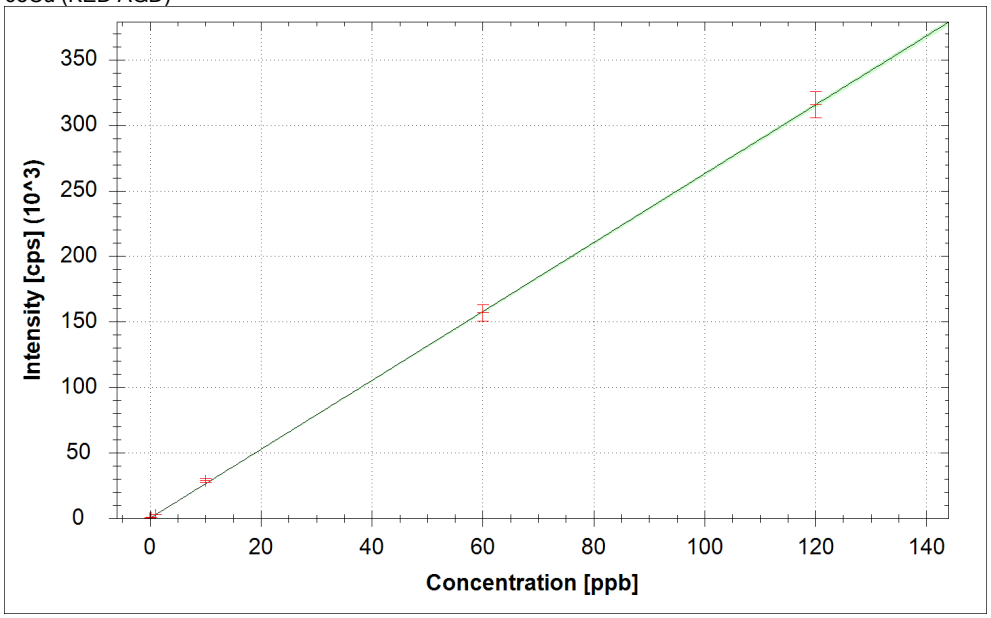
f(x) = 6467.5989*x + 31.1294
R² = 1.0000
BEC = 0.005 ppb
LoD = 0.0099 ppb

60Ni (KED AGD)



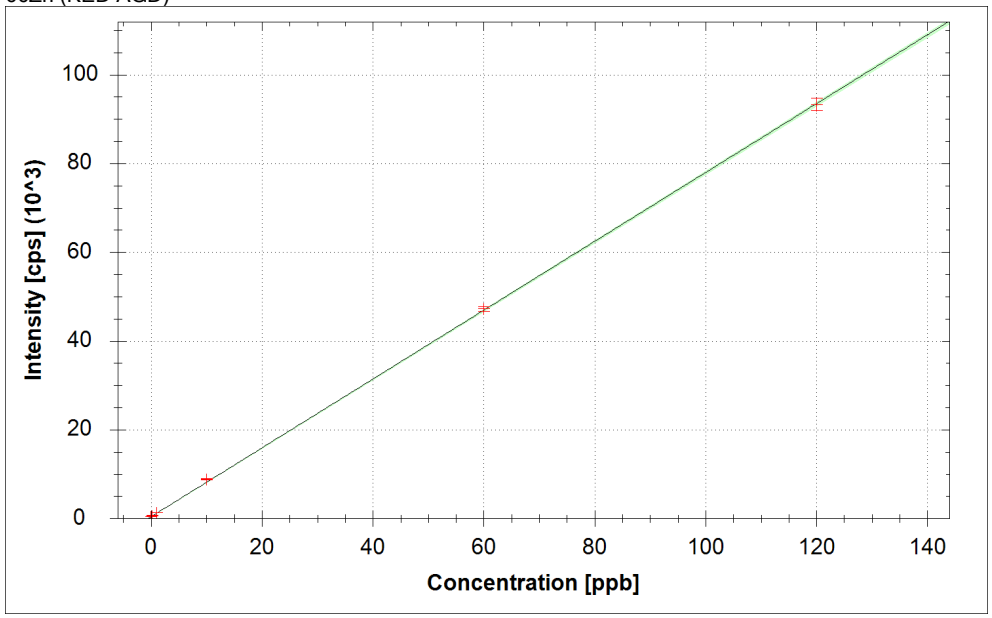
f(x) = 1807.8169*x + 193.8216
R² = 1.0000
BEC = 0.107 ppb
LoD = 0.0475 ppb

65Cu (KED AGD)



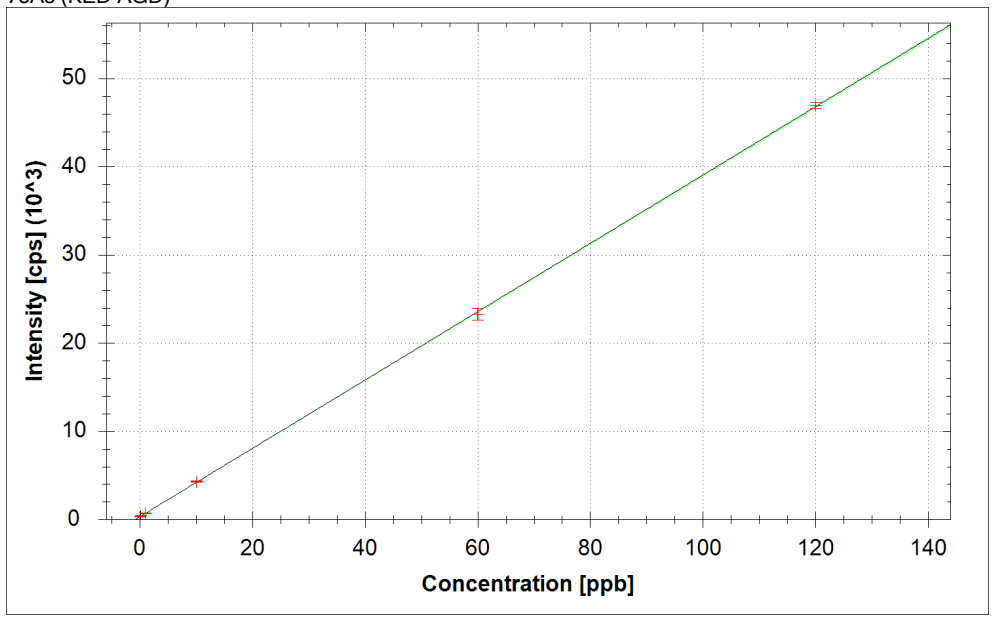
f(x) = 2626.5699*x + 193.0836
R² = 0.9999
BEC = 0.074 ppb
LoD = 0.0447 ppb

66Zn (KED AGD)



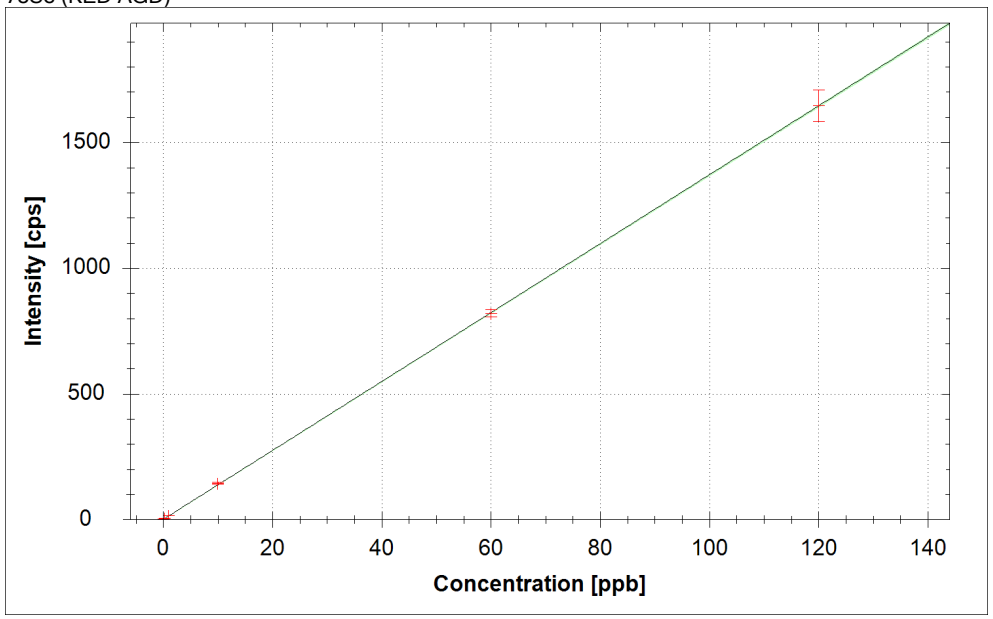
f(x) = 775.4023*x + 393.5307
R² = 0.9999
BEC = 0.508 ppb
LoD = 0.0875 ppb

75As (KED AGD)



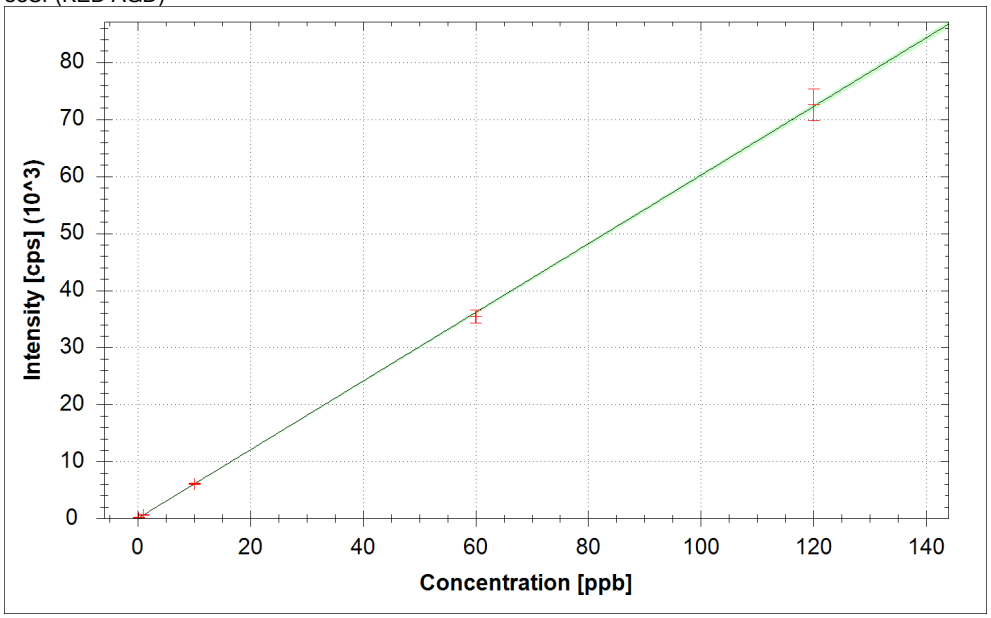
f(x) = 387.2430*x + 314.6452
R² = 0.9999
BEC = 0.813 ppb
LoD = 0.1113 ppb

78Se (KED AGD)



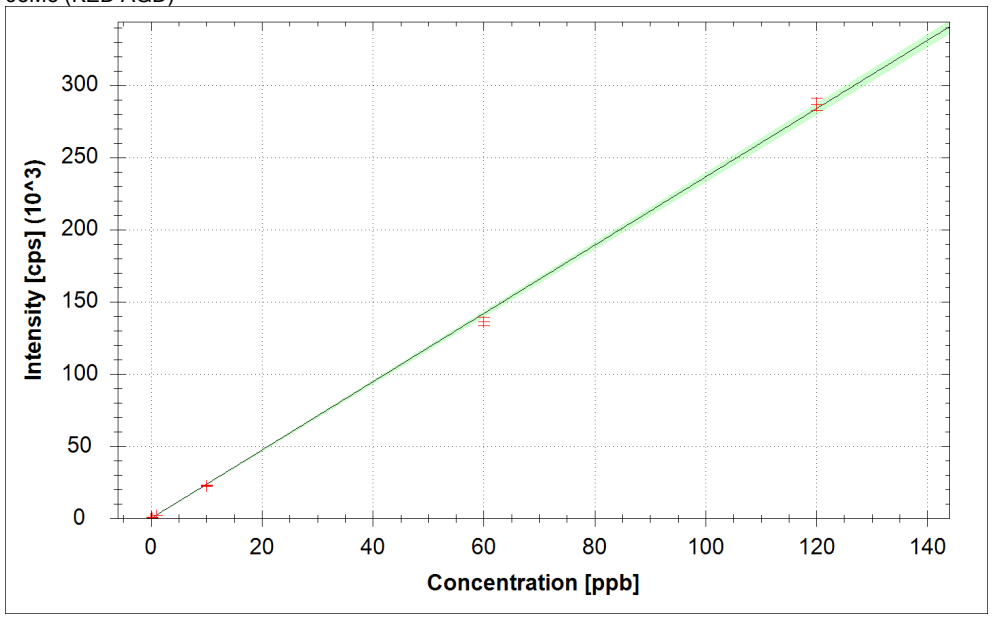
f(x) = 13.7004*x + 0.3752
R² = 1.0000
BEC = 0.027 ppb
LoD = 0.1412 ppb

88Sr (KED AGD)



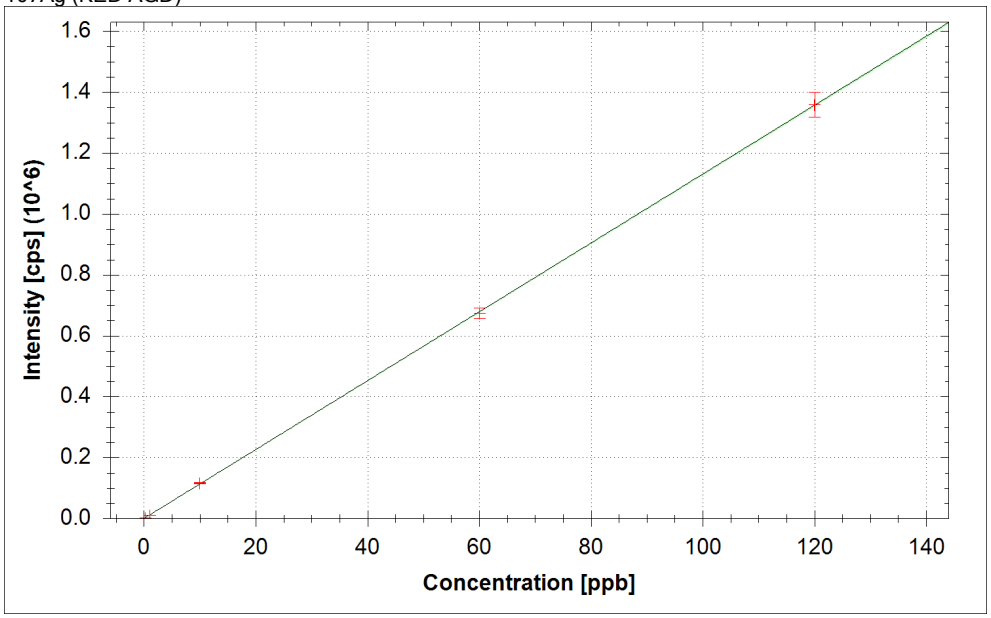
f(x) = 601.7668*x + 15.0681
R² = 0.9999
BEC = 0.025 ppb
LoD = 0.0124 ppb

95Mo (KED AGD)



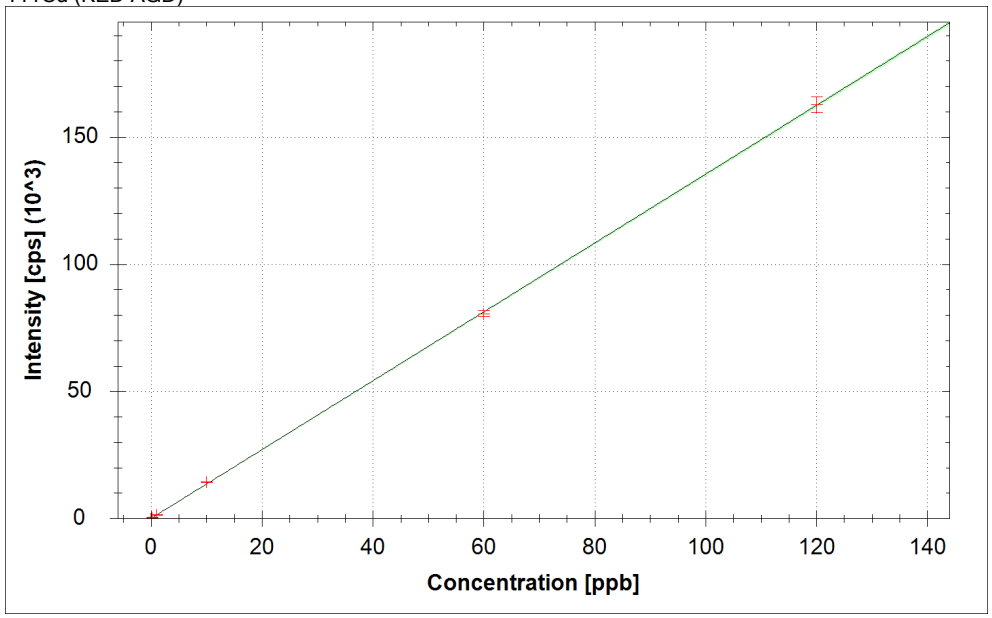
f(x) = 2364.6001*x + 24.6926
R² = 0.9994
BEC = 0.010 ppb
LoD = 0.0253 ppb

107Ag (KED AGD)



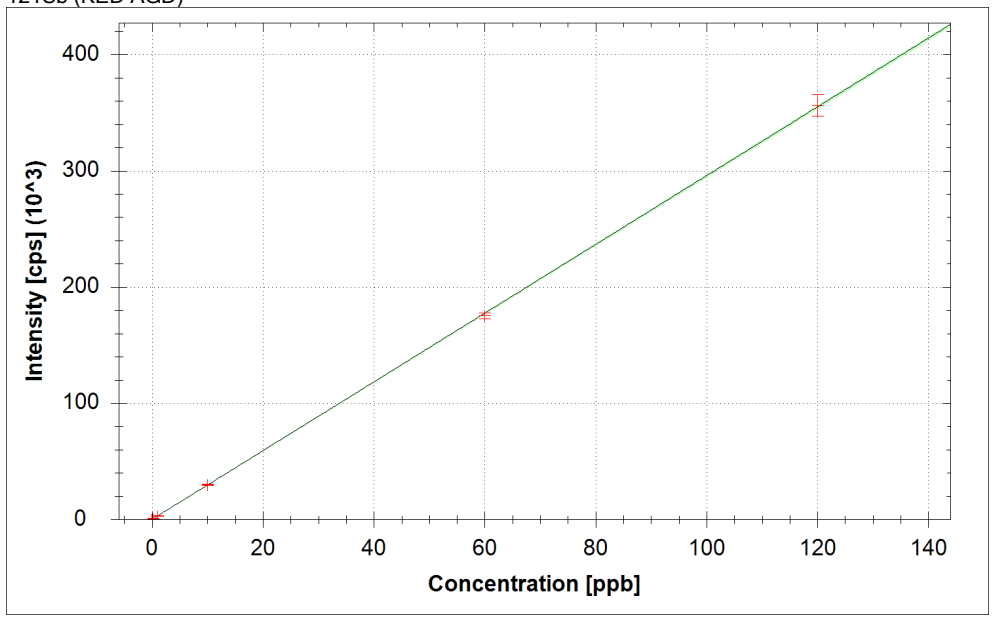
f(x) = 11304.7307*x + 12.1694
R² = 1.0000
BEC = 0.001 ppb
LoD = 0.0013 ppb

111Cd (KED AGD)



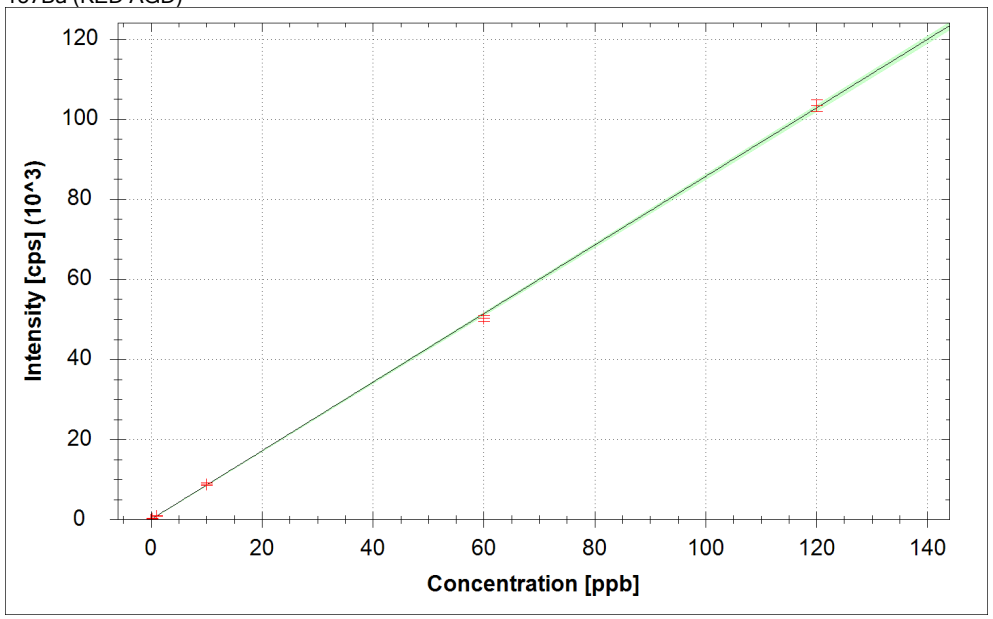
f(x) = 1353.6006*x + 1.3602
R² = 0.9999
BEC = 0.001 ppb
LoD = 0.0030 ppb

121Sb (KED AGD)



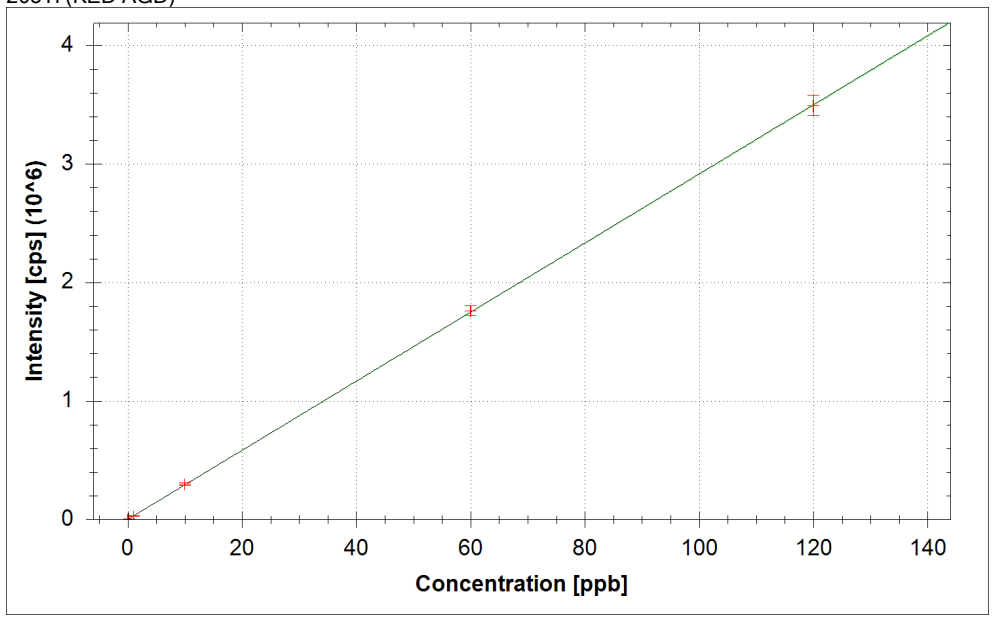
f(x) = 2957.0183*x + 50.1200
R² = 0.9999
BEC = 0.017 ppb
LoD = 0.0058 ppb

137Ba (KED AGD)



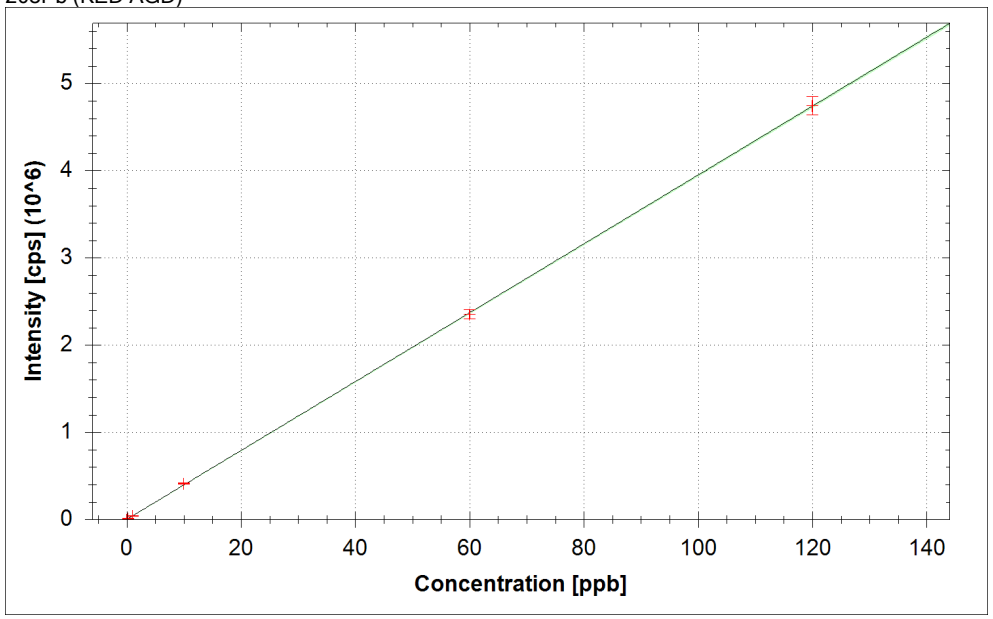
f(x) = 856.2994*x + 13.4367
R² = 0.9998
BEC = 0.016 ppb
LoD = 0.0217 ppb

205Tl (KED AGD)



f(x) = 29149.6204*x + 195.2839
R² = 1.0000
BEC = 0.007 ppb
LoD = 0.0073 ppb

208Pb (KED AGD)



f(x) = 39486.3221*x + 900.0371
R² = 1.0000
BEC = 0.023 ppb
LoD = 0.0041 ppb

Standards:

Analysis Index: 4
Analysis Name: 0.2/20 Cal
Analysis Type: STD
Analysis Started at: 8/29/2024 5:03:30 AM
Total Dilution Factor 50000
Rack 0
Vial 2

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	99.646 %	1.6 %		0.000 %
6Li (KED AGD)	101.646 %	6.7 %		0.000 %
9Be (STD AGD)	0.202 ppb	3.0 %	0.200 ppb	1.043 %
23Na (KED AGD)	24.965 ppb	1.3 %	20.000 ppb	24.826 %
24Mg (KED AGD)	20.311 ppb	7.5 %	20.000 ppb	1.555 %
27Al (KED AGD)	0.689 ppb	29.7 %	0.200 ppb	244.643 %
39K (KED AGD)	25.555 ppb	14.5 %	20.000 ppb	27.775 %
44Ca (KED AGD)	20.358 ppb	23.7 %	20.000 ppb	1.790 %
45Sc (STD AGD)	95.433 %	1.2 %		0.000 %
51V (KED AGD)	0.222 ppb	19.4 %	0.200 ppb	10.774 %
52Cr (KED AGD)	0.183 ppb	8.2 %	0.200 ppb	8.732 %
55Mn (KED AGD)	0.255 ppb	39.1 %	0.200 ppb	27.412 %
57Fe (KED AGD)	21.747 ppb	0.9 %	20.000 ppb	8.735 %
59Co (KED AGD)	0.194 ppb	8.2 %	0.200 ppb	3.102 %
60Ni (KED AGD)	0.216 ppb	15.6 %	0.200 ppb	7.798 %
65Cu (KED AGD)	0.271 ppb	16.9 %	0.200 ppb	35.642 %
66Zn (KED AGD)	0.290 ppb	21.2 %	0.200 ppb	45.078 %
74Ge (KED AGD)	97.827 %	5.0 %		0.000 %
75As (KED AGD)	0.244 ppb	21.3 %	0.200 ppb	22.199 %
78Se (KED AGD)	0.322 ppb	20.5 %	0.200 ppb	60.900 %
88Sr (KED AGD)	0.202 ppb	4.1 %	0.200 ppb	1.081 %
95Mo (KED AGD)	0.199 ppb	26.4 %	0.200 ppb	0.626 %
103Rh (KED AGD)	97.692 %	2.0 %		0.000 %
107Ag (KED AGD)	0.208 ppb	3.1 %	0.200 ppb	3.931 %
111Cd (KED AGD)	0.217 ppb	17.9 %	0.200 ppb	8.750 %
115In (KED AGD)	93.298 %	6.0 %		0.000 %
121Sb (KED AGD)	0.208 ppb	3.4 %	0.200 ppb	4.148 %
137Ba (KED AGD)	0.221 ppb	6.1 %	0.200 ppb	10.654 %
159Tb (KED AGD)	96.877 %	4.0 %		0.000 %
175Lu (KED AGD)	97.162 %	6.9 %		0.000 %
205Tl (KED AGD)	0.200 ppb	4.2 %	0.200 ppb	0.060 %
208Pb (KED AGD)	0.215 ppb	4.8 %	0.200 ppb	7.374 %

Standards:

Analysis Index: 5
Analysis Name: 1/100 Cal
Analysis Type: STD
Analysis Started at: 8/29/2024 5:08:08 AM
Total Dilution Factor 10000
Rack 0
Vial 3

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	100.211 %	2.1 %		0.000 %
6Li (KED AGD)	98.393 %	3.1 %		0.000 %
9Be (STD AGD)	0.988 ppb	2.3 %	1.000 ppb	1.184 %
23Na (KED AGD)	108.397 ppb	10.5 %	100.000 ppb	8.397 %
24Mg (KED AGD)	100.309 ppb	4.9 %	100.000 ppb	0.309 %
27Al (KED AGD)	1.641 ppb	10.5 %	1.000 ppb	64.115 %
39K (KED AGD)	104.677 ppb	3.1 %	100.000 ppb	4.677 %
44Ca (KED AGD)	101.948 ppb	5.1 %	100.000 ppb	1.948 %
45Sc (STD AGD)	97.867 %	0.9 %		0.000 %
51V (KED AGD)	0.968 ppb	4.6 %	1.000 ppb	3.156 %
52Cr (KED AGD)	0.994 ppb	11.8 %	1.000 ppb	0.583 %
55Mn (KED AGD)	1.027 ppb	9.8 %	1.000 ppb	2.704 %
57Fe (KED AGD)	102.294 ppb	0.2 %	100.000 ppb	2.294 %
59Co (KED AGD)	0.989 ppb	4.8 %	1.000 ppb	1.121 %
60Ni (KED AGD)	1.034 ppb	6.7 %	1.000 ppb	3.393 %
65Cu (KED AGD)	1.096 ppb	1.2 %	1.000 ppb	9.558 %
66Zn (KED AGD)	1.128 ppb	2.1 %	1.000 ppb	12.785 %
74Ge (KED AGD)	98.892 %	7.0 %		0.000 %
75As (KED AGD)	1.034 ppb	7.9 %	1.000 ppb	3.379 %
78Se (KED AGD)	1.061 ppb	4.5 %	1.000 ppb	6.105 %
88Sr (KED AGD)	0.977 ppb	1.7 %	1.000 ppb	2.255 %
95Mo (KED AGD)	0.945 ppb	1.4 %	1.000 ppb	5.548 %
103Rh (KED AGD)	100.965 %	1.5 %		0.000 %
107Ag (KED AGD)	0.965 ppb	0.2 %	1.000 ppb	3.492 %
111Cd (KED AGD)	1.015 ppb	4.4 %	1.000 ppb	1.470 %
115In (KED AGD)	97.312 %	4.8 %		0.000 %
121Sb (KED AGD)	0.963 ppb	1.7 %	1.000 ppb	3.736 %
137Ba (KED AGD)	0.992 ppb	7.7 %	1.000 ppb	0.827 %
159Tb (KED AGD)	99.567 %	4.4 %		0.000 %
175Lu (KED AGD)	99.151 %	6.0 %		0.000 %
205Tl (KED AGD)	0.976 ppb	4.4 %	1.000 ppb	2.448 %
208Pb (KED AGD)	1.011 ppb	4.4 %	1.000 ppb	1.091 %

Standards:

Analysis Index: 6
Analysis Name: 10/1000 Cal
Analysis Type: STD
Analysis Started at: 8/29/2024 5:12:46 AM
Total Dilution Factor 1000
Rack 0
Vial 4

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	98.734 %	1.1 %		0.000 %
6Li (KED AGD)	99.255 %	1.9 %		0.000 %
9Be (STD AGD)	10.023 ppb	1.6 %	10.000 ppb	0.234 %
23Na (KED AGD)	1,027.688 ppb	0.8 %	1,000.000 ppb	2.769 %
24Mg (KED AGD)	1,040.406 ppb	1.2 %	1,000.000 ppb	4.041 %
27Al (KED AGD)	11.407 ppb	3.4 %	10.000 ppb	14.073 %
39K (KED AGD)	1,023.210 ppb	1.4 %	1,000.000 ppb	2.321 %
44Ca (KED AGD)	1,041.311 ppb	3.7 %	1,000.000 ppb	4.131 %
45Sc (STD AGD)	95.939 %	0.9 %		0.000 %
51V (KED AGD)	9.998 ppb	3.7 %	10.000 ppb	0.022 %
52Cr (KED AGD)	10.217 ppb	3.4 %	10.000 ppb	2.174 %
55Mn (KED AGD)	10.459 ppb	6.8 %	10.000 ppb	4.589 %
57Fe (KED AGD)	1,018.247 ppb	4.2 %	1,000.000 ppb	1.825 %
59Co (KED AGD)	10.495 ppb	3.5 %	10.000 ppb	4.952 %
60Ni (KED AGD)	10.728 ppb	3.3 %	10.000 ppb	7.284 %
65Cu (KED AGD)	10.932 ppb	5.1 %	10.000 ppb	9.317 %
66Zn (KED AGD)	10.900 ppb	1.3 %	10.000 ppb	9.004 %
74Ge (KED AGD)	97.459 %	5.1 %		0.000 %
75As (KED AGD)	10.296 ppb	1.9 %	10.000 ppb	2.957 %
78Se (KED AGD)	10.473 ppb	2.7 %	10.000 ppb	4.728 %
88Sr (KED AGD)	10.094 ppb	1.4 %	10.000 ppb	0.940 %
95Mo (KED AGD)	9.623 ppb	2.0 %	10.000 ppb	3.774 %
103Rh (KED AGD)	99.642 %	1.2 %		0.000 %
107Ag (KED AGD)	10.268 ppb	2.0 %	10.000 ppb	2.681 %
111Cd (KED AGD)	10.525 ppb	1.6 %	10.000 ppb	5.252 %
115In (KED AGD)	94.514 %	4.3 %		0.000 %
121Sb (KED AGD)	10.026 ppb	2.7 %	10.000 ppb	0.263 %
137Ba (KED AGD)	10.279 ppb	3.3 %	10.000 ppb	2.792 %
159Tb (KED AGD)	98.149 %	1.6 %		0.000 %
175Lu (KED AGD)	98.020 %	3.3 %		0.000 %
205Tl (KED AGD)	10.190 ppb	3.4 %	10.000 ppb	1.900 %
208Pb (KED AGD)	10.436 ppb	1.8 %	10.000 ppb	4.364 %

Standards:

Analysis Index: 7
Analysis Name: 60/6000 Cal
Analysis Type: STD
Analysis Started at: 8/29/2024 5:17:25 AM
Total Dilution Factor 166.6666666
Rack 0
Vial 5

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	97.306 %	1.3 %		0.000 %
6Li (KED AGD)	97.649 %	3.4 %		0.000 %
9Be (STD AGD)	59.800 ppb	0.9 %	60.000 ppb	0.333 %
23Na (KED AGD)	5,995.229 ppb	3.7 %	6,000.000 ppb	0.080 %
24Mg (KED AGD)	6,014.370 ppb	4.1 %	6,000.000 ppb	0.239 %
27Al (KED AGD)	61.472 ppb	7.2 %	60.000 ppb	2.454 %
39K (KED AGD)	5,954.142 ppb	5.0 %	6,000.000 ppb	0.764 %
44Ca (KED AGD)	6,033.110 ppb	6.4 %	6,000.000 ppb	0.552 %
45Sc (STD AGD)	109.053 %	0.8 %		0.000 %
51V (KED AGD)	59.576 ppb	3.2 %	60.000 ppb	0.707 %
52Cr (KED AGD)	59.474 ppb	3.0 %	60.000 ppb	0.877 %
55Mn (KED AGD)	60.178 ppb	2.1 %	60.000 ppb	0.297 %
57Fe (KED AGD)	5,964.741 ppb	3.2 %	6,000.000 ppb	0.588 %
59Co (KED AGD)	60.184 ppb	2.9 %	60.000 ppb	0.307 %
60Ni (KED AGD)	60.026 ppb	3.7 %	60.000 ppb	0.043 %
65Cu (KED AGD)	59.654 ppb	4.0 %	60.000 ppb	0.576 %
66Zn (KED AGD)	60.375 ppb	1.0 %	60.000 ppb	0.625 %
74Ge (KED AGD)	100.787 %	5.5 %		0.000 %
75As (KED AGD)	59.220 ppb	2.9 %	60.000 ppb	1.299 %
78Se (KED AGD)	59.736 ppb	1.7 %	60.000 ppb	0.441 %
88Sr (KED AGD)	58.811 ppb	3.2 %	60.000 ppb	1.982 %
95Mo (KED AGD)	57.658 ppb	2.1 %	60.000 ppb	3.904 %
103Rh (KED AGD)	100.599 %	2.5 %		0.000 %
107Ag (KED AGD)	59.591 ppb	2.6 %	60.000 ppb	0.682 %
111Cd (KED AGD)	59.465 ppb	1.5 %	60.000 ppb	0.892 %
115In (KED AGD)	98.625 %	6.1 %		0.000 %
121Sb (KED AGD)	59.235 ppb	1.5 %	60.000 ppb	1.275 %
137Ba (KED AGD)	58.593 ppb	1.4 %	60.000 ppb	2.345 %
159Tb (KED AGD)	101.822 %	3.0 %		0.000 %
175Lu (KED AGD)	102.276 %	4.1 %		0.000 %
205Tl (KED AGD)	60.407 ppb	2.4 %	60.000 ppb	0.679 %
208Pb (KED AGD)	59.610 ppb	2.2 %	60.000 ppb	0.650 %

Standards:

Analysis Index: 8
Analysis Name: 120/12000 Cal
Analysis Type: STD
Analysis Started at: 8/29/2024 5:22:03 AM
Total Dilution Factor 83.33333333
Rack 0
Vial 6

Category	Concentration average	Concentration RSD	Standard Concentration	Standard Relative Difference
6Li (STD AGD)	96.342 %	2.2 %		0.000 %
6Li (KED AGD)	97.884 %	7.0 %		0.000 %
9Be (STD AGD)	120.098 ppb	1.0 %	120.000 ppb	0.082 %
23Na (KED AGD)	11,090.143 ppb	3.0 %	12,000.000 ppb	7.582 %
24Mg (KED AGD)	11,989.445 ppb	2.2 %	12,000.000 ppb	0.088 %
27Al (KED AGD)	119.140 ppb	2.8 %	120.000 ppb	0.716 %
39K (KED AGD)	12,020.946 ppb	2.4 %	12,000.000 ppb	0.175 %
44Ca (KED AGD)	11,979.986 ppb	2.5 %	12,000.000 ppb	0.167 %
45Sc (STD AGD)	112.869 %	1.2 %		0.000 %
51V (KED AGD)	120.212 ppb	1.9 %	120.000 ppb	0.177 %
52Cr (KED AGD)	120.245 ppb	1.7 %	120.000 ppb	0.204 %
55Mn (KED AGD)	119.872 ppb	2.4 %	120.000 ppb	0.106 %
57Fe (KED AGD)	12,016.087 ppb	1.5 %	12,000.000 ppb	0.134 %
59Co (KED AGD)	119.867 ppb	1.6 %	120.000 ppb	0.111 %
60Ni (KED AGD)	119.926 ppb	2.6 %	120.000 ppb	0.062 %
65Cu (KED AGD)	120.094 ppb	3.2 %	120.000 ppb	0.079 %
66Zn (KED AGD)	119.736 ppb	1.5 %	120.000 ppb	0.220 %
74Ge (KED AGD)	99.137 %	4.1 %		0.000 %
75As (KED AGD)	120.365 ppb	0.7 %	120.000 ppb	0.304 %
78Se (KED AGD)	120.092 ppb	3.8 %	120.000 ppb	0.077 %
88Sr (KED AGD)	120.587 ppb	3.8 %	120.000 ppb	0.489 %
95Mo (KED AGD)	121.203 ppb	1.5 %	120.000 ppb	1.003 %
103Rh (KED AGD)	99.946 %	2.2 %		0.000 %
107Ag (KED AGD)	120.183 ppb	3.0 %	120.000 ppb	0.152 %
111Cd (KED AGD)	120.224 ppb	1.9 %	120.000 ppb	0.186 %
115In (KED AGD)	96.876 %	7.1 %		0.000 %
121Sb (KED AGD)	120.381 ppb	2.6 %	120.000 ppb	0.317 %
137Ba (KED AGD)	120.680 ppb	1.4 %	120.000 ppb	0.567 %
159Tb (KED AGD)	102.200 %	2.7 %		0.000 %
175Lu (KED AGD)	101.806 %	3.6 %		0.000 %
205Tl (KED AGD)	119.781 ppb	2.4 %	120.000 ppb	0.183 %
208Pb (KED AGD)	120.158 ppb	2.2 %	120.000 ppb	0.132 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	1	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	Rinse	Rack	0		
Analysis started at:	8/29/2024 4:49:34 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.781 %	98.824 %	0.006 ppb	-7.961 ppb	1.850 ppb	0.480 ppb	-1.622 ppb	1.574 ppb	91.610 %
Concentration per Run 1	96.110 %	92.045 %	0.013 ppb	-1.585 ppb	1.879 ppb	0.555 ppb	6.957 ppb	0.642 ppb	89.985 %
Concentration per Run 2	100.482 %	103.448 %	0.005 ppb	-11.622 ppb	2.371 ppb	0.443 ppb	-6.130 ppb	3.104 ppb	92.807 %
Concentration per Run 3	99.751 %	100.980 %	-0.001 ppb	-10.676 ppb	1.300 ppb	0.442 ppb	-5.691 ppb	0.975 ppb	92.039 %
Concentration RSD	2.4 %	6.1 %	117.3 %	69.6 %	29.0 %	13.6 %	458.4 %	84.9 %	1.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.012 ppb	0.028 ppb	0.086 ppb	1.783 ppb	0.001 ppb	0.304 ppb	0.088 ppb	0.998 ppb	92.775 %
Concentration per Run 1	0.011 ppb	0.038 ppb	0.052 ppb	2.019 ppb	-0.001 ppb	0.335 ppb	0.126 ppb	1.128 ppb	87.362 %
Concentration per Run 2	0.018 ppb	0.026 ppb	0.084 ppb	1.849 ppb	0.006 ppb	0.263 ppb	0.060 ppb	0.951 ppb	96.160 %
Concentration per Run 3	0.006 ppb	0.021 ppb	0.121 ppb	1.479 ppb	-0.002 ppb	0.315 ppb	0.078 ppb	0.915 ppb	94.802 %
Concentration RSD	53.7 %	30.4 %	40.7 %	15.5 %	442.0 %	12.3 %	38.8 %	11.4 %	5.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.075 ppb	0.079 ppb	0.000 ppb	0.003 ppb	95.711 %	0.003 ppb	0.001 ppb	93.850 %	0.010 ppb
Concentration per Run 1	0.197 ppb	0.054 ppb	0.003 ppb	-0.004 ppb	94.670 %	0.006 ppb	0.000 ppb	95.521 %	0.005 ppb
Concentration per Run 2	0.011 ppb	0.054 ppb	-0.002 ppb	0.004 ppb	96.369 %	0.001 ppb	-0.001 ppb	91.566 %	0.009 ppb
Concentration per Run 3	0.016 ppb	0.129 ppb	-0.001 ppb	0.010 ppb	96.095 %	0.001 ppb	0.004 ppb	94.462 %	0.017 ppb
Concentration RSD	142.3 %	54.6 %	2,590.5 %	218.9 %	1.0 %	112.0 %	256.9 %	2.2 %	57.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.030 ppb	94.825 %	94.015 %	0.004 ppb	0.024 ppb
Concentration per Run 1	0.034 ppb	93.400 %	93.732 %	0.001 ppb	0.030 ppb
Concentration per Run 2	0.026 ppb	96.099 %	93.678 %	0.004 ppb	0.022 ppb
Concentration per Run 3	0.030 ppb	94.978 %	94.637 %	0.006 ppb	0.020 ppb
Concentration RSD	13.4 %	1.4 %	0.6 %	58.5 %	22.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 2
Analysis label: CAL LOT #M24-1045
Analysis started at: 8/29/2024 4:54:11 AM
User name ALPHALAB\Metals-Instrument
Rack 0
Vial 1
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.184 %	98.433 %	0.006 ppb	-0.012 ppb	1.555 ppb	0.430 ppb	1.316 ppb	5.301 ppb	100.349 %
Concentration per Run 1	96.447 %	93.338 %	0.002 ppb	1.690 ppb	1.874 ppb	0.405 ppb	3.416 ppb	2.694 ppb	99.031 %
Concentration per Run 2	100.061 %	98.981 %	0.008 ppb	-1.543 ppb	1.453 ppb	0.462 ppb	-4.155 ppb	3.673 ppb	100.004 %
Concentration per Run 3	101.046 %	102.978 %	0.008 ppb	-0.184 ppb	1.337 ppb	0.424 ppb	4.685 ppb	9.535 ppb	102.013 %
Concentration RSD	2.4 %	4.9 %	54.5 %	13,420.7 %	18.2 %	6.8 %	363.3 %	69.8 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.023 ppb	0.017 ppb	0.072 ppb	1.356 ppb	0.002 ppb	0.299 ppb	0.080 ppb	0.863 ppb	98.829 %
Concentration per Run 1	0.010 ppb	0.015 ppb	0.056 ppb	0.823 ppb	0.003 ppb	0.319 ppb	0.085 ppb	0.856 ppb	100.036 %
Concentration per Run 2	0.047 ppb	0.009 ppb	0.095 ppb	1.609 ppb	0.003 ppb	0.300 ppb	0.074 ppb	0.920 ppb	94.080 %
Concentration per Run 3	0.013 ppb	0.027 ppb	0.065 ppb	1.634 ppb	0.000 ppb	0.278 ppb	0.080 ppb	0.814 ppb	102.371 %
Concentration RSD	87.1 %	54.8 %	28.2 %	34.0 %	76.8 %	6.9 %	7.1 %	6.2 %	4.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.034 ppb	0.037 ppb	0.001 ppb	0.002 ppb	100.894 %	0.003 ppb	0.000 ppb	101.086 %	0.008 ppb
Concentration per Run 1	0.023 ppb	-0.020 ppb	0.000 ppb	0.001 ppb	103.212 %	0.003 ppb	0.001 ppb	101.564 %	0.004 ppb
Concentration per Run 2	0.051 ppb	0.129 ppb	0.003 ppb	-0.005 ppb	98.442 %	0.003 ppb	0.001 ppb	96.576 %	0.007 ppb
Concentration per Run 3	0.029 ppb	0.001 ppb	0.000 ppb	0.009 ppb	101.028 %	0.002 ppb	-0.001 ppb	105.117 %	0.011 ppb
Concentration RSD	42.3 %	219.6 %	173.3 %	417.5 %	2.4 %	16.9 %	364.2 %	4.2 %	44.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.041 ppb	101.197 %	101.037 %	0.001 ppb	0.018 ppb
Concentration per Run 1	0.042 ppb	102.088 %	102.339 %	-0.001 ppb	0.019 ppb
Concentration per Run 2	0.028 ppb	99.635 %	98.281 %	0.002 ppb	0.020 ppb
Concentration per Run 3	0.052 ppb	101.868 %	102.491 %	0.002 ppb	0.016 ppb
Concentration RSD	29.8 %	1.3 %	2.4 %	153.6 %	10.5 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	3	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	Blank EJF ICPMSQ	Rack	4		
Analysis started at:	8/29/2024 4:58:48 AM	Vial	49		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration per Run	100.000 %	100.000 %	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration RSD	0.0 %	0.0 %	0.3 %	0.0 %	0.1 %	0.3 %	0.0 %	0.1 %	0.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration per Run	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %
Concentration RSD	0.4 %	0.2 %	0.5 %	0.2 %	0.7 %	0.1 %	0.2 %	0.1 %	0.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb
Concentration per Run	0.000 ppb	0.000 ppb	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb	0.000 ppb	100.000 %	0.000 ppb
Concentration RSD	0.0 %	1.7 %	0.2 %	0.8 %	0.0 %	0.4 %	1.0 %	0.0 %	0.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.000 ppb	100.000 %	100.000 %	0.000 ppb	0.000 ppb
Concentration per Run	0.000 ppb	100.000 %	100.000 %	0.000 ppb	0.000 ppb
Concentration RSD	0.5 %	0.0 %	0.0 %	0.4 %	0.1 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	4	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	0.2/20 Cal	Rack	0		
Analysis started at:	8/29/2024 5:03:30 AM	Vial	2		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.646 %	101.646 %	0.202 ppb	24.965 ppb	20.311 ppb	0.689 ppb	25.555 ppb	20.358 ppb	95.433 %
Concentration per Run 1	97.795 %	97.453 %	0.206 ppb	25.315 ppb	21.464 ppb	0.863 ppb	29.195 ppb	24.544 ppb	94.613 %
Concentration per Run 2	100.755 %	97.923 %	0.195 ppb	24.699 ppb	18.576 ppb	0.463 ppb	21.771 ppb	21.441 ppb	96.782 %
Concentration per Run 3	100.389 %	109.561 %	0.205 ppb	24.881 ppb	20.893 ppb	0.742 ppb	25.700 ppb	15.089 ppb	94.903 %
Concentration RSD	1.6 %	6.7 %	3.0 %	1.3 %	7.5 %	29.7 %	14.5 %	23.7 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.222 ppb	0.183 ppb	0.255 ppb	21.747 ppb	0.194 ppb	0.216 ppb	0.271 ppb	0.290 ppb	97.827 %
Concentration per Run 1	0.260 ppb	0.190 ppb	0.146 ppb	21.528 ppb	0.212 ppb	0.243 ppb	0.322 ppb	0.329 ppb	93.978 %
Concentration per Run 2	0.230 ppb	0.165 ppb	0.277 ppb	21.855 ppb	0.189 ppb	0.225 ppb	0.232 ppb	0.323 ppb	96.114 %
Concentration per Run 3	0.175 ppb	0.192 ppb	0.342 ppb	21.858 ppb	0.181 ppb	0.178 ppb	0.260 ppb	0.219 ppb	103.389 %
Concentration RSD	19.4 %	8.2 %	39.1 %	0.9 %	8.2 %	15.6 %	16.9 %	21.2 %	5.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.244 ppb	0.322 ppb	0.202 ppb	0.199 ppb	97.692 %	0.208 ppb	0.217 ppb	93.298 %	0.208 ppb
Concentration per Run 1	0.290 ppb	0.385 ppb	0.196 ppb	0.181 ppb	96.131 %	0.212 ppb	0.262 ppb	88.968 %	0.201 ppb
Concentration per Run 2	0.255 ppb	0.253 ppb	0.199 ppb	0.258 ppb	97.005 %	0.211 ppb	0.200 ppb	91.300 %	0.215 ppb
Concentration per Run 3	0.188 ppb	0.328 ppb	0.212 ppb	0.157 ppb	99.940 %	0.200 ppb	0.191 ppb	99.627 %	0.209 ppb
Concentration RSD	21.3 %	20.5 %	4.1 %	26.4 %	2.0 %	3.1 %	17.9 %	6.0 %	3.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.221 ppb	96.877 %	97.162 %	0.200 ppb	0.215 ppb
Concentration per Run 1	0.210 ppb	94.148 %	93.289 %	0.202 ppb	0.219 ppb
Concentration per Run 2	0.218 ppb	95.121 %	93.350 %	0.207 ppb	0.222 ppb
Concentration per Run 3	0.236 ppb	101.364 %	104.848 %	0.190 ppb	0.203 ppb
Concentration RSD	6.1 %	4.0 %	6.9 %	4.2 %	4.8 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	5	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	1/100 Cal	Rack	0		
Analysis started at:	8/29/2024 5:08:08 AM	Vial	3		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.211 %	98.393 %	0.988 ppb	108.397 ppb	100.309 ppb	1.641 ppb	104.677 ppb	101.948 ppb	97.867 %
Concentration per Run 1	97.826 %	96.748 %	1.012 ppb	104.009 ppb	99.501 ppb	1.834 ppb	106.521 ppb	96.739 ppb	96.855 %
Concentration per Run 2	101.170 %	101.920 %	0.967 ppb	99.876 ppb	95.839 ppb	1.505 ppb	100.878 ppb	101.931 ppb	98.476 %
Concentration per Run 3	101.636 %	96.512 %	0.985 ppb	121.306 ppb	105.586 ppb	1.584 ppb	106.632 ppb	107.173 ppb	98.270 %
Concentration RSD	2.1 %	3.1 %	2.3 %	10.5 %	4.9 %	10.5 %	3.1 %	5.1 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.968 ppb	0.994 ppb	1.027 ppb	102.294 ppb	0.989 ppb	1.034 ppb	1.096 ppb	1.128 ppb	98.892 %
Concentration per Run 1	0.994 ppb	1.046 ppb	1.066 ppb	102.171 ppb	1.040 ppb	1.001 ppb	1.089 ppb	1.131 ppb	95.195 %
Concentration per Run 2	0.993 ppb	0.860 ppb	0.913 ppb	102.505 ppb	0.981 ppb	1.113 ppb	1.087 ppb	1.103 ppb	94.606 %
Concentration per Run 3	0.918 ppb	1.076 ppb	1.102 ppb	102.207 ppb	0.946 ppb	0.988 ppb	1.110 ppb	1.149 ppb	106.876 %
Concentration RSD	4.6 %	11.8 %	9.8 %	0.2 %	4.8 %	6.7 %	1.2 %	2.1 %	7.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	1.034 ppb	1.061 ppb	0.977 ppb	0.945 ppb	100.965 %	0.965 ppb	1.015 ppb	97.312 %	0.963 ppb
Concentration per Run 1	1.126 ppb	1.008 ppb	0.967 ppb	0.959 ppb	100.689 %	0.966 ppb	1.005 ppb	95.351 %	0.946 ppb
Concentration per Run 2	0.968 ppb	1.103 ppb	0.968 ppb	0.934 ppb	99.571 %	0.963 ppb	1.063 ppb	93.952 %	0.979 ppb
Concentration per Run 3	1.008 ppb	1.072 ppb	0.997 ppb	0.940 ppb	102.635 %	0.966 ppb	0.976 ppb	102.633 %	0.962 ppb
Concentration RSD	7.9 %	4.5 %	1.7 %	1.4 %	1.5 %	0.2 %	4.4 %	4.8 %	1.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.992 ppb	99.567 %	99.151 %	0.976 ppb	1.011 ppb
Concentration per Run 1	1.072 ppb	97.860 %	95.236 %	1.014 ppb	1.033 ppb
Concentration per Run 2	0.983 ppb	96.337 %	96.234 %	0.983 ppb	1.041 ppb
Concentration per Run 3	0.920 ppb	104.505 %	105.984 %	0.930 ppb	0.959 ppb
Concentration RSD	7.7 %	4.4 %	6.0 %	4.4 %	4.4 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	6	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	10/1000 Cal	Rack	0		
Analysis started at:	8/29/2024 5:12:46 AM	Vial	4		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	98.734 %	99.255 %	10.023 ppb	1,027.688 ppb	1,040.406 ppb	11.407 ppb	1,023.210 ppb	1,041.311 ppb	95.939 %
Concentration per Run 1	97.682 %	98.864 %	10.139 ppb	1,020.389 ppb	1,026.488 ppb	11.041 ppb	1,029.372 ppb	999.111 ppb	95.810 %
Concentration per Run 2	98.619 %	101.332 %	10.086 ppb	1,025.539 ppb	1,049.379 ppb	11.373 ppb	1,033.405 ppb	1,051.120 ppb	96.819 %
Concentration per Run 3	99.900 %	97.570 %	9.845 ppb	1,037.137 ppb	1,045.350 ppb	11.807 ppb	1,006.854 ppb	1,073.703 ppb	95.188 %
Concentration RSD	1.1 %	1.9 %	1.6 %	0.8 %	1.2 %	3.4 %	1.4 %	3.7 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	9.998 ppb	10.217 ppb	10.459 ppb	1,018.247 ppb	10.495 ppb	10.728 ppb	10.932 ppb	10.900 ppb	97.459 %
Concentration per Run 1	9.577 ppb	10.072 ppb	10.237 ppb	1,020.169 ppb	10.712 ppb	10.894 ppb	11.231 ppb	10.911 ppb	93.829 %
Concentration per Run 2	10.145 ppb	9.969 ppb	9.887 ppb	974.541 ppb	10.069 ppb	10.327 ppb	10.289 ppb	10.748 ppb	103.158 %
Concentration per Run 3	10.271 ppb	10.611 ppb	11.252 ppb	1,060.030 ppb	10.704 ppb	10.964 ppb	11.275 ppb	11.042 ppb	95.391 %
Concentration RSD	3.7 %	3.4 %	6.8 %	4.2 %	3.5 %	3.3 %	5.1 %	1.3 %	5.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	10.296 ppb	10.473 ppb	10.094 ppb	9.623 ppb	99.642 %	10.268 ppb	10.525 ppb	94.514 %	10.026 ppb
Concentration per Run 1	10.186 ppb	10.718 ppb	9.944 ppb	9.804 ppb	98.385 %	10.437 ppb	10.712 ppb	90.348 %	10.337 ppb
Concentration per Run 2	10.174 ppb	10.538 ppb	10.215 ppb	9.421 ppb	99.899 %	10.038 ppb	10.400 ppb	98.563 %	9.886 ppb
Concentration per Run 3	10.527 ppb	10.162 ppb	10.123 ppb	9.642 ppb	100.642 %	10.329 ppb	10.463 ppb	94.630 %	9.856 ppb
Concentration RSD	1.9 %	2.7 %	1.4 %	2.0 %	1.2 %	2.0 %	1.6 %	4.3 %	2.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	10.279 ppb	98.149 %	98.020 %	10.190 ppb	10.436 ppb
Concentration per Run 1	10.660 ppb	96.919 %	95.021 %	10.558 ppb	10.616 ppb
Concentration per Run 2	10.181 ppb	99.876 %	101.471 %	9.878 ppb	10.238 ppb
Concentration per Run 3	9.997 ppb	97.653 %	97.567 %	10.135 ppb	10.455 ppb
Concentration RSD	3.3 %	1.6 %	3.3 %	3.4 %	1.8 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	7	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	60/6000 Cal	Rack	0		
Analysis started at:	8/29/2024 5:17:25 AM	Vial	5		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	97.306 %	97.649 %	59.800 ppb	5,995.229 ppb	6,014.370 ppb	61.472 ppb	5,954.142 ppb	6,033.110 ppb	109.053 %
Concentration per Run 1	95.895 %	95.219 %	60.177 ppb	6,056.418 ppb	6,084.085 ppb	59.569 ppb	6,033.587 ppb	6,310.472 ppb	108.672 %
Concentration per Run 2	98.362 %	96.277 %	59.171 ppb	6,182.087 ppb	6,220.625 ppb	66.506 ppb	6,201.397 ppb	6,194.813 ppb	110.086 %
Concentration per Run 3	97.661 %	101.450 %	60.051 ppb	5,747.181 ppb	5,738.401 ppb	58.342 ppb	5,627.443 ppb	5,594.044 ppb	108.403 %
Concentration RSD	1.3 %	3.4 %	0.9 %	3.7 %	4.1 %	7.2 %	5.0 %	6.4 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	59.576 ppb	59.474 ppb	60.178 ppb	5,964.741 ppb	60.184 ppb	60.026 ppb	59.654 ppb	60.375 ppb	100.787 %
Concentration per Run 1	61.127 ppb	61.427 ppb	61.236 ppb	6,178.749 ppb	61.868 ppb	61.936 ppb	61.994 ppb	60.963 ppb	96.437 %
Concentration per Run 2	60.186 ppb	59.077 ppb	60.528 ppb	5,823.909 ppb	58.415 ppb	57.618 ppb	57.252 ppb	59.727 ppb	107.077 %
Concentration per Run 3	57.416 ppb	57.916 ppb	58.771 ppb	5,891.566 ppb	60.270 ppb	60.523 ppb	59.716 ppb	60.436 ppb	98.848 %
Concentration RSD	3.2 %	3.0 %	2.1 %	3.2 %	2.9 %	3.7 %	4.0 %	1.0 %	5.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	59.220 ppb	59.736 ppb	58.811 ppb	57.658 ppb	100.599 %	59.591 ppb	59.465 ppb	98.625 %	59.235 ppb
Concentration per Run 1	61.189 ppb	59.778 ppb	57.996 ppb	58.666 ppb	98.729 %	61.249 ppb	60.268 ppb	93.798 %	60.062 ppb
Concentration per Run 2	58.344 ppb	60.758 ppb	60.990 ppb	57.987 ppb	103.520 %	58.244 ppb	58.466 ppb	105.420 %	59.354 ppb
Concentration per Run 3	58.128 ppb	58.671 ppb	57.446 ppb	56.320 ppb	99.547 %	59.279 ppb	59.660 ppb	96.658 %	58.289 ppb
Concentration RSD	2.9 %	1.7 %	3.2 %	2.1 %	2.5 %	2.6 %	1.5 %	6.1 %	1.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	58.593 ppb	101.822 %	102.276 %	60.407 ppb	59.610 ppb
Concentration per Run 1	59.385 ppb	99.791 %	99.106 %	61.413 ppb	60.345 ppb
Concentration per Run 2	58.685 ppb	105.355 %	106.989 %	58.738 ppb	58.090 ppb
Concentration per Run 3	57.708 ppb	100.319 %	100.734 %	61.071 ppb	60.395 ppb
Concentration RSD	1.4 %	3.0 %	4.1 %	2.4 %	2.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	8	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	120/12000 Cal	Rack	0		
Analysis started at:	8/29/2024 5:22:03 AM	Vial	6		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.342 %	97.884 %	120.098 ppb	11,030.143 ppb	11,989.445 ppb	119.140 ppb	12,020.946 ppb	11,979.986 ppb	112.869 %
Concentration per Run 1	93.849 %	96.042 %	121.398 ppb	11,172.533 ppb	11,871.967 ppb	117.000 ppb	12,290.934 ppb	12,277.570 ppb	113.488 %
Concentration per Run 2	97.726 %	105.447 %	119.859 ppb	10,723.610 ppb	11,807.606 ppb	123.012 ppb	12,053.449 ppb	11,685.307 ppb	113.750 %
Concentration per Run 3	97.451 %	92.163 %	119.038 ppb	11,374.288 ppb	12,288.761 ppb	117.409 ppb	11,718.456 ppb	11,977.080 ppb	111.370 %
Concentration RSD	2.2 %	7.0 %	1.0 %	3.0 %	2.2 %	2.8 %	2.4 %	2.5 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	120.212 ppb	120.245 ppb	119.872 ppb	12,016.087 ppb	119.867 ppb	119.926 ppb	120.094 ppb	119.736 ppb	99.137 %
Concentration per Run 1	120.789 ppb	121.023 ppb	116.741 ppb	12,160.033 ppb	121.500 ppb	121.966 ppb	123.429 ppb	121.429 ppb	96.092 %
Concentration per Run 2	117.720 ppb	117.923 ppb	120.641 ppb	11,818.621 ppb	117.672 ppb	116.287 ppb	115.921 ppb	117.863 ppb	103.757 %
Concentration per Run 3	122.129 ppb	121.790 ppb	122.235 ppb	12,069.605 ppb	120.428 ppb	121.525 ppb	120.933 ppb	119.917 ppb	97.562 %
Concentration RSD	1.9 %	1.7 %	2.4 %	1.5 %	1.6 %	2.6 %	3.2 %	1.5 %	4.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	120.365 ppb	120.092 ppb	120.587 ppb	121.203 ppb	99.946 %	120.183 ppb	120.224 ppb	96.876 %	120.381 ppb
Concentration per Run 1	121.346 ppb	119.699 ppb	119.640 ppb	120.594 ppb	98.265 %	123.709 ppb	121.947 ppb	92.374 %	124.010 ppb
Concentration per Run 2	119.902 ppb	124.812 ppb	125.595 ppb	123.233 ppb	102.465 %	116.421 ppb	117.631 ppb	104.835 %	118.381 ppb
Concentration per Run 3	119.846 ppb	115.765 ppb	116.526 ppb	119.782 ppb	99.108 %	120.418 ppb	121.093 ppb	93.420 %	118.750 ppb
Concentration RSD	0.7 %	3.8 %	3.8 %	1.5 %	2.2 %	3.0 %	1.9 %	7.1 %	2.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	120.680 ppb	102.200 %	101.806 %	119.781 ppb	120.158 ppb
Concentration per Run 1	120.655 ppb	99.452 %	98.466 %	122.523 ppb	122.457 ppb
Concentration per Run 2	122.372 ppb	105.046 %	105.774 %	116.719 ppb	117.279 ppb
Concentration per Run 3	119.014 ppb	102.101 %	101.179 %	120.101 ppb	120.740 ppb
Concentration RSD	1.4 %	2.7 %	3.6 %	2.4 %	2.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	9	User name	ALPHALAB\Metals-Instrument	Comment	Sr Inteference Check
Analysis label:	Sr 200ppb	Rack	4		
Analysis started at:	8/29/2024 5:27:17 AM	Vial	55		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.136 %	98.550 %	0.022 ppb	15.822 ppb	1.733 ppb	0.640 ppb	5.373 ppb	0.647 ppb	93.979 %
Concentration per Run 1	93.961 %	99.922 %	0.023 ppb	21.199 ppb	2.074 ppb	0.454 ppb	6.084 ppb	-0.558 ppb	91.660 %
Concentration per Run 2	96.979 %	99.216 %	0.023 ppb	12.113 ppb	1.770 ppb	0.472 ppb	1.322 ppb	15.718 ppb	95.658 %
Concentration per Run 3	97.468 %	96.512 %	0.020 ppb	14.155 ppb	1.356 ppb	0.992 ppb	8.713 ppb	-13.220 ppb	94.619 %
Concentration RSD	2.0 %	1.8 %	6.7 %	30.1 %	20.8 %	47.8 %	69.7 %	2,242.9 %	2.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.049 ppb	0.045 ppb	0.081 ppb	19.241 ppb	0.009 ppb	0.123 ppb	0.096 ppb	0.295 ppb	98.851 %
Concentration per Run 1	-0.008 ppb	0.039 ppb	0.047 ppb	17.938 ppb	0.013 ppb	0.145 ppb	0.067 ppb	0.370 ppb	101.037 %
Concentration per Run 2	-0.067 ppb	0.036 ppb	0.112 ppb	18.632 ppb	0.005 ppb	0.133 ppb	0.095 ppb	0.235 ppb	97.844 %
Concentration per Run 3	-0.072 ppb	0.060 ppb	0.085 ppb	21.152 ppb	0.010 ppb	0.090 ppb	0.127 ppb	0.279 ppb	97.673 %
Concentration RSD	73.3 %	28.8 %	40.3 %	8.8 %	44.6 %	23.9 %	30.9 %	23.5 %	1.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.077 ppb	0.371 ppb	196.322 ppb	2.090 ppb	98.715 %	0.011 ppb	0.023 ppb	95.310 %	0.243 ppb
Concentration per Run 1	0.053 ppb	0.307 ppb	209.131 ppb	1.455 ppb	99.723 %	0.014 ppb	0.030 ppb	100.387 %	0.149 ppb
Concentration per Run 2	0.155 ppb	0.481 ppb	188.803 ppb	2.277 ppb	98.091 %	0.007 ppb	0.015 ppb	93.711 %	0.235 ppb
Concentration per Run 3	0.025 ppb	0.325 ppb	191.033 ppb	2.538 ppb	98.332 %	0.013 ppb	0.025 ppb	91.830 %	0.344 ppb
Concentration RSD	88.8 %	25.9 %	5.7 %	27.1 %	0.9 %	34.2 %	34.7 %	4.7 %	40.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.192 ppb	98.201 %	98.922 %	0.519 ppb	0.195 ppb
Concentration per Run 1	0.172 ppb	99.016 %	101.398 %	0.384 ppb	0.198 ppb
Concentration per Run 2	0.232 ppb	97.666 %	97.347 %	0.590 ppb	0.192 ppb
Concentration per Run 3	0.173 ppb	97.923 %	98.020 %	0.582 ppb	0.194 ppb
Concentration RSD	18.0 %	0.7 %	2.2 %	22.4 %	1.5 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	10	User name	ALPHALAB\Metals-Instrument	Comment	ICV
Analysis label:	ICV	Rack	0		
Analysis started at:	8/29/2024 5:31:59 AM	Vial	7		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.267 %	96.081 %	51.565 ppb	5,059.934 ppb	5,113.081 ppb	50.962 ppb	5,027.374 ppb	5,079.952 ppb	101.751 %
Concentration per Run 1	93.581 %	97.923 %	51.338 ppb	4,935.248 ppb	4,918.699 ppb	48.622 ppb	4,890.019 ppb	5,015.900 ppb	101.246 %
Concentration per Run 2	95.823 %	90.399 %	51.603 ppb	5,172.790 ppb	5,305.044 ppb	52.371 ppb	5,135.068 ppb	5,171.468 ppb	102.146 %
Concentration per Run 3	96.396 %	99.922 %	51.755 ppb	5,071.762 ppb	5,115.501 ppb	51.893 ppb	5,057.036 ppb	5,052.489 ppb	101.862 %
Recovery Percentage 1			103.131 %	101.199 %	102.262 %	101.924 %	100.547 %	101.599 %	
Concentration RSD	1.6 %	5.2 %	0.4 %	2.4 %	3.8 %	4.0 %	2.5 %	1.6 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	51.243 ppb	50.967 ppb	51.308 ppb	5,084.096 ppb	51.216 ppb	51.187 ppb	51.519 ppb	52.335 ppb	98.119 %
Concentration per Run 1	50.536 ppb	49.977 ppb	48.849 ppb	4,978.610 ppb	50.360 ppb	50.176 ppb	51.310 ppb	51.418 ppb	98.150 %
Concentration per Run 2	52.059 ppb	51.473 ppb	51.341 ppb	5,135.241 ppb	52.135 ppb	51.681 ppb	51.875 ppb	52.948 ppb	97.152 %
Concentration per Run 3	51.134 ppb	51.450 ppb	53.733 ppb	5,138.437 ppb	51.152 ppb	51.704 ppb	51.370 ppb	52.639 ppb	99.054 %
Recovery Percentage 1	102.486 %	101.934 %	102.616 %	101.682 %	102.431 %	102.374 %	103.037 %	104.670 %	
Concentration RSD	1.5 %	1.7 %	4.8 %	1.8 %	1.7 %	1.7 %	0.6 %	1.5 %	1.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	51.321 ppb	51.711 ppb	49.616 ppb	50.713 ppb	99.342 %	48.219 ppb	50.407 ppb	97.587 %	48.343 ppb
Concentration per Run 1	51.116 ppb	50.274 ppb	48.315 ppb	49.939 ppb	99.154 %	48.297 ppb	50.509 ppb	95.549 %	48.487 ppb
Concentration per Run 2	51.442 ppb	51.390 ppb	48.272 ppb	50.911 ppb	98.936 %	48.701 ppb	50.813 ppb	95.196 %	48.415 ppb
Concentration per Run 3	51.404 ppb	53.468 ppb	52.260 ppb	51.291 ppb	99.935 %	47.659 ppb	49.900 ppb	102.016 %	48.126 ppb
Recovery Percentage 1	102.641 %	103.422 %	99.232 %	101.427 %		96.438 %	100.814 %		96.685 %
Concentration RSD	0.3 %	3.1 %	4.6 %	1.4 %	0.5 %	1.1 %	0.9 %	3.9 %	0.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	49.593 ppb	102.149 %	101.576 %	51.599 ppb	50.866 ppb
Concentration per Run 1	48.714 ppb	99.192 %	99.940 %	52.045 ppb	50.404 ppb
Concentration per Run 2	49.507 ppb	102.816 %	99.812 %	51.639 ppb	51.421 ppb
Concentration per Run 3	50.559 ppb	104.441 %	104.977 %	51.114 ppb	50.774 ppb
Recovery Percentage 1	99.186 %			103.199 %	101.732 %
Concentration RSD	1.9 %	2.6 %	2.9 %	0.9 %	1.0 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 11 User name ALPHALAB\Metals-Instrument Comment ICB
Analysis label: ICB Rack 0
Analysis started at: 8/29/2024 5:36:40 AM Vial 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.350 %	96.473 %	0.017 ppb	15.268 ppb	0.375 ppb	0.102 ppb	3.373 ppb	3.310 ppb	97.489 %
Concentration per Run 1	94.529 %	98.981 %	0.013 ppb	8.639 ppb	0.624 ppb	0.068 ppb	-4.443 ppb	1.609 ppb	98.134 %
Concentration per Run 2	96.236 %	93.456 %	0.024 ppb	17.914 ppb	0.330 ppb	0.272 ppb	-0.351 ppb	-1.271 ppb	96.747 %
Concentration per Run 3	98.285 %	96.983 %	0.013 ppb	19.250 ppb	0.173 ppb	-0.035 ppb	14.913 ppb	9.592 ppb	97.585 %
Recovery Percentage 1			3.350 %	15.268 %	0.536 %	1.017 %	3.373 %	3.310 %	
Concentration RSD	2.0 %	2.9 %	37.7 %	37.9 %	61.0 %	153.7 %	302.4 %	170.0 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.064 ppb	-0.003 ppb	-0.011 ppb	10.112 ppb	0.007 ppb	-0.008 ppb	0.002 ppb	-0.186 ppb	98.745 %
Concentration per Run 1	-0.048 ppb	-0.004 ppb	0.007 ppb	8.246 ppb	0.006 ppb	0.017 ppb	-0.019 ppb	-0.173 ppb	98.039 %
Concentration per Run 2	-0.081 ppb	0.006 ppb	-0.020 ppb	10.160 ppb	0.009 ppb	-0.016 ppb	0.026 ppb	-0.200 ppb	97.653 %
Concentration per Run 3	-0.063 ppb	-0.010 ppb	-0.021 ppb	11.930 ppb	0.008 ppb	-0.026 ppb	0.000 ppb	-0.185 ppb	100.543 %
Recovery Percentage 1	-1.284 %	-0.258 %	-1.126 %	20.224 %	1.487 %	-0.417 %	0.222 %	-3.714 %	
Concentration RSD	25.7 %	317.1 %	142.1 %	18.2 %	22.7 %	266.7 %	1,018.7 %	7.2 %	1.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.024 ppb	0.376 ppb	0.005 ppb	1.621 ppb	101.581 %	0.006 ppb	0.010 ppb	98.575 %	0.394 ppb
Concentration per Run 1	0.071 ppb	0.321 ppb	0.003 ppb	1.215 ppb	101.476 %	0.006 ppb	0.012 ppb	96.554 %	0.212 ppb
Concentration per Run 2	-0.002 ppb	0.372 ppb	0.003 ppb	1.648 ppb	99.933 %	0.005 ppb	0.011 ppb	94.026 %	0.385 ppb
Concentration per Run 3	0.002 ppb	0.436 ppb	0.009 ppb	1.999 ppb	103.335 %	0.009 ppb	0.006 ppb	105.145 %	0.584 ppb
Recovery Percentage 1	4.731 %	7.522 %	0.050 %	81.043 %		1.577 %	4.823 %		9.843 %
Concentration RSD	173.6 %	15.3 %	74.1 %	24.2 %	1.7 %	32.2 %	36.6 %	5.9 %	47.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.054 ppb	100.564 %	101.172 %	0.394 ppb	0.016 ppb
Concentration per Run 1	0.064 ppb	99.305 %	97.437 %	0.296 ppb	0.021 ppb
Concentration per Run 2	0.037 ppb	98.189 %	98.844 %	0.468 ppb	0.018 ppb
Concentration per Run 3	0.062 ppb	104.197 %	107.237 %	0.418 ppb	0.009 ppb
Recovery Percentage 1	10.879 %			39.386 %	1.585 %
Concentration RSD	27.8 %	3.2 %	5.2 %	22.4 %	37.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	12	User name	ALPHALAB\Metals-Instrument	Comment	ICB
Analysis label:	ICB	Rack	0		
Analysis started at:	8/29/2024 5:42:11 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.229 %	94.240 %	0.011 ppb	14.414 ppb	0.003 ppb	-0.107 ppb	6.802 ppb	-2.465 ppb	97.099 %
Concentration per Run 1	93.476 %	91.810 %	0.010 ppb	9.867 ppb	-0.144 ppb	0.053 ppb	0.281 ppb	0.416 ppb	96.866 %
Concentration per Run 2	96.296 %	93.456 %	0.014 ppb	21.199 ppb	0.317 ppb	-0.158 ppb	18.189 ppb	-0.740 ppb	97.773 %
Concentration per Run 3	95.914 %	97.453 %	0.010 ppb	12.176 ppb	-0.164 ppb	-0.215 ppb	1.935 ppb	-7.072 ppb	96.658 %
Recovery Percentage 1			2.273 %	14.414 %	0.004 %	-1.066 %	6.802 %	-2.465 %	
Concentration RSD	1.6 %	3.1 %	18.0 %	41.5 %	8,800.0 %	132.0 %	145.5 %	163.5 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.065 ppb	0.001 ppb	-0.009 ppb	3.926 ppb	0.007 ppb	0.000 ppb	-0.005 ppb	-0.198 ppb	97.982 %
Concentration per Run 1	-0.072 ppb	0.004 ppb	0.001 ppb	4.329 ppb	0.007 ppb	0.006 ppb	0.020 ppb	-0.228 ppb	99.207 %
Concentration per Run 2	-0.063 ppb	-0.003 ppb	0.000 ppb	4.120 ppb	0.007 ppb	-0.004 ppb	-0.020 ppb	-0.194 ppb	101.453 %
Concentration per Run 3	-0.061 ppb	0.001 ppb	-0.027 ppb	3.329 ppb	0.007 ppb	-0.001 ppb	-0.014 ppb	-0.172 ppb	93.288 %
Recovery Percentage 1	-1.303 %	0.068 %	-0.868 %	7.852 %	1.373 %	0.014 %	-0.497 %	-3.961 %	
Concentration RSD	8.7 %	504.9 %	179.9 %	13.4 %	4.9 %	1,840.4 %	431.4 %	14.2 %	4.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.052 ppb	0.087 ppb	-0.001 ppb	0.440 ppb	101.917 %	0.004 ppb	0.002 ppb	100.294 %	0.107 ppb
Concentration per Run 1	0.046 ppb	0.073 ppb	-0.003 ppb	0.318 ppb	100.773 %	0.005 ppb	0.002 ppb	97.643 %	0.054 ppb
Concentration per Run 2	0.109 ppb	0.070 ppb	-0.001 ppb	0.410 ppb	103.991 %	0.003 ppb	0.001 ppb	104.825 %	0.106 ppb
Concentration per Run 3	0.002 ppb	0.119 ppb	0.002 ppb	0.591 ppb	100.987 %	0.003 ppb	0.003 ppb	98.413 %	0.162 ppb
Recovery Percentage 1	10.478 %	1.743 %	-0.007 %	21.993 %		0.898 %	0.972 %		2.685 %
Concentration RSD	103.2 %	31.2 %	366.7 %	31.6 %	1.8 %	37.6 %	53.6 %	3.9 %	50.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.098 ppb	102.124 %	100.919 %	0.134 ppb	0.003 ppb
Concentration per Run 1	0.132 ppb	102.816 %	100.245 %	0.083 ppb	0.004 ppb
Concentration per Run 2	0.093 ppb	103.508 %	102.349 %	0.158 ppb	0.003 ppb
Concentration per Run 3	0.071 ppb	100.048 %	100.163 %	0.160 ppb	0.001 ppb
Recovery Percentage 1	19.679 %			13.351 %	0.266 %
Concentration RSD	31.5 %	1.8 %	1.2 %	33.1 %	56.9 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	13	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	ICSA	Rack	4		
Analysis started at:	8/29/2024 5:48:10 AM	Vial	53		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	85.076 %	83.620 %	0.038 ppb	241,591.156 ppb	96,298.654 ppb	93,434.428 ppb	94,460.960 ppb	294,211.410 ppb	114.927 %
Concentration per Run 1	84.522 %	76.293 %	0.031 ppb	255,772.643 ppb	101,084.668 ppb	96,065.580 ppb	99,997.990 ppb	317,430.130 ppb	113.561 %
Concentration per Run 2	84.879 %	88.283 %	0.027 ppb	231,698.011 ppb	91,245.793 ppb	90,976.347 ppb	90,574.276 ppb	282,216.454 ppb	115.383 %
Concentration per Run 3	85.827 %	86.285 %	0.057 ppb	237,302.815 ppb	96,565.503 ppb	93,261.355 ppb	92,810.615 ppb	282,987.648 ppb	115.836 %
Recovery Percentage 1			3.845 %	96.636 %	96.299 %	93.434 %	94.461 %	98.070 %	
Concentration RSD	0.8 %	7.7 %	41.5 %	5.2 %	5.1 %	2.7 %	5.2 %	6.8 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.005 ppb	1.514 ppb	4.555 ppb	231,452.843 ppb	2.159 ppb	2.879 ppb	1.015 ppb	2.421 ppb	98.036 %
Concentration per Run 1	-0.012 ppb	1.714 ppb	4.592 ppb	246,611.713 ppb	2.325 ppb	3.051 ppb	1.106 ppb	2.606 ppb	89.783 %
Concentration per Run 2	0.000 ppb	1.410 ppb	4.712 ppb	221,618.330 ppb	2.122 ppb	2.732 ppb	1.014 ppb	2.464 ppb	102.243 %
Concentration per Run 3	0.026 ppb	1.419 ppb	4.360 ppb	226,128.486 ppb	2.031 ppb	2.852 ppb	0.924 ppb	2.193 ppb	102.081 %
Recovery Percentage 1	0.094 %	45.887 %	79.906 %	92.581 %	75.237 %	47.192 %	35.985 %	21.238 %	
Concentration RSD	407.3 %	11.4 %	3.9 %	5.8 %	7.0 %	5.6 %	9.0 %	8.7 %	7.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.694 ppb	3.824 ppb	2.295 ppb	**2,234.984 ppb**	87.047 %	0.026 ppb	0.382 ppb	86.817 %	0.232 ppb
Concentration per Run 1	0.776 ppb	3.971 ppb	2.334 ppb	2,292.967 ppb	82.466 %	0.030 ppb	0.371 ppb	80.598 %	0.202 ppb
Concentration per Run 2	0.594 ppb	3.628 ppb	2.281 ppb	2,204.135 ppb	88.231 %	0.025 ppb	0.390 ppb	89.193 %	0.216 ppb
Concentration per Run 3	0.711 ppb	3.873 ppb	2.269 ppb	2,207.849 ppb	90.445 %	0.022 ppb	0.384 ppb	90.660 %	0.278 ppb
Recovery Percentage 1	42.565 %	29.646 %	84.996 %	111.749 %		3.215 %	95.459 %		2.900 %
Concentration RSD	13.3 %	4.6 %	1.5 %	2.2 %	4.7 %	14.0 %	2.5 %	6.3 %	17.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	1.277 ppb	93.052 %	93.295 %	0.086 ppb	1.463 ppb
Concentration per Run 1	1.356 ppb	86.872 %	86.125 %	0.059 ppb	1.570 ppb
Concentration per Run 2	1.314 ppb	95.838 %	97.656 %	0.101 ppb	1.408 ppb
Concentration per Run 3	1.162 ppb	96.446 %	96.106 %	0.100 ppb	1.410 ppb
Recovery Percentage 1	67.939 %			4.321 %	47.183 %
Concentration RSD	8.0 %	5.8 %	6.7 %	27.7 %	6.4 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	14	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	LDR Check	Rack	4		
Analysis started at:	8/29/2024 5:52:52 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.363 %	102.155 %	0.031 ppb	148.723 ppb	25.538 ppb	27.157 ppb	54.467 ppb	71.348 ppb	110.788 %
Concentration per Run 1	93.234 %	104.506 %	0.032 ppb	165.632 ppb	29.645 ppb	31.620 ppb	61.520 ppb	71.802 ppb	109.099 %
Concentration per Run 2	96.062 %	105.564 %	0.029 ppb	135.089 ppb	25.357 ppb	25.552 ppb	45.489 ppb	72.295 ppb	111.593 %
Concentration per Run 3	96.794 %	96.395 %	0.031 ppb	145.450 ppb	21.611 ppb	24.299 ppb	56.393 ppb	69.947 ppb	111.672 %
Concentration RSD	2.0 %	4.9 %	4.4 %	10.4 %	15.7 %	14.4 %	15.0 %	1.7 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.057 ppb	0.065 ppb	10,014.426 ppb	136.943 ppb	0.052 ppb	9,939.508 ppb	10,361.467 ppb	10,163.961 ppb	107.283 %
Concentration per Run 1	-0.049 ppb	0.073 ppb	9,700.531 ppb	138.753 ppb	0.049 ppb	9,763.456 ppb	10,238.463 ppb	10,050.337 ppb	108.675 %
Concentration per Run 2	-0.070 ppb	0.074 ppb	10,085.183 ppb	137.509 ppb	0.052 ppb	9,911.134 ppb	10,393.459 ppb	10,050.230 ppb	107.203 %
Concentration per Run 3	-0.051 ppb	0.049 ppb	10,257.564 ppb	134.567 ppb	0.054 ppb	10,143.935 ppb	10,452.479 ppb	10,391.315 ppb	105.971 %
Concentration RSD	21.2 %	21.6 %	2.8 %	1.6 %	4.9 %	1.9 %	1.1 %	1.9 %	1.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	1,007.027 ppb	1.399 ppb	0.218 ppb	18.111 ppb	106.381 %	0.169 ppb	0.079 ppb	101.894 %	1.086 ppb
Concentration per Run 1	1,002.834 ppb	1.295 ppb	0.236 ppb	14.979 ppb	104.196 %	0.161 ppb	0.068 ppb	100.777 %	1.109 ppb
Concentration per Run 2	1,004.691 ppb	1.471 ppb	0.200 ppb	18.045 ppb	107.321 %	0.174 ppb	0.089 ppb	102.326 %	1.076 ppb
Concentration per Run 3	1,013.557 ppb	1.431 ppb	0.219 ppb	21.308 ppb	107.625 %	0.172 ppb	0.079 ppb	102.578 %	1.072 ppb
Concentration RSD	0.6 %	6.6 %	8.2 %	17.5 %	1.8 %	4.2 %	13.6 %	1.0 %	1.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	9,957.731 ppb	100.049 %	97.743 %	0.070 ppb	10,120.894 ppb
Concentration per Run 1	10,242.644 ppb	98.257 %	94.944 %	0.044 ppb	10,473.360 ppb
Concentration per Run 2	9,840.620 ppb	99.751 %	99.112 %	0.087 ppb	9,922.194 ppb
Concentration per Run 3	9,789.930 ppb	102.139 %	99.173 %	0.079 ppb	9,967.129 ppb
Concentration RSD	2.5 %	2.0 %	2.5 %	32.0 %	3.0 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	15	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	Rinse	Rack	0		
Analysis started at:	8/29/2024 5:57:33 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	94.660 %	102.625 %	0.018 ppb	54.853 ppb	4.209 ppb	2.935 ppb	21.976 ppb	11.391 ppb	106.486 %
Concentration per Run 1	93.624 %	98.158 %	0.017 ppb	53.680 ppb	3.036 ppb	2.467 ppb	25.695 ppb	3.037 ppb	104.813 %
Concentration per Run 2	94.561 %	104.977 %	0.022 ppb	51.881 ppb	5.630 ppb	3.382 ppb	13.512 ppb	21.392 ppb	107.748 %
Concentration per Run 3	95.795 %	104.741 %	0.015 ppb	58.999 ppb	3.962 ppb	2.955 ppb	26.722 ppb	9.745 ppb	106.897 %
Concentration RSD	1.1 %	3.8 %	21.1 %	6.7 %	31.2 %	15.6 %	33.4 %	81.5 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.093 ppb	0.031 ppb	0.882 ppb	30.257 ppb	0.002 ppb	1.137 ppb	0.958 ppb	2.307 ppb	101.310 %
Concentration per Run 1	-0.092 ppb	0.040 ppb	0.568 ppb	24.299 ppb	-0.002 ppb	0.866 ppb	0.722 ppb	2.204 ppb	100.484 %
Concentration per Run 2	-0.088 ppb	0.026 ppb	1.111 ppb	34.743 ppb	0.003 ppb	1.368 ppb	1.184 ppb	2.630 ppb	104.047 %
Concentration per Run 3	-0.101 ppb	0.028 ppb	0.968 ppb	31.729 ppb	0.004 ppb	1.177 ppb	0.969 ppb	2.088 ppb	99.398 %
Concentration RSD	7.4 %	23.1 %	31.9 %	17.8 %	167.3 %	22.3 %	24.1 %	12.4 %	2.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	1.194 ppb	0.048 ppb	0.003 ppb	3.566 ppb	104.166 %	0.004 ppb	0.002 ppb	98.213 %	0.104 ppb
Concentration per Run 1	1.211 ppb	0.064 ppb	0.005 ppb	2.610 ppb	103.820 %	0.003 ppb	0.000 ppb	96.783 %	0.075 ppb
Concentration per Run 2	1.230 ppb	0.064 ppb	0.001 ppb	3.570 ppb	104.937 %	0.005 ppb	0.003 ppb	99.712 %	0.107 ppb
Concentration per Run 3	1.142 ppb	0.017 ppb	0.002 ppb	4.520 ppb	103.741 %	0.006 ppb	0.004 ppb	98.143 %	0.130 ppb
Concentration RSD	3.9 %	55.3 %	73.4 %	26.8 %	0.6 %	36.3 %	90.0 %	1.5 %	26.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.800 ppb	98.816 %	95.888 %	0.046 ppb	1.396 ppb
Concentration per Run 1	0.474 ppb	98.627 %	96.491 %	0.028 ppb	1.229 ppb
Concentration per Run 2	1.122 ppb	99.389 %	96.411 %	0.053 ppb	1.679 ppb
Concentration per Run 3	0.804 ppb	98.432 %	94.761 %	0.058 ppb	1.281 ppb
Concentration RSD	40.5 %	0.5 %	1.0 %	34.4 %	17.6 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 16
Analysis label: CCV
Analysis started at: 8/29/2024 6:02:10 AM
User name ALPHALAB\Metals-Instrument
Rack 0
Vial 9
Comment CCV/MCCV

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	93.026 %	100.313 %	62.341 ppb	6,330.391 ppb	6,262.043 ppb	64.651 ppb	6,287.963 ppb	6,013.958 ppb	109.887 %
Concentration per Run 1	89.588 %	104.389 %	63.324 ppb	6,301.281 ppb	6,229.384 ppb	63.920 ppb	6,191.890 ppb	6,022.814 ppb	108.142 %
Concentration per Run 2	94.167 %	97.218 %	61.427 ppb	6,324.576 ppb	6,290.373 ppb	66.262 ppb	6,233.909 ppb	5,930.832 ppb	110.988 %
Concentration per Run 3	95.323 %	99.334 %	62.273 ppb	6,365.315 ppb	6,266.373 ppb	63.770 ppb	6,438.091 ppb	6,088.228 ppb	110.532 %
Recovery Percentage 1			103.902 %	105.507 %	104.367 %	107.751 %	104.799 %	100.233 %	
Concentration RSD	3.3 %	3.7 %	1.5 %	0.5 %	0.5 %	2.2 %	2.1 %	1.3 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	59.017 ppb	58.556 ppb	61.195 ppb	6,204.904 ppb	62.429 ppb	62.858 ppb	63.455 ppb	63.610 ppb	102.410 %
Concentration per Run 1	58.580 ppb	58.391 ppb	60.432 ppb	6,188.927 ppb	61.974 ppb	63.394 ppb	62.656 ppb	63.058 ppb	101.948 %
Concentration per Run 2	59.043 ppb	58.678 ppb	61.098 ppb	6,248.102 ppb	63.288 ppb	62.962 ppb	64.162 ppb	63.656 ppb	104.083 %
Concentration per Run 3	59.429 ppb	58.600 ppb	62.055 ppb	6,177.682 ppb	62.024 ppb	62.217 ppb	63.547 ppb	64.116 ppb	101.199 %
Recovery Percentage 1	98.362 %	97.594 %	101.991 %	103.415 %	104.048 %	104.763 %	105.758 %	106.017 %	
Concentration RSD	0.7 %	0.3 %	1.3 %	0.6 %	1.2 %	0.9 %	1.2 %	0.8 %	1.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	61.345 ppb	59.955 ppb	58.465 ppb	61.636 ppb	103.039 %	60.533 ppb	59.600 ppb	96.855 %	58.614 ppb
Concentration per Run 1	61.891 ppb	60.144 ppb	58.861 ppb	60.011 ppb	103.661 %	59.419 ppb	59.110 ppb	97.161 %	58.371 ppb
Concentration per Run 2	59.661 ppb	59.543 ppb	57.746 ppb	61.692 ppb	103.427 %	60.869 ppb	59.491 ppb	97.778 %	57.895 ppb
Concentration per Run 3	62.482 ppb	60.179 ppb	58.786 ppb	63.207 ppb	102.030 %	61.311 ppb	60.198 ppb	95.626 %	59.576 ppb
Recovery Percentage 1	102.241 %	99.926 %	97.441 %	102.727 %		100.888 %	99.333 %		97.690 %
Concentration RSD	2.4 %	0.6 %	1.1 %	2.6 %	0.9 %	1.6 %	0.9 %	1.1 %	1.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	60.127 ppb	99.388 %	97.815 %	61.176 ppb	61.427 ppb
Concentration per Run 1	60.724 ppb	99.379 %	97.208 %	61.238 ppb	61.751 ppb
Concentration per Run 2	59.817 ppb	97.964 %	98.567 %	60.875 ppb	61.030 ppb
Concentration per Run 3	59.842 ppb	100.822 %	97.672 %	61.413 ppb	61.501 ppb
Recovery Percentage 1	100.212 %			101.959 %	102.379 %
Concentration RSD	0.9 %	1.4 %	0.7 %	0.4 %	0.6 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 17 User name ALPHALAB\Metals-Instrument Comment CCB
Analysis label: CCB Rack 0
Analysis started at: 8/29/2024 6:06:52 AM Vial 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	92.101 %	97.061 %	0.015 ppb	45.128 ppb	0.224 ppb	0.337 ppb	12.102 ppb	0.493 ppb	99.364 %
Concentration per Run 1	90.323 %	91.105 %	0.018 ppb	53.238 ppb	0.830 ppb	0.396 ppb	24.564 ppb	4.539 ppb	98.489 %
Concentration per Run 2	92.617 %	99.451 %	0.015 ppb	45.383 ppb	-0.301 ppb	0.300 ppb	0.500 ppb	-2.660 ppb	98.573 %
Concentration per Run 3	93.363 %	100.627 %	0.013 ppb	36.762 ppb	0.142 ppb	0.314 ppb	11.243 ppb	-0.400 ppb	101.031 %
Recovery Percentage 1			3.094 %	45.128 %	0.320 %	3.368 %	12.102 %	0.493 %	
Concentration RSD	1.7 %	5.3 %	15.6 %	18.3 %	254.7 %	15.3 %	99.6 %	746.9 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.076 ppb	-0.002 ppb	0.045 ppb	16.238 ppb	0.007 ppb	0.052 ppb	0.056 ppb	0.036 ppb	100.589 %
Concentration per Run 1	-0.077 ppb	-0.003 ppb	0.043 ppb	13.817 ppb	0.018 ppb	0.077 ppb	0.091 ppb	0.063 ppb	99.935 %
Concentration per Run 2	-0.068 ppb	-0.005 ppb	0.047 ppb	16.565 ppb	-0.002 ppb	0.033 ppb	0.035 ppb	0.031 ppb	100.305 %
Concentration per Run 3	-0.082 ppb	0.004 ppb	0.046 ppb	18.331 ppb	0.004 ppb	0.046 ppb	0.042 ppb	0.015 ppb	101.526 %
Recovery Percentage 1	-1.514 %	-0.164 %	4.534 %	32.475 %	1.397 %	2.589 %	5.600 %	0.725 %	
Concentration RSD	9.6 %	280.9 %	5.1 %	14.0 %	147.3 %	43.9 %	54.3 %	67.4 %	0.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.285 ppb	0.170 ppb	0.001 ppb	2.007 ppb	101.742 %	0.007 ppb	0.008 ppb	97.083 %	0.373 ppb
Concentration per Run 1	0.281 ppb	0.204 ppb	0.004 ppb	1.638 ppb	101.052 %	0.014 ppb	0.012 ppb	93.859 %	0.291 ppb
Concentration per Run 2	0.317 ppb	0.168 ppb	0.003 ppb	1.893 ppb	102.154 %	0.002 ppb	0.007 ppb	98.556 %	0.374 ppb
Concentration per Run 3	0.258 ppb	0.138 ppb	-0.002 ppb	2.489 ppb	102.021 %	0.004 ppb	0.006 ppb	98.834 %	0.455 ppb
Recovery Percentage 1	57.074 %	3.405 %	0.014 %	100.331 %		1.756 %	4.182 %		9.331 %
Concentration RSD	10.5 %	19.6 %	222.9 %	21.8 %	0.6 %	93.2 %	41.2 %	2.9 %	21.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.014 ppb	97.335 %	95.199 %	0.343 ppb	0.222 ppb
Concentration per Run 1	0.013 ppb	97.932 %	94.807 %	0.262 ppb	0.253 ppb
Concentration per Run 2	0.020 ppb	96.142 %	96.581 %	0.410 ppb	0.206 ppb
Concentration per Run 3	0.008 ppb	97.931 %	94.209 %	0.358 ppb	0.208 ppb
Recovery Percentage 1	2.738 %			34.349 %	22.221 %
Concentration RSD	45.1 %	1.1 %	1.3 %	21.9 %	11.8 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	18	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/29/2024 6:14:16 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	92.853 %	100.509 %	0.008 ppb	32.797 ppb	0.253 ppb	-0.152 ppb	12.896 ppb	3.672 ppb	104.424 %
Concentration per Run 1	91.208 %	110.737 %	0.003 ppb	23.105 ppb	0.375 ppb	-0.256 ppb	8.943 ppb	5.371 ppb	104.849 %
Concentration per Run 2	93.109 %	93.691 %	0.012 ppb	37.318 ppb	-0.021 ppb	-0.085 ppb	10.599 ppb	-0.034 ppb	103.381 %
Concentration per Run 3	94.241 %	97.100 %	0.008 ppb	37.969 ppb	0.406 ppb	-0.116 ppb	19.146 ppb	5.678 ppb	105.044 %
Recovery Percentage 1			1.595 %	32.797 %	0.362 %	-1.523 %	12.896 %	3.672 %	
Concentration RSD	1.7 %	9.0 %	56.4 %	25.6 %	94.1 %	59.7 %	42.5 %	87.5 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.081 ppb	-0.016 ppb	0.030 ppb	5.536 ppb	0.005 ppb	0.075 ppb	0.060 ppb	0.178 ppb	99.464 %
Concentration per Run 1	-0.088 ppb	-0.037 ppb	0.016 ppb	3.974 ppb	0.004 ppb	0.087 ppb	0.058 ppb	0.168 ppb	105.325 %
Concentration per Run 2	-0.096 ppb	-0.010 ppb	0.047 ppb	6.583 ppb	0.008 ppb	0.082 ppb	0.092 ppb	0.206 ppb	93.220 %
Concentration per Run 3	-0.058 ppb	-0.001 ppb	0.027 ppb	6.049 ppb	0.001 ppb	0.056 ppb	0.029 ppb	0.161 ppb	99.847 %
Recovery Percentage 1	-1.612 %	-1.618 %	2.993 %	11.071 %	0.917 %	3.758 %	5.972 %	3.564 %	
Concentration RSD	24.6 %	114.3 %	52.6 %	24.9 %	77.7 %	22.0 %	53.6 %	13.6 %	6.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.151 ppb	0.081 ppb	0.000 ppb	0.651 ppb	102.415 %	0.002 ppb	0.000 ppb	97.453 %	0.102 ppb
Concentration per Run 1	0.057 ppb	0.122 ppb	0.001 ppb	0.480 ppb	106.864 %	0.002 ppb	0.000 ppb	104.535 %	0.070 ppb
Concentration per Run 2	0.171 ppb	0.048 ppb	0.000 ppb	0.607 ppb	98.752 %	0.002 ppb	-0.001 ppb	89.976 %	0.108 ppb
Concentration per Run 3	0.226 ppb	0.073 ppb	-0.002 ppb	0.865 ppb	101.629 %	0.002 ppb	0.000 ppb	97.847 %	0.127 ppb
Recovery Percentage 1	30.287 %	1.621 %	-0.002 %	32.531 %		0.535 %	-0.181 %		2.542 %
Concentration RSD	56.7 %	46.5 %	720.3 %	30.2 %	4.0 %	6.1 %	154.2 %	7.5 %	28.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.007 ppb	98.599 %	95.894 %	0.082 ppb	0.144 ppb
Concentration per Run 1	-0.004 ppb	101.448 %	101.453 %	0.049 ppb	0.145 ppb
Concentration per Run 2	0.005 ppb	96.075 %	91.025 %	0.101 ppb	0.149 ppb
Concentration per Run 3	0.020 ppb	98.274 %	95.203 %	0.097 ppb	0.138 ppb
Recovery Percentage 1	1.394 %			8.231 %	14.407 %
Concentration RSD	176.2 %	2.7 %	5.5 %	35.2 %	3.7 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	19	User name	ALPHALAB\Metals-Instrument	Comment	FB
Analysis label:	L2448676-13 2008SL	Rack	1		
Analysis started at:	8/29/2024 6:23:55 AM	Vial	4		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.206 %	99.491 %	0.005 ppb	74.227 ppb	2.006 ppb	2.665 ppb	13.461 ppb	13.448 ppb	110.394 %
Concentration per Run 1	96.646 %	106.622 %	0.003 ppb	61.361 ppb	1.387 ppb	2.318 ppb	16.473 ppb	9.796 ppb	109.626 %
Concentration per Run 2	100.794 %	97.806 %	0.009 ppb	76.797 ppb	2.442 ppb	3.086 ppb	10.022 ppb	12.973 ppb	111.698 %
Concentration per Run 3	100.179 %	94.044 %	0.002 ppb	84.524 ppb	2.189 ppb	2.590 ppb	13.888 ppb	17.574 ppb	109.859 %
Concentration RSD	2.3 %	6.5 %	72.5 %	15.9 %	27.4 %	14.6 %	24.1 %	29.1 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.089 ppb	0.080 ppb	0.101 ppb	9.143 ppb	0.003 ppb	0.158 ppb	0.095 ppb	0.284 ppb	103.095 %
Concentration per Run 1	-0.092 ppb	0.078 ppb	0.130 ppb	7.976 ppb	0.003 ppb	0.157 ppb	0.126 ppb	0.265 ppb	102.555 %
Concentration per Run 2	-0.092 ppb	0.085 ppb	0.092 ppb	10.052 ppb	0.004 ppb	0.148 ppb	0.084 ppb	0.256 ppb	103.619 %
Concentration per Run 3	-0.082 ppb	0.077 ppb	0.081 ppb	9.402 ppb	0.002 ppb	0.170 ppb	0.076 ppb	0.330 ppb	103.112 %
Concentration RSD	6.4 %	5.1 %	25.3 %	11.6 %	29.8 %	6.7 %	28.0 %	14.2 %	0.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.047 ppb	0.044 ppb	0.020 ppb	1.963 ppb	104.486 %	0.003 ppb	0.001 ppb	100.081 %	0.307 ppb
Concentration per Run 1	0.093 ppb	0.003 ppb	0.017 ppb	1.827 ppb	105.272 %	0.005 ppb	0.001 ppb	102.217 %	0.274 ppb
Concentration per Run 2	0.020 ppb	0.027 ppb	0.021 ppb	1.930 ppb	104.200 %	0.002 ppb	0.002 ppb	97.558 %	0.330 ppb
Concentration per Run 3	0.028 ppb	0.103 ppb	0.022 ppb	2.131 ppb	103.986 %	0.003 ppb	0.001 ppb	100.468 %	0.317 ppb
Concentration RSD	84.8 %	118.1 %	14.4 %	7.9 %	0.7 %	41.1 %	47.4 %	2.4 %	9.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.038 ppb	99.447 %	98.707 %	0.043 ppb	0.096 ppb
Concentration per Run 1	0.046 ppb	100.972 %	99.423 %	0.026 ppb	0.099 ppb
Concentration per Run 2	0.048 ppb	98.793 %	98.502 %	0.049 ppb	0.099 ppb
Concentration per Run 3	0.020 ppb	98.575 %	98.195 %	0.054 ppb	0.090 ppb
Concentration RSD	41.8 %	1.3 %	0.6 %	34.4 %	5.6 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	20	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448676-10 2008SL	Rack	1		
Analysis started at:	8/29/2024 6:28:33 AM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.933 %	96.003 %	0.011 ppb	9,169.277 ppb	4,269.629 ppb	7.728 ppb	1,115.519 ppb	16,862.117 ppb	108.713 %
Concentration per Run 1	97.283 %	95.102 %	0.013 ppb	9,447.212 ppb	4,388.736 ppb	7.668 ppb	1,166.003 ppb	17,556.574 ppb	107.636 %
Concentration per Run 2	100.522 %	97.453 %	0.002 ppb	8,925.546 ppb	4,129.524 ppb	8.207 ppb	1,114.711 ppb	16,555.808 ppb	110.030 %
Concentration per Run 3	101.995 %	95.454 %	0.016 ppb	9,135.073 ppb	4,290.627 ppb	7.308 ppb	1,065.844 ppb	16,473.970 ppb	108.472 %
Concentration RSD	2.4 %	1.3 %	68.6 %	2.9 %	3.1 %	5.9 %	4.5 %	3.6 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.144 ppb	0.131 ppb	0.449 ppb	16.111 ppb	0.025 ppb	0.422 ppb	0.923 ppb	0.550 ppb	102.105 %
Concentration per Run 1	0.158 ppb	0.125 ppb	0.523 ppb	15.570 ppb	0.016 ppb	0.414 ppb	0.970 ppb	0.612 ppb	99.296 %
Concentration per Run 2	0.113 ppb	0.152 ppb	0.476 ppb	18.738 ppb	0.020 ppb	0.439 ppb	0.898 ppb	0.512 ppb	103.175 %
Concentration per Run 3	0.160 ppb	0.117 ppb	0.349 ppb	14.024 ppb	0.040 ppb	0.413 ppb	0.900 ppb	0.527 ppb	103.846 %
Concentration RSD	18.7 %	14.2 %	20.0 %	14.9 %	49.2 %	3.5 %	4.5 %	9.7 %	2.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.538 ppb	0.154 ppb	78.243 ppb	0.577 ppb	98.709 %	0.002 ppb	0.002 ppb	95.365 %	0.139 ppb
Concentration per Run 1	0.619 ppb	0.199 ppb	80.116 ppb	0.463 ppb	96.343 %	0.002 ppb	0.004 ppb	93.917 %	0.127 ppb
Concentration per Run 2	0.474 ppb	0.157 ppb	77.357 ppb	0.558 ppb	100.437 %	0.000 ppb	0.000 ppb	95.221 %	0.135 ppb
Concentration per Run 3	0.520 ppb	0.107 ppb	77.255 ppb	0.710 ppb	99.346 %	0.003 ppb	0.003 ppb	96.957 %	0.155 ppb
Concentration RSD	13.9 %	29.7 %	2.1 %	21.6 %	2.1 %	66.4 %	89.5 %	1.6 %	10.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	7.724 ppb	96.095 %	95.114 %	0.040 ppb	0.091 ppb
Concentration per Run 1	7.943 ppb	93.745 %	93.416 %	0.021 ppb	0.098 ppb
Concentration per Run 2	7.844 ppb	97.104 %	96.375 %	0.050 ppb	0.090 ppb
Concentration per Run 3	7.383 ppb	97.435 %	95.552 %	0.049 ppb	0.086 ppb
Concentration RSD	3.9 %	2.1 %	1.6 %	40.8 %	6.9 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	21	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448676-11 2008SL	Rack	1		
Analysis started at:	8/29/2024 6:33:11 AM	Vial	2		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.337 %	93.299 %	0.012 ppb	10,064.773 ppb	4,494.700 ppb	9.662 ppb	1,196.342 ppb	17,438.487 ppb	114.365 %
Concentration per Run 1	97.071 %	95.337 %	0.011 ppb	9,423.806 ppb	4,355.726 ppb	9.350 ppb	1,190.066 ppb	17,337.149 ppb	111.278 %
Concentration per Run 2	99.900 %	92.163 %	0.020 ppb	10,691.902 ppb	4,541.841 ppb	9.737 ppb	1,182.479 ppb	17,272.664 ppb	116.212 %
Concentration per Run 3	104.041 %	92.398 %	0.006 ppb	10,078.610 ppb	4,586.532 ppb	9.898 ppb	1,216.480 ppb	17,705.649 ppb	115.604 %
Concentration RSD	3.5 %	1.9 %	58.3 %	6.3 %	2.7 %	2.9 %	1.5 %	1.3 %	2.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.157 ppb	0.170 ppb	1.952 ppb	33.908 ppb	0.040 ppb	0.516 ppb	0.994 ppb	0.538 ppb	101.682 %
Concentration per Run 1	0.186 ppb	0.155 ppb	1.817 ppb	33.165 ppb	0.034 ppb	0.463 ppb	0.985 ppb	0.524 ppb	102.345 %
Concentration per Run 2	0.150 ppb	0.159 ppb	2.029 ppb	33.159 ppb	0.036 ppb	0.644 ppb	1.029 ppb	0.585 ppb	100.289 %
Concentration per Run 3	0.136 ppb	0.196 ppb	2.010 ppb	35.398 ppb	0.049 ppb	0.440 ppb	0.969 ppb	0.505 ppb	102.412 %
Concentration RSD	16.3 %	13.1 %	6.0 %	3.8 %	20.1 %	21.7 %	3.1 %	7.8 %	1.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.628 ppb	0.041 ppb	79.639 ppb	0.621 ppb	99.947 %	0.002 ppb	0.001 ppb	97.424 %	0.150 ppb
Concentration per Run 1	0.642 ppb	0.094 ppb	79.712 ppb	0.533 ppb	100.098 %	0.002 ppb	0.000 ppb	95.998 %	0.117 ppb
Concentration per Run 2	0.609 ppb	0.026 ppb	80.463 ppb	0.599 ppb	98.621 %	0.004 ppb	0.001 ppb	97.923 %	0.165 ppb
Concentration per Run 3	0.634 ppb	0.001 ppb	78.742 ppb	0.731 ppb	101.122 %	0.002 ppb	0.001 ppb	98.352 %	0.168 ppb
Concentration RSD	2.7 %	118.1 %	1.1 %	16.3 %	1.3 %	48.1 %	85.7 %	1.3 %	19.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	7.704 ppb	97.299 %	94.903 %	0.038 ppb	0.086 ppb
Concentration per Run 1	8.075 ppb	97.749 %	94.370 %	0.022 ppb	0.083 ppb
Concentration per Run 2	7.351 ppb	96.902 %	93.877 %	0.047 ppb	0.090 ppb
Concentration per Run 3	7.684 ppb	97.246 %	96.463 %	0.044 ppb	0.085 ppb
Concentration RSD	4.7 %	0.4 %	1.4 %	35.6 %	4.0 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	22	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448676-12 2008SL	Rack	1		
Analysis started at:	8/29/2024 6:37:49 AM	Vial	3		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.702 %	97.688 %	0.001 ppb	9,572.642 ppb	4,249.582 ppb	8.639 ppb	1,127.309 ppb	16,894.967 ppb	112.436 %
Concentration per Run 1	100.347 %	94.632 %	-0.003 ppb	9,461.187 ppb	4,309.517 ppb	8.759 ppb	1,173.282 ppb	17,336.408 ppb	112.294 %
Concentration per Run 2	101.529 %	99.922 %	0.007 ppb	9,258.332 ppb	4,250.012 ppb	8.903 ppb	1,082.513 ppb	16,496.998 ppb	113.028 %
Concentration per Run 3	103.229 %	98.511 %	-0.001 ppb	9,998.408 ppb	4,189.215 ppb	8.254 ppb	1,126.130 ppb	16,851.494 ppb	111.987 %
Concentration RSD	1.4 %	2.8 %	561.2 %	4.0 %	1.4 %	3.9 %	4.0 %	2.5 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.133 ppb	0.093 ppb	1.320 ppb	27.429 ppb	0.036 ppb	0.509 ppb	1.126 ppb	1.120 ppb	104.138 %
Concentration per Run 1	0.142 ppb	0.104 ppb	1.331 ppb	28.384 ppb	0.042 ppb	0.556 ppb	1.261 ppb	1.137 ppb	103.557 %
Concentration per Run 2	0.165 ppb	0.086 ppb	1.221 ppb	25.978 ppb	0.042 ppb	0.454 ppb	1.065 ppb	1.099 ppb	103.981 %
Concentration per Run 3	0.091 ppb	0.088 ppb	1.410 ppb	27.927 ppb	0.025 ppb	0.516 ppb	1.051 ppb	1.126 ppb	104.875 %
Concentration RSD	28.4 %	10.9 %	7.2 %	4.7 %	26.9 %	10.1 %	10.4 %	1.7 %	0.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.608 ppb	0.133 ppb	77.917 ppb	0.593 ppb	99.718 %	0.002 ppb	0.000 ppb	94.712 %	0.181 ppb
Concentration per Run 1	0.684 ppb	0.106 ppb	79.063 ppb	0.566 ppb	99.098 %	0.001 ppb	0.001 ppb	94.257 %	0.174 ppb
Concentration per Run 2	0.594 ppb	0.092 ppb	76.769 ppb	0.564 ppb	100.689 %	0.005 ppb	0.000 ppb	94.069 %	0.191 ppb
Concentration per Run 3	0.546 ppb	0.200 ppb	77.918 ppb	0.649 ppb	99.368 %	0.001 ppb	-0.001 ppb	95.810 %	0.178 ppb
Concentration RSD	11.5 %	44.0 %	1.5 %	8.2 %	0.9 %	85.3 %	4,854.0 %	1.0 %	4.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	7.605 ppb	93.388 %	92.268 %	0.030 ppb	0.090 ppb
Concentration per Run 1	7.822 ppb	90.739 %	91.580 %	0.016 ppb	0.090 ppb
Concentration per Run 2	7.767 ppb	93.755 %	92.351 %	0.033 ppb	0.092 ppb
Concentration per Run 3	7.227 ppb	95.670 %	92.872 %	0.040 ppb	0.087 ppb
Concentration RSD	4.3 %	2.7 %	0.7 %	42.3 %	2.4 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 23
Analysis label: L2444134-03d10 6020TL
Analysis started at: 8/29/2024 6:42:27 AM
User name ALPHALAB\Metals-Instrument
Rack 1
Vial 5
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	95.377 %	101.528 %	0.010 ppb	69,231.438 ppb	9,131.626 ppb	13.385 ppb	3,356.918 ppb	4,648.622 ppb	110.143 %
Concentration per Run 1	93.482 %	104.859 %	0.004 ppb	67,532.478 ppb	8,794.704 ppb	13.956 ppb	3,333.042 ppb	4,476.836 ppb	107.895 %
Concentration per Run 2	96.545 %	100.274 %	0.012 ppb	70,251.972 ppb	9,257.435 ppb	12.347 ppb	3,371.086 ppb	4,790.649 ppb	112.066 %
Concentration per Run 3	96.106 %	99.451 %	0.013 ppb	69,909.865 ppb	9,342.740 ppb	13.853 ppb	3,366.624 ppb	4,678.381 ppb	110.467 %
Concentration RSD	1.7 %	2.9 %	52.8 %	2.1 %	3.2 %	6.7 %	0.6 %	3.4 %	1.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.121 ppb	0.125 ppb	10.662 ppb	111.794 ppb	0.109 ppb	1.183 ppb	19.896 ppb	7.339 ppb	102.333 %
Concentration per Run 1	0.135 ppb	0.116 ppb	9.783 ppb	106.385 ppb	0.099 ppb	1.134 ppb	19.314 ppb	7.105 ppb	106.007 %
Concentration per Run 2	0.126 ppb	0.139 ppb	11.604 ppb	116.393 ppb	0.122 ppb	1.166 ppb	20.573 ppb	7.481 ppb	98.796 %
Concentration per Run 3	0.103 ppb	0.120 ppb	10.600 ppb	112.603 ppb	0.106 ppb	1.250 ppb	19.802 ppb	7.429 ppb	102.196 %
Concentration RSD	13.4 %	9.8 %	8.6 %	4.5 %	10.7 %	5.1 %	3.2 %	2.8 %	3.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.357 ppb	0.095 ppb	61.711 ppb	0.367 ppb	98.915 %	0.008 ppb	0.031 ppb	95.345 %	3.402 ppb
Concentration per Run 1	0.333 ppb	0.089 ppb	60.405 ppb	0.295 ppb	99.715 %	0.010 ppb	0.031 ppb	97.754 %	3.288 ppb
Concentration per Run 2	0.399 ppb	0.070 ppb	63.002 ppb	0.381 ppb	98.647 %	0.006 ppb	0.029 ppb	94.693 %	3.412 ppb
Concentration per Run 3	0.341 ppb	0.125 ppb	61.727 ppb	0.426 ppb	98.385 %	0.007 ppb	0.034 ppb	93.587 %	3.507 ppb
Concentration RSD	10.1 %	29.2 %	2.1 %	18.1 %	0.7 %	23.2 %	8.7 %	2.3 %	3.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	5.826 ppb	94.965 %	92.688 %	0.023 ppb	18.854 ppb
Concentration per Run 1	5.562 ppb	94.496 %	93.230 %	0.011 ppb	18.456 ppb
Concentration per Run 2	5.768 ppb	94.606 %	90.883 %	0.026 ppb	19.319 ppb
Concentration per Run 3	6.148 ppb	95.792 %	93.951 %	0.033 ppb	18.787 ppb
Concentration RSD	5.1 %	0.8 %	1.7 %	46.7 %	2.3 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	24	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2447844-01d20 6020TL	Rack	1		
Analysis started at:	8/29/2024 6:47:05 AM	Vial	6		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.826 %	95.729 %	0.009 ppb	254,686.737 ppb	30,627.555 ppb	8.910 ppb	9,684.055 ppb	9,927.563 ppb	120.157 %
Concentration per Run 1	98.811 %	98.276 %	0.006 ppb	243,245.245 ppb	29,225.134 ppb	8.882 ppb	9,414.587 ppb	9,580.103 ppb	119.703 %
Concentration per Run 2	101.274 %	95.219 %	0.015 ppb	257,626.438 ppb	31,348.035 ppb	8.725 ppb	9,624.651 ppb	10,045.472 ppb	119.444 %
Concentration per Run 3	102.394 %	93.691 %	0.005 ppb	263,188.527 ppb	31,309.495 ppb	9.123 ppb	10,012.928 ppb	10,157.115 ppb	121.326 %
Concentration RSD	1.8 %	2.4 %	64.2 %	4.0 %	4.0 %	2.3 %	3.1 %	3.1 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.023 ppb	0.029 ppb	1.868 ppb	18.871 ppb	0.014 ppb	0.155 ppb	0.285 ppb	0.450 ppb	103.954 %
Concentration per Run 1	0.008 ppb	0.018 ppb	1.838 ppb	19.113 ppb	0.012 ppb	0.119 ppb	0.273 ppb	0.398 ppb	105.698 %
Concentration per Run 2	0.025 ppb	0.048 ppb	1.831 ppb	18.226 ppb	0.018 ppb	0.168 ppb	0.264 ppb	0.495 ppb	103.375 %
Concentration per Run 3	0.036 ppb	0.021 ppb	1.935 ppb	19.276 ppb	0.012 ppb	0.178 ppb	0.319 ppb	0.456 ppb	102.789 %
Concentration RSD	60.2 %	57.3 %	3.1 %	3.0 %	24.2 %	20.2 %	10.3 %	10.8 %	1.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.303 ppb	0.109 ppb	172.061 ppb	0.468 ppb	98.704 %	0.004 ppb	0.002 ppb	96.046 %	0.060 ppb
Concentration per Run 1	0.315 ppb	0.130 ppb	166.295 ppb	0.454 ppb	100.543 %	0.003 ppb	0.001 ppb	97.736 %	0.031 ppb
Concentration per Run 2	0.276 ppb	0.160 ppb	171.842 ppb	0.422 ppb	99.300 %	0.005 ppb	0.003 ppb	94.986 %	0.069 ppb
Concentration per Run 3	0.318 ppb	0.038 ppb	178.047 ppb	0.527 ppb	96.269 %	0.005 ppb	0.002 ppb	95.416 %	0.080 ppb
Concentration RSD	7.9 %	58.4 %	3.4 %	11.5 %	2.2 %	27.1 %	50.9 %	1.5 %	42.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	1.063 ppb	95.605 %	92.779 %	0.018 ppb	0.128 ppb
Concentration per Run 1	1.013 ppb	96.860 %	94.877 %	0.008 ppb	0.142 ppb
Concentration per Run 2	0.991 ppb	95.185 %	91.022 %	0.024 ppb	0.128 ppb
Concentration per Run 3	1.184 ppb	94.772 %	92.437 %	0.024 ppb	0.114 ppb
Concentration RSD	9.9 %	1.2 %	2.1 %	50.2 %	10.8 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 25
Analysis label: L2447844-02d20 6020TL
Analysis started at: 8/29/2024 6:51:44 AM
User name ALPHALAB\Metals-Instrument
Rack 1
Vial 7
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.300 %	96.473 %	0.010 ppb	269,686.507 ppb	32,304.853 ppb	9.156 ppb	10,191.916 ppb	10,316.362 ppb	117.353 %
Concentration per Run 1	104.067 %	94.984 %	0.010 ppb	276,712.115 ppb	33,063.953 ppb	9.431 ppb	10,485.000 ppb	10,537.059 ppb	115.724 %
Concentration per Run 2	105.087 %	94.396 %	0.017 ppb	268,036.948 ppb	31,946.607 ppb	8.602 ppb	10,008.152 ppb	10,269.965 ppb	116.497 %
Concentration per Run 3	106.747 %	100.039 %	0.003 ppb	264,310.457 ppb	31,904.001 ppb	9.433 ppb	10,082.596 ppb	10,142.062 ppb	119.838 %
Concentration RSD	1.3 %	3.2 %	69.3 %	2.4 %	2.0 %	5.2 %	2.5 %	2.0 %	1.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.056 ppb	0.051 ppb	1.950 ppb	18.156 ppb	0.011 ppb	0.191 ppb	0.300 ppb	0.362 ppb	103.563 %
Concentration per Run 1	0.047 ppb	0.058 ppb	1.842 ppb	18.331 ppb	0.010 ppb	0.163 ppb	0.328 ppb	0.341 ppb	100.621 %
Concentration per Run 2	0.094 ppb	0.061 ppb	1.944 ppb	20.222 ppb	0.008 ppb	0.213 ppb	0.285 ppb	0.384 ppb	104.756 %
Concentration per Run 3	0.026 ppb	0.035 ppb	2.064 ppb	15.914 ppb	0.016 ppb	0.197 ppb	0.288 ppb	0.360 ppb	105.313 %
Concentration RSD	62.7 %	27.3 %	5.7 %	11.9 %	36.2 %	13.2 %	8.0 %	6.1 %	2.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.382 ppb	0.085 ppb	185.364 ppb	0.410 ppb	95.861 %	0.005 ppb	0.000 ppb	91.834 %	0.040 ppb
Concentration per Run 1	0.442 ppb	0.019 ppb	190.627 ppb	0.384 ppb	93.882 %	0.005 ppb	0.000 ppb	91.579 %	0.026 ppb
Concentration per Run 2	0.337 ppb	0.135 ppb	182.317 ppb	0.433 ppb	96.131 %	0.003 ppb	0.001 ppb	91.886 %	0.036 ppb
Concentration per Run 3	0.367 ppb	0.102 ppb	183.147 ppb	0.414 ppb	97.571 %	0.006 ppb	0.000 ppb	92.038 %	0.057 ppb
Concentration RSD	14.1 %	69.9 %	2.5 %	6.0 %	1.9 %	31.6 %	150.5 %	0.3 %	39.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	1.065 ppb	92.171 %	89.974 %	0.017 ppb	0.119 ppb
Concentration per Run 1	1.088 ppb	89.786 %	88.698 %	0.009 ppb	0.127 ppb
Concentration per Run 2	1.055 ppb	92.108 %	90.879 %	0.021 ppb	0.109 ppb
Concentration per Run 3	1.052 ppb	94.620 %	90.345 %	0.021 ppb	0.120 ppb
Concentration RSD	1.9 %	2.6 %	1.3 %	39.7 %	7.7 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	26	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2447844-03d40 6020TL	Rack	1		
Analysis started at:	8/29/2024 6:56:23 AM	Vial	8		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	109.765 %	101.372 %	0.005 ppb	154,522.215 ppb	19,733.766 ppb	4.435 ppb	5,933.789 ppb	5,930.649 ppb	121.573 %
Concentration per Run 1	107.340 %	98.629 %	0.000 ppb	160,049.121 ppb	20,601.725 ppb	4.591 ppb	6,116.941 ppb	6,201.038 ppb	122.469 %
Concentration per Run 2	110.491 %	101.097 %	0.011 ppb	155,132.393 ppb	19,797.942 ppb	4.418 ppb	6,067.308 ppb	5,968.001 ppb	122.084 %
Concentration per Run 3	111.463 %	104.389 %	0.003 ppb	148,385.131 ppb	18,801.632 ppb	4.296 ppb	5,617.116 ppb	5,622.908 ppb	120.167 %
Concentration RSD	2.0 %	2.9 %	122.3 %	3.8 %	4.6 %	3.3 %	4.6 %	4.9 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.022 ppb	0.046 ppb	1.329 ppb	10.814 ppb	0.008 ppb	0.213 ppb	0.271 ppb	0.462 ppb	105.646 %
Concentration per Run 1	0.041 ppb	0.047 ppb	1.319 ppb	12.273 ppb	0.011 ppb	0.239 ppb	0.298 ppb	0.449 ppb	104.662 %
Concentration per Run 2	0.026 ppb	0.051 ppb	1.300 ppb	11.878 ppb	0.007 ppb	0.204 ppb	0.264 ppb	0.450 ppb	104.966 %
Concentration per Run 3	0.000 ppb	0.038 ppb	1.370 ppb	8.290 ppb	0.007 ppb	0.197 ppb	0.252 ppb	0.486 ppb	107.311 %
Concentration RSD	91.3 %	14.4 %	2.7 %	20.3 %	29.3 %	10.4 %	8.8 %	4.6 %	1.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.274 ppb	0.056 ppb	107.474 ppb	0.309 ppb	97.916 %	0.005 ppb	0.000 ppb	94.412 %	0.024 ppb
Concentration per Run 1	0.266 ppb	0.124 ppb	109.666 ppb	0.276 ppb	95.856 %	0.006 ppb	0.000 ppb	93.233 %	0.014 ppb
Concentration per Run 2	0.334 ppb	0.011 ppb	107.173 ppb	0.308 ppb	98.009 %	0.004 ppb	-0.001 ppb	96.876 %	0.022 ppb
Concentration per Run 3	0.221 ppb	0.032 ppb	105.582 ppb	0.341 ppb	99.884 %	0.004 ppb	0.000 ppb	93.129 %	0.036 ppb
Concentration RSD	20.9 %	107.1 %	1.9 %	10.4 %	2.1 %	30.3 %	192.6 %	2.3 %	45.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.578 ppb	91.426 %	90.172 %	0.014 ppb	0.092 ppb
Concentration per Run 1	0.569 ppb	90.672 %	89.258 %	0.005 ppb	0.094 ppb
Concentration per Run 2	0.538 ppb	91.518 %	90.579 %	0.018 ppb	0.095 ppb
Concentration per Run 3	0.627 ppb	92.087 %	90.679 %	0.020 ppb	0.085 ppb
Concentration RSD	7.9 %	0.8 %	0.9 %	55.4 %	5.9 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	27	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2447844-01d40 6020TL	Rack	1		
Analysis started at:	8/29/2024 7:15:39 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.985 %	92.633 %	0.007 ppb	136,930.664 ppb	17,502.451 ppb	4.786 ppb	5,202.717 ppb	5,327.881 ppb	119.096 %
Concentration per Run 1	104.162 %	88.871 %	0.010 ppb	138,470.296 ppb	17,934.688 ppb	3.753 ppb	5,137.154 ppb	5,297.389 ppb	117.408 %
Concentration per Run 2	107.376 %	98.276 %	0.004 ppb	132,343.413 ppb	16,939.218 ppb	5.251 ppb	5,168.394 ppb	5,260.894 ppb	118.575 %
Concentration per Run 3	109.416 %	90.752 %	0.008 ppb	139,978.284 ppb	17,633.445 ppb	5.354 ppb	5,302.603 ppb	5,425.360 ppb	121.304 %
Concentration RSD	2.5 %	5.4 %	41.6 %	3.0 %	2.9 %	18.7 %	1.7 %	1.6 %	1.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.043 ppb	0.040 ppb	1.111 ppb	11.088 ppb	0.013 ppb	0.171 ppb	0.296 ppb	0.734 ppb	101.991 %
Concentration per Run 1	0.042 ppb	0.045 ppb	1.068 ppb	12.877 ppb	0.012 ppb	0.129 ppb	0.317 ppb	0.652 ppb	98.923 %
Concentration per Run 2	0.020 ppb	0.028 ppb	1.150 ppb	11.290 ppb	0.008 ppb	0.150 ppb	0.309 ppb	0.830 ppb	102.733 %
Concentration per Run 3	0.069 ppb	0.046 ppb	1.114 ppb	9.097 ppb	0.018 ppb	0.234 ppb	0.261 ppb	0.720 ppb	104.315 %
Concentration RSD	56.4 %	25.5 %	3.7 %	17.1 %	36.4 %	32.6 %	10.3 %	12.3 %	2.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.321 ppb	0.077 ppb	91.213 ppb	0.251 ppb	94.635 %	0.006 ppb	0.001 ppb	92.217 %	0.018 ppb
Concentration per Run 1	0.300 ppb	0.051 ppb	90.445 ppb	0.239 ppb	91.696 %	0.006 ppb	0.000 ppb	88.059 %	0.009 ppb
Concentration per Run 2	0.410 ppb	0.135 ppb	92.359 ppb	0.242 ppb	94.967 %	0.005 ppb	0.003 ppb	92.606 %	0.020 ppb
Concentration per Run 3	0.252 ppb	0.045 ppb	90.835 ppb	0.271 ppb	97.241 %	0.008 ppb	0.001 ppb	95.988 %	0.024 ppb
Concentration RSD	25.2 %	65.2 %	1.1 %	7.0 %	2.9 %	29.5 %	110.2 %	4.3 %	45.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.614 ppb	90.952 %	88.992 %	0.014 ppb	0.082 ppb
Concentration per Run 1	0.600 ppb	87.581 %	84.135 %	0.011 ppb	0.096 ppb
Concentration per Run 2	0.594 ppb	91.366 %	90.471 %	0.015 ppb	0.073 ppb
Concentration per Run 3	0.648 ppb	93.910 %	92.369 %	0.016 ppb	0.076 ppb
Concentration RSD	4.9 %	3.5 %	4.8 %	20.2 %	15.3 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	28	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2447844-02d40 6020TL	Rack	1		
Analysis started at:	8/29/2024 7:20:19 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	109.922 %	97.688 %	0.005 ppb	137,529.106 ppb	17,686.809 ppb	4.125 ppb	5,334.906 ppb	5,463.194 ppb	117.723 %
Concentration per Run 1	106.758 %	93.926 %	0.000 ppb	141,411.879 ppb	18,028.608 ppb	4.336 ppb	5,584.302 ppb	5,893.414 ppb	117.230 %
Concentration per Run 2	112.098 %	98.746 %	0.010 ppb	137,555.498 ppb	17,723.824 ppb	4.442 ppb	5,243.398 ppb	5,221.421 ppb	117.713 %
Concentration per Run 3	110.909 %	100.392 %	0.004 ppb	133,619.942 ppb	17,307.994 ppb	3.597 ppb	5,177.019 ppb	5,274.746 ppb	118.226 %
Concentration RSD	2.6 %	3.4 %	103.9 %	2.8 %	2.0 %	11.2 %	4.1 %	6.8 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.020 ppb	0.024 ppb	1.147 ppb	11.529 ppb	0.007 ppb	0.162 ppb	0.236 ppb	0.501 ppb	104.636 %
Concentration per Run 1	0.018 ppb	0.026 ppb	1.256 ppb	11.984 ppb	0.007 ppb	0.185 ppb	0.261 ppb	0.552 ppb	100.997 %
Concentration per Run 2	0.036 ppb	0.024 ppb	1.159 ppb	10.080 ppb	0.004 ppb	0.137 ppb	0.281 ppb	0.456 ppb	105.404 %
Concentration per Run 3	0.006 ppb	0.022 ppb	1.027 ppb	12.521 ppb	0.009 ppb	0.164 ppb	0.165 ppb	0.497 ppb	107.506 %
Concentration RSD	73.9 %	7.4 %	10.0 %	11.1 %	36.1 %	14.8 %	26.4 %	9.6 %	3.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.298 ppb	0.080 ppb	93.507 ppb	0.177 ppb	96.602 %	0.003 ppb	0.001 ppb	92.671 %	0.012 ppb
Concentration per Run 1	0.379 ppb	0.036 ppb	96.893 ppb	0.148 ppb	94.000 %	0.005 ppb	0.000 ppb	91.128 %	0.010 ppb
Concentration per Run 2	0.323 ppb	0.087 ppb	91.175 ppb	0.203 ppb	98.376 %	0.001 ppb	0.003 ppb	94.426 %	0.015 ppb
Concentration per Run 3	0.192 ppb	0.116 ppb	92.452 ppb	0.181 ppb	97.429 %	0.004 ppb	0.000 ppb	92.458 %	0.010 ppb
Concentration RSD	32.3 %	51.1 %	3.2 %	15.6 %	2.4 %	60.9 %	164.6 %	1.8 %	24.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.640 ppb	89.843 %	88.680 %	0.010 ppb	0.080 ppb
Concentration per Run 1	0.656 ppb	87.279 %	85.554 %	0.005 ppb	0.084 ppb
Concentration per Run 2	0.657 ppb	90.857 %	89.979 %	0.012 ppb	0.073 ppb
Concentration per Run 3	0.607 ppb	91.395 %	90.507 %	0.013 ppb	0.083 ppb
Concentration RSD	4.5 %	2.5 %	3.1 %	44.0 %	7.7 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	29	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/29/2024 7:25:00 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.719 %	101.881 %	60.819 ppb	6,184.770 ppb	6,160.248 ppb	64.146 ppb	6,312.485 ppb	6,043.712 ppb	124.779 %
Concentration per Run 1	99.098 %	106.858 %	61.665 ppb	6,007.485 ppb	6,043.832 ppb	62.926 ppb	6,211.808 ppb	5,912.034 ppb	123.809 %
Concentration per Run 2	102.987 %	101.332 %	60.408 ppb	6,285.694 ppb	6,284.612 ppb	65.653 ppb	6,378.504 ppb	5,928.229 ppb	124.479 %
Concentration per Run 3	106.074 %	97.453 %	60.384 ppb	6,261.132 ppb	6,152.300 ppb	63.858 ppb	6,347.143 ppb	6,290.875 ppb	126.050 %
Recovery Percentage 1			101.365 %	103.080 %	102.671 %	106.910 %	105.208 %	100.729 %	
Concentration RSD	3.4 %	4.6 %	1.2 %	2.5 %	2.0 %	2.2 %	1.4 %	3.5 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	58.697 ppb	57.747 ppb	61.453 ppb	6,051.249 ppb	61.257 ppb	61.504 ppb	61.830 ppb	61.540 ppb	104.639 %
Concentration per Run 1	54.319 ppb	54.552 ppb	57.836 ppb	5,693.386 ppb	57.041 ppb	58.475 ppb	57.707 ppb	58.992 ppb	109.798 %
Concentration per Run 2	61.261 ppb	59.614 ppb	62.925 ppb	6,270.028 ppb	63.238 ppb	62.763 ppb	63.908 ppb	62.828 ppb	102.762 %
Concentration per Run 3	60.512 ppb	59.076 ppb	63.597 ppb	6,190.334 ppb	63.493 ppb	63.275 ppb	63.875 ppb	62.801 ppb	101.358 %
Recovery Percentage 1	97.828 %	96.245 %	102.421 %	100.854 %	102.095 %	102.507 %	103.050 %	102.567 %	
Concentration RSD	6.5 %	4.8 %	5.1 %	5.2 %	6.0 %	4.3 %	5.8 %	3.6 %	4.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	60.364 ppb	58.766 ppb	58.467 ppb	58.145 ppb	102.154 %	59.983 ppb	58.442 ppb	100.951 %	56.424 ppb
Concentration per Run 1	57.756 ppb	55.659 ppb	56.485 ppb	55.861 ppb	103.294 %	57.343 ppb	55.756 ppb	102.544 %	55.328 ppb
Concentration per Run 2	61.666 ppb	58.648 ppb	59.638 ppb	59.065 ppb	101.124 %	62.007 ppb	59.482 ppb	100.338 %	57.238 ppb
Concentration per Run 3	61.672 ppb	61.991 ppb	59.278 ppb	59.509 ppb	102.043 %	60.599 ppb	60.088 ppb	99.972 %	56.706 ppb
Recovery Percentage 1	100.607 %	97.944 %	97.445 %	96.908 %		99.971 %	97.403 %		94.040 %
Concentration RSD	3.7 %	5.4 %	3.0 %	3.4 %	1.1 %	4.0 %	4.0 %	1.4 %	1.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	58.118 ppb	99.880 %	97.380 %	60.924 ppb	60.129 ppb
Concentration per Run 1	56.441 ppb	101.332 %	98.613 %	57.380 ppb	57.515 ppb
Concentration per Run 2	58.568 ppb	99.192 %	98.091 %	61.468 ppb	60.449 ppb
Concentration per Run 3	59.346 ppb	99.115 %	95.435 %	63.925 ppb	62.423 ppb
Recovery Percentage 1	96.864 %			101.541 %	100.215 %
Concentration RSD	2.6 %	1.3 %	1.7 %	5.4 %	4.1 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	30	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/29/2024 7:29:42 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	100.853 %	94.788 %	0.005 ppb	53.632 ppb	2.325 ppb	0.055 ppb	16.989 ppb	0.699 ppb	107.683 %
Concentration per Run 1	99.230 %	104.389 %	0.002 ppb	35.806 ppb	1.313 ppb	-0.256 ppb	13.958 ppb	6.149 ppb	106.125 %
Concentration per Run 2	100.421 %	87.813 %	0.004 ppb	63.702 ppb	3.002 ppb	0.106 ppb	16.404 ppb	-2.033 ppb	106.482 %
Concentration per Run 3	102.908 %	92.163 %	0.010 ppb	61.387 ppb	2.659 ppb	0.316 ppb	20.604 ppb	-2.020 ppb	110.443 %
Recovery Percentage 1			1.033 %	53.632 %	3.321 %	0.553 %	16.989 %	0.699 %	
Concentration RSD	1.9 %	9.1 %	89.6 %	28.9 %	38.4 %	522.4 %	19.8 %	675.7 %	2.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.062 ppb	0.009 ppb	0.060 ppb	12.093 ppb	0.014 ppb	0.094 ppb	0.064 ppb	0.055 ppb	99.406 %
Concentration per Run 1	-0.078 ppb	0.021 ppb	0.071 ppb	11.593 ppb	0.004 ppb	0.097 ppb	0.035 ppb	0.007 ppb	102.756 %
Concentration per Run 2	-0.047 ppb	0.014 ppb	0.087 ppb	11.634 ppb	0.010 ppb	0.091 ppb	0.085 ppb	0.061 ppb	99.270 %
Concentration per Run 3	-0.061 ppb	-0.006 ppb	0.023 ppb	13.052 ppb	0.027 ppb	0.094 ppb	0.072 ppb	0.096 ppb	96.193 %
Recovery Percentage 1	-1.239 %	0.949 %	6.033 %	24.186 %	2.723 %	4.687 %	6.408 %	1.097 %	
Concentration RSD	25.7 %	150.0 %	54.5 %	6.9 %	85.1 %	3.2 %	40.6 %	82.0 %	3.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.088 ppb	0.239 ppb	0.020 ppb	1.420 ppb	102.620 %	0.011 ppb	0.011 ppb	99.232 %	0.312 ppb
Concentration per Run 1	0.049 ppb	0.066 ppb	0.013 ppb	1.124 ppb	105.999 %	0.010 ppb	0.011 ppb	102.067 %	0.206 ppb
Concentration per Run 2	0.100 ppb	0.346 ppb	0.026 ppb	1.430 ppb	101.093 %	0.011 ppb	0.014 ppb	99.269 %	0.318 ppb
Concentration per Run 3	0.114 ppb	0.305 ppb	0.020 ppb	1.704 ppb	100.768 %	0.011 ppb	0.007 ppb	96.358 %	0.413 ppb
Recovery Percentage 1	17.553 %	4.777 %	0.197 %	70.980 %		2.687 %	5.370 %		7.805 %
Concentration RSD	38.8 %	63.2 %	31.1 %	20.4 %	2.9 %	4.9 %	31.8 %	2.9 %	33.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.016 ppb	99.835 %	98.311 %	0.309 ppb	0.054 ppb
Concentration per Run 1	0.011 ppb	102.252 %	103.540 %	0.222 ppb	0.052 ppb
Concentration per Run 2	0.016 ppb	99.424 %	96.287 %	0.377 ppb	0.058 ppb
Concentration per Run 3	0.020 ppb	97.830 %	95.106 %	0.326 ppb	0.052 ppb
Recovery Percentage 1	3.135 %			30.851 %	5.412 %
Concentration RSD	30.0 %	2.2 %	4.6 %	25.6 %	6.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	31	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1965047-1 2008TL	Rack	1		
Analysis started at:	8/29/2024 7:35:47 AM	Vial	11		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.583 %	96.356 %	0.003 ppb	55.861 ppb	1.716 ppb	2.409 ppb	8.990 ppb	11.497 ppb	102.976 %
Concentration per Run 1	103.257 %	95.102 %	0.006 ppb	64.970 ppb	1.454 ppb	2.793 ppb	14.697 ppb	17.141 ppb	101.643 %
Concentration per Run 2	105.753 %	95.925 %	0.008 ppb	52.385 ppb	1.576 ppb	2.208 ppb	5.963 ppb	7.917 ppb	102.887 %
Concentration per Run 3	107.738 %	98.041 %	-0.006 ppb	50.228 ppb	2.118 ppb	2.225 ppb	6.311 ppb	9.432 ppb	104.399 %
Concentration RSD	2.1 %	1.6 %	287.8 %	14.3 %	20.6 %	13.8 %	55.0 %	43.0 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.074 ppb	0.042 ppb	0.065 ppb	3.096 ppb	0.005 ppb	0.027 ppb	0.028 ppb	0.050 ppb	102.263 %
Concentration per Run 1	-0.064 ppb	0.036 ppb	0.032 ppb	3.301 ppb	0.004 ppb	-0.003 ppb	0.054 ppb	0.047 ppb	104.675 %
Concentration per Run 2	-0.082 ppb	0.063 ppb	0.095 ppb	2.991 ppb	0.002 ppb	0.058 ppb	0.022 ppb	0.048 ppb	101.480 %
Concentration per Run 3	-0.077 ppb	0.026 ppb	0.068 ppb	2.995 ppb	0.010 ppb	0.025 ppb	0.007 ppb	0.055 ppb	100.633 %
Concentration RSD	12.6 %	45.6 %	48.8 %	5.7 %	69.4 %	114.2 %	85.3 %	8.0 %	2.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.053 ppb	0.130 ppb	0.018 ppb	0.283 ppb	100.004 %	0.005 ppb	0.001 ppb	95.897 %	0.099 ppb
Concentration per Run 1	0.085 ppb	0.050 ppb	0.022 ppb	0.213 ppb	99.226 %	0.008 ppb	0.002 ppb	99.667 %	0.065 ppb
Concentration per Run 2	0.064 ppb	0.150 ppb	0.016 ppb	0.268 ppb	99.967 %	0.003 ppb	0.002 ppb	94.078 %	0.107 ppb
Concentration per Run 3	0.011 ppb	0.191 ppb	0.015 ppb	0.367 ppb	100.818 %	0.004 ppb	-0.001 ppb	93.946 %	0.125 ppb
Concentration RSD	72.1 %	55.7 %	22.1 %	27.6 %	0.8 %	42.3 %	172.8 %	3.4 %	31.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.017 ppb	95.836 %	96.193 %	0.079 ppb	0.034 ppb
Concentration per Run 1	0.016 ppb	95.578 %	98.103 %	0.052 ppb	0.038 ppb
Concentration per Run 2	0.013 ppb	95.074 %	95.348 %	0.092 ppb	0.032 ppb
Concentration per Run 3	0.021 ppb	96.856 %	95.129 %	0.092 ppb	0.033 ppb
Concentration RSD	23.8 %	1.0 %	1.7 %	29.6 %	10.0 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	32	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	xwg1965047-2d10 2008TL	Rack	1		
Analysis started at:	8/29/2024 7:40:28 AM	Vial	12		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	279.335 %	139.422 %	0.059 ppb	475.678 ppb	461.175 ppb	88.802 ppb	457.538 ppb	440.853 ppb	182.456 %
Concentration per Run 1	268.900 %	92.516 %	-0.010 ppb	1,215.352 ppb	1,132.462 ppb	219.569 ppb	1,184.077 ppb	1,074.084 ppb	37.377 %
Concentration per Run 2	231.176 %	131.076 %	-0.015 ppb	260.083 ppb	250.696 ppb	47.080 ppb	234.507 ppb	253.063 ppb	33.901 %
Concentration per Run 3	337.927 %	194.676 %	0.200 ppb	-48.400 ppb	0.368 ppb	-0.243 ppb	-45.971 ppb	-4.588 ppb	476.090 %
Concentration RSD	19.4 %	37.0 %	209.5 %	138.5 %	128.9 %	130.3 %	140.9 %	127.8 %	139.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	20.930 ppb	8.203 ppb	22.239 ppb	45.817 ppb	21.445 ppb	21.176 ppb	10.752 ppb	21.559 ppb	150.825 %
Concentration per Run 1	50.921 ppb	19.987 ppb	54.067 ppb	112.848 ppb	52.352 ppb	51.367 ppb	26.195 ppb	53.284 ppb	98.120 %
Concentration per Run 2	11.873 ppb	4.666 ppb	12.662 ppb	25.267 ppb	11.958 ppb	12.201 ppb	6.069 ppb	11.780 ppb	133.648 %
Concentration per Run 3	-0.006 ppb	-0.045 ppb	-0.013 ppb	-0.662 ppb	0.026 ppb	-0.040 ppb	-0.009 ppb	-0.388 ppb	220.709 %
Concentration RSD	127.3 %	127.7 %	127.2 %	129.8 %	127.9 %	126.8 %	127.6 %	130.5 %	41.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	4.740 ppb	4.742 ppb	44.542 ppb	43.603 ppb	104.520 %	2.388 ppb	2.573 ppb	65.373 %	20.180 ppb
Concentration per Run 1	12.205 ppb	12.182 ppb	106.386 ppb	99.524 ppb	97.624 %	5.069 ppb	5.348 ppb	96.590 %	40.354 ppb
Concentration per Run 2	2.496 ppb	2.063 ppb	27.193 ppb	30.427 ppb	81.721 %	2.084 ppb	2.354 ppb	55.477 %	19.698 ppb
Concentration per Run 3	-0.479 ppb	-0.019 ppb	0.048 ppb	0.856 ppb	134.216 %	0.011 ppb	0.019 ppb	44.053 %	0.486 ppb
Concentration RSD	139.9 %	137.6 %	124.0 %	116.1 %	25.8 %	106.5 %	103.8 %	42.3 %	98.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	104.080 ppb	72.259 %	74.596 %	5.683 ppb	26.265 ppb
Concentration per Run 1	209.355 ppb	94.351 %	96.560 %	11.112 ppb	52.784 ppb
Concentration per Run 2	102.482 ppb	58.536 %	58.698 %	5.847 ppb	25.840 ppb
Concentration per Run 3	0.403 ppb	63.888 %	68.531 %	0.091 ppb	0.171 ppb
Concentration RSD	100.4 %	26.7 %	26.3 %	97.0 %	100.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	33	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448672-03 2008TL	Rack	1		
Analysis started at:	8/29/2024 7:45:08 AM	Vial	13		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	107.621 %	93.574 %	0.027 ppb	13,966.858 ppb	4,572.613 ppb	410.833 ppb	1,581.769 ppb	23,727.475 ppb	110.145 %
Concentration per Run 1	105.507 %	98.393 %	0.038 ppb	14,113.213 ppb	4,689.492 ppb	432.634 ppb	1,651.977 ppb	25,128.279 ppb	110.346 %
Concentration per Run 2	106.669 %	92.398 %	0.023 ppb	13,756.804 ppb	4,455.554 ppb	398.427 ppb	1,509.883 ppb	22,647.129 ppb	109.619 %
Concentration per Run 3	110.686 %	89.929 %	0.021 ppb	14,030.556 ppb	4,572.793 ppb	401.438 ppb	1,583.446 ppb	23,407.017 ppb	110.471 %
Concentration RSD	2.5 %	4.7 %	33.2 %	1.3 %	2.6 %	4.6 %	4.5 %	5.4 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.084 ppb	0.969 ppb	54.899 ppb	822.856 ppb	0.348 ppb	1.167 ppb	2.427 ppb	4.017 ppb	100.148 %
Concentration per Run 1	1.008 ppb	0.983 ppb	55.765 ppb	822.895 ppb	0.346 ppb	1.141 ppb	2.359 ppb	4.097 ppb	102.156 %
Concentration per Run 2	1.195 ppb	0.934 ppb	53.810 ppb	835.262 ppb	0.362 ppb	1.248 ppb	2.398 ppb	3.953 ppb	100.766 %
Concentration per Run 3	1.048 ppb	0.989 ppb	55.123 ppb	810.411 ppb	0.337 ppb	1.111 ppb	2.525 ppb	4.002 ppb	97.523 %
Concentration RSD	9.1 %	3.1 %	1.8 %	1.5 %	3.6 %	6.2 %	3.6 %	1.8 %	2.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	1.038 ppb	0.267 ppb	127.551 ppb	2.001 ppb	97.734 %	0.008 ppb	0.009 ppb	97.078 %	1.081 ppb
Concentration per Run 1	1.064 ppb	0.120 ppb	138.291 ppb	1.633 ppb	96.166 %	0.009 ppb	0.007 ppb	101.839 %	0.994 ppb
Concentration per Run 2	1.015 ppb	0.286 ppb	121.632 ppb	1.956 ppb	98.863 %	0.009 ppb	0.012 ppb	94.901 %	1.084 ppb
Concentration per Run 3	1.036 ppb	0.394 ppb	122.731 ppb	2.415 ppb	98.173 %	0.008 ppb	0.009 ppb	94.493 %	1.166 ppb
Concentration RSD	2.4 %	51.7 %	7.3 %	19.7 %	1.4 %	5.8 %	28.6 %	4.3 %	8.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	23.668 ppb	96.405 %	96.677 %	0.070 ppb	1.011 ppb
Concentration per Run 1	24.820 ppb	97.890 %	99.842 %	0.050 ppb	0.977 ppb
Concentration per Run 2	22.691 ppb	95.638 %	94.174 %	0.078 ppb	1.047 ppb
Concentration per Run 3	23.492 ppb	95.686 %	96.017 %	0.083 ppb	1.010 ppb
Concentration RSD	4.5 %	1.3 %	3.0 %	25.2 %	3.5 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	34	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1965047-3d10 2008TL	Rack	1		
Analysis started at:	8/29/2024 7:49:45 AM	Vial	14		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.398 %	99.099 %	5.242 ppb	2,454.094 ppb	1,452.637 ppb	231.286 ppb	1,179.898 ppb	3,232.102 ppb	108.734 %
Concentration per Run 1	99.572 %	102.038 %	5.404 ppb	2,361.678 ppb	1,414.158 ppb	226.330 ppb	1,106.257 ppb	3,017.547 ppb	107.215 %
Concentration per Run 2	103.210 %	98.629 %	5.123 ppb	2,452.698 ppb	1,437.666 ppb	231.145 ppb	1,215.671 ppb	3,306.830 ppb	110.771 %
Concentration per Run 3	101.411 %	96.630 %	5.199 ppb	2,547.908 ppb	1,506.086 ppb	236.383 ppb	1,217.767 ppb	3,371.929 ppb	108.217 %
Concentration RSD	1.8 %	2.8 %	2.8 %	3.8 %	3.3 %	2.2 %	5.4 %	5.8 %	1.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	50.580 ppb	19.948 ppb	56.697 ppb	178.431 ppb	51.699 ppb	51.688 ppb	26.545 ppb	51.694 ppb	99.068 %
Concentration per Run 1	49.166 ppb	18.988 ppb	54.764 ppb	172.432 ppb	49.984 ppb	49.608 ppb	25.284 ppb	49.055 ppb	102.068 %
Concentration per Run 2	51.235 ppb	20.121 ppb	57.141 ppb	177.292 ppb	51.720 ppb	52.544 ppb	26.880 ppb	53.179 ppb	98.069 %
Concentration per Run 3	51.340 ppb	20.734 ppb	58.186 ppb	185.570 ppb	53.393 ppb	52.912 ppb	27.471 ppb	52.848 ppb	97.068 %
Concentration RSD	2.4 %	4.4 %	3.1 %	3.7 %	3.3 %	3.5 %	4.3 %	4.4 %	2.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	11.379 ppb	11.747 ppb	108.965 ppb	96.273 ppb	100.433 %	4.942 ppb	5.167 ppb	97.552 %	38.941 ppb
Concentration per Run 1	11.034 ppb	11.853 ppb	105.722 ppb	91.505 ppb	103.164 %	4.789 ppb	5.018 ppb	98.367 %	39.244 ppb
Concentration per Run 2	11.423 ppb	10.969 ppb	110.437 ppb	99.315 ppb	98.157 %	5.057 ppb	5.211 ppb	97.483 %	38.960 ppb
Concentration per Run 3	11.678 ppb	12.420 ppb	110.735 ppb	97.999 ppb	99.977 %	4.979 ppb	5.273 ppb	96.807 %	38.618 ppb
Concentration RSD	2.9 %	6.2 %	2.6 %	4.3 %	2.5 %	2.8 %	2.6 %	0.8 %	0.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	199.611 ppb	99.701 %	98.743 %	11.281 ppb	52.737 ppb
Concentration per Run 1	194.641 ppb	101.002 %	101.190 %	10.774 ppb	50.908 ppb
Concentration per Run 2	201.908 ppb	98.118 %	96.013 %	11.704 ppb	54.441 ppb
Concentration per Run 3	202.283 ppb	99.985 %	99.025 %	11.366 ppb	52.862 ppb
Concentration RSD	2.2 %	1.5 %	2.6 %	4.2 %	3.4 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	35	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1965047-4d10 2008TL	Rack	1		
Analysis started at:	8/29/2024 7:54:22 AM	Vial	15		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.492 %	98.197 %	5.158 ppb	2,498.572 ppb	1,449.856 ppb	233.578 ppb	1,204.225 ppb	3,206.690 ppb	99.575 %
Concentration per Run 1	98.018 %	95.454 %	5.123 ppb	2,601.476 ppb	1,501.533 ppb	244.425 ppb	1,232.264 ppb	3,291.314 ppb	99.149 %
Concentration per Run 2	101.040 %	102.743 %	5.134 ppb	2,368.528 ppb	1,390.039 ppb	225.407 ppb	1,163.431 ppb	3,040.783 ppb	99.510 %
Concentration per Run 3	99.416 %	96.395 %	5.216 ppb	2,525.710 ppb	1,457.995 ppb	230.901 ppb	1,216.979 ppb	3,287.972 ppb	100.067 %
Concentration RSD	1.5 %	4.0 %	1.0 %	4.8 %	3.9 %	4.2 %	3.0 %	4.5 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	49.757 ppb	19.938 ppb	56.416 ppb	188.481 ppb	51.529 ppb	51.145 ppb	26.448 ppb	52.134 ppb	98.233 %
Concentration per Run 1	51.406 ppb	20.544 ppb	57.566 ppb	188.674 ppb	52.415 ppb	51.690 ppb	27.068 ppb	53.293 ppb	96.326 %
Concentration per Run 2	48.014 ppb	19.274 ppb	54.179 ppb	186.363 ppb	49.998 ppb	49.264 ppb	25.630 ppb	51.034 ppb	99.966 %
Concentration per Run 3	49.850 ppb	19.995 ppb	57.503 ppb	190.407 ppb	52.173 ppb	52.480 ppb	26.646 ppb	52.075 ppb	98.408 %
Concentration RSD	3.4 %	3.2 %	3.4 %	1.1 %	2.6 %	3.3 %	2.8 %	2.2 %	1.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	11.445 ppb	11.234 ppb	112.334 ppb	105.547 ppb	96.063 %	5.163 ppb	5.390 ppb	90.890 %	44.531 ppb
Concentration per Run 1	12.009 ppb	10.363 ppb	116.254 ppb	106.204 ppb	95.823 %	5.156 ppb	5.431 ppb	90.548 %	45.432 ppb
Concentration per Run 2	11.346 ppb	11.040 ppb	109.787 ppb	105.503 ppb	95.835 %	5.221 ppb	5.390 ppb	88.948 %	45.187 ppb
Concentration per Run 3	10.980 ppb	12.298 ppb	110.962 ppb	104.933 ppb	96.531 %	5.114 ppb	5.350 ppb	93.175 %	42.974 ppb
Concentration RSD	4.6 %	8.7 %	3.1 %	0.6 %	0.4 %	1.0 %	0.8 %	2.3 %	3.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	212.261 ppb	95.029 %	93.833 %	12.038 ppb	56.003 ppb
Concentration per Run 1	217.963 ppb	94.649 %	93.243 %	12.253 ppb	56.465 ppb
Concentration per Run 2	214.245 ppb	94.433 %	93.482 %	11.898 ppb	55.758 ppb
Concentration per Run 3	204.574 ppb	96.004 %	94.774 %	11.962 ppb	55.786 ppb
Concentration RSD	3.3 %	0.9 %	0.9 %	1.6 %	0.7 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	36	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448676-06 2008TL	Rack	1		
Analysis started at:	8/29/2024 7:58:59 AM	Vial	16		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.595 %	92.986 %	0.008 ppb	10,019.263 ppb	4,439.794 ppb	13.549 ppb	1,189.065 ppb	18,271.980 ppb	106.210 %
Concentration per Run 1	103.224 %	91.457 %	0.006 ppb	10,400.766 ppb	4,538.319 ppb	13.879 ppb	1,221.471 ppb	18,601.288 ppb	104.892 %
Concentration per Run 2	105.297 %	91.222 %	0.016 ppb	9,634.029 ppb	4,470.720 ppb	13.141 ppb	1,154.811 ppb	18,067.766 ppb	105.826 %
Concentration per Run 3	108.263 %	96.277 %	0.003 ppb	10,022.993 ppb	4,310.344 ppb	13.626 ppb	1,190.913 ppb	18,146.886 ppb	107.910 %
Concentration RSD	2.4 %	3.1 %	81.3 %	3.8 %	2.6 %	2.8 %	2.8 %	1.6 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.222 ppb	0.290 ppb	5.397 ppb	32.128 ppb	0.046 ppb	0.523 ppb	0.985 ppb	0.575 ppb	98.238 %
Concentration per Run 1	0.258 ppb	0.282 ppb	5.300 ppb	33.971 ppb	0.052 ppb	0.533 ppb	0.952 ppb	0.579 ppb	95.931 %
Concentration per Run 2	0.241 ppb	0.316 ppb	5.644 ppb	30.446 ppb	0.046 ppb	0.583 ppb	1.035 ppb	0.585 ppb	98.763 %
Concentration per Run 3	0.166 ppb	0.272 ppb	5.248 ppb	31.968 ppb	0.040 ppb	0.454 ppb	0.967 ppb	0.560 ppb	100.018 %
Concentration RSD	22.2 %	7.9 %	4.0 %	5.5 %	12.8 %	12.5 %	4.5 %	2.3 %	2.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.517 ppb	0.128 ppb	85.438 ppb	3.371 ppb	96.400 %	0.002 ppb	0.001 ppb	92.304 %	2.542 ppb
Concentration per Run 1	0.512 ppb	0.169 ppb	87.389 ppb	2.652 ppb	94.356 %	0.002 ppb	0.001 ppb	90.700 %	2.346 ppb
Concentration per Run 2	0.491 ppb	0.056 ppb	84.334 ppb	3.532 ppb	97.624 %	0.004 ppb	0.002 ppb	91.535 %	2.613 ppb
Concentration per Run 3	0.549 ppb	0.158 ppb	84.591 ppb	3.930 ppb	97.221 %	0.001 ppb	0.001 ppb	94.679 %	2.667 ppb
Concentration RSD	5.6 %	48.6 %	2.0 %	19.4 %	1.8 %	52.0 %	42.1 %	2.3 %	6.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	8.088 ppb	95.173 %	94.387 %	0.045 ppb	0.064 ppb
Concentration per Run 1	8.573 ppb	92.911 %	92.797 %	0.040 ppb	0.065 ppb
Concentration per Run 2	7.787 ppb	96.909 %	95.054 %	0.052 ppb	0.065 ppb
Concentration per Run 3	7.904 ppb	95.700 %	95.309 %	0.042 ppb	0.061 ppb
Concentration RSD	5.2 %	2.2 %	1.5 %	14.0 %	4.0 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	37	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1965047-5d10 2008TL	Rack	1		
Analysis started at:	8/29/2024 8:03:36 AM	Vial	17		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.916 %	96.904 %	5.059 ppb	2,098.242 ppb	1,470.990 ppb	195.570 ppb	1,176.826 ppb	2,844.589 ppb	101.999 %
Concentration per Run 1	99.943 %	94.396 %	5.189 ppb	2,232.176 ppb	1,558.719 ppb	206.319 ppb	1,283.157 ppb	3,145.346 ppb	100.934 %
Concentration per Run 2	102.810 %	95.337 %	5.019 ppb	2,119.522 ppb	1,521.412 ppb	202.072 ppb	1,190.474 ppb	2,817.549 ppb	102.352 %
Concentration per Run 3	102.994 %	100.980 %	4.968 ppb	1,943.027 ppb	1,332.840 ppb	178.319 ppb	1,056.847 ppb	2,570.872 ppb	102.711 %
Concentration RSD	1.7 %	3.7 %	2.3 %	6.9 %	8.2 %	7.7 %	9.7 %	10.1 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	49.447 ppb	19.367 ppb	52.133 ppb	108.190 ppb	52.026 ppb	51.772 ppb	25.882 ppb	51.650 ppb	99.194 %
Concentration per Run 1	51.991 ppb	20.353 ppb	54.238 ppb	116.823 ppb	53.469 ppb	52.750 ppb	26.743 ppb	54.178 ppb	97.666 %
Concentration per Run 2	48.914 ppb	19.139 ppb	52.418 ppb	104.838 ppb	51.016 ppb	51.231 ppb	25.102 ppb	51.151 ppb	102.542 %
Concentration per Run 3	47.437 ppb	18.611 ppb	49.742 ppb	102.909 ppb	51.593 ppb	51.334 ppb	25.802 ppb	49.619 ppb	97.375 %
Concentration RSD	4.7 %	4.6 %	4.3 %	7.0 %	2.5 %	1.6 %	3.2 %	4.5 %	2.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	11.028 ppb	11.066 ppb	104.911 ppb	103.275 ppb	96.508 %	5.184 ppb	5.486 ppb	90.047 %	38.934 ppb
Concentration per Run 1	11.552 ppb	11.007 ppb	110.290 ppb	105.049 ppb	95.274 %	5.278 ppb	5.468 ppb	89.688 %	39.784 ppb
Concentration per Run 2	11.093 ppb	11.393 ppb	103.036 ppb	102.855 ppb	98.926 %	5.143 ppb	5.530 ppb	91.424 %	38.802 ppb
Concentration per Run 3	10.440 ppb	10.799 ppb	101.406 ppb	101.921 ppb	95.325 %	5.131 ppb	5.461 ppb	89.031 %	38.215 ppb
Concentration RSD	5.1 %	2.7 %	4.5 %	1.6 %	2.2 %	1.6 %	0.7 %	1.4 %	2.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	205.156 ppb	93.499 %	91.658 %	12.084 ppb	55.593 ppb
Concentration per Run 1	212.323 ppb	92.877 %	91.201 %	12.068 ppb	55.938 ppb
Concentration per Run 2	200.494 ppb	96.904 %	93.694 %	11.860 ppb	54.492 ppb
Concentration per Run 3	202.653 ppb	90.717 %	90.079 %	12.323 ppb	56.349 ppb
Concentration RSD	3.1 %	3.4 %	2.0 %	1.9 %	1.8 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	38	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1965047-6d10 2008TL	Rack	1		
Analysis started at:	8/29/2024 8:08:13 AM	Vial	18		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	99.591 %	97.061 %	5.104 ppb	2,071.162 ppb	1,431.899 ppb	196.129 ppb	1,176.818 ppb	2,819.347 ppb	101.169 %
Concentration per Run 1	97.878 %	95.219 %	5.243 ppb	2,183.296 ppb	1,508.169 ppb	218.396 ppb	1,302.204 ppb	2,978.870 ppb	102.101 %
Concentration per Run 2	99.582 %	100.392 %	5.097 ppb	2,037.624 ppb	1,401.235 ppb	190.519 ppb	1,134.653 ppb	2,729.565 ppb	100.192 %
Concentration per Run 3	101.314 %	95.572 %	4.971 ppb	1,992.567 ppb	1,386.292 ppb	179.473 ppb	1,093.596 ppb	2,749.605 ppb	101.215 %
Concentration RSD	1.7 %	3.0 %	2.7 %	4.8 %	4.6 %	10.2 %	9.4 %	4.9 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	49.080 ppb	19.763 ppb	51.570 ppb	111.186 ppb	51.632 ppb	52.194 ppb	26.372 ppb	51.682 ppb	97.626 %
Concentration per Run 1	50.260 ppb	20.065 ppb	54.312 ppb	110.184 ppb	52.305 ppb	51.991 ppb	26.472 ppb	52.771 ppb	100.914 %
Concentration per Run 2	47.510 ppb	19.396 ppb	50.052 ppb	112.842 ppb	50.853 ppb	51.504 ppb	25.801 ppb	51.043 ppb	99.604 %
Concentration per Run 3	49.469 ppb	19.828 ppb	50.345 ppb	110.531 ppb	51.740 ppb	53.086 ppb	26.843 ppb	51.233 ppb	92.361 %
Concentration RSD	2.9 %	1.7 %	4.6 %	1.3 %	1.4 %	1.6 %	2.0 %	1.8 %	4.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	11.146 ppb	11.127 ppb	104.852 ppb	104.923 ppb	94.755 %	5.222 ppb	5.585 ppb	87.617 %	42.832 ppb
Concentration per Run 1	11.375 ppb	12.048 ppb	110.899 ppb	107.400 ppb	93.793 %	5.260 ppb	5.564 ppb	92.392 %	42.418 ppb
Concentration per Run 2	11.094 ppb	10.867 ppb	104.279 ppb	104.468 ppb	94.918 %	5.187 ppb	5.579 ppb	87.885 %	43.614 ppb
Concentration per Run 3	10.970 ppb	10.465 ppb	99.379 ppb	102.901 ppb	95.555 %	5.220 ppb	5.610 ppb	82.573 %	42.464 ppb
Concentration RSD	1.9 %	7.4 %	5.5 %	2.2 %	0.9 %	0.7 %	0.4 %	5.6 %	1.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	214.577 ppb	92.098 %	92.532 %	11.736 ppb	54.254 ppb
Concentration per Run 1	214.817 ppb	93.498 %	95.285 %	11.455 ppb	52.713 ppb
Concentration per Run 2	217.453 ppb	93.112 %	93.654 %	11.761 ppb	54.272 ppb
Concentration per Run 3	211.462 ppb	89.684 %	88.658 %	11.992 ppb	55.775 ppb
Concentration RSD	1.4 %	2.3 %	3.7 %	2.3 %	2.8 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	39	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448672-01 2008TL	Rack	1		
Analysis started at:	8/29/2024 8:12:52 AM	Vial	19		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	101.090 %	92.280 %	0.059 ppb	13,164.822 ppb	4,439.966 ppb	625.122 ppb	1,499.247 ppb	22,267.897 ppb	100.683 %
Concentration per Run 1	99.681 %	91.105 %	0.063 ppb	13,344.582 ppb	4,588.903 ppb	649.971 ppb	1,551.870 ppb	23,152.414 ppb	99.782 %
Concentration per Run 2	101.952 %	100.862 %	0.056 ppb	12,528.474 ppb	4,214.328 ppb	594.929 ppb	1,443.716 ppb	21,593.807 ppb	101.040 %
Concentration per Run 3	101.638 %	84.874 %	0.056 ppb	13,621.411 ppb	4,516.665 ppb	630.465 ppb	1,502.154 ppb	22,057.470 ppb	101.226 %
Concentration RSD	1.2 %	8.7 %	7.0 %	4.3 %	4.5 %	4.5 %	3.6 %	3.6 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.628 ppb	1.373 ppb	91.815 ppb	1,380.570 ppb	0.673 ppb	1.767 ppb	2.764 ppb	5.881 ppb	94.012 %
Concentration per Run 1	1.627 ppb	1.334 ppb	91.526 ppb	1,373.619 ppb	0.667 ppb	1.772 ppb	2.723 ppb	5.839 ppb	96.485 %
Concentration per Run 2	1.589 ppb	1.361 ppb	89.388 ppb	1,349.517 ppb	0.670 ppb	1.739 ppb	2.732 ppb	5.674 ppb	95.595 %
Concentration per Run 3	1.668 ppb	1.422 ppb	94.530 ppb	1,418.573 ppb	0.681 ppb	1.789 ppb	2.835 ppb	6.131 ppb	89.958 %
Concentration RSD	2.4 %	3.3 %	2.8 %	2.5 %	1.1 %	1.4 %	2.3 %	3.9 %	3.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	1.047 ppb	0.569 ppb	121.186 ppb	3.500 ppb	94.119 %	0.010 ppb	0.021 ppb	89.615 %	3.647 ppb
Concentration per Run 1	1.032 ppb	0.648 ppb	125.892 ppb	2.757 ppb	93.113 %	0.011 ppb	0.026 ppb	92.803 %	3.299 ppb
Concentration per Run 2	1.053 ppb	0.539 ppb	120.492 ppb	3.534 ppb	96.228 %	0.008 ppb	0.023 ppb	89.708 %	3.780 ppb
Concentration per Run 3	1.056 ppb	0.520 ppb	117.172 ppb	4.209 ppb	93.017 %	0.010 ppb	0.016 ppb	86.335 %	3.863 ppb
Concentration RSD	1.3 %	12.2 %	3.6 %	20.8 %	1.9 %	12.2 %	23.7 %	3.6 %	8.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	24.648 ppb	94.334 %	92.579 %	0.045 ppb	1.470 ppb
Concentration per Run 1	24.835 ppb	94.948 %	94.357 %	0.037 ppb	1.455 ppb
Concentration per Run 2	25.328 ppb	94.545 %	92.862 %	0.049 ppb	1.466 ppb
Concentration per Run 3	23.782 ppb	93.510 %	90.516 %	0.048 ppb	1.491 ppb
Concentration RSD	3.2 %	0.8 %	2.1 %	15.2 %	1.3 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	40	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1965047-2d10 2008TL	Rack	1		
Analysis started at:	8/29/2024 8:17:30 AM	Vial	12		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	96.167 %	96.081 %	5.148 ppb	1,112.006 ppb	1,023.956 ppb	192.865 ppb	1,068.346 ppb	1,071.164 ppb	100.871 %
Concentration per Run 1	94.394 %	95.219 %	5.126 ppb	1,155.651 ppb	1,061.357 ppb	199.767 ppb	1,086.204 ppb	1,128.011 ppb	100.113 %
Concentration per Run 2	96.775 %	94.161 %	5.184 ppb	1,093.019 ppb	1,007.910 ppb	188.187 ppb	1,062.960 ppb	1,055.178 ppb	102.300 %
Concentration per Run 3	97.330 %	98.864 %	5.133 ppb	1,087.348 ppb	1,002.601 ppb	190.641 ppb	1,055.874 ppb	1,030.303 ppb	100.199 %
Concentration RSD	1.6 %	2.6 %	0.6 %	3.4 %	3.2 %	3.2 %	1.5 %	4.7 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	50.470 ppb	20.102 ppb	51.021 ppb	107.767 ppb	51.880 ppb	52.238 ppb	26.601 ppb	52.325 ppb	94.158 %
Concentration per Run 1	50.122 ppb	19.850 ppb	50.751 ppb	102.239 ppb	50.606 ppb	51.191 ppb	25.428 ppb	50.985 ppb	98.467 %
Concentration per Run 2	51.642 ppb	20.468 ppb	49.749 ppb	108.774 ppb	52.766 ppb	53.781 ppb	27.250 ppb	52.642 ppb	90.080 %
Concentration per Run 3	49.648 ppb	19.987 ppb	52.563 ppb	112.290 ppb	52.269 ppb	51.743 ppb	27.126 ppb	53.348 ppb	93.928 %
Concentration RSD	2.1 %	1.6 %	2.8 %	4.7 %	2.2 %	2.6 %	3.8 %	2.3 %	4.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	11.411 ppb	11.365 ppb	96.592 ppb	100.512 ppb	98.786 %	4.955 ppb	5.276 ppb	93.373 %	40.109 ppb
Concentration per Run 1	11.096 ppb	11.085 ppb	95.827 ppb	98.386 ppb	100.557 %	4.945 ppb	5.270 ppb	95.396 %	40.305 ppb
Concentration per Run 2	11.521 ppb	11.471 ppb	96.190 ppb	102.342 ppb	96.710 %	5.028 ppb	5.326 ppb	90.497 %	40.437 ppb
Concentration per Run 3	11.616 ppb	11.541 ppb	97.759 ppb	100.809 ppb	99.091 %	4.891 ppb	5.231 ppb	94.227 %	39.584 ppb
Concentration RSD	2.4 %	2.2 %	1.1 %	2.0 %	2.0 %	1.4 %	0.9 %	2.7 %	1.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	195.282 ppb	97.231 %	96.043 %	11.623 ppb	53.803 ppb
Concentration per Run 1	197.433 ppb	98.650 %	97.292 %	11.578 ppb	53.722 ppb
Concentration per Run 2	193.807 ppb	94.391 %	93.413 %	11.873 ppb	55.389 ppb
Concentration per Run 3	194.606 ppb	98.653 %	97.424 %	11.418 ppb	52.297 ppb
Concentration RSD	1.0 %	2.5 %	2.4 %	2.0 %	2.9 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	41	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/29/2024 8:22:11 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	93.164 %	94.749 %	61.909 ppb	6,042.210 ppb	6,046.512 ppb	59.525 ppb	6,064.202 ppb	6,031.706 ppb	111.673 %
Concentration per Run 1	91.651 %	99.922 %	61.492 ppb	5,715.221 ppb	5,681.325 ppb	57.237 ppb	5,878.835 ppb	5,881.965 ppb	109.552 %
Concentration per Run 2	93.967 %	90.282 %	62.464 ppb	6,193.070 ppb	6,157.295 ppb	60.685 ppb	6,088.023 ppb	6,077.680 ppb	113.756 %
Concentration per Run 3	93.873 %	94.044 %	61.769 ppb	6,218.340 ppb	6,300.916 ppb	60.653 ppb	6,225.747 ppb	6,135.475 ppb	111.711 %
Recovery Percentage 1			103.181 %	100.704 %	100.775 %	99.209 %	101.070 %	100.528 %	
Concentration RSD	1.4 %	5.1 %	0.8 %	4.7 %	5.4 %	3.3 %	2.9 %	2.2 %	1.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	61.539 ppb	60.131 ppb	61.106 ppb	6,067.526 ppb	62.178 ppb	62.421 ppb	62.832 ppb	62.895 ppb	93.212 %
Concentration per Run 1	57.586 ppb	56.942 ppb	57.182 ppb	5,753.217 ppb	58.402 ppb	58.315 ppb	59.003 ppb	59.931 ppb	98.501 %
Concentration per Run 2	63.303 ppb	61.220 ppb	63.056 ppb	6,192.338 ppb	64.700 ppb	65.385 ppb	65.347 ppb	64.711 ppb	87.670 %
Concentration per Run 3	63.729 ppb	62.229 ppb	63.080 ppb	6,257.023 ppb	63.432 ppb	63.562 ppb	64.146 ppb	64.043 ppb	93.464 %
Recovery Percentage 1	102.566 %	100.218 %	101.843 %	101.125 %	103.630 %	104.034 %	104.720 %	104.825 %	
Concentration RSD	5.6 %	4.7 %	5.6 %	4.5 %	5.4 %	5.9 %	5.4 %	4.1 %	5.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	61.291 ppb	59.773 ppb	58.067 ppb	62.439 ppb	98.081 %	60.012 ppb	59.741 ppb	91.535 %	60.978 ppb
Concentration per Run 1	58.299 ppb	57.945 ppb	56.264 ppb	58.338 ppb	102.459 %	56.964 ppb	56.237 ppb	96.872 %	58.915 ppb
Concentration per Run 2	61.998 ppb	58.571 ppb	57.806 ppb	64.410 ppb	93.937 %	62.573 ppb	61.710 ppb	84.503 %	61.951 ppb
Concentration per Run 3	63.575 ppb	62.803 ppb	60.133 ppb	64.571 ppb	97.848 %	60.498 ppb	61.276 ppb	93.232 %	62.068 ppb
Recovery Percentage 1	102.151 %	99.622 %	96.779 %	104.066 %		100.020 %	99.568 %		101.630 %
Concentration RSD	4.4 %	4.4 %	3.4 %	5.7 %	4.3 %	4.7 %	5.1 %	6.9 %	2.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	57.975 ppb	98.249 %	96.269 %	61.740 ppb	60.678 ppb
Concentration per Run 1	55.291 ppb	102.610 %	101.669 %	58.452 ppb	56.969 ppb
Concentration per Run 2	57.745 ppb	93.892 %	90.863 %	63.996 ppb	62.916 ppb
Concentration per Run 3	60.889 ppb	98.246 %	96.273 %	62.773 ppb	62.150 ppb
Recovery Percentage 1	96.625 %			102.900 %	101.131 %
Concentration RSD	4.8 %	4.4 %	5.6 %	4.7 %	5.3 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	42	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/29/2024 8:26:53 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.144 %	96.512 %	0.012 ppb	28.325 ppb	0.563 ppb	0.218 ppb	6.735 ppb	2.285 ppb	109.652 %
Concentration per Run 1	100.954 %	93.103 %	0.009 ppb	31.161 ppb	0.210 ppb	0.582 ppb	10.470 ppb	3.624 ppb	107.708 %
Concentration per Run 2	103.081 %	94.984 %	0.012 ppb	28.196 ppb	0.464 ppb	0.060 ppb	1.628 ppb	0.172 ppb	111.988 %
Concentration per Run 3	105.396 %	101.450 %	0.016 ppb	25.616 ppb	1.016 ppb	0.012 ppb	8.108 ppb	3.058 ppb	109.261 %
Recovery Percentage 1			2.483 %	28.325 %	0.805 %	2.177 %	6.735 %	2.285 %	
Concentration RSD	2.2 %	4.5 %	29.0 %	9.8 %	73.1 %	145.1 %	68.0 %	81.0 %	2.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.051 ppb	-0.004 ppb	0.049 ppb	11.404 ppb	0.008 ppb	0.079 ppb	0.020 ppb	-0.029 ppb	97.494 %
Concentration per Run 1	-0.062 ppb	-0.001 ppb	0.022 ppb	8.045 ppb	0.010 ppb	0.067 ppb	0.030 ppb	-0.061 ppb	98.452 %
Concentration per Run 2	-0.054 ppb	-0.011 ppb	0.087 ppb	13.493 ppb	0.010 ppb	0.096 ppb	0.011 ppb	-0.010 ppb	89.475 %
Concentration per Run 3	-0.038 ppb	-0.002 ppb	0.037 ppb	12.675 ppb	0.003 ppb	0.074 ppb	0.019 ppb	-0.017 ppb	104.553 %
Recovery Percentage 1	-1.024 %	-0.443 %	4.870 %	22.809 %	1.541 %	3.952 %	2.012 %	-0.586 %	
Concentration RSD	24.3 %	121.4 %	69.4 %	25.8 %	51.5 %	19.4 %	48.5 %	94.7 %	7.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.000 ppb	0.169 ppb	0.014 ppb	1.939 ppb	102.598 %	0.009 ppb	0.012 ppb	97.276 %	1.279 ppb
Concentration per Run 1	0.012 ppb	0.055 ppb	0.014 ppb	1.400 ppb	104.709 %	0.010 ppb	0.016 ppb	98.993 %	1.017 ppb
Concentration per Run 2	0.001 ppb	0.296 ppb	0.009 ppb	1.976 ppb	94.291 %	0.009 ppb	0.014 ppb	87.770 %	1.353 ppb
Concentration per Run 3	-0.013 ppb	0.157 ppb	0.019 ppb	2.440 ppb	108.793 %	0.008 ppb	0.006 ppb	105.066 %	1.468 ppb
Recovery Percentage 1	0.015 %	3.382 %	0.142 %	96.928 %		2.169 %	6.054 %		31.985 %
Concentration RSD	16,221.9 %	71.4 %	32.9 %	26.9 %	7.3 %	9.1 %	41.1 %	9.0 %	18.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.019 ppb	99.412 %	98.917 %	0.326 ppb	0.041 ppb
Concentration per Run 1	0.023 ppb	100.560 %	101.521 %	0.229 ppb	0.040 ppb
Concentration per Run 2	0.023 ppb	91.482 %	88.898 %	0.397 ppb	0.047 ppb
Concentration per Run 3	0.010 ppb	106.194 %	106.334 %	0.352 ppb	0.037 ppb
Recovery Percentage 1	3.788 %			32.591 %	4.147 %
Concentration RSD	40.4 %	7.5 %	9.1 %	26.7 %	11.5 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	43	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448672-07 2008TL	Rack	1		
Analysis started at:	8/29/2024 8:33:23 AM	Vial	24		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	110.029 %	108.817 %	0.003 ppb	10.040 ppb	4.582 ppb	3.886 ppb	0.211 ppb	21.795 ppb	118.282 %
Concentration per Run 1	108.069 %	115.910 %	-0.004 ppb	-1.227 ppb	3.330 ppb	3.430 ppb	-5.241 ppb	16.668 ppb	117.650 %
Concentration per Run 2	110.892 %	102.508 %	0.004 ppb	13.613 ppb	4.856 ppb	3.600 ppb	-3.165 ppb	18.286 ppb	118.362 %
Concentration per Run 3	111.125 %	108.033 %	0.008 ppb	17.735 ppb	5.561 ppb	4.628 ppb	9.039 ppb	30.430 ppb	118.836 %
Concentration RSD	1.5 %	6.2 %	229.2 %	99.3 %	24.9 %	16.7 %	3,655.0 %	34.5 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.075 ppb	0.364 ppb	0.198 ppb	7.143 ppb	0.007 ppb	0.159 ppb	0.227 ppb	1.280 ppb	113.721 %
Concentration per Run 1	-0.090 ppb	0.326 ppb	0.215 ppb	6.738 ppb	0.009 ppb	0.130 ppb	0.168 ppb	1.101 ppb	116.828 %
Concentration per Run 2	-0.074 ppb	0.362 ppb	0.182 ppb	8.225 ppb	0.006 ppb	0.166 ppb	0.248 ppb	1.390 ppb	104.542 %
Concentration per Run 3	-0.061 ppb	0.403 ppb	0.198 ppb	6.465 ppb	0.006 ppb	0.182 ppb	0.266 ppb	1.347 ppb	119.793 %
Concentration RSD	19.1 %	10.5 %	8.5 %	13.3 %	28.1 %	16.7 %	22.9 %	12.2 %	7.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.058 ppb	0.172 ppb	0.048 ppb	0.603 ppb	113.528 %	0.004 ppb	0.002 ppb	110.524 %	0.607 ppb
Concentration per Run 1	-0.067 ppb	0.195 ppb	0.042 ppb	0.416 ppb	117.139 %	0.005 ppb	0.001 ppb	115.384 %	0.476 ppb
Concentration per Run 2	-0.007 ppb	0.181 ppb	0.049 ppb	0.654 ppb	110.266 %	0.002 ppb	0.002 ppb	104.982 %	0.605 ppb
Concentration per Run 3	-0.100 ppb	0.139 ppb	0.052 ppb	0.740 ppb	113.179 %	0.003 ppb	0.003 ppb	111.206 %	0.741 ppb
Concentration RSD	81.2 %	16.9 %	10.7 %	27.8 %	3.0 %	32.6 %	69.8 %	4.7 %	21.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.043 ppb	112.051 %	112.484 %	0.077 ppb	0.042 ppb
Concentration per Run 1	0.021 ppb	115.447 %	113.000 %	0.052 ppb	0.037 ppb
Concentration per Run 2	0.039 ppb	106.822 %	110.022 %	0.093 ppb	0.045 ppb
Concentration per Run 3	0.067 ppb	113.883 %	114.430 %	0.086 ppb	0.044 ppb
Concentration RSD	54.1 %	4.1 %	2.0 %	28.3 %	10.9 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	44	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448672-02 2008TL	Rack	1		
Analysis started at:	8/29/2024 8:38:07 AM	Vial	20		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.533 %	105.173 %	0.032 ppb	12,968.937 ppb	4,278.445 ppb	401.892 ppb	1,483.686 ppb	22,293.351 ppb	114.896 %
Concentration per Run 1	105.255 %	108.386 %	0.046 ppb	12,107.963 ppb	3,978.614 ppb	368.830 ppb	1,360.109 ppb	20,696.636 ppb	113.259 %
Concentration per Run 2	107.424 %	103.919 %	0.024 ppb	13,369.790 ppb	4,463.308 ppb	421.612 ppb	1,555.014 ppb	23,405.173 ppb	115.696 %
Concentration per Run 3	106.920 %	103.213 %	0.027 ppb	13,429.059 ppb	4,393.414 ppb	415.235 ppb	1,535.934 ppb	22,778.245 ppb	115.733 %
Concentration RSD	1.1 %	2.7 %	36.8 %	5.8 %	6.1 %	7.2 %	7.2 %	6.4 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.074 ppb	0.986 ppb	56.623 ppb	830.987 ppb	0.376 ppb	1.107 ppb	2.210 ppb	3.823 ppb	110.419 %
Concentration per Run 1	1.040 ppb	0.890 ppb	54.093 ppb	787.301 ppb	0.355 ppb	1.051 ppb	2.066 ppb	3.561 ppb	113.834 %
Concentration per Run 2	1.141 ppb	1.014 ppb	57.217 ppb	871.062 ppb	0.394 ppb	1.130 ppb	2.281 ppb	3.991 ppb	109.313 %
Concentration per Run 3	1.042 ppb	1.053 ppb	58.559 ppb	834.597 ppb	0.380 ppb	1.139 ppb	2.284 ppb	3.918 ppb	108.110 %
Concentration RSD	5.3 %	8.6 %	4.0 %	5.1 %	5.2 %	4.4 %	5.7 %	6.0 %	2.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.771 ppb	0.269 ppb	120.556 ppb	0.678 ppb	109.460 %	0.004 ppb	0.013 ppb	110.087 %	0.463 ppb
Concentration per Run 1	0.694 ppb	0.243 ppb	110.382 ppb	0.515 ppb	114.347 %	0.004 ppb	0.011 ppb	111.771 %	0.392 ppb
Concentration per Run 2	0.734 ppb	0.378 ppb	129.146 ppb	0.666 ppb	107.401 %	0.004 ppb	0.014 ppb	111.360 %	0.457 ppb
Concentration per Run 3	0.886 ppb	0.186 ppb	122.139 ppb	0.854 ppb	106.633 %	0.005 ppb	0.013 ppb	107.128 %	0.538 ppb
Concentration RSD	13.2 %	36.5 %	7.9 %	25.0 %	3.9 %	16.9 %	11.7 %	2.3 %	15.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	21.898 ppb	112.024 %	112.076 %	0.053 ppb	0.960 ppb
Concentration per Run 1	21.208 ppb	111.956 %	114.793 %	0.036 ppb	0.919 ppb
Concentration per Run 2	23.097 ppb	113.021 %	112.095 %	0.060 ppb	0.959 ppb
Concentration per Run 3	21.390 ppb	111.094 %	109.340 %	0.065 ppb	1.002 ppb
Concentration RSD	4.8 %	0.9 %	2.4 %	29.4 %	4.3 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 45
Analysis label: L2448672-04 2008TL
Analysis started at: 8/29/2024 8:42:45 AM
User name ALPHALAB\Metals-Instrument
Rack 1
Vial 21
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.650 %	102.782 %	0.050 ppb	13,117.456 ppb	4,536.735 ppb	777.268 ppb	1,580.297 ppb	23,042.971 ppb	112.358 %
Concentration per Run 1	104.369 %	103.331 %	0.049 ppb	13,059.158 ppb	4,413.073 ppb	738.316 ppb	1,482.997 ppb	22,704.574 ppb	112.156 %
Concentration per Run 2	105.656 %	106.858 %	0.046 ppb	13,139.032 ppb	4,644.617 ppb	802.136 ppb	1,616.114 ppb	23,557.892 ppb	113.516 %
Concentration per Run 3	106.926 %	98.158 %	0.054 ppb	13,154.177 ppb	4,552.516 ppb	791.352 ppb	1,641.779 ppb	22,866.448 ppb	111.403 %
Concentration RSD	1.2 %	4.3 %	8.8 %	0.4 %	2.6 %	4.4 %	5.4 %	2.0 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.815 ppb	1.497 ppb	98.740 ppb	1,622.205 ppb	0.779 ppb	1.794 ppb	2.855 ppb	8.625 ppb	108.220 %
Concentration per Run 1	1.647 ppb	1.508 ppb	97.355 ppb	1,621.666 ppb	0.743 ppb	1.792 ppb	2.887 ppb	8.335 ppb	107.678 %
Concentration per Run 2	1.997 ppb	1.471 ppb	99.551 ppb	1,604.941 ppb	0.769 ppb	1.700 ppb	2.739 ppb	8.525 ppb	112.591 %
Concentration per Run 3	1.802 ppb	1.512 ppb	99.313 ppb	1,640.007 ppb	0.824 ppb	1.889 ppb	2.940 ppb	9.014 ppb	104.390 %
Concentration RSD	9.7 %	1.5 %	1.2 %	1.1 %	5.3 %	5.3 %	3.6 %	4.1 %	3.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	1.021 ppb	0.342 ppb	128.272 ppb	0.578 ppb	107.309 %	0.009 ppb	0.030 ppb	106.275 %	0.395 ppb
Concentration per Run 1	1.012 ppb	0.334 ppb	122.810 ppb	0.443 ppb	108.462 %	0.007 ppb	0.036 ppb	106.897 %	0.336 ppb
Concentration per Run 2	1.029 ppb	0.517 ppb	136.319 ppb	0.641 ppb	107.811 %	0.008 ppb	0.038 ppb	110.603 %	0.422 ppb
Concentration per Run 3	1.021 ppb	0.174 ppb	125.686 ppb	0.651 ppb	105.654 %	0.012 ppb	0.018 ppb	101.326 %	0.427 ppb
Concentration RSD	0.8 %	50.1 %	5.5 %	20.3 %	1.4 %	24.3 %	35.1 %	4.4 %	12.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	25.726 ppb	109.071 %	110.159 %	0.049 ppb	1.776 ppb
Concentration per Run 1	24.932 ppb	109.164 %	109.638 %	0.034 ppb	1.771 ppb
Concentration per Run 2	25.977 ppb	112.171 %	113.394 %	0.055 ppb	1.757 ppb
Concentration per Run 3	26.270 ppb	105.877 %	107.445 %	0.057 ppb	1.800 ppb
Concentration RSD	2.7 %	2.9 %	2.7 %	26.0 %	1.3 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 46
Analysis label: L2448672-05 2008TL
Analysis started at: 8/29/2024 8:47:24 AM
User name ALPHALAB\Metals-Instrument
Rack 1
Vial 22
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.813 %	102.312 %	0.031 ppb	13,305.429 ppb	4,480.512 ppb	434.845 ppb	1,508.642 ppb	22,911.207 ppb	107.049 %
Concentration per Run 1	104.083 %	99.687 %	0.034 ppb	13,338.923 ppb	4,505.935 ppb	429.922 ppb	1,479.914 ppb	22,827.535 ppb	106.081 %
Concentration per Run 2	106.178 %	107.328 %	0.029 ppb	13,281.698 ppb	4,480.968 ppb	452.758 ppb	1,559.647 ppb	23,515.628 ppb	107.068 %
Concentration per Run 3	107.179 %	99.922 %	0.030 ppb	13,295.666 ppb	4,454.634 ppb	421.855 ppb	1,486.364 ppb	22,390.457 ppb	107.999 %
Concentration RSD	1.5 %	4.2 %	9.1 %	0.2 %	0.6 %	3.7 %	2.9 %	2.5 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.184 ppb	0.862 ppb	67.638 ppb	957.066 ppb	0.434 ppb	1.300 ppb	2.236 ppb	4.618 ppb	106.368 %
Concentration per Run 1	1.212 ppb	0.955 ppb	68.536 ppb	967.908 ppb	0.397 ppb	1.495 ppb	2.361 ppb	4.731 ppb	103.174 %
Concentration per Run 2	1.153 ppb	0.850 ppb	67.644 ppb	967.095 ppb	0.445 ppb	1.208 ppb	2.212 ppb	4.625 ppb	109.874 %
Concentration per Run 3	1.187 ppb	0.782 ppb	66.734 ppb	936.196 ppb	0.459 ppb	1.199 ppb	2.136 ppb	4.499 ppb	106.054 %
Concentration RSD	2.5 %	10.1 %	1.3 %	1.9 %	7.5 %	12.9 %	5.1 %	2.5 %	3.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.906 ppb	0.417 ppb	128.482 ppb	0.566 ppb	102.443 %	0.003 ppb	0.017 ppb	100.475 %	0.333 ppb
Concentration per Run 1	0.900 ppb	0.649 ppb	127.355 ppb	0.507 ppb	99.801 %	0.005 ppb	0.019 ppb	95.839 %	0.292 ppb
Concentration per Run 2	0.926 ppb	0.185 ppb	136.173 ppb	0.536 ppb	104.227 %	0.004 ppb	0.014 ppb	107.893 %	0.338 ppb
Concentration per Run 3	0.894 ppb	0.418 ppb	121.917 ppb	0.653 ppb	103.302 %	0.001 ppb	0.019 ppb	97.694 %	0.369 ppb
Concentration RSD	1.9 %	55.5 %	5.6 %	13.7 %	2.3 %	54.5 %	17.6 %	6.5 %	11.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	24.509 ppb	102.557 %	101.672 %	0.043 ppb	1.217 ppb
Concentration per Run 1	24.693 ppb	100.944 %	99.496 %	0.030 ppb	1.245 ppb
Concentration per Run 2	25.192 ppb	104.735 %	105.364 %	0.047 ppb	1.182 ppb
Concentration per Run 3	23.643 ppb	101.991 %	100.156 %	0.053 ppb	1.225 ppb
Concentration RSD	3.2 %	1.9 %	3.2 %	27.0 %	2.6 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	47	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448672-06 2008TL	Rack	1		
Analysis started at:	8/29/2024 8:52:04 AM	Vial	23		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.669 %	106.270 %	0.039 ppb	13,014.606 ppb	4,343.211 ppb	422.510 ppb	1,496.490 ppb	22,873.873 ppb	106.065 %
Concentration per Run 1	104.646 %	102.861 %	0.046 ppb	13,272.038 ppb	4,373.706 ppb	417.478 ppb	1,515.312 ppb	23,389.415 ppb	105.571 %
Concentration per Run 2	105.951 %	104.271 %	0.038 ppb	13,638.259 ppb	4,640.023 ppb	456.986 ppb	1,550.369 ppb	23,473.975 ppb	106.621 %
Concentration per Run 3	106.410 %	111.677 %	0.034 ppb	12,133.521 ppb	4,015.903 ppb	393.067 ppb	1,423.788 ppb	21,758.229 ppb	106.002 %
Concentration RSD	0.9 %	4.5 %	14.9 %	6.0 %	7.2 %	7.6 %	4.4 %	4.2 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.087 ppb	0.940 ppb	62.173 ppb	918.850 ppb	0.441 ppb	1.108 ppb	2.249 ppb	3.933 ppb	106.513 %
Concentration per Run 1	1.093 ppb	1.017 ppb	62.826 ppb	926.655 ppb	0.442 ppb	1.174 ppb	2.331 ppb	4.050 ppb	102.740 %
Concentration per Run 2	1.159 ppb	0.913 ppb	62.851 ppb	945.571 ppb	0.435 ppb	1.032 ppb	2.181 ppb	3.889 ppb	110.765 %
Concentration per Run 3	1.009 ppb	0.891 ppb	60.841 ppb	884.326 ppb	0.446 ppb	1.118 ppb	2.235 ppb	3.859 ppb	106.035 %
Concentration RSD	6.9 %	7.1 %	1.9 %	3.4 %	1.3 %	6.5 %	3.4 %	2.6 %	3.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.925 ppb	0.238 ppb	128.203 ppb	0.535 ppb	103.093 %	0.006 ppb	0.014 ppb	100.072 %	0.300 ppb
Concentration per Run 1	0.976 ppb	0.354 ppb	129.702 ppb	0.449 ppb	98.954 %	0.007 ppb	0.014 ppb	95.475 %	0.277 ppb
Concentration per Run 2	0.930 ppb	0.195 ppb	132.163 ppb	0.576 ppb	107.109 %	0.006 ppb	0.014 ppb	105.818 %	0.296 ppb
Concentration per Run 3	0.867 ppb	0.165 ppb	122.745 ppb	0.581 ppb	103.217 %	0.006 ppb	0.014 ppb	98.922 %	0.326 ppb
Concentration RSD	5.9 %	42.6 %	3.8 %	14.0 %	4.0 %	10.3 %	2.2 %	5.3 %	8.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	24.755 ppb	103.605 %	104.399 %	0.034 ppb	1.107 ppb
Concentration per Run 1	25.098 ppb	97.855 %	98.643 %	0.026 ppb	1.137 ppb
Concentration per Run 2	25.143 ppb	108.058 %	110.464 %	0.035 ppb	1.073 ppb
Concentration per Run 3	24.023 ppb	104.903 %	104.090 %	0.040 ppb	1.112 ppb
Concentration RSD	2.6 %	5.0 %	5.7 %	21.2 %	2.9 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	48	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448676-01 2008TL	Rack	1		
Analysis started at:	8/29/2024 8:56:43 AM	Vial	25		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	109.212 %	108.582 %	0.011 ppb	8,969.049 ppb	4,204.134 ppb	16.842 ppb	1,142.682 ppb	17,384.919 ppb	118.865 %
Concentration per Run 1	107.419 %	115.204 %	0.013 ppb	8,434.881 ppb	3,936.622 ppb	16.877 ppb	1,105.813 ppb	16,786.072 ppb	118.627 %
Concentration per Run 2	109.600 %	101.567 %	0.001 ppb	9,693.077 ppb	4,506.987 ppb	17.586 ppb	1,171.518 ppb	17,966.209 ppb	117.769 %
Concentration per Run 3	110.617 %	108.974 %	0.020 ppb	8,779.188 ppb	4,168.793 ppb	16.065 ppb	1,150.715 ppb	17,402.475 ppb	120.200 %
Concentration RSD	1.5 %	6.3 %	87.8 %	7.2 %	6.8 %	4.5 %	2.9 %	3.4 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.249 ppb	0.375 ppb	6.212 ppb	35.670 ppb	0.080 ppb	0.507 ppb	0.939 ppb	0.982 ppb	111.783 %
Concentration per Run 1	0.210 ppb	0.352 ppb	5.784 ppb	33.856 ppb	0.069 ppb	0.454 ppb	0.933 ppb	0.889 ppb	116.495 %
Concentration per Run 2	0.303 ppb	0.398 ppb	6.394 ppb	36.434 ppb	0.094 ppb	0.530 ppb	0.957 ppb	1.004 ppb	111.391 %
Concentration per Run 3	0.234 ppb	0.374 ppb	6.458 ppb	36.719 ppb	0.077 ppb	0.536 ppb	0.929 ppb	1.052 ppb	107.462 %
Concentration RSD	19.4 %	6.1 %	6.0 %	4.4 %	16.2 %	9.0 %	1.7 %	8.5 %	4.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.428 ppb	0.095 ppb	82.646 ppb	0.353 ppb	109.059 %	0.007 ppb	0.008 ppb	108.720 %	0.214 ppb
Concentration per Run 1	0.361 ppb	0.022 ppb	80.701 ppb	0.314 ppb	113.906 %	0.006 ppb	0.012 ppb	113.205 %	0.172 ppb
Concentration per Run 2	0.437 ppb	0.211 ppb	84.002 ppb	0.355 ppb	107.648 %	0.009 ppb	0.004 ppb	107.947 %	0.224 ppb
Concentration per Run 3	0.486 ppb	0.051 ppb	83.235 ppb	0.391 ppb	105.622 %	0.007 ppb	0.008 ppb	105.008 %	0.245 ppb
Concentration RSD	14.7 %	107.5 %	2.1 %	10.8 %	4.0 %	21.4 %	45.5 %	3.8 %	17.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	7.841 ppb	109.535 %	111.871 %	0.021 ppb	0.043 ppb
Concentration per Run 1	7.332 ppb	112.755 %	120.248 %	0.011 ppb	0.039 ppb
Concentration per Run 2	8.274 ppb	108.785 %	110.730 %	0.027 ppb	0.043 ppb
Concentration per Run 3	7.916 ppb	107.064 %	104.636 %	0.026 ppb	0.047 ppb
Concentration RSD	6.1 %	2.7 %	7.0 %	42.3 %	9.8 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	49	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448676-02 2008TL	Rack	1		
Analysis started at:	8/29/2024 9:01:20 AM	Vial	26		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	110.847 %	108.856 %	0.009 ppb	9,239.884 ppb	4,309.118 ppb	13.933 ppb	1,163.205 ppb	17,262.921 ppb	122.180 %
Concentration per Run 1	108.736 %	109.091 %	0.013 ppb	8,826.393 ppb	4,116.243 ppb	12.923 ppb	1,105.559 ppb	16,449.759 ppb	121.260 %
Concentration per Run 2	111.974 %	107.798 %	0.009 ppb	9,577.872 ppb	4,398.148 ppb	14.191 ppb	1,195.470 ppb	17,801.085 ppb	122.927 %
Concentration per Run 3	111.830 %	109.679 %	0.005 ppb	9,315.388 ppb	4,412.963 ppb	14.686 ppb	1,188.587 ppb	17,537.919 ppb	122.352 %
Concentration RSD	1.7 %	0.9 %	43.2 %	4.1 %	3.9 %	6.5 %	4.3 %	4.1 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.235 ppb	0.356 ppb	5.001 ppb	27.925 ppb	0.071 ppb	0.561 ppb	0.868 ppb	0.468 ppb	114.432 %
Concentration per Run 1	0.236 ppb	0.365 ppb	4.713 ppb	25.925 ppb	0.076 ppb	0.497 ppb	0.867 ppb	0.425 ppb	114.655 %
Concentration per Run 2	0.278 ppb	0.345 ppb	5.327 ppb	29.033 ppb	0.066 ppb	0.563 ppb	0.861 ppb	0.458 ppb	115.427 %
Concentration per Run 3	0.192 ppb	0.359 ppb	4.964 ppb	28.816 ppb	0.072 ppb	0.624 ppb	0.877 ppb	0.522 ppb	113.213 %
Concentration RSD	18.1 %	2.8 %	6.2 %	6.2 %	7.2 %	11.3 %	0.9 %	10.5 %	1.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.410 ppb	0.089 ppb	82.174 ppb	0.319 ppb	111.399 %	0.006 ppb	0.008 ppb	111.516 %	0.208 ppb
Concentration per Run 1	0.366 ppb	0.098 ppb	76.473 ppb	0.255 ppb	114.873 %	0.005 ppb	0.010 ppb	111.689 %	0.161 ppb
Concentration per Run 2	0.411 ppb	0.111 ppb	86.740 ppb	0.346 ppb	110.075 %	0.006 ppb	0.007 ppb	115.041 %	0.207 ppb
Concentration per Run 3	0.453 ppb	0.058 ppb	83.310 ppb	0.355 ppb	109.250 %	0.006 ppb	0.007 ppb	107.818 %	0.257 ppb
Concentration RSD	10.6 %	31.0 %	6.4 %	17.4 %	2.7 %	10.1 %	24.0 %	3.2 %	23.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	7.827 ppb	111.060 %	110.847 %	0.020 ppb	0.028 ppb
Concentration per Run 1	7.580 ppb	113.263 %	114.900 %	0.010 ppb	0.025 ppb
Concentration per Run 2	7.909 ppb	111.680 %	110.537 %	0.025 ppb	0.032 ppb
Concentration per Run 3	7.994 ppb	108.236 %	107.105 %	0.024 ppb	0.027 ppb
Concentration RSD	2.8 %	2.3 %	3.5 %	42.5 %	12.0 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	50	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448676-03 2008TL	Rack	1		
Analysis started at:	8/29/2024 9:05:57 AM	Vial	27		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	111.020 %	114.068 %	0.005 ppb	9,542.511 ppb	4,405.027 ppb	15.010 ppb	1,182.026 ppb	18,186.912 ppb	115.538 %
Concentration per Run 1	109.340 %	113.088 %	-0.002 ppb	9,700.026 ppb	4,440.714 ppb	14.799 ppb	1,187.820 ppb	18,245.272 ppb	113.844 %
Concentration per Run 2	109.988 %	115.087 %	0.010 ppb	9,513.506 ppb	4,437.067 ppb	15.445 ppb	1,202.020 ppb	18,274.915 ppb	116.225 %
Concentration per Run 3	113.733 %	114.029 %	0.008 ppb	9,414.002 ppb	4,337.300 ppb	14.786 ppb	1,156.239 ppb	18,040.547 ppb	116.547 %
Concentration RSD	2.1 %	0.9 %	128.6 %	1.5 %	1.3 %	2.5 %	2.0 %	0.7 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.233 ppb	0.300 ppb	5.261 ppb	28.614 ppb	0.037 ppb	0.521 ppb	0.988 ppb	0.671 ppb	112.835 %
Concentration per Run 1	0.225 ppb	0.325 ppb	5.188 ppb	31.515 ppb	0.043 ppb	0.572 ppb	1.025 ppb	0.758 ppb	107.399 %
Concentration per Run 2	0.259 ppb	0.294 ppb	5.448 ppb	25.189 ppb	0.031 ppb	0.507 ppb	0.857 ppb	0.650 ppb	120.519 %
Concentration per Run 3	0.214 ppb	0.280 ppb	5.147 ppb	29.139 ppb	0.036 ppb	0.483 ppb	1.081 ppb	0.605 ppb	110.588 %
Concentration RSD	10.0 %	7.6 %	3.1 %	11.2 %	15.3 %	8.9 %	11.8 %	11.7 %	6.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.499 ppb	0.099 ppb	88.407 ppb	0.369 ppb	108.428 %	0.002 ppb	0.003 ppb	105.503 %	0.152 ppb
Concentration per Run 1	0.505 ppb	0.110 ppb	89.404 ppb	0.347 ppb	104.111 %	0.003 ppb	0.003 ppb	100.163 %	0.123 ppb
Concentration per Run 2	0.510 ppb	0.089 ppb	89.891 ppb	0.362 ppb	111.999 %	0.002 ppb	0.003 ppb	112.209 %	0.153 ppb
Concentration per Run 3	0.482 ppb	0.097 ppb	85.926 ppb	0.399 ppb	109.175 %	0.001 ppb	0.002 ppb	104.135 %	0.180 ppb
Concentration RSD	3.0 %	10.5 %	2.4 %	7.3 %	3.7 %	41.2 %	30.4 %	5.8 %	18.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	8.168 ppb	104.508 %	103.725 %	0.018 ppb	0.037 ppb
Concentration per Run 1	8.173 ppb	100.313 %	98.071 %	0.008 ppb	0.041 ppb
Concentration per Run 2	8.198 ppb	106.635 %	109.733 %	0.022 ppb	0.034 ppb
Concentration per Run 3	8.134 ppb	106.576 %	103.372 %	0.025 ppb	0.036 ppb
Concentration RSD	0.4 %	3.5 %	5.6 %	49.0 %	11.0 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	51	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448676-04 2008TL	Rack	1		
Analysis started at:	8/29/2024 9:10:34 AM	Vial	28		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	111.509 %	111.952 %	0.009 ppb	9,525.124 ppb	4,482.459 ppb	82.173 ppb	1,207.873 ppb	18,028.033 ppb	123.633 %
Concentration per Run 1	108.311 %	116.615 %	0.012 ppb	8,971.421 ppb	4,155.598 ppb	75.031 ppb	1,114.570 ppb	16,657.871 ppb	122.744 %
Concentration per Run 2	112.051 %	110.619 %	0.009 ppb	10,036.739 ppb	4,857.129 ppb	91.947 ppb	1,299.922 ppb	19,309.792 ppb	123.221 %
Concentration per Run 3	114.163 %	108.621 %	0.006 ppb	9,567.212 ppb	4,434.649 ppb	79.542 ppb	1,209.127 ppb	18,116.436 ppb	124.934 %
Concentration RSD	2.7 %	3.7 %	29.5 %	5.6 %	7.9 %	10.7 %	7.7 %	7.4 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.345 ppb	0.418 ppb	11.002 ppb	135.899 ppb	0.085 ppb	0.579 ppb	0.955 ppb	0.524 ppb	113.651 %
Concentration per Run 1	0.308 ppb	0.412 ppb	10.119 ppb	128.040 ppb	0.094 ppb	0.570 ppb	0.941 ppb	0.494 ppb	115.743 %
Concentration per Run 2	0.309 ppb	0.375 ppb	11.481 ppb	139.773 ppb	0.073 ppb	0.603 ppb	0.894 ppb	0.570 ppb	116.502 %
Concentration per Run 3	0.418 ppb	0.466 ppb	11.406 ppb	139.882 ppb	0.088 ppb	0.565 ppb	1.031 ppb	0.507 ppb	108.709 %
Concentration RSD	18.3 %	10.9 %	7.0 %	5.0 %	12.7 %	3.6 %	7.3 %	7.8 %	3.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.494 ppb	0.189 ppb	85.342 ppb	0.336 ppb	110.630 %	0.001 ppb	0.002 ppb	112.498 %	0.133 ppb
Concentration per Run 1	0.437 ppb	0.283 ppb	79.675 ppb	0.265 ppb	114.220 %	0.000 ppb	0.001 ppb	114.151 %	0.098 ppb
Concentration per Run 2	0.565 ppb	0.225 ppb	91.261 ppb	0.344 ppb	109.192 %	0.002 ppb	0.004 ppb	116.207 %	0.136 ppb
Concentration per Run 3	0.480 ppb	0.060 ppb	85.090 ppb	0.400 ppb	108.479 %	0.002 ppb	0.000 ppb	107.137 %	0.164 ppb
Concentration RSD	13.1 %	61.1 %	6.8 %	20.2 %	2.8 %	113.6 %	141.4 %	4.2 %	25.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	9.209 ppb	110.206 %	109.675 %	0.018 ppb	0.110 ppb
Concentration per Run 1	8.552 ppb	110.816 %	112.766 %	0.007 ppb	0.103 ppb
Concentration per Run 2	9.487 ppb	111.965 %	110.957 %	0.023 ppb	0.115 ppb
Concentration per Run 3	9.588 ppb	107.838 %	105.302 %	0.023 ppb	0.111 ppb
Concentration RSD	6.2 %	1.9 %	3.6 %	52.0 %	5.5 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	52	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448676-05 2008TL	Rack	1		
Analysis started at:	8/29/2024 9:15:12 AM	Vial	29		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	112.580 %	111.599 %	0.001 ppb	9,591.281 ppb	4,384.535 ppb	23.181 ppb	1,223.393 ppb	18,458.298 ppb	117.782 %
Concentration per Run 1	109.884 %	108.503 %	0.001 ppb	9,789.039 ppb	4,419.038 ppb	21.329 ppb	1,250.698 ppb	18,709.680 ppb	118.602 %
Concentration per Run 2	112.884 %	116.380 %	0.001 ppb	9,531.183 ppb	4,332.254 ppb	27.298 ppb	1,226.548 ppb	18,462.831 ppb	117.042 %
Concentration per Run 3	114.974 %	109.914 %	0.002 ppb	9,453.620 ppb	4,402.313 ppb	20.915 ppb	1,192.935 ppb	18,202.385 ppb	117.702 %
Concentration RSD	2.3 %	3.8 %	52.1 %	1.8 %	1.1 %	15.4 %	2.4 %	1.4 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.252 ppb	0.361 ppb	6.603 ppb	38.877 ppb	0.051 ppb	0.472 ppb	0.918 ppb	0.338 ppb	112.858 %
Concentration per Run 1	0.283 ppb	0.379 ppb	6.634 ppb	42.201 ppb	0.050 ppb	0.466 ppb	0.933 ppb	0.325 ppb	107.259 %
Concentration per Run 2	0.236 ppb	0.349 ppb	6.699 ppb	37.802 ppb	0.037 ppb	0.454 ppb	0.900 ppb	0.360 ppb	121.322 %
Concentration per Run 3	0.236 ppb	0.357 ppb	6.478 ppb	36.628 ppb	0.066 ppb	0.496 ppb	0.919 ppb	0.329 ppb	109.993 %
Concentration RSD	10.7 %	4.3 %	1.7 %	7.6 %	28.7 %	4.7 %	1.8 %	5.6 %	6.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.437 ppb	0.122 ppb	86.155 ppb	0.313 ppb	109.745 %	0.002 ppb	0.002 ppb	106.691 %	0.123 ppb
Concentration per Run 1	0.469 ppb	0.040 ppb	86.095 ppb	0.301 ppb	107.694 %	0.002 ppb	-0.001 ppb	103.293 %	0.108 ppb
Concentration per Run 2	0.436 ppb	0.151 ppb	88.555 ppb	0.272 ppb	112.522 %	0.002 ppb	0.004 ppb	111.653 %	0.123 ppb
Concentration per Run 3	0.405 ppb	0.174 ppb	83.814 ppb	0.366 ppb	109.019 %	0.002 ppb	0.004 ppb	105.129 %	0.139 ppb
Concentration RSD	7.4 %	58.6 %	2.8 %	15.4 %	2.3 %	11.2 %	125.3 %	4.1 %	12.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	8.090 ppb	107.052 %	105.784 %	0.015 ppb	0.043 ppb
Concentration per Run 1	7.833 ppb	103.397 %	100.732 %	0.010 ppb	0.048 ppb
Concentration per Run 2	8.312 ppb	111.659 %	110.566 %	0.017 ppb	0.040 ppb
Concentration per Run 3	8.125 ppb	106.102 %	106.052 %	0.018 ppb	0.041 ppb
Concentration RSD	3.0 %	3.9 %	4.7 %	27.6 %	10.6 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	53	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/29/2024 9:19:49 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.329 %	113.598 %	63.103 ppb	6,217.557 ppb	6,140.789 ppb	63.578 ppb	6,333.109 ppb	5,997.948 ppb	125.858 %
Concentration per Run 1	103.287 %	119.671 %	63.642 ppb	6,067.109 ppb	5,900.646 ppb	61.926 ppb	6,250.185 ppb	6,012.581 ppb	127.389 %
Concentration per Run 2	105.379 %	109.209 %	62.618 ppb	6,382.404 ppb	6,328.655 ppb	65.892 ppb	6,496.608 ppb	6,131.772 ppb	125.305 %
Concentration per Run 3	104.321 %	111.913 %	63.049 ppb	6,203.158 ppb	6,193.065 ppb	62.915 ppb	6,252.533 ppb	5,849.490 ppb	124.881 %
Recovery Percentage 1			105.172 %	103.626 %	102.346 %	105.963 %	105.552 %	99.966 %	
Concentration RSD	1.0 %	4.8 %	0.8 %	2.5 %	3.6 %	3.2 %	2.2 %	2.4 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	60.066 ppb	58.721 ppb	60.940 ppb	5,975.764 ppb	60.635 ppb	61.316 ppb	61.678 ppb	61.887 ppb	113.178 %
Concentration per Run 1	58.200 ppb	55.886 ppb	58.922 ppb	5,764.730 ppb	59.121 ppb	59.832 ppb	59.625 ppb	59.469 ppb	116.574 %
Concentration per Run 2	61.117 ppb	60.138 ppb	62.128 ppb	5,999.406 ppb	61.388 ppb	61.115 ppb	62.502 ppb	62.677 ppb	111.676 %
Concentration per Run 3	60.880 ppb	60.139 ppb	61.771 ppb	6,163.157 ppb	61.395 ppb	63.002 ppb	62.906 ppb	63.515 ppb	111.286 %
Recovery Percentage 1	100.109 %	97.868 %	101.567 %	99.596 %	101.058 %	102.194 %	102.796 %	103.145 %	
Concentration RSD	2.7 %	4.2 %	2.9 %	3.4 %	2.2 %	2.6 %	2.9 %	3.5 %	2.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	61.150 ppb	60.541 ppb	59.705 ppb	57.979 ppb	113.746 %	60.411 ppb	59.255 ppb	109.371 %	57.786 ppb
Concentration per Run 1	59.578 ppb	59.210 ppb	58.003 ppb	56.086 ppb	117.028 %	58.510 ppb	56.914 ppb	112.559 %	56.194 ppb
Concentration per Run 2	62.317 ppb	61.031 ppb	60.998 ppb	58.758 ppb	112.935 %	61.553 ppb	60.213 ppb	108.227 %	58.587 ppb
Concentration per Run 3	61.554 ppb	61.382 ppb	60.114 ppb	59.091 ppb	111.275 %	61.171 ppb	60.637 ppb	107.327 %	58.577 ppb
Recovery Percentage 1	101.916 %	100.902 %	99.508 %	96.631 %		100.686 %	98.758 %		96.310 %
Concentration RSD	2.3 %	1.9 %	2.6 %	2.8 %	2.6 %	2.7 %	3.4 %	2.6 %	2.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	58.648 ppb	112.237 %	110.868 %	61.151 ppb	60.913 ppb
Concentration per Run 1	56.732 ppb	116.214 %	113.364 %	58.184 ppb	58.858 ppb
Concentration per Run 2	59.771 ppb	109.586 %	110.107 %	61.351 ppb	61.146 ppb
Concentration per Run 3	59.440 ppb	110.911 %	109.132 %	63.918 ppb	62.735 ppb
Recovery Percentage 1	97.746 %			101.918 %	101.522 %
Concentration RSD	2.8 %	3.1 %	2.0 %	4.7 %	3.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	54	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/29/2024 9:24:31 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	102.549 %	111.168 %	0.015 ppb	25.502 ppb	0.948 ppb	0.031 ppb	10.088 ppb	4.713 ppb	106.642 %
Concentration per Run 1	101.144 %	109.209 %	0.023 ppb	20.843 ppb	0.906 ppb	0.189 ppb	10.904 ppb	3.747 ppb	106.263 %
Concentration per Run 2	102.931 %	112.030 %	0.007 ppb	20.674 ppb	1.488 ppb	-0.069 ppb	6.544 ppb	3.511 ppb	106.341 %
Concentration per Run 3	103.571 %	112.265 %	0.015 ppb	34.990 ppb	0.451 ppb	-0.028 ppb	12.817 ppb	6.883 ppb	107.322 %
Recovery Percentage 1			3.033 %	25.502 %	1.355 %	0.306 %	10.088 %	4.713 %	
Concentration RSD	1.2 %	1.5 %	51.1 %	32.2 %	54.8 %	452.6 %	31.9 %	39.9 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.058 ppb	-0.002 ppb	0.016 ppb	11.197 ppb	0.009 ppb	0.069 ppb	0.010 ppb	-0.032 ppb	107.901 %
Concentration per Run 1	-0.066 ppb	0.000 ppb	0.028 ppb	10.160 ppb	0.011 ppb	0.064 ppb	0.009 ppb	-0.002 ppb	106.989 %
Concentration per Run 2	-0.067 ppb	0.005 ppb	-0.004 ppb	11.386 ppb	0.009 ppb	0.064 ppb	-0.005 ppb	-0.077 ppb	106.923 %
Concentration per Run 3	-0.042 ppb	-0.011 ppb	0.026 ppb	12.047 ppb	0.009 ppb	0.080 ppb	0.026 ppb	-0.015 ppb	109.791 %
Recovery Percentage 1	-1.167 %	-0.208 %	1.646 %	22.395 %	1.885 %	3.466 %	0.993 %	-0.635 %	
Concentration RSD	24.4 %	406.6 %	109.1 %	8.6 %	10.8 %	13.4 %	154.7 %	126.0 %	1.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.018 ppb	0.348 ppb	0.015 ppb	1.398 ppb	114.450 %	0.011 ppb	0.015 ppb	111.298 %	0.402 ppb
Concentration per Run 1	-0.061 ppb	0.407 ppb	0.015 ppb	1.179 ppb	111.782 %	0.011 ppb	0.022 ppb	107.157 %	0.316 ppb
Concentration per Run 2	0.029 ppb	0.425 ppb	0.019 ppb	1.380 ppb	114.138 %	0.014 ppb	0.012 ppb	108.226 %	0.391 ppb
Concentration per Run 3	-0.023 ppb	0.212 ppb	0.011 ppb	1.635 ppb	117.429 %	0.008 ppb	0.012 ppb	118.510 %	0.499 ppb
Recovery Percentage 1	-3.677 %	6.961 %	0.148 %	69.906 %		2.798 %	7.582 %		10.054 %
Concentration RSD	246.2 %	34.0 %	27.2 %	16.3 %	2.5 %	23.4 %	37.1 %	5.6 %	22.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.019 ppb	112.796 %	110.368 %	0.321 ppb	0.026 ppb
Concentration per Run 1	0.030 ppb	111.962 %	106.706 %	0.248 ppb	0.033 ppb
Concentration per Run 2	0.009 ppb	110.058 %	107.434 %	0.400 ppb	0.025 ppb
Concentration per Run 3	0.017 ppb	116.368 %	116.964 %	0.314 ppb	0.019 ppb
Recovery Percentage 1	3.815 %			32.075 %	2.568 %
Concentration RSD	56.1 %	2.9 %	5.2 %	23.9 %	26.6 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	55	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448676-13 2008TL	Rack	1		
Analysis started at:	8/29/2024 9:33:36 AM	Vial	33		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	111.142 %	111.873 %	0.003 ppb	4.413 ppb	2.254 ppb	2.529 ppb	0.707 ppb	14.911 ppb	120.360 %
Concentration per Run 1	108.437 %	108.856 %	0.002 ppb	4.746 ppb	2.772 ppb	2.629 ppb	-3.633 ppb	17.437 ppb	118.402 %
Concentration per Run 2	112.847 %	110.855 %	0.009 ppb	3.654 ppb	1.185 ppb	2.348 ppb	4.723 ppb	8.479 ppb	121.928 %
Concentration per Run 3	112.140 %	115.910 %	-0.003 ppb	4.838 ppb	2.805 ppb	2.611 ppb	1.032 ppb	18.817 ppb	120.749 %
Concentration RSD	2.1 %	3.2 %	225.6 %	14.9 %	41.1 %	6.2 %	592.0 %	37.6 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.085 ppb	0.199 ppb	0.022 ppb	3.711 ppb	-0.001 ppb	0.055 ppb	0.082 ppb	0.084 ppb	113.320 %
Concentration per Run 1	-0.084 ppb	0.194 ppb	0.039 ppb	3.308 ppb	-0.001 ppb	0.028 ppb	0.096 ppb	0.107 ppb	109.562 %
Concentration per Run 2	-0.089 ppb	0.208 ppb	0.014 ppb	3.209 ppb	0.000 ppb	0.061 ppb	0.098 ppb	0.107 ppb	109.187 %
Concentration per Run 3	-0.082 ppb	0.194 ppb	0.014 ppb	4.615 ppb	-0.002 ppb	0.077 ppb	0.051 ppb	0.037 ppb	121.210 %
Concentration RSD	3.9 %	4.1 %	64.1 %	21.1 %	94.4 %	45.6 %	32.7 %	48.1 %	6.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.054 ppb	0.124 ppb	0.022 ppb	0.354 ppb	117.001 %	0.003 ppb	0.000 ppb	116.872 %	0.164 ppb
Concentration per Run 1	-0.055 ppb	0.237 ppb	0.023 ppb	0.266 ppb	113.096 %	0.003 ppb	0.001 ppb	116.826 %	0.129 ppb
Concentration per Run 2	-0.026 ppb	0.016 ppb	0.020 ppb	0.346 ppb	117.768 %	0.002 ppb	0.001 ppb	112.174 %	0.162 ppb
Concentration per Run 3	-0.081 ppb	0.119 ppb	0.022 ppb	0.448 ppb	120.138 %	0.004 ppb	0.000 ppb	121.617 %	0.199 ppb
Concentration RSD	50.4 %	89.3 %	5.8 %	25.8 %	3.1 %	37.0 %	127.1 %	4.0 %	21.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.013 ppb	113.458 %	112.672 %	0.078 ppb	0.009 ppb
Concentration per Run 1	0.002 ppb	109.304 %	108.441 %	0.053 ppb	0.009 ppb
Concentration per Run 2	0.026 ppb	111.917 %	111.031 %	0.097 ppb	0.009 ppb
Concentration per Run 3	0.010 ppb	119.152 %	118.544 %	0.082 ppb	0.008 ppb
Concentration RSD	98.8 %	4.5 %	4.7 %	28.8 %	5.6 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	56	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448676-10 2008TL	Rack	1		
Analysis started at:	8/29/2024 9:38:16 AM	Vial	30		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	112.313 %	110.737 %	0.011 ppb	9,565.378 ppb	4,543.936 ppb	35.273 ppb	1,205.654 ppb	18,277.823 ppb	117.364 %
Concentration per Run 1	109.763 %	108.621 %	0.014 ppb	9,562.687 ppb	4,514.896 ppb	34.185 ppb	1,169.367 ppb	18,069.678 ppb	116.193 %
Concentration per Run 2	111.501 %	107.798 %	0.007 ppb	9,918.796 ppb	4,759.884 ppb	36.723 ppb	1,275.040 ppb	19,219.261 ppb	117.003 %
Concentration per Run 3	115.675 %	115.792 %	0.011 ppb	9,214.651 ppb	4,357.029 ppb	34.911 ppb	1,172.556 ppb	17,544.531 ppb	118.895 %
Concentration RSD	2.7 %	4.0 %	30.4 %	3.7 %	4.5 %	3.7 %	5.0 %	4.7 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.206 ppb	0.382 ppb	9.128 ppb	65.968 ppb	0.051 ppb	0.507 ppb	0.939 ppb	0.509 ppb	115.013 %
Concentration per Run 1	0.209 ppb	0.404 ppb	8.643 ppb	66.583 ppb	0.052 ppb	0.462 ppb	0.923 ppb	0.423 ppb	113.852 %
Concentration per Run 2	0.189 ppb	0.385 ppb	9.453 ppb	66.651 ppb	0.042 ppb	0.483 ppb	0.965 ppb	0.560 ppb	115.954 %
Concentration per Run 3	0.220 ppb	0.356 ppb	9.288 ppb	64.671 ppb	0.058 ppb	0.577 ppb	0.930 ppb	0.544 ppb	115.233 %
Concentration RSD	7.6 %	6.4 %	4.7 %	1.7 %	15.6 %	12.1 %	2.4 %	14.7 %	0.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.478 ppb	0.156 ppb	84.944 ppb	0.346 ppb	111.491 %	0.003 ppb	0.000 ppb	108.641 %	0.153 ppb
Concentration per Run 1	0.434 ppb	0.169 ppb	83.871 ppb	0.268 ppb	106.480 %	0.003 ppb	0.001 ppb	105.072 %	0.122 ppb
Concentration per Run 2	0.501 ppb	0.134 ppb	87.506 ppb	0.339 ppb	113.093 %	0.003 ppb	0.001 ppb	112.159 %	0.154 ppb
Concentration per Run 3	0.500 ppb	0.166 ppb	83.455 ppb	0.431 ppb	114.900 %	0.002 ppb	-0.001 ppb	108.692 %	0.181 ppb
Concentration RSD	8.0 %	12.3 %	2.6 %	23.7 %	4.0 %	20.1 %	519.8 %	3.3 %	19.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	8.537 ppb	108.529 %	109.121 %	0.044 ppb	0.071 ppb
Concentration per Run 1	8.407 ppb	103.812 %	102.412 %	0.031 ppb	0.075 ppb
Concentration per Run 2	8.716 ppb	111.715 %	115.228 %	0.047 ppb	0.068 ppb
Concentration per Run 3	8.490 ppb	110.060 %	109.723 %	0.053 ppb	0.070 ppb
Concentration RSD	1.9 %	3.8 %	5.9 %	26.2 %	4.7 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	57	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448676-11 2008TL	Rack	1		
Analysis started at:	8/29/2024 9:42:54 AM	Vial	31		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	112.826 %	114.146 %	0.003 ppb	9,513.118 ppb	4,400.967 ppb	16.742 ppb	1,203.284 ppb	17,980.093 ppb	128.300 %
Concentration per Run 1	109.563 %	117.790 %	0.001 ppb	9,055.499 ppb	4,156.940 ppb	17.033 ppb	1,157.587 ppb	17,448.948 ppb	126.515 %
Concentration per Run 2	113.599 %	115.204 %	0.006 ppb	9,755.250 ppb	4,572.018 ppb	16.662 ppb	1,233.639 ppb	18,527.578 ppb	129.800 %
Concentration per Run 3	115.316 %	109.444 %	0.002 ppb	9,728.606 ppb	4,473.944 ppb	16.531 ppb	1,218.627 ppb	17,963.754 ppb	128.583 %
Concentration RSD	2.6 %	3.7 %	68.3 %	4.2 %	4.9 %	1.6 %	3.3 %	3.0 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.211 ppb	0.389 ppb	6.167 ppb	32.662 ppb	0.037 ppb	0.479 ppb	0.871 ppb	0.232 ppb	118.538 %
Concentration per Run 1	0.189 ppb	0.352 ppb	5.801 ppb	33.228 ppb	0.044 ppb	0.421 ppb	0.881 ppb	0.232 ppb	118.099 %
Concentration per Run 2	0.256 ppb	0.398 ppb	6.403 ppb	32.167 ppb	0.030 ppb	0.481 ppb	0.805 ppb	0.232 ppb	121.607 %
Concentration per Run 3	0.188 ppb	0.416 ppb	6.295 ppb	32.591 ppb	0.037 ppb	0.533 ppb	0.926 ppb	0.232 ppb	115.908 %
Concentration RSD	18.6 %	8.5 %	5.2 %	1.6 %	18.6 %	11.8 %	7.0 %	0.2 %	2.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.445 ppb	0.115 ppb	82.515 ppb	0.392 ppb	115.850 %	0.001 ppb	0.001 ppb	115.919 %	0.110 ppb
Concentration per Run 1	0.481 ppb	0.137 ppb	79.109 ppb	0.357 ppb	118.024 %	0.001 ppb	-0.001 ppb	114.452 %	0.095 ppb
Concentration per Run 2	0.473 ppb	0.089 ppb	86.579 ppb	0.400 ppb	115.823 %	0.001 ppb	0.001 ppb	122.048 %	0.107 ppb
Concentration per Run 3	0.382 ppb	0.119 ppb	81.857 ppb	0.419 ppb	113.703 %	0.003 ppb	0.003 ppb	111.258 %	0.129 ppb
Concentration RSD	12.3 %	21.0 %	4.6 %	8.0 %	1.9 %	64.1 %	220.4 %	4.8 %	15.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	7.606 ppb	115.233 %	114.881 %	0.031 ppb	0.032 ppb
Concentration per Run 1	7.444 ppb	116.680 %	114.550 %	0.019 ppb	0.032 ppb
Concentration per Run 2	7.780 ppb	118.498 %	119.887 %	0.034 ppb	0.033 ppb
Concentration per Run 3	7.594 ppb	110.520 %	110.205 %	0.041 ppb	0.031 ppb
Concentration RSD	2.2 %	3.6 %	4.2 %	36.4 %	2.9 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	58	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448676-12 2008TL	Rack	1		
Analysis started at:	8/29/2024 9:47:33 AM	Vial	32		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	112.683 %	115.478 %	0.007 ppb	9,602.219 ppb	4,454.936 ppb	14.047 ppb	1,201.903 ppb	17,816.125 ppb	118.496 %
Concentration per Run 1	110.086 %	116.145 %	0.006 ppb	9,640.339 ppb	4,461.323 ppb	13.711 ppb	1,205.342 ppb	18,032.967 ppb	117.803 %
Concentration per Run 2	112.332 %	118.026 %	0.015 ppb	9,749.444 ppb	4,547.575 ppb	14.357 ppb	1,228.101 ppb	17,968.173 ppb	119.209 %
Concentration per Run 3	115.631 %	112.265 %	0.001 ppb	9,416.875 ppb	4,355.911 ppb	14.074 ppb	1,172.267 ppb	17,447.234 ppb	118.474 %
Concentration RSD	2.5 %	2.5 %	98.1 %	1.8 %	2.2 %	2.3 %	2.3 %	1.8 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.211 ppb	0.278 ppb	5.359 ppb	29.590 ppb	0.031 ppb	0.499 ppb	0.895 ppb	0.476 ppb	115.791 %
Concentration per Run 1	0.205 ppb	0.311 ppb	5.255 ppb	30.100 ppb	0.019 ppb	0.500 ppb	0.850 ppb	0.460 ppb	112.158 %
Concentration per Run 2	0.210 ppb	0.276 ppb	5.705 ppb	28.308 ppb	0.042 ppb	0.432 ppb	0.917 ppb	0.445 ppb	121.741 %
Concentration per Run 3	0.219 ppb	0.247 ppb	5.117 ppb	30.361 ppb	0.033 ppb	0.564 ppb	0.919 ppb	0.523 ppb	113.473 %
Concentration RSD	3.3 %	11.7 %	5.7 %	3.8 %	37.4 %	13.2 %	4.4 %	8.6 %	4.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.471 ppb	0.139 ppb	86.783 ppb	0.349 ppb	110.699 %	0.001 ppb	0.000 ppb	107.585 %	0.120 ppb
Concentration per Run 1	0.517 ppb	0.267 ppb	85.827 ppb	0.309 ppb	108.609 %	0.000 ppb	-0.001 ppb	104.144 %	0.098 ppb
Concentration per Run 2	0.421 ppb	0.034 ppb	90.381 ppb	0.366 ppb	112.874 %	0.001 ppb	0.001 ppb	113.420 %	0.126 ppb
Concentration per Run 3	0.476 ppb	0.117 ppb	84.142 ppb	0.372 ppb	110.614 %	0.001 ppb	0.001 ppb	105.192 %	0.136 ppb
Concentration RSD	10.2 %	85.0 %	3.7 %	10.0 %	1.9 %	58.2 %	548.2 %	4.7 %	16.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	8.238 ppb	107.610 %	106.369 %	0.027 ppb	0.024 ppb
Concentration per Run 1	8.140 ppb	104.875 %	101.019 %	0.018 ppb	0.025 ppb
Concentration per Run 2	8.180 ppb	110.182 %	112.613 %	0.030 ppb	0.023 ppb
Concentration per Run 3	8.395 ppb	107.772 %	105.474 %	0.033 ppb	0.023 ppb
Concentration RSD	1.7 %	2.5 %	5.5 %	29.2 %	4.6 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	59	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2448114-01 2008TL	Rack	1		
Analysis started at:	8/29/2024 9:52:11 AM	Vial	34		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	119.799 %	104.898 %	0.060 ppb	666,878.960 ppb	9,993.309 ppb	1,301.066 ppb	80,367.422 ppb	219,443.788 ppb	127.885 %
Concentration per Run 1	116.757 %	101.215 %	0.058 ppb	680,206.630 ppb	10,137.073 ppb	1,297.911 ppb	81,025.846 ppb	224,975.500 ppb	123.768 %
Concentration per Run 2	120.159 %	112.383 %	0.061 ppb	650,447.703 ppb	9,931.735 ppb	1,305.842 ppb	77,383.959 ppb	212,990.540 ppb	130.573 %
Concentration per Run 3	122.480 %	101.097 %	0.061 ppb	669,982.546 ppb	9,911.120 ppb	1,299.444 ppb	82,692.462 ppb	220,365.323 ppb	129.314 %
Concentration RSD	2.4 %	6.2 %	2.4 %	2.3 %	1.3 %	0.3 %	3.4 %	2.8 %	2.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	2.626 ppb	3.057 ppb	278.796 ppb	946.333 ppb	3.564 ppb	23.710 ppb	132.410 ppb	149.660 ppb	108.450 %
Concentration per Run 1	2.837 ppb	3.138 ppb	280.600 ppb	977.905 ppb	3.731 ppb	24.401 ppb	135.493 ppb	153.296 ppb	102.762 %
Concentration per Run 2	2.478 ppb	2.805 ppb	266.518 ppb	903.547 ppb	3.227 ppb	22.339 ppb	125.806 ppb	145.015 ppb	117.180 %
Concentration per Run 3	2.563 ppb	3.229 ppb	289.270 ppb	957.546 ppb	3.734 ppb	24.389 ppb	135.931 ppb	150.667 ppb	105.408 %
Concentration RSD	7.2 %	7.3 %	4.1 %	4.1 %	8.2 %	5.0 %	4.3 %	2.8 %	7.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	2.347 ppb	2.006 ppb	3,056.424 ppb	42.865 ppb	97.578 %	0.065 ppb	0.103 ppb	97.524 %	1.728 ppb
Concentration per Run 1	2.434 ppb	1.887 ppb	3,099.176 ppb	43.766 ppb	94.413 %	0.065 ppb	0.098 ppb	91.905 %	1.737 ppb
Concentration per Run 2	2.191 ppb	2.098 ppb	3,100.533 ppb	42.917 ppb	99.780 %	0.066 ppb	0.094 ppb	105.045 %	1.708 ppb
Concentration per Run 3	2.414 ppb	2.033 ppb	2,969.562 ppb	41.912 ppb	98.541 %	0.065 ppb	0.118 ppb	95.624 %	1.738 ppb
Concentration RSD	5.8 %	5.4 %	2.5 %	2.2 %	2.9 %	0.9 %	12.5 %	6.9 %	1.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	62.270 ppb	102.155 %	101.248 %	0.064 ppb	72.257 ppb
Concentration per Run 1	64.248 ppb	97.389 %	96.575 %	0.056 ppb	74.603 ppb
Concentration per Run 2	62.176 ppb	106.387 %	107.472 %	0.069 ppb	69.336 ppb
Concentration per Run 3	60.387 ppb	102.688 %	99.698 %	0.068 ppb	72.833 ppb
Concentration RSD	3.1 %	4.4 %	5.5 %	10.5 %	3.7 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	60	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448039-01 6020TL	Rack	1		
Analysis started at:	8/29/2024 9:56:51 AM	Vial	35		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	125.734 %	112.853 %	0.005 ppb	49,407.816 ppb	53,061.655 ppb	24.237 ppb	5,944.857 ppb	98,927.196 ppb	130.986 %
Concentration per Run 1	121.470 %	118.378 %	0.005 ppb	45,081.706 ppb	48,139.276 ppb	20.187 ppb	5,544.253 ppb	91,323.840 ppb	127.245 %
Concentration per Run 2	124.384 %	107.680 %	0.005 ppb	51,045.169 ppb	54,440.735 ppb	25.961 ppb	5,981.561 ppb	100,700.918 ppb	130.357 %
Concentration per Run 3	131.349 %	112.500 %	0.004 ppb	52,096.572 ppb	56,604.953 ppb	26.564 ppb	6,308.757 ppb	104,756.830 ppb	135.356 %
Concentration RSD	4.0 %	4.7 %	14.0 %	7.7 %	8.3 %	14.5 %	6.5 %	7.0 %	3.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.123 ppb	0.129 ppb	15.160 ppb	2,961.681 ppb	0.559 ppb	0.323 ppb	0.305 ppb	0.128 ppb	118.669 %
Concentration per Run 1	0.081 ppb	0.102 ppb	13.874 ppb	2,748.063 ppb	0.523 ppb	0.300 ppb	0.257 ppb	0.126 ppb	121.966 %
Concentration per Run 2	0.130 ppb	0.159 ppb	15.757 ppb	3,065.177 ppb	0.581 ppb	0.362 ppb	0.331 ppb	0.136 ppb	113.687 %
Concentration per Run 3	0.158 ppb	0.128 ppb	15.849 ppb	3,071.803 ppb	0.572 ppb	0.306 ppb	0.329 ppb	0.122 ppb	120.356 %
Concentration RSD	31.6 %	21.9 %	7.4 %	6.2 %	5.7 %	10.5 %	13.9 %	5.8 %	3.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.184 ppb	0.152 ppb	245.116 ppb	1.862 ppb	109.997 %	0.004 ppb	0.000 ppb	109.247 %	0.076 ppb
Concentration per Run 1	0.133 ppb	0.154 ppb	226.392 ppb	1.525 ppb	114.302 %	0.004 ppb	-0.001 ppb	111.010 %	0.056 ppb
Concentration per Run 2	0.141 ppb	0.166 ppb	244.681 ppb	1.867 ppb	107.310 %	0.004 ppb	0.000 ppb	106.582 %	0.074 ppb
Concentration per Run 3	0.277 ppb	0.135 ppb	264.275 ppb	2.194 ppb	108.379 %	0.004 ppb	0.000 ppb	110.151 %	0.099 ppb
Concentration RSD	43.7 %	10.4 %	7.7 %	18.0 %	3.4 %	6.9 %	132.2 %	2.1 %	28.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	47.327 ppb	109.949 %	108.981 %	0.018 ppb	0.084 ppb
Concentration per Run 1	44.942 ppb	115.065 %	110.811 %	0.006 ppb	0.083 ppb
Concentration per Run 2	47.620 ppb	108.458 %	107.880 %	0.023 ppb	0.086 ppb
Concentration per Run 3	49.419 ppb	106.323 %	108.252 %	0.024 ppb	0.083 ppb
Concentration RSD	4.8 %	4.1 %	1.5 %	57.6 %	2.1 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 61
Analysis label: L2448039-02 6020TL
Analysis started at: 8/29/2024 10:01:30 AM
User name ALPHALAB\Metals-Instrument
Rack 1
Vial 36
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	125.884 %	117.790 %	0.005 ppb	44,782.176 ppb	48,116.695 ppb	14.302 ppb	5,361.450 ppb	90,805.421 ppb	143.173 %
Concentration per Run 1	122.694 %	112.971 %	0.001 ppb	47,268.608 ppb	51,657.525 ppb	14.295 ppb	5,721.644 ppb	98,771.207 ppb	141.160 %
Concentration per Run 2	126.252 %	121.435 %	0.007 ppb	44,884.140 ppb	48,133.610 ppb	14.137 ppb	5,419.728 ppb	90,243.783 ppb	142.230 %
Concentration per Run 3	128.705 %	118.966 %	0.009 ppb	42,193.779 ppb	44,558.950 ppb	14.474 ppb	4,942.978 ppb	83,401.274 ppb	146.129 %
Concentration RSD	2.4 %	3.7 %	72.7 %	5.7 %	7.4 %	1.2 %	7.3 %	8.5 %	1.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.129 ppb	0.118 ppb	15.437 ppb	3,162.331 ppb	0.551 ppb	0.287 ppb	0.317 ppb	0.234 ppb	120.630 %
Concentration per Run 1	0.134 ppb	0.126 ppb	16.923 ppb	3,429.543 ppb	0.586 ppb	0.362 ppb	0.398 ppb	0.306 ppb	111.139 %
Concentration per Run 2	0.115 ppb	0.109 ppb	14.884 ppb	3,097.066 ppb	0.530 ppb	0.222 ppb	0.320 ppb	0.249 ppb	125.011 %
Concentration per Run 3	0.138 ppb	0.118 ppb	14.506 ppb	2,960.383 ppb	0.538 ppb	0.275 ppb	0.234 ppb	0.148 ppb	125.739 %
Concentration RSD	9.8 %	7.0 %	8.4 %	7.6 %	5.5 %	24.7 %	26.0 %	34.3 %	6.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.131 ppb	0.071 ppb	228.913 ppb	0.985 ppb	112.706 %	0.007 ppb	0.000 ppb	113.933 %	0.055 ppb
Concentration per Run 1	0.158 ppb	0.096 ppb	244.281 ppb	0.954 ppb	103.447 %	0.008 ppb	0.001 ppb	99.882 %	0.050 ppb
Concentration per Run 2	0.166 ppb	0.053 ppb	235.842 ppb	1.023 ppb	114.457 %	0.007 ppb	0.000 ppb	117.780 %	0.054 ppb
Concentration per Run 3	0.069 ppb	0.065 ppb	206.614 ppb	0.979 ppb	120.213 %	0.005 ppb	0.000 ppb	124.138 %	0.061 ppb
Concentration RSD	41.4 %	31.4 %	8.6 %	3.5 %	7.6 %	22.7 %	336.0 %	11.0 %	10.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	43.531 ppb	115.981 %	115.559 %	0.014 ppb	0.091 ppb
Concentration per Run 1	46.759 ppb	105.553 %	103.506 %	0.009 ppb	0.104 ppb
Concentration per Run 2	45.594 ppb	115.988 %	118.203 %	0.015 ppb	0.095 ppb
Concentration per Run 3	38.241 ppb	126.403 %	124.967 %	0.019 ppb	0.074 ppb
Concentration RSD	10.6 %	9.0 %	9.5 %	36.8 %	16.6 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	62	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448039-03 6020TL	Rack	1		
Analysis started at:	8/29/2024 10:06:10 AM	Vial	37		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	131.840 %	116.732 %	0.008 ppb	132,957.391 ppb	79,365.898 ppb	44.523 ppb	37,028.842 ppb	196,189.011 ppb	132.945 %
Concentration per Run 1	131.017 %	113.441 %	0.007 ppb	134,875.767 ppb	79,696.888 ppb	43.341 ppb	38,968.719 ppb	199,013.051 ppb	133.067 %
Concentration per Run 2	131.250 %	124.491 %	0.001 ppb	131,753.889 ppb	80,697.195 ppb	46.403 ppb	35,108.348 ppb	198,393.316 ppb	130.048 %
Concentration per Run 3	133.252 %	112.265 %	0.014 ppb	132,242.516 ppb	77,703.610 ppb	43.826 ppb	37,009.460 ppb	191,160.666 ppb	135.720 %
Concentration RSD	0.9 %	5.8 %	90.5 %	1.3 %	1.9 %	3.7 %	5.2 %	2.2 %	2.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.186 ppb	0.297 ppb	126.922 ppb	405.234 ppb	1.622 ppb	2.634 ppb	2.491 ppb	1.356 ppb	114.372 %
Concentration per Run 1	0.161 ppb	0.282 ppb	128.644 ppb	410.594 ppb	1.677 ppb	2.689 ppb	2.590 ppb	1.437 ppb	107.277 %
Concentration per Run 2	0.199 ppb	0.281 ppb	127.149 ppb	415.360 ppb	1.605 ppb	2.689 ppb	2.498 ppb	1.431 ppb	118.234 %
Concentration per Run 3	0.199 ppb	0.327 ppb	124.974 ppb	389.747 ppb	1.583 ppb	2.524 ppb	2.385 ppb	1.201 ppb	117.604 %
Concentration RSD	11.8 %	8.9 %	1.5 %	3.4 %	3.0 %	3.6 %	4.1 %	9.9 %	5.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.645 ppb	23.367 ppb	410.021 ppb	7.088 ppb	105.353 %	0.012 ppb	0.009 ppb	105.325 %	0.147 ppb
Concentration per Run 1	0.727 ppb	23.813 ppb	417.034 ppb	7.445 ppb	101.220 %	0.014 ppb	0.009 ppb	97.631 %	0.135 ppb
Concentration per Run 2	0.697 ppb	25.037 ppb	425.686 ppb	6.985 ppb	108.009 %	0.009 ppb	0.012 ppb	113.155 %	0.143 ppb
Concentration per Run 3	0.509 ppb	21.250 ppb	387.342 ppb	6.835 ppb	106.830 %	0.011 ppb	0.006 ppb	105.190 %	0.162 ppb
Concentration RSD	18.3 %	8.3 %	4.9 %	4.5 %	3.4 %	19.7 %	37.8 %	7.4 %	9.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	99.914 ppb	106.124 %	106.619 %	0.143 ppb	0.542 ppb
Concentration per Run 1	103.040 ppb	101.942 %	102.482 %	0.136 ppb	0.558 ppb
Concentration per Run 2	100.008 ppb	110.589 %	112.012 %	0.141 ppb	0.523 ppb
Concentration per Run 3	96.696 ppb	105.842 %	105.362 %	0.151 ppb	0.546 ppb
Concentration RSD	3.2 %	4.1 %	4.6 %	5.3 %	3.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	63	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448039-04 6020TL	Rack	1		
Analysis started at:	8/29/2024 10:10:47 AM	Vial	38		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	126.477 %	118.378 %	0.012 ppb	34,431.711 ppb	51,426.551 ppb	148.686 ppb	5,166.102 ppb	91,031.953 ppb	138.489 %
Concentration per Run 1	123.435 %	121.082 %	0.012 ppb	32,540.032 ppb	48,039.881 ppb	141.466 ppb	5,030.165 ppb	87,085.929 ppb	136.020 %
Concentration per Run 2	126.701 %	123.903 %	0.011 ppb	35,125.998 ppb	52,917.406 ppb	152.466 ppb	5,234.516 ppb	94,129.406 ppb	139.817 %
Concentration per Run 3	129.295 %	110.149 %	0.014 ppb	35,629.104 ppb	53,322.366 ppb	152.126 ppb	5,233.626 ppb	91,880.523 ppb	139.629 %
Concentration RSD	2.3 %	6.1 %	11.6 %	4.8 %	5.7 %	4.2 %	2.3 %	4.0 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.347 ppb	0.414 ppb	48.913 ppb	928.664 ppb	0.068 ppb	0.218 ppb	7.637 ppb	6.202 ppb	118.575 %
Concentration per Run 1	0.324 ppb	0.376 ppb	46.101 ppb	907.557 ppb	0.050 ppb	0.209 ppb	7.746 ppb	5.894 ppb	118.256 %
Concentration per Run 2	0.380 ppb	0.454 ppb	50.483 ppb	931.647 ppb	0.082 ppb	0.251 ppb	7.691 ppb	6.426 ppb	122.332 %
Concentration per Run 3	0.338 ppb	0.412 ppb	50.154 ppb	946.788 ppb	0.073 ppb	0.193 ppb	7.474 ppb	6.287 ppb	115.136 %
Concentration RSD	8.4 %	9.4 %	5.0 %	2.1 %	24.2 %	13.6 %	1.9 %	4.4 %	3.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.191 ppb	0.225 ppb	266.075 ppb	2.090 ppb	111.650 %	0.006 ppb	0.002 ppb	113.164 %	0.127 ppb
Concentration per Run 1	0.145 ppb	0.238 ppb	252.254 ppb	1.948 ppb	111.420 %	0.009 ppb	0.000 ppb	110.320 %	0.117 ppb
Concentration per Run 2	0.229 ppb	0.238 ppb	282.239 ppb	2.121 ppb	114.514 %	0.004 ppb	0.003 ppb	119.449 %	0.128 ppb
Concentration per Run 3	0.199 ppb	0.200 ppb	263.734 ppb	2.201 ppb	109.014 %	0.006 ppb	0.003 ppb	109.722 %	0.135 ppb
Concentration RSD	22.4 %	9.8 %	5.7 %	6.2 %	2.5 %	39.6 %	93.2 %	4.8 %	7.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	106.107 ppb	113.634 %	112.403 %	0.016 ppb	0.324 ppb
Concentration per Run 1	102.232 ppb	113.511 %	111.715 %	0.009 ppb	0.317 ppb
Concentration per Run 2	107.331 ppb	117.321 %	117.343 %	0.019 ppb	0.311 ppb
Concentration per Run 3	108.758 ppb	110.069 %	108.151 %	0.020 ppb	0.345 ppb
Concentration RSD	3.2 %	3.2 %	4.1 %	37.0 %	5.7 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	64	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2448039-06 6020TL	Rack	1		
Analysis started at:	8/29/2024 10:15:25 AM	Vial	39		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	132.327 %	115.322 %	0.001 ppb	41.138 ppb	5.374 ppb	2.178 ppb	9.838 ppb	22.198 ppb	133.020 %
Concentration per Run 1	129.581 %	115.439 %	-0.002 ppb	38.062 ppb	4.146 ppb	1.774 ppb	5.756 ppb	19.121 ppb	132.462 %
Concentration per Run 2	132.894 %	110.149 %	0.005 ppb	51.340 ppb	5.861 ppb	2.536 ppb	16.601 ppb	25.183 ppb	133.074 %
Concentration per Run 3	134.504 %	120.377 %	-0.001 ppb	34.012 ppb	6.115 ppb	2.226 ppb	7.156 ppb	22.289 ppb	133.524 %
Concentration RSD	1.9 %	4.4 %	497.0 %	22.0 %	19.9 %	17.6 %	60.0 %	13.7 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.045 ppb	0.025 ppb	0.035 ppb	5.564 ppb	0.001 ppb	0.022 ppb	0.345 ppb	0.126 ppb	120.649 %
Concentration per Run 1	0.049 ppb	0.025 ppb	0.017 ppb	5.442 ppb	0.000 ppb	0.011 ppb	0.341 ppb	0.151 ppb	115.117 %
Concentration per Run 2	0.018 ppb	0.019 ppb	0.063 ppb	5.053 ppb	0.004 ppb	0.042 ppb	0.378 ppb	0.132 ppb	127.098 %
Concentration per Run 3	0.067 ppb	0.031 ppb	0.026 ppb	6.198 ppb	-0.001 ppb	0.013 ppb	0.316 ppb	0.094 ppb	119.732 %
Concentration RSD	54.8 %	25.0 %	69.9 %	10.5 %	255.7 %	78.7 %	9.0 %	23.2 %	5.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.014 ppb	0.018 ppb	0.046 ppb	0.211 ppb	118.763 %	0.007 ppb	0.000 ppb	110.721 %	0.041 ppb
Concentration per Run 1	-0.008 ppb	0.020 ppb	0.037 ppb	0.123 ppb	114.165 %	0.008 ppb	0.001 ppb	103.571 %	0.032 ppb
Concentration per Run 2	0.000 ppb	0.027 ppb	0.043 ppb	0.233 ppb	121.345 %	0.009 ppb	0.000 ppb	117.442 %	0.040 ppb
Concentration per Run 3	-0.033 ppb	0.006 ppb	0.059 ppb	0.277 ppb	120.780 %	0.004 ppb	0.000 ppb	111.150 %	0.052 ppb
Concentration RSD	122.4 %	59.8 %	25.0 %	37.8 %	3.4 %	35.4 %	333.9 %	6.3 %	24.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.015 ppb	109.798 %	108.024 %	0.013 ppb	0.023 ppb
Concentration per Run 1	0.018 ppb	105.765 %	101.492 %	0.006 ppb	0.031 ppb
Concentration per Run 2	0.021 ppb	113.168 %	112.315 %	0.017 ppb	0.019 ppb
Concentration per Run 3	0.005 ppb	110.462 %	110.266 %	0.017 ppb	0.019 ppb
Concentration RSD	56.6 %	3.4 %	5.3 %	46.4 %	29.0 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	65	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/29/2024 10:20:02 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	121.980 %	111.677 %	60.432 ppb	6,523.700 ppb	6,592.404 ppb	68.394 ppb	6,675.844 ppb	6,409.218 ppb	131.875 %
Concentration per Run 1	118.558 %	111.442 %	61.472 ppb	6,853.931 ppb	6,936.998 ppb	70.556 ppb	7,046.805 ppb	6,789.289 ppb	130.374 %
Concentration per Run 2	124.500 %	110.855 %	59.878 ppb	6,524.333 ppb	6,509.706 ppb	66.436 ppb	6,671.952 ppb	6,420.673 ppb	132.859 %
Concentration per Run 3	122.883 %	112.735 %	59.947 ppb	6,192.835 ppb	6,330.508 ppb	68.190 ppb	6,308.776 ppb	6,017.692 ppb	132.392 %
Recovery Percentage 1			100.720 %	108.728 %	109.873 %	113.990 %	111.264 %	106.820 %	
Concentration RSD	2.5 %	0.9 %	1.5 %	5.1 %	4.7 %	3.0 %	5.5 %	6.0 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	62.354 ppb	60.799 ppb	64.964 ppb	6,377.623 ppb	63.677 ppb	64.174 ppb	64.229 ppb	64.803 ppb	114.915 %
Concentration per Run 1	63.212 ppb	61.514 ppb	65.811 ppb	6,486.653 ppb	65.442 ppb	66.084 ppb	65.063 ppb	66.272 ppb	116.971 %
Concentration per Run 2	61.855 ppb	59.975 ppb	63.607 ppb	6,291.885 ppb	62.877 ppb	62.215 ppb	63.256 ppb	64.144 ppb	115.552 %
Concentration per Run 3	61.994 ppb	60.910 ppb	65.474 ppb	6,354.331 ppb	62.713 ppb	64.224 ppb	64.369 ppb	63.992 ppb	112.222 %
Recovery Percentage 1	103.923 %	101.332 %	108.273 %	106.294 %	106.129 %	106.957 %	107.049 %	108.005 %	
Concentration RSD	1.2 %	1.3 %	1.8 %	1.6 %	2.4 %	3.0 %	1.4 %	2.0 %	2.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	62.699 ppb	65.519 ppb	63.219 ppb	61.172 ppb	113.236 %	63.122 ppb	62.749 ppb	109.310 %	60.844 ppb
Concentration per Run 1	63.938 ppb	69.919 ppb	68.434 ppb	63.535 ppb	111.368 %	64.984 ppb	64.710 ppb	109.688 %	64.011 ppb
Concentration per Run 2	61.130 ppb	63.900 ppb	61.003 ppb	58.896 ppb	114.273 %	62.083 ppb	62.606 ppb	109.154 %	60.255 ppb
Concentration per Run 3	63.030 ppb	62.740 ppb	60.220 ppb	61.085 ppb	114.067 %	62.299 ppb	60.931 ppb	109.088 %	58.265 ppb
Recovery Percentage 1	104.499 %	109.199 %	105.366 %	101.953 %		105.204 %	104.581 %		101.406 %
Concentration RSD	2.3 %	5.9 %	7.2 %	3.8 %	1.4 %	2.6 %	3.0 %	0.3 %	4.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	63.637 ppb	110.288 %	111.248 %	61.501 ppb	61.115 ppb
Concentration per Run 1	68.649 ppb	108.313 %	108.365 %	63.255 ppb	62.387 ppb
Concentration per Run 2	61.732 ppb	111.520 %	113.047 %	60.151 ppb	60.189 ppb
Concentration per Run 3	60.530 ppb	111.031 %	112.332 %	61.098 ppb	60.768 ppb
Recovery Percentage 1	106.062 %			102.502 %	101.858 %
Concentration RSD	6.9 %	1.6 %	2.3 %	2.6 %	1.9 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	66	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/29/2024 10:24:44 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	119.444 %	107.132 %	0.006 ppb	27.021 ppb	1.197 ppb	-0.006 ppb	4.422 ppb	2.514 ppb	117.287 %
Concentration per Run 1	118.143 %	103.683 %	0.007 ppb	31.971 ppb	0.714 ppb	-0.116 ppb	10.689 ppb	-0.400 ppb	116.960 %
Concentration per Run 2	119.593 %	109.444 %	0.004 ppb	17.129 ppb	0.461 ppb	-0.191 ppb	-3.143 ppb	0.890 ppb	118.627 %
Concentration per Run 3	120.595 %	108.268 %	0.007 ppb	31.963 ppb	2.416 ppb	0.288 ppb	5.720 ppb	7.053 ppb	116.274 %
Recovery Percentage 1			1.147 %	27.021 %	1.710 %	-0.064 %	4.422 %	2.514 %	
Concentration RSD	1.0 %	2.8 %	32.6 %	31.7 %	88.8 %	4,005.7 %	158.4 %	158.4 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.021 ppb	-0.014 ppb	0.036 ppb	13.036 ppb	0.000 ppb	0.055 ppb	0.140 ppb	0.014 ppb	112.020 %
Concentration per Run 1	0.040 ppb	-0.019 ppb	0.036 ppb	11.257 ppb	-0.003 ppb	0.085 ppb	0.145 ppb	0.002 ppb	117.881 %
Concentration per Run 2	-0.010 ppb	-0.011 ppb	0.036 ppb	13.395 ppb	0.003 ppb	0.036 ppb	0.094 ppb	-0.010 ppb	114.584 %
Concentration per Run 3	0.033 ppb	-0.012 ppb	0.036 ppb	14.456 ppb	-0.001 ppb	0.044 ppb	0.182 ppb	0.051 ppb	103.595 %
Recovery Percentage 1	0.419 %	-1.419 %	3.601 %	26.072 %	-0.035 %	2.757 %	14.038 %	0.283 %	
Concentration RSD	128.4 %	29.0 %	1.0 %	12.5 %	1,856.7 %	48.0 %	31.7 %	226.6 %	6.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.048 ppb	0.298 ppb	0.016 ppb	1.358 ppb	114.210 %	0.007 ppb	0.005 ppb	109.902 %	0.355 ppb
Concentration per Run 1	-0.005 ppb	0.301 ppb	0.001 ppb	1.051 ppb	113.561 %	0.006 ppb	0.008 ppb	115.658 %	0.265 ppb
Concentration per Run 2	-0.090 ppb	0.374 ppb	0.009 ppb	1.452 ppb	115.033 %	0.008 ppb	0.005 ppb	110.176 %	0.338 ppb
Concentration per Run 3	-0.049 ppb	0.220 ppb	0.040 ppb	1.570 ppb	114.035 %	0.008 ppb	0.002 ppb	103.873 %	0.461 ppb
Recovery Percentage 1	-9.521 %	5.964 %	0.164 %	67.887 %		1.781 %	2.556 %		8.867 %
Concentration RSD	89.3 %	25.9 %	127.2 %	20.0 %	0.7 %	11.9 %	65.3 %	5.4 %	27.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.013 ppb	109.926 %	108.808 %	0.292 ppb	0.029 ppb
Concentration per Run 1	0.018 ppb	112.366 %	110.538 %	0.219 ppb	0.031 ppb
Concentration per Run 2	0.006 ppb	109.519 %	109.409 %	0.346 ppb	0.030 ppb
Concentration per Run 3	0.014 ppb	107.893 %	106.476 %	0.310 ppb	0.027 ppb
Recovery Percentage 1	2.516 %			29.179 %	2.919 %
Concentration RSD	51.8 %	2.1 %	1.9 %	22.4 %	5.7 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	67	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/29/2024 10:37:48 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	116.409 %	116.576 %	60.314 ppb	6,003.491 ppb	5,960.641 ppb	61.321 ppb	6,022.356 ppb	5,940.655 ppb	139.690 %
Concentration per Run 1	112.581 %	118.026 %	61.305 ppb	5,742.536 ppb	5,620.681 ppb	58.342 ppb	5,745.815 ppb	5,635.615 ppb	137.892 %
Concentration per Run 2	118.476 %	114.029 %	59.208 ppb	6,339.292 ppb	6,420.031 ppb	66.634 ppb	6,495.865 ppb	6,412.276 ppb	141.755 %
Concentration per Run 3	118.170 %	117.673 %	60.428 ppb	5,928.644 ppb	5,841.209 ppb	58.988 ppb	5,825.387 ppb	5,774.075 ppb	139.422 %
Recovery Percentage 1			100.523 %	100.058 %	99.344 %	102.202 %	100.373 %	99.011 %	
Concentration RSD	2.9 %	1.9 %	1.7 %	5.1 %	6.9 %	7.5 %	6.8 %	7.0 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	58.929 ppb	58.694 ppb	61.044 ppb	5,993.719 ppb	60.422 ppb	60.161 ppb	60.433 ppb	59.813 ppb	117.477 %
Concentration per Run 1	56.938 ppb	57.068 ppb	57.972 ppb	5,899.632 ppb	59.659 ppb	58.546 ppb	60.067 ppb	58.366 ppb	116.678 %
Concentration per Run 2	61.492 ppb	60.303 ppb	62.877 ppb	6,049.692 ppb	60.640 ppb	61.784 ppb	59.480 ppb	61.192 ppb	119.650 %
Concentration per Run 3	58.357 ppb	58.711 ppb	62.284 ppb	6,031.833 ppb	60.967 ppb	60.155 ppb	61.751 ppb	59.881 ppb	116.102 %
Recovery Percentage 1	98.215 %	97.823 %	101.740 %	99.895 %	100.704 %	100.269 %	100.721 %	99.688 %	
Concentration RSD	4.0 %	2.8 %	4.4 %	1.4 %	1.1 %	2.7 %	2.0 %	2.4 %	1.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	59.756 ppb	61.529 ppb	57.836 ppb	63.571 ppb	118.172 %	58.831 ppb	58.489 ppb	116.135 %	54.361 ppb
Concentration per Run 1	58.651 ppb	62.533 ppb	56.702 ppb	61.536 ppb	122.016 %	57.506 ppb	56.733 ppb	117.671 %	53.350 ppb
Concentration per Run 2	61.362 ppb	63.490 ppb	59.702 ppb	65.382 ppb	117.813 %	59.021 ppb	58.816 ppb	118.123 %	55.442 ppb
Concentration per Run 3	59.255 ppb	58.563 ppb	57.105 ppb	63.795 ppb	114.687 %	59.967 ppb	59.917 ppb	112.612 %	54.291 ppb
Recovery Percentage 1	99.594 %	102.548 %	96.394 %	105.952 %		98.052 %	97.481 %		90.602 %
Concentration RSD	2.4 %	4.2 %	2.8 %	3.0 %	3.1 %	2.1 %	2.8 %	2.6 %	1.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	58.057 ppb	118.703 %	117.121 %	60.266 ppb	58.618 ppb
Concentration per Run 1	56.873 ppb	122.904 %	119.153 %	57.596 ppb	56.569 ppb
Concentration per Run 2	58.825 ppb	119.198 %	119.263 %	60.085 ppb	58.639 ppb
Concentration per Run 3	58.473 ppb	114.006 %	112.948 %	63.118 ppb	60.644 ppb
Recovery Percentage 1	96.762 %			100.444 %	97.696 %
Concentration RSD	1.8 %	3.8 %	3.1 %	4.6 %	3.5 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	68	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/29/2024 10:42:29 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	114.774 %	110.071 %	0.013 ppb	15.973 ppb	0.731 ppb	0.013 ppb	6.660 ppb	-0.042 ppb	113.948 %
Concentration per Run 1	112.606 %	111.560 %	0.012 ppb	19.549 ppb	1.041 ppb	-0.085 ppb	7.726 ppb	0.631 ppb	112.130 %
Concentration per Run 2	115.673 %	113.088 %	0.008 ppb	9.158 ppb	0.426 ppb	0.144 ppb	0.479 ppb	-0.119 ppb	114.603 %
Concentration per Run 3	116.043 %	105.564 %	0.018 ppb	19.211 ppb	0.727 ppb	-0.020 ppb	11.777 ppb	-0.638 ppb	115.112 %
Recovery Percentage 1			2.545 %	15.973 %	1.045 %	0.129 %	6.660 %	-0.042 %	
Concentration RSD	1.6 %	3.6 %	40.7 %	37.0 %	42.1 %	911.4 %	85.9 %	1,526.4 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.033 ppb	-0.017 ppb	0.051 ppb	13.534 ppb	0.009 ppb	0.048 ppb	0.059 ppb	-0.023 ppb	113.802 %
Concentration per Run 1	-0.020 ppb	-0.002 ppb	0.017 ppb	12.309 ppb	0.012 ppb	0.037 ppb	0.058 ppb	-0.004 ppb	116.225 %
Concentration per Run 2	-0.048 ppb	-0.031 ppb	0.053 ppb	14.913 ppb	0.003 ppb	0.059 ppb	0.063 ppb	-0.056 ppb	115.729 %
Concentration per Run 3	-0.032 ppb	-0.016 ppb	0.084 ppb	13.380 ppb	0.010 ppb	0.049 ppb	0.057 ppb	-0.009 ppb	109.453 %
Recovery Percentage 1	-0.664 %	-1.652 %	5.122 %	27.068 %	1.720 %	2.416 %	5.936 %	-0.458 %	
Concentration RSD	43.5 %	87.7 %	65.5 %	9.7 %	55.0 %	23.3 %	5.3 %	126.2 %	3.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.048 ppb	0.337 ppb	0.007 ppb	1.754 ppb	114.443 %	0.011 ppb	0.014 ppb	108.686 %	3.472 ppb
Concentration per Run 1	0.009 ppb	0.340 ppb	0.008 ppb	1.402 ppb	112.851 %	0.016 ppb	0.016 ppb	111.499 %	3.341 ppb
Concentration per Run 2	-0.122 ppb	0.293 ppb	0.007 ppb	1.771 ppb	114.632 %	0.011 ppb	0.018 ppb	107.886 %	3.587 ppb
Concentration per Run 3	-0.032 ppb	0.377 ppb	0.006 ppb	2.088 ppb	115.845 %	0.007 ppb	0.008 ppb	106.672 %	3.487 ppb
Recovery Percentage 1	-9.697 %	6.734 %	0.069 %	87.687 %		2.833 %	6.910 %		86.791 %
Concentration RSD	138.4 %	12.6 %	11.7 %	19.6 %	1.3 %	38.6 %	37.4 %	2.3 %	3.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.020 ppb	110.134 %	110.647 %	0.295 ppb	0.029 ppb
Concentration per Run 1	0.023 ppb	110.210 %	112.652 %	0.219 ppb	0.031 ppb
Concentration per Run 2	0.020 ppb	111.316 %	108.874 %	0.358 ppb	0.029 ppb
Concentration per Run 3	0.017 ppb	108.875 %	110.416 %	0.309 ppb	0.026 ppb
Recovery Percentage 1	3.972 %			29.504 %	2.874 %
Concentration RSD	15.4 %	1.1 %	1.7 %	23.9 %	9.3 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	69	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1965129-1 2008TL	Rack	1		
Analysis started at:	8/29/2024 10:47:45 AM	Vial	40		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	117.592 %	107.759 %	0.019 ppb	9.691 ppb	3.676 ppb	1.636 ppb	5.125 ppb	11.703 ppb	115.907 %
Concentration per Run 1	115.375 %	108.033 %	0.015 ppb	14.502 ppb	3.010 ppb	1.473 ppb	5.642 ppb	6.573 ppb	114.241 %
Concentration per Run 2	118.254 %	103.683 %	0.016 ppb	6.975 ppb	4.261 ppb	1.633 ppb	9.866 ppb	16.068 ppb	116.509 %
Concentration per Run 3	119.148 %	111.560 %	0.025 ppb	7.597 ppb	3.756 ppb	1.802 ppb	-0.132 ppb	12.468 ppb	116.971 %
Concentration RSD	1.7 %	3.7 %	29.5 %	43.1 %	17.1 %	10.1 %	97.9 %	41.0 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.055 ppb	0.041 ppb	0.098 ppb	4.734 ppb	0.006 ppb	0.088 ppb	0.054 ppb	0.075 ppb	112.659 %
Concentration per Run 1	-0.054 ppb	0.036 ppb	0.071 ppb	3.710 ppb	0.008 ppb	0.097 ppb	0.055 ppb	0.110 ppb	108.667 %
Concentration per Run 2	-0.041 ppb	0.040 ppb	0.094 ppb	4.525 ppb	0.006 ppb	0.082 ppb	0.079 ppb	0.066 ppb	112.984 %
Concentration per Run 3	-0.069 ppb	0.047 ppb	0.130 ppb	5.966 ppb	0.004 ppb	0.085 ppb	0.030 ppb	0.050 ppb	116.327 %
Concentration RSD	25.1 %	13.2 %	30.0 %	24.1 %	34.5 %	8.9 %	45.1 %	41.7 %	3.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.117 ppb	0.119 ppb	0.025 ppb	0.514 ppb	112.847 %	0.010 ppb	0.007 ppb	107.495 %	0.990 ppb
Concentration per Run 1	-0.129 ppb	0.036 ppb	0.026 ppb	0.355 ppb	108.705 %	0.011 ppb	0.008 ppb	102.898 %	0.901 ppb
Concentration per Run 2	-0.112 ppb	0.157 ppb	0.023 ppb	0.486 ppb	114.470 %	0.011 ppb	0.010 ppb	108.599 %	1.015 ppb
Concentration per Run 3	-0.109 ppb	0.164 ppb	0.025 ppb	0.702 ppb	115.365 %	0.009 ppb	0.004 ppb	110.988 %	1.055 ppb
Concentration RSD	9.3 %	60.3 %	7.4 %	34.0 %	3.2 %	13.5 %	38.1 %	3.9 %	8.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.013 ppb	107.837 %	106.796 %	0.106 ppb	0.020 ppb
Concentration per Run 1	0.014 ppb	104.168 %	101.145 %	0.078 ppb	0.021 ppb
Concentration per Run 2	0.016 ppb	109.088 %	107.631 %	0.125 ppb	0.020 ppb
Concentration per Run 3	0.009 ppb	110.255 %	111.613 %	0.116 ppb	0.017 ppb
Concentration RSD	29.4 %	3.0 %	4.9 %	23.7 %	10.0 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	70	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1965129-2d10 2008TL	Rack	1		
Analysis started at:	8/29/2024 10:52:23 AM	Vial	41		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	111.912 %	108.268 %	5.343 ppb	1,168.939 ppb	1,122.494 ppb	220.458 ppb	1,166.715 ppb	1,200.339 ppb	115.828 %
Concentration per Run 1	108.169 %	102.390 %	5.385 ppb	1,226.349 ppb	1,175.355 ppb	227.509 ppb	1,187.278 ppb	1,236.209 ppb	114.531 %
Concentration per Run 2	112.520 %	112.735 %	5.390 ppb	1,148.279 ppb	1,124.633 ppb	225.487 ppb	1,187.536 ppb	1,192.087 ppb	116.298 %
Concentration per Run 3	115.048 %	109.679 %	5.256 ppb	1,132.189 ppb	1,067.494 ppb	208.379 ppb	1,125.331 ppb	1,172.720 ppb	116.656 %
Concentration RSD	3.1 %	4.9 %	1.4 %	4.3 %	4.8 %	4.8 %	3.1 %	2.7 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	52.170 ppb	20.761 ppb	55.977 ppb	117.797 ppb	54.674 ppb	55.384 ppb	27.223 ppb	54.972 ppb	112.590 %
Concentration per Run 1	53.579 ppb	22.045 ppb	58.554 ppb	118.977 ppb	57.983 ppb	58.186 ppb	28.494 ppb	56.868 ppb	107.368 %
Concentration per Run 2	51.594 ppb	19.913 ppb	54.525 ppb	117.021 ppb	52.007 ppb	53.317 ppb	25.838 ppb	53.599 ppb	120.750 %
Concentration per Run 3	51.339 ppb	20.326 ppb	54.852 ppb	117.394 ppb	54.032 ppb	54.650 ppb	27.336 ppb	54.449 ppb	109.652 %
Concentration RSD	2.4 %	5.4 %	4.0 %	0.9 %	5.6 %	4.5 %	4.9 %	3.1 %	6.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	11.942 ppb	12.092 ppb	102.094 ppb	104.845 ppb	111.833 %	5.280 ppb	5.560 ppb	107.747 %	43.797 ppb
Concentration per Run 1	12.574 ppb	12.661 ppb	104.474 ppb	107.524 ppb	107.145 %	5.459 ppb	5.775 ppb	103.707 %	44.770 ppb
Concentration per Run 2	11.609 ppb	11.890 ppb	103.132 ppb	103.749 ppb	114.958 %	5.182 ppb	5.489 ppb	113.440 %	44.553 ppb
Concentration per Run 3	11.642 ppb	11.724 ppb	98.677 ppb	103.261 ppb	113.396 %	5.200 ppb	5.417 ppb	106.093 %	42.068 ppb
Concentration RSD	4.6 %	4.1 %	3.0 %	2.2 %	3.7 %	2.9 %	3.4 %	4.7 %	3.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	218.578 ppb	107.356 %	107.532 %	12.319 ppb	57.255 ppb
Concentration per Run 1	222.334 ppb	103.416 %	100.294 %	13.012 ppb	61.022 ppb
Concentration per Run 2	221.928 ppb	111.510 %	116.755 %	11.677 ppb	53.550 ppb
Concentration per Run 3	211.474 ppb	107.143 %	105.546 %	12.269 ppb	57.192 ppb
Concentration RSD	2.8 %	3.8 %	7.8 %	5.4 %	6.5 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	71	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2447939-01 2008TL	Rack	1		
Analysis started at:	8/29/2024 10:57:00 AM	Vial	42		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	116.556 %	101.763 %	0.015 ppb	328,947.296 ppb	14,292.104 ppb	26.342 ppb	11,848.195 ppb	66,944.113 ppb	127.775 %
Concentration per Run 1	113.794 %	98.511 %	0.010 ppb	339,837.264 ppb	15,030.012 ppb	26.724 ppb	12,553.133 ppb	71,468.067 ppb	127.696 %
Concentration per Run 2	117.688 %	101.803 %	0.014 ppb	333,940.699 ppb	14,352.490 ppb	28.006 ppb	11,909.715 ppb	66,726.494 ppb	129.136 %
Concentration per Run 3	118.186 %	104.977 %	0.020 ppb	313,063.924 ppb	13,493.808 ppb	24.296 ppb	11,081.737 ppb	62,637.779 ppb	126.492 %
Concentration RSD	2.1 %	3.2 %	31.6 %	4.3 %	5.4 %	7.2 %	6.2 %	6.6 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.736 ppb	0.310 ppb	249.976 ppb	51.209 ppb	1.051 ppb	2.190 ppb	6.916 ppb	12.187 ppb	110.794 %
Concentration per Run 1	0.854 ppb	0.334 ppb	261.931 ppb	56.388 ppb	1.138 ppb	2.275 ppb	7.433 ppb	13.445 ppb	99.240 %
Concentration per Run 2	0.654 ppb	0.306 ppb	244.155 ppb	47.571 ppb	0.982 ppb	2.126 ppb	6.533 ppb	11.429 ppb	120.843 %
Concentration per Run 3	0.699 ppb	0.292 ppb	243.842 ppb	49.667 ppb	1.032 ppb	2.170 ppb	6.783 ppb	11.688 ppb	112.298 %
Concentration RSD	14.2 %	6.8 %	4.1 %	9.0 %	7.6 %	3.5 %	6.7 %	9.0 %	9.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.879 ppb	0.555 ppb	417.322 ppb	4.957 ppb	104.034 %	0.012 ppb	0.075 ppb	101.431 %	2.916 ppb
Concentration per Run 1	0.943 ppb	0.746 ppb	438.722 ppb	4.799 ppb	97.459 %	0.013 ppb	0.084 ppb	92.093 %	2.780 ppb
Concentration per Run 2	0.864 ppb	0.431 ppb	421.938 ppb	4.840 ppb	108.323 %	0.010 ppb	0.068 ppb	111.621 %	2.931 ppb
Concentration per Run 3	0.829 ppb	0.489 ppb	391.306 ppb	5.233 ppb	106.321 %	0.011 ppb	0.074 ppb	100.580 %	3.039 ppb
Concentration RSD	6.6 %	30.3 %	5.8 %	4.8 %	5.6 %	12.5 %	11.0 %	9.7 %	4.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	124.165 ppb	104.704 %	104.238 %	0.082 ppb	0.148 ppb
Concentration per Run 1	128.016 ppb	99.200 %	96.110 %	0.074 ppb	0.161 ppb
Concentration per Run 2	124.486 ppb	109.531 %	112.333 %	0.087 ppb	0.140 ppb
Concentration per Run 3	119.993 ppb	105.380 %	104.271 %	0.084 ppb	0.144 ppb
Concentration RSD	3.2 %	5.0 %	7.8 %	8.2 %	7.5 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	72	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1965129-3d10 2008TL	Rack	1		
Analysis started at:	8/29/2024 11:01:38 AM	Vial	43		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	117.639 %	110.345 %	5.473 ppb	34,198.671 ppb	2,566.321 ppb	229.864 ppb	2,369.373 ppb	7,915.524 ppb	125.408 %
Concentration per Run 1	115.906 %	100.862 %	5.558 ppb	36,744.147 ppb	2,732.374 ppb	242.257 ppb	2,515.012 ppb	8,628.288 ppb	123.893 %
Concentration per Run 2	117.347 %	114.381 %	5.521 ppb	32,257.059 ppb	2,403.928 ppb	212.686 ppb	2,262.828 ppb	7,437.085 ppb	126.002 %
Concentration per Run 3	119.664 %	115.792 %	5.338 ppb	33,594.806 ppb	2,562.660 ppb	234.647 ppb	2,330.280 ppb	7,681.198 ppb	126.331 %
Concentration RSD	1.6 %	7.5 %	2.2 %	6.7 %	6.4 %	6.7 %	5.5 %	7.9 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	50.875 ppb	19.629 ppb	80.150 ppb	114.823 ppb	53.420 ppb	53.332 ppb	27.767 ppb	55.005 ppb	120.430 %
Concentration per Run 1	54.676 ppb	20.869 ppb	83.681 ppb	123.345 ppb	57.675 ppb	57.716 ppb	29.402 ppb	58.966 ppb	110.629 %
Concentration per Run 2	48.907 ppb	19.183 ppb	79.184 ppb	109.695 ppb	52.041 ppb	51.971 ppb	27.345 ppb	53.144 ppb	119.117 %
Concentration per Run 3	49.044 ppb	18.835 ppb	77.586 ppb	111.427 ppb	50.543 ppb	50.309 ppb	26.554 ppb	52.905 ppb	131.543 %
Concentration RSD	6.5 %	5.5 %	3.9 %	6.5 %	7.0 %	7.3 %	5.3 %	6.2 %	8.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	12.125 ppb	11.730 ppb	140.484 ppb	105.038 ppb	112.196 %	5.197 ppb	5.597 ppb	109.992 %	47.776 ppb
Concentration per Run 1	12.953 ppb	11.907 ppb	144.959 ppb	109.620 ppb	108.787 %	5.328 ppb	5.751 ppb	106.910 %	49.441 ppb
Concentration per Run 2	11.930 ppb	11.691 ppb	136.414 ppb	104.493 ppb	110.341 %	5.270 ppb	5.529 ppb	107.739 %	46.426 ppb
Concentration per Run 3	11.491 ppb	11.590 ppb	140.079 ppb	101.002 ppb	117.459 %	4.994 ppb	5.512 ppb	115.327 %	47.462 ppb
Concentration RSD	6.2 %	1.4 %	3.1 %	4.1 %	4.1 %	3.4 %	2.4 %	4.2 %	3.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	226.327 ppb	107.704 %	107.082 %	11.769 ppb	54.921 ppb
Concentration per Run 1	229.456 ppb	103.883 %	100.923 %	12.365 ppb	58.037 ppb
Concentration per Run 2	218.765 ppb	106.725 %	106.686 %	11.674 ppb	54.761 ppb
Concentration per Run 3	230.759 ppb	112.503 %	113.638 %	11.269 ppb	51.964 ppb
Concentration RSD	2.9 %	4.1 %	5.9 %	4.7 %	5.5 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 73
Analysis label: WG1965129-4 2008TL
Analysis started at: 8/29/2024 11:06:17 AM
User name ALPHALAB\Metals-Instrument
Rack 1
Vial 44
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	123.932 %	101.724 %	0.019 ppb	327,640.722 ppb	14,409.608 ppb	27.578 ppb	11,777.759 ppb	65,167.605 ppb	134.204 %
Concentration per Run 1	120.599 %	104.154 %	0.014 ppb	314,277.983 ppb	13,537.268 ppb	25.248 ppb	11,460.146 ppb	63,603.674 ppb	132.308 %
Concentration per Run 2	124.545 %	99.216 %	0.024 ppb	345,396.652 ppb	15,448.761 ppb	30.050 ppb	12,255.313 ppb	68,131.111 ppb	134.944 %
Concentration per Run 3	126.652 %	101.803 %	0.018 ppb	323,247.532 ppb	14,242.796 ppb	27.436 ppb	11,617.817 ppb	63,768.030 ppb	135.358 %
Concentration RSD	2.5 %	2.4 %	28.0 %	4.9 %	6.7 %	8.7 %	3.6 %	3.9 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.672 ppb	0.288 ppb	242.774 ppb	46.680 ppb	1.045 ppb	2.114 ppb	6.652 ppb	12.557 ppb	114.817 %
Concentration per Run 1	0.683 ppb	0.279 ppb	241.563 ppb	46.600 ppb	1.050 ppb	2.175 ppb	6.676 ppb	12.753 ppb	109.733 %
Concentration per Run 2	0.695 ppb	0.280 ppb	244.468 ppb	46.012 ppb	1.043 ppb	2.112 ppb	6.492 ppb	12.426 ppb	120.599 %
Concentration per Run 3	0.638 ppb	0.305 ppb	242.290 ppb	47.427 ppb	1.040 ppb	2.055 ppb	6.789 ppb	12.492 ppb	114.119 %
Concentration RSD	4.4 %	5.1 %	0.6 %	1.5 %	0.5 %	2.9 %	2.3 %	1.4 %	4.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.837 ppb	0.509 ppb	400.692 ppb	4.970 ppb	105.756 %	0.008 ppb	0.080 ppb	106.311 %	1.921 ppb
Concentration per Run 1	0.853 ppb	0.547 ppb	402.560 ppb	4.160 ppb	102.130 %	0.009 ppb	0.087 ppb	99.203 %	1.726 ppb
Concentration per Run 2	0.888 ppb	0.621 ppb	405.389 ppb	5.101 ppb	109.059 %	0.005 ppb	0.079 ppb	111.318 %	1.951 ppb
Concentration per Run 3	0.772 ppb	0.358 ppb	394.127 ppb	5.650 ppb	106.079 %	0.008 ppb	0.073 ppb	108.411 %	2.087 ppb
Concentration RSD	7.1 %	26.7 %	1.5 %	15.2 %	3.3 %	29.5 %	8.4 %	5.9 %	9.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	117.162 ppb	107.676 %	107.068 %	0.065 ppb	0.129 ppb
Concentration per Run 1	121.879 ppb	102.107 %	99.118 %	0.061 ppb	0.140 ppb
Concentration per Run 2	117.346 ppb	111.353 %	112.156 %	0.064 ppb	0.130 ppb
Concentration per Run 3	112.262 ppb	109.568 %	109.929 %	0.069 ppb	0.119 ppb
Concentration RSD	4.1 %	4.6 %	6.5 %	5.8 %	8.1 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	74	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	I2447944-01 2008TL	Rack	1		
Analysis started at:	8/29/2024 11:10:56 AM	Vial	45		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	131.859 %	98.393 %	0.013 ppb	462,171.286 ppb	23,160.146 ppb	33.692 ppb	10,780.905 ppb	63,238.299 ppb	135.202 %
Concentration per Run 1	127.974 %	97.571 %	0.004 ppb	470,748.131 ppb	24,524.610 ppb	32.311 ppb	10,989.288 ppb	63,778.966 ppb	134.083 %
Concentration per Run 2	133.359 %	99.804 %	0.024 ppb	465,200.993 ppb	22,888.712 ppb	37.384 ppb	11,131.240 ppb	65,788.389 ppb	136.147 %
Concentration per Run 3	134.242 %	97.806 %	0.012 ppb	450,564.735 ppb	22,067.115 ppb	31.381 ppb	10,222.186 ppb	60,147.541 ppb	135.375 %
Concentration RSD	2.6 %	1.2 %	78.0 %	2.3 %	5.4 %	9.6 %	4.5 %	4.5 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.827 ppb	0.307 ppb	1,204.161 ppb	142.034 ppb	1.397 ppb	2.497 ppb	5.590 ppb	10.396 ppb	113.384 %
Concentration per Run 1	1.824 ppb	0.341 ppb	1,235.750 ppb	148.303 ppb	1.390 ppb	2.550 ppb	5.757 ppb	10.918 ppb	105.819 %
Concentration per Run 2	1.895 ppb	0.251 ppb	1,215.473 ppb	138.560 ppb	1.392 ppb	2.581 ppb	5.447 ppb	10.384 ppb	121.541 %
Concentration per Run 3	1.762 ppb	0.330 ppb	1,161.261 ppb	139.238 ppb	1.409 ppb	2.361 ppb	5.567 ppb	9.885 ppb	112.793 %
Concentration RSD	3.6 %	15.9 %	3.2 %	3.8 %	0.7 %	4.8 %	2.8 %	5.0 %	6.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	1.064 ppb	0.286 ppb	521.865 ppb	5.538 ppb	102.921 %	0.012 ppb	0.153 ppb	103.190 %	0.911 ppb
Concentration per Run 1	1.090 ppb	0.405 ppb	531.058 ppb	5.549 ppb	98.078 %	0.012 ppb	0.178 ppb	96.284 %	0.809 ppb
Concentration per Run 2	1.032 ppb	0.237 ppb	533.674 ppb	5.640 ppb	105.235 %	0.013 ppb	0.133 ppb	106.979 %	0.935 ppb
Concentration per Run 3	1.069 ppb	0.217 ppb	500.862 ppb	5.425 ppb	105.450 %	0.013 ppb	0.148 ppb	106.307 %	0.989 ppb
Concentration RSD	2.7 %	36.1 %	3.5 %	1.9 %	4.1 %	3.0 %	14.9 %	5.8 %	10.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	102.774 ppb	104.656 %	105.318 %	0.045 ppb	0.096 ppb
Concentration per Run 1	106.603 ppb	96.958 %	96.534 %	0.032 ppb	0.111 ppb
Concentration per Run 2	103.893 ppb	108.860 %	112.067 %	0.051 ppb	0.086 ppb
Concentration per Run 3	97.825 ppb	108.150 %	107.353 %	0.053 ppb	0.090 ppb
Concentration RSD	4.4 %	6.4 %	7.6 %	26.2 %	13.9 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	75	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1965129-5d10 2008TL	Rack	1		
Analysis started at:	8/29/2024 11:15:35 AM	Vial	46		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	139.034 %	114.420 %	5.246 ppb	43,967.772 ppb	3,353.028 ppb	220.991 ppb	2,202.493 ppb	7,556.251 ppb	134.686 %
Concentration per Run 1	135.894 %	106.975 %	5.337 ppb	46,391.901 ppb	3,484.495 ppb	232.649 ppb	2,317.044 ppb	7,990.145 ppb	136.014 %
Concentration per Run 2	140.976 %	119.319 %	5.098 ppb	44,064.156 ppb	3,367.005 ppb	226.091 ppb	2,186.606 ppb	7,479.222 ppb	135.033 %
Concentration per Run 3	140.232 %	116.968 %	5.302 ppb	41,447.261 ppb	3,207.583 ppb	204.233 ppb	2,103.829 ppb	7,199.385 ppb	133.010 %
Concentration RSD	2.0 %	5.7 %	2.5 %	5.6 %	4.1 %	6.7 %	4.9 %	5.3 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	50.740 ppb	20.004 ppb	183.797 ppb	124.455 ppb	52.660 ppb	52.477 ppb	27.124 ppb	54.023 ppb	120.667 %
Concentration per Run 1	53.954 ppb	21.349 ppb	193.180 ppb	131.179 ppb	55.476 ppb	55.188 ppb	28.712 ppb	56.853 ppb	114.271 %
Concentration per Run 2	49.430 ppb	19.368 ppb	180.456 ppb	120.192 ppb	50.601 ppb	50.655 ppb	25.773 ppb	52.654 ppb	128.288 %
Concentration per Run 3	48.836 ppb	19.294 ppb	177.755 ppb	121.992 ppb	51.902 ppb	51.587 ppb	26.886 ppb	52.561 ppb	119.441 %
Concentration RSD	5.5 %	5.8 %	4.5 %	4.7 %	4.8 %	4.6 %	5.5 %	4.5 %	5.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	11.924 ppb	11.846 ppb	154.176 ppb	106.140 ppb	112.934 %	5.075 ppb	5.580 ppb	113.729 %	49.227 ppb
Concentration per Run 1	12.712 ppb	12.153 ppb	155.969 ppb	109.597 ppb	108.775 %	5.366 ppb	5.830 ppb	107.432 %	51.013 ppb
Concentration per Run 2	11.601 ppb	11.949 ppb	158.748 ppb	104.883 ppb	116.637 %	4.974 ppb	5.510 ppb	120.986 %	49.000 ppb
Concentration per Run 3	11.458 ppb	11.435 ppb	147.812 ppb	103.940 ppb	113.390 %	4.886 ppb	5.399 ppb	112.770 %	47.668 ppb
Concentration RSD	5.8 %	3.1 %	3.7 %	2.9 %	3.5 %	5.0 %	4.0 %	6.0 %	3.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	222.774 ppb	111.978 %	112.017 %	11.514 ppb	53.653 ppb
Concentration per Run 1	228.177 ppb	106.617 %	105.729 %	12.170 ppb	56.342 ppb
Concentration per Run 2	225.027 ppb	114.829 %	117.534 %	11.039 ppb	51.609 ppb
Concentration per Run 3	215.117 ppb	114.487 %	112.787 %	11.332 ppb	53.007 ppb
Concentration RSD	3.1 %	4.1 %	5.3 %	5.1 %	4.5 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	76	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1965129-6 2008TL	Rack	1		
Analysis started at:	8/29/2024 11:20:15 AM	Vial	47		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	136.799 %	100.745 %	0.016 ppb	434,466.777 ppb	22,468.722 ppb	31.883 ppb	10,254.263 ppb	59,937.013 ppb	145.570 %
Concentration per Run 1	133.405 %	102.978 %	0.020 ppb	418,452.282 ppb	21,632.494 ppb	29.770 ppb	10,011.015 ppb	57,614.973 ppb	144.080 %
Concentration per Run 2	138.439 %	101.450 %	0.014 ppb	446,700.539 ppb	22,625.495 ppb	34.339 ppb	10,527.662 ppb	61,310.419 ppb	147.592 %
Concentration per Run 3	138.551 %	97.806 %	0.015 ppb	438,247.510 ppb	23,148.177 ppb	31.539 ppb	10,224.113 ppb	60,885.648 ppb	145.038 %
Concentration RSD	2.1 %	2.6 %	19.4 %	3.3 %	3.4 %	7.2 %	2.5 %	3.4 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.724 ppb	0.302 ppb	1,132.699 ppb	137.469 ppb	1.322 ppb	2.378 ppb	5.278 ppb	9.513 ppb	114.947 %
Concentration per Run 1	1.655 ppb	0.313 ppb	1,083.179 ppb	133.538 ppb	1.294 ppb	2.273 ppb	5.262 ppb	9.323 ppb	114.756 %
Concentration per Run 2	1.585 ppb	0.256 ppb	1,138.296 ppb	136.614 ppb	1.276 ppb	2.369 ppb	4.996 ppb	9.313 ppb	119.982 %
Concentration per Run 3	1.931 ppb	0.337 ppb	1,176.621 ppb	142.253 ppb	1.397 ppb	2.492 ppb	5.576 ppb	9.903 ppb	110.101 %
Concentration RSD	10.6 %	13.8 %	4.1 %	3.2 %	4.9 %	4.6 %	5.5 %	3.6 %	4.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.928 ppb	0.330 ppb	497.815 ppb	7.202 ppb	107.507 %	0.010 ppb	0.154 ppb	110.806 %	1.147 ppb
Concentration per Run 1	0.966 ppb	0.398 ppb	492.559 ppb	6.477 ppb	110.076 %	0.009 ppb	0.153 ppb	114.236 %	0.905 ppb
Concentration per Run 2	0.907 ppb	0.353 ppb	503.245 ppb	7.154 ppb	107.067 %	0.011 ppb	0.149 ppb	110.302 %	1.156 ppb
Concentration per Run 3	0.912 ppb	0.239 ppb	497.641 ppb	7.975 ppb	105.379 %	0.009 ppb	0.160 ppb	107.880 %	1.379 ppb
Concentration RSD	3.5 %	24.8 %	1.1 %	10.4 %	2.2 %	15.2 %	3.7 %	2.9 %	20.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	92.594 ppb	111.804 %	112.816 %	0.046 ppb	0.090 ppb
Concentration per Run 1	88.746 ppb	113.868 %	116.213 %	0.040 ppb	0.095 ppb
Concentration per Run 2	94.137 ppb	112.754 %	114.842 %	0.048 ppb	0.087 ppb
Concentration per Run 3	94.899 ppb	108.790 %	107.393 %	0.050 ppb	0.088 ppb
Concentration RSD	3.6 %	2.4 %	4.2 %	10.9 %	4.9 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	77	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	xl2447944-01d10 2008TL	Rack	1		
Analysis started at:	8/29/2024 11:24:54 AM	Vial	48		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	143.271 %	113.519 %	0.006 ppb	44,366.813 ppb	2,336.625 ppb	3.473 ppb	1,120.494 ppb	6,613.746 ppb	152.193 %
Concentration per Run 1	139.526 %	110.972 %	0.010 ppb	47,241.991 ppb	2,501.920 ppb	3.860 ppb	1,218.892 ppb	7,015.442 ppb	152.303 %
Concentration per Run 2	144.947 %	108.386 %	0.006 ppb	46,143.855 ppb	2,436.830 ppb	3.304 ppb	1,139.636 ppb	6,802.108 ppb	151.900 %
Concentration per Run 3	145.340 %	121.200 %	0.002 ppb	39,714.594 ppb	2,071.124 ppb	3.256 ppb	1,002.954 ppb	6,023.688 ppb	152.378 %
Concentration RSD	2.3 %	6.0 %	60.4 %	9.2 %	9.9 %	9.7 %	9.7 %	7.9 %	0.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.201 ppb	0.024 ppb	133.817 ppb	16.876 ppb	0.146 ppb	0.355 ppb	0.710 ppb	1.237 ppb	121.435 %
Concentration per Run 1	0.218 ppb	0.012 ppb	139.132 ppb	15.561 ppb	0.150 ppb	0.339 ppb	0.724 ppb	1.381 ppb	120.944 %
Concentration per Run 2	0.227 ppb	0.040 ppb	139.359 ppb	16.765 ppb	0.140 ppb	0.389 ppb	0.730 ppb	1.212 ppb	117.799 %
Concentration per Run 3	0.160 ppb	0.020 ppb	122.960 ppb	18.301 ppb	0.148 ppb	0.337 ppb	0.676 ppb	1.118 ppb	125.561 %
Concentration RSD	18.1 %	58.8 %	7.0 %	8.1 %	3.4 %	8.4 %	4.2 %	10.8 %	3.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.021 ppb	0.107 ppb	51.957 ppb	1.277 ppb	117.335 %	0.005 ppb	0.018 ppb	119.235 %	0.499 ppb
Concentration per Run 1	0.128 ppb	0.071 ppb	56.781 ppb	1.035 ppb	115.521 %	0.005 ppb	0.018 ppb	122.796 %	0.437 ppb
Concentration per Run 2	0.006 ppb	0.097 ppb	52.176 ppb	1.303 ppb	115.754 %	0.004 ppb	0.015 ppb	115.678 %	0.514 ppb
Concentration per Run 3	-0.073 ppb	0.153 ppb	46.914 ppb	1.491 ppb	120.731 %	0.007 ppb	0.021 ppb	119.232 %	0.545 ppb
Concentration RSD	490.9 %	39.3 %	9.5 %	17.9 %	2.5 %	27.8 %	16.8 %	3.0 %	11.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	9.778 ppb	116.934 %	117.473 %	0.022 ppb	0.028 ppb
Concentration per Run 1	10.466 ppb	111.946 %	117.727 %	0.015 ppb	0.030 ppb
Concentration per Run 2	9.612 ppb	117.704 %	114.137 %	0.026 ppb	0.029 ppb
Concentration per Run 3	9.257 ppb	121.153 %	120.554 %	0.025 ppb	0.025 ppb
Concentration RSD	6.4 %	4.0 %	2.7 %	28.9 %	8.7 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	78	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	xCCV	Rack	0		
Analysis started at:	8/29/2024 11:31:04 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	132.114 %	105.486 %	59.813 ppb	6,465.838 ppb	6,412.831 ppb	62.313 ppb	6,381.708 ppb	6,326.378 ppb	143.059 %
Concentration per Run 1	130.757 %	104.859 %	59.250 ppb	6,389.414 ppb	6,274.434 ppb	59.290 ppb	6,137.492 ppb	6,194.293 ppb	142.243 %
Concentration per Run 2	132.594 %	103.331 %	60.263 ppb	6,665.560 ppb	6,731.283 ppb	66.982 ppb	6,645.851 ppb	6,483.320 ppb	144.410 %
Concentration per Run 3	132.991 %	108.268 %	59.926 ppb	6,342.541 ppb	6,232.776 ppb	60.668 ppb	6,361.781 ppb	6,301.520 ppb	142.525 %
Recovery Percentage 1			99.688 %	107.764 %	106.881 %	103.856 %	106.362 %	105.440 %	
Concentration RSD	0.9 %	2.4 %	0.9 %	2.7 %	4.3 %	6.6 %	4.0 %	2.3 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	62.302 ppb	61.927 ppb	63.495 ppb	6,195.939 ppb	61.962 ppb	62.706 ppb	61.610 ppb	61.253 ppb	114.770 %
Concentration per Run 1	60.558 ppb	60.718 ppb	61.036 ppb	6,117.365 ppb	61.661 ppb	62.813 ppb	62.317 ppb	61.128 ppb	111.813 %
Concentration per Run 2	64.369 ppb	62.913 ppb	65.728 ppb	6,280.680 ppb	63.305 ppb	63.668 ppb	62.352 ppb	62.531 ppb	115.284 %
Concentration per Run 3	61.979 ppb	62.150 ppb	63.720 ppb	6,189.771 ppb	60.922 ppb	61.638 ppb	60.162 ppb	60.101 ppb	117.214 %
Recovery Percentage 1	103.836 %	103.212 %	105.824 %	103.266 %	103.271 %	104.510 %	102.684 %	102.089 %	
Concentration RSD	3.1 %	1.8 %	3.7 %	1.3 %	2.0 %	1.6 %	2.0 %	2.0 %	2.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	60.382 ppb	61.639 ppb	59.387 ppb	59.140 ppb	113.307 %	61.109 ppb	59.943 ppb	111.047 %	47.923 ppb
Concentration per Run 1	60.085 ppb	59.813 ppb	56.806 ppb	58.566 ppb	109.864 %	62.572 ppb	60.794 ppb	105.350 %	47.621 ppb
Concentration per Run 2	60.900 ppb	61.923 ppb	61.039 ppb	59.339 ppb	117.222 %	60.651 ppb	60.173 ppb	113.697 %	48.194 ppb
Concentration per Run 3	60.161 ppb	63.181 ppb	60.316 ppb	59.515 ppb	112.835 %	60.103 ppb	58.862 ppb	114.093 %	47.955 ppb
Recovery Percentage 1	100.637 %	102.732 %	98.978 %	98.566 %		101.848 %	99.905 %		79.872 %
Concentration RSD	0.7 %	2.8 %	3.8 %	0.9 %	3.3 %	2.1 %	1.6 %	4.4 %	0.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	59.898 ppb	113.921 %	112.314 %	62.417 ppb	60.557 ppb
Concentration per Run 1	59.758 ppb	109.837 %	105.943 %	64.713 ppb	62.218 ppb
Concentration per Run 2	59.569 ppb	115.972 %	116.425 %	60.977 ppb	59.591 ppb
Concentration per Run 3	60.368 ppb	115.954 %	114.573 %	61.561 ppb	59.860 ppb
Recovery Percentage 1	99.831 %			104.028 %	100.928 %
Concentration RSD	0.7 %	3.1 %	5.0 %	3.2 %	2.4 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	79	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	xCCB	Rack	0		
Analysis started at:	8/29/2024 11:35:47 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	127.750 %	108.033 %	0.009 ppb	34.556 ppb	0.284 ppb	-0.121 ppb	0.971 ppb	2.944 ppb	129.092 %
Concentration per Run 1	125.088 %	105.447 %	0.008 ppb	30.960 ppb	-0.017 ppb	-0.344 ppb	-3.219 ppb	1.629 ppb	127.155 %
Concentration per Run 2	129.445 %	112.971 %	0.012 ppb	28.609 ppb	-0.167 ppb	0.057 ppb	3.566 ppb	3.616 ppb	130.618 %
Concentration per Run 3	128.719 %	105.682 %	0.006 ppb	44.099 ppb	1.035 ppb	-0.075 ppb	2.565 ppb	3.586 ppb	129.503 %
Recovery Percentage 1			1.743 %	34.556 %	0.405 %	-1.205 %	0.971 %	2.944 %	
Concentration RSD	1.8 %	4.0 %	34.3 %	24.2 %	230.9 %	169.2 %	377.4 %	38.7 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.043 ppb	-0.009 ppb	0.059 ppb	11.590 ppb	0.006 ppb	0.049 ppb	0.030 ppb	-0.067 ppb	111.137 %
Concentration per Run 1	-0.049 ppb	-0.002 ppb	0.059 ppb	10.396 ppb	0.012 ppb	0.033 ppb	0.037 ppb	-0.093 ppb	108.787 %
Concentration per Run 2	-0.052 ppb	-0.006 ppb	0.066 ppb	11.831 ppb	0.001 ppb	0.075 ppb	0.032 ppb	-0.068 ppb	113.120 %
Concentration per Run 3	-0.028 ppb	-0.018 ppb	0.051 ppb	12.543 ppb	0.004 ppb	0.040 ppb	0.023 ppb	-0.039 ppb	111.503 %
Recovery Percentage 1	-0.859 %	-0.852 %	5.894 %	23.180 %	1.108 %	2.466 %	3.044 %	-1.337 %	
Concentration RSD	29.5 %	101.6 %	13.0 %	9.4 %	109.9 %	46.4 %	23.1 %	40.9 %	2.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.058 ppb	0.221 ppb	0.012 ppb	1.453 ppb	115.307 %	0.006 ppb	0.006 ppb	112.483 %	2.099 ppb
Concentration per Run 1	-0.025 ppb	0.198 ppb	0.013 ppb	1.111 ppb	114.137 %	0.006 ppb	0.008 ppb	110.238 %	1.917 ppb
Concentration per Run 2	-0.045 ppb	0.236 ppb	0.010 ppb	1.497 ppb	115.818 %	0.007 ppb	0.006 ppb	113.373 %	2.130 ppb
Concentration per Run 3	-0.105 ppb	0.228 ppb	0.012 ppb	1.752 ppb	115.965 %	0.006 ppb	0.005 ppb	113.839 %	2.251 ppb
Recovery Percentage 1	-11.624 %	4.413 %	0.116 %	72.654 %		1.578 %	3.123 %		52.486 %
Concentration RSD	72.2 %	9.0 %	10.6 %	22.2 %	0.9 %	11.6 %	23.0 %	1.7 %	8.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.013 ppb	112.285 %	111.723 %	0.191 ppb	0.018 ppb
Concentration per Run 1	0.009 ppb	110.620 %	112.505 %	0.148 ppb	0.020 ppb
Concentration per Run 2	0.022 ppb	112.927 %	113.096 %	0.219 ppb	0.018 ppb
Concentration per Run 3	0.008 ppb	113.307 %	109.570 %	0.207 ppb	0.017 ppb
Recovery Percentage 1	2.629 %			19.126 %	1.848 %
Concentration RSD	59.4 %	1.3 %	1.7 %	19.9 %	8.8 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	80	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/29/2024 11:42:16 AM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	123.265 %	109.796 %	61.668 ppb	6,501.086 ppb	6,454.955 ppb	65.786 ppb	6,565.512 ppb	6,426.591 ppb	137.526 %
Concentration per Run 1	120.415 %	108.151 %	62.020 ppb	6,362.063 ppb	6,323.178 ppb	64.649 ppb	6,440.802 ppb	6,348.523 ppb	135.721 %
Concentration per Run 2	124.254 %	106.975 %	61.237 ppb	7,039.267 ppb	6,929.418 ppb	69.505 ppb	6,911.666 ppb	6,744.808 ppb	138.877 %
Concentration per Run 3	125.127 %	114.264 %	61.748 ppb	6,101.928 ppb	6,112.268 ppb	63.205 ppb	6,344.070 ppb	6,186.442 ppb	137.980 %
Recovery Percentage 1			102.780 %	108.351 %	107.583 %	109.644 %	109.425 %	107.110 %	
Concentration RSD	2.0 %	3.6 %	0.6 %	7.4 %	6.6 %	5.0 %	4.6 %	4.5 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	62.305 ppb	61.706 ppb	64.616 ppb	6,260.570 ppb	62.516 ppb	62.878 ppb	62.218 ppb	62.632 ppb	116.035 %
Concentration per Run 1	62.012 ppb	62.716 ppb	63.971 ppb	6,267.305 ppb	63.409 ppb	63.766 ppb	62.748 ppb	62.657 ppb	114.460 %
Concentration per Run 2	64.118 ppb	62.517 ppb	66.140 ppb	6,402.430 ppb	61.873 ppb	61.416 ppb	60.163 ppb	62.332 ppb	120.103 %
Concentration per Run 3	60.785 ppb	59.886 ppb	63.738 ppb	6,111.976 ppb	62.267 ppb	63.451 ppb	63.742 ppb	62.909 ppb	113.543 %
Recovery Percentage 1	103.842 %	102.844 %	107.693 %	104.343 %	104.194 %	104.796 %	103.697 %	104.387 %	
Concentration RSD	2.7 %	2.6 %	2.1 %	2.3 %	1.3 %	2.0 %	3.0 %	0.5 %	3.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	61.658 ppb	63.509 ppb	63.089 ppb	60.991 ppb	115.321 %	60.208 ppb	59.917 ppb	116.153 %	58.694 ppb
Concentration per Run 1	61.198 ppb	61.764 ppb	61.592 ppb	60.421 ppb	112.529 %	60.180 ppb	60.139 ppb	113.936 %	58.595 ppb
Concentration per Run 2	62.833 ppb	65.044 ppb	65.546 ppb	60.856 ppb	118.068 %	59.873 ppb	59.771 ppb	120.361 %	59.577 ppb
Concentration per Run 3	60.944 ppb	63.719 ppb	62.131 ppb	61.697 ppb	115.365 %	60.571 ppb	59.842 ppb	114.162 %	57.910 ppb
Recovery Percentage 1	102.764 %	105.849 %	105.149 %	101.652 %		100.347 %	99.862 %		97.824 %
Concentration RSD	1.7 %	2.6 %	3.4 %	1.1 %	2.4 %	0.6 %	0.3 %	3.1 %	1.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	60.617 ppb	115.877 %	115.713 %	61.475 ppb	60.820 ppb
Concentration per Run 1	59.004 ppb	114.921 %	113.548 %	61.085 ppb	61.165 ppb
Concentration per Run 2	62.523 ppb	119.556 %	121.607 %	59.129 ppb	58.095 ppb
Concentration per Run 3	60.323 ppb	113.155 %	111.984 %	64.209 ppb	63.200 ppb
Recovery Percentage 1	101.028 %			102.458 %	101.367 %
Concentration RSD	2.9 %	2.9 %	4.5 %	4.2 %	4.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	81	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/29/2024 11:47:00 AM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	120.086 %	110.149 %	0.017 ppb	26.906 ppb	0.641 ppb	-0.061 ppb	7.285 ppb	3.062 ppb	116.272 %
Concentration per Run 1	117.751 %	106.858 %	0.023 ppb	27.891 ppb	0.717 ppb	-0.198 ppb	4.935 ppb	0.155 ppb	116.150 %
Concentration per Run 2	121.491 %	110.267 %	0.002 ppb	29.762 ppb	0.652 ppb	0.016 ppb	11.859 ppb	9.190 ppb	116.750 %
Concentration per Run 3	121.014 %	113.323 %	0.024 ppb	23.065 ppb	0.554 ppb	-0.002 ppb	5.060 ppb	-0.160 ppb	115.916 %
Recovery Percentage 1			3.301 %	26.906 %	0.916 %	-0.613 %	7.285 %	3.062 %	
Concentration RSD	1.7 %	2.9 %	74.1 %	12.8 %	12.8 %	193.2 %	54.4 %	173.4 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.044 ppb	-0.015 ppb	0.086 ppb	11.361 ppb	0.004 ppb	0.048 ppb	0.032 ppb	-0.028 ppb	110.294 %
Concentration per Run 1	-0.049 ppb	-0.023 ppb	0.129 ppb	11.145 ppb	0.004 ppb	0.036 ppb	0.018 ppb	0.010 ppb	108.208 %
Concentration per Run 2	-0.019 ppb	-0.021 ppb	0.059 ppb	10.262 ppb	0.007 ppb	0.028 ppb	0.041 ppb	-0.052 ppb	116.146 %
Concentration per Run 3	-0.062 ppb	-0.001 ppb	0.071 ppb	12.675 ppb	0.000 ppb	0.081 ppb	0.038 ppb	-0.043 ppb	106.530 %
Recovery Percentage 1	-0.870 %	-1.505 %	8.647 %	22.722 %	0.706 %	2.409 %	3.218 %	-0.566 %	
Concentration RSD	50.9 %	81.5 %	43.2 %	10.7 %	97.8 %	59.2 %	38.2 %	117.4 %	4.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.046 ppb	0.271 ppb	0.007 ppb	1.576 ppb	112.479 %	0.009 ppb	0.011 ppb	110.574 %	0.769 ppb
Concentration per Run 1	-0.021 ppb	0.316 ppb	0.002 ppb	1.280 ppb	109.949 %	0.013 ppb	0.019 ppb	106.012 %	0.620 ppb
Concentration per Run 2	-0.091 ppb	0.301 ppb	0.010 ppb	1.489 ppb	114.440 %	0.009 ppb	0.007 ppb	116.547 %	0.823 ppb
Concentration per Run 3	-0.026 ppb	0.197 ppb	0.010 ppb	1.959 ppb	113.048 %	0.007 ppb	0.005 ppb	109.163 %	0.864 ppb
Recovery Percentage 1	-9.280 %	5.427 %	0.073 %	78.802 %		2.355 %	5.320 %		19.227 %
Concentration RSD	84.2 %	23.9 %	58.4 %	22.1 %	2.0 %	32.2 %	70.4 %	4.9 %	17.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.010 ppb	109.078 %	109.330 %	0.317 ppb	0.019 ppb
Concentration per Run 1	0.025 ppb	107.037 %	106.368 %	0.253 ppb	0.022 ppb
Concentration per Run 2	0.005 ppb	113.028 %	113.873 %	0.364 ppb	0.016 ppb
Concentration per Run 3	0.002 ppb	107.169 %	107.748 %	0.335 ppb	0.018 ppb
Recovery Percentage 1	2.098 %			31.727 %	1.861 %
Concentration RSD	116.3 %	3.1 %	3.7 %	18.2 %	17.5 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	82	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1964423-1 6020TL	Rack	1		
Analysis started at:	8/29/2024 11:56:50 AM	Vial	49		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	124.871 %	115.322 %	0.006 ppb	13.930 ppb	2.150 ppb	2.526 ppb	-1.434 ppb	12.746 ppb	143.495 %
Concentration per Run 1	122.507 %	120.259 %	0.005 ppb	6.606 ppb	1.963 ppb	2.005 ppb	-8.732 ppb	9.133 ppb	142.977 %
Concentration per Run 2	125.333 %	109.679 %	0.000 ppb	16.978 ppb	2.286 ppb	2.834 ppb	3.499 ppb	14.823 ppb	143.886 %
Concentration per Run 3	126.773 %	116.027 %	0.013 ppb	18.207 ppb	2.201 ppb	2.738 ppb	0.931 ppb	14.282 ppb	143.623 %
Concentration RSD	1.7 %	4.6 %	117.3 %	45.7 %	7.8 %	18.0 %	449.8 %	24.6 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.077 ppb	0.025 ppb	0.110 ppb	10.804 ppb	-0.001 ppb	0.073 ppb	0.141 ppb	0.091 ppb	120.193 %
Concentration per Run 1	-0.086 ppb	0.019 ppb	0.100 ppb	10.271 ppb	-0.001 ppb	0.083 ppb	0.180 ppb	0.043 ppb	119.909 %
Concentration per Run 2	-0.081 ppb	0.030 ppb	0.101 ppb	11.830 ppb	-0.003 ppb	0.104 ppb	0.120 ppb	0.085 ppb	116.341 %
Concentration per Run 3	-0.063 ppb	0.027 ppb	0.131 ppb	10.312 ppb	0.002 ppb	0.031 ppb	0.122 ppb	0.145 ppb	124.328 %
Concentration RSD	15.7 %	22.6 %	16.0 %	8.2 %	457.9 %	51.7 %	24.3 %	56.4 %	3.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.046 ppb	0.105 ppb	0.022 ppb	0.689 ppb	118.399 %	0.004 ppb	0.000 ppb	127.403 %	0.386 ppb
Concentration per Run 1	-0.056 ppb	0.093 ppb	0.019 ppb	0.660 ppb	121.652 %	0.004 ppb	0.000 ppb	137.843 %	0.273 ppb
Concentration per Run 2	-0.025 ppb	0.059 ppb	0.020 ppb	0.698 ppb	116.185 %	0.005 ppb	-0.001 ppb	119.540 %	0.424 ppb
Concentration per Run 3	-0.058 ppb	0.161 ppb	0.028 ppb	0.708 ppb	117.361 %	0.004 ppb	0.001 ppb	124.825 %	0.461 ppb
Concentration RSD	40.6 %	49.4 %	21.4 %	3.7 %	2.4 %	21.7 %	411.5 %	7.4 %	25.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.028 ppb	119.264 %	119.716 %	0.097 ppb	0.008 ppb
Concentration per Run 1	0.011 ppb	128.235 %	129.928 %	0.069 ppb	0.004 ppb
Concentration per Run 2	0.041 ppb	115.253 %	113.606 %	0.116 ppb	0.011 ppb
Concentration per Run 3	0.033 ppb	114.303 %	115.615 %	0.106 ppb	0.008 ppb
Concentration RSD	55.5 %	6.5 %	7.4 %	25.4 %	41.4 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	83	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1964423-2d10 6020TL	Rack	1		
Analysis started at:	8/29/2024 12:01:27 PM	Vial	50		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	117.032 %	111.364 %	5.361 ppb	1,146.838 ppb	1,086.460 ppb	210.159 ppb	1,121.025 ppb	1,162.427 ppb	128.956 %
Concentration per Run 1	114.679 %	114.499 %	5.402 ppb	1,091.947 ppb	1,017.626 ppb	195.633 ppb	1,037.275 ppb	1,067.374 ppb	128.662 %
Concentration per Run 2	117.653 %	104.154 %	5.361 ppb	1,174.997 ppb	1,120.027 ppb	218.411 ppb	1,176.306 ppb	1,241.870 ppb	128.393 %
Concentration per Run 3	118.763 %	115.439 %	5.318 ppb	1,173.570 ppb	1,121.728 ppb	216.433 ppb	1,149.495 ppb	1,178.039 ppb	129.813 %
Concentration RSD	1.8 %	5.6 %	0.8 %	4.1 %	5.5 %	6.0 %	6.6 %	7.6 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	49.999 ppb	19.933 ppb	52.816 ppb	110.564 ppb	52.379 ppb	51.882 ppb	26.227 ppb	52.608 ppb	118.071 %
Concentration per Run 1	49.105 ppb	19.615 ppb	50.461 ppb	102.356 ppb	51.740 ppb	50.616 ppb	25.337 ppb	50.641 ppb	117.732 %
Concentration per Run 2	52.299 ppb	20.939 ppb	54.336 ppb	119.502 ppb	55.349 ppb	55.321 ppb	27.402 ppb	54.883 ppb	110.927 %
Concentration per Run 3	48.593 ppb	19.245 ppb	53.652 ppb	109.835 ppb	50.047 ppb	49.708 ppb	25.941 ppb	52.299 ppb	125.555 %
Concentration RSD	4.0 %	4.5 %	3.9 %	7.8 %	5.2 %	5.8 %	4.0 %	4.1 %	6.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	11.341 ppb	11.337 ppb	102.733 ppb	99.233 ppb	116.801 %	5.083 ppb	5.418 ppb	113.769 %	44.432 ppb
Concentration per Run 1	10.975 ppb	10.732 ppb	96.162 ppb	97.136 ppb	119.620 %	4.935 ppb	5.108 ppb	114.716 %	43.073 ppb
Concentration per Run 2	11.687 ppb	11.909 ppb	104.309 ppb	101.379 ppb	113.183 %	5.240 ppb	5.596 ppb	107.588 %	45.821 ppb
Concentration per Run 3	11.362 ppb	11.371 ppb	107.728 ppb	99.184 ppb	117.599 %	5.072 ppb	5.549 ppb	119.003 %	44.403 ppb
Concentration RSD	3.1 %	5.2 %	5.8 %	2.1 %	2.8 %	3.0 %	5.0 %	5.1 %	3.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	206.118 ppb	114.169 %	114.688 %	11.220 ppb	52.733 ppb
Concentration per Run 1	195.696 ppb	116.421 %	114.628 %	10.830 ppb	52.220 ppb
Concentration per Run 2	212.554 ppb	110.918 %	111.598 %	11.686 ppb	53.545 ppb
Concentration per Run 3	210.103 ppb	115.168 %	117.837 %	11.143 ppb	52.433 ppb
Concentration RSD	4.4 %	2.5 %	2.7 %	3.9 %	1.3 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	84	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	WG1965129-2d10 2008TL	Rack	1		
Analysis started at:	8/29/2024 12:09:05 PM	Vial	41		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	115.944 %	104.036 %	5.348 ppb	1,176.577 ppb	1,110.040 ppb	211.354 ppb	1,153.919 ppb	1,144.503 ppb	117.306 %
Concentration per Run 1	112.661 %	106.035 %	5.356 ppb	1,155.691 ppb	1,087.482 ppb	204.700 ppb	1,147.567 ppb	1,179.093 ppb	116.606 %
Concentration per Run 2	117.568 %	103.919 %	5.447 ppb	1,168.781 ppb	1,095.772 ppb	213.786 ppb	1,154.579 ppb	1,143.040 ppb	118.526 %
Concentration per Run 3	117.603 %	102.155 %	5.240 ppb	1,205.258 ppb	1,146.865 ppb	215.575 ppb	1,159.611 ppb	1,111.375 ppb	116.785 %
Concentration RSD	2.5 %	1.9 %	1.9 %	2.2 %	2.9 %	2.8 %	0.5 %	3.0 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	52.714 ppb	21.003 ppb	55.303 ppb	114.152 ppb	55.251 ppb	55.622 ppb	27.715 ppb	54.890 ppb	107.670 %
Concentration per Run 1	55.580 ppb	21.599 ppb	56.088 ppb	121.800 ppb	58.324 ppb	58.342 ppb	29.478 ppb	57.136 ppb	99.741 %
Concentration per Run 2	51.763 ppb	20.611 ppb	53.786 ppb	109.184 ppb	53.387 ppb	53.570 ppb	26.795 ppb	54.155 ppb	111.944 %
Concentration per Run 3	50.798 ppb	20.800 ppb	56.037 ppb	111.472 ppb	54.043 ppb	54.954 ppb	26.872 ppb	53.379 ppb	111.326 %
Concentration RSD	4.8 %	2.5 %	2.4 %	5.9 %	4.9 %	4.4 %	5.5 %	3.6 %	6.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	12.030 ppb	11.402 ppb	103.852 ppb	104.137 ppb	108.506 %	5.245 ppb	5.555 ppb	102.306 %	42.180 ppb
Concentration per Run 1	12.547 ppb	11.690 ppb	105.625 ppb	107.342 ppb	102.338 %	5.454 ppb	5.683 ppb	95.371 %	43.582 ppb
Concentration per Run 2	11.600 ppb	10.796 ppb	102.741 ppb	101.737 ppb	110.743 %	5.144 ppb	5.540 ppb	104.812 %	42.043 ppb
Concentration per Run 3	11.944 ppb	11.720 ppb	103.192 ppb	103.333 ppb	112.438 %	5.136 ppb	5.443 ppb	106.735 %	40.916 ppb
Concentration RSD	4.0 %	4.6 %	1.5 %	2.8 %	5.0 %	3.5 %	2.2 %	5.9 %	3.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	214.943 ppb	106.259 %	104.583 %	12.374 ppb	57.304 ppb
Concentration per Run 1	215.565 ppb	100.790 %	96.257 %	13.189 ppb	61.195 ppb
Concentration per Run 2	215.193 ppb	108.703 %	107.710 %	12.183 ppb	55.887 ppb
Concentration per Run 3	214.072 ppb	109.285 %	109.782 %	11.751 ppb	54.829 ppb
Concentration RSD	0.4 %	4.5 %	7.0 %	6.0 %	6.0 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	85	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2447726-01 6020TL	Rack	1		
Analysis started at:	8/29/2024 12:13:43 PM	Vial	51		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	118.083 %	105.917 %	0.007 ppb	45,433.918 ppb	7,187.041 ppb	7.856 ppb	2,706.369 ppb	30,820.250 ppb	131.384 %
Concentration per Run 1	114.526 %	105.682 %	0.010 ppb	43,252.987 ppb	6,853.139 ppb	7.495 ppb	2,598.150 ppb	29,807.822 ppb	129.332 %
Concentration per Run 2	120.096 %	101.803 %	-0.001 ppb	48,271.148 ppb	7,625.742 ppb	8.158 ppb	2,809.670 ppb	32,435.570 ppb	135.217 %
Concentration per Run 3	119.628 %	110.267 %	0.011 ppb	44,777.620 ppb	7,082.240 ppb	7.913 ppb	2,711.286 ppb	30,217.359 ppb	129.603 %
Concentration RSD	2.6 %	4.0 %	103.0 %	5.7 %	5.5 %	4.3 %	3.9 %	4.6 %	2.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.187 ppb	0.874 ppb	3.732 ppb	19.708 ppb	0.084 ppb	1.188 ppb	2.016 ppb	0.901 ppb	110.055 %
Concentration per Run 1	0.148 ppb	0.821 ppb	3.301 ppb	17.024 ppb	0.083 ppb	1.146 ppb	2.016 ppb	0.786 ppb	108.247 %
Concentration per Run 2	0.215 ppb	0.916 ppb	4.001 ppb	21.085 ppb	0.093 ppb	1.248 ppb	1.913 ppb	1.037 ppb	109.703 %
Concentration per Run 3	0.198 ppb	0.884 ppb	3.893 ppb	21.016 ppb	0.075 ppb	1.169 ppb	2.119 ppb	0.879 ppb	112.215 %
Concentration RSD	18.5 %	5.5 %	10.1 %	11.8 %	10.3 %	4.5 %	5.1 %	14.1 %	1.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.023 ppb	0.286 ppb	106.071 ppb	3.229 ppb	107.840 %	0.003 ppb	0.016 ppb	106.753 %	2.479 ppb
Concentration per Run 1	0.044 ppb	0.314 ppb	101.466 ppb	2.622 ppb	108.330 %	0.003 ppb	0.015 ppb	105.249 %	2.232 ppb
Concentration per Run 2	0.053 ppb	0.143 ppb	108.377 ppb	3.356 ppb	107.931 %	0.003 ppb	0.016 ppb	105.426 %	2.559 ppb
Concentration per Run 3	-0.027 ppb	0.402 ppb	108.371 ppb	3.710 ppb	107.258 %	0.004 ppb	0.019 ppb	109.583 %	2.646 ppb
Concentration RSD	187.1 %	46.0 %	3.8 %	17.2 %	0.5 %	16.0 %	13.3 %	2.3 %	8.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	26.446 ppb	109.181 %	107.693 %	0.058 ppb	0.039 ppb
Concentration per Run 1	25.766 ppb	109.391 %	107.375 %	0.050 ppb	0.039 ppb
Concentration per Run 2	27.091 ppb	109.887 %	106.731 %	0.062 ppb	0.041 ppb
Concentration per Run 3	26.482 ppb	108.265 %	108.973 %	0.063 ppb	0.037 ppb
Concentration RSD	2.5 %	0.8 %	1.1 %	12.5 %	5.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	86	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1964423-3d10 6020TL	Rack	1		
Analysis started at:	8/29/2024 12:18:21 PM	Vial	52		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	114.056 %	108.974 %	5.473 ppb	6,525.424 ppb	1,918.639 ppb	211.328 ppb	1,432.343 ppb	4,385.437 ppb	120.939 %
Concentration per Run 1	112.127 %	108.621 %	5.437 ppb	6,565.982 ppb	1,910.143 ppb	208.631 ppb	1,438.031 ppb	4,400.526 ppb	118.197 %
Concentration per Run 2	114.803 %	105.447 %	5.473 ppb	6,631.750 ppb	1,985.694 ppb	214.597 ppb	1,475.984 ppb	4,536.369 ppb	122.537 %
Concentration per Run 3	115.238 %	112.853 %	5.509 ppb	6,378.539 ppb	1,860.079 ppb	210.757 ppb	1,383.014 ppb	4,219.417 ppb	122.082 %
Concentration RSD	1.5 %	3.4 %	0.7 %	2.0 %	3.3 %	1.4 %	3.3 %	3.6 %	2.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	51.258 ppb	20.733 ppb	54.867 ppb	114.666 ppb	54.174 ppb	54.246 ppb	27.956 ppb	54.302 ppb	112.182 %
Concentration per Run 1	50.569 ppb	20.397 ppb	52.404 ppb	111.281 ppb	52.599 ppb	52.644 ppb	27.545 ppb	53.531 ppb	114.770 %
Concentration per Run 2	51.768 ppb	21.040 ppb	56.278 ppb	118.155 ppb	55.607 ppb	54.946 ppb	27.749 ppb	54.171 ppb	112.482 %
Concentration per Run 3	51.437 ppb	20.762 ppb	55.920 ppb	114.562 ppb	54.315 ppb	55.148 ppb	28.574 ppb	55.204 ppb	109.295 %
Concentration RSD	1.2 %	1.6 %	3.9 %	3.0 %	2.8 %	2.6 %	1.9 %	1.6 %	2.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	11.920 ppb	11.334 ppb	115.967 ppb	103.697 ppb	111.732 %	5.158 ppb	5.418 ppb	109.637 %	42.358 ppb
Concentration per Run 1	11.699 ppb	10.638 ppb	113.290 ppb	99.885 ppb	114.715 %	5.068 ppb	5.346 ppb	110.169 %	41.685 ppb
Concentration per Run 2	12.154 ppb	11.927 ppb	115.980 ppb	106.950 ppb	110.518 %	5.183 ppb	5.423 ppb	110.964 %	41.855 ppb
Concentration per Run 3	11.907 ppb	11.435 ppb	118.632 ppb	104.257 ppb	109.961 %	5.221 ppb	5.486 ppb	107.778 %	43.534 ppb
Concentration RSD	1.9 %	5.7 %	2.3 %	3.4 %	2.3 %	1.5 %	1.3 %	1.5 %	2.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	207.300 ppb	110.181 %	108.851 %	11.674 ppb	54.524 ppb
Concentration per Run 1	201.997 ppb	112.137 %	110.826 %	11.370 ppb	52.495 ppb
Concentration per Run 2	208.373 ppb	109.734 %	108.205 %	11.762 ppb	55.657 ppb
Concentration per Run 3	211.528 ppb	108.671 %	107.523 %	11.890 ppb	55.419 ppb
Concentration RSD	2.3 %	1.6 %	1.6 %	2.3 %	3.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	87	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1964423-4 6020TL	Rack	1		
Analysis started at:	8/29/2024 12:23:00 PM	Vial	53		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	116.140 %	103.527 %	0.004 ppb	47,275.284 ppb	7,530.856 ppb	7.090 ppb	2,755.758 ppb	31,744.271 ppb	124.322 %
Concentration per Run 1	112.535 %	103.096 %	0.009 ppb	47,875.145 ppb	7,456.189 ppb	7.446 ppb	2,772.796 ppb	33,038.564 ppb	121.523 %
Concentration per Run 2	116.703 %	102.038 %	0.000 ppb	46,896.793 ppb	7,569.973 ppb	6.816 ppb	2,754.070 ppb	30,858.151 ppb	125.664 %
Concentration per Run 3	119.182 %	105.447 %	0.004 ppb	47,053.914 ppb	7,566.406 ppb	7.009 ppb	2,740.409 ppb	31,336.099 ppb	125.780 %
Concentration RSD	2.9 %	1.7 %	101.1 %	1.1 %	0.9 %	4.6 %	0.6 %	3.6 %	2.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.243 ppb	0.864 ppb	3.388 ppb	15.484 ppb	0.093 ppb	0.401 ppb	0.878 ppb	1.215 ppb	112.592 %
Concentration per Run 1	0.231 ppb	0.929 ppb	3.447 ppb	17.125 ppb	0.094 ppb	0.420 ppb	0.917 ppb	1.241 ppb	109.785 %
Concentration per Run 2	0.284 ppb	0.827 ppb	3.311 ppb	14.710 ppb	0.082 ppb	0.390 ppb	0.793 ppb	1.180 ppb	115.413 %
Concentration per Run 3	0.214 ppb	0.837 ppb	3.406 ppb	14.617 ppb	0.102 ppb	0.394 ppb	0.922 ppb	1.224 ppb	112.577 %
Concentration RSD	15.0 %	6.5 %	2.1 %	9.2 %	10.7 %	4.0 %	8.3 %	2.6 %	2.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.053 ppb	0.188 ppb	109.364 ppb	3.387 ppb	107.181 %	0.003 ppb	0.019 ppb	105.033 %	2.381 ppb
Concentration per Run 1	0.081 ppb	0.134 ppb	112.027 ppb	2.776 ppb	105.643 %	0.003 ppb	0.023 ppb	103.612 %	2.204 ppb
Concentration per Run 2	0.040 ppb	0.295 ppb	107.497 ppb	3.294 ppb	107.146 %	0.003 ppb	0.012 ppb	104.056 %	2.346 ppb
Concentration per Run 3	0.037 ppb	0.136 ppb	108.568 ppb	4.092 ppb	108.755 %	0.002 ppb	0.021 ppb	107.431 %	2.592 ppb
Concentration RSD	46.2 %	49.1 %	2.2 %	19.6 %	1.5 %	12.0 %	30.4 %	2.0 %	8.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	27.221 ppb	108.103 %	107.902 %	0.073 ppb	0.051 ppb
Concentration per Run 1	27.780 ppb	106.138 %	106.876 %	0.057 ppb	0.055 ppb
Concentration per Run 2	27.278 ppb	109.668 %	111.380 %	0.082 ppb	0.053 ppb
Concentration per Run 3	26.605 ppb	108.503 %	105.451 %	0.079 ppb	0.045 ppb
Concentration RSD	2.2 %	1.7 %	2.9 %	18.7 %	10.0 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	88	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2447726-02 6020TL	Rack	1		
Analysis started at:	8/29/2024 12:27:38 PM	Vial	54		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	118.384 %	113.206 %	1.147 ppb	2,610.214 ppb	15,709.194 ppb	23,447.980 ppb	5,094.607 ppb	36,820.384 ppb	196.068 %
Concentration per Run 1	117.348 %	115.087 %	1.143 ppb	2,522.985 ppb	15,259.910 ppb	22,947.601 ppb	5,009.865 ppb	35,260.899 ppb	194.964 %
Concentration per Run 2	117.995 %	115.557 %	1.146 ppb	2,564.410 ppb	15,484.632 ppb	23,128.959 ppb	5,050.895 ppb	37,229.360 ppb	195.808 %
Concentration per Run 3	119.809 %	108.974 %	1.152 ppb	2,743.248 ppb	16,383.038 ppb	24,267.380 ppb	5,223.059 ppb	37,970.894 ppb	197.431 %
Concentration RSD	1.1 %	3.2 %	0.4 %	4.5 %	3.8 %	3.1 %	2.2 %	3.8 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	67.184 ppb	79.206 ppb	270.794 ppb	45,232.609 ppb	14.256 ppb	18.782 ppb	37.109 ppb	101.486 ppb	116.455 %
Concentration per Run 1	64.814 ppb	77.212 ppb	260.963 ppb	43,818.823 ppb	13.980 ppb	18.194 ppb	35.977 ppb	97.044 ppb	119.672 %
Concentration per Run 2	66.564 ppb	78.974 ppb	270.296 ppb	45,083.620 ppb	14.285 ppb	18.663 ppb	37.156 ppb	103.117 ppb	114.723 %
Concentration per Run 3	70.173 ppb	81.433 ppb	281.122 ppb	46,795.384 ppb	14.503 ppb	19.489 ppb	38.196 ppb	104.296 ppb	114.969 %
Concentration RSD	4.1 %	2.7 %	3.7 %	3.3 %	1.8 %	3.5 %	3.0 %	3.8 %	2.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	2.165 ppb	5.348 ppb	161.720 ppb	2.175 ppb	110.845 %	0.053 ppb	0.298 ppb	110.119 %	1.151 ppb
Concentration per Run 1	2.064 ppb	5.323 ppb	155.727 ppb	1.912 ppb	113.801 %	0.048 ppb	0.299 ppb	111.786 %	1.002 ppb
Concentration per Run 2	2.209 ppb	5.569 ppb	164.649 ppb	2.268 ppb	109.089 %	0.056 ppb	0.296 ppb	109.178 %	1.169 ppb
Concentration per Run 3	2.221 ppb	5.151 ppb	164.786 ppb	2.345 ppb	109.645 %	0.055 ppb	0.300 ppb	109.392 %	1.282 ppb
Concentration RSD	4.0 %	3.9 %	3.2 %	10.6 %	2.3 %	8.3 %	0.7 %	1.3 %	12.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	189.089 ppb	115.939 %	112.659 %	0.270 ppb	14.476 ppb
Concentration per Run 1	187.103 ppb	117.256 %	115.303 %	0.246 ppb	13.992 ppb
Concentration per Run 2	189.047 ppb	116.572 %	112.622 %	0.277 ppb	14.559 ppb
Concentration per Run 3	191.117 ppb	113.988 %	110.053 %	0.286 ppb	14.878 ppb
Concentration RSD	1.1 %	1.5 %	2.3 %	7.7 %	3.1 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	89	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2447726-03 6020TL	Rack	1		
Analysis started at:	8/29/2024 12:32:17 PM	Vial	55		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	110.590 %	103.174 %	0.054 ppb	4,903.925 ppb	13,351.396 ppb	804.201 ppb	3,503.125 ppb	41,514.461 ppb	126.182 %
Concentration per Run 1	107.116 %	96.748 %	0.053 ppb	5,239.714 ppb	13,972.333 ppb	849.665 ppb	3,651.618 ppb	44,096.831 ppb	124.246 %
Concentration per Run 2	111.011 %	105.682 %	0.058 ppb	4,801.847 ppb	13,154.277 ppb	782.555 ppb	3,485.192 ppb	40,631.920 ppb	126.375 %
Concentration per Run 3	113.643 %	107.093 %	0.052 ppb	4,670.214 ppb	12,927.576 ppb	780.383 ppb	3,372.565 ppb	39,814.631 ppb	127.924 %
Concentration RSD	3.0 %	5.4 %	6.5 %	6.1 %	4.1 %	4.9 %	4.0 %	5.5 %	1.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	3.483 ppb	1.244 ppb	3,577.032 ppb	29,274.351 ppb	10.401 ppb	1.411 ppb	10.413 ppb	4.094 ppb	109.447 %
Concentration per Run 1	3.584 ppb	1.348 ppb	3,673.185 ppb	30,014.832 ppb	10.754 ppb	1.369 ppb	10.598 ppb	4.221 ppb	108.036 %
Concentration per Run 2	3.444 ppb	1.207 ppb	3,511.794 ppb	28,793.000 ppb	10.184 ppb	1.402 ppb	10.573 ppb	4.073 ppb	109.518 %
Concentration per Run 3	3.422 ppb	1.178 ppb	3,546.117 ppb	29,015.220 ppb	10.266 ppb	1.462 ppb	10.068 ppb	3.989 ppb	110.788 %
Concentration RSD	2.5 %	7.3 %	2.4 %	2.2 %	3.0 %	3.3 %	2.9 %	2.9 %	1.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.760 ppb	0.932 ppb	184.747 ppb	1.262 ppb	107.197 %	0.007 ppb	0.473 ppb	102.235 %	0.627 ppb
Concentration per Run 1	0.687 ppb	0.909 ppb	190.564 ppb	1.119 ppb	104.640 %	0.009 ppb	0.506 ppb	99.374 %	0.572 ppb
Concentration per Run 2	0.837 ppb	0.917 ppb	183.348 ppb	1.230 ppb	108.273 %	0.006 ppb	0.481 ppb	104.177 %	0.604 ppb
Concentration per Run 3	0.756 ppb	0.971 ppb	180.328 ppb	1.437 ppb	108.677 %	0.008 ppb	0.431 ppb	103.155 %	0.705 ppb
Concentration RSD	9.9 %	3.6 %	2.8 %	12.8 %	2.1 %	19.6 %	8.1 %	2.5 %	11.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	47.799 ppb	107.408 %	107.834 %	0.391 ppb	0.393 ppb
Concentration per Run 1	49.975 ppb	104.548 %	104.645 %	0.384 ppb	0.408 ppb
Concentration per Run 2	46.647 ppb	108.681 %	110.791 %	0.387 ppb	0.379 ppb
Concentration per Run 3	46.773 ppb	108.997 %	108.066 %	0.402 ppb	0.391 ppb
Concentration RSD	3.9 %	2.3 %	2.9 %	2.4 %	3.7 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	90	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2447726-04 6020TL	Rack	1		
Analysis started at:	8/29/2024 12:36:56 PM	Vial	56		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	108.823 %	102.155 %	0.037 ppb	52,029.471 ppb	7,447.659 ppb	129.130 ppb	1,325.037 ppb	22,789.321 ppb	119.667 %
Concentration per Run 1	105.470 %	101.450 %	0.041 ppb	51,627.629 ppb	7,396.786 ppb	134.449 ppb	1,349.595 ppb	23,612.818 ppb	118.666 %
Concentration per Run 2	109.987 %	105.447 %	0.035 ppb	51,222.620 ppb	7,420.841 ppb	122.602 ppb	1,323.701 ppb	22,055.155 ppb	119.998 %
Concentration per Run 3	111.014 %	99.569 %	0.037 ppb	53,238.163 ppb	7,525.350 ppb	130.340 ppb	1,301.814 ppb	22,699.990 ppb	120.336 %
Concentration RSD	2.7 %	2.9 %	7.3 %	2.0 %	0.9 %	4.7 %	1.8 %	3.4 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.587 ppb	0.496 ppb	202.540 ppb	2,495.052 ppb	0.690 ppb	0.481 ppb	0.486 ppb	2.201 ppb	109.340 %
Concentration per Run 1	0.562 ppb	0.530 ppb	202.553 ppb	2,498.356 ppb	0.719 ppb	0.471 ppb	0.506 ppb	2.262 ppb	107.790 %
Concentration per Run 2	0.610 ppb	0.492 ppb	205.224 ppb	2,486.505 ppb	0.656 ppb	0.476 ppb	0.491 ppb	2.140 ppb	108.805 %
Concentration per Run 3	0.590 ppb	0.467 ppb	199.843 ppb	2,500.294 ppb	0.695 ppb	0.495 ppb	0.460 ppb	2.201 ppb	111.426 %
Concentration RSD	4.2 %	6.4 %	1.3 %	0.3 %	4.6 %	2.6 %	4.8 %	2.8 %	1.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.130 ppb	0.287 ppb	80.848 ppb	0.410 ppb	105.931 %	0.004 ppb	0.021 ppb	105.757 %	0.358 ppb
Concentration per Run 1	0.117 ppb	0.358 ppb	82.373 ppb	0.318 ppb	103.623 %	0.005 ppb	0.026 ppb	104.395 %	0.305 ppb
Concentration per Run 2	0.147 ppb	0.263 ppb	80.984 ppb	0.451 ppb	107.130 %	0.003 ppb	0.016 ppb	106.430 %	0.359 ppb
Concentration per Run 3	0.125 ppb	0.241 ppb	79.186 ppb	0.461 ppb	107.040 %	0.005 ppb	0.021 ppb	106.445 %	0.411 ppb
Concentration RSD	12.0 %	21.7 %	2.0 %	19.5 %	1.9 %	25.2 %	25.7 %	1.1 %	14.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	15.714 ppb	108.936 %	108.105 %	0.025 ppb	0.157 ppb
Concentration per Run 1	16.070 ppb	106.563 %	105.582 %	0.019 ppb	0.158 ppb
Concentration per Run 2	15.822 ppb	108.709 %	108.899 %	0.028 ppb	0.157 ppb
Concentration per Run 3	15.251 ppb	111.535 %	109.833 %	0.028 ppb	0.157 ppb
Concentration RSD	2.7 %	2.3 %	2.1 %	21.4 %	0.4 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	91	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/29/2024 12:41:36 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	107.765 %	103.488 %	62.370 ppb	6,663.528 ppb	6,367.762 ppb	65.414 ppb	6,618.958 ppb	6,462.982 ppb	118.530 %
Concentration per Run 1	106.161 %	107.328 %	62.155 ppb	6,740.467 ppb	6,513.606 ppb	66.622 ppb	6,675.360 ppb	6,562.841 ppb	118.511 %
Concentration per Run 2	108.429 %	101.685 %	62.863 ppb	6,607.030 ppb	6,335.621 ppb	63.744 ppb	6,653.940 ppb	6,426.868 ppb	117.408 %
Concentration per Run 3	108.704 %	101.450 %	62.091 ppb	6,643.088 ppb	6,254.059 ppb	65.877 ppb	6,527.575 ppb	6,399.238 ppb	119.670 %
Recovery Percentage 1			103.949 %	111.059 %	106.129 %	109.024 %	110.316 %	107.716 %	
Concentration RSD	1.3 %	3.2 %	0.7 %	1.0 %	2.1 %	2.3 %	1.2 %	1.4 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	63.183 ppb	61.798 ppb	63.814 ppb	6,393.831 ppb	63.130 ppb	63.252 ppb	62.696 ppb	62.796 ppb	111.239 %
Concentration per Run 1	62.807 ppb	61.519 ppb	64.400 ppb	6,418.914 ppb	62.746 ppb	62.377 ppb	62.846 ppb	62.910 ppb	114.854 %
Concentration per Run 2	63.823 ppb	62.440 ppb	63.872 ppb	6,435.132 ppb	63.892 ppb	63.694 ppb	62.254 ppb	63.227 ppb	108.916 %
Concentration per Run 3	62.918 ppb	61.435 ppb	63.170 ppb	6,327.446 ppb	62.752 ppb	63.684 ppb	62.987 ppb	62.249 ppb	109.947 %
Recovery Percentage 1	105.305 %	102.997 %	106.356 %	106.564 %	105.217 %	105.419 %	104.493 %	104.659 %	
Concentration RSD	0.9 %	0.9 %	1.0 %	0.9 %	1.0 %	1.2 %	0.6 %	0.8 %	2.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	63.088 ppb	63.212 ppb	63.304 ppb	61.954 ppb	109.326 %	62.777 ppb	62.896 ppb	103.421 %	51.963 ppb
Concentration per Run 1	63.760 ppb	66.210 ppb	67.727 ppb	62.734 ppb	109.493 %	62.330 ppb	63.663 ppb	107.078 %	53.253 ppb
Concentration per Run 2	63.541 ppb	61.840 ppb	61.983 ppb	61.437 ppb	108.868 %	63.495 ppb	63.293 ppb	100.882 %	51.148 ppb
Concentration per Run 3	61.964 ppb	61.587 ppb	60.203 ppb	61.691 ppb	109.616 %	62.505 ppb	61.732 ppb	102.303 %	51.488 ppb
Recovery Percentage 1	105.147 %	105.354 %	105.507 %	103.257 %		104.628 %	104.827 %		86.605 %
Concentration RSD	1.6 %	4.1 %	6.2 %	1.1 %	0.4 %	1.0 %	1.6 %	3.1 %	2.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	63.308 ppb	107.576 %	106.074 %	64.303 ppb	63.103 ppb
Concentration per Run 1	64.875 ppb	109.074 %	109.331 %	63.651 ppb	62.820 ppb
Concentration per Run 2	62.068 ppb	107.072 %	105.227 %	64.247 ppb	63.307 ppb
Concentration per Run 3	62.982 ppb	106.581 %	103.665 %	65.011 ppb	63.183 ppb
Recovery Percentage 1	105.514 %			107.172 %	105.172 %
Concentration RSD	2.3 %	1.2 %	2.8 %	1.1 %	0.4 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	92	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/29/2024 12:46:19 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	107.596 %	105.173 %	0.016 ppb	36.286 ppb	0.541 ppb	0.048 ppb	10.337 ppb	2.009 ppb	115.809 %
Concentration per Run 1	106.134 %	110.384 %	0.005 ppb	36.665 ppb	0.941 ppb	-0.180 ppb	14.710 ppb	1.149 ppb	115.648 %
Concentration per Run 2	108.440 %	108.033 %	0.027 ppb	31.235 ppb	0.166 ppb	-0.016 ppb	3.282 ppb	0.364 ppb	114.942 %
Concentration per Run 3	108.213 %	97.100 %	0.016 ppb	40.956 ppb	0.514 ppb	0.340 ppb	13.020 ppb	4.513 ppb	116.839 %
Recovery Percentage 1			3.225 %	36.286 %	0.772 %	0.479 %	10.337 %	2.009 %	
Concentration RSD	1.2 %	6.7 %	67.4 %	13.4 %	71.9 %	554.4 %	59.7 %	109.7 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.053 ppb	-0.018 ppb	0.067 ppb	13.719 ppb	0.006 ppb	0.079 ppb	0.007 ppb	-0.013 ppb	111.567 %
Concentration per Run 1	-0.049 ppb	-0.021 ppb	0.045 ppb	11.830 ppb	0.007 ppb	0.062 ppb	0.021 ppb	-0.022 ppb	119.269 %
Concentration per Run 2	-0.055 ppb	-0.027 ppb	0.074 ppb	13.359 ppb	0.002 ppb	0.080 ppb	-0.020 ppb	-0.006 ppb	113.551 %
Concentration per Run 3	-0.054 ppb	-0.007 ppb	0.081 ppb	15.967 ppb	0.009 ppb	0.094 ppb	0.019 ppb	-0.012 ppb	101.882 %
Recovery Percentage 1	-1.055 %	-1.827 %	6.652 %	27.438 %	1.240 %	3.932 %	0.693 %	-0.267 %	
Concentration RSD	6.2 %	54.9 %	28.2 %	15.2 %	66.1 %	20.0 %	330.8 %	57.9 %	7.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.032 ppb	0.186 ppb	0.010 ppb	1.396 ppb	113.854 %	0.008 ppb	0.007 ppb	108.838 %	2.132 ppb
Concentration per Run 1	0.002 ppb	0.194 ppb	0.009 ppb	1.104 ppb	115.581 %	0.010 ppb	0.014 ppb	115.459 %	1.988 ppb
Concentration per Run 2	-0.088 ppb	0.162 ppb	0.005 ppb	1.354 ppb	112.848 %	0.006 ppb	0.003 ppb	107.783 %	2.168 ppb
Concentration per Run 3	-0.009 ppb	0.203 ppb	0.015 ppb	1.730 ppb	113.134 %	0.008 ppb	0.005 ppb	103.273 %	2.240 ppb
Recovery Percentage 1	-6.335 %	3.723 %	0.101 %	69.803 %		2.001 %	3.580 %		53.305 %
Concentration RSD	156.0 %	11.4 %	49.4 %	22.5 %	1.3 %	27.5 %	88.0 %	5.7 %	6.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.011 ppb	109.048 %	107.418 %	0.215 ppb	0.017 ppb
Concentration per Run 1	0.002 ppb	110.419 %	111.253 %	0.174 ppb	0.021 ppb
Concentration per Run 2	0.017 ppb	108.391 %	106.002 %	0.246 ppb	0.014 ppb
Concentration per Run 3	0.014 ppb	108.333 %	105.000 %	0.224 ppb	0.015 ppb
Recovery Percentage 1	2.134 %			21.452 %	1.675 %
Concentration RSD	75.4 %	1.1 %	3.1 %	17.1 %	20.7 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	93	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/29/2024 12:54:13 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.191 %	103.488 %	61.763 ppb	6,376.844 ppb	6,270.745 ppb	61.745 ppb	6,447.059 ppb	6,296.243 ppb	120.650 %
Concentration per Run 1	102.851 %	105.212 %	62.418 ppb	6,455.837 ppb	6,382.874 ppb	62.852 ppb	6,560.346 ppb	6,532.441 ppb	117.338 %
Concentration per Run 2	106.431 %	100.862 %	61.776 ppb	6,196.289 ppb	6,043.134 ppb	59.450 ppb	6,325.909 ppb	6,145.900 ppb	121.616 %
Concentration per Run 3	109.291 %	104.389 %	61.095 ppb	6,478.405 ppb	6,386.228 ppb	62.934 ppb	6,454.922 ppb	6,210.388 ppb	122.998 %
Recovery Percentage 1			102.938 %	106.281 %	104.512 %	102.909 %	107.451 %	104.937 %	
Concentration RSD	3.0 %	2.2 %	1.1 %	2.5 %	3.1 %	3.2 %	1.8 %	3.3 %	2.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	62.137 ppb	61.340 ppb	63.423 ppb	6,333.640 ppb	63.731 ppb	64.658 ppb	64.480 ppb	62.761 ppb	106.474 %
Concentration per Run 1	62.364 ppb	62.485 ppb	64.501 ppb	6,492.611 ppb	65.743 ppb	67.534 ppb	66.360 ppb	64.663 ppb	105.334 %
Concentration per Run 2	62.159 ppb	61.469 ppb	62.648 ppb	6,312.319 ppb	63.142 ppb	64.680 ppb	63.659 ppb	61.699 ppb	104.638 %
Concentration per Run 3	61.888 ppb	60.066 ppb	63.121 ppb	6,195.990 ppb	62.309 ppb	61.760 ppb	63.422 ppb	61.920 ppb	109.449 %
Recovery Percentage 1	103.562 %	102.233 %	105.706 %	105.561 %	106.219 %	107.763 %	107.467 %	104.601 %	
Concentration RSD	0.4 %	2.0 %	1.5 %	2.4 %	2.8 %	4.5 %	2.5 %	2.6 %	2.4 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	61.914 ppb	62.279 ppb	59.895 ppb	60.181 ppb	110.061 %	61.564 ppb	60.823 ppb	103.127 %	50.990 ppb
Concentration per Run 1	63.088 ppb	63.385 ppb	62.445 ppb	61.450 ppb	107.188 %	63.020 ppb	62.303 ppb	102.432 %	51.897 ppb
Concentration per Run 2	60.984 ppb	60.883 ppb	57.272 ppb	58.989 ppb	109.796 %	62.128 ppb	61.193 ppb	98.201 %	51.071 ppb
Concentration per Run 3	61.671 ppb	62.570 ppb	59.969 ppb	60.105 ppb	113.198 %	59.544 ppb	58.975 ppb	108.746 %	50.003 ppb
Recovery Percentage 1	103.191 %	103.799 %	99.826 %	100.302 %		102.607 %	101.372 %		84.984 %
Concentration RSD	1.7 %	2.0 %	4.3 %	2.0 %	2.7 %	2.9 %	2.8 %	5.1 %	1.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	60.667 ppb	107.979 %	106.316 %	63.068 ppb	61.798 ppb
Concentration per Run 1	62.199 ppb	105.081 %	105.767 %	64.085 ppb	62.330 ppb
Concentration per Run 2	58.984 ppb	107.407 %	103.739 %	63.925 ppb	62.575 ppb
Concentration per Run 3	60.819 ppb	111.447 %	109.442 %	61.193 ppb	60.491 ppb
Recovery Percentage 1	101.112 %			105.113 %	102.997 %
Concentration RSD	2.7 %	3.0 %	2.7 %	2.6 %	1.8 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	94	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/29/2024 12:58:56 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.514 %	103.683 %	0.017 ppb	26.975 ppb	0.358 ppb	0.029 ppb	9.623 ppb	0.272 ppb	109.949 %
Concentration per Run 1	103.687 %	105.329 %	0.011 ppb	29.391 ppb	0.859 ppb	0.018 ppb	12.315 ppb	-0.993 ppb	109.274 %
Concentration per Run 2	105.344 %	100.509 %	0.018 ppb	23.493 ppb	-0.082 ppb	-0.082 ppb	11.595 ppb	1.121 ppb	108.455 %
Concentration per Run 3	107.513 %	105.212 %	0.020 ppb	28.042 ppb	0.297 ppb	0.151 ppb	4.958 ppb	0.688 ppb	112.119 %
Recovery Percentage 1			3.319 %	26.975 %	0.511 %	0.291 %	9.623 %	0.272 %	
Concentration RSD	1.8 %	2.7 %	28.6 %	11.5 %	132.3 %	401.2 %	42.1 %	410.5 %	1.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.073 ppb	-0.016 ppb	0.088 ppb	12.711 ppb	0.004 ppb	0.043 ppb	0.008 ppb	-0.028 ppb	105.832 %
Concentration per Run 1	-0.079 ppb	0.004 ppb	0.122 ppb	11.541 ppb	0.009 ppb	0.080 ppb	0.017 ppb	0.024 ppb	104.106 %
Concentration per Run 2	-0.069 ppb	-0.026 ppb	0.080 ppb	13.784 ppb	0.002 ppb	0.027 ppb	0.007 ppb	-0.040 ppb	101.653 %
Concentration per Run 3	-0.071 ppb	-0.026 ppb	0.064 ppb	12.808 ppb	0.001 ppb	0.023 ppb	0.002 ppb	-0.067 ppb	111.736 %
Recovery Percentage 1	-1.457 %	-1.595 %	8.831 %	25.423 %	0.807 %	2.175 %	0.837 %	-0.559 %	
Concentration RSD	7.2 %	108.1 %	34.0 %	8.8 %	108.4 %	73.0 %	88.9 %	167.1 %	5.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.005 ppb	0.194 ppb	0.009 ppb	1.476 ppb	109.280 %	0.008 ppb	0.009 ppb	101.333 %	2.344 ppb
Concentration per Run 1	0.057 ppb	0.148 ppb	0.012 ppb	1.351 ppb	107.344 %	0.012 ppb	0.016 ppb	99.188 %	2.268 ppb
Concentration per Run 2	-0.063 ppb	0.160 ppb	0.008 ppb	1.287 ppb	108.301 %	0.006 ppb	0.003 ppb	99.671 %	2.283 ppb
Concentration per Run 3	0.021 ppb	0.275 ppb	0.006 ppb	1.789 ppb	112.196 %	0.007 ppb	0.006 ppb	105.140 %	2.482 ppb
Recovery Percentage 1	1.028 %	3.889 %	0.086 %	73.785 %		2.111 %	4.260 %		58.607 %
Concentration RSD	1,194.3 %	36.1 %	35.7 %	18.5 %	2.4 %	32.8 %	82.6 %	3.3 %	5.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.016 ppb	103.611 %	102.797 %	0.248 ppb	0.017 ppb
Concentration per Run 1	0.019 ppb	101.625 %	99.443 %	0.210 ppb	0.020 ppb
Concentration per Run 2	0.015 ppb	101.669 %	100.676 %	0.283 ppb	0.016 ppb
Concentration per Run 3	0.014 ppb	107.540 %	108.271 %	0.251 ppb	0.017 ppb
Recovery Percentage 1	3.203 %			24.790 %	1.747 %
Concentration RSD	18.0 %	3.3 %	4.7 %	14.8 %	11.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	95	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1964440-1 6020TL	Rack	1		
Analysis started at:	8/29/2024 1:08:04 PM	Vial	57		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	111.861 %	106.152 %	0.010 ppb	21.768 ppb	3.280 ppb	3.081 ppb	6.514 ppb	26.653 ppb	109.947 %
Concentration per Run 1	109.386 %	102.155 %	0.015 ppb	22.869 ppb	3.733 ppb	2.957 ppb	4.016 ppb	27.796 ppb	108.813 %
Concentration per Run 2	113.453 %	104.977 %	0.000 ppb	18.179 ppb	3.243 ppb	2.959 ppb	4.615 ppb	21.308 ppb	111.494 %
Concentration per Run 3	112.745 %	111.325 %	0.016 ppb	24.256 ppb	2.864 ppb	3.328 ppb	10.910 ppb	30.856 ppb	109.534 %
Concentration RSD	1.9 %	4.4 %	86.3 %	14.6 %	13.3 %	6.9 %	58.6 %	18.3 %	1.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.050 ppb	0.067 ppb	0.367 ppb	5.967 ppb	0.041 ppb	0.066 ppb	0.103 ppb	0.324 ppb	112.550 %
Concentration per Run 1	-0.043 ppb	0.070 ppb	0.377 ppb	5.603 ppb	0.039 ppb	0.077 ppb	0.088 ppb	0.428 ppb	107.379 %
Concentration per Run 2	-0.051 ppb	0.047 ppb	0.348 ppb	5.067 ppb	0.044 ppb	0.056 ppb	0.105 ppb	0.232 ppb	114.806 %
Concentration per Run 3	-0.056 ppb	0.082 ppb	0.376 ppb	7.230 ppb	0.040 ppb	0.067 ppb	0.114 ppb	0.311 ppb	115.464 %
Concentration RSD	12.9 %	26.6 %	4.5 %	18.9 %	6.1 %	15.3 %	12.9 %	30.5 %	4.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.010 ppb	0.020 ppb	0.044 ppb	0.260 ppb	112.214 %	0.008 ppb	0.007 ppb	107.076 %	0.609 ppb
Concentration per Run 1	0.007 ppb	-0.017 ppb	0.044 ppb	0.183 ppb	106.290 %	0.010 ppb	0.007 ppb	101.711 %	0.572 ppb
Concentration per Run 2	-0.020 ppb	0.061 ppb	0.042 ppb	0.282 ppb	114.448 %	0.007 ppb	0.006 ppb	103.412 %	0.614 ppb
Concentration per Run 3	-0.019 ppb	0.017 ppb	0.046 ppb	0.316 ppb	115.903 %	0.007 ppb	0.008 ppb	116.105 %	0.639 ppb
Concentration RSD	149.6 %	191.5 %	4.8 %	26.6 %	4.6 %	19.4 %	15.1 %	7.3 %	5.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.187 ppb	105.511 %	106.593 %	0.048 ppb	0.004 ppb
Concentration per Run 1	0.237 ppb	101.963 %	101.395 %	0.033 ppb	0.005 ppb
Concentration per Run 2	0.167 ppb	105.004 %	105.166 %	0.058 ppb	0.004 ppb
Concentration per Run 3	0.157 ppb	109.565 %	113.219 %	0.054 ppb	0.002 ppb
Concentration RSD	23.2 %	3.6 %	5.7 %	28.1 %	43.7 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	96	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1964440-2d10 6020TL	Rack	1		
Analysis started at:	8/29/2024 1:12:44 PM	Vial	58		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.132 %	104.232 %	4.965 ppb	1,109.901 ppb	1,045.139 ppb	204.506 ppb	1,105.319 ppb	1,081.814 ppb	109.989 %
Concentration per Run 1	102.492 %	106.152 %	5.126 ppb	1,095.482 ppb	1,035.106 ppb	199.198 ppb	1,109.639 ppb	1,026.329 ppb	107.967 %
Concentration per Run 2	105.655 %	101.332 %	4.762 ppb	1,100.607 ppb	1,051.689 ppb	200.380 ppb	1,072.748 ppb	1,113.426 ppb	110.999 %
Concentration per Run 3	107.249 %	105.212 %	5.008 ppb	1,133.614 ppb	1,048.623 ppb	213.939 ppb	1,133.570 ppb	1,105.686 ppb	110.999 %
Concentration RSD	2.3 %	2.5 %	3.7 %	1.9 %	0.8 %	4.0 %	2.8 %	4.5 %	1.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	48.363 ppb	19.364 ppb	51.244 ppb	105.790 ppb	49.674 ppb	49.658 ppb	25.064 ppb	50.003 ppb	110.982 %
Concentration per Run 1	50.354 ppb	20.452 ppb	53.767 ppb	107.546 ppb	52.890 ppb	52.685 ppb	26.890 ppb	52.307 ppb	103.696 %
Concentration per Run 2	46.756 ppb	18.861 ppb	49.439 ppb	105.128 ppb	48.592 ppb	49.164 ppb	24.701 ppb	50.049 ppb	111.751 %
Concentration per Run 3	47.979 ppb	18.779 ppb	50.525 ppb	104.695 ppb	47.541 ppb	47.124 ppb	23.600 ppb	47.652 ppb	117.499 %
Concentration RSD	3.8 %	4.9 %	4.4 %	1.5 %	5.7 %	5.7 %	6.7 %	4.7 %	6.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	10.853 ppb	10.957 ppb	97.238 ppb	95.765 ppb	108.261 %	4.914 ppb	5.193 ppb	102.657 %	44.137 ppb
Concentration per Run 1	11.302 ppb	11.895 ppb	101.084 ppb	100.114 ppb	103.508 %	5.077 ppb	5.416 ppb	98.236 %	45.717 ppb
Concentration per Run 2	10.691 ppb	10.107 ppb	92.542 ppb	94.437 ppb	109.227 %	4.898 ppb	5.157 ppb	100.916 %	43.983 ppb
Concentration per Run 3	10.565 ppb	10.870 ppb	98.090 ppb	92.745 ppb	112.046 %	4.766 ppb	5.007 ppb	108.818 %	42.711 ppb
Concentration RSD	3.6 %	8.2 %	4.5 %	4.0 %	4.0 %	3.2 %	4.0 %	5.4 %	3.4 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	201.621 ppb	104.570 %	102.602 %	11.233 ppb	52.760 ppb
Concentration per Run 1	206.479 ppb	99.938 %	96.337 %	11.790 ppb	55.712 ppb
Concentration per Run 2	202.298 ppb	103.811 %	101.063 %	11.513 ppb	53.724 ppb
Concentration per Run 3	196.085 ppb	109.963 %	110.407 %	10.395 ppb	48.845 ppb
Concentration RSD	2.6 %	4.8 %	7.0 %	6.6 %	6.7 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	97	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2447890-03 6020TL	Rack	1		
Analysis started at:	8/29/2024 1:17:24 PM	Vial	59		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	111.571 %	104.546 %	0.010 ppb	12,479.834 ppb	10,220.261 ppb	12.936 ppb	4,173.873 ppb	42,075.703 ppb	123.697 %
Concentration per Run 1	109.056 %	101.215 %	0.009 ppb	12,796.241 ppb	10,353.224 ppb	13.151 ppb	4,369.705 ppb	43,265.765 ppb	124.129 %
Concentration per Run 2	111.984 %	106.622 %	0.005 ppb	12,266.375 ppb	9,996.697 ppb	12.955 ppb	4,148.998 ppb	42,523.439 ppb	122.950 %
Concentration per Run 3	113.673 %	105.800 %	0.017 ppb	12,376.886 ppb	10,310.863 ppb	12.701 ppb	4,002.917 ppb	40,437.904 ppb	124.012 %
Concentration RSD	2.1 %	2.8 %	60.9 %	2.2 %	1.9 %	1.7 %	4.4 %	3.5 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.170 ppb	0.499 ppb	90.710 ppb	24.133 ppb	0.077 ppb	0.363 ppb	0.552 ppb	0.680 ppb	112.400 %
Concentration per Run 1	0.213 ppb	0.553 ppb	91.884 ppb	24.061 ppb	0.084 ppb	0.346 ppb	0.619 ppb	0.705 ppb	110.921 %
Concentration per Run 2	0.108 ppb	0.520 ppb	90.428 ppb	23.699 ppb	0.082 ppb	0.386 ppb	0.523 ppb	0.682 ppb	111.800 %
Concentration per Run 3	0.189 ppb	0.424 ppb	89.817 ppb	24.640 ppb	0.064 ppb	0.357 ppb	0.513 ppb	0.652 ppb	114.478 %
Concentration RSD	32.4 %	13.4 %	1.2 %	2.0 %	14.5 %	5.6 %	10.6 %	3.9 %	1.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.058 ppb	0.143 ppb	131.820 ppb	2.495 ppb	108.670 %	0.004 ppb	0.001 ppb	106.928 %	1.400 ppb
Concentration per Run 1	0.110 ppb	0.169 ppb	134.654 ppb	1.986 ppb	106.982 %	0.003 ppb	0.002 ppb	104.989 %	1.251 ppb
Concentration per Run 2	0.060 ppb	0.227 ppb	131.596 ppb	2.507 ppb	108.864 %	0.002 ppb	0.002 ppb	106.967 %	1.448 ppb
Concentration per Run 3	0.004 ppb	0.032 ppb	129.208 ppb	2.993 ppb	110.164 %	0.005 ppb	0.000 ppb	108.826 %	1.502 ppb
Concentration RSD	90.8 %	70.2 %	2.1 %	20.2 %	1.5 %	41.2 %	94.5 %	1.8 %	9.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	44.271 ppb	106.733 %	105.230 %	0.070 ppb	0.039 ppb
Concentration per Run 1	46.007 ppb	103.647 %	102.120 %	0.059 ppb	0.044 ppb
Concentration per Run 2	43.539 ppb	108.183 %	106.120 %	0.082 ppb	0.036 ppb
Concentration per Run 3	43.266 ppb	108.367 %	107.451 %	0.068 ppb	0.036 ppb
Concentration RSD	3.4 %	2.5 %	2.6 %	16.2 %	11.3 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	98	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1964440-3d10 6020TL	Rack	1		
Analysis started at:	8/29/2024 1:22:04 PM	Vial	60		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	109.090 %	109.365 %	5.139 ppb	2,475.259 ppb	2,067.685 ppb	205.202 ppb	1,532.079 ppb	5,290.000 ppb	119.185 %
Concentration per Run 1	106.969 %	110.384 %	5.256 ppb	2,481.743 ppb	2,080.417 ppb	207.890 ppb	1,566.821 ppb	5,513.057 ppb	117.910 %
Concentration per Run 2	109.774 %	105.800 %	5.050 ppb	2,552.438 ppb	2,125.375 ppb	210.871 ppb	1,499.972 ppb	5,294.894 ppb	119.370 %
Concentration per Run 3	110.528 %	111.913 %	5.110 ppb	2,391.597 ppb	1,997.264 ppb	196.844 ppb	1,529.442 ppb	5,062.047 ppb	120.273 %
Concentration RSD	1.7 %	2.9 %	2.1 %	3.3 %	3.1 %	3.6 %	2.2 %	4.3 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	47.541 ppb	19.084 ppb	60.569 ppb	111.304 ppb	51.452 ppb	51.130 ppb	26.165 ppb	50.813 ppb	113.063 %
Concentration per Run 1	48.393 ppb	19.478 ppb	61.513 ppb	113.198 ppb	53.120 ppb	53.407 ppb	26.942 ppb	51.924 ppb	111.057 %
Concentration per Run 2	48.763 ppb	19.667 ppb	61.988 ppb	111.418 ppb	52.088 ppb	51.182 ppb	26.476 ppb	51.447 ppb	111.011 %
Concentration per Run 3	45.468 ppb	18.106 ppb	58.206 ppb	109.295 ppb	49.146 ppb	48.802 ppb	25.076 ppb	49.068 ppb	117.121 %
Concentration RSD	3.8 %	4.5 %	3.4 %	1.8 %	4.0 %	4.5 %	3.7 %	3.0 %	3.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	11.335 ppb	10.595 ppb	112.003 ppb	99.067 ppb	111.553 %	4.934 ppb	5.253 ppb	106.223 %	48.467 ppb
Concentration per Run 1	11.717 ppb	10.596 ppb	115.823 ppb	102.597 ppb	107.662 %	5.017 ppb	5.412 ppb	103.943 %	50.169 ppb
Concentration per Run 2	11.495 ppb	11.102 ppb	112.327 ppb	99.498 ppb	112.772 %	4.889 ppb	5.249 ppb	107.612 %	47.877 ppb
Concentration per Run 3	10.794 ppb	10.087 ppb	107.858 ppb	95.106 ppb	114.224 %	4.896 ppb	5.097 ppb	107.113 %	47.354 ppb
Concentration RSD	4.3 %	4.8 %	3.6 %	3.8 %	3.1 %	1.5 %	3.0 %	1.9 %	3.1 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	202.268 ppb	107.678 %	105.573 %	11.067 ppb	52.777 ppb
Concentration per Run 1	203.269 ppb	104.221 %	100.814 %	11.368 ppb	55.043 ppb
Concentration per Run 2	202.117 ppb	108.897 %	109.686 %	10.727 ppb	50.537 ppb
Concentration per Run 3	201.418 ppb	109.916 %	106.218 %	11.106 ppb	52.752 ppb
Concentration RSD	0.5 %	2.8 %	4.2 %	2.9 %	4.3 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	99	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1964440-4d10 6020TL	Rack	2		
Analysis started at:	8/29/2024 1:26:45 PM	Vial	1		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	108.812 %	109.640 %	5.102 ppb	2,403.070 ppb	2,022.916 ppb	199.412 ppb	1,503.858 ppb	5,148.183 ppb	122.379 %
Concentration per Run 1	105.891 %	107.798 %	5.067 ppb	2,433.513 ppb	1,997.143 ppb	192.920 ppb	1,531.090 ppb	5,257.968 ppb	121.712 %
Concentration per Run 2	109.863 %	105.564 %	5.184 ppb	2,445.557 ppb	2,086.016 ppb	198.807 ppb	1,463.318 ppb	5,062.448 ppb	124.568 %
Concentration per Run 3	110.681 %	115.557 %	5.055 ppb	2,330.139 ppb	1,985.590 ppb	206.510 ppb	1,517.164 ppb	5,124.134 ppb	120.857 %
Concentration RSD	2.4 %	4.8 %	1.4 %	2.6 %	2.7 %	3.4 %	2.4 %	1.9 %	1.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	47.354 ppb	18.574 ppb	59.412 ppb	105.977 ppb	49.361 ppb	48.816 ppb	24.907 ppb	49.109 ppb	116.235 %
Concentration per Run 1	47.687 ppb	18.434 ppb	58.862 ppb	105.363 ppb	49.428 ppb	48.468 ppb	24.937 ppb	48.143 ppb	114.421 %
Concentration per Run 2	47.094 ppb	18.685 ppb	59.735 ppb	106.619 ppb	50.495 ppb	50.506 ppb	25.419 ppb	50.620 ppb	112.911 %
Concentration per Run 3	47.280 ppb	18.601 ppb	59.641 ppb	105.949 ppb	48.162 ppb	47.475 ppb	24.365 ppb	48.563 ppb	121.373 %
Concentration RSD	0.6 %	0.7 %	0.8 %	0.6 %	2.4 %	3.2 %	2.1 %	2.7 %	3.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	10.832 ppb	11.641 ppb	110.262 ppb	97.328 ppb	112.747 %	4.757 ppb	5.124 ppb	110.479 %	47.515 ppb
Concentration per Run 1	10.612 ppb	11.834 ppb	107.122 ppb	95.520 ppb	110.958 %	4.797 ppb	5.204 ppb	107.245 %	48.487 ppb
Concentration per Run 2	11.039 ppb	11.949 ppb	108.316 ppb	97.193 ppb	112.814 %	4.785 ppb	5.146 ppb	107.565 %	47.072 ppb
Concentration per Run 3	10.846 ppb	11.139 ppb	115.349 ppb	99.272 ppb	114.470 %	4.687 ppb	5.022 ppb	116.627 %	46.985 ppb
Concentration RSD	2.0 %	3.8 %	4.0 %	1.9 %	1.6 %	1.3 %	1.8 %	4.8 %	1.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	196.201 ppb	110.954 %	108.791 %	10.724 ppb	50.289 ppb
Concentration per Run 1	195.216 ppb	109.401 %	104.447 %	11.018 ppb	51.619 ppb
Concentration per Run 2	197.365 ppb	109.043 %	107.837 %	10.754 ppb	50.555 ppb
Concentration per Run 3	196.021 ppb	114.417 %	114.088 %	10.400 ppb	48.692 ppb
Concentration RSD	0.6 %	2.7 %	4.5 %	2.9 %	2.9 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	100	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	wg1964440-5d10 6020TL	Rack	2		
Analysis started at:	8/29/2024 1:31:24 PM	Vial	2		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.075 %	107.994 %	54.078 ppb	6,927.217 ppb	6,568.960 ppb	58.203 ppb	6,169.219 ppb	9,873.532 ppb	119.285 %
Concentration per Run 1	102.616 %	103.566 %	55.051 ppb	7,097.762 ppb	6,749.585 ppb	58.595 ppb	6,248.662 ppb	9,972.255 ppb	118.821 %
Concentration per Run 2	105.821 %	115.439 %	53.987 ppb	6,705.223 ppb	6,497.720 ppb	57.426 ppb	6,123.036 ppb	9,803.190 ppb	119.951 %
Concentration per Run 3	106.788 %	104.977 %	53.195 ppb	6,978.665 ppb	6,459.576 ppb	58.587 ppb	6,135.958 ppb	9,845.151 ppb	119.084 %
Concentration RSD	2.1 %	6.0 %	1.7 %	2.9 %	2.4 %	1.2 %	1.1 %	0.9 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	52.852 ppb	51.796 ppb	63.470 ppb	5,378.444 ppb	54.216 ppb	54.581 ppb	54.611 ppb	54.765 ppb	110.814 %
Concentration per Run 1	53.232 ppb	51.457 ppb	61.915 ppb	5,353.555 ppb	54.660 ppb	55.850 ppb	54.600 ppb	54.843 ppb	109.455 %
Concentration per Run 2	53.237 ppb	52.284 ppb	63.906 ppb	5,385.199 ppb	53.459 ppb	53.603 ppb	55.126 ppb	54.624 ppb	111.991 %
Concentration per Run 3	52.086 ppb	51.649 ppb	64.588 ppb	5,396.578 ppb	54.529 ppb	54.289 ppb	54.105 ppb	54.830 ppb	110.997 %
Concentration RSD	1.3 %	0.8 %	2.2 %	0.4 %	1.2 %	2.1 %	0.9 %	0.2 %	1.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	54.514 ppb	53.374 ppb	67.827 ppb	54.685 ppb	111.463 %	1.645 ppb	51.509 ppb	108.098 %	51.620 ppb
Concentration per Run 1	53.577 ppb	53.506 ppb	65.408 ppb	54.068 ppb	110.742 %	1.694 ppb	51.717 ppb	103.751 %	52.810 ppb
Concentration per Run 2	55.868 ppb	56.022 ppb	71.866 ppb	54.472 ppb	112.656 %	1.594 ppb	50.386 ppb	114.694 %	50.436 ppb
Concentration per Run 3	54.097 ppb	50.595 ppb	66.207 ppb	55.515 ppb	110.991 %	1.647 ppb	52.424 ppb	105.850 %	51.613 ppb
Concentration RSD	2.2 %	5.1 %	5.2 %	1.4 %	0.9 %	3.1 %	2.0 %	5.4 %	2.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	57.424 ppb	109.860 %	108.205 %	53.945 ppb	53.029 ppb
Concentration per Run 1	57.639 ppb	107.943 %	105.875 %	53.775 ppb	53.253 ppb
Concentration per Run 2	56.976 ppb	113.470 %	111.598 %	52.860 ppb	52.295 ppb
Concentration per Run 3	57.656 ppb	108.168 %	107.144 %	55.200 ppb	53.538 ppb
Concentration RSD	0.7 %	2.8 %	2.8 %	2.2 %	1.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 101
Analysis label: wg1964440-6d5 6020TL
Analysis started at: 8/29/2024 1:36:03 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 3
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.787 %	108.503 %	0.013 ppb	2,517.871 ppb	1,893.615 ppb	3.509 ppb	816.302 ppb	8,161.105 ppb	113.682 %
Concentration per Run 1	103.640 %	101.567 %	0.015 ppb	2,579.228 ppb	1,908.698 ppb	3.842 ppb	843.075 ppb	8,430.706 ppb	112.638 %
Concentration per Run 2	105.719 %	111.913 %	0.011 ppb	2,535.703 ppb	1,940.433 ppb	3.650 ppb	825.009 ppb	8,205.800 ppb	114.624 %
Concentration per Run 3	108.003 %	112.030 %	0.013 ppb	2,438.681 ppb	1,831.714 ppb	3.035 ppb	780.823 ppb	7,846.810 ppb	113.783 %
Concentration RSD	2.1 %	5.5 %	18.5 %	2.9 %	3.0 %	12.0 %	3.9 %	3.6 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.039 ppb	0.094 ppb	17.381 ppb	15.475 ppb	0.022 ppb	0.130 ppb	0.211 ppb	0.214 ppb	111.633 %
Concentration per Run 1	-0.030 ppb	0.102 ppb	17.389 ppb	14.517 ppb	0.028 ppb	0.128 ppb	0.251 ppb	0.244 ppb	107.877 %
Concentration per Run 2	-0.044 ppb	0.086 ppb	17.514 ppb	13.022 ppb	0.018 ppb	0.103 ppb	0.162 ppb	0.198 ppb	116.874 %
Concentration per Run 3	-0.042 ppb	0.095 ppb	17.239 ppb	18.887 ppb	0.018 ppb	0.160 ppb	0.218 ppb	0.200 ppb	110.147 %
Concentration RSD	19.8 %	8.0 %	0.8 %	19.7 %	25.8 %	21.9 %	21.4 %	12.1 %	4.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.018 ppb	0.169 ppb	25.582 ppb	2.160 ppb	110.048 %	0.002 ppb	0.008 ppb	109.911 %	0.693 ppb
Concentration per Run 1	0.040 ppb	0.088 ppb	25.547 ppb	1.634 ppb	104.991 %	0.002 ppb	0.015 ppb	102.890 %	0.463 ppb
Concentration per Run 2	0.008 ppb	0.203 ppb	26.665 ppb	2.137 ppb	113.786 %	0.003 ppb	0.003 ppb	118.435 %	0.707 ppb
Concentration per Run 3	0.006 ppb	0.216 ppb	24.533 ppb	2.707 ppb	111.368 %	0.002 ppb	0.005 ppb	108.409 %	0.909 ppb
Concentration RSD	108.3 %	41.8 %	4.2 %	24.9 %	4.1 %	3.9 %	80.9 %	7.2 %	32.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	8.293 ppb	108.126 %	108.241 %	0.321 ppb	0.055 ppb
Concentration per Run 1	8.761 ppb	104.206 %	101.692 %	0.253 ppb	0.062 ppb
Concentration per Run 2	8.135 ppb	111.921 %	114.020 %	0.379 ppb	0.052 ppb
Concentration per Run 3	7.982 ppb	108.251 %	109.012 %	0.331 ppb	0.052 ppb
Concentration RSD	5.0 %	3.6 %	5.7 %	19.8 %	10.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 102
Analysis label: L2447852-08d10 6020TL
Analysis started at: 8/29/2024 1:40:42 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 4
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	137.950 %	132.250 %	0.006 ppb	183,420.688 ppb	10,772.385 ppb	13.306 ppb	53,580.823 ppb	5,119.809 ppb	122.142 %
Concentration per Run 1	134.748 %	128.841 %	0.005 ppb	182,338.569 ppb	10,771.579 ppb	13.881 ppb	54,117.249 ppb	5,252.568 ppb	120.028 %
Concentration per Run 2	136.726 %	137.423 %	0.009 ppb	186,006.637 ppb	10,915.299 ppb	14.130 ppb	55,450.885 ppb	5,116.312 ppb	122.628 %
Concentration per Run 3	142.376 %	130.487 %	0.005 ppb	181,916.858 ppb	10,630.275 ppb	11.906 ppb	51,174.334 ppb	4,990.548 ppb	123.769 %
Concentration RSD	2.9 %	3.4 %	41.2 %	1.2 %	1.3 %	9.2 %	4.1 %	2.6 %	1.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.217 ppb	10.616 ppb	9.016 ppb	103.251 ppb	1.480 ppb	11.444 ppb	0.455 ppb	2.800 ppb	110.233 %
Concentration per Run 1	1.264 ppb	10.992 ppb	9.062 ppb	101.122 ppb	1.506 ppb	12.347 ppb	0.467 ppb	2.948 ppb	104.764 %
Concentration per Run 2	1.156 ppb	10.210 ppb	8.852 ppb	102.653 ppb	1.450 ppb	10.987 ppb	0.447 ppb	2.683 ppb	116.080 %
Concentration per Run 3	1.230 ppb	10.647 ppb	9.133 ppb	105.978 ppb	1.484 ppb	10.998 ppb	0.450 ppb	2.769 ppb	109.856 %
Concentration RSD	4.5 %	3.7 %	1.6 %	2.4 %	1.9 %	6.8 %	2.4 %	4.8 %	5.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	3.286 ppb	0.194 ppb	120.334 ppb	1.123 ppb	104.272 %	0.004 ppb	0.008 ppb	102.989 %	1.141 ppb
Concentration per Run 1	3.354 ppb	0.133 ppb	121.699 ppb	0.954 ppb	98.523 %	0.004 ppb	0.006 ppb	91.939 %	1.137 ppb
Concentration per Run 2	3.277 ppb	0.250 ppb	123.377 ppb	1.115 ppb	109.088 %	0.003 ppb	0.009 ppb	114.731 %	1.066 ppb
Concentration per Run 3	3.229 ppb	0.197 ppb	115.925 ppb	1.300 ppb	105.205 %	0.004 ppb	0.009 ppb	102.296 %	1.220 ppb
Concentration RSD	1.9 %	30.4 %	3.2 %	15.4 %	5.1 %	24.7 %	19.9 %	11.1 %	6.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	38.641 ppb	106.878 %	106.700 %	0.093 ppb	0.213 ppb
Concentration per Run 1	41.125 ppb	99.074 %	98.823 %	0.066 ppb	0.225 ppb
Concentration per Run 2	37.479 ppb	115.182 %	115.039 %	0.105 ppb	0.202 ppb
Concentration per Run 3	37.317 ppb	106.379 %	106.238 %	0.107 ppb	0.211 ppb
Concentration RSD	5.6 %	7.5 %	7.6 %	25.1 %	5.5 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 103
Analysis label: L2447852-10d10 6020TL
Analysis started at: 8/29/2024 1:45:21 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 5
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	152.452 %	138.128 %	0.008 ppb	214,226.700 ppb	12,668.433 ppb	18.437 ppb	61,662.414 ppb	5,993.616 ppb	130.320 %
Concentration per Run 1	149.379 %	134.131 %	0.014 ppb	218,213.460 ppb	12,906.183 ppb	18.812 ppb	63,365.520 ppb	6,175.698 ppb	128.894 %
Concentration per Run 2	153.479 %	138.834 %	0.013 ppb	216,704.795 ppb	12,814.410 ppb	18.259 ppb	62,392.794 ppb	5,967.436 ppb	131.001 %
Concentration per Run 3	154.497 %	141.420 %	-0.004 ppb	207,761.847 ppb	12,284.707 ppb	18.240 ppb	59,228.929 ppb	5,837.713 ppb	131.064 %
Concentration RSD	1.8 %	2.7 %	125.1 %	2.6 %	2.6 %	1.8 %	3.5 %	2.8 %	0.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.427 ppb	11.991 ppb	10.416 ppb	113.313 ppb	1.723 ppb	13.620 ppb	0.468 ppb	3.347 ppb	113.607 %
Concentration per Run 1	1.527 ppb	12.725 ppb	10.745 ppb	115.787 ppb	1.730 ppb	14.376 ppb	0.485 ppb	3.539 ppb	106.369 %
Concentration per Run 2	1.399 ppb	11.352 ppb	9.771 ppb	106.927 ppb	1.606 ppb	12.477 ppb	0.473 ppb	3.112 ppb	124.902 %
Concentration per Run 3	1.355 ppb	11.896 ppb	10.732 ppb	117.226 ppb	1.833 ppb	14.007 ppb	0.446 ppb	3.390 ppb	109.550 %
Concentration RSD	6.2 %	5.8 %	5.4 %	4.9 %	6.6 %	7.4 %	4.2 %	6.5 %	8.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	3.926 ppb	0.279 ppb	142.775 ppb	0.798 ppb	107.008 %	0.004 ppb	0.006 ppb	106.929 %	1.132 ppb
Concentration per Run 1	4.133 ppb	0.367 ppb	151.810 ppb	0.788 ppb	99.406 %	0.004 ppb	0.001 ppb	97.785 %	1.136 ppb
Concentration per Run 2	3.640 ppb	0.251 ppb	135.922 ppb	0.727 ppb	116.159 %	0.003 ppb	0.005 ppb	117.955 %	1.065 ppb
Concentration per Run 3	4.003 ppb	0.220 ppb	140.593 ppb	0.878 ppb	105.461 %	0.003 ppb	0.011 ppb	105.046 %	1.195 ppb
Concentration RSD	6.5 %	27.7 %	5.7 %	9.6 %	7.9 %	16.6 %	90.4 %	9.6 %	5.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	44.954 ppb	108.734 %	107.728 %	0.046 ppb	0.236 ppb
Concentration per Run 1	47.938 ppb	100.826 %	99.846 %	0.030 ppb	0.259 ppb
Concentration per Run 2	42.220 ppb	116.627 %	116.758 %	0.050 ppb	0.211 ppb
Concentration per Run 3	44.703 ppb	108.749 %	106.581 %	0.058 ppb	0.238 ppb
Concentration RSD	6.4 %	7.3 %	7.9 %	31.8 %	10.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 104
Analysis label: L2447852-15d10 6020TL
Analysis started at: 8/29/2024 1:50:00 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 6
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	157.676 %	139.539 %	0.006 ppb	200,929.714 ppb	11,891.092 ppb	13.743 ppb	58,445.375 ppb	5,611.726 ppb	137.422 %
Concentration per Run 1	153.057 %	142.008 %	0.009 ppb	202,359.255 ppb	12,105.928 ppb	14.128 ppb	61,262.914 ppb	5,970.785 ppb	134.549 %
Concentration per Run 2	158.347 %	136.953 %	0.004 ppb	206,005.818 ppb	12,053.310 ppb	14.285 ppb	57,676.652 ppb	5,395.668 ppb	140.104 %
Concentration per Run 3	161.623 %	139.656 %	0.005 ppb	194,424.069 ppb	11,514.039 ppb	12.814 ppb	56,396.557 ppb	5,468.724 ppb	137.612 %
Concentration RSD	2.7 %	1.8 %	43.7 %	2.9 %	2.8 %	5.9 %	4.3 %	5.6 %	2.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.349 ppb	11.178 ppb	9.908 ppb	104.370 ppb	1.593 ppb	12.513 ppb	0.477 ppb	2.878 ppb	114.514 %
Concentration per Run 1	1.388 ppb	11.123 ppb	9.997 ppb	103.415 ppb	1.548 ppb	11.862 ppb	0.427 ppb	2.844 ppb	118.611 %
Concentration per Run 2	1.342 ppb	11.185 ppb	9.818 ppb	103.331 ppb	1.652 ppb	13.020 ppb	0.485 ppb	2.865 ppb	111.598 %
Concentration per Run 3	1.317 ppb	11.226 ppb	9.909 ppb	106.365 ppb	1.579 ppb	12.657 ppb	0.520 ppb	2.925 ppb	113.333 %
Concentration RSD	2.7 %	0.5 %	0.9 %	1.7 %	3.3 %	4.7 %	9.8 %	1.5 %	3.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	3.604 ppb	0.268 ppb	131.042 ppb	0.692 ppb	107.869 %	0.006 ppb	0.007 ppb	107.245 %	1.085 ppb
Concentration per Run 1	3.583 ppb	0.139 ppb	133.843 ppb	0.557 ppb	110.607 %	0.005 ppb	0.009 ppb	114.583 %	1.003 ppb
Concentration per Run 2	3.686 ppb	0.349 ppb	130.360 ppb	0.741 ppb	106.622 %	0.007 ppb	0.006 ppb	104.247 %	1.110 ppb
Concentration per Run 3	3.541 ppb	0.317 ppb	128.924 ppb	0.778 ppb	106.379 %	0.005 ppb	0.004 ppb	102.903 %	1.143 ppb
Concentration RSD	2.1 %	42.2 %	1.9 %	17.1 %	2.2 %	15.9 %	43.5 %	6.0 %	6.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	40.333 ppb	107.767 %	106.717 %	0.036 ppb	0.201 ppb
Concentration per Run 1	40.192 ppb	111.586 %	112.501 %	0.020 ppb	0.193 ppb
Concentration per Run 2	40.320 ppb	105.675 %	104.371 %	0.045 ppb	0.208 ppb
Concentration per Run 3	40.487 ppb	106.039 %	103.281 %	0.043 ppb	0.202 ppb
Concentration RSD	0.4 %	3.1 %	4.7 %	37.8 %	3.8 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	105	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/29/2024 1:54:39 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	117.115 %	105.917 %	60.971 ppb	6,657.352 ppb	6,535.852 ppb	64.317 ppb	6,931.707 ppb	6,610.367 ppb	125.041 %
Concentration per Run 1	114.377 %	111.325 %	61.433 ppb	6,862.245 ppb	6,781.001 ppb	69.848 ppb	7,263.094 ppb	6,983.689 ppb	123.019 %
Concentration per Run 2	118.080 %	104.271 %	60.679 ppb	6,539.842 ppb	6,403.380 ppb	61.729 ppb	6,844.029 ppb	6,527.929 ppb	127.073 %
Concentration per Run 3	118.888 %	102.155 %	60.801 ppb	6,569.969 ppb	6,423.174 ppb	61.374 ppb	6,687.997 ppb	6,319.482 ppb	125.030 %
Recovery Percentage 1			101.618 %	110.956 %	108.931 %	107.195 %	115.528 %	110.173 %	
Concentration RSD	2.1 %	4.5 %	0.7 %	2.7 %	3.3 %	7.5 %	4.3 %	5.1 %	1.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	60.965 ppb	61.062 ppb	64.577 ppb	6,315.085 ppb	62.531 ppb	62.864 ppb	62.887 ppb	62.508 ppb	113.540 %
Concentration per Run 1	61.830 ppb	61.567 ppb	67.499 ppb	6,468.719 ppb	62.886 ppb	63.608 ppb	64.009 ppb	63.669 ppb	117.418 %
Concentration per Run 2	60.636 ppb	60.309 ppb	62.426 ppb	6,232.639 ppb	62.914 ppb	63.587 ppb	62.160 ppb	62.616 ppb	111.132 %
Concentration per Run 3	60.428 ppb	61.310 ppb	63.805 ppb	6,243.895 ppb	61.794 ppb	61.397 ppb	62.492 ppb	61.239 ppb	112.070 %
Recovery Percentage 1	101.608 %	101.770 %	107.628 %	105.251 %	104.219 %	104.773 %	104.811 %	104.180 %	
Concentration RSD	1.2 %	1.1 %	4.1 %	2.1 %	1.0 %	2.0 %	1.6 %	1.9 %	3.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	62.677 ppb	64.478 ppb	63.398 ppb	60.677 ppb	109.806 %	61.353 ppb	61.363 ppb	106.463 %	50.691 ppb
Concentration per Run 1	64.839 ppb	70.104 ppb	68.010 ppb	62.479 ppb	110.656 %	61.544 ppb	61.779 ppb	112.757 %	51.038 ppb
Concentration per Run 2	61.754 ppb	63.361 ppb	61.386 ppb	60.226 ppb	108.874 %	62.046 ppb	62.201 ppb	102.071 %	51.065 ppb
Concentration per Run 3	61.438 ppb	59.969 ppb	60.797 ppb	59.325 ppb	109.888 %	60.470 ppb	60.108 ppb	104.562 %	49.972 ppb
Recovery Percentage 1	104.461 %	107.463 %	105.663 %	101.128 %		102.256 %	102.272 %		84.486 %
Concentration RSD	3.0 %	8.0 %	6.3 %	2.7 %	0.8 %	1.3 %	1.8 %	5.3 %	1.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	62.098 ppb	108.071 %	106.424 %	63.278 ppb	61.896 ppb
Concentration per Run 1	64.102 ppb	107.962 %	108.664 %	62.872 ppb	61.968 ppb
Concentration per Run 2	61.185 ppb	108.872 %	105.643 %	63.086 ppb	61.744 ppb
Concentration per Run 3	61.007 ppb	107.379 %	104.965 %	63.875 ppb	61.977 ppb
Recovery Percentage 1	103.496 %			105.463 %	103.160 %
Concentration RSD	2.8 %	0.7 %	1.9 %	0.8 %	0.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 106 User name ALPHALAB\Metals-Instrument Comment <Comment>
Analysis label: CCB Rack 0
Analysis started at: 8/29/2024 1:59:22 PM Vial 10

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	117.226 %	104.115 %	0.011 ppb	60.649 ppb	0.662 ppb	0.052 ppb	16.569 ppb	6.005 ppb	118.399 %
Concentration per Run 1	115.237 %	100.039 %	0.005 ppb	64.544 ppb	0.579 ppb	0.055 ppb	20.291 ppb	6.901 ppb	118.284 %
Concentration per Run 2	117.489 %	105.682 %	0.017 ppb	65.144 ppb	0.391 ppb	0.188 ppb	19.989 ppb	9.164 ppb	118.088 %
Concentration per Run 3	118.951 %	106.622 %	0.009 ppb	52.260 ppb	1.015 ppb	-0.088 ppb	9.427 ppb	1.950 ppb	118.824 %
Recovery Percentage 1			2.121 %	60.649 %	0.945 %	0.519 %	16.569 %	6.005 %	
Concentration RSD	1.6 %	3.4 %	56.3 %	12.0 %	48.4 %	265.8 %	37.3 %	61.4 %	0.3 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.038 ppb	-0.013 ppb	0.081 ppb	9.672 ppb	0.004 ppb	0.054 ppb	0.034 ppb	-0.073 ppb	111.315 %
Concentration per Run 1	-0.034 ppb	0.001 ppb	0.076 ppb	7.574 ppb	-0.001 ppb	0.054 ppb	0.030 ppb	-0.090 ppb	106.596 %
Concentration per Run 2	-0.042 ppb	-0.019 ppb	0.123 ppb	12.205 ppb	0.010 ppb	0.066 ppb	0.054 ppb	-0.070 ppb	114.291 %
Concentration per Run 3	-0.038 ppb	-0.019 ppb	0.044 ppb	9.238 ppb	0.003 ppb	0.041 ppb	0.019 ppb	-0.057 ppb	113.059 %
Recovery Percentage 1	-0.758 %	-1.253 %	8.062 %	19.345 %	0.831 %	2.696 %	3.443 %	-1.451 %	
Concentration RSD	11.5 %	92.2 %	49.2 %	24.3 %	130.1 %	23.4 %	52.4 %	22.6 %	3.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.001 ppb	0.158 ppb	0.007 ppb	1.474 ppb	111.832 %	0.007 ppb	0.006 ppb	108.370 %	2.043 ppb
Concentration per Run 1	0.061 ppb	0.168 ppb	0.008 ppb	1.136 ppb	109.498 %	0.007 ppb	0.005 ppb	103.628 %	1.943 ppb
Concentration per Run 2	-0.011 ppb	0.255 ppb	0.007 ppb	1.438 ppb	115.306 %	0.007 ppb	0.007 ppb	116.755 %	2.044 ppb
Concentration per Run 3	-0.053 ppb	0.050 ppb	0.006 ppb	1.848 ppb	110.690 %	0.006 ppb	0.005 ppb	104.727 %	2.143 ppb
Recovery Percentage 1	-0.157 %	3.159 %	0.068 %	73.717 %		1.660 %	2.778 %		51.082 %
Concentration RSD	7,302.4 %	65.1 %	17.4 %	24.3 %	2.7 %	6.2 %	18.3 %	6.7 %	4.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.008 ppb	108.596 %	107.271 %	0.289 ppb	0.015 ppb
Concentration per Run 1	0.010 ppb	104.746 %	102.516 %	0.231 ppb	0.020 ppb
Concentration per Run 2	0.019 ppb	110.311 %	112.379 %	0.336 ppb	0.013 ppb
Concentration per Run 3	-0.005 ppb	110.730 %	106.919 %	0.301 ppb	0.014 ppb
Recovery Percentage 1	1.614 %			28.929 %	1.527 %
Concentration RSD	147.5 %	3.1 %	4.6 %	18.4 %	25.4 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	107	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/29/2024 2:05:52 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	113.740 %	104.702 %	60.187 ppb	6,214.923 ppb	6,181.039 ppb	60.857 ppb	6,273.493 ppb	6,184.016 ppb	132.386 %
Concentration per Run 1	111.485 %	104.389 %	61.138 ppb	6,360.070 ppb	6,269.508 ppb	60.311 ppb	6,462.090 ppb	6,210.890 ppb	131.781 %
Concentration per Run 2	114.439 %	105.212 %	60.416 ppb	6,331.648 ppb	6,295.742 ppb	63.209 ppb	6,349.656 ppb	6,337.726 ppb	133.102 %
Concentration per Run 3	115.295 %	104.506 %	59.008 ppb	5,953.051 ppb	5,977.867 ppb	59.051 ppb	6,008.734 ppb	6,003.431 ppb	132.274 %
Recovery Percentage 1			100.312 %	103.582 %	103.017 %	101.428 %	104.558 %	103.067 %	
Concentration RSD	1.8 %	0.4 %	1.8 %	3.7 %	2.9 %	3.5 %	3.8 %	2.7 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	60.403 ppb	60.056 ppb	62.778 ppb	6,212.688 ppb	63.023 ppb	62.718 ppb	62.417 ppb	61.705 ppb	107.763 %
Concentration per Run 1	59.892 ppb	60.332 ppb	63.156 ppb	6,214.005 ppb	62.422 ppb	62.285 ppb	62.368 ppb	62.192 ppb	110.045 %
Concentration per Run 2	61.338 ppb	60.332 ppb	63.559 ppb	6,203.450 ppb	62.749 ppb	62.717 ppb	61.639 ppb	61.381 ppb	109.507 %
Concentration per Run 3	59.980 ppb	59.504 ppb	61.620 ppb	6,220.610 ppb	63.899 ppb	63.153 ppb	63.244 ppb	61.541 ppb	103.737 %
Recovery Percentage 1	100.672 %	100.093 %	104.630 %	103.545 %	105.039 %	104.530 %	104.028 %	102.841 %	
Concentration RSD	1.3 %	0.8 %	1.6 %	0.1 %	1.2 %	0.7 %	1.3 %	0.7 %	3.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	60.823 ppb	60.918 ppb	59.298 ppb	58.520 ppb	108.952 %	59.511 ppb	59.064 ppb	105.377 %	49.101 ppb
Concentration per Run 1	60.819 ppb	59.851 ppb	59.775 ppb	57.486 ppb	111.212 %	58.558 ppb	59.007 ppb	107.331 %	50.170 ppb
Concentration per Run 2	59.759 ppb	60.758 ppb	60.202 ppb	58.799 ppb	109.376 %	59.453 ppb	58.587 ppb	110.003 %	48.357 ppb
Concentration per Run 3	61.893 ppb	62.143 ppb	57.917 ppb	59.276 ppb	106.269 %	60.522 ppb	59.598 ppb	98.798 %	48.775 ppb
Recovery Percentage 1	101.372 %	101.529 %	98.830 %	97.534 %		99.185 %	98.440 %		81.835 %
Concentration RSD	1.8 %	1.9 %	2.0 %	1.6 %	2.3 %	1.7 %	0.9 %	5.6 %	1.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	58.882 ppb	107.979 %	106.088 %	61.661 ppb	60.174 ppb
Concentration per Run 1	59.945 ppb	110.215 %	107.287 %	61.292 ppb	59.637 ppb
Concentration per Run 2	60.222 ppb	109.032 %	108.821 %	60.425 ppb	59.314 ppb
Concentration per Run 3	56.478 ppb	104.690 %	102.156 %	63.267 ppb	61.571 ppb
Recovery Percentage 1	98.136 %			102.768 %	100.290 %
Concentration RSD	3.5 %	2.7 %	3.3 %	2.4 %	2.0 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	108	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/29/2024 2:10:35 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	112.640 %	103.879 %	0.014 ppb	30.967 ppb	0.515 ppb	0.000 ppb	13.316 ppb	0.271 ppb	112.702 %
Concentration per Run 1	109.335 %	104.154 %	0.008 ppb	35.175 ppb	0.439 ppb	0.051 ppb	22.096 ppb	-0.862 ppb	111.165 %
Concentration per Run 2	114.043 %	107.093 %	0.024 ppb	27.957 ppb	0.505 ppb	0.026 ppb	4.197 ppb	-2.804 ppb	113.670 %
Concentration per Run 3	114.542 %	100.392 %	0.010 ppb	29.769 ppb	0.600 ppb	-0.078 ppb	13.654 ppb	4.478 ppb	113.270 %
Recovery Percentage 1			2.814 %	30.967 %	0.735 %	-0.003 %	13.316 %	0.271 %	
Concentration RSD	2.6 %	3.2 %	62.1 %	12.1 %	15.7 %	20,148.2 %	67.2 %	1,393.5 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.068 ppb	-0.031 ppb	0.035 ppb	11.505 ppb	0.001 ppb	0.060 ppb	0.020 ppb	-0.040 ppb	103.862 %
Concentration per Run 1	-0.069 ppb	-0.031 ppb	0.017 ppb	9.211 ppb	-0.002 ppb	0.081 ppb	0.034 ppb	-0.028 ppb	103.640 %
Concentration per Run 2	-0.058 ppb	-0.029 ppb	0.041 ppb	10.066 ppb	0.007 ppb	0.033 ppb	0.023 ppb	-0.086 ppb	107.703 %
Concentration per Run 3	-0.078 ppb	-0.034 ppb	0.047 ppb	15.238 ppb	-0.002 ppb	0.066 ppb	0.002 ppb	-0.005 ppb	100.243 %
Recovery Percentage 1	-1.363 %	-3.120 %	3.500 %	23.010 %	0.208 %	3.003 %	1.993 %	-0.794 %	
Concentration RSD	14.7 %	7.2 %	44.4 %	28.3 %	469.4 %	40.6 %	80.9 %	104.7 %	3.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.006 ppb	0.241 ppb	0.005 ppb	1.553 ppb	106.847 %	0.006 ppb	0.007 ppb	98.198 %	2.348 ppb
Concentration per Run 1	0.074 ppb	0.293 ppb	0.009 ppb	1.245 ppb	105.021 %	0.005 ppb	0.009 ppb	99.411 %	2.278 ppb
Concentration per Run 2	-0.034 ppb	0.169 ppb	0.002 ppb	1.558 ppb	108.946 %	0.004 ppb	0.005 ppb	99.123 %	2.321 ppb
Concentration per Run 3	-0.022 ppb	0.261 ppb	0.005 ppb	1.856 ppb	106.574 %	0.008 ppb	0.009 ppb	96.060 %	2.444 ppb
Recovery Percentage 1	1.201 %	4.817 %	0.052 %	77.660 %		1.436 %	3.729 %		58.693 %
Concentration RSD	980.6 %	26.6 %	66.6 %	19.7 %	1.8 %	28.8 %	31.3 %	1.9 %	3.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.014 ppb	101.767 %	99.451 %	0.313 ppb	0.018 ppb
Concentration per Run 1	0.015 ppb	101.460 %	101.694 %	0.238 ppb	0.019 ppb
Concentration per Run 2	0.004 ppb	103.275 %	99.660 %	0.362 ppb	0.017 ppb
Concentration per Run 3	0.024 ppb	100.565 %	96.998 %	0.340 ppb	0.017 ppb
Recovery Percentage 1	2.851 %			31.333 %	1.765 %
Concentration RSD	71.7 %	1.4 %	2.4 %	21.1 %	7.8 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 109
Analysis label: L2447852-18d10 6020TL
Analysis started at: 8/29/2024 2:15:46 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 7
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	149.154 %	125.941 %	0.002 ppb	203,230.658 ppb	12,000.792 ppb	13.155 ppb	58,848.909 ppb	5,599.480 ppb	129.033 %
Concentration per Run 1	145.363 %	123.904 %	0.007 ppb	204,011.709 ppb	12,164.855 ppb	12.889 ppb	58,022.322 ppb	5,573.227 ppb	128.082 %
Concentration per Run 2	150.839 %	127.313 %	-0.002 ppb	200,224.001 ppb	11,713.706 ppb	13.545 ppb	59,096.520 ppb	5,446.021 ppb	129.350 %
Concentration per Run 3	151.260 %	126.607 %	0.000 ppb	205,456.265 ppb	12,123.814 ppb	13.032 ppb	59,427.884 ppb	5,779.192 ppb	129.667 %
Concentration RSD	2.2 %	1.4 %	229.5 %	1.3 %	2.1 %	2.6 %	1.2 %	3.0 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	1.333 ppb	11.594 ppb	10.057 ppb	106.781 ppb	1.681 ppb	12.779 ppb	0.437 ppb	2.972 ppb	107.896 %
Concentration per Run 1	1.265 ppb	11.827 ppb	9.984 ppb	103.642 ppb	1.601 ppb	12.656 ppb	0.370 ppb	2.958 ppb	107.696 %
Concentration per Run 2	1.384 ppb	11.377 ppb	9.826 ppb	109.292 ppb	1.693 ppb	12.928 ppb	0.435 ppb	2.985 ppb	108.961 %
Concentration per Run 3	1.350 ppb	11.578 ppb	10.360 ppb	107.407 ppb	1.748 ppb	12.753 ppb	0.505 ppb	2.973 ppb	107.029 %
Concentration RSD	4.6 %	1.9 %	2.7 %	2.7 %	4.4 %	1.1 %	15.5 %	0.5 %	0.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	3.639 ppb	0.237 ppb	129.513 ppb	0.796 ppb	102.662 %	0.007 ppb	0.007 ppb	100.505 %	1.787 ppb
Concentration per Run 1	3.469 ppb	0.264 ppb	125.491 ppb	0.695 ppb	105.189 %	0.006 ppb	0.007 ppb	103.238 %	1.611 ppb
Concentration per Run 2	3.823 ppb	0.243 ppb	130.076 ppb	0.759 ppb	102.214 %	0.008 ppb	0.010 ppb	97.328 %	1.891 ppb
Concentration per Run 3	3.624 ppb	0.205 ppb	132.971 ppb	0.934 ppb	100.583 %	0.005 ppb	0.006 ppb	100.948 %	1.859 ppb
Concentration RSD	4.9 %	12.5 %	2.9 %	15.6 %	2.3 %	23.7 %	29.4 %	3.0 %	8.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	40.540 ppb	105.182 %	105.236 %	0.079 ppb	0.223 ppb
Concentration per Run 1	39.733 ppb	106.227 %	107.651 %	0.049 ppb	0.215 ppb
Concentration per Run 2	41.686 ppb	105.159 %	103.763 %	0.093 ppb	0.223 ppb
Concentration per Run 3	40.201 ppb	104.160 %	104.295 %	0.095 ppb	0.230 ppb
Concentration RSD	2.5 %	1.0 %	2.0 %	33.1 %	3.3 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 110
Analysis label: L2447890-01 6020TL
Analysis started at: 8/29/2024 2:20:26 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 8
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	120.566 %	105.486 %	0.028 ppb	6,356.392 ppb	1,347.001 ppb	17.575 ppb	1,774.239 ppb	4,539.330 ppb	130.031 %
Concentration per Run 1	117.386 %	109.914 %	0.037 ppb	6,259.074 ppb	1,321.428 ppb	16.735 ppb	1,781.327 ppb	4,502.939 ppb	127.356 %
Concentration per Run 2	123.005 %	102.743 %	0.031 ppb	6,516.373 ppb	1,379.269 ppb	18.409 ppb	1,794.741 ppb	4,562.965 ppb	132.134 %
Concentration per Run 3	121.307 %	103.801 %	0.016 ppb	6,293.730 ppb	1,340.305 ppb	17.582 ppb	1,746.650 ppb	4,552.088 ppb	130.604 %
Concentration RSD	2.4 %	3.7 %	39.6 %	2.2 %	2.2 %	4.8 %	1.4 %	0.7 %	1.9 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.065 ppb	0.545 ppb	14.578 ppb	7.100 ppb	0.021 ppb	0.136 ppb	0.083 ppb	0.223 ppb	113.755 %
Concentration per Run 1	0.061 ppb	0.484 ppb	13.542 ppb	6.332 ppb	0.019 ppb	0.156 ppb	0.089 ppb	0.198 ppb	114.602 %
Concentration per Run 2	0.075 ppb	0.542 ppb	15.463 ppb	5.907 ppb	0.021 ppb	0.126 ppb	0.077 ppb	0.239 ppb	112.670 %
Concentration per Run 3	0.060 ppb	0.610 ppb	14.728 ppb	9.059 ppb	0.022 ppb	0.127 ppb	0.082 ppb	0.233 ppb	113.995 %
Concentration RSD	12.8 %	11.6 %	6.6 %	24.1 %	8.1 %	12.4 %	7.4 %	9.9 %	0.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.008 ppb	0.324 ppb	24.765 ppb	0.334 ppb	112.733 %	0.005 ppb	0.037 ppb	111.889 %	0.421 ppb
Concentration per Run 1	0.015 ppb	0.231 ppb	23.984 ppb	0.226 ppb	116.077 %	0.003 ppb	0.032 ppb	117.864 %	0.359 ppb
Concentration per Run 2	0.034 ppb	0.286 ppb	25.108 ppb	0.357 ppb	111.626 %	0.005 ppb	0.038 ppb	108.560 %	0.419 ppb
Concentration per Run 3	-0.072 ppb	0.454 ppb	25.203 ppb	0.420 ppb	110.496 %	0.008 ppb	0.042 ppb	109.242 %	0.484 ppb
Concentration RSD	747.2 %	36.0 %	2.7 %	29.6 %	2.6 %	47.8 %	14.0 %	4.6 %	14.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	18.755 ppb	109.627 %	108.271 %	0.077 ppb	0.005 ppb
Concentration per Run 1	17.920 ppb	112.184 %	110.670 %	0.048 ppb	0.003 ppb
Concentration per Run 2	18.885 ppb	107.304 %	106.420 %	0.089 ppb	0.007 ppb
Concentration per Run 3	19.459 ppb	109.392 %	107.723 %	0.094 ppb	0.007 ppb
Concentration RSD	4.1 %	2.2 %	2.0 %	32.5 %	46.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 111
Analysis label: L2447890-02 6020TL
Analysis started at: 8/29/2024 2:25:05 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 9
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	114.909 %	103.057 %	0.009 ppb	12,283.811 ppb	5,062.094 ppb	23.755 ppb	3,112.049 ppb	23,422.686 ppb	122.651 %
Concentration per Run 1	112.760 %	105.800 %	0.007 ppb	11,862.491 ppb	4,853.994 ppb	21.731 ppb	3,075.716 ppb	23,161.963 ppb	121.717 %
Concentration per Run 2	115.755 %	103.448 %	0.015 ppb	12,141.990 ppb	4,923.834 ppb	23.927 ppb	3,041.202 ppb	22,927.779 ppb	124.261 %
Concentration per Run 3	116.212 %	99.922 %	0.005 ppb	12,846.951 ppb	5,408.454 ppb	25.606 ppb	3,219.228 ppb	24,178.318 ppb	121.975 %
Concentration RSD	1.6 %	2.9 %	57.2 %	4.1 %	6.0 %	8.2 %	3.0 %	2.8 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.303 ppb	3.588 ppb	4,599.979 ppb	102.780 ppb	0.728 ppb	6.333 ppb	1.574 ppb	0.875 ppb	112.287 %
Concentration per Run 1	0.309 ppb	3.827 ppb	4,441.236 ppb	98.832 ppb	0.719 ppb	6.109 ppb	1.492 ppb	0.841 ppb	113.974 %
Concentration per Run 2	0.259 ppb	3.365 ppb	4,645.891 ppb	110.333 ppb	0.740 ppb	6.467 ppb	1.631 ppb	0.866 ppb	108.666 %
Concentration per Run 3	0.341 ppb	3.572 ppb	4,712.811 ppb	99.176 ppb	0.725 ppb	6.422 ppb	1.599 ppb	0.920 ppb	114.221 %
Concentration RSD	13.6 %	6.4 %	3.1 %	6.4 %	1.5 %	3.1 %	4.6 %	4.6 %	2.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.095 ppb	0.100 ppb	75.067 ppb	1.159 ppb	107.912 %	0.003 ppb	0.057 ppb	109.198 %	0.332 ppb
Concentration per Run 1	0.072 ppb	0.093 ppb	72.190 ppb	1.085 ppb	109.388 %	0.003 ppb	0.069 ppb	110.870 %	0.267 ppb
Concentration per Run 2	0.154 ppb	0.096 ppb	74.190 ppb	1.125 ppb	107.145 %	0.005 ppb	0.067 ppb	103.628 %	0.349 ppb
Concentration per Run 3	0.058 ppb	0.110 ppb	78.821 ppb	1.268 ppb	107.203 %	0.002 ppb	0.036 ppb	113.095 %	0.380 ppb
Concentration RSD	54.9 %	9.6 %	4.5 %	8.3 %	1.2 %	51.9 %	31.8 %	4.5 %	17.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	20.059 ppb	109.282 %	109.795 %	0.127 ppb	0.040 ppb
Concentration per Run 1	18.692 ppb	109.729 %	108.910 %	0.107 ppb	0.041 ppb
Concentration per Run 2	20.629 ppb	107.908 %	107.476 %	0.136 ppb	0.040 ppb
Concentration per Run 3	20.857 ppb	110.207 %	113.000 %	0.137 ppb	0.039 ppb
Concentration RSD	5.9 %	1.1 %	2.6 %	13.6 %	2.6 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 112
Analysis label: L2447890-04 6020TL
Analysis started at: 8/29/2024 2:29:45 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 10
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	118.431 %	101.215 %	0.012 ppb	13,671.171 ppb	17,108.034 ppb	17.272 ppb	5,319.667 ppb	75,803.985 ppb	122.937 %
Concentration per Run 1	115.794 %	95.219 %	0.007 ppb	14,258.913 ppb	17,800.985 ppb	16.698 ppb	5,594.044 ppb	79,404.179 ppb	122.310 %
Concentration per Run 2	120.874 %	103.331 %	0.016 ppb	12,909.282 ppb	15,977.947 ppb	15.324 ppb	4,900.776 ppb	71,566.828 ppb	123.513 %
Concentration per Run 3	118.624 %	105.094 %	0.012 ppb	13,845.316 ppb	17,545.171 ppb	19.795 ppb	5,464.180 ppb	76,440.948 ppb	122.986 %
Concentration RSD	2.1 %	5.2 %	38.2 %	5.1 %	5.8 %	13.3 %	6.9 %	5.2 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.233 ppb	0.495 ppb	5.483 ppb	29.759 ppb	0.084 ppb	0.474 ppb	0.603 ppb	0.266 ppb	110.819 %
Concentration per Run 1	0.278 ppb	0.536 ppb	6.021 ppb	33.143 ppb	0.078 ppb	0.470 ppb	0.709 ppb	0.291 ppb	103.258 %
Concentration per Run 2	0.243 ppb	0.457 ppb	5.044 ppb	28.738 ppb	0.082 ppb	0.421 ppb	0.473 ppb	0.256 ppb	112.115 %
Concentration per Run 3	0.177 ppb	0.492 ppb	5.384 ppb	27.396 ppb	0.091 ppb	0.530 ppb	0.625 ppb	0.252 ppb	117.085 %
Concentration RSD	22.0 %	8.0 %	9.0 %	10.1 %	7.5 %	11.5 %	19.8 %	8.0 %	6.3 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.165 ppb	0.071 ppb	213.241 ppb	0.287 ppb	102.245 %	0.007 ppb	0.004 ppb	101.162 %	0.248 ppb
Concentration per Run 1	0.171 ppb	0.065 ppb	218.191 ppb	0.255 ppb	98.784 %	0.011 ppb	0.003 ppb	94.588 %	0.217 ppb
Concentration per Run 2	0.108 ppb	0.056 ppb	201.478 ppb	0.245 ppb	102.223 %	0.004 ppb	0.002 ppb	98.761 %	0.248 ppb
Concentration per Run 3	0.217 ppb	0.092 ppb	220.054 ppb	0.363 ppb	105.728 %	0.007 ppb	0.007 ppb	110.137 %	0.279 ppb
Concentration RSD	33.1 %	26.4 %	4.8 %	22.7 %	3.4 %	43.8 %	67.2 %	8.0 %	12.5 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	45.413 ppb	100.710 %	101.472 %	0.050 ppb	0.027 ppb
Concentration per Run 1	46.716 ppb	97.865 %	98.360 %	0.035 ppb	0.027 ppb
Concentration per Run 2	45.274 ppb	100.027 %	99.903 %	0.057 ppb	0.024 ppb
Concentration per Run 3	44.248 ppb	104.237 %	106.152 %	0.058 ppb	0.032 ppb
Concentration RSD	2.7 %	3.2 %	4.1 %	26.6 %	15.4 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	113	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2447890-05 6020TL	Rack	2		
Analysis started at:	8/29/2024 2:34:25 PM	Vial	11		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	116.917 %	99.882 %	0.006 ppb	9,552.241 ppb	5,959.811 ppb	4.367 ppb	1,831.388 ppb	16,667.181 ppb	117.147 %
Concentration per Run 1	113.675 %	101.332 %	0.002 ppb	9,535.895 ppb	5,849.425 ppb	3.996 ppb	1,860.692 ppb	17,069.718 ppb	114.923 %
Concentration per Run 2	116.741 %	95.807 %	0.012 ppb	9,538.555 ppb	5,970.994 ppb	4.680 ppb	1,796.864 ppb	15,814.948 ppb	116.769 %
Concentration per Run 3	120.336 %	102.508 %	0.003 ppb	9,582.274 ppb	6,059.015 ppb	4.425 ppb	1,836.606 ppb	17,116.878 ppb	119.747 %
Concentration RSD	2.9 %	3.6 %	92.4 %	0.3 %	1.8 %	7.9 %	1.8 %	4.4 %	2.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.188 ppb	0.598 ppb	31.189 ppb	4.276 ppb	0.025 ppb	0.272 ppb	0.233 ppb	0.079 ppb	107.072 %
Concentration per Run 1	0.195 ppb	0.656 ppb	32.293 ppb	3.900 ppb	0.028 ppb	0.266 ppb	0.253 ppb	0.092 ppb	99.362 %
Concentration per Run 2	0.191 ppb	0.559 ppb	30.355 ppb	4.120 ppb	0.016 ppb	0.285 ppb	0.209 ppb	0.074 ppb	108.810 %
Concentration per Run 3	0.178 ppb	0.579 ppb	30.919 ppb	4.808 ppb	0.032 ppb	0.265 ppb	0.238 ppb	0.071 ppb	113.043 %
Concentration RSD	4.9 %	8.6 %	3.2 %	11.1 %	34.4 %	4.2 %	9.6 %	14.1 %	6.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.028 ppb	0.198 ppb	64.414 ppb	0.177 ppb	102.091 %	0.002 ppb	0.013 ppb	101.072 %	0.196 ppb
Concentration per Run 1	0.106 ppb	0.196 ppb	65.805 ppb	0.119 ppb	97.579 %	0.003 ppb	0.013 ppb	95.944 %	0.173 ppb
Concentration per Run 2	0.044 ppb	0.305 ppb	60.591 ppb	0.185 ppb	102.190 %	0.002 ppb	0.011 ppb	98.414 %	0.186 ppb
Concentration per Run 3	-0.067 ppb	0.093 ppb	66.847 ppb	0.226 ppb	106.503 %	0.001 ppb	0.016 ppb	108.857 %	0.231 ppb
Concentration RSD	315.4 %	53.6 %	5.2 %	30.7 %	4.4 %	55.3 %	20.3 %	6.8 %	15.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	18.276 ppb	101.365 %	102.137 %	0.040 ppb	0.005 ppb
Concentration per Run 1	18.547 ppb	97.361 %	97.005 %	0.028 ppb	0.010 ppb
Concentration per Run 2	18.263 ppb	99.892 %	100.878 %	0.047 ppb	0.003 ppb
Concentration per Run 3	18.018 ppb	106.841 %	108.529 %	0.045 ppb	0.002 ppb
Concentration RSD	1.4 %	4.8 %	5.7 %	25.4 %	80.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	114	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2447890-06 6020TL	Rack	2		
Analysis started at:	8/29/2024 2:39:06 PM	Vial	12		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	115.995 %	98.002 %	0.014 ppb	13,417.993 ppb	6,814.836 ppb	23.938 ppb	2,450.094 ppb	23,975.287 ppb	116.955 %
Concentration per Run 1	114.150 %	90.635 %	0.011 ppb	14,178.463 ppb	7,200.782 ppb	23.530 ppb	2,619.897 ppb	25,509.660 ppb	117.553 %
Concentration per Run 2	117.076 %	102.508 %	0.024 ppb	12,699.775 ppb	6,396.251 ppb	23.379 ppb	2,341.935 ppb	22,579.726 ppb	117.470 %
Concentration per Run 3	116.761 %	100.862 %	0.007 ppb	13,375.741 ppb	6,847.475 ppb	24.905 ppb	2,388.450 ppb	23,836.475 ppb	115.843 %
Concentration RSD	1.4 %	6.6 %	61.9 %	5.5 %	5.9 %	3.5 %	6.1 %	6.1 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.311 ppb	0.360 ppb	7.978 ppb	20.457 ppb	0.046 ppb	0.750 ppb	0.534 ppb	0.492 ppb	106.242 %
Concentration per Run 1	0.386 ppb	0.388 ppb	8.073 ppb	21.099 ppb	0.053 ppb	0.817 ppb	0.666 ppb	0.493 ppb	98.126 %
Concentration per Run 2	0.289 ppb	0.336 ppb	7.561 ppb	18.967 ppb	0.040 ppb	0.727 ppb	0.475 ppb	0.548 ppb	105.982 %
Concentration per Run 3	0.258 ppb	0.358 ppb	8.301 ppb	21.304 ppb	0.045 ppb	0.708 ppb	0.460 ppb	0.434 ppb	114.619 %
Concentration RSD	21.5 %	7.3 %	4.8 %	6.3 %	13.8 %	7.8 %	21.5 %	11.5 %	7.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.166 ppb	0.085 ppb	93.462 ppb	0.198 ppb	100.672 %	0.004 ppb	0.008 ppb	100.923 %	0.281 ppb
Concentration per Run 1	0.218 ppb	0.118 ppb	94.768 ppb	0.134 ppb	97.694 %	0.005 ppb	0.009 ppb	95.545 %	0.260 ppb
Concentration per Run 2	0.099 ppb	0.066 ppb	89.632 ppb	0.293 ppb	100.928 %	0.006 ppb	0.006 ppb	97.510 %	0.298 ppb
Concentration per Run 3	0.182 ppb	0.073 ppb	95.987 ppb	0.167 ppb	103.395 %	0.002 ppb	0.010 ppb	109.713 %	0.284 ppb
Concentration RSD	36.9 %	32.9 %	3.6 %	42.4 %	2.8 %	48.3 %	25.3 %	7.6 %	6.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	20.330 ppb	100.486 %	101.398 %	0.042 ppb	0.027 ppb
Concentration per Run 1	21.250 ppb	96.534 %	96.689 %	0.031 ppb	0.029 ppb
Concentration per Run 2	20.103 ppb	99.713 %	99.988 %	0.048 ppb	0.027 ppb
Concentration per Run 3	19.636 ppb	105.211 %	107.515 %	0.046 ppb	0.024 ppb
Concentration RSD	4.1 %	4.4 %	5.5 %	21.5 %	9.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	115	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2447890-07 6020TL	Rack	2		
Analysis started at:	8/29/2024 2:43:46 PM	Vial	13		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	116.058 %	100.000 %	0.005 ppb	12,249.683 ppb	8,157.163 ppb	3.626 ppb	2,033.048 ppb	17,097.995 ppb	115.791 %
Concentration per Run 1	113.489 %	94.044 %	0.002 ppb	12,737.585 ppb	8,524.796 ppb	3.669 ppb	2,105.443 ppb	18,123.977 ppb	114.298 %
Concentration per Run 2	116.665 %	106.505 %	0.001 ppb	11,790.468 ppb	7,876.444 ppb	3.625 ppb	1,987.984 ppb	16,416.917 ppb	117.511 %
Concentration per Run 3	118.021 %	99.451 %	0.012 ppb	12,220.996 ppb	8,070.249 ppb	3.583 ppb	2,005.718 ppb	16,753.090 ppb	115.563 %
Concentration RSD	2.0 %	6.2 %	118.6 %	3.9 %	4.1 %	1.2 %	3.1 %	5.3 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.170 ppb	0.523 ppb	0.627 ppb	3.708 ppb	0.018 ppb	0.318 ppb	0.168 ppb	0.225 ppb	108.911 %
Concentration per Run 1	0.177 ppb	0.582 ppb	0.640 ppb	3.172 ppb	0.018 ppb	0.375 ppb	0.164 ppb	0.250 ppb	102.725 %
Concentration per Run 2	0.163 ppb	0.494 ppb	0.586 ppb	3.994 ppb	0.027 ppb	0.261 ppb	0.189 ppb	0.192 ppb	117.260 %
Concentration per Run 3	0.169 ppb	0.495 ppb	0.656 ppb	3.959 ppb	0.010 ppb	0.317 ppb	0.152 ppb	0.231 ppb	106.747 %
Concentration RSD	4.0 %	9.7 %	5.9 %	12.5 %	46.3 %	17.9 %	11.3 %	13.1 %	6.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.039 ppb	0.107 ppb	109.140 ppb	0.140 ppb	102.474 %	0.004 ppb	0.006 ppb	103.001 %	0.137 ppb
Concentration per Run 1	0.052 ppb	0.149 ppb	111.535 ppb	0.116 ppb	99.024 %	0.004 ppb	0.006 ppb	97.039 %	0.117 ppb
Concentration per Run 2	-0.009 ppb	0.139 ppb	110.303 ppb	0.155 ppb	103.241 %	0.004 ppb	0.005 ppb	108.383 %	0.140 ppb
Concentration per Run 3	0.075 ppb	0.032 ppb	105.584 ppb	0.147 ppb	105.157 %	0.005 ppb	0.007 ppb	103.582 %	0.155 ppb
Concentration RSD	110.7 %	60.8 %	2.9 %	14.7 %	3.1 %	13.1 %	9.2 %	5.5 %	13.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	23.454 ppb	101.151 %	101.091 %	0.029 ppb	0.000 ppb
Concentration per Run 1	24.199 ppb	97.991 %	95.515 %	0.016 ppb	0.002 ppb
Concentration per Run 2	23.511 ppb	103.555 %	104.952 %	0.035 ppb	-0.002 ppb
Concentration per Run 3	22.652 ppb	101.907 %	102.806 %	0.037 ppb	-0.001 ppb
Concentration RSD	3.3 %	2.8 %	4.9 %	38.4 %	1,106.3 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 116
Analysis label: L2447890-08 6020TL
Analysis started at: 8/29/2024 2:48:26 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 14
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	116.789 %	101.372 %	0.006 ppb	6,651.019 ppb	11,013.872 ppb	23.454 ppb	2,047.207 ppb	33,721.993 ppb	125.228 %
Concentration per Run 1	113.730 %	98.864 %	0.006 ppb	6,548.214 ppb	10,728.843 ppb	23.595 ppb	1,989.087 ppb	32,598.048 ppb	123.175 %
Concentration per Run 2	118.228 %	106.035 %	0.007 ppb	6,671.819 ppb	11,061.650 ppb	23.569 ppb	2,123.561 ppb	34,834.277 ppb	126.098 %
Concentration per Run 3	118.410 %	99.216 %	0.006 ppb	6,733.026 ppb	11,251.124 ppb	23.199 ppb	2,028.974 ppb	33,733.655 ppb	126.409 %
Concentration RSD	2.3 %	4.0 %	17.4 %	1.4 %	2.4 %	0.9 %	3.4 %	3.3 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.343 ppb	6.214 ppb	4.981 ppb	59.070 ppb	0.148 ppb	3.671 ppb	0.411 ppb	0.449 ppb	109.095 %
Concentration per Run 1	0.340 ppb	5.890 ppb	4.860 ppb	57.908 ppb	0.152 ppb	3.511 ppb	0.362 ppb	0.432 ppb	110.456 %
Concentration per Run 2	0.358 ppb	6.583 ppb	4.978 ppb	57.991 ppb	0.133 ppb	3.521 ppb	0.373 ppb	0.441 ppb	112.849 %
Concentration per Run 3	0.331 ppb	6.169 ppb	5.105 ppb	61.311 ppb	0.158 ppb	3.983 ppb	0.499 ppb	0.473 ppb	103.982 %
Concentration RSD	4.0 %	5.6 %	2.5 %	3.3 %	8.9 %	7.3 %	18.4 %	4.9 %	4.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.098 ppb	0.446 ppb	88.729 ppb	0.451 ppb	105.016 %	0.002 ppb	0.013 ppb	108.884 %	0.138 ppb
Concentration per Run 1	0.040 ppb	0.209 ppb	84.152 ppb	0.473 ppb	105.430 %	0.004 ppb	0.008 ppb	106.796 %	0.113 ppb
Concentration per Run 2	0.176 ppb	0.775 ppb	93.815 ppb	0.467 ppb	105.516 %	0.002 ppb	0.015 ppb	113.755 %	0.143 ppb
Concentration per Run 3	0.077 ppb	0.354 ppb	88.219 ppb	0.415 ppb	104.104 %	0.001 ppb	0.017 ppb	106.102 %	0.158 ppb
Concentration RSD	71.6 %	66.0 %	5.5 %	7.0 %	0.8 %	59.3 %	33.6 %	3.9 %	16.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	29.832 ppb	106.216 %	104.886 %	0.030 ppb	0.049 ppb
Concentration per Run 1	29.054 ppb	104.735 %	103.557 %	0.020 ppb	0.050 ppb
Concentration per Run 2	31.144 ppb	109.381 %	108.119 %	0.030 ppb	0.047 ppb
Concentration per Run 3	29.297 ppb	104.532 %	102.981 %	0.039 ppb	0.050 ppb
Concentration RSD	3.8 %	2.6 %	2.7 %	32.2 %	2.7 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	117	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2447890-09 6020TL	Rack	2		
Analysis started at:	8/29/2024 2:53:06 PM	Vial	15		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	115.101 %	102.351 %	0.008 ppb	10,509.226 ppb	6,008.779 ppb	6.776 ppb	3,007.784 ppb	31,503.327 ppb	124.348 %
Concentration per Run 1	112.553 %	109.444 %	0.015 ppb	10,028.594 ppb	5,662.755 ppb	5.773 ppb	2,876.562 ppb	30,258.697 ppb	123.616 %
Concentration per Run 2	116.167 %	97.218 %	0.001 ppb	11,173.708 ppb	6,513.393 ppb	7.641 ppb	3,215.747 ppb	33,277.960 ppb	124.910 %
Concentration per Run 3	116.583 %	100.392 %	0.007 ppb	10,325.375 ppb	5,850.189 ppb	6.913 ppb	2,931.043 ppb	30,973.325 ppb	124.519 %
Concentration RSD	1.9 %	6.2 %	87.3 %	5.7 %	7.4 %	13.9 %	6.1 %	5.0 %	0.5 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.246 ppb	0.267 ppb	1.148 ppb	6.276 ppb	0.030 ppb	0.170 ppb	0.487 ppb	0.260 ppb	110.878 %
Concentration per Run 1	0.225 ppb	0.185 ppb	1.160 ppb	6.140 ppb	0.031 ppb	0.187 ppb	0.492 ppb	0.253 ppb	107.421 %
Concentration per Run 2	0.237 ppb	0.208 ppb	1.148 ppb	6.015 ppb	0.025 ppb	0.149 ppb	0.496 ppb	0.269 ppb	116.099 %
Concentration per Run 3	0.275 ppb	0.408 ppb	1.137 ppb	6.672 ppb	0.035 ppb	0.175 ppb	0.472 ppb	0.259 ppb	109.113 %
Concentration RSD	10.7 %	46.0 %	1.0 %	5.6 %	16.7 %	11.3 %	2.7 %	3.1 %	4.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.057 ppb	0.047 ppb	85.197 ppb	1.855 ppb	104.749 %	0.004 ppb	0.001 ppb	108.184 %	0.102 ppb
Concentration per Run 1	0.041 ppb	0.051 ppb	82.499 ppb	1.850 ppb	106.406 %	0.004 ppb	0.000 ppb	107.052 %	0.079 ppb
Concentration per Run 2	0.112 ppb	0.098 ppb	89.354 ppb	1.788 ppb	105.199 %	0.003 ppb	0.003 ppb	111.888 %	0.100 ppb
Concentration per Run 3	0.020 ppb	-0.010 ppb	83.737 ppb	1.928 ppb	102.642 %	0.005 ppb	0.002 ppb	105.612 %	0.128 ppb
Concentration RSD	83.9 %	116.1 %	4.3 %	3.8 %	1.8 %	25.2 %	95.4 %	3.0 %	24.0 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	25.942 ppb	105.741 %	104.793 %	0.028 ppb	0.015 ppb
Concentration per Run 1	25.290 ppb	105.955 %	103.803 %	0.016 ppb	0.017 ppb
Concentration per Run 2	26.100 ppb	110.075 %	108.772 %	0.033 ppb	0.013 ppb
Concentration per Run 3	26.437 ppb	101.192 %	101.804 %	0.037 ppb	0.016 ppb
Concentration RSD	2.3 %	4.2 %	3.4 %	39.0 %	15.5 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	118	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	L2447890-10 6020TL	Rack	2		
Analysis started at:	8/29/2024 2:57:45 PM	Vial	16		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	114.253 %	100.980 %	0.009 ppb	12,630.130 ppb	8,217.198 ppb	19.242 ppb	3,756.050 ppb	40,264.528 ppb	116.134 %
Concentration per Run 1	111.812 %	100.274 %	0.005 ppb	12,840.640 ppb	8,380.154 ppb	20.428 ppb	3,914.922 ppb	41,453.530 ppb	115.344 %
Concentration per Run 2	115.632 %	104.859 %	0.014 ppb	12,549.306 ppb	8,167.893 ppb	19.592 ppb	3,753.850 ppb	39,594.399 ppb	116.741 %
Concentration per Run 3	115.317 %	97.806 %	0.007 ppb	12,500.445 ppb	8,103.546 ppb	17.707 ppb	3,599.379 ppb	39,745.655 ppb	116.316 %
Concentration RSD	1.9 %	3.5 %	51.7 %	1.5 %	1.8 %	7.2 %	4.2 %	2.6 %	0.6 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.339 ppb	0.458 ppb	2.085 ppb	25.403 ppb	0.056 ppb	0.416 ppb	0.373 ppb	0.128 ppb	105.793 %
Concentration per Run 1	0.356 ppb	0.502 ppb	2.032 ppb	29.807 ppb	0.059 ppb	0.481 ppb	0.397 ppb	0.169 ppb	101.053 %
Concentration per Run 2	0.381 ppb	0.410 ppb	2.054 ppb	20.867 ppb	0.055 ppb	0.339 ppb	0.370 ppb	0.114 ppb	111.358 %
Concentration per Run 3	0.279 ppb	0.461 ppb	2.168 ppb	25.536 ppb	0.054 ppb	0.427 ppb	0.354 ppb	0.100 ppb	104.969 %
Concentration RSD	15.6 %	10.1 %	3.5 %	17.6 %	4.2 %	17.3 %	5.8 %	28.3 %	4.9 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.169 ppb	0.114 ppb	117.339 ppb	0.754 ppb	100.312 %	0.004 ppb	0.001 ppb	100.574 %	0.108 ppb
Concentration per Run 1	0.237 ppb	0.063 ppb	124.130 ppb	0.797 ppb	96.945 %	0.003 ppb	0.000 ppb	99.602 %	0.089 ppb
Concentration per Run 2	0.090 ppb	0.128 ppb	116.302 ppb	0.663 ppb	103.208 %	0.005 ppb	0.001 ppb	103.537 %	0.109 ppb
Concentration per Run 3	0.181 ppb	0.153 ppb	111.585 ppb	0.803 ppb	100.783 %	0.003 ppb	0.001 ppb	98.584 %	0.126 ppb
Concentration RSD	43.6 %	40.6 %	5.4 %	10.5 %	3.1 %	26.3 %	87.8 %	2.6 %	17.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	29.636 ppb	100.130 %	99.263 %	0.021 ppb	0.018 ppb
Concentration per Run 1	30.053 ppb	96.318 %	96.316 %	0.012 ppb	0.018 ppb
Concentration per Run 2	29.566 ppb	102.862 %	102.622 %	0.023 ppb	0.020 ppb
Concentration per Run 3	29.290 ppb	101.212 %	98.851 %	0.028 ppb	0.016 ppb
Concentration RSD	1.3 %	3.4 %	3.2 %	40.7 %	9.8 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	119	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/29/2024 3:02:25 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	105.684 %	95.337 %	61.031 ppb	6,717.121 ppb	6,590.238 ppb	65.354 ppb	6,692.515 ppb	6,553.185 ppb	112.812 %
Concentration per Run 1	104.373 %	98.276 %	61.747 ppb	6,865.907 ppb	6,859.815 ppb	71.733 ppb	7,180.199 ppb	7,108.944 ppb	112.961 %
Concentration per Run 2	105.729 %	91.105 %	61.008 ppb	6,766.341 ppb	6,551.379 ppb	61.677 ppb	6,421.621 ppb	6,357.549 ppb	111.526 %
Concentration per Run 3	106.951 %	96.630 %	60.339 ppb	6,519.117 ppb	6,359.520 ppb	62.653 ppb	6,475.727 ppb	6,193.061 ppb	113.948 %
Recovery Percentage 1			101.719 %	111.952 %	109.837 %	108.924 %	111.542 %	109.220 %	
Concentration RSD	1.2 %	3.9 %	1.2 %	2.7 %	3.8 %	8.5 %	6.3 %	7.5 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	63.135 ppb	62.869 ppb	64.951 ppb	6,317.989 ppb	63.138 ppb	63.068 ppb	63.161 ppb	63.221 ppb	99.684 %
Concentration per Run 1	63.718 ppb	63.808 ppb	66.251 ppb	6,449.130 ppb	63.352 ppb	63.695 ppb	63.351 ppb	65.052 ppb	100.935 %
Concentration per Run 2	63.921 ppb	64.041 ppb	64.743 ppb	6,336.562 ppb	63.777 ppb	63.521 ppb	63.965 ppb	62.750 ppb	97.963 %
Concentration per Run 3	61.767 ppb	60.759 ppb	63.858 ppb	6,168.276 ppb	62.286 ppb	61.988 ppb	62.168 ppb	61.860 ppb	100.156 %
Recovery Percentage 1	105.225 %	104.782 %	108.251 %	105.300 %	105.230 %	105.114 %	105.269 %	105.368 %	
Concentration RSD	1.9 %	2.9 %	1.9 %	2.2 %	1.2 %	1.5 %	1.4 %	2.6 %	1.5 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	62.985 ppb	64.576 ppb	63.814 ppb	61.148 ppb	99.716 %	62.265 ppb	62.471 ppb	96.316 %	51.774 ppb
Concentration per Run 1	65.288 ppb	67.733 ppb	68.569 ppb	63.769 ppb	98.283 %	64.183 ppb	65.655 ppb	97.419 %	55.514 ppb
Concentration per Run 2	62.758 ppb	64.677 ppb	61.840 ppb	60.169 ppb	101.417 %	61.395 ppb	61.340 ppb	95.405 %	50.443 ppb
Concentration per Run 3	60.910 ppb	61.316 ppb	61.032 ppb	59.505 ppb	99.447 %	61.216 ppb	60.418 ppb	96.126 %	49.365 ppb
Recovery Percentage 1	104.975 %	107.626 %	106.356 %	101.913 %		103.774 %	104.118 %		86.290 %
Concentration RSD	3.5 %	5.0 %	6.5 %	3.8 %	1.6 %	2.7 %	4.5 %	1.1 %	6.3 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	63.985 ppb	98.478 %	98.986 %	64.234 ppb	62.886 ppb
Concentration per Run 1	68.252 ppb	98.577 %	100.065 %	64.741 ppb	63.727 ppb
Concentration per Run 2	60.762 ppb	98.943 %	97.423 %	64.793 ppb	63.092 ppb
Concentration per Run 3	62.941 ppb	97.914 %	99.471 %	63.168 ppb	61.838 ppb
Recovery Percentage 1	106.641 %			107.057 %	104.810 %
Concentration RSD	6.0 %	0.5 %	1.4 %	1.4 %	1.5 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	120	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/29/2024 3:07:08 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.807 %	99.255 %	0.011 ppb	31.595 ppb	0.768 ppb	-0.001 ppb	17.265 ppb	4.632 ppb	105.410 %
Concentration per Run 1	101.945 %	100.862 %	0.004 ppb	32.524 ppb	1.535 ppb	0.112 ppb	27.688 ppb	7.012 ppb	105.145 %
Concentration per Run 2	106.691 %	102.038 %	0.024 ppb	30.727 ppb	0.426 ppb	0.003 ppb	14.780 ppb	3.596 ppb	105.942 %
Concentration per Run 3	105.786 %	94.867 %	0.005 ppb	31.533 ppb	0.341 ppb	-0.119 ppb	9.328 ppb	3.288 ppb	105.145 %
Recovery Percentage 1			2.187 %	31.595 %	1.097 %	-0.013 %	17.265 %	4.632 %	
Concentration RSD	2.4 %	3.9 %	103.0 %	2.8 %	86.7 %	8,697.8 %	54.6 %	44.6 %	0.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.016 ppb	-0.005 ppb	0.073 ppb	11.146 ppb	0.006 ppb	0.063 ppb	0.027 ppb	-0.025 ppb	96.744 %
Concentration per Run 1	-0.002 ppb	-0.001 ppb	0.088 ppb	10.279 ppb	0.007 ppb	0.018 ppb	0.071 ppb	-0.022 ppb	99.809 %
Concentration per Run 2	-0.029 ppb	0.009 ppb	0.070 ppb	11.542 ppb	0.005 ppb	0.074 ppb	-0.003 ppb	-0.051 ppb	96.560 %
Concentration per Run 3	-0.016 ppb	-0.023 ppb	0.060 ppb	11.618 ppb	0.007 ppb	0.097 ppb	0.013 ppb	-0.003 ppb	93.864 %
Recovery Percentage 1	-0.317 %	-0.484 %	7.288 %	22.292 %	1.229 %	3.146 %	2.702 %	-0.506 %	
Concentration RSD	84.7 %	348.0 %	19.3 %	6.7 %	21.5 %	64.2 %	144.8 %	96.5 %	3.1 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.027 ppb	0.329 ppb	0.008 ppb	1.407 ppb	101.360 %	0.009 ppb	0.008 ppb	98.510 %	2.004 ppb
Concentration per Run 1	0.088 ppb	0.381 ppb	0.010 ppb	1.114 ppb	101.248 %	0.012 ppb	0.013 ppb	104.728 %	1.961 ppb
Concentration per Run 2	0.044 ppb	0.382 ppb	0.008 ppb	1.427 ppb	102.491 %	0.011 ppb	0.003 ppb	98.209 %	2.001 ppb
Concentration per Run 3	-0.051 ppb	0.224 ppb	0.008 ppb	1.681 ppb	100.340 %	0.005 ppb	0.007 ppb	92.593 %	2.050 ppb
Recovery Percentage 1	5.406 %	6.579 %	0.085 %	70.345 %		2.287 %	3.914 %		50.098 %
Concentration RSD	262.9 %	27.7 %	16.0 %	20.2 %	1.1 %	37.2 %	66.1 %	6.2 %	2.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.008 ppb	99.048 %	97.943 %	0.270 ppb	0.014 ppb
Concentration per Run 1	0.007 ppb	100.906 %	102.633 %	0.214 ppb	0.016 ppb
Concentration per Run 2	0.016 ppb	98.781 %	97.706 %	0.315 ppb	0.013 ppb
Concentration per Run 3	0.001 ppb	97.456 %	93.492 %	0.282 ppb	0.013 ppb
Recovery Percentage 1	1.576 %			27.039 %	1.433 %
Concentration RSD	97.1 %	1.8 %	4.7 %	19.0 %	12.7 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	121	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCV	Rack	0		
Analysis started at:	8/29/2024 3:13:38 PM	Vial	9		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.315 %	97.100 %	59.818 ppb	6,353.185 ppb	6,355.737 ppb	61.312 ppb	6,464.851 ppb	6,454.825 ppb	110.450 %
Concentration per Run 1	100.836 %	100.862 %	60.993 ppb	6,270.505 ppb	6,408.830 ppb	60.455 ppb	6,542.871 ppb	6,537.927 ppb	109.537 %
Concentration per Run 2	104.195 %	94.749 %	59.778 ppb	6,381.207 ppb	6,225.907 ppb	60.941 ppb	6,439.768 ppb	6,552.879 ppb	110.515 %
Concentration per Run 3	104.914 %	95.690 %	58.682 ppb	6,407.842 ppb	6,432.474 ppb	62.538 ppb	6,411.913 ppb	6,273.667 ppb	111.298 %
Recovery Percentage 1			99.696 %	105.886 %	105.929 %	102.186 %	107.748 %	107.580 %	
Concentration RSD	2.1 %	3.4 %	1.9 %	1.1 %	1.8 %	1.8 %	1.1 %	2.4 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	62.675 ppb	62.242 ppb	63.632 ppb	6,280.921 ppb	63.992 ppb	64.106 ppb	63.990 ppb	63.461 ppb	97.621 %
Concentration per Run 1	64.008 ppb	63.198 ppb	63.813 ppb	6,374.507 ppb	65.717 ppb	65.152 ppb	66.638 ppb	65.212 ppb	94.417 %
Concentration per Run 2	61.840 ppb	61.528 ppb	62.682 ppb	6,279.321 ppb	63.232 ppb	63.929 ppb	62.497 ppb	62.576 ppb	100.121 %
Concentration per Run 3	62.176 ppb	62.000 ppb	64.401 ppb	6,188.934 ppb	63.028 ppb	63.237 ppb	62.836 ppb	62.596 ppb	98.324 %
Recovery Percentage 1	104.458 %	103.736 %	106.053 %	104.682 %	106.654 %	106.844 %	106.651 %	105.769 %	
Concentration RSD	1.9 %	1.4 %	1.4 %	1.5 %	2.3 %	1.5 %	3.6 %	2.4 %	3.0 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	63.250 ppb	63.420 ppb	62.106 ppb	60.466 ppb	100.730 %	61.978 ppb	61.964 ppb	95.716 %	52.411 ppb
Concentration per Run 1	64.400 ppb	64.540 ppb	64.753 ppb	62.244 ppb	96.566 %	64.724 ppb	65.207 ppb	92.657 %	54.089 ppb
Concentration per Run 2	61.916 ppb	62.147 ppb	60.652 ppb	58.630 ppb	102.369 %	60.259 ppb	60.431 ppb	97.418 %	51.871 ppb
Concentration per Run 3	63.435 ppb	63.572 ppb	60.914 ppb	60.525 ppb	103.255 %	60.952 ppb	60.253 ppb	97.074 %	51.273 ppb
Recovery Percentage 1	105.417 %	105.700 %	103.511 %	100.777 %		103.297 %	103.273 %		87.352 %
Concentration RSD	2.0 %	1.9 %	3.7 %	3.0 %	3.6 %	3.9 %	4.5 %	2.8 %	2.8 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	61.495 ppb	100.140 %	99.975 %	64.673 ppb	62.621 ppb
Concentration per Run 1	64.117 ppb	95.765 %	96.728 %	66.559 ppb	65.220 ppb
Concentration per Run 2	60.658 ppb	101.719 %	99.701 %	63.604 ppb	62.416 ppb
Concentration per Run 3	59.710 ppb	102.936 %	103.497 %	63.857 ppb	60.227 ppb
Recovery Percentage 1	102.492 %			107.789 %	104.369 %
Concentration RSD	3.8 %	3.8 %	3.4 %	2.5 %	4.0 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 122
Analysis label: CCB
Analysis started at: 8/29/2024 3:18:21 PM
User name ALPHALAB\Metals-Instrument
Rack 0
Vial 10
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	103.611 %	101.176 %	0.016 ppb	23.925 ppb	0.660 ppb	-0.027 ppb	8.376 ppb	4.516 ppb	107.868 %
Concentration per Run 1	102.925 %	102.390 %	0.011 ppb	20.128 ppb	1.453 ppb	0.088 ppb	7.433 ppb	7.812 ppb	108.677 %
Concentration per Run 2	103.176 %	105.212 %	0.016 ppb	18.833 ppb	0.113 ppb	-0.357 ppb	8.502 ppb	1.729 ppb	107.197 %
Concentration per Run 3	104.731 %	95.925 %	0.021 ppb	32.813 ppb	0.414 ppb	0.189 ppb	9.192 ppb	4.005 ppb	107.729 %
Recovery Percentage 1			3.245 %	23.925 %	0.943 %	-0.267 %	8.376 %	4.516 %	
Concentration RSD	0.9 %	4.7 %	31.0 %	32.3 %	106.5 %	1,090.7 %	10.6 %	68.1 %	0.7 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.028 ppb	-0.005 ppb	0.080 ppb	11.868 ppb	0.008 ppb	0.031 ppb	0.031 ppb	-0.023 ppb	101.240 %
Concentration per Run 1	-0.037 ppb	-0.004 ppb	0.071 ppb	11.334 ppb	0.020 ppb	0.043 ppb	0.028 ppb	-0.015 ppb	103.065 %
Concentration per Run 2	-0.018 ppb	-0.015 ppb	0.086 ppb	12.117 ppb	0.002 ppb	0.013 ppb	0.012 ppb	-0.053 ppb	99.997 %
Concentration per Run 3	-0.030 ppb	0.004 ppb	0.082 ppb	12.154 ppb	0.000 ppb	0.037 ppb	0.053 ppb	-0.001 ppb	100.658 %
Recovery Percentage 1	-0.565 %	-0.515 %	7.992 %	23.737 %	1.527 %	1.559 %	3.103 %	-0.457 %	
Concentration RSD	34.3 %	180.1 %	9.8 %	3.9 %	143.4 %	50.9 %	67.0 %	117.9 %	1.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.006 ppb	0.232 ppb	0.012 ppb	1.455 ppb	103.905 %	0.012 ppb	0.013 ppb	101.466 %	2.204 ppb
Concentration per Run 1	0.041 ppb	0.234 ppb	0.022 ppb	1.110 ppb	103.276 %	0.025 ppb	0.025 ppb	100.276 %	2.115 ppb
Concentration per Run 2	-0.047 ppb	0.262 ppb	0.007 ppb	1.482 ppb	104.124 %	0.006 ppb	0.010 ppb	101.887 %	2.220 ppb
Concentration per Run 3	0.024 ppb	0.201 ppb	0.007 ppb	1.775 ppb	104.314 %	0.006 ppb	0.005 ppb	102.235 %	2.276 ppb
Recovery Percentage 1	1.227 %	4.646 %	0.119 %	72.769 %		3.104 %	6.591 %		55.095 %
Concentration RSD	769.2 %	13.3 %	72.1 %	22.9 %	0.5 %	84.9 %	81.4 %	1.0 %	3.7 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.021 ppb	103.338 %	101.789 %	0.299 ppb	0.021 ppb
Concentration per Run 1	0.030 ppb	102.849 %	102.074 %	0.237 ppb	0.030 ppb
Concentration per Run 2	0.007 ppb	102.692 %	100.504 %	0.339 ppb	0.019 ppb
Concentration per Run 3	0.026 ppb	104.472 %	102.789 %	0.321 ppb	0.014 ppb
Recovery Percentage 1	4.212 %			29.892 %	2.109 %
Concentration RSD	58.3 %	1.0 %	1.1 %	18.2 %	40.4 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 123
Analysis label: L2447890-13 6020TL
Analysis started at: 8/29/2024 3:24:18 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 19
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	114.722 %	106.113 %	0.013 ppb	9.306 ppb	1.985 ppb	2.445 ppb	2.750 ppb	12.561 ppb	122.973 %
Concentration per Run 1	111.722 %	109.796 %	0.013 ppb	1.172 ppb	1.305 ppb	2.397 ppb	1.826 ppb	15.244 ppb	121.800 %
Concentration per Run 2	114.822 %	104.859 %	0.012 ppb	15.888 ppb	2.201 ppb	2.777 ppb	5.116 ppb	12.179 ppb	122.600 %
Concentration per Run 3	117.622 %	103.683 %	0.013 ppb	10.857 ppb	2.448 ppb	2.163 ppb	1.308 ppb	10.258 ppb	124.519 %
Concentration RSD	2.6 %	3.1 %	4.6 %	80.4 %	30.3 %	12.7 %	75.1 %	20.0 %	1.1 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.061 ppb	0.150 ppb	0.047 ppb	7.074 ppb	0.000 ppb	0.024 ppb	0.059 ppb	-0.107 ppb	111.607 %
Concentration per Run 1	-0.071 ppb	0.184 ppb	0.021 ppb	5.518 ppb	-0.004 ppb	0.011 ppb	0.080 ppb	-0.118 ppb	108.821 %
Concentration per Run 2	-0.042 ppb	0.111 ppb	0.062 ppb	8.081 ppb	0.000 ppb	0.028 ppb	0.051 ppb	-0.121 ppb	113.511 %
Concentration per Run 3	-0.071 ppb	0.154 ppb	0.057 ppb	7.622 ppb	0.004 ppb	0.033 ppb	0.047 ppb	-0.083 ppb	112.490 %
Concentration RSD	27.6 %	24.4 %	48.9 %	19.3 %	2,308.7 %	47.3 %	30.5 %	19.4 %	2.2 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.111 ppb	0.077 ppb	0.020 ppb	0.500 ppb	113.323 %	0.002 ppb	0.001 ppb	110.398 %	0.839 ppb
Concentration per Run 1	-0.108 ppb	0.059 ppb	0.020 ppb	0.452 ppb	114.241 %	0.003 ppb	0.000 ppb	112.392 %	0.734 ppb
Concentration per Run 2	-0.085 ppb	0.103 ppb	0.022 ppb	0.473 ppb	114.507 %	0.001 ppb	0.002 ppb	110.305 %	0.894 ppb
Concentration per Run 3	-0.141 ppb	0.068 ppb	0.019 ppb	0.576 ppb	111.222 %	0.002 ppb	0.002 ppb	108.496 %	0.890 ppb
Concentration RSD	25.4 %	30.0 %	6.5 %	13.2 %	1.6 %	45.6 %	97.4 %	1.8 %	10.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.036 ppb	112.396 %	112.039 %	0.091 ppb	0.000 ppb
Concentration per Run 1	0.033 ppb	113.330 %	112.367 %	0.065 ppb	0.000 ppb
Concentration per Run 2	0.047 ppb	113.249 %	115.228 %	0.103 ppb	-0.001 ppb
Concentration per Run 3	0.027 ppb	110.610 %	108.521 %	0.106 ppb	0.002 ppb
Concentration RSD	29.1 %	1.4 %	3.0 %	25.1 %	726.9 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 124
Analysis label: L2447890-11 6020TL
Analysis started at: 8/29/2024 3:28:57 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 17
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	111.894 %	101.450 %	0.018 ppb	7,372.339 ppb	2,387.617 ppb	11.391 ppb	2,300.843 ppb	16,420.061 ppb	113.634 %
Concentration per Run 1	109.262 %	108.268 %	0.019 ppb	7,132.718 ppb	2,333.748 ppb	11.680 ppb	2,238.274 ppb	16,522.874 ppb	112.357 %
Concentration per Run 2	112.799 %	99.804 %	0.017 ppb	7,509.407 ppb	2,458.529 ppb	11.643 ppb	2,412.251 ppb	16,594.645 ppb	113.184 %
Concentration per Run 3	113.622 %	96.277 %	0.018 ppb	7,474.893 ppb	2,370.574 ppb	10.850 ppb	2,252.004 ppb	16,142.664 ppb	115.360 %
Concentration RSD	2.1 %	6.1 %	6.2 %	2.8 %	2.7 %	4.1 %	4.2 %	1.5 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.053 ppb	1.645 ppb	2.603 ppb	10.562 ppb	0.037 ppb	0.361 ppb	0.113 ppb	1.028 ppb	103.500 %
Concentration per Run 1	0.036 ppb	1.347 ppb	2.613 ppb	10.326 ppb	0.039 ppb	0.370 ppb	0.112 ppb	1.003 ppb	105.162 %
Concentration per Run 2	0.054 ppb	2.162 ppb	2.565 ppb	12.206 ppb	0.043 ppb	0.375 ppb	0.111 ppb	1.008 ppb	104.979 %
Concentration per Run 3	0.070 ppb	1.425 ppb	2.631 ppb	9.154 ppb	0.028 ppb	0.337 ppb	0.115 ppb	1.071 ppb	100.359 %
Concentration RSD	32.0 %	27.4 %	1.3 %	14.6 %	20.4 %	5.7 %	1.6 %	3.7 %	2.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.036 ppb	0.095 ppb	60.905 ppb	0.304 ppb	104.146 %	0.003 ppb	0.019 ppb	101.283 %	0.482 ppb
Concentration per Run 1	0.035 ppb	0.156 ppb	62.274 ppb	0.235 ppb	104.368 %	0.003 ppb	0.021 ppb	105.426 %	0.415 ppb
Concentration per Run 2	0.115 ppb	0.113 ppb	62.346 ppb	0.239 ppb	103.416 %	0.001 ppb	0.016 ppb	100.900 %	0.497 ppb
Concentration per Run 3	-0.042 ppb	0.017 ppb	58.094 ppb	0.439 ppb	104.654 %	0.004 ppb	0.020 ppb	97.523 %	0.534 ppb
Concentration RSD	217.7 %	74.6 %	4.0 %	38.3 %	0.6 %	47.8 %	11.6 %	3.9 %	12.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	47.433 ppb	104.884 %	105.263 %	0.065 ppb	0.012 ppb
Concentration per Run 1	46.829 ppb	106.438 %	107.223 %	0.042 ppb	0.010 ppb
Concentration per Run 2	48.777 ppb	105.450 %	107.043 %	0.075 ppb	0.012 ppb
Concentration per Run 3	46.691 ppb	102.763 %	101.524 %	0.078 ppb	0.013 ppb
Concentration RSD	2.5 %	1.8 %	3.1 %	30.6 %	13.3 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 125
Analysis label: L2447890-12 6020TL
Analysis started at: 8/29/2024 3:33:37 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 18
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	114.134 %	104.310 %	0.018 ppb	7,410.913 ppb	2,505.647 ppb	8.217 ppb	2,362.930 ppb	16,284.179 ppb	113.412 %
Concentration per Run 1	112.571 %	110.619 %	0.015 ppb	7,304.464 ppb	2,434.226 ppb	8.667 ppb	2,396.757 ppb	16,900.361 ppb	112.368 %
Concentration per Run 2	114.158 %	94.632 %	0.020 ppb	8,127.870 ppb	2,734.210 ppb	8.415 ppb	2,433.351 ppb	16,666.573 ppb	113.922 %
Concentration per Run 3	115.673 %	107.680 %	0.019 ppb	6,800.406 ppb	2,348.503 ppb	7.568 ppb	2,258.681 ppb	15,285.603 ppb	113.944 %
Concentration RSD	1.4 %	8.2 %	15.3 %	9.0 %	8.1 %	7.0 %	3.9 %	5.4 %	0.8 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.149 ppb	1.006 ppb	2.580 ppb	7.275 ppb	0.027 ppb	0.413 ppb	0.142 ppb	0.647 ppb	109.986 %
Concentration per Run 1	0.161 ppb	0.985 ppb	2.407 ppb	7.616 ppb	0.030 ppb	0.414 ppb	0.113 ppb	0.589 ppb	116.620 %
Concentration per Run 2	0.130 ppb	1.053 ppb	2.812 ppb	6.766 ppb	0.028 ppb	0.387 ppb	0.175 ppb	0.723 ppb	102.221 %
Concentration per Run 3	0.155 ppb	0.979 ppb	2.520 ppb	7.444 ppb	0.023 ppb	0.437 ppb	0.138 ppb	0.628 ppb	111.117 %
Concentration RSD	11.0 %	4.1 %	8.1 %	6.2 %	13.0 %	6.0 %	22.0 %	10.7 %	6.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	0.003 ppb	0.114 ppb	62.832 ppb	0.229 ppb	108.269 %	0.007 ppb	0.022 ppb	105.306 %	0.325 ppb
Concentration per Run 1	0.012 ppb	0.149 ppb	63.735 ppb	0.164 ppb	111.974 %	0.005 ppb	0.017 ppb	113.753 %	0.256 ppb
Concentration per Run 2	-0.005 ppb	0.092 ppb	64.155 ppb	0.232 ppb	105.405 %	0.008 ppb	0.023 ppb	99.065 %	0.347 ppb
Concentration per Run 3	0.002 ppb	0.102 ppb	60.608 ppb	0.291 ppb	107.427 %	0.008 ppb	0.026 ppb	103.100 %	0.371 ppb
Concentration RSD	296.2 %	26.7 %	3.1 %	27.8 %	3.1 %	28.5 %	20.7 %	7.2 %	18.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	48.974 ppb	107.613 %	107.124 %	0.051 ppb	0.022 ppb
Concentration per Run 1	47.598 ppb	113.121 %	114.052 %	0.024 ppb	0.022 ppb
Concentration per Run 2	50.720 ppb	103.407 %	101.373 %	0.064 ppb	0.022 ppb
Concentration per Run 3	48.605 ppb	106.311 %	105.946 %	0.066 ppb	0.023 ppb
Concentration RSD	3.3 %	4.6 %	6.0 %	45.9 %	1.3 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 126
Analysis label: L2447890-14 6020TL
Analysis started at: 8/29/2024 3:38:16 PM
User name ALPHALAB\Metals-Instrument
Rack 2
Vial 20
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	117.003 %	106.074 %	0.004 ppb	16.513 ppb	3.638 ppb	2.982 ppb	2.625 ppb	16.391 ppb	125.080 %
Concentration per Run 1	113.538 %	101.685 %	0.006 ppb	17.461 ppb	3.449 ppb	2.992 ppb	6.959 ppb	12.267 ppb	123.355 %
Concentration per Run 2	119.079 %	105.094 %	0.001 ppb	22.431 ppb	4.041 ppb	3.383 ppb	1.618 ppb	18.512 ppb	126.792 %
Concentration per Run 3	118.392 %	111.442 %	0.006 ppb	9.647 ppb	3.423 ppb	2.572 ppb	-0.703 ppb	18.395 ppb	125.092 %
Concentration RSD	2.6 %	4.7 %	68.4 %	39.0 %	9.6 %	13.6 %	149.7 %	21.8 %	1.4 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	0.038 ppb	0.260 ppb	0.159 ppb	3.274 ppb	0.002 ppb	0.108 ppb	0.160 ppb	0.025 ppb	114.199 %
Concentration per Run 1	0.035 ppb	0.253 ppb	0.136 ppb	2.430 ppb	0.001 ppb	0.114 ppb	0.140 ppb	-0.007 ppb	114.497 %
Concentration per Run 2	0.051 ppb	0.293 ppb	0.154 ppb	2.847 ppb	0.004 ppb	0.116 ppb	0.177 ppb	0.033 ppb	118.281 %
Concentration per Run 3	0.026 ppb	0.232 ppb	0.187 ppb	4.546 ppb	0.001 ppb	0.094 ppb	0.162 ppb	0.049 ppb	109.819 %
Concentration RSD	33.6 %	12.0 %	16.1 %	34.2 %	103.0 %	11.4 %	11.6 %	114.6 %	3.7 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.068 ppb	0.043 ppb	0.041 ppb	0.148 ppb	115.724 %	0.002 ppb	0.000 ppb	111.859 %	0.228 ppb
Concentration per Run 1	-0.084 ppb	0.029 ppb	0.041 ppb	0.119 ppb	115.995 %	0.001 ppb	0.000 ppb	110.480 %	0.181 ppb
Concentration per Run 2	-0.055 ppb	0.130 ppb	0.041 ppb	0.145 ppb	117.458 %	0.002 ppb	0.001 ppb	115.526 %	0.244 ppb
Concentration per Run 3	-0.065 ppb	-0.031 ppb	0.041 ppb	0.180 ppb	113.720 %	0.003 ppb	-0.001 ppb	109.570 %	0.258 ppb
Concentration RSD	21.1 %	190.1 %	0.5 %	20.7 %	1.6 %	54.6 %	576.0 %	2.9 %	17.9 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.056 ppb	112.905 %	111.869 %	0.033 ppb	0.006 ppb
Concentration per Run 1	0.058 ppb	112.299 %	110.574 %	0.018 ppb	0.006 ppb
Concentration per Run 2	0.055 ppb	115.052 %	116.471 %	0.037 ppb	0.005 ppb
Concentration per Run 3	0.055 ppb	111.366 %	108.563 %	0.042 ppb	0.006 ppb
Concentration RSD	2.8 %	1.7 %	3.7 %	39.0 %	12.2 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index: 127
Analysis label: CCV
Analysis started at: 8/29/2024 3:44:49 PM
User name ALPHALAB\Metals-Instrument
Rack 0
Vial 9
Comment <Comment>

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	104.952 %	101.881 %	61.394 ppb	6,222.113 ppb	6,191.202 ppb	59.450 ppb	6,233.033 ppb	6,294.160 ppb	121.794 %
Concentration per Run 1	103.002 %	99.569 %	62.116 ppb	6,179.292 ppb	6,130.310 ppb	56.772 ppb	6,182.585 ppb	6,280.617 ppb	120.391 %
Concentration per Run 2	105.698 %	104.977 %	61.344 ppb	6,118.620 ppb	6,186.147 ppb	59.347 ppb	6,263.216 ppb	6,253.656 ppb	122.753 %
Concentration per Run 3	106.156 %	101.097 %	60.723 ppb	6,368.427 ppb	6,257.148 ppb	62.230 ppb	6,253.297 ppb	6,348.205 ppb	122.236 %
Recovery Percentage 1			102.324 %	103.702 %	103.187 %	99.083 %	103.884 %	104.903 %	
Concentration RSD	1.6 %	2.7 %	1.1 %	2.1 %	1.0 %	4.6 %	0.7 %	0.8 %	1.0 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	61.119 ppb	61.024 ppb	62.474 ppb	6,066.084 ppb	61.527 ppb	62.452 ppb	62.069 ppb	61.206 ppb	105.649 %
Concentration per Run 1	61.349 ppb	60.641 ppb	60.499 ppb	6,010.676 ppb	62.565 ppb	64.078 ppb	64.324 ppb	61.521 ppb	101.745 %
Concentration per Run 2	60.729 ppb	60.684 ppb	61.216 ppb	6,047.276 ppb	60.518 ppb	60.666 ppb	59.879 ppb	60.236 ppb	109.355 %
Concentration per Run 3	61.279 ppb	61.746 ppb	65.706 ppb	6,140.298 ppb	61.499 ppb	62.612 ppb	62.005 ppb	61.862 ppb	105.846 %
Recovery Percentage 1	101.865 %	101.707 %	104.123 %	101.101 %	102.546 %	104.087 %	103.449 %	102.011 %	
Concentration RSD	0.6 %	1.0 %	4.5 %	1.1 %	1.7 %	2.7 %	3.6 %	1.4 %	3.6 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	60.235 ppb	60.424 ppb	58.759 ppb	57.182 ppb	108.187 %	60.450 ppb	59.487 ppb	103.831 %	46.616 ppb
Concentration per Run 1	60.166 ppb	60.213 ppb	56.723 ppb	56.040 ppb	106.986 %	59.629 ppb	58.802 ppb	100.670 %	46.259 ppb
Concentration per Run 2	59.910 ppb	59.069 ppb	60.298 ppb	56.830 ppb	108.382 %	60.993 ppb	59.550 ppb	106.992 %	46.346 ppb
Concentration per Run 3	60.629 ppb	61.990 ppb	59.255 ppb	58.677 ppb	109.193 %	60.730 ppb	60.109 ppb	103.830 %	47.242 ppb
Recovery Percentage 1	100.392 %	100.707 %	97.931 %	95.304 %		100.751 %	99.145 %		77.693 %
Concentration RSD	0.6 %	2.4 %	3.1 %	2.4 %	1.0 %	1.2 %	1.1 %	3.0 %	1.2 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	58.936 ppb	108.126 %	107.117 %	63.035 ppb	61.103 ppb
Concentration per Run 1	58.233 ppb	105.341 %	102.202 %	65.306 ppb	62.193 ppb
Concentration per Run 2	58.313 ppb	109.453 %	108.303 %	61.833 ppb	60.540 ppb
Concentration per Run 3	60.263 ppb	109.584 %	110.846 %	61.966 ppb	60.577 ppb
Recovery Percentage 1	98.227 %			105.058 %	101.839 %
Concentration RSD	2.0 %	2.2 %	4.1 %	3.1 %	1.5 %

Alpha ICPMSQ Data with SRD

8/29/2024 3:55:24 PM

Analysis index:	128	User name	ALPHALAB\Metals-Instrument	Comment	<Comment>
Analysis label:	CCB	Rack	0		
Analysis started at:	8/29/2024 3:49:32 PM	Vial	10		

Category	6Li (STD AGD)	6Li (KED AGD)	9Be (STD AGD)	23Na (KED AGD)	24Mg (KED AGD)	27Al (KED AGD)	39K (KED AGD)	44Ca (KED AGD)	45Sc (STD AGD)
Concentration average	106.892 %	98.746 %	0.010 ppb	19.281 ppb	1.046 ppb	-0.004 ppb	8.957 ppb	-3.173 ppb	107.892 %
Concentration per Run 1	104.738 %	90.400 %	0.016 ppb	25.079 ppb	0.496 ppb	-0.041 ppb	14.308 ppb	-1.639 ppb	106.576 %
Concentration per Run 2	107.360 %	101.685 %	0.011 ppb	18.011 ppb	1.352 ppb	-0.012 ppb	13.718 ppb	-0.661 ppb	109.044 %
Concentration per Run 3	108.579 %	104.154 %	0.002 ppb	14.753 ppb	1.290 ppb	0.042 ppb	-1.156 ppb	-7.219 ppb	108.056 %
Recovery Percentage 1			1.968 %	19.281 %	1.495 %	-0.038 %	8.957 %	-3.173 %	
Concentration RSD	1.8 %	7.4 %	74.2 %	27.4 %	45.6 %	1,113.0 %	97.8 %	111.5 %	1.2 %

Category	51V (KED AGD)	52Cr (KED AGD)	55Mn (KED AGD)	57Fe (KED AGD)	59Co (KED AGD)	60Ni (KED AGD)	65Cu (KED AGD)	66Zn (KED AGD)	74Ge (KED AGD)
Concentration average	-0.039 ppb	-0.015 ppb	0.073 ppb	13.564 ppb	0.000 ppb	0.077 ppb	0.018 ppb	-0.003 ppb	101.599 %
Concentration per Run 1	-0.040 ppb	-0.014 ppb	0.099 ppb	10.140 ppb	0.000 ppb	0.118 ppb	0.049 ppb	0.014 ppb	94.044 %
Concentration per Run 2	-0.042 ppb	-0.012 ppb	0.071 ppb	15.801 ppb	-0.002 ppb	0.072 ppb	-0.005 ppb	-0.014 ppb	103.296 %
Concentration per Run 3	-0.035 ppb	-0.019 ppb	0.048 ppb	14.751 ppb	0.003 ppb	0.041 ppb	0.009 ppb	-0.010 ppb	107.457 %
Recovery Percentage 1	-0.776 %	-1.513 %	7.251 %	27.128 %	0.048 %	3.854 %	1.783 %	-0.062 %	
Concentration RSD	8.9 %	24.9 %	35.0 %	22.2 %	1,019.3 %	50.2 %	154.4 %	484.1 %	6.8 %

Category	75As (KED AGD)	78Se (KED AGD)	88Sr (KED AGD)	95Mo (KED AGD)	103Rh (KED AGD)	107Ag (KED AGD)	111Cd (KED AGD)	115In (KED AGD)	121Sb (KED AGD)
Concentration average	-0.041 ppb	0.205 ppb	0.006 ppb	1.486 ppb	106.858 %	0.006 ppb	0.009 ppb	100.754 %	2.435 ppb
Concentration per Run 1	-0.025 ppb	0.214 ppb	0.005 ppb	1.222 ppb	101.632 %	0.007 ppb	0.014 ppb	94.487 %	2.371 ppb
Concentration per Run 2	-0.091 ppb	0.204 ppb	0.005 ppb	1.404 ppb	109.281 %	0.005 ppb	0.010 ppb	102.781 %	2.498 ppb
Concentration per Run 3	-0.008 ppb	0.196 ppb	0.008 ppb	1.831 ppb	109.661 %	0.005 ppb	0.003 ppb	104.995 %	2.437 ppb
Recovery Percentage 1	-8.290 %	4.098 %	0.060 %	74.280 %		1.474 %	4.533 %		60.885 %
Concentration RSD	105.7 %	4.5 %	32.8 %	21.0 %	4.2 %	19.7 %	64.7 %	5.5 %	2.6 %

Category	137Ba (KED AGD)	159Tb (KED AGD)	175Lu (KED AGD)	205Tl (KED AGD)	208Pb (KED AGD)
Concentration average	0.006 ppb	105.114 %	103.861 %	0.255 ppb	0.013 ppb
Concentration per Run 1	0.012 ppb	99.525 %	97.623 %	0.216 ppb	0.015 ppb
Concentration per Run 2	0.007 ppb	106.375 %	107.056 %	0.289 ppb	0.010 ppb
Concentration per Run 3	-0.001 ppb	109.441 %	106.902 %	0.261 ppb	0.013 ppb
Recovery Percentage 1	1.191 %			25.548 %	1.277 %
Concentration RSD	114.3 %	4.8 %	5.2 %	14.5 %	19.6 %

Interference Check Solutions
(ICP-MS)

Solution Component	Solution A Concentration (ug/L)	Solution AB Concentration (ug/L)
Al	20,000	20,000
Ca	60,000	60,000
Fe	50,000	50,000
Mg	20,000	20,000
Na	50,000	50,000
K	20,000	20,000
Mo	400	400
As	0.0	20
Cd	0.0	20
Cr	0.0	40
Co	0.0	40
Cu	0.0	40
Mn	0.0	40
Ni	0.0	40
Se	0.0	20
Ag	0.0	10
V	0.0	40
Zn	0.0	20

LCS & MS Concentrations
(ICP-MS)

Element	Liquid Concentration (mg/L)
Aluminum	2.00
Antimony	0.5
Arsenic	0.12
Barium	2.00
Beryllium	0.05
Cadmium	0.051
Calcium	10.0
Chromium	0.20
Cobalt	0.50
Copper	0.25
Iron	1.00
Lead	0.51
Magnesium	10.0
Manganese	0.50
Molybdenum	1.00
Nickel	0.50
Potassium	10.0
Selenium	0.12
Silver	0.05
Sodium	10.0
Thallium	0.12
Vanadium	0.50
Zinc	0.50

▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No. D102-540
Certificate Issue Date: June 22, 2018
Expiration Date: January 31, 2022
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #540 revision 030512.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	10100	8160	6.36	3960 - 12400	4080 - 12200
Antimony	120	60.9	9.42	0.822 - 121	12.0 - 166
Arsenic	144	135	5.08	112 - 158	94.6 - 176
Barium	469	443	6.77	366 - 521	332 - 554
Beryllium	207	197	5.86	164 - 229	148 - 246
Boron	213	174	12.6	127 - 221	105 - 244
Cadmium	224	204	6.65	169 - 240	153 - 256
Calcium	5190	4830	9.12	3950 - 5700	3510 - 6150
Chromium	138	132	8.56	109 - 155	92.2 - 171
Cobalt	182	179	7.93	151 - 207	134 - 224
Copper	191	184	6.72	155 - 213	138 - 230
Iron	15000	14400	10.7	8770 - 20000	5120 - 23600
Lead	225	216	7.72	178 - 254	159 - 274
Magnesium	2570	2340	6.13	1780 - 2900	1460 - 3230
Manganese	331	323	6.71	266 - 380	242 - 404
Mercury	16.8	13.2	16.0	8.64 - 17.7	7.89 - 18.5
Molybdenum	193	175	2.39	141 - 209	125 - 226
Nickel	163	152	5.95	126 - 178	106 - 197
Potassium	2420	2050	6.31	1440 - 2660	1210 - 2890
Selenium	81.9	74.9	4.13	59.3 - 90.5	47.0 - 103
Silver	57.6	53.9	9.00	43.0 - 64.8	37.8 - 70.0
Sodium	161	149	12.1	111 - 188	57.7 - 241
Strontium	100	96.2	4.04	78.1 - 114	69.0 - 123
Thallium	253	232	3.54	188 - 276	168 - 296

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Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Tin	146	134	10.8	106 - 163	79.5 - 189
Titanium	449	340	7.20	70.2 - 609	44.9 - 711
Uranium	114	113	7.10	85.5 - 140	71.9 - 153
Vanadium	180	172	8.85	137 - 207	126 - 218
Zinc	217	211	6.58	171 - 250	147 - 274

ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Aluminum	10100	8160	80.8	138	-	-
Antimony	120	60.9	50.8	135	-	-
Arsenic	144	135	93.8	184	-	-
Barium	469	443	94.5	158	-	-
Beryllium	207	197	95.0	148	-	-
Boron	213	174	81.8	107	-	-
Cadmium	224	204	91.3	199	-	-
Calcium	5190	4830	93.0	122	-	-
Chromium	138	132	95.5	172	-	-
Cobalt	182	179	98.4	140	-	-
Copper	191	184	96.3	183	-	-
Iron	15000	14400	95.6	133	-	-
Lead	225	216	96.2	204	-	-
Magnesium	2570	2340	91.2	122	-	-
Manganese	331	323	97.6	147	-	-
Mercury	16.8	13.2	78.3	128	-	-
Molybdenum	193	175	90.8	143	-	-
Nickel	163	152	93.1	185	-	-
Potassium	2420	2050	84.7	121	-	-
Selenium	81.9	74.9	91.5	163	-	-

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▪ Certificate of Analysis ▪

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Silver	57.6	53.9	93.6	150	-	-
Sodium	161	149	92.8	105	-	-
Strontium	100	96.2	96.2	90	-	-
Thallium	253	232	91.6	147	-	-
Tin	146	134	92.0	100	-	-
Titanium	449	340	75.6	93	-	-
Uranium	114	113	98.8	35	-	-
Vanadium	180	172	95.4	139	-	-
Zinc	217	211	97.0	180	-	-

1. The **Certified Values** are the actual "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor. The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product.

3. The **QC Performance Acceptance Limits (QC PALs™)**are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this QC standard alongside USEPA and NELAC compliant PT standards. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and, therefore, the acceptance limits of this QC standard and any PT standard may differ relative to their difference in concentrations.

5. The **PT Data/Traceability** data include the mean value, percent recovery and number of data points reported by the laboratories in our Proficiency Testing study compared to the Certified Values. In addition, where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. This product is traceable to the lot numbers of its starting materials. All gravimetric and volumetric measurements related to its manufacture are traceable to NIST through an unbroken chain of comparisons.
Traceability Recovery (%) = [(% recovery certified standard)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

6. For additional information on this product such as intended use, instructions for use, level of homogeneity, and safety information, please refer to the provided Instruction Sheet

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller



Quality Officer

Matthew Seebeck



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Reference Material

▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No. D105-540
Certificate Issue Date: March 19, 2019
Expiration Date: October 12, 2022
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #540 revision 030512.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	10100	8800	8.32	4600 - 13000	4470 - 13100
Antimony	282	147	7.70	6.17 - 289	28.2 - 366
Arsenic	155	143	6.34	119 - 168	100 - 186
Barium	439	415	5.37	343 - 488	311 - 519
Beryllium	192	179	2.78	149 - 210	134 - 224
Boron	216	160	7.08	113 - 208	96.1 - 238
Cadmium	61.5	56.2	0.528	46.6 - 65.9	42.2 - 70.3
Calcium	5190	4960	6.64	4090 - 5840	3610 - 6310
Chromium	104	101	4.75	83.2 - 118	70.5 - 131
Cobalt	196	189	0.500	158 - 219	141 - 236
Copper	65.0	63.1	2.65	53.1 - 73.1	47.3 - 78.9
Iron	15000	15700	8.94	10100 - 21300	6000 - 25400
Lead	126	125	4.77	103 - 146	89.3 - 160
Magnesium	2570	2410	6.26	1860 - 2970	1520 - 3310
Manganese	387	382	5.37	315 - 449	290 - 474
Mercury	7.76	7.61	13.7	5.53 - 9.69	4.57 - 10.7
Molybdenum	120	107	0.500	86.0 - 128	75.5 - 139
Nickel	117	108	0.514	89.5 - 127	75.7 - 141
Potassium	2420	2110	5.62	1500 - 2720	1260 - 2960
Selenium	84.6	77.9	7.10	61.8 - 94.0	49.2 - 107
Silver	34.6	34.3	8.34	27.8 - 40.9	23.6 - 45.1
Sodium	161	145	6.72	106 - 183	54.3 - 235
Strontium	104	104	3.95	85.1 - 123	74.8 - 133
Thallium	123	113	0.500	91.3 - 134	77.1 - 149

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Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Tin	118	107	0.500	83.5 - 130	61.2 - 152
Titanium	512	421	5.80	114 - 728	0.00 - 854
Uranium	103	104	6.18	79.1 - 128	71.9 - 135
Vanadium	87.3	83.7	8.55	66.8 - 101	54.2 - 113
Zinc	251	240	3.98	194 - 285	168 - 312

ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Aluminum	10100	8800	87.1	193	-	-
Antimony	282	147	52.3	216	-	-
Arsenic	155	143	92.5	240	-	-
Barium	439	415	94.6	222	-	-
Beryllium	192	179	93.4	220	-	-
Boron	216	160	74.2	152	-	-
Cadmium	61.5	56.2	91.5	239	-	-
Calcium	5190	4960	95.6	175	-	-
Chromium	104	101	96.8	237	-	-
Cobalt	196	189	96.2	215	-	-
Copper	65.0	63.1	97.1	237	-	-
Iron	15000	15700	105	195	-	-
Lead	126	125	99.0	243	-	-
Magnesium	2570	2410	93.9	177	-	-
Manganese	387	382	98.7	215	-	-
Mercury	7.76	7.61	98.0	157	-	-
Molybdenum	120	107	89.4	216	-	-
Nickel	117	108	92.5	235	-	-
Potassium	2420	2110	87.2	181	-	-
Selenium	84.6	77.9	92.1	231	-	-

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Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Silver	34.6	34.3	99.3	216	-	-
Sodium	161	145	89.8	166	-	-
Strontium	104	104	99.9	148	-	-
Thallium	123	113	91.8	215	-	-
Tin	118	107	90.4	164	-	-
Titanium	512	421	82.2	157	-	-
Uranium	103	104	101	61	-	-
Vanadium	87.3	83.7	95.9	214	-	-
Zinc	251	240	95.5	234	-	-

1. The **Certified Values** are the actual "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this reference material during the period of validity of this certificate.

2. The **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor. The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product.

3. The **QC Performance Acceptance Limits (QC PALs™)**are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this QC standard alongside USEPA and NELAC compliant PT standards. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and, therefore, the acceptance limits of this QC standard and any PT standard may differ relative to their difference in concentrations.

5. The **PT Data/Traceability** data include the mean value, percent recovery and number of data points reported by the laboratories in our Proficiency Testing study compared to the Certified Values. In addition, where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. This product is traceable to the lot numbers of its starting materials. All gravimetric and volumetric measurements related to its manufacture are traceable to NIST through an unbroken chain of comparisons.
Traceability Recovery (%) = [(% recovery certified standard)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

6. For additional information on this product such as intended use, instructions for use, level of homogeneity, and safety information, please refer to the provided Instruction Sheet

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller

Brian Miller

Quality Officer

Matthew Seebeck

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ T: 800.372.0122 ▪ 303.431.8454 ▪ www.eraqc.com

ERA
A Waters Company

Certified Reference Material

▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No. D109-540
Certificate Issue Date: March 24, 2020
Expiration Date: October 03, 2023
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #540 revision 090119.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value[7]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	10100	8130	2.54	3920 - 12300	4060 - 12200
Antimony	259	134	5.03	4.56 - 264	25.9 - 335
Arsenic	171	156	3.38	129 - 183	109 - 203
Barium	253	239	4.81	197 - 280	179 - 298
Beryllium	179	169	6.59	141 - 198	127 - 212
Boron	114	87.5	10.3	62.5 - 113	52.5 - 125
Cadmium	149	137	5.43	113 - 160	103 - 171
Calcium	5190	4760	3.48	3890 - 5640	3460 - 6070
Chromium	163	154	3.79	126 - 181	108 - 200
Cobalt	127	121	5.07	101 - 141	90.8 - 151
Copper	57.0	54.9	4.13	46.1 - 63.6	41.1 - 68.6
Iron	15000	14100	6.27	8470 - 19700	4920 - 23200
Lead	133	130	3.00	107 - 152	93.3 - 167
Magnesium	2570	2320	3.32	1760 - 2880	1440 - 3200
Manganese	277	269	2.67	221 - 317	199 - 340
Mercury	21.6	20.5	7.72	14.7 - 26.3	12.3 - 28.6
Molybdenum	108	95.4	2.61	76.4 - 114	66.9 - 124
Nickel	58.7	53.9	4.97	44.5 - 63.3	37.7 - 70.0
Potassium	2420	2020	3.06	1410 - 2630	1190 - 2850
Selenium	181	167	5.63	132 - 201	113 - 221
Silver	35.5	33.6	5.20	26.8 - 40.3	23.0 - 44.1
Sodium	161	133	2.76	95.1 - 171	46.5 - 220
Strontium	89.7	87.9	4.59	71.7 - 104	62.8 - 113
Thallium	121	112	5.19	90.3 - 133	76.1 - 147

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Parameter	Certified Value[1]	Reference Value[7]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Tin	83.5	74.0	5.42	57.6 - 90.4	39.7 - 108
Titanium	474	333	7.17	48.6 - 617	46.3 - 620
Uranium	51.9	51.9	3.36	39.6 - 64.3	35.9 - 68.0
Vanadium	68.1	62.6	6.00	49.4 - 75.8	37.0 - 88.3
Zinc	165	158	2.34	128 - 188	111 - 205

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ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number[6]	Recovery
	mg/kg	mg/kg	%			%
Aluminum	10100	8130	80.5	196	-	-
Antimony	259	134	51.8	217	-	-
Arsenic	171	156	91.3	243	-	-
Barium	253	239	94.3	230	-	-
Beryllium	179	169	94.6	223	-	-
Boron	114	87.5	76.7	150	-	-
Cadmium	149	137	91.8	249	-	-
Calcium	5190	4760	91.8	184	-	-
Chromium	163	154	94.4	245	-	-
Cobalt	127	121	95.3	221	-	-
Copper	57.0	54.9	96.2	243	-	-
Iron	15000	14100	93.9	199	-	-
Lead	133	130	97.7	251	-	-
Magnesium	2570	2320	90.1	182	-	-
Manganese	277	269	97.2	220	-	-
Mercury	21.6	20.5	94.7	172	-	-
Molybdenum	108	95.4	88.3	218	-	-
Nickel	58.7	53.9	91.8	242	-	-
Potassium	2420	2020	83.5	187	-	-
Selenium	181	167	92.2	235	-	-
Silver	35.5	33.6	94.5	222	-	-
Sodium	161	133	82.7	177	-	-
Strontium	89.7	87.9	98.0	151	-	-
Thallium	121	112	92.2	219	-	-
Tin	83.5	74.0	88.6	170	-	-
Titanium	474	333	70.3	157	-	-
Uranium	51.9	51.9	100	60	-	-
Vanadium	68.1	62.6	91.9	213	-	-
Zinc	165	158	95.8	238	-	-

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▪ Certificate of Analysis ▪

1. The **Certified Values** are the actual gravimetric/volumetric "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** represents an expanded uncertainty and approximates a 95% confidence interval. The uncertainty is based on the characterization, homogeneity and stability characteristics of the product, multiplied by a coverage factor (k=2). The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product. The formula used to calculate the expanded uncertainty is:
$U_{expanded} = k * SQRT((U_{char}^2) + (U_{homogen}^2) + (U_{LTS}^2) + (U_{STS}^2) + (U_{RSS}^2))$

Where:

$U_{expanded}$ = Expanded uncertainty.
k = Coverage factor.
U_{char} = Combined standard uncertainty of the manufacturing and/or analytical verification assessment.
$U_{homogen}$ = Standard uncertainty of the homogeneity assessment.
U_{LTS} = Standard uncertainty associated with long-term stability.
U_{STS} = Standard uncertainty associated with short-term (transport) stability.
U_{RSS} = Standard uncertainty associated with repeated sampling of the product (where permitted by product use instructions).

3. The **QC Performance Acceptance Limits (QC PALs™)** are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this certified reference material alongside USEPA and NELAC compliant PT study materials. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and therefore, the acceptance limits of this certified reference material and any PT study material may differ relative to their difference in concentrations.

5. The **PT Performance Data** include the mean value, percent recovery and number of data points reported by laboratories in our Proficiency Testing study compared to the Certified Values. In the event this lot was not used in a proficiency testing scheme, the data displayed was generated internally by ERA.

6. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. **Analytical Traceability Recovery (%)** = [(% recovery ERA certified reference material)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing this ERA certified reference material and/or it's associated stock solution(s) against the applicable NIST SRMs.

7. The **Reference Values** are equal to the mean recoveries for the parameters as determined in an interlaboratory round robin study. The **Reference Values** represent the expected performance for the analytes in this standard. ERA recommends using the **Reference Values** when assessing or evaluating your results.

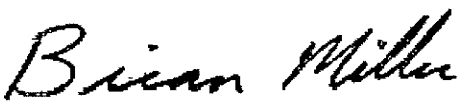
8. **Metrological Traceability**. This certified reference material is metrologically traceable to NIST mass reference materials through an unbroken chain of comparisons.

9. For additional information on this product such as intended use, storage information, instructions for use, minimum sample size, and safety information, please refer to the Product Use Instructions provided.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller



Quality Officer

Matthew Seebeck



ERA
A Waters Company

Certified Reference Material

▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No. D113-540
Certificate Issue Date: March 23, 2021
Expiration Date: October 13, 2024
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #540 revision 090119.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	10100	8630	12.0	4420 - 12800	4370 - 12900
Antimony	256	129	16.8	0.742 - 257	25.6 - 323
Arsenic	91.6	84.5	15.1	70.0 - 99.0	59.2 - 110
Barium	259	249	9.94	206 - 292	187 - 311
Beryllium	175	163	3.89	135 - 191	122 - 204
Boron	95.7	76.7	12.8	55.7 - 97.7	48.0 - 107
Cadmium	107	99.0	11.5	82.2 - 116	74.2 - 124
Calcium	5190	4760	11.8	3890 - 5640	3460 - 6070
Chromium	129	122	14.6	101 - 144	85.7 - 159
Cobalt	63.6	61.7	11.5	51.9 - 71.6	46.3 - 77.2
Copper	62.3	61.5	12.3	51.9 - 71.0	46.1 - 76.8
Iron	15000	14500	15.7	8860 - 20100	5190 - 23800
Lead	122	123	13.9	103 - 144	88.3 - 158
Lithium	6.42	7.30	18.7	5.13 - 9.48	3.20 - 11.4
Magnesium	2570	2360	8.87	1810 - 2920	1480 - 3250
Manganese	470	456	13.4	375 - 538	350 - 563
Mercury	22.1	18.9	14.5	13.0 - 24.8	11.3 - 26.4
Molybdenum	80.1	72.8	11.0	58.7 - 87.0	50.5 - 95.2
Nickel	143	135	14.2	112 - 158	94.7 - 176
Potassium	2420	2090	8.21	1480 - 2700	1240 - 2940
Selenium	128	121	11.7	96.9 - 146	80.4 - 162
Silver	45.4	44.1	6.69	35.5 - 52.8	30.7 - 57.6
Sodium	161	136	9.34	97.4 - 174	48.1 - 223
Strontium	82.2	82.3	8.42	67.4 - 97.1	58.6 - 106

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Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Thallium	154	144	7.54	117 - 171	101 - 187
Tin	89.7	79.8	14.0	62.2 - 97.4	43.5 - 116
Titanium	705	546	10.3	123 - 969	118 - 974
Uranium	29.5	30.9	3.38	23.9 - 37.9	21.3 - 40.5
Vanadium	196	186	14.2	148 - 224	138 - 235
Zinc	307	295	10.4	240 - 351	207 - 384

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Calculation of Method 6020 Metals

Aqueous Samples

The instrument will calculate the concentration (µg/L). This value is divided by 1000 to convert the units to mg/L. If the sample is diluted (DF), the result is multiplied by the DF to generate the final result.

$$\text{Result, mg/L} = C_s \times (1\text{mg}/1000\mu\text{g}) \times (DF)$$

Where:

C_s = Concentration of sample (µg/L)

DF = Dilution Factor

Alpha ICPMSQ2 Seq

8/29/2024 6:30:24 AM

Sample List Summary:

Instrument ID: iCAP Q

Index:	Label:	Rack	Vial	Main Runs:	Survey Runs:	Start Time:
1	Rinse	0	1	3	1	8/28/2024 4:48:40 AM
2	CAL LOT #M23-1225	0	1	3	1	8/28/2024 4:53:06 AM
3	Blank EJF ICPMSQ2	4	49	3	1	8/28/2024 4:57:32 AM
4	0.2/20 Cal	0	2	3	1	8/28/2024 5:02:04 AM
5	1/100 Cal	0	3	3	1	8/28/2024 5:06:31 AM
6	10/1000 Cal	0	4	3	1	8/28/2024 5:10:59 AM
7	60/6000 Cal	0	5	3	1	8/28/2024 5:15:27 AM
8	120/12000 Cal	0	6	3	1	8/28/2024 5:19:56 AM
9	Sr 200ppb	4	55	3	1	8/28/2024 5:25:45 AM
10	ICV	0	7	3	1	8/28/2024 5:30:16 AM
11	ICB	0	10	3	1	8/28/2024 5:34:46 AM
12	ICSA	4	53	3	1	8/28/2024 5:43:07 AM
13	LDR	4	1	3	1	8/28/2024 5:47:37 AM
14	Rinse	0	1	3	1	8/28/2024 5:52:08 AM
15	CCV	0	9	3	1	8/28/2024 5:56:34 AM
16	CCB	0	10	3	1	8/28/2024 6:01:05 AM
17	CCB	0	10	3	1	8/28/2024 6:14:34 AM
18	wg1964225-1 2008SL	1	1	3	1	8/28/2024 6:53:52 AM
19	wg1964225-2d10 2008SL	1	2	3	1	8/28/2024 6:58:20 AM
20	L2448513-01 2008SL	1	3	3	1	8/28/2024 7:02:47 AM
21	wg1964225-3d10 2008SL	1	4	3	1	8/28/2024 7:07:15 AM
22	wg1964225-4 2008SL	1	5	3	1	8/28/2024 7:11:42 AM
23	L2448514-01 2008SL	1	6	3	1	8/28/2024 7:16:10 AM
24	wg1964225-5d10 2008SL	1	7	3	1	8/28/2024 7:20:39 AM
25	wg1964225-6 2008SL	1	8	3	1	8/28/2024 7:25:07 AM
26	L2448513-02 2008SL	1	9	3	1	8/28/2024 7:29:36 AM
27	L2448513-03 2008SL	1	10	3	1	8/28/2024 7:34:06 AM
28	xCCV	0	9	3	1	8/28/2024 7:38:36 AM
29	xCCB	0	10	3	1	8/28/2024 7:43:07 AM
30	CCV	0	9	3	1	8/28/2024 7:48:23 AM
31	CCB	0	10	3	1	8/28/2024 7:52:55 AM
32	L2448513-04 2008SL	1	11	3	1	8/28/2024 7:58:42 AM
33	L2448513-05 2008SL	1	12	3	1	8/28/2024 8:03:12 AM
34	L2448513-06 2008SL	1	13	3	1	8/28/2024 8:07:43 AM
35	L2448513-10 2008SL	1	14	3	1	8/28/2024 8:12:09 AM
36	L2448513-11 2008SL	1	15	3	1	8/28/2024 8:16:35 AM
37	L2448513-12 2008SL	1	16	3	1	8/28/2024 8:21:02 AM
38	L2448513-13 2008SL	1	17	3	1	8/28/2024 8:25:29 AM
39	L2448514-02 2008SL	1	18	3	1	8/28/2024 8:29:57 AM
40	L2448514-03 2008SL	1	19	3	1	8/28/2024 8:34:24 AM
41	L2448514-04 2008SL	1	20	3	1	8/28/2024 8:38:53 AM
42	CCV	0	9	3	1	8/28/2024 8:43:21 AM
43	CCB	0	10	3	1	8/28/2024 8:47:53 AM
44	L2448514-13 2008SL	1	26	3	1	8/28/2024 8:57:16 AM
45	L2448514-05 2008SL	1	21	3	1	8/28/2024 9:01:42 AM
46	L2448514-06 2008SL	1	22	3	1	8/28/2024 9:06:11 AM
47	L2448514-10 2008SL	1	23	3	1	8/28/2024 9:10:40 AM
48	L2448514-11 2008SL	1	24	3	1	8/28/2024 9:15:09 AM
49	L2448514-12 2008SL	1	25	3	1	8/28/2024 9:19:39 AM
50	CCV	0	9	3	1	8/28/2024 9:24:05 AM
51	CCB	0	10	3	1	8/28/2024 9:28:37 AM

Alpha ICPMSQ2 Seq

8/29/2024 6:30:24 AM

Index:	Label:	Rack	Vial	Main Runs:	Survey Runs:	Start Time:
52	wg1964363-1 6020TL	1	27	3	1	8/28/2024 9:41:36 AM
53	wg1964363-2d10 6020TL	1	28	3	1	8/28/2024 9:46:03 AM
54	L2448039-05 6020TL	1	29	3	1	8/28/2024 9:50:30 AM
55	wg1964363-3d10 6020TL	1	30	3	1	8/28/2024 9:54:58 AM
56	wg1964363-4d10 6020TL	1	31	3	1	8/28/2024 9:59:26 AM
57	wg1964363-5d10 6020TL	1	32	3	1	8/28/2024 10:03:54 AM
58	wg1964363-6d5 6020TL	1	33	3	1	8/28/2024 10:08:22 AM
59	L2447701-02 6020TL	1	34	3	1	8/28/2024 10:12:51 AM
60	L2447701-03 6020TL	1	35	3	1	8/28/2024 10:17:20 AM
61	L2447716-01 6020TL	1	36	3	1	8/28/2024 10:21:49 AM
62	CCV	0	9	3	1	8/28/2024 10:26:18 AM
63	CCB	0	10	3	1	8/28/2024 10:30:50 AM
64	L2447716-04 6020TL	1	39	3	1	8/28/2024 10:36:32 AM
65	L2447815-05 6020TL	1	40	3	1	8/28/2024 10:40:59 AM
66	L2447872-05 6020TL	1	45	3	1	8/28/2024 10:45:26 AM
67	L2447716-02 6020TL	1	37	3	1	8/28/2024 10:49:55 AM
68	L2447716-03 6020TL	1	38	3	1	8/28/2024 10:54:22 AM
69	L2447872-01 6020TL	1	41	3	1	8/28/2024 10:58:49 AM
70	L2447872-02 6020TL	1	42	3	1	8/28/2024 11:03:17 AM
71	L2447872-03 6020TL	1	43	3	1	8/28/2024 11:07:44 AM
72	L2447872-04 6020TL	1	44	3	1	8/28/2024 11:12:13 AM
73	L2448354-01 6020TL	1	46	3	1	8/28/2024 11:16:41 AM
74	CCV	0	9	3	1	8/28/2024 11:21:10 AM
75	CCB	0	10	3	1	8/28/2024 11:25:41 AM
76	wg1964182-1 6020TL	1	47	3	1	8/28/2024 11:31:43 AM
77	wg1964182-2d10 6020TL	1	48	3	1	8/28/2024 11:36:13 AM
78	L2447798-01 6020TL	1	49	3	1	8/28/2024 11:40:43 AM
79	wg1964182-3d10 6020TL	1	50	3	1	8/28/2024 11:45:10 AM
80	wg1964182-4 6020TL	1	51	3	1	8/28/2024 11:49:37 AM
81	wg1964182-5d10 6020TL	1	52	3	1	8/28/2024 11:54:04 AM
82	wg1964182-6d5 6020TL	1	53	3	1	8/28/2024 11:58:32 AM
83	L2447798-01d10 6020TL	2	5	3	1	8/28/2024 12:03:00 PM
84	wg1964182-4d10 6020TL	2	6	3	1	8/28/2024 12:07:28 PM
85	wg1964182-6d50 6020TL	2	7	3	1	8/28/2024 12:11:56 PM
86	CCV	0	9	3	1	8/28/2024 12:16:24 PM
87	CCB	0	10	3	1	8/28/2024 12:20:56 PM
88	L2447798-03 6020TL	1	54	3	1	8/28/2024 12:26:38 PM
89	wg1964418-2d10 6020SL	2	9	3	1	8/28/2024 12:35:06 PM
90	L2447890-03 6020SL	2	10	3	1	8/28/2024 12:39:35 PM
91	wg1964418-3d10 6020SL	2	11	3	1	8/28/2024 12:44:04 PM
92	wg1964418-4d10 6020SL	2	12	3	1	8/28/2024 12:48:34 PM
93	wg1964418-5d10 6020SL	2	13	3	1	8/28/2024 12:53:03 PM
94	wg1964418-6d5 6020SL	2	14	3	1	8/28/2024 12:57:31 PM
95	L2447813-01 6020SL	2	17	3	1	8/28/2024 1:01:59 PM
96	L2447813-02 6020SL	2	18	3	1	8/28/2024 1:06:28 PM
97	L2447813-03 6020SL	2	19	3	1	8/28/2024 1:10:56 PM
98	CCV	0	9	3	1	8/28/2024 1:15:25 PM
99	CCB	0	10	3	1	8/28/2024 1:19:57 PM
100	CCB	0	10	3	1	8/28/2024 1:26:52 PM
101	wg1964418-1 6020SL	2	8	3	1	8/28/2024 1:31:56 PM
102	wg1964756-1 2008TL	2	34	3	1	8/28/2024 1:36:24 PM
103	wg1964756-2d10 2008TL	2	35	3	1	8/28/2024 1:40:54 PM
104	L2447813-04 6020SL	2	20	3	1	8/28/2024 1:45:24 PM
105	L2447813-05 6020SL	2	21	3	1	8/28/2024 1:49:52 PM
106	I2447965-01 2008TL	2	36	3	1	8/28/2024 1:54:22 PM
107	wg1964756-3d10 2008TL	2	37	3	1	8/28/2024 1:58:52 PM

Alpha ICPMSQ2 Seq

8/29/2024 6:30:24 AM

Index:	Label:	Rack	Vial	Main Runs:	Survey Runs:	Start Time:
108	wg1964756-4 2008TL	2	38	3	1	8/28/2024 2:03:21 PM
109	l2448899-01 2008TL	2	39	3	1	8/28/2024 2:07:50 PM
110	l2448899-02 2008TL	2	40	3	1	8/28/2024 2:12:19 PM
111	CCV	0	9	3	1	8/28/2024 2:18:06 PM
112	CCB	0	10	3	1	8/28/2024 2:23:40 PM
113	CCV	0	9	3	1	8/28/2024 2:29:41 PM
114	CCB	0	10	3	1	8/28/2024 2:36:27 PM
115	WG1955694-1d5 A2-SEM	2	41	3	1	8/28/2024 2:44:32 PM
116	WG1955694-2d10 A2-SEM	2	42	3	1	8/28/2024 2:49:02 PM
117	L2443048-13d5 A2-SEM	2	43	3	1	8/28/2024 2:53:31 PM
118	WG1955694-3d10 A2-SEM	2	44	3	1	8/28/2024 2:58:00 PM
119	WG1955694-4d5 A2-SEM	2	45	3	1	8/28/2024 3:02:29 PM
120	L2443048-10d5 A2-SEM	2	46	3	1	8/28/2024 3:06:58 PM
121	L2443048-11d5 A2-SEM	2	47	3	1	8/28/2024 3:11:28 PM
122	L2443048-12d5 A2-SEM	2	48	3	1	8/28/2024 3:15:58 PM
123	L2443048-14d5 A2-SEM	2	49	3	1	8/28/2024 3:20:28 PM
124	L2443048-15d5 A2-SEM	2	50	3	1	8/28/2024 3:24:57 PM
125	CCV	0	9	3	1	8/28/2024 3:29:27 PM
126	CCB	0	10	3	1	8/28/2024 3:33:59 PM
127	CCV	0	9	3	1	8/28/2024 3:40:10 PM
128	CCB	0	10	3	1	8/28/2024 3:46:17 PM
129	L2443048-16d5 A2-SEM	2	51	3	1	8/28/2024 3:51:21 PM
130	L2443048-17d5 A2-SEM	2	52	3	1	8/28/2024 3:55:49 PM
131	L2443048-18d5 A2-SEM	2	53	3	1	8/28/2024 4:00:19 PM
132	L2443048-19d5 A2-SEM	2	54	3	1	8/28/2024 4:04:48 PM
133	L2443048-10d50 A2-SEM	2	55	3	1	8/28/2024 4:22:57 PM
134	CCV	0	9	3	1	8/28/2024 4:34:53 PM
135	CCB	0	10	3	1	8/28/2024 4:39:24 PM
136	CCV	0	9	3	1	8/28/2024 4:44:44 PM
137	CCB	0	10	3	1	8/28/2024 4:49:15 PM
138	L2447714-01d5 6020SL	2	15	3	1	8/28/2024 4:58:19 PM
139	L2447714-02 6020SL	2	16	3	1	8/28/2024 5:02:47 PM
140	L2447890-01 6020SL	2	22	3	1	8/28/2024 5:07:16 PM
141	L2447890-02 6020SL	2	23	3	1	8/28/2024 5:11:46 PM
142	L2447890-04 6020SL	2	24	3	1	8/28/2024 5:16:16 PM
143	L2447890-05 6020SL	2	25	3	1	8/28/2024 5:20:46 PM
144	L2447890-06 6020SL	2	26	3	1	8/28/2024 5:31:19 PM
145	L2447890-07 6020SL	2	27	3	1	8/28/2024 5:35:47 PM
146	L2447890-08 6020SL	2	28	3	1	8/28/2024 5:40:16 PM
147	L2447890-09 6020SL	2	29	3	1	8/28/2024 5:44:45 PM
148	CCV	0	9	3	1	8/28/2024 5:49:15 PM
149	CCB	0	10	3	1	8/28/2024 5:53:47 PM
150	L2447890-13 6020SL	2	33	3	1	8/28/2024 5:59:03 PM
151	zL2447890-06d2 6020SL	2	56	3	1	8/28/2024 6:03:32 PM
152	L2447890-10 6020SL	2	30	3	1	8/28/2024 6:08:02 PM
153	L2447890-11 6020SL	2	31	3	1	8/28/2024 6:12:31 PM
154	L2447890-12 6020SL	2	32	3	1	8/28/2024 6:17:00 PM
155	L2447890-06 6020SL	2	26	3	1	8/28/2024 6:22:23 PM
156	L2444134-01 6020TL	2	57	3	1	8/28/2024 6:31:45 PM
157	L2444134-02 6020TL	2	58	3	1	8/28/2024 6:36:14 PM
158	L2444134-03 6020TL	2	59	3	1	8/28/2024 6:40:44 PM
159	L2447709-01 6020TL	2	60	3	1	8/28/2024 6:45:15 PM
160	CCV	0	9	3	1	8/28/2024 6:49:45 PM
161	CCB	0	10	3	1	8/28/2024 6:54:17 PM
162	CCV	0	9	3	1	8/28/2024 7:03:25 PM
163	CCB	0	10	3	1	8/28/2024 7:11:04 PM

Alpha ICPMSQ2 Seq

8/29/2024 6:30:24 AM

Index:	Label:	Rack	Vial	Main Runs:	Survey Runs:	Start Time:
164	WG1964371-1d2 A2-6020T	3	8	3	1	8/28/2024 7:16:52 PM
165	WG1964371-2d10 A2-6020T	3	9	3	1	8/28/2024 7:21:23 PM
166	WG1964371-3d10 A2-6020T	3	10	3	1	8/28/2024 7:25:53 PM
167	xL2444134-03d10 6020TL	3	7	3	1	8/28/2024 7:30:24 PM
168	L2447709-02 6020TL	3	1	3	1	8/28/2024 7:34:54 PM
169	L2447714-01d10 6020TL	3	2	3	1	8/28/2024 7:39:24 PM
170	L2447714-02 6020TL	3	3	3	1	8/28/2024 7:43:55 PM
171	L2447844-01d20 6020TL	3	4	3	1	8/28/2024 7:48:25 PM
172	L2447844-02d20 6020TL	3	5	3	1	8/28/2024 7:52:56 PM
173	L2447844-03d20 6020TL	3	6	3	1	8/28/2024 7:57:26 PM
174	CCV	0	9	3	1	8/28/2024 8:01:56 PM
175	CCB	0	10	3	1	8/28/2024 8:06:29 PM
176	wg1964440-1 6020TL	3	12	3	1	8/28/2024 8:11:02 PM
177	wg1964440-2d10 6020TL	3	13	3	1	8/28/2024 8:15:33 PM
178	L2447890-03 6020TL	3	14	3	1	8/28/2024 8:20:04 PM
179	wg1964440-3d10 6020TL	3	15	3	1	8/28/2024 8:24:34 PM
180	wg1964440-4d10 6020TL	3	16	3	1	8/28/2024 8:29:05 PM
181	wg1964440-5d10 6020TL	3	17	3	1	8/28/2024 8:33:36 PM
182	wg1964440-6d5 6020TL	3	18	3	1	8/28/2024 8:38:07 PM
183	l2446178-02d2 A2-6020T	3	11	3	1	8/28/2024 8:42:38 PM
184	L2447890-01 6020TL	3	23	3	1	8/28/2024 8:47:08 PM
185	L2447890-02 6020TL	3	24	3	1	8/28/2024 8:51:39 PM
186	CCV	0	9	3	1	8/28/2024 8:56:10 PM
187	CCB	0	10	3	1	8/28/2024 9:00:43 PM
188	L2447890-13 6020TL	3	34	3	1	8/28/2024 9:05:16 PM
189	L2447890-04 6020TL	3	25	3	1	8/28/2024 9:09:47 PM
190	L2447890-05 6020TL	3	26	3	1	8/28/2024 9:14:18 PM
191	L2447890-06 6020TL	3	27	3	1	8/28/2024 9:18:49 PM
192	L2447890-07 6020TL	3	28	3	1	8/28/2024 9:23:20 PM
193	L2447890-08 6020TL	3	29	3	1	8/28/2024 9:27:51 PM
194	L2447890-09 6020TL	3	30	3	1	8/28/2024 9:32:22 PM
195	L2447890-10 6020TL	3	31	3	1	8/28/2024 9:36:54 PM
196	L2447890-11 6020TL	3	32	3	1	8/28/2024 9:41:25 PM
197	L2447890-12 6020TL	3	33	3	1	8/28/2024 9:45:56 PM
198	CCV	0	9	3	1	8/28/2024 9:50:27 PM
199	CCB	0	10	3	1	8/28/2024 9:55:00 PM
200	L2447890-14 6020TL	3	35	3	1	8/28/2024 9:59:33 PM
201	L2448012-01 6020TL	3	36	3	1	8/28/2024 10:04:04 PM
202	L2448012-02 6020TL	3	37	3	1	8/28/2024 10:08:35 PM
203	CCV	0	9	3	1	8/28/2024 10:13:07 PM
204	CCB	0	10	3	1	8/28/2024 10:17:39 PM
205	L2447852-08d10 6020TL	3	19	3	1	8/28/2024 10:22:13 PM
206	L2447852-10d10 6020TL	3	20	3	1	8/28/2024 10:26:44 PM
207	L2447852-15d10 6020TL	3	21	3	1	8/28/2024 10:31:15 PM
208	L2447852-18d10 6020TL	3	22	3	1	8/28/2024 10:35:46 PM
209	CCV	0	9	3	1	8/28/2024 10:40:17 PM
210	CCB	0	10	3	1	8/28/2024 10:44:50 PM
211	CCV	0	9	3	1	8/28/2024 10:49:23 PM
212	CCB	0	10	3	1	8/28/2024 10:53:56 PM

Alpha ICPMSQ Seq

8/29/2024 3:56:02 PM

Sample List Summary:

Instrument ID: iCAP Q

Index:	Label:	Rack	Vial	Main Runs:	Survey Runs:	Start Time:
1	Rinse	0	1	3	1	8/29/2024 4:49:34 AM
2	CAL LOT #M24-1045	0	1	3	1	8/29/2024 4:54:11 AM
3	Blank EJF ICPMSQ	4	49	3	1	8/29/2024 4:58:48 AM
4	0.2/20 Cal	0	2	3	1	8/29/2024 5:03:30 AM
5	1/100 Cal	0	3	3	1	8/29/2024 5:08:08 AM
6	10/1000 Cal	0	4	3	1	8/29/2024 5:12:46 AM
7	60/6000 Cal	0	5	3	1	8/29/2024 5:17:25 AM
8	120/12000 Cal	0	6	3	1	8/29/2024 5:22:03 AM
9	Sr 200ppb	4	55	3	1	8/29/2024 5:27:17 AM
10	ICV	0	7	3	1	8/29/2024 5:31:59 AM
11	ICB	0	10	3	1	8/29/2024 5:36:40 AM
12	ICB	0	10	3	1	8/29/2024 5:42:11 AM
13	ICSA	4	53	3	1	8/29/2024 5:48:10 AM
14	LDR Check	4	1	3	1	8/29/2024 5:52:52 AM
15	Rinse	0	1	3	1	8/29/2024 5:57:33 AM
16	CCV	0	9	3	1	8/29/2024 6:02:10 AM
17	CCB	0	10	3	1	8/29/2024 6:06:52 AM
18	CCB	0	10	3	1	8/29/2024 6:14:16 AM
19	L2448676-13 2008SL	1	4	3	1	8/29/2024 6:23:55 AM
20	L2448676-10 2008SL	1	1	3	1	8/29/2024 6:28:33 AM
21	L2448676-11 2008SL	1	2	3	1	8/29/2024 6:33:11 AM
22	L2448676-12 2008SL	1	3	3	1	8/29/2024 6:37:49 AM
23	L2444134-03d10 6020TL	1	5	3	1	8/29/2024 6:42:27 AM
24	L2447844-01d20 6020TL	1	6	3	1	8/29/2024 6:47:05 AM
25	L2447844-02d20 6020TL	1	7	3	1	8/29/2024 6:51:44 AM
26	L2447844-03d40 6020TL	1	8	3	1	8/29/2024 6:56:23 AM
27	L2447844-01d40 6020TL	1	9	3	1	8/29/2024 7:15:39 AM
28	L2447844-02d40 6020TL	1	10	3	1	8/29/2024 7:20:19 AM
29	CCV	0	9	3	1	8/29/2024 7:25:00 AM
30	CCB	0	10	3	1	8/29/2024 7:29:42 AM
31	wg1965047-1 2008TL	1	11	3	1	8/29/2024 7:35:47 AM
32	xwg1965047-2d10 2008TL	1	12	3	1	8/29/2024 7:40:28 AM
33	L2448672-03 2008TL	1	13	3	1	8/29/2024 7:45:08 AM
34	wg1965047-3d10 2008TL	1	14	3	1	8/29/2024 7:49:45 AM
35	wg1965047-4d10 2008TL	1	15	3	1	8/29/2024 7:54:22 AM
36	L2448676-06 2008TL	1	16	3	1	8/29/2024 7:58:59 AM
37	wg1965047-5d10 2008TL	1	17	3	1	8/29/2024 8:03:36 AM
38	wg1965047-6d10 2008TL	1	18	3	1	8/29/2024 8:08:13 AM
39	L2448672-01 2008TL	1	19	3	1	8/29/2024 8:12:52 AM
40	wg1965047-2d10 2008TL	1	12	3	1	8/29/2024 8:17:30 AM
41	CCV	0	9	3	1	8/29/2024 8:22:11 AM
42	CCB	0	10	3	1	8/29/2024 8:26:53 AM
43	L2448672-07 2008TL	1	24	3	1	8/29/2024 8:33:23 AM
44	L2448672-02 2008TL	1	20	3	1	8/29/2024 8:38:07 AM
45	L2448672-04 2008TL	1	21	3	1	8/29/2024 8:42:45 AM
46	L2448672-05 2008TL	1	22	3	1	8/29/2024 8:47:24 AM
47	L2448672-06 2008TL	1	23	3	1	8/29/2024 8:52:04 AM
48	L2448676-01 2008TL	1	25	3	1	8/29/2024 8:56:43 AM
49	L2448676-02 2008TL	1	26	3	1	8/29/2024 9:01:20 AM
50	L2448676-03 2008TL	1	27	3	1	8/29/2024 9:05:57 AM
51	L2448676-04 2008TL	1	28	3	1	8/29/2024 9:10:34 AM

Alpha ICPMSQ Seq

8/29/2024 3:56:02 PM

Index:	Label:	Rack	Vial	Main Runs:	Survey Runs:	Start Time:
52	L2448676-05 2008TL	1	29	3	1	8/29/2024 9:15:12 AM
53	CCV	0	9	3	1	8/29/2024 9:19:49 AM
54	CCB	0	10	3	1	8/29/2024 9:24:31 AM
55	L2448676-13 2008TL	1	33	3	1	8/29/2024 9:33:36 AM
56	L2448676-10 2008TL	1	30	3	1	8/29/2024 9:38:16 AM
57	L2448676-11 2008TL	1	31	3	1	8/29/2024 9:42:54 AM
58	L2448676-12 2008TL	1	32	3	1	8/29/2024 9:47:33 AM
59	I2448114-01 2008TL	1	34	3	1	8/29/2024 9:52:11 AM
60	L2448039-01 6020TL	1	35	3	1	8/29/2024 9:56:51 AM
61	L2448039-02 6020TL	1	36	3	1	8/29/2024 10:01:30 AM
62	L2448039-03 6020TL	1	37	3	1	8/29/2024 10:06:10 AM
63	L2448039-04 6020TL	1	38	3	1	8/29/2024 10:10:47 AM
64	L2448039-06 6020TL	1	39	3	1	8/29/2024 10:15:25 AM
65	CCV	0	9	3	1	8/29/2024 10:20:02 AM
66	CCB	0	10	3	1	8/29/2024 10:24:44 AM
67	CCV	0	9	3	1	8/29/2024 10:37:48 AM
68	CCB	0	10	3	1	8/29/2024 10:42:29 AM
69	WG1965129-1 2008TL	1	40	3	1	8/29/2024 10:47:45 AM
70	WG1965129-2d10 2008TL	1	41	3	1	8/29/2024 10:52:23 AM
71	I2447939-01 2008TL	1	42	3	1	8/29/2024 10:57:00 AM
72	WG1965129-3d10 2008TL	1	43	3	1	8/29/2024 11:01:38 AM
73	WG1965129-4 2008TL	1	44	3	1	8/29/2024 11:06:17 AM
74	I2447944-01 2008TL	1	45	3	1	8/29/2024 11:10:56 AM
75	WG1965129-5d10 2008TL	1	46	3	1	8/29/2024 11:15:35 AM
76	WG1965129-6 2008TL	1	47	3	1	8/29/2024 11:20:15 AM
77	xI2447944-01d10 2008TL	1	48	3	1	8/29/2024 11:24:54 AM
78	xCCV	0	9	3	1	8/29/2024 11:31:04 AM
79	xCCB	0	10	3	1	8/29/2024 11:35:47 AM
80	CCV	0	9	3	1	8/29/2024 11:42:16 AM
81	CCB	0	10	3	1	8/29/2024 11:47:00 AM
82	wg1964423-1 6020TL	1	49	3	1	8/29/2024 11:56:50 AM
83	wg1964423-2d10 6020TL	1	50	3	1	8/29/2024 12:01:27 PM
84	WG1965129-2d10 2008TL	1	41	3	1	8/29/2024 12:09:05 PM
85	L2447726-01 6020TL	1	51	3	1	8/29/2024 12:13:43 PM
86	wg1964423-3d10 6020TL	1	52	3	1	8/29/2024 12:18:21 PM
87	wg1964423-4 6020TL	1	53	3	1	8/29/2024 12:23:00 PM
88	L2447726-02 6020TL	1	54	3	1	8/29/2024 12:27:38 PM
89	L2447726-03 6020TL	1	55	3	1	8/29/2024 12:32:17 PM
90	L2447726-04 6020TL	1	56	3	1	8/29/2024 12:36:56 PM
91	CCV	0	9	3	1	8/29/2024 12:41:36 PM
92	CCB	0	10	3	1	8/29/2024 12:46:19 PM
93	CCV	0	9	3	1	8/29/2024 12:54:13 PM
94	CCB	0	10	3	1	8/29/2024 12:58:56 PM
95	wg1964440-1 6020TL	1	57	3	1	8/29/2024 1:08:04 PM
96	wg1964440-2d10 6020TL	1	58	3	1	8/29/2024 1:12:44 PM
97	L2447890-03 6020TL	1	59	3	1	8/29/2024 1:17:24 PM
98	wg1964440-3d10 6020TL	1	60	3	1	8/29/2024 1:22:04 PM
99	wg1964440-4d10 6020TL	2	1	3	1	8/29/2024 1:26:45 PM
100	wg1964440-5d10 6020TL	2	2	3	1	8/29/2024 1:31:24 PM
101	wg1964440-6d5 6020TL	2	3	3	1	8/29/2024 1:36:03 PM
102	L2447852-08d10 6020TL	2	4	3	1	8/29/2024 1:40:42 PM
103	L2447852-10d10 6020TL	2	5	3	1	8/29/2024 1:45:21 PM
104	L2447852-15d10 6020TL	2	6	3	1	8/29/2024 1:50:00 PM
105	CCV	0	9	3	1	8/29/2024 1:54:39 PM
106	CCB	0	10	3	1	8/29/2024 1:59:22 PM
107	CCV	0	9	3	1	8/29/2024 2:05:52 PM

Alpha ICPMSQ Seq

8/29/2024 3:56:02 PM

Index:	Label:	Rack	Vial	Main Runs:	Survey Runs:	Start Time:
108	CCB	0	10	3	1	8/29/2024 2:10:35 PM
109	L2447852-18d10 6020TL	2	7	3	1	8/29/2024 2:15:46 PM
110	L2447890-01 6020TL	2	8	3	1	8/29/2024 2:20:26 PM
111	L2447890-02 6020TL	2	9	3	1	8/29/2024 2:25:05 PM
112	L2447890-04 6020TL	2	10	3	1	8/29/2024 2:29:45 PM
113	L2447890-05 6020TL	2	11	3	1	8/29/2024 2:34:25 PM
114	L2447890-06 6020TL	2	12	3	1	8/29/2024 2:39:06 PM
115	L2447890-07 6020TL	2	13	3	1	8/29/2024 2:43:46 PM
116	L2447890-08 6020TL	2	14	3	1	8/29/2024 2:48:26 PM
117	L2447890-09 6020TL	2	15	3	1	8/29/2024 2:53:06 PM
118	L2447890-10 6020TL	2	16	3	1	8/29/2024 2:57:45 PM
119	CCV	0	9	3	1	8/29/2024 3:02:25 PM
120	CCB	0	10	3	1	8/29/2024 3:07:08 PM
121	CCV	0	9	3	1	8/29/2024 3:13:38 PM
122	CCB	0	10	3	1	8/29/2024 3:18:21 PM
123	L2447890-13 6020TL	2	19	3	1	8/29/2024 3:24:18 PM
124	L2447890-11 6020TL	2	17	3	1	8/29/2024 3:28:57 PM
125	L2447890-12 6020TL	2	18	3	1	8/29/2024 3:33:37 PM
126	L2447890-14 6020TL	2	20	3	1	8/29/2024 3:38:16 PM
127	CCV	0	9	3	1	8/29/2024 3:44:49 PM
128	CCB	0	10	3	1	8/29/2024 3:49:32 PM
129	WG1965141-1 6020TL	2	21	3	1	
130	WG1965141-2d10 6020TL	2	22	3	1	
131	L2448078-01 6020TL	2	23	3	1	
132	WG1965141-3d10 6020TL	2	24	3	1	
133	WG1965141-4 6020TL	2	25	3	1	
134	WG1965141-5d10 6020TL	2	26	3	1	
135	WG1965141-6d5 6020TL	2	27	3	1	
136	L2448907-01 6020TL	2	28	3	1	
137	Unknown	2	29	3	1	
138	Unknown	2	30	3	1	
139	CCV	0	9	3	1	
140	CCB	0	10	3	1	

METALS ELN REPORT

Workgroup: WG1964418

Digestion

Prep Method	Acid Type 1	Acid 1 Lot	Acid Type 2	Acid 2 Lot	Spike Type	Lims Spike Lot	Spike Lot	Post Spike Spikelot	Spike Lot	Pipette Id
EPA 3005A	1:1 HNO3	tHNO324352 71137AJT	1:1 HCl	tHCL243420 0339CLH	METALS	METSPIKE2	IPS,FPS,MIX	METPSMS	IPS,FPS,MIX	140, 326

Additional Reagent/Std

Sample/ Type	Digestion Date	Analyst	Lab Filtration Date	Sample Vol	Ph	Spike Amt ml	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol ml	Comments
L2447714-01 SAMP	08/27/24 18:13	Maisie Mcqueen	NA	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447714-02 SAMP	08/27/24 18:13	Maisie Mcqueen	NA	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447813-01 SAMP	08/27/24 18:13	Maisie Mcqueen	08-22-24 04:56	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447813-02 SAMP	08/27/24 18:13	Maisie Mcqueen	08-22-24 04:57	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447813-03 SAMP	08/27/24 18:13	Maisie Mcqueen	08-22-24 04:57	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447813-04 SAMP	08/27/24 18:13	Maisie Mcqueen	08-22-24 04:57	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447813-05 SAMP	08/27/24 18:13	Maisie Mcqueen	08-22-24 04:57	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447890-01 SAMP	08/27/24 18:13	Maisie Mcqueen	NA	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447890-02 SAMP	08/27/24 18:13	Maisie Mcqueen	NA	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447890-03 SAMP	08/27/24 18:13	Maisie Mcqueen	NA	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447890-04 SAMP	08/27/24 18:13	Maisie Mcqueen	NA	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447890-05 SAMP	08/27/24 18:13	Maisie Mcqueen	NA	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447890-06 SAMP	08/27/24 18:13	Maisie Mcqueen	NA	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447890-07 SAMP	08/27/24 18:13	Maisie Mcqueen	NA	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	

METALS ELN REPORT

Workgroup: WG1964418

Sample/ Type	Digestion Date	Analyst	Lab Filtration Date	Sample Vol	Ph	Spike Amt ml	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol ml	Comments
L2447890-08 SAMP	08/27/24 18:13	Maisie Mcqueen	NA	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447890-09 SAMP	08/27/24 18:13	Maisie Mcqueen	NA	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447890-10 SAMP	08/27/24 18:13	Maisie Mcqueen	NA	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447890-11 SAMP	08/27/24 18:13	Maisie Mcqueen	NA	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447890-12 SAMP	08/27/24 18:13	Maisie Mcqueen	NA	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
L2447890-13 SAMP	08/27/24 18:13	Maisie Mcqueen	08-26-24 16:20	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
WG1964418-1 BLANK	08/27/24 18:13	Maisie Mcqueen	08/22/24 04:58	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	FM2434201112 CME
WG1964418-2 LCS	08/27/24 18:13	Maisie Mcqueen	NA	50	<2	0.5	08/27/24 18:13	9	95.0	08/27/24 21:13	50	IPS2430270135FAC
WG1964418-3 MS	08/27/24 18:13	Maisie Mcqueen	NA	50	<2	0.5	08/27/24 18:13	9	95.0	08/27/24 21:13	50	ELN: CLH
WG1964418-4 MSD	08/27/24 18:13	Maisie Mcqueen	NA	50	<2	0.5	08/27/24 18:13	9	95.0	08/27/24 21:13	50	
WG1964418-5 PS	08/27/24 18:13	Maisie Mcqueen	NA	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	
WG1964418-6 SERDIL	08/27/24 18:13	Maisie Mcqueen	NA	50	<2		08/27/24 18:13	9	95.0	08/27/24 21:13	50	

Reported: 29-AUG-24 04:48 PM

METALS ELN REPORT

Workgroup: WG1964418

Reagent	Actual Volume	Units
1:1 Hydrochloric Acid (H	.5	ml
1:1 Nitric Acid (HNO3)	1	ml

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METALS ELN REPORT

Workgroup: WG1964440

Digestion

Prep Method	Acid Type 1	Acid 1 Lot	Acid Type 2	Acid 2 Lot	Spike Type	Lims Spike Lot	Spike Lot	Post Spike Spikelot	Spike Lot	Pipette Id
EPA 3005A	1:1 HNO3	tHNO324352 71137AJT	1:1 HCl	tHCL243420 0339CLH	METALS	METSPIKE2	IPS,FPS,MIX	METPSMS	IPS,FPS,MIX	140, 326

Additional Reagent/Std

Sample/ Type	Digestion Date	Analyst	Sample Vol ml	Ph	Spike Amt ml	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol	Comments
L2447852-08 SAMP	08/27/24 14:25	Maisie Mcqueen	25	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	2X DILUTION DUE TO HIGH PH
L2447852-10 SAMP	08/27/24 14:25	Maisie Mcqueen	25	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	2X DILUTION DUE TO HIGH PH
L2447852-15 SAMP	08/27/24 14:25	Maisie Mcqueen	25	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	2X DILUTION DUE TO HIGH PH
L2447852-18 SAMP	08/27/24 14:25	Maisie Mcqueen	25	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	2X DILUTION DUE TO HIGH PH
L2447890-01 SAMP	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	
L2447890-02 SAMP	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	
L2447890-03 SAMP	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	
L2447890-04 SAMP	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	
L2447890-05 SAMP	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	
L2447890-06 SAMP	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	
L2447890-07 SAMP	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	
L2447890-08 SAMP	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	
L2447890-09 SAMP	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	
L2447890-10 SAMP	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	

Reported: 29-AUG-24 04:49 PM

METALS ELN REPORT

Workgroup: WG1964440

Sample/ Type	Digestion Date	Analyst	Sample Vol ml	Ph	Spike Amt ml	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol	Comments
L2447890-11 SAMP	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	
L2447890-12 SAMP	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	
L2447890-13 SAMP	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	
L2447890-14 SAMP	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	
L2448012-01 SAMP	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	
L2448012-02 SAMP	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	
WG1964440-1 BLANK	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	FM2434201112CME
WG1964440-2 LCS	08/27/24 14:25	Maisie Mcqueen	50	<2	0.5	08/27/24 14:25	9	95.0	08/27/24 16:25	50	IPS2430270135FAC
WG1964440-3 MS	08/27/24 14:25	Maisie Mcqueen	50	<2	0.5	08/27/24 14:25	9	95.0	08/27/24 16:25	50	ELN:efm
WG1964440-4 MSD	08/27/24 14:25	Maisie Mcqueen	50	<2	0.5	08/27/24 14:25	9	95.0	08/27/24 16:25	50	ELN:ajt
WG1964440-5 PS	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	
WG1964440-6 SERDIL	08/27/24 14:25	Maisie Mcqueen	50	<2		08/27/24 14:25	9	95.0	08/27/24 16:25	50	

Reported: 29-AUG-24 04:49 PM

METALS ELN REPORT

Workgroup: WG1964440

Reagent	Actual Volume	Units
1:1 Hydrochloric Acid (H	.5	ml
1:1 Nitric Acid (HNO3)	1	ml

Reported: 29-AUG-24 04:49 PM

Inorganic Data
(Mercury Analysis)

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-01	**Date Collected**	: 08/21/24 11:10
Client ID	: MW-3A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 11:05
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-02	**Date Collected**	: 08/20/24 16:40
Client ID	: MW-6A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 11:09
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-03	**Date Collected**	: 08/20/24 14:55
Client ID	: MW-6B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 10:28
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-04	**Date Collected**	: 08/20/24 17:55
Client ID	: MW-6C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 11:12
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-05	**Date Collected**	: 08/20/24 16:30
Client ID	: MW-7A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 11:15
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-06	**Date Collected**	: 08/21/24 09:20
Client ID	: MW-7B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 11:19
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-07	**Date Collected**	: 08/21/24 10:50
Client ID	: MW-7C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 11:22
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-08	**Date Collected**	: 08/21/24 13:05
Client ID	: MW-8A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 11:25
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-09	**Date Collected**	: 08/21/24 14:35
Client ID	: MW-8B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 11:29
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-10	**Date Collected**	: 08/21/24 13:40
Client ID	: MW-8C2	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 11:32
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-11	**Date Collected**	: 08/21/24 09:00
Client ID	: MW-9B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 11:35
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-12	**Date Collected**	: 08/21/24 00:00
Client ID	: DUP	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 11:57
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-13	**Date Collected**	: 08/21/24 09:30
Client ID	: FIELD BLANK	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 12:00
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964420-1	**Date Collected**	: NA
Client ID	: WG1964420-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/28/24 10:21
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-01	**Date Collected**	: 08/21/24 11:10
Client ID	: MW-3A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 22:28
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-02	**Date Collected**	: 08/20/24 16:40
Client ID	: MW-6A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 22:31
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-03	**Date Collected**	: 08/20/24 14:55
Client ID	: MW-6B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 22:15
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-04	**Date Collected**	: 08/20/24 17:55
Client ID	: MW-6C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 22:35
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-05	**Date Collected**	: 08/20/24 16:30
Client ID	: MW-7A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 22:38
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-06	**Date Collected**	: 08/21/24 09:20
Client ID	: MW-7B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 22:52
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-07	**Date Collected**	: 08/21/24 10:50
Client ID	: MW-7C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 22:55
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-08	**Date Collected**	: 08/21/24 13:05
Client ID	: MW-8A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 22:59
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-09	**Date Collected**	: 08/21/24 14:35
Client ID	: MW-8B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 23:02
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-10	**Date Collected**	: 08/21/24 13:40
Client ID	: MW-8C2	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 23:05
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-11	**Date Collected**	: 08/21/24 09:00
Client ID	: MW-9B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 23:08
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-12	**Date Collected**	: 08/21/24 00:00
Client ID	: DUP	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 23:12
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-13	**Date Collected**	: 08/21/24 09:30
Client ID	: FIELD BLANK	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 23:15
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-14	**Date Collected**	: 08/21/24 09:30
Client ID	: EQUIPMENT BLANK	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 23:18
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U

Form 1
METALS

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964424-1	**Date Collected**	: NA
Client ID	: WG1964424-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/28/24 22:08
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,7470A	**Analyst**	: JWN
Lab File ID	: WG1964786.pdf	**Instrument ID**	: NIC4
Sample Amount	: 25ml	**%Solids**	: N/A
Digestion Method	: EPA 7470A	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4	**Units**	: mg/l

		Initial Calibration			Continuing Calibration(s)						
Lab ID	:	R1869559-1			R1869559-3			R1869559-5		R1869559-7	
Date Analyzed	:	08/28/24 06:49			08/28/24 08:29			08/28/24 09:37		08/28/24 10:54	
Parameter		**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Mercury		0.00300	0.0029	96	0.0050	0.00550	109	0.00530	105	0.00530	107

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4	**Units**	: mg/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869559-9			R1869559-11			
Date Analyzed :				08/28/24 11:38			08/28/24 13:06			
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Mercury				**0.0050**	**0.00540**	**109**	**0.00550**	**110**		

Acceptance Criteria:

ICV:	**95-105%**	**(Methods 200.7, 245.1)**
	90-110%	**(Methods 200.8, 6010, 6020, 7470, 7471, 7474)**
	85-115%	**(Method 1631)**
CCV:	**90-110%**	**(Methods 200.7, 245.1, 6010, 6020, 7474)**
	85-115%	**(Methods 200.8, 1631)**
	80-120%	**(Methods 7470, 7471)**

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4	**Units**	: mg/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :	R1869559-1			R1869559-3			R1869559-5		R1869559-7	
Date Analyzed :	08/28/24 06:49			08/28/24 08:29			08/28/24 09:37		08/28/24 10:54	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Mercury	0.00300	0.0029	96	0.0050	0.00550	109	0.00530	105	0.00530	107

Acceptance Criteria:

ICV:	95-105%	(Methods 200.7, 245.1)
	90-110%	(Methods 200.8, 6010, 6020, 7470, 7471, 7474)
	85-115%	(Method 1631)
CCV:	90-110%	(Methods 200.7, 245.1, 6010, 6020, 7474)
	85-115%	(Methods 200.8, 1631)
	80-120%	(Methods 7470, 7471)

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4	**Units**	: mg/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869559-9			R1869559-11		R1869559-13	
Date Analyzed :				08/28/24 11:38			08/28/24 13:06		08/28/24 13:14	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Mercury				**0.0050**	**0.00540**	**109**	**0.00550**	**110**	**0.00520**	**105**

Acceptance Criteria:

ICV:	**95-105%**	**(Methods 200.7, 245.1)**
	90-110%	**(Methods 200.8, 6010, 6020, 7470, 7471, 7474)**
	85-115%	**(Method 1631)**
CCV:	**90-110%**	**(Methods 200.7, 245.1, 6010, 6020, 7474)**
	85-115%	**(Methods 200.8, 1631)**
	80-120%	**(Methods 7470, 7471)**

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4	**Units**	: mg/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869559-15			R1869559-17		R1869559-19	
Date Analyzed :				08/28/24 15:47			08/28/24 16:35		08/28/24 17:14	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Mercury				0.0050	0.00510	103	0.00530	105	0.00530	105

Acceptance Criteria:

ICV:	**95-105%**	**(Methods 200.7, 245.1)**
	90-110%	**(Methods 200.8, 6010, 6020, 7470, 7471, 7474)**
	85-115%	**(Method 1631)**
CCV:	**90-110%**	**(Methods 200.7, 245.1, 6010, 6020, 7474)**
	85-115%	**(Methods 200.8, 1631)**
	80-120%	**(Methods 7470, 7471)**

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4	**Units**	: mg/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869559-21			R1869559-23		R1869559-25	
Date Analyzed :				08/28/24 18:19			08/28/24 19:37		08/28/24 20:37	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Mercury				**0.0050**	**0.00520**	**105**	**0.00530**	**105**	**0.00510**	**102**

Acceptance Criteria:

ICV:	**95-105%**	**(Methods 200.7, 245.1)**
	90-110%	**(Methods 200.8, 6010, 6020, 7470, 7471, 7474)**
	85-115%	**(Method 1631)**
CCV:	**90-110%**	**(Methods 200.7, 245.1, 6010, 6020, 7474)**
	85-115%	**(Methods 200.8, 1631)**
	80-120%	**(Methods 7470, 7471)**

Form 2A
Initial and Continuing Calibration Verification

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4	**Units**	: mg/l

	Initial Calibration			Continuing Calibration(s)						
Lab ID :				R1869559-27			R1869559-29		R1869559-31	
Date Analyzed :				08/28/24 21:27			08/28/24 22:41		08/28/24 23:59	
Parameter	**True**	**Found**	**%R**	**True**	**Found**	**%R**	**Found**	**%R**	**Found**	**%R**
Mercury				**0.0050**	**0.00500**	**100**	**0.00520**	**104**	**0.00510**	**103**

Acceptance Criteria:

ICV:	**95-105%**	**(Methods 200.7, 245.1)**
	90-110%	**(Methods 200.8, 6010, 6020, 7470, 7471, 7474)**
	85-115%	**(Method 1631)**
CCV:	**90-110%**	**(Methods 200.7, 245.1, 6010, 6020, 7474)**
	85-115%	**(Methods 200.8, 1631)**
	80-120%	**(Methods 7470, 7471)**

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4		

		Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID	:	R1869559-2		R1869559-4		R1869559-6		R1869559-8		WG1964420-1	
Date Analyzed	:	08/28/24 06:53		08/28/24 08:32		08/28/24 09:40		08/28/24 10:57		08/28/24 10:21	
Parameter		mg/l	Q	mg/l	Q	mg/l	Q	mg/l	Q	mg/l	Q
Mercury		0.0000915	U	0.0000915	U	0.0000915	U	0.0000915	U	0.00009	U

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869559-10		R1869559-12					
Date Analyzed :			08/28/24 11:42		08/28/24 13:09					
Parameter	mg/l	Q	mg/l	Q	mg/l	Q	mg/l	Q		Q
Mercury			0.0000915	U	0.0000915	U				

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4		

		Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID	:	R1869559-2		R1869559-4		R1869559-6		R1869559-8		WG1964424-1	
Date Analyzed	:	08/28/24 06:53		08/28/24 08:32		08/28/24 09:40		08/28/24 10:57		08/28/24 22:08	
Parameter		mg/l	Q	mg/l	Q	mg/l	Q	mg/l	Q	mg/l	Q
Mercury		0.0000915	U	0.0000915	U	0.0000915	U	0.0000915	U	0.00009	U

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869559-10		R1869559-12		R1869559-14			
Date Analyzed :			08/28/24 11:42		08/28/24 13:09		08/28/24 13:17			
Parameter	mg/l	Q	mg/l	Q	mg/l	Q	mg/l	Q		Q
Mercury			0.0000915	U	0.0000915	U	0.0000915	U		

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869559-16		R1869559-18		R1869559-20			
Date Analyzed :			08/28/24 15:50		08/28/24 16:38		08/28/24 17:18			
Parameter	mg/l	Q	mg/l	Q	mg/l	Q	mg/l	Q		Q
Mercury			0.0000915	U	0.0000915	U	0.0000915	U		

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869559-22		R1869559-24		R1869559-26			
Date Analyzed :			08/28/24 18:22		08/28/24 19:40		08/28/24 20:41			
Parameter	mg/l	Q	mg/l	Q	mg/l	Q	mg/l	Q		Q
Mercury			0.0000915	U	0.0000915	U	0.0000915	U		

Form 3
Blanks

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4		

	Initial Calibration Blank		Continuing Calibration Blank(s)						Preparation Blank	
Lab ID :			R1869559-28		R1869559-30		R1869559-32			
Date Analyzed :			08/28/24 21:31		08/28/24 22:45		08/29/24 00:02			
Parameter	mg/l	Q	mg/l	Q	mg/l	Q	mg/l	Q		Q
Mercury			0.0000915	U	0.0000915	U	0.0000915	U		

Form 5a
Matrix Spike

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-6B	**Matrix**	: WATER
Lab Sample ID	: L2447890-03		
Matrix Spike	: WG1964420-3	**MS Analysis Date**	: 08/28/24 10:31
Matrix Spike Dup	: WG1964420-4	**MSD Analysis Date**	: 08/28/24 10:34

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Mercury, Dissolved	ND	0.005	0.00452	90	0.005	0.00447	89	1	75-125	20

Form 5a
Matrix Spike

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-6B	**Matrix**	: WATER
Lab Sample ID	: L2447890-03		
Matrix Spike	: WG1964424-3	**MS Analysis Date**	: 08/28/24 22:18
Matrix Spike Dup	: WG1964424-4	**MSD Analysis Date**	: 08/28/24 22:21

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Mercury, Total	ND	0.005	0.00483	97	0.005	0.00473	95	2	75-125	20

Form 7
Laboratory Control Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1964420-2	**LCS Analysis Date**	: 08/28/24 10:24
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Mercury, Dissolved	**0.00100**	**0.000920**	**92.**					**80-120**	**20**

Form 7
Laboratory Control Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1964424-2	**LCS Analysis Date**	: 08/28/24 22:11
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Mercury, Total	**0.00100**	**0.000960**	**96.**					**80-120**	**20**

Form 12
Preparation Log

Client	: **Alpha Geoscience**	**Lab Number**	: **L2447890**
Project Name	: **RANCO MINE**	**Project Number**	: **12123**
Matrix	: **WATER**	**Prep Method**	: **EPA 7470A**

Sample Number	Preparation Date	Weight (gram)	Volume (mL)
L2447890-01	08/27/24 19:50	-	25
L2447890-02	08/27/24 19:50	-	25
L2447890-03	08/27/24 19:50	-	25
L2447890-04	08/27/24 19:50	-	25
L2447890-05	08/27/24 19:50	-	25
L2447890-06	08/27/24 19:50	-	25
L2447890-07	08/27/24 19:50	-	25
L2447890-08	08/27/24 19:50	-	25
L2447890-09	08/27/24 19:50	-	25
L2447890-10	08/27/24 19:50	-	25
L2447890-11	08/27/24 19:50	-	25
L2447890-12	08/27/24 19:50	-	25
L2447890-13	08/27/24 19:50	-	25
WG1964420-1	08/27/24 19:50	-	25
WG1964420-2	08/27/24 19:50	-	25
WG1964420-3	08/27/24 19:50	-	25
WG1964420-4	08/27/24 19:50	-	25

Form 12
Preparation Log

Client	: **Alpha Geoscience**	**Lab Number**	: **L2447890**
Project Name	: **RANCO MINE**	**Project Number**	: **12123**
Matrix	: **WATER**	**Prep Method**	: **EPA 7470A**

Sample Number	Preparation Date	Weight (gram)	Volume (mL)
L2447890-01	08/27/24 15:31	-	25
L2447890-02	08/27/24 15:31	-	25
L2447890-03	08/27/24 15:31	-	25
L2447890-04	08/27/24 15:31	-	25
L2447890-05	08/27/24 15:31	-	25
L2447890-06	08/27/24 15:31	-	25
L2447890-07	08/27/24 15:31	-	25
L2447890-08	08/27/24 15:31	-	25
L2447890-09	08/27/24 15:31	-	25
L2447890-10	08/27/24 15:31	-	25
L2447890-11	08/27/24 15:31	-	25
L2447890-12	08/27/24 15:31	-	25
L2447890-13	08/27/24 15:31	-	25
L2447890-14	08/27/24 15:31	-	25
WG1964424-1	08/27/24 15:31	-	25
WG1964424-2	08/27/24 15:31	-	25
WG1964424-3	08/27/24 15:31	-	25
WG1964424-4	08/27/24 15:31	-	25

Form 13
Analysis Run Log

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4	**Analysis Method**	: 1,7470A
Start Date	: 08/28/24 06:49	**End Date**	: 08/28/24 13:09

Sample Number	Dilution Factor	Analysis Time	Mercury, Dissolved
R1869559-1 ICV	1	06:49:42	X
R1869559-2 ICB	1	06:53:01	X
R1869559-3 CCV	1	08:29:29	X
R1869559-4 CCB	1	08:32:48	X
R1869559-5 CCV	1	09:37:03	X
R1869559-6 CCB	1	09:40:22	X
WG1964420-1 BLANK	1	10:21:24	X
WG1964420-2 LCS	1	10:24:42	X
L2447890-03	1	10:28:01	X
WG1964420-3 MS	1	10:31:20	X
WG1964420-4 MSD	1	10:34:38	X
R1869559-7 CCV	1	10:54:40	X
R1869559-8 CCB	1	10:57:59	X
L2447890-01	1	11:05:49	X
L2447890-02	1	11:09:09	X
L2447890-04	1	11:12:27	X
L2447890-05	1	11:15:47	X
L2447890-06	1	11:19:06	X
L2447890-07	1	11:22:24	X
L2447890-08	1	11:25:42	X
L2447890-09	1	11:29:00	X
L2447890-10	1	11:32:18	X
L2447890-11	1	11:35:36	X
R1869559-9 CCV	1	11:38:55	X
R1869559-10 CCB	1	11:42:13	X
L2447890-12	1	11:57:31	X
L2447890-13	1	12:00:49	X

Form 13
Analysis Run Log

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4	**Analysis Method**	: 1,7470A
Start Date	: 08/28/24 06:49	**End Date**	: 08/28/24 13:09

Sample Number	Dilution Factor	Analysis Time	Mercury, Dissolved
R1869559-11 CCV	1	13:06:08	X
R1869559-12 CCB	1	13:09:26	X

Form 13
Analysis Run Log

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4	**Analysis Method**	: 1,7470A
Start Date	: 08/28/24 06:49	**End Date**	: 08/29/24 00:02

Sample Number	Dilution Factor	Analysis Time	Mercury, Total
R1869559-1 ICV	1	06:49:42	X
R1869559-2 ICB	1	06:53:01	X
R1869559-3 CCV	1	08:29:29	X
R1869559-4 CCB	1	08:32:48	X
R1869559-5 CCV	1	09:37:03	X
R1869559-6 CCB	1	09:40:22	X
R1869559-7 CCV	1	10:54:40	X
R1869559-8 CCB	1	10:57:59	X
R1869559-9 CCV	1	11:38:55	X
R1869559-10 CCB	1	11:42:13	X
R1869559-11 CCV	1	13:06:08	X
R1869559-12 CCB	1	13:09:26	X
R1869559-13 CCV	1	13:14:32	X
R1869559-14 CCB	1	13:17:50	X
R1869559-15 CCV	1	15:47:21	X
R1869559-16 CCB	1	15:50:39	X
R1869559-17 CCV	1	16:35:04	X
R1869559-18 CCB	1	16:38:22	X
R1869559-19 CCV	1	17:14:59	X
R1869559-20 CCB	1	17:18:19	X
R1869559-21 CCV	1	18:19:09	X
R1869559-22 CCB	1	18:22:25	X
R1869559-23 CCV	1	19:37:08	X
R1869559-24 CCB	1	19:40:27	X
R1869559-25 CCV	1	20:37:58	X
R1869559-26 CCB	1	20:41:16	X
R1869559-27 CCV	1	21:27:42	X

Form 13
Analysis Run Log

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Instrument ID	: NIC4	**Analysis Method**	: 1,7470A
Start Date	: 08/28/24 06:49	**End Date**	: 08/29/24 00:02

Sample Number	Dilution Factor	Analysis Time	Mercury, Total
R1869559-28 CCB	1	21:31:00	X
WG1964424-1 BLANK	1	22:08:34	X
WG1964424-2 LCS	1	22:11:53	X
L2447890-03	1	22:15:13	X
WG1964424-3 MS	1	22:18:33	X
WG1964424-4 MSD	1	22:21:51	X
L2447890-01	1	22:28:30	X
L2447890-02	1	22:31:50	X
L2447890-04	1	22:35:10	X
L2447890-05	1	22:38:29	X
R1869559-29 CCV	1	22:41:49	X
R1869559-30 CCB	1	22:45:08	X
L2447890-06	1	22:52:25	X
L2447890-07	1	22:55:44	X
L2447890-08	1	22:59:03	X
L2447890-09	1	23:02:23	X
L2447890-10	1	23:05:42	X
L2447890-11	1	23:08:59	X
L2447890-12	1	23:12:18	X
L2447890-13	1	23:15:37	X
L2447890-14	1	23:18:56	X
R1869559-31 CCV	1	23:59:26	X
R1869559-32 CCB	1	00:02:46	X

Date Created: 03/19/18
Created By: Jason Hebert
File: PM4631-1
Page: 1

MERCURY by 7470A, 245.1 (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria	Holding Time	Container/Sample Preservation
Mercury, Total	7439-97-6	0.0002	0.0000915	mg/l	80-120	20	75-125	20	20		28 days	1 - Plastic 500ml HNO3 preserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. *(Soil/Solids only)*
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Date Created: 01/22/21
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File: PM9836-1
Page: 1

METALS by 7470A (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria	Holding Time	Container/Sample Preservation
Mercury, Total	7439-97-6	0.0002	0.0000915	mg/l	80-120		75-125	20	20		28 days	1 - Plastic 500ml HNO3 preserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. ***(Soil/Solids only)***
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

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Created By: Jason Hebert
File: PM9837-1
Page: 1

METALS by 7471B (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria	Holding Time	Container/Sample Preservation
Mercury, Total	7439-97-6	0.08	0.05216	mg/kg	72-128		80-120	20	20		28 days	Metals Only-Glass 60mL/2oz unpreserv

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Title :
Date : 8/28/2024
Name :

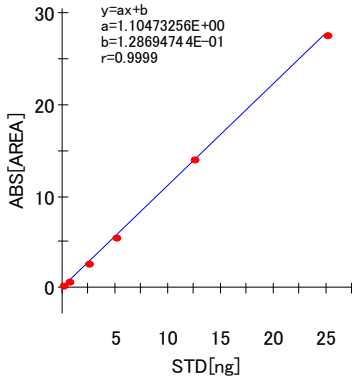
Method

STD
HONH3Cl : 0.0mL
(1+1)H2SO4 : 0.0mL
10w/v% SnCl2 : 0.3mL

SMP
HONH3Cl : 0.0mL
(1+1)H2SO4 : 0.0mL
10w/v% SnCl2 : 0.3mL

Measurement Time(sec) : 120sec

Calib



STD

No.	STD [ug/L]	SVOL [mL]	CVOL [mL]	DVOL [mL]	STD [ng]	AREA [ON]	MEAS [ng]	Dev [%]	M. TIME	Note
1	0.000	2.500	2.500	2.500	0.000	0.1886	0.0542	-	08/28/2024 06:27	JWN,NIC4
2	0.200	2.500	2.500	2.500	0.500	0.6890	0.5072	1.4	08/28/2024 06:30	JWN,NIC4
3	1.000	2.500	2.500	2.500	2.500	2.7558	2.3780	4.9	08/28/2024 06:33	JWN,NIC4
4	2.000	2.500	2.500	2.500	5.000	5.5861	4.9400	1.2	08/28/2024 06:37	JWN,NIC4
5	5.000	2.500	2.500	2.500	12.500	14.1510	12.6929	1.5	08/28/2024 06:40	JWN,NIC4
6	10.000	2.500	2.500	2.500	25.000	27.6670	24.9276	0.3	08/28/2024 06:43	JWN,NIC4

SMP

No.	NAME	SVOL [mL]	CVOL [mL]	DVOL [mL]	AREA [ON]	MEAS [ng]	CONC [ug/L]	Recovery [%]	M. TIME	Note
1	ICV	2.500	2.500	2.500	8.0764	7.1942	2.878	-	08/28/2024 06:49	JWN,NIC4
2	ICB	2.500	2.500	2.500	0.1706	0.0379	0.015	-	08/28/2024 06:53	JWN,NIC4
3	0.2 PPB	2.500	2.500	2.500	0.7024	0.5193	0.208	-	08/28/2024 06:57	JWN,NIC4
4	XPS PREPPED WRONG	2.500	2.500	2.500	7.3897	6.5726	2.629	-	08/28/2024 07:08	JWN,NIC4
5	PS 7844-01	2.500	2.500	2.500	13.6936	12.2789	4.912	-	08/28/2024 07:14	JWN,NIC4
6	WG1964070-1 WG1964070	2.500	2.500	2.500	0.1712	0.0385	0.015	-	08/28/2024 07:42	JWN,NIC4

NIC NIPPON INSTRUMENTS CORPORATION

No.	NAME	SVOL [mL]	CVOL [mL]	DVOL [mL]	AREA [ON]	MEAS [ng]	CONC [ug/L]	Recovery [%]	M. TIME	Note
7	WG1964070-2 WG1964070	2.500	2.500	2.500	2.9861	2.5865	1.035	-	08/28/2024 07:46	JWN,NIC4
8	L2448351-03 WG1964070	2.500	2.500	2.500	0.6234	0.4478	0.179	-	08/28/2024 07:49	JWN,NIC4
9	WG1964070-3 WG1964070	2.500	2.500	2.500	13.9959	12.5525	5.021	-	08/28/2024 07:52	JWN,NIC4
10	WG1964070-4 WG1964070	2.500	2.500	2.500	0.6366	0.4598	0.184	-	08/28/2024 07:56	JWN,NIC4
11	WG1964365-1 WG1964365	2.500	2.500	2.500	0.1546	0.0234	0.009	-	08/28/2024 08:22	JWN,NIC4
12	WG1964365-2 WG1964365	2.500	2.500	2.500	2.7828	2.4025	0.961	-	08/28/2024 08:26	JWN,NIC4
13	Check STD(5ug/L)	2.500	2.500	2.500	15.2340	13.6733	5.469	109.4	08/28/2024 08:29	JWN,NIC4
14	Check Blank	2.500	2.500	2.500	0.1872	0.0530	0.021	-	08/28/2024 08:32	JWN,NIC4
15	L2448039-05 WG1964365	2.500	2.500	2.500	0.1863	0.0521	0.021	-	08/28/2024 08:58	JWN,NIC4
16	WG1964365-3 WG1964365	2.500	2.500	2.500	11.2507	10.0676	4.027	-	08/28/2024 09:02	JWN,NIC4
17	WG1964365-4 WG1964365	2.500	2.500	2.500	12.2738	10.9937	4.397	-	08/28/2024 09:05	JWN,NIC4
18	L2447716-01 WG1964365	2.500	2.500	2.500	0.1712	0.0385	0.015	-	08/28/2024 09:08	JWN,NIC4
19	L2447716-02 WG1964365	2.500	2.500	2.500	0.1756	0.0425	0.017	-	08/28/2024 09:12	JWN,NIC4
20	L2447716-03 WG1964365	2.500	2.500	2.500	0.1737	0.0407	0.016	-	08/28/2024 09:15	JWN,NIC4
21	L2447716-04 WG1964365	2.500	2.500	2.500	0.1742	0.0412	0.016	-	08/28/2024 09:18	JWN,NIC4
22	L2447815-05 WG1964365	2.500	2.500	2.500	0.1652	0.0330	0.013	-	08/28/2024 09:22	JWN,NIC4
23	L2448354-01 WG1964365	2.500	2.500	2.500	0.2191	0.0818	0.033	-	08/28/2024 09:25	JWN,NIC4
24	Check STD(5ug/L)	2.500	2.500	2.500	14.6572	13.1512	5.260	105.2	08/28/2024 09:37	JWN,NIC4
25	Check Blank	2.500	2.500	2.500	0.1895	0.0550	0.022	-	08/28/2024 09:40	JWN,NIC4
26	WG1964420-1 WG1964420	2.500	2.500	2.500	0.1383	0.0087	0.003	-	08/28/2024 10:21	JWN,NIC4
27	WG1964420-2 WG1964420	2.500	2.500	2.500	2.6747	2.3046	0.922	-	08/28/2024 10:24	JWN,NIC4
28	L2447890-03 WG1964420	2.500	2.500	2.500	0.1416	0.0117	0.005	-	08/28/2024 10:28	JWN,NIC4
29	WG1964420-3 WG1964420	2.500	2.500	2.500	12.6308	11.3169	4.527	-	08/28/2024 10:31	JWN,NIC4
30	WG1964420-4 WG1964420	2.500	2.500	2.500	12.4828	11.1829	4.473	-	08/28/2024 10:34	JWN,NIC4
31	L2447813-01 WG1964420	2.500	2.500	2.500	0.1536	0.0225	0.009	-	08/28/2024 10:37	JWN,NIC4
32	L2447813-02 WG1964420	2.500	2.500	2.500	0.1550	0.0238	0.010	-	08/28/2024 10:41	JWN,NIC4
33	L2447813-03 WG1964420	2.500	2.500	2.500	0.1592	0.0276	0.011	-	08/28/2024 10:44	JWN,NIC4
34	L2447813-04 WG1964420	2.500	2.500	2.500	0.1580	0.0265	0.011	-	08/28/2024 10:47	JWN,NIC4
35	L2447813-05 WG1964420	2.500	2.500	2.500	0.1518	0.0209	0.008	-	08/28/2024 10:51	JWN,NIC4
36	Check STD(5ug/L)	2.500	2.500	2.500	14.8715	13.3451	5.338	106.8	08/28/2024 10:54	JWN,NIC4
37	Check Blank	2.500	2.500	2.500	0.1833	0.0494	0.020	-	08/28/2024 10:57	JWN,NIC4
38	L2447890-01 WG1964420	2.500	2.500	2.500	0.1444	0.0142	0.006	-	08/28/2024 11:05	JWN,NIC4

No.	NAME	SVOL [mL]	CVOL [mL]	DVOL [mL]	AREA [ON]	MEAS [ng]	CONC [ug/L]	Recovery [%]	M. TIME	Note
39	L2447890-02 WG1964420	2.500	2.500	2.500	0.1440	0.0139	0.006	-	08/28/2024 11:09	JWN,NIC4
40	L2447890-04 WG1964420	2.500	2.500	2.500	0.1457	0.0154	0.006	-	08/28/2024 11:12	JWN,NIC4
41	L2447890-05 WG1964420	2.500	2.500	2.500	0.1571	0.0257	0.010	-	08/28/2024 11:15	JWN,NIC4
42	L2447890-06 WG1964420	2.500	2.500	2.500	0.1491	0.0185	0.007	-	08/28/2024 11:19	JWN,NIC4
43	L2447890-07 WG1964420	2.500	2.500	2.500	0.2047	0.0688	0.028	-	08/28/2024 11:22	JWN,NIC4
44	L2447890-08 WG1964420	2.500	2.500	2.500	0.1511	0.0203	0.008	-	08/28/2024 11:25	JWN,NIC4
45	L2447890-09 WG1964420	2.500	2.500	2.500	0.1511	0.0203	0.008	-	08/28/2024 11:29	JWN,NIC4
46	L2447890-10 WG1964420	2.500	2.500	2.500	0.1536	0.0225	0.009	-	08/28/2024 11:32	JWN,NIC4
47	L2447890-11 WG1964420	2.500	2.500	2.500	0.1546	0.0234	0.009	-	08/28/2024 11:35	JWN,NIC4
48	Check STD(5ug/L)	2.500	2.500	2.500	15.1637	13.6096	5.444	108.9	08/28/2024 11:38	JWN,NIC4
49	Check Blank	2.500	2.500	2.500	0.1833	0.0494	0.020	-	08/28/2024 11:42	JWN,NIC4
50	L2447890-12 WG1964420	2.500	2.500	2.500	0.1463	0.0159	0.006	-	08/28/2024 11:57	JWN,NIC4
51	L2447890-13 WG1964420	2.500	2.500	2.500	0.1439	0.0138	0.006	-	08/28/2024 12:00	JWN,NIC4
52	WG1964451-1 WG1964451	2.500	2.500	2.500	0.1380	0.0084	0.003	-	08/28/2024 12:40	JWN,NIC4
53	WG1964451-2 WG1964451	2.500	2.500	2.500	2.6805	2.3099	0.924	-	08/28/2024 12:43	JWN,NIC4
54	L2444134-05 WG1964451	2.500	2.500	2.500	0.1467	0.0163	0.007	-	08/28/2024 12:46	JWN,NIC4
55	WG1964451-3 WG1964451	2.500	2.500	2.500	12.8238	11.4916	4.597	-	08/28/2024 12:50	JWN,NIC4
56	WG1964451-4 WG1964451	2.500	2.500	2.500	0.1449	0.0147	0.006	-	08/28/2024 12:53	JWN,NIC4
57	L2444134-04 WG1964451	2.500	2.500	2.500	0.1773	0.0440	0.018	-	08/28/2024 12:56	JWN,NIC4
58	L2444134-06 WG1964451	2.500	2.500	2.500	0.1461	0.0158	0.006	-	08/28/2024 13:00	JWN,NIC4
59	xCheck STD(5ug/L)	2.500	2.500	2.500	15.3766	13.8023	5.521	-	08/28/2024 13:06	JWN,NIC4
60	xCheck Blank	2.500	2.500	2.500	0.1844	0.0504	0.020	-	08/28/2024 13:09	JWN,NIC4
61	Check STD(5ug/L)	2.500	2.500	2.500	14.6005	13.0998	5.240	104.8	08/28/2024 13:14	JWN,NIC4
62	Check Blank	2.500	2.500	2.500	0.1820	0.0483	0.019	-	08/28/2024 13:17	JWN,NIC4
63	Check STD(5ug/L)	2.500	2.500	2.500	14.3456	12.8691	5.148	103.0	08/28/2024 15:47	JWN,NIC4
64	Check Blank	2.500	2.500	2.500	0.1722	0.0394	0.016	-	08/28/2024 15:50	JWN,NIC4
65	WG1964582-1 WG1964582	2.500	2.500	2.500	0.1401	0.0103	0.004	-	08/28/2024 16:15	JWN,NIC4
66	WG1964582-2 WG1964582	2.500	2.500	2.500	2.8633	2.4754	0.990	-	08/28/2024 16:18	JWN,NIC4
67	L2447838-01 WG1964582	2.500	2.500	2.500	0.1846	0.0506	0.020	-	08/28/2024 16:21	JWN,NIC4
68	WG1964582-3 WG1964582	2.500	2.500	2.500	13.6697	12.2573	4.903	-	08/28/2024 16:25	JWN,NIC4
69	WG1964582-4 WG1964582	2.500	2.500	2.500	0.1876	0.0533	0.021	-	08/28/2024 16:28	JWN,NIC4
70	L2447838-02 WG1964582	2.500	2.500	2.500	0.1436	0.0135	0.005	-	08/28/2024 16:31	JWN,NIC4

NIC NIPPON INSTRUMENTS CORPORATION

No.	NAME	SVOL [mL]	CVOL [mL]	DVOL [mL]	AREA [ON]	MEAS [ng]	CONC [ug/L]	Recovery [%]	M. TIME	Note
71	Check STD(5ug/L)	2.500	2.500	2.500	14.6308	13.1273	5.251	105.0	08/28/2024 16:35	JWN,NIC4
72	Check Blank	2.500	2.500	2.500	0.1687	0.0362	0.014	-	08/28/2024 16:38	JWN,NIC4
73	WG1964582-5 WG1964582	2.500	2.500	2.500	13.4926	12.0970	4.839	-	08/28/2024 16:41	JWN,NIC4
74	WG1964582-6 WG1964582	2.500	2.500	2.500	0.1346	0.0053	0.002	-	08/28/2024 16:45	JWN,NIC4
75	L2447596-01 WG1964582	2.500	2.500	2.500	0.1296	0.0008	0.000	-	08/28/2024 16:48	JWN,NIC4
76	L2447687-01 WG1964582	2.500	2.500	2.500	0.4634	0.3030	0.121	-	08/28/2024 16:51	JWN,NIC4
77	L2447810-01 WG1964582	2.500	2.500	2.500	0.7378	0.5514	0.221	-	08/28/2024 16:55	JWN,NIC4
78	L2447812-01 WG1964582	2.500	2.500	2.500	0.1355	0.0062	0.002	-	08/28/2024 16:58	JWN,NIC4
79	L2447816-01 WG1964582	2.500	2.500	2.500	0.1357	0.0063	0.003	-	08/28/2024 17:01	JWN,NIC4
80	L2447817-01 WG1964582	2.500	2.500	2.500	0.1368	0.0073	0.003	-	08/28/2024 17:05	JWN,NIC4
81	L2447819-01 WG1964582	2.500	2.500	2.500	0.1685	0.0360	0.014	-	08/28/2024 17:08	JWN,NIC4
82	L2447821-01 WG1964582	2.500	2.500	2.500	0.1381	0.0085	0.003	-	08/28/2024 17:11	JWN,NIC4
83	Check STD(5ug/L)	2.500	2.500	2.500	14.6881	13.1791	5.272	105.4	08/28/2024 17:14	JWN,NIC4
84	Check Blank	2.500	2.500	2.500	0.1681	0.0357	0.014	-	08/28/2024 17:18	JWN,NIC4
85	L2447822-01 WG1964582	2.500	2.500	2.500	0.2617	0.1204	0.048	-	08/28/2024 17:26	JWN,NIC4
86	L2447823-01 WG1964582	2.500	2.500	2.500	0.1517	0.0208	0.008	-	08/28/2024 17:29	JWN,NIC4
87	L2447824-01 WG1964582	2.500	2.500	2.500	0.2184	0.0812	0.032	-	08/28/2024 17:33	JWN,NIC4
88	L2447825-01 WG1964582	2.500	2.500	2.500	0.0726	-0.0508	-0.020	-	08/28/2024 17:36	JWN,NIC4
89	L2447827-01 WG1964582	2.500	2.500	2.500	0.1731	0.0402	0.016	-	08/28/2024 17:39	JWN,NIC4
90	L2447829-01 WG1964582	2.500	2.500	2.500	0.1367	0.0072	0.003	-	08/28/2024 17:43	JWN,NIC4
91	L2447830-01 WG1964582	2.500	2.500	2.500	1.1999	0.9697	0.388	-	08/28/2024 17:46	JWN,NIC4
92	WG1964873-1 WG1964873	2.500	2.500	2.500	0.1634	0.0314	0.013	-	08/28/2024 18:09	DJR,NIC4
93	WG1964873-2 WG1964873	2.500	2.500	2.500	2.7621	2.3837	0.953	-	08/28/2024 18:12	DJR,NIC4
94	L2446233-01 WG1964873	2.500	2.500	2.500	0.1561	0.0248	0.010	-	08/28/2024 18:15	DJR,NIC4
95	Check STD(5ug/L)	2.500	2.500	2.500	14.5666	13.0691	5.228	104.6	08/28/2024 18:19	DJR,NIC4
96	Check Blank	2.500	2.500	2.500	0.1684	0.0359	0.014	-	08/28/2024 18:22	DJR,NIC4
97	WG1964873-3 WG1964873	2.500	2.500	2.500	12.5599	11.2527	4.501	-	08/28/2024 19:04	DJR,NIC4
98	WG1964873-4 WG1964873	2.500	2.500	2.500	0.1614	0.0296	0.012	-	08/28/2024 19:07	DJR,NIC4
99	L2446233-02 WG1964873	2.500	2.500	2.500	0.1586	0.0271	0.011	-	08/28/2024 19:10	DJR,NIC4
100	L2446233-03 WG1964873	2.500	2.500	2.500	0.1685	0.0360	0.014	-	08/28/2024 19:13	DJR,NIC4
101	L2446233-04 WG1964873	2.500	2.500	2.500	0.1778	0.0444	0.018	-	08/28/2024 19:17	DJR,NIC4
102	L2446233-05 WG1964873	2.500	2.500	2.500	0.1702	0.0376	0.015	-	08/28/2024 19:20	DJR,NIC4

No.	NAME	SVOL [mL]	CVOL [mL]	DVOL [mL]	AREA [ON]	MEAS [ng]	CONC [ug/L]	Recovery [%]	M. TIME	Note
103	L2446233-06 WG1964873	2.500	2.500	2.500	0.1711	0.0384	0.015	-	08/28/2024 19:23	DJR,NIC4
104	L2446233-07 WG1964873	2.500	2.500	2.500	0.1936	0.0588	0.024	-	08/28/2024 19:27	DJR,NIC4
105	L2446233-08 WG1964873	2.500	2.500	2.500	0.1722	0.0394	0.016	-	08/28/2024 19:30	DJR,NIC4
106	L2446233-09 WG1964873	2.500	2.500	2.500	0.1602	0.0285	0.011	-	08/28/2024 19:33	DJR,NIC4
107	Check STD(5ug/L)	2.500	2.500	2.500	14.6333	13.1295	5.252	105.0	08/28/2024 19:37	DJR,NIC4
108	Check Blank	2.500	2.500	2.500	0.1713	0.0386	0.015	-	08/28/2024 19:40	DJR,NIC4
109	WG1964564-1 WG1964564	2.500	2.500	2.500	0.1555	0.0243	0.010	-	08/28/2024 20:04	DJR,NIC4
110	WG1964564-2 WG1964564	2.500	2.500	2.500	2.7818	2.4016	0.961	-	08/28/2024 20:08	DJR,NIC4
111	L2447616-01 WG1964564	2.500	2.500	2.500	0.1552	0.0240	0.010	-	08/28/2024 20:11	DJR,NIC4
112	WG1964564-3 WG1964564	2.500	2.500	2.500	12.8125	11.4813	4.593	-	08/28/2024 20:14	DJR,NIC4
113	WG1964564-4 WG1964564	2.500	2.500	2.500	0.1585	0.0270	0.011	-	08/28/2024 20:18	DJR,NIC4
114	L2447616-02 WG1964564	2.500	2.500	2.500	0.1595	0.0279	0.011	-	08/28/2024 20:21	DJR,NIC4
115	L2447616-03 WG1964564	2.500	2.500	2.500	0.1618	0.0300	0.012	-	08/28/2024 20:24	DJR,NIC4
116	L2447616-04 WG1964564	2.500	2.500	2.500	0.1589	0.0273	0.011	-	08/28/2024 20:28	DJR,NIC4
117	L2447616-05 WG1964564	2.500	2.500	2.500	0.1606	0.0289	0.012	-	08/28/2024 20:31	DJR,NIC4
118	L2447616-06 WG1964564	2.500	2.500	2.500	0.1623	0.0304	0.012	-	08/28/2024 20:34	DJR,NIC4
119	Check STD(5ug/L)	2.500	2.500	2.500	14.2325	12.7667	5.107	102.1	08/28/2024 20:37	DJR,NIC4
120	Check Blank	2.500	2.500	2.500	0.1678	0.0354	0.014	-	08/28/2024 20:41	DJR,NIC4
121	L2447616-07 WG1964564	2.500	2.500	2.500	0.1622	0.0303	0.012	-	08/28/2024 20:45	DJR,NIC4
122	L2447616-08 WG1964564	2.500	2.500	2.500	0.1571	0.0257	0.010	-	08/28/2024 20:48	DJR,NIC4
123	L2447616-09 WG1964564	2.500	2.500	2.500	0.1620	0.0301	0.012	-	08/28/2024 20:52	DJR,NIC4
124	L2447616-10 WG1964564	2.500	2.500	2.500	0.1607	0.0290	0.012	-	08/28/2024 20:55	DJR,NIC4
125	L2447616-11 WG1964564	2.500	2.500	2.500	0.1614	0.0296	0.012	-	08/28/2024 20:58	DJR,NIC4
126	L2447616-12 WG1964564	2.500	2.500	2.500	0.1640	0.0320	0.013	-	08/28/2024 21:01	DJR,NIC4
127	L2447616-13 WG1964564	2.500	2.500	2.500	0.1512	0.0204	0.008	-	08/28/2024 21:05	DJR,NIC4
128	L2447616-14 WG1964564	2.500	2.500	2.500	0.1565	0.0252	0.010	-	08/28/2024 21:08	DJR,NIC4
129	L2447616-15 WG1964564	2.500	2.500	2.500	0.1642	0.0321	0.013	-	08/28/2024 21:11	DJR,NIC4
130	Check STD(5ug/L)	2.500	2.500	2.500	13.9870	12.5445	5.018	100.4	08/28/2024 21:27	DJR,NIC4
131	Check Blank	2.500	2.500	2.500	0.1614	0.0296	0.012	-	08/28/2024 21:31	DJR,NIC4

NIC NIPPON INSTRUMENTS CORPORATION

Title :
Date : 8/28/2024
Name :

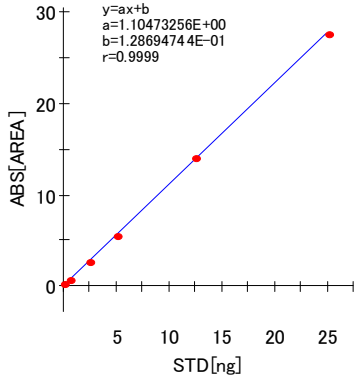
Method

STD
HONH3Cl : 0.0mL
(1+1)H2SO4 : 0.0mL
10w/v% SnCl2 : 0.3mL

SMP
HONH3Cl : 0.0mL
(1+1)H2SO4 : 0.0mL
10w/v% SnCl2 : 0.3mL

Measurement Time(sec) : 120sec

Calib



STD

No.	STD [ug/L]	SVOL [mL]	CVOL [mL]	DVOL [mL]	STD [ng]	AREA [ON]	MEAS [ng]	Dev [%]	M. TIME	Note
1	0.000	2.500	2.500	2.500	0.000	0.1886	0.0542	-	08/28/2024 06:27	JWN,NIC4
2	0.200	2.500	2.500	2.500	0.500	0.6890	0.5072	1.4	08/28/2024 06:30	JWN,NIC4
3	1.000	2.500	2.500	2.500	2.500	2.7558	2.3780	4.9	08/28/2024 06:33	JWN,NIC4
4	2.000	2.500	2.500	2.500	5.000	5.5861	4.9400	1.2	08/28/2024 06:37	JWN,NIC4
5	5.000	2.500	2.500	2.500	12.500	14.1510	12.6929	1.5	08/28/2024 06:40	JWN,NIC4
6	10.000	2.500	2.500	2.500	25.000	27.6670	24.9276	0.3	08/28/2024 06:43	JWN,NIC4

SMP

No.	NAME	SVOL [mL]	CVOL [mL]	DVOL [mL]	AREA [ON]	MEAS [ng]	CONC [ug/L]	Recovery [%]	M. TIME	Note
1	WG1964424-1 WG1964424	2.500	2.500	2.500	0.1646	0.0325	0.013	-	08/28/2024 22:08	DJR,NIC4
2	WG1964424-2 WG1964424	2.500	2.500	2.500	2.7794	2.3994	0.960	-	08/28/2024 22:11	DJR,NIC4
3	L2447890-03 WG1964424	2.500	2.500	2.500	0.1709	0.0382	0.015	-	08/28/2024 22:15	DJR,NIC4
4	WG1964424-3 WG1964424	2.500	2.500	2.500	13.4817	12.0871	4.835	-	08/28/2024 22:18	DJR,NIC4
5	WG1964424-4 WG1964424	2.500	2.500	2.500	13.2177	11.8481	4.739	-	08/28/2024 22:21	DJR,NIC4
6	L2446233-10 WG1964424	2.500	2.500	2.500	0.1684	0.0359	0.014	-	08/28/2024 22:25	DJR,NIC4

NIC NIPPON INSTRUMENTS CORPORATION

No.	NAME	SVOL [mL]	CVOL [mL]	DVOL [mL]	AREA [ON]	MEAS [ng]	CONC [ug/L]	Recovery [%]	M. TIME	Note
7	L2447890-01 WG1964424	2.500	2.500	2.500	0.1623	0.0304	0.012	-	08/28/2024 22:28	DJR,NIC4
8	L2447890-02 WG1964424	2.500	2.500	2.500	0.1640	0.0320	0.013	-	08/28/2024 22:31	DJR,NIC4
9	L2447890-04 WG1964424	2.500	2.500	2.500	0.1728	0.0399	0.016	-	08/28/2024 22:35	DJR,NIC4
10	L2447890-05 WG1964424	2.500	2.500	2.500	0.1689	0.0364	0.015	-	08/28/2024 22:38	DJR,NIC4
11	Check STD(5ug/L)	2.500	2.500	2.500	14.4761	12.9872	5.195	103.9	08/28/2024 22:41	DJR,NIC4
12	Check Blank	2.500	2.500	2.500	0.1663	0.0340	0.014	-	08/28/2024 22:45	DJR,NIC4
13	L2447890-06 WG1964424	2.500	2.500	2.500	0.1706	0.0379	0.015	-	08/28/2024 22:52	DJR,NIC4
14	L2447890-07 WG1964424	2.500	2.500	2.500	0.2323	0.0938	0.038	-	08/28/2024 22:55	DJR,NIC4
15	L2447890-08 WG1964424	2.500	2.500	2.500	0.1632	0.0312	0.012	-	08/28/2024 22:59	DJR,NIC4
16	L2447890-09 WG1964424	2.500	2.500	2.500	0.1643	0.0322	0.013	-	08/28/2024 23:02	DJR,NIC4
17	L2447890-10 WG1964424	2.500	2.500	2.500	0.1718	0.0390	0.016	-	08/28/2024 23:05	DJR,NIC4
18	L2447890-11 WG1964424	2.500	2.500	2.500	0.1639	0.0319	0.013	-	08/28/2024 23:08	DJR,NIC4
19	L2447890-12 WG1964424	2.500	2.500	2.500	0.1680	0.0356	0.014	-	08/28/2024 23:12	DJR,NIC4
20	L2447890-13 WG1964424	2.500	2.500	2.500	0.1612	0.0294	0.012	-	08/28/2024 23:15	DJR,NIC4
21	L2447890-14 WG1964424	2.500	2.500	2.500	0.1583	0.0268	0.011	-	08/28/2024 23:18	DJR,NIC4
22	WG1964589-1 WG1964589	2.500	2.500	2.500	0.1493	0.0187	0.007	-	08/28/2024 23:56	DJR,NIC4
23	Check STD(5ug/L)	2.500	2.500	2.500	14.3185	12.8446	5.138	102.8	08/28/2024 23:59	DJR,NIC4
24	Check Blank	2.500	2.500	2.500	0.1673	0.0349	0.014	-	08/29/2024 00:02	DJR,NIC4
25	WG1964589-2 WG1964589	2.500	2.500	2.500	2.8844	2.4945	0.998	-	08/29/2024 00:06	DJR,NIC4
26	L2447876-04 WG1964589	2.500	2.500	2.500	0.1513	0.0205	0.008	-	08/29/2024 00:09	DJR,NIC4
27	WG1964589-3 WG1964589	2.500	2.500	2.500	12.9576	11.6127	4.645	-	08/29/2024 00:12	DJR,NIC4
28	WG1964589-4 WG1964589	2.500	2.500	2.500	0.1508	0.0200	0.008	-	08/29/2024 00:16	DJR,NIC4
29	L2447876-05 WG1964589	2.500	2.500	2.500	0.1571	0.0257	0.010	-	08/29/2024 00:19	DJR,NIC4
30	Check STD(5ug/L)	2.500	2.500	2.500	14.3566	12.8790	5.152	103.0	08/29/2024 00:22	DJR,NIC4
31	Check Blank	2.500	2.500	2.500	0.1890	0.0546	0.022	-	08/29/2024 00:25	DJR,NIC4
32	Check STD(5ug/L)	2.500	2.500	2.500	14.2645	12.7957	5.118	102.4	08/29/2024 00:29	DJR,NIC4
33	Check Blank	2.500	2.500	2.500	0.1613	0.0295	0.012	-	08/29/2024 00:32	DJR,NIC4

MERCURY TRUE VALUE CRITERIA

ICV	3 ug/l
LCSW	1 ug/l
MS	1 ug/l
CCV	5 ug/l

As of 6/1/13, Mercury True Value criteria is as follows:

ICV	3 ug/l
LCSW	1 ug/l
MS(aq)	5 ug/l
MS(soil)	1 ug/l
CCV	10 ug/l

▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No. D102-540
Certificate Issue Date: June 22, 2018
Expiration Date: January 31, 2022
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #540 revision 030512.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	10100	8160	6.36	3960 - 12400	4080 - 12200
Antimony	120	60.9	9.42	0.822 - 121	12.0 - 166
Arsenic	144	135	5.08	112 - 158	94.6 - 176
Barium	469	443	6.77	366 - 521	332 - 554
Beryllium	207	197	5.86	164 - 229	148 - 246
Boron	213	174	12.6	127 - 221	105 - 244
Cadmium	224	204	6.65	169 - 240	153 - 256
Calcium	5190	4830	9.12	3950 - 5700	3510 - 6150
Chromium	138	132	8.56	109 - 155	92.2 - 171
Cobalt	182	179	7.93	151 - 207	134 - 224
Copper	191	184	6.72	155 - 213	138 - 230
Iron	15000	14400	10.7	8770 - 20000	5120 - 23600
Lead	225	216	7.72	178 - 254	159 - 274
Magnesium	2570	2340	6.13	1780 - 2900	1460 - 3230
Manganese	331	323	6.71	266 - 380	242 - 404
Mercury	16.8	13.2	16.0	8.64 - 17.7	7.89 - 18.5
Molybdenum	193	175	2.39	141 - 209	125 - 226
Nickel	163	152	5.95	126 - 178	106 - 197
Potassium	2420	2050	6.31	1440 - 2660	1210 - 2890
Selenium	81.9	74.9	4.13	59.3 - 90.5	47.0 - 103
Silver	57.6	53.9	9.00	43.0 - 64.8	37.8 - 70.0
Sodium	161	149	12.1	111 - 188	57.7 - 241
Strontium	100	96.2	4.04	78.1 - 114	69.0 - 123
Thallium	253	232	3.54	188 - 276	168 - 296

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Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Tin	146	134	10.8	106 - 163	79.5 - 189
Titanium	449	340	7.20	70.2 - 609	44.9 - 711
Uranium	114	113	7.10	85.5 - 140	71.9 - 153
Vanadium	180	172	8.85	137 - 207	126 - 218
Zinc	217	211	6.58	171 - 250	147 - 274

ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Aluminum	10100	8160	80.8	138	-	-
Antimony	120	60.9	50.8	135	-	-
Arsenic	144	135	93.8	184	-	-
Barium	469	443	94.5	158	-	-
Beryllium	207	197	95.0	148	-	-
Boron	213	174	81.8	107	-	-
Cadmium	224	204	91.3	199	-	-
Calcium	5190	4830	93.0	122	-	-
Chromium	138	132	95.5	172	-	-
Cobalt	182	179	98.4	140	-	-
Copper	191	184	96.3	183	-	-
Iron	15000	14400	95.6	133	-	-
Lead	225	216	96.2	204	-	-
Magnesium	2570	2340	91.2	122	-	-
Manganese	331	323	97.6	147	-	-
Mercury	16.8	13.2	78.3	128	-	-
Molybdenum	193	175	90.8	143	-	-
Nickel	163	152	93.1	185	-	-
Potassium	2420	2050	84.7	121	-	-
Selenium	81.9	74.9	91.5	163	-	-

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Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Silver	57.6	53.9	93.6	150	-	-
Sodium	161	149	92.8	105	-	-
Strontium	100	96.2	96.2	90	-	-
Thallium	253	232	91.6	147	-	-
Tin	146	134	92.0	100	-	-
Titanium	449	340	75.6	93	-	-
Uranium	114	113	98.8	35	-	-
Vanadium	180	172	95.4	139	-	-
Zinc	217	211	97.0	180	-	-

1. The **Certified Values** are the actual "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor. The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product.

3. The **QC Performance Acceptance Limits (QC PALs™)**are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this QC standard alongside USEPA and NELAC compliant PT standards. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and, therefore, the acceptance limits of this QC standard and any PT standard may differ relative to their difference in concentrations.

5. The **PT Data/Traceability** data include the mean value, percent recovery and number of data points reported by the laboratories in our Proficiency Testing study compared to the Certified Values. In addition, where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. This product is traceable to the lot numbers of its starting materials. All gravimetric and volumetric measurements related to its manufacture are traceable to NIST through an unbroken chain of comparisons.
Traceability Recovery (%) = [(% recovery certified standard)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

6. For additional information on this product such as intended use, instructions for use, level of homogeneity, and safety information, please refer to the provided Instruction Sheet

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller



Quality Officer

Matthew Seebeck



ISO/IEC GUIDE 34:2009 ACCREDITED REFERENCE MATERIAL PRODUCER CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005 ACCREDITED CHEMICAL TESTING LABORATORY CERTIFICATE NO. 1539.02

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Reference Material

▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No. D105-540
Certificate Issue Date: March 19, 2019
Expiration Date: October 12, 2022
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #540 revision 030512.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	10100	8800	8.32	4600 - 13000	4470 - 13100
Antimony	282	147	7.70	6.17 - 289	28.2 - 366
Arsenic	155	143	6.34	119 - 168	100 - 186
Barium	439	415	5.37	343 - 488	311 - 519
Beryllium	192	179	2.78	149 - 210	134 - 224
Boron	216	160	7.08	113 - 208	96.1 - 238
Cadmium	61.5	56.2	0.528	46.6 - 65.9	42.2 - 70.3
Calcium	5190	4960	6.64	4090 - 5840	3610 - 6310
Chromium	104	101	4.75	83.2 - 118	70.5 - 131
Cobalt	196	189	0.500	158 - 219	141 - 236
Copper	65.0	63.1	2.65	53.1 - 73.1	47.3 - 78.9
Iron	15000	15700	8.94	10100 - 21300	6000 - 25400
Lead	126	125	4.77	103 - 146	89.3 - 160
Magnesium	2570	2410	6.26	1860 - 2970	1520 - 3310
Manganese	387	382	5.37	315 - 449	290 - 474
Mercury	7.76	7.61	13.7	5.53 - 9.69	4.57 - 10.7
Molybdenum	120	107	0.500	86.0 - 128	75.5 - 139
Nickel	117	108	0.514	89.5 - 127	75.7 - 141
Potassium	2420	2110	5.62	1500 - 2720	1260 - 2960
Selenium	84.6	77.9	7.10	61.8 - 94.0	49.2 - 107
Silver	34.6	34.3	8.34	27.8 - 40.9	23.6 - 45.1
Sodium	161	145	6.72	106 - 183	54.3 - 235
Strontium	104	104	3.95	85.1 - 123	74.8 - 133
Thallium	123	113	0.500	91.3 - 134	77.1 - 149

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Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Tin	118	107	0.500	83.5 - 130	61.2 - 152
Titanium	512	421	5.80	114 - 728	0.00 - 854
Uranium	103	104	6.18	79.1 - 128	71.9 - 135
Vanadium	87.3	83.7	8.55	66.8 - 101	54.2 - 113
Zinc	251	240	3.98	194 - 285	168 - 312

ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Aluminum	10100	8800	87.1	193	-	-
Antimony	282	147	52.3	216	-	-
Arsenic	155	143	92.5	240	-	-
Barium	439	415	94.6	222	-	-
Beryllium	192	179	93.4	220	-	-
Boron	216	160	74.2	152	-	-
Cadmium	61.5	56.2	91.5	239	-	-
Calcium	5190	4960	95.6	175	-	-
Chromium	104	101	96.8	237	-	-
Cobalt	196	189	96.2	215	-	-
Copper	65.0	63.1	97.1	237	-	-
Iron	15000	15700	105	195	-	-
Lead	126	125	99.0	243	-	-
Magnesium	2570	2410	93.9	177	-	-
Manganese	387	382	98.7	215	-	-
Mercury	7.76	7.61	98.0	157	-	-
Molybdenum	120	107	89.4	216	-	-
Nickel	117	108	92.5	235	-	-
Potassium	2420	2110	87.2	181	-	-
Selenium	84.6	77.9	92.1	231	-	-

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Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/kg	mg/kg	%			%
Silver	34.6	34.3	99.3	216	-	-
Sodium	161	145	89.8	166	-	-
Strontium	104	104	99.9	148	-	-
Thallium	123	113	91.8	215	-	-
Tin	118	107	90.4	164	-	-
Titanium	512	421	82.2	157	-	-
Uranium	103	104	101	61	-	-
Vanadium	87.3	83.7	95.9	214	-	-
Zinc	251	240	95.5	234	-	-

1. The **Certified Values** are the actual "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this reference material during the period of validity of this certificate.

2. The **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor. The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product.

3. The **QC Performance Acceptance Limits (QC PALs™)**are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this QC standard alongside USEPA and NELAC compliant PT standards. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and, therefore, the acceptance limits of this QC standard and any PT standard may differ relative to their difference in concentrations.

5. The **PT Data/Traceability** data include the mean value, percent recovery and number of data points reported by the laboratories in our Proficiency Testing study compared to the Certified Values. In addition, where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. This product is traceable to the lot numbers of its starting materials. All gravimetric and volumetric measurements related to its manufacture are traceable to NIST through an unbroken chain of comparisons.
Traceability Recovery (%) = [(% recovery certified standard)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

6. For additional information on this product such as intended use, instructions for use, level of homogeneity, and safety information, please refer to the provided Instruction Sheet

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller

Brian Miller

Quality Officer

Matthew Seebeck

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Certified Reference Material

▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No. D109-540
Certificate Issue Date: March 24, 2020
Expiration Date: October 03, 2023
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #540 revision 090119.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value[7]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	10100	8130	2.54	3920 - 12300	4060 - 12200
Antimony	259	134	5.03	4.56 - 264	25.9 - 335
Arsenic	171	156	3.38	129 - 183	109 - 203
Barium	253	239	4.81	197 - 280	179 - 298
Beryllium	179	169	6.59	141 - 198	127 - 212
Boron	114	87.5	10.3	62.5 - 113	52.5 - 125
Cadmium	149	137	5.43	113 - 160	103 - 171
Calcium	5190	4760	3.48	3890 - 5640	3460 - 6070
Chromium	163	154	3.79	126 - 181	108 - 200
Cobalt	127	121	5.07	101 - 141	90.8 - 151
Copper	57.0	54.9	4.13	46.1 - 63.6	41.1 - 68.6
Iron	15000	14100	6.27	8470 - 19700	4920 - 23200
Lead	133	130	3.00	107 - 152	93.3 - 167
Magnesium	2570	2320	3.32	1760 - 2880	1440 - 3200
Manganese	277	269	2.67	221 - 317	199 - 340
Mercury	21.6	20.5	7.72	14.7 - 26.3	12.3 - 28.6
Molybdenum	108	95.4	2.61	76.4 - 114	66.9 - 124
Nickel	58.7	53.9	4.97	44.5 - 63.3	37.7 - 70.0
Potassium	2420	2020	3.06	1410 - 2630	1190 - 2850
Selenium	181	167	5.63	132 - 201	113 - 221
Silver	35.5	33.6	5.20	26.8 - 40.3	23.0 - 44.1
Sodium	161	133	2.76	95.1 - 171	46.5 - 220
Strontium	89.7	87.9	4.59	71.7 - 104	62.8 - 113
Thallium	121	112	5.19	90.3 - 133	76.1 - 147

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Parameter	Certified Value[1]	Reference Value[7]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Tin	83.5	74.0	5.42	57.6 - 90.4	39.7 - 108
Titanium	474	333	7.17	48.6 - 617	46.3 - 620
Uranium	51.9	51.9	3.36	39.6 - 64.3	35.9 - 68.0
Vanadium	68.1	62.6	6.00	49.4 - 75.8	37.0 - 88.3
Zinc	165	158	2.34	128 - 188	111 - 205

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ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number[6]	Recovery
	mg/kg	mg/kg	%			%
Aluminum	10100	8130	80.5	196	-	-
Antimony	259	134	51.8	217	-	-
Arsenic	171	156	91.3	243	-	-
Barium	253	239	94.3	230	-	-
Beryllium	179	169	94.6	223	-	-
Boron	114	87.5	76.7	150	-	-
Cadmium	149	137	91.8	249	-	-
Calcium	5190	4760	91.8	184	-	-
Chromium	163	154	94.4	245	-	-
Cobalt	127	121	95.3	221	-	-
Copper	57.0	54.9	96.2	243	-	-
Iron	15000	14100	93.9	199	-	-
Lead	133	130	97.7	251	-	-
Magnesium	2570	2320	90.1	182	-	-
Manganese	277	269	97.2	220	-	-
Mercury	21.6	20.5	94.7	172	-	-
Molybdenum	108	95.4	88.3	218	-	-
Nickel	58.7	53.9	91.8	242	-	-
Potassium	2420	2020	83.5	187	-	-
Selenium	181	167	92.2	235	-	-
Silver	35.5	33.6	94.5	222	-	-
Sodium	161	133	82.7	177	-	-
Strontium	89.7	87.9	98.0	151	-	-
Thallium	121	112	92.2	219	-	-
Tin	83.5	74.0	88.6	170	-	-
Titanium	474	333	70.3	157	-	-
Uranium	51.9	51.9	100	60	-	-
Vanadium	68.1	62.6	91.9	213	-	-
Zinc	165	158	95.8	238	-	-

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1. The **Certified Values** are the actual gravimetric/volumetric "made-to" concentrations confirmed by ERA analytical verification. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** represents an expanded uncertainty and approximates a 95% confidence interval. The uncertainty is based on the characterization, homogeneity and stability characteristics of the product, multiplied by a coverage factor (k=2). The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product. The formula used to calculate the expanded uncertainty is:
$U_{expanded} = k * SQRT((U_{char}^2) + (U_{homogen}^2) + (U_{LTS}^2) + (U_{STS}^2) + (U_{RSS}^2))$

Where:

$U_{expanded}$ = Expanded uncertainty.
k = Coverage factor.
U_{char} = Combined standard uncertainty of the manufacturing and/or analytical verification assessment.
$U_{homogen}$ = Standard uncertainty of the homogeneity assessment.
U_{LTS} = Standard uncertainty associated with long-term stability.
U_{STS} = Standard uncertainty associated with short-term (transport) stability.
U_{RSS} = Standard uncertainty associated with repeated sampling of the product (where permitted by product use instructions).

3. The **QC Performance Acceptance Limits (QC PALs™)** are based on actual historical data collected in ERA's Proficiency Testing program. The QC PALs™ reflect any inherent biases in the methods used to establish the limits and closely approximate a 95% confidence interval of the performance that experienced laboratories should achieve using accepted environmental methods. Use the QC PALs™ to realistically evaluate your performance against your peers.

4. The **PT Performance Acceptance Limits (PT PALs™)** are calculated using the regression equations and fixed acceptance criteria specified in the NELAC proficiency testing requirements. Use the PT PALs™ when analyzing this certified reference material alongside USEPA and NELAC compliant PT study materials. Please note that many PT study acceptance limits are concentration dependent (some non-linearly) and therefore, the acceptance limits of this certified reference material and any PT study material may differ relative to their difference in concentrations.

5. The **PT Performance Data** include the mean value, percent recovery and number of data points reported by laboratories in our Proficiency Testing study compared to the Certified Values. In the event this lot was not used in a proficiency testing scheme, the data displayed was generated internally by ERA.

6. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. **Analytical Traceability Recovery (%)** = [(% recovery ERA certified reference material)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing this ERA certified reference material and/or it's associated stock solution(s) against the applicable NIST SRMs.

7. The **Reference Values** are equal to the mean recoveries for the parameters as determined in an interlaboratory round robin study. The **Reference Values** represent the expected performance for the analytes in this standard. ERA recommends using the **Reference Values** when assessing or evaluating your results.

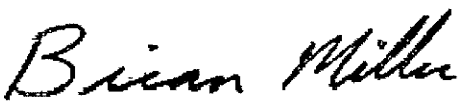
8. **Metrological Traceability**. This certified reference material is metrologically traceable to NIST mass reference materials through an unbroken chain of comparisons.

9. For additional information on this product such as intended use, storage information, instructions for use, minimum sample size, and safety information, please refer to the Product Use Instructions provided.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer

Brian Miller



Quality Officer

Matthew Seebeck



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Certified Reference Material

▪ Certificate of Analysis ▪

Product: Metals in Soil
Catalog Number: 540
Lot No. D113-540
Certificate Issue Date: March 23, 2021
Expiration Date: October 13, 2024
Revision Number: Original

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #540 revision 090119.

CERTIFICATION

Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Aluminum	10100	8630	12.0	4420 - 12800	4370 - 12900
Antimony	256	129	16.8	0.742 - 257	25.6 - 323
Arsenic	91.6	84.5	15.1	70.0 - 99.0	59.2 - 110
Barium	259	249	9.94	206 - 292	187 - 311
Beryllium	175	163	3.89	135 - 191	122 - 204
Boron	95.7	76.7	12.8	55.7 - 97.7	48.0 - 107
Cadmium	107	99.0	11.5	82.2 - 116	74.2 - 124
Calcium	5190	4760	11.8	3890 - 5640	3460 - 6070
Chromium	129	122	14.6	101 - 144	85.7 - 159
Cobalt	63.6	61.7	11.5	51.9 - 71.6	46.3 - 77.2
Copper	62.3	61.5	12.3	51.9 - 71.0	46.1 - 76.8
Iron	15000	14500	15.7	8860 - 20100	5190 - 23800
Lead	122	123	13.9	103 - 144	88.3 - 158
Lithium	6.42	7.30	18.7	5.13 - 9.48	3.20 - 11.4
Magnesium	2570	2360	8.87	1810 - 2920	1480 - 3250
Manganese	470	456	13.4	375 - 538	350 - 563
Mercury	22.1	18.9	14.5	13.0 - 24.8	11.3 - 26.4
Molybdenum	80.1	72.8	11.0	58.7 - 87.0	50.5 - 95.2
Nickel	143	135	14.2	112 - 158	94.7 - 176
Potassium	2420	2090	8.21	1480 - 2700	1240 - 2940
Selenium	128	121	11.7	96.9 - 146	80.4 - 162
Silver	45.4	44.1	6.69	35.5 - 52.8	30.7 - 57.6
Sodium	161	136	9.34	97.4 - 174	48.1 - 223
Strontium	82.2	82.3	8.42	67.4 - 97.1	58.6 - 106

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ T: 800.372.0122 ▪ 303.431.8454 ▪ www.eraqc.com

▪ Certificate of Analysis ▪

Parameter	Certified Value[1]	Reference Value	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/kg	mg/kg	%	mg/kg	mg/kg
Thallium	154	144	7.54	117 - 171	101 - 187
Tin	89.7	79.8	14.0	62.2 - 97.4	43.5 - 116
Titanium	705	546	10.3	123 - 969	118 - 974
Uranium	29.5	30.9	3.38	23.9 - 37.9	21.3 - 40.5
Vanadium	196	186	14.2	148 - 224	138 - 235
Zinc	307	295	10.4	240 - 351	207 - 384

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Calculation of 7470A Mercury

Calculate Mercury concentration from the daily calibration curve. The curve is generated utilizing a straight-line equation defined as:

$$A = k1 + k2C$$

Where:

A = Average peak height of the sample/standard integrations
C = Sample/Standard Concentration, µg/L
k1 = y-intercept
k2 = slope

The instrument will plot peak height against concentration (µg/L). The result is generated in µg/L . This value is divided by 1000 to convert the units to mg/L. If the sample is diluted (DF), the result is multiplied by the DF to generate the final result.

Result, mg/L = (concentration, µg/L) x (1mg/1000µg) x (DF)

Calculation of 7471B Mercury

Calculate Mercury concentration from the daily calibration curve. The curve is generated utilizing a straight-line equation defined as:

$$A = k1 + k2C$$

Where:

A = Average peak height of the sample/standard integrations
C = Sample/Standard Concentration, µg/L
k1 = y-intercept
k2 = slope

The instrument will plot peak height against concentration (µg/L). The result is generated in µg/L . This value is divided by 1000 to convert the units to mg/L. If the sample is diluted (DF), the result is multiplied by the DF to generate the final result.

Result, mg/L = (concentration, µg/L) x (1mg/1000µg) x (DF)

The result in mg/kg is calculated on a dry weight basis using the sample weight digested(Wt), the final volume of the digestate(FV), and the percent total solids(%TS).

Result, mg/kg, wet = ((result, mg/L) x (FV)) /Wt

Result, mg/kg, dry wt = (Result, mg/kg wet)/(%TS)

No.	Sample No.	NAME	CURVE: NOT RECORDED
1	1	STD	
2	2	STD	
3	3	STD	
4	4	STD	
5	5	STD	
6	6	STD	
1	7	ICV	
2	8	ICB	
3	9	0.2 PPB	
4	10	XPS PREPPED WRONG	
5	11	PS 7844-01	
6	12	WG1964070-1 WG1964070	
7	13	WG1964070-2 WG1964070	
8	14	L2448351-03 WG1964070	
9	15	WG1964070-3 WG1964070	
10	16	WG1964070-4 WG1964070	
11	17	WG1964365-1 WG1964365	
12	18	WG1964365-2 WG1964365	
13	19	Check STD(5ug/L)	
14	20	Check Blank	
15	21	L2448039-05 WG1964365	
16	22	WG1964365-3 WG1964365	
17	23	WG1964365-4 WG1964365	
18	24	L2447716-01 WG1964365	
19	25	L2447716-02 WG1964365	
20	26	L2447716-03 WG1964365	
21	27	L2447716-04 WG1964365	
22	28	L2447815-05 WG1964365	
23	29	L2448354-01 WG1964365	
24	31	Check STD(5ug/L)	
25	32	Check Blank	
26	33	WG1964420-1 WG1964420	
27	34	WG1964420-2 WG1964420	
28	35	L2447890-03 WG1964420	
29	36	WG1964420-3 WG1964420	
30	37	WG1964420-4 WG1964420	
31	38	L2447813-01 WG1964420	
32	39	L2447813-02 WG1964420	
33	40	L2447813-03 WG1964420	
34	41	L2447813-04 WG1964420	
35	42	L2447813-05 WG1964420	
36	43	Check STD(5ug/L)	
37	44	Check Blank	

38	45	L2447890-01 WG1964420
39	46	L2447890-02 WG1964420
40	47	L2447890-04 WG1964420
41	48	L2447890-05 WG1964420
42	49	L2447890-06 WG1964420
43	50	L2447890-07 WG1964420
44	51	L2447890-08 WG1964420
45	52	L2447890-09 WG1964420
46	53	L2447890-10 WG1964420
47	54	L2447890-11 WG1964420
48	55	Check STD(5ug/L)
49	56	Check Blank
50	57	L2447890-12 WG1964420
51	58	L2447890-13 WG1964420
52	59	WG1964451-1 WG1964451
53	60	WG1964451-2 WG1964451
54	61	L2444134-05 WG1964451
55	62	WG1964451-3 WG1964451
56	63	WG1964451-4 WG1964451
57	64	L2444134-04 WG1964451
58	65	L2444134-06 WG1964451
59	67	xCheck STD(5ug/L)
60	68	xCheck Blank
61	69	Check STD(5ug/L)
62	70	Check Blank
63	71	Check STD(5ug/L)
64	72	Check Blank
65	73	WG1964582-1 WG1964582
66	74	WG1964582-2 WG1964582
67	75	L2447838-01 WG1964582
68	76	WG1964582-3 WG1964582
69	77	WG1964582-4 WG1964582
70	78	L2447838-02 WG1964582
71	79	Check STD(5ug/L)
72	80	Check Blank
73	1	WG1964582-5 WG1964582
74	2	WG1964582-6 WG1964582
75	3	L2447596-01 WG1964582
76	4	L2447687-01 WG1964582
77	5	L2447810-01 WG1964582
78	6	L2447812-01 WG1964582
79	7	L2447816-01 WG1964582
80	8	L2447817-01 WG1964582
81	9	L2447819-01 WG1964582

82	10	L2447821-01 WG1964582
83	11	Check STD(5ug/L)
84	12	Check Blank
85	13	L2447822-01 WG1964582
86	14	L2447823-01 WG1964582
87	15	L2447824-01 WG1964582
88	16	L2447825-01 WG1964582
89	17	L2447827-01 WG1964582
90	18	L2447829-01 WG1964582
91	19	L2447830-01 WG1964582
92	20	WG1964873-1 WG1964873
93	21	WG1964873-2 WG1964873
94	22	L2446233-01 WG1964873
95	23	Check STD(5ug/L)
96	24	Check Blank
97	25	WG1964873-3 WG1964873
98	26	WG1964873-4 WG1964873
99	27	L2446233-02 WG1964873
100	28	L2446233-03 WG1964873
101	29	L2446233-04 WG1964873
102	30	L2446233-05 WG1964873
103	31	L2446233-06 WG1964873
104	32	L2446233-07 WG1964873
105	33	L2446233-08 WG1964873
106	34	L2446233-09 WG1964873
107	35	Check STD(5ug/L)
108	36	Check Blank
109	37	WG1964564-1 WG1964564
110	38	WG1964564-2 WG1964564
111	39	L2447616-01 WG1964564
112	40	WG1964564-3 WG1964564
113	41	WG1964564-4 WG1964564
114	42	L2447616-02 WG1964564
115	43	L2447616-03 WG1964564
116	44	L2447616-04 WG1964564
117	45	L2447616-05 WG1964564
118	46	L2447616-06 WG1964564
119	47	Check STD(5ug/L)
120	48	Check Blank
121	49	L2447616-07 WG1964564
122	50	L2447616-08 WG1964564
123	51	L2447616-09 WG1964564
124	52	L2447616-10 WG1964564
125	53	L2447616-11 WG1964564

126	54	L2447616-12 WG1964564
127	55	L2447616-13 WG1964564
128	56	L2447616-14 WG1964564
129	57	L2447616-15 WG1964564
130	59	Check STD(5ug/L)
131	60	Check Blank
1	11	WG1964424-1 WG1964424
2	12	WG1964424-2 WG1964424
3	13	L2447890-03 WG1964424
4	14	WG1964424-3 WG1964424
5	15	WG1964424-4 WG1964424
6	16	L2446233-10 WG1964424
7	17	L2447890-01 WG1964424
8	18	L2447890-02 WG1964424
9	19	L2447890-04 WG1964424
10	20	L2447890-05 WG1964424
11	21	Check STD(5ug/L)
12	22	Check Blank
13	23	L2447890-06 WG1964424
14	24	L2447890-07 WG1964424
15	25	L2447890-08 WG1964424
16	26	L2447890-09 WG1964424
17	27	L2447890-10 WG1964424
18	28	L2447890-11 WG1964424
19	29	L2447890-12 WG1964424
20	30	L2447890-13 WG1964424
21	31	L2447890-14 WG1964424
22	32	WG1964589-1 WG1964589
23	33	Check STD(5ug/L)
24	34	Check Blank
25	35	WG1964589-2 WG1964589
26	36	L2447876-04 WG1964589
27	37	WG1964589-3 WG1964589
28	38	WG1964589-4 WG1964589
29	39	L2447876-05 WG1964589
30	43	Check STD(5ug/L)
31	44	Check Blank
32	45	Check STD(5ug/L)
33	46	Check Blank

METALS ELN REPORT

Workgroup: WG1964420

Digestion

Prep Method	Acid Type 1	Acid 1 Lot	Acid Type 2	Acid 2 Lot	Spike Type	Lims Spike Lot	Spike Lot	Post Spike Spikelot	Spike Lot	Pipette Id
EPA 7470A	HNO3	24011095	H2SO4	24001335	METALS	METSPIKE	HG24331511 00AJTV1	METSPIKE	HG24331511 00AJTV1	320, 348

Additional Reagent/Std

Sample/ Type	Digestion Date	Analyst	Lab Filtration Date	Sample Vol	Spike Amt ml	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol	Comments
L2447813-01 SAMP	08/27/24 19:50	Maisie Mcqueen	08-22-24 04:56	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	
L2447813-02 SAMP	08/27/24 19:50	Maisie Mcqueen	08-22-24 04:57	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	
L2447813-03 SAMP	08/27/24 19:50	Maisie Mcqueen	08-22-24 04:57	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	
L2447813-04 SAMP	08/27/24 19:50	Maisie Mcqueen	08-22-24 04:57	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	
L2447813-05 SAMP	08/27/24 19:50	Maisie Mcqueen	08-22-24 04:57	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	
L2447890-01 SAMP	08/27/24 19:50	Maisie Mcqueen	NA	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	
L2447890-02 SAMP	08/27/24 19:50	Maisie Mcqueen	NA	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	
L2447890-03 SAMP	08/27/24 19:50	Maisie Mcqueen	NA	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	
L2447890-04 SAMP	08/27/24 19:50	Maisie Mcqueen	NA	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	
L2447890-05 SAMP	08/27/24 19:50	Maisie Mcqueen	NA	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	
L2447890-06 SAMP	08/27/24 19:50	Maisie Mcqueen	NA	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	
L2447890-07 SAMP	08/27/24 19:50	Maisie Mcqueen	NA	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	
L2447890-08 SAMP	08/27/24 19:50	Maisie Mcqueen	NA	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	
L2447890-09 SAMP	08/27/24 19:50	Maisie Mcqueen	NA	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	

METALS ELN REPORT

Workgroup: WG1964420

Sample/ Type	Digestion Date	Analyst	Lab Filtration Date	Sample Vol ml	Spike Amt	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol	Comments
L2447890-10 SAMP	08/27/24 19:50	Maisie Mcqueen	NA	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	
L2447890-11 SAMP	08/27/24 19:50	Maisie Mcqueen	NA	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	
L2447890-12 SAMP	08/27/24 19:50	Maisie Mcqueen	NA	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	
L2447890-13 SAMP	08/27/24 19:50	Maisie Mcqueen	08-26-24 16:20	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	
WG1964420-1 BLANK	08/27/24 19:50	Maisie Mcqueen	08/22/24 04:58	25		08/27/24 19:50	5	94.3	08/27/24 21:50	25	ELN: CLH
WG1964420-2 LCS	08/27/24 19:50	Maisie Mcqueen	NA	25	0.25	08/27/24 19:50	5	94.3	08/27/24 21:50	25	
WG1964420-3 MS	08/27/24 19:50	Maisie Mcqueen	NA	25	1.25	08/27/24 19:50	5	94.3	08/27/24 21:50	25	
WG1964420-4 MSD	08/27/24 19:50	Maisie Mcqueen	NA	25	1.25	08/27/24 19:50	5	94.3	08/27/24 21:50	25	

Reagent	Actual Volume	Units
Sulfuric Acid (H2SO4)	1.25	ml
Nitric Acid (HNO3)	.625	ml
Potassium Permanganat	3.75	ml
Potassium Persulfate (K	2	ml
NaCl-Hydroxylamine Hy	1.5	ml

Reported: 29-AUG-24 09:24 AM

METALS ELN REPORT

Workgroup: WG1964424

Digestion

Prep Method	Acid Type 1	Acid 1 Lot	Acid Type 2	Acid 2 Lot	Spike Type	Lims Spike Lot	Spike Lot	Post Spike Spikelot	Spike Lot	Pipette Id
EPA 7470A	HNO3	24011095	H2SO4	24001335	METALS	METSPIKE	HG24331511 00AJTV1	METSPIKE	HG24331511 00AJTV1	320, 348

Additional Reagent/Std	K2O8S2	PS2433141230AJT
	KMnO4	PP2435251207CME
	NaCl-NH2OH.HCl	HH2434230842JWN
		ICV2432100710FAC

Sample/ Type	Digestion Date	Analyst	Sample Vol ml	Spike Amt ml	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol	Comments
L2446233-10 SAMP	08/27/24 15:31	Maisie Mcqueen	25		08/27/24 15:31	5	95.1	08/27/24 18:31	25	
L2447890-01 SAMP	08/27/24 15:31	Maisie Mcqueen	25		08/27/24 15:31	5	95.1	08/27/24 18:31	25	
L2447890-02 SAMP	08/27/24 15:31	Maisie Mcqueen	25		08/27/24 15:31	5	95.1	08/27/24 18:31	25	
L2447890-03 SAMP	08/27/24 15:31	Maisie Mcqueen	25		08/27/24 15:31	5	95.1	08/27/24 18:31	25	
L2447890-04 SAMP	08/27/24 15:31	Maisie Mcqueen	25		08/27/24 15:31	5	95.1	08/27/24 18:31	25	
L2447890-05 SAMP	08/27/24 15:31	Maisie Mcqueen	25		08/27/24 15:31	5	95.1	08/27/24 18:31	25	
L2447890-06 SAMP	08/27/24 15:31	Maisie Mcqueen	25		08/27/24 15:31	5	95.1	08/27/24 18:31	25	
L2447890-07 SAMP	08/27/24 15:31	Maisie Mcqueen	25		08/27/24 15:31	5	95.1	08/27/24 18:31	25	
L2447890-08 SAMP	08/27/24 15:31	Maisie Mcqueen	25		08/27/24 15:31	5	95.1	08/27/24 18:31	25	
L2447890-09 SAMP	08/27/24 15:31	Maisie Mcqueen	25		08/27/24 15:31	5	95.1	08/27/24 18:31	25	
L2447890-10 SAMP	08/27/24 15:31	Maisie Mcqueen	25		08/27/24 15:31	5	95.1	08/27/24 18:31	25	
L2447890-11 SAMP	08/27/24 15:31	Maisie Mcqueen	25		08/27/24 15:31	5	95.1	08/27/24 18:31	25	

Reported: 29-AUG-24 09:24 AM

METALS ELN REPORT

Workgroup: WG1964424

Sample/ Type	Digestion Date	Analyst	Sample Vol ml	Spike Amt ml	Start Date/Time	Hot Block Unit	Temperature (C)	Stop Date/Time	Final Vol	Comments
L2447890-12 SAMP	08/27/24 15:31	Maisie Mcqueen	25		08/27/24 15:31	5	95.1	08/27/24 18:31	25	
L2447890-13 SAMP	08/27/24 15:31	Maisie Mcqueen	25		08/27/24 15:31	5	95.1	08/27/24 18:31	25	
L2447890-14 SAMP	08/27/24 15:31	Maisie Mcqueen	25		08/27/24 15:31	5	95.1	08/27/24 18:31	25	
WG1964424-1 BLANK	08/27/24 15:31	Maisie Mcqueen	25		08/27/24 15:31	5	95.1	08/27/24 18:31	25	ELN: rc
WG1964424-2 LCS	08/27/24 15:31	Maisie Mcqueen	25	0.25	08/27/24 15:31	5	95.1	08/27/24 18:31	25	
WG1964424-3 MS	08/27/24 15:31	Maisie Mcqueen	25	1.25	08/27/24 15:31	5	95.1	08/27/24 18:31	25	
WG1964424-4 MSD	08/27/24 15:31	Maisie Mcqueen	25	1.25	08/27/24 15:31	5	95.1	08/27/24 18:31	25	

Reagent	Actual Volume	Units
Sulfuric Acid (H2SO4)	1.25	ml
Nitric Acid (HNO3)	.625	ml
Potassium Permanganat	3.75	ml
Potassium Persulfate (K	2	ml
NaCl-Hydroxylamine Hy	1.5	ml

Reported: 29-AUG-24 09:24 AM

Wet Chemistry

Total Nitrogen Analysis

Results

Form 1
WETCHEM

Client	:	**Alpha Geoscience**	**Lab Number**	:	**L2447890**
Project Name	:	**RANCO MINE**	**Project Number**	:	**12123**
Lab ID	:	**L2447890-01**	**Date Collected**	:	**08/21/24 11:10**
Client ID	:	**MW-3A**	**Date Received**	:	**08/21/24**
Sample Location	:	**MANORVILLE, NY**	**Date Analyzed**	:	**08/28/24 17:20**
Sample Matrix	:	**WATER**	**Dilution Factor**	:	**1**
Analytical Method	:	**107,-**	**Analyst**	:	**JRO**
Lab File ID	:	**WG1965157.csv**	**Instrument ID**	:	
Sample Amount	:		**%Solids**	:	**N/A**
Digestion Method	:		**Date Digested**	:	

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	**Total Nitrogen**	**0.34**	**0.30**	**0.30**	

Form 1
WETCHEM

Client	:	**Alpha Geoscience**	**Lab Number**	:	**L2447890**
Project Name	:	**RANCO MINE**	**Project Number**	:	**12123**
Lab ID	:	**L2447890-02**	**Date Collected**	:	**08/20/24 16:40**
Client ID	:	**MW-6A**	**Date Received**	:	**08/21/24**
Sample Location	:	**MANORVILLE, NY**	**Date Analyzed**	:	**08/28/24 17:20**
Sample Matrix	:	**WATER**	**Dilution Factor**	:	**1**
Analytical Method	:	**107,-**	**Analyst**	:	**JRO**
Lab File ID	:	**WG1965157.csv**	**Instrument ID**	:	
Sample Amount	:		**%Solids**	:	**N/A**
Digestion Method	:		**Date Digested**	:	

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	**Total Nitrogen**	**0.38**	**0.30**	**0.30**	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-03	**Date Collected**	: 08/20/24 14:55
Client ID	: MW-6B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 17:20
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 107,-	**Analyst**	: JRO
Lab File ID	: WG1965157.csv	**Instrument ID**	:
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Total Nitrogen	0.55	0.30	0.30	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-04	**Date Collected**	: 08/20/24 17:55
Client ID	: MW-6C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 17:20
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 107,-	**Analyst**	: JRO
Lab File ID	: WG1965157.csv	**Instrument ID**	:
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Total Nitrogen	0.96	0.30	0.30	

Form 1
WETCHEM

Client	:	**Alpha Geoscience**	**Lab Number**	:	**L2447890**
Project Name	:	**RANCO MINE**	**Project Number**	:	**12123**
Lab ID	:	**L2447890-05**	**Date Collected**	:	**08/20/24 16:30**
Client ID	:	**MW-7A**	**Date Received**	:	**08/21/24**
Sample Location	:	**MANORVILLE, NY**	**Date Analyzed**	:	**08/28/24 17:20**
Sample Matrix	:	**WATER**	**Dilution Factor**	:	**1**
Analytical Method	:	**107,-**	**Analyst**	:	**JRO**
Lab File ID	:	**WG1965157.csv**	**Instrument ID**	:	
Sample Amount	:		**%Solids**	:	**N/A**
Digestion Method	:		**Date Digested**	:	

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	**Total Nitrogen**	**0.63**	**0.30**	**0.30**	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-06	**Date Collected**	: 08/21/24 09:20
Client ID	: MW-7B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 17:20
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 107,-	**Analyst**	: JRO
Lab File ID	: WG1965157.csv	**Instrument ID**	:
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Total Nitrogen	ND	0.30	0.30	U

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-07	**Date Collected**	: 08/21/24 10:50
Client ID	: MW-7C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 17:20
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 107,-	**Analyst**	: JRO
Lab File ID	: WG1965157.csv	**Instrument ID**	:
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Total Nitrogen	0.84	0.30	0.30	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-08	**Date Collected**	: 08/21/24 13:05
Client ID	: MW-8A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 17:20
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 107,-	**Analyst**	: JRO
Lab File ID	: WG1965157.csv	**Instrument ID**	:
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Total Nitrogen	2.6	0.30	0.30	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-09	**Date Collected**	: 08/21/24 14:35
Client ID	: MW-8B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 17:20
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 107,-	**Analyst**	: JRO
Lab File ID	: WG1965157.csv	**Instrument ID**	:
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Total Nitrogen	1.8	0.30	0.30	

Form 1
WETCHEM

Client	:	**Alpha Geoscience**	**Lab Number**	:	**L2447890**
Project Name	:	**RANCO MINE**	**Project Number**	:	**12123**
Lab ID	:	**L2447890-10**	**Date Collected**	:	**08/21/24 13:40**
Client ID	:	**MW-8C2**	**Date Received**	:	**08/21/24**
Sample Location	:	**MANORVILLE, NY**	**Date Analyzed**	:	**08/28/24 17:20**
Sample Matrix	:	**WATER**	**Dilution Factor**	:	**1**
Analytical Method	:	**107,-**	**Analyst**	:	**JRO**
Lab File ID	:	**WG1965157.csv**	**Instrument ID**	:	
Sample Amount	:		**%Solids**	:	**N/A**
Digestion Method	:		**Date Digested**	:	

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	**Total Nitrogen**	**0.61**	**0.30**	**0.30**	

Form 1
WETCHEM

Client	:	**Alpha Geoscience**	**Lab Number**	:	**L2447890**
Project Name	:	**RANCO MINE**	**Project Number**	:	**12123**
Lab ID	:	**L2447890-11**	**Date Collected**	:	**08/21/24 09:00**
Client ID	:	**MW-9B**	**Date Received**	:	**08/21/24**
Sample Location	:	**MANORVILLE, NY**	**Date Analyzed**	:	**08/29/24 05:45**
Sample Matrix	:	**WATER**	**Dilution Factor**	:	**1**
Analytical Method	:	**107,-**	**Analyst**	:	**MRM**
Lab File ID	:	**WG1965328.csv**	**Instrument ID**	:	
Sample Amount	:		**%Solids**	:	**N/A**
Digestion Method	:		**Date Digested**	:	

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	**Total Nitrogen**	**5.1**	**0.30**	**0.30**	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-12	**Date Collected**	: 08/21/24 00:00
Client ID	: DUP	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/29/24 05:45
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 107,-	**Analyst**	: MRM
Lab File ID	: WG1965328.csv	**Instrument ID**	:
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Total Nitrogen	5.1	0.30	0.30	

Sample Raw Data

ALPHA ANALYTICAL LABS

WET CHEMISTRY DEPARTMENT

TOTAL NITROGEN

Last Change 3/5/13 GFF
File tnitrogen.xlt

Sample #: _____

Client: _____

Analysis: **Total Nitrogen**

Method: ***Calculation from TKN & NO3/NO2***

Product: **TNITROGEN**
Analyte: **Total Nitrogen,**
Analysis Date: 8/29/2024 5:45
Technician: MRM
Work group: WG1965328
RL: **0.3 mg/L**

	Sample Number	TKN (mg/L)	NO3/NO2 (mg/L)	RL Multiplier	Result (mg/L)
SAMP	L2447890-11	0.0766	5.1	1.0	5.1
SAMP	L2447890-12	0	5.1	1.0	5.1
SAMP	L2447931-01	11	19.1	5.0	30.1
SAMP	L2447932-01	9.09	6.9	1.0	15.99
SAMP	L2447933-01	4.72	3.4	1.0	8.12
SAMP	L2447934-01	13.4	14.92	1.0	28.32
SAMP					
SAMP					
SAMP					
SAMP					
SAMP					
SAMP					
SAMP					
SAMP					
SAMP					
SAMP					
SAMP					

Calculations of Total Nitrogen

Calculate the concentration value based on results for TKN-N and N03/NO2-N.

Aqueous samples:

mgTN-N/L = TKN-N(mg/l) + NO3/NO2-N (mg/l)

Soil samples:

mgTN-N/Kg = TKN-N(mg/Kg) + NO3/NO2-N(mg/Kg)

Total Kjeldahl Nitrogen Analysis

Results

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-01	**Date Collected**	: 08/21/24 11:10
Client ID	: MW-3A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 14:40
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NH3-H	**Analyst**	: KEP
Lab File ID	: NH320240827-G	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/26/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Total Kjeldahl	0.343	0.300	0.066	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-02	**Date Collected**	: 08/20/24 16:40
Client ID	: MW-6A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 14:44
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NH3-H	**Analyst**	: KEP
Lab File ID	: NH320240827-G	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/26/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Total Kjeldahl	0.378	0.300	0.066	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-03	**Date Collected**	: 08/20/24 14:55
Client ID	: MW-6B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 14:45
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NH3-H	**Analyst**	: KEP
Lab File ID	: NH320240827-G	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/26/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Total Kjeldahl	0.549	0.300	0.066	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-04	**Date Collected**	: 08/20/24 17:55
Client ID	: MW-6C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 14:46
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NH3-H	**Analyst**	: KEP
Lab File ID	: NH320240827-G	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/26/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Total Kjeldahl	0.961	0.300	0.066	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-05	**Date Collected**	: 08/20/24 16:30
Client ID	: MW-7A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 14:47
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NH3-H	**Analyst**	: KEP
Lab File ID	: NH320240827-G	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/26/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Total Kjeldahl	0.153	0.300	0.066	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-06	**Date Collected**	: 08/21/24 09:20
Client ID	: MW-7B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 14:47
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NH3-H	**Analyst**	: KEP
Lab File ID	: NH320240827-G	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/26/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Total Kjeldahl	0.118	0.300	0.066	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-07	**Date Collected**	: 08/21/24 10:50
Client ID	: MW-7C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 14:48
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NH3-H	**Analyst**	: KEP
Lab File ID	: NH320240827-G	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/26/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Total Kjeldahl	0.081	0.300	0.066	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-08	**Date Collected**	: 08/21/24 13:05
Client ID	: MW-8A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 14:49
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NH3-H	**Analyst**	: KEP
Lab File ID	: NH320240827-G	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/26/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Total Kjeldahl	ND	0.300	0.066	U

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-09	**Date Collected**	: 08/21/24 14:35
Client ID	: MW-8B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 14:50
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NH3-H	**Analyst**	: KEP
Lab File ID	: NH320240827-G	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/26/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Total Kjeldahl	0.171	0.300	0.066	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-10	**Date Collected**	: 08/21/24 13:40
Client ID	: MW-8C2	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 14:05
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NH3-H	**Analyst**	: KEP
Lab File ID	: NH320240827-F	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/26/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Total Kjeldahl	0.447	0.300	0.066	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-11	**Date Collected**	: 08/21/24 09:00
Client ID	: MW-9B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 14:08
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NH3-H	**Analyst**	: KEP
Lab File ID	: NH320240827-F	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/26/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Total Kjeldahl	0.076	0.300	0.066	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-12	**Date Collected**	: 08/21/24 00:00
Client ID	: DUP	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 14:09
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NH3-H	**Analyst**	: KEP
Lab File ID	: NH320240827-F	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/26/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Total Kjeldahl	ND	0.300	0.066	U

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1963995-1	**Date Collected**	: NA
Client ID	: WG1963995-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/27/24 14:31
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NH3-H	**Analyst**	: KEP
Lab File ID	: NH320240827-G	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/26/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Total Kjeldahl	0.090	0.300	0.022	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1963995-3	**Date Collected**	: 08/21/24 14:35
Client ID	: MW-8BDUP	**Date Received**	: 08/21/24
Sample Location	:	**Date Analyzed**	: 08/27/24 14:52
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NH3-H	**Analyst**	: KEP
Lab File ID	: NH320240827-G	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/26/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Total Kjeldahl	0.853	0.300	0.066	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1963999-1	**Date Collected**	: NA
Client ID	: WG1963999-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/27/24 14:03
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NH3-H	**Analyst**	: KEP
Lab File ID	: NH320240827-F	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/26/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Total Kjeldahl	0.094	0.300	0.022	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1963999-3	**Date Collected**	: 08/21/24 13:40
Client ID	: MW-8C2DUP	**Date Received**	: 08/21/24
Sample Location	:	**Date Analyzed**	: 08/27/24 14:07
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500NH3-H	**Analyst**	: KEP
Lab File ID	: NH320240827-F	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/26/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Total Kjeldahl	0.655	0.300	0.066	

Sample Raw Data

Original Run Filename: OM_8-27-2024_07-56-04AM.OMN Created: 8/27/2024 7:56:04 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-27-2024_07-56-04AM.OMN Last Modified: 8/27/2024 8:43:36 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	TRAY A
STD 1	1	S1	10.00000				
STD 2	1	S2	8.00000				
STD 3	1	S3	4.00000				
STD 4	1	S4	2.00000				
STD 5	1	S5	1.00000				
STD 6	1	S6	0.40000				
STD 7	1	S7	0.20000				
STD 8	1	S8	0.10000				
STD 9	1	S9	0.05000				
STD 10	1	S10	0.00000				
CCV 0.4000	1	S6	0.40260				101%
	Known Conc:		100.00000				
	Calibration:		Table/Fig. : 1				
CCV 4.0000	1	S3	3.97604				99%
	Known Conc:		100.00000				
CCB	1	S10	0.03373				
	Known Conc:		100.00000				
HI ICV 8.0	1	1	8.39116				105%
LO ICV 1.0	1	2	1.04503				105%
ICB	1	3	0.02117				
WG1963673-1 T	1	4	0.03043				
WG1963673-2 T	1	5	37.57527		15.00		94%
LCS LO T	1	6	4.23066		3.00		106%
L2445995-01 T	1	7	0.55993		3.00		
L2445995-02 T	1	8	0.31586		3.00		
L2445995-03 T	1	9	1.34212		3.00		
L2445995-04 T	1	10	3.42800		6.00		
CCV 0.4000	1	S6	0.41983				105%
	Known Conc:		100.00000				
CCV 4.0000	1	S3	4.02048				101%
	Known Conc:		100.00000				
CCB	1	S10	0.03875				
	Known Conc:		100.00000				
L2445995-05 T	1	11	0.79209		3.00		
L2445995-06 T	1	12	0.34402		3.00		
L2445995-07 T	1	13	0.39293		3.00		
WG1963673-4 T	1	14	9.09986		3.00		109%
WG1963673-3 T	1	15	0.86000		3.00		RPD=75%
L2446017-01 T	1	16	10.84328		3.00		
L2446017-02 T	1	17	10.24177		3.00		
L2447553-01 T	1	18	8.13672		15.00		
L2447553-02 T	1	19	5.59961		15.00		
L2447553-03 T	1	20	4.27398		15.00		
CCV 0.4000	1	S6	0.40816				102%
	Known Conc:		100.00000				
CCV 4.0000	1	S3	4.03122				101%
	Known Conc:		100.00000				
CCB	1	S10	0.03181				
	Known Conc:		100.00000				
L2447553-04 T	1	21	4.80209		15.00		
L2447553-05 T	1	22	6.44547		15.00		
L2447553-06 T	1	23	5.28287		15.00		
CCV 0.4000	1	S6	0.39920				100%
	Known Conc:		100.00000				
CCV 4.0000	1	S3	4.01766				100%
	Known Conc:		100.00000				
CCB	1	S10	0.03600				
	Known Conc:		100.00000				

Channel 2 (Ammonia High) - Current View

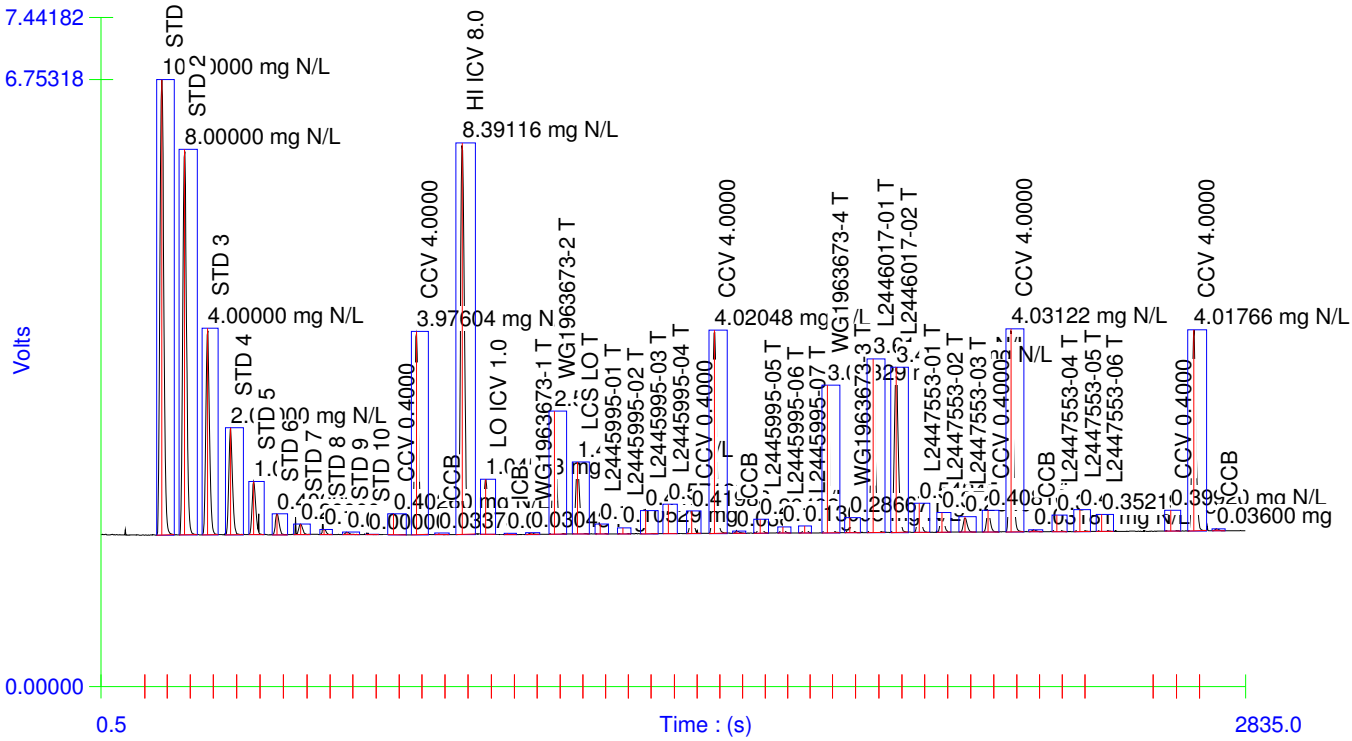
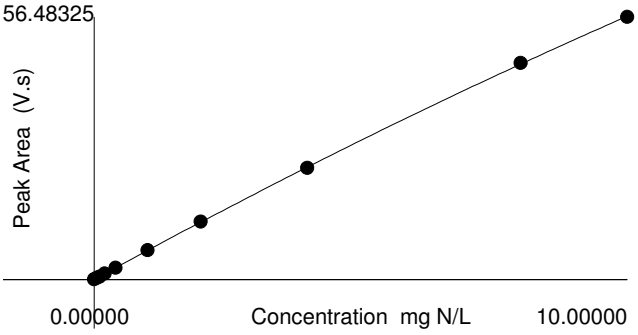


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.48325	5.06670	0.0	0.3	9.95687	8/27/2024	7:58:03 AM
2	8.00000	1	46.58753	4.28981	0.0	-0.5	8.05805	8/27/2024	7:58:59 AM
3	4.00000	1	24.04231	2.30151	0.0	0.8	3.97525	8/27/2024	7:59:56 AM
4	2.00000	1	12.52994	1.19029	0.0	-1.1	2.02083	8/27/2024	8:00:53 AM
5	1.00000	1	6.31600	0.59297	0.0	-0.6	1.00254	8/27/2024	8:01:51 AM
6	0.40000	1	2.52125	0.23552	0.0	1.2	0.39332	8/27/2024	8:02:49 AM
7	0.20000	1	1.29752	0.11649	0.0	0.2	0.19890	8/27/2024	8:03:47 AM
8	0.10000	1	0.61559	0.05781	0.0	8.3	0.09100	8/27/2024	8:04:46 AM
9	0.05000	1	0.36216	0.02907	0.0	-1.5	0.05097	8/27/2024	8:05:42 AM
10	0.00000	1	0.06537	0.00481			0.00415	8/27/2024	8:06:39 AM

Author: A1WETCHEMINSTRUMENT Date : 8/27/2024

Figure : 1 (Ammonia)



Area = - 0.06439 * Conc^2 + 6.30310 * Conc + 0.04188
Conc = 0.00033 * Area^2 + 0.15760 * Area - 0.00615
Correlation Coefficient (r) = 1.00000

Weighting : 1/x

Author: A1WETCHEMINSTRUMENT Date : 8/27/2024

Original Run Filename: OM_8-27-2024_08-44-50AM.OMN Created: 8/27/2024 8:44:50 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-27-2024_08-44-50AM.OMN Last Modified: 8/27/2024 9:00:10 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

	Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	
	CCV 0.4000	1	S6	0.38980				TRAY B
		Known Conc:		100.00000				97%
		Calibration:		Table/Fig. : 1				
	CCV 4.0000	1	S3	3.97468				99%
		Known Conc:		100.00000				
	CCB	1	S10	0.03593				
		Known Conc:		100.00000				
	WG1963675-1 T	1	1	0.03387				
	WG1963675-2 T	1	2	38.39532		15.00		96%
	LCS LO T	1	3	4.28757		3.00		107%
	L2447553-07 T	1	4	6.40822		15.00		
	L2447589-01 T	1	5	54.15923		15.00		
	L2447589-02 T	1	6	7.63828		30.00		
	L2447590-01 T	1	7	9.77601		6.00		
	L2447590-02 T	1	8	5.16881		3.00		
	L2447600-01 T	1	9	10.23221		30.00		
X	L2447601-01 T	1	10	36.85458		3.00		
X	CCV 0.4000	1	S6	0.86024				215%, RERUN OK
		Known Conc:		100.00000				

Channel 2 (Ammonia High) - Current View

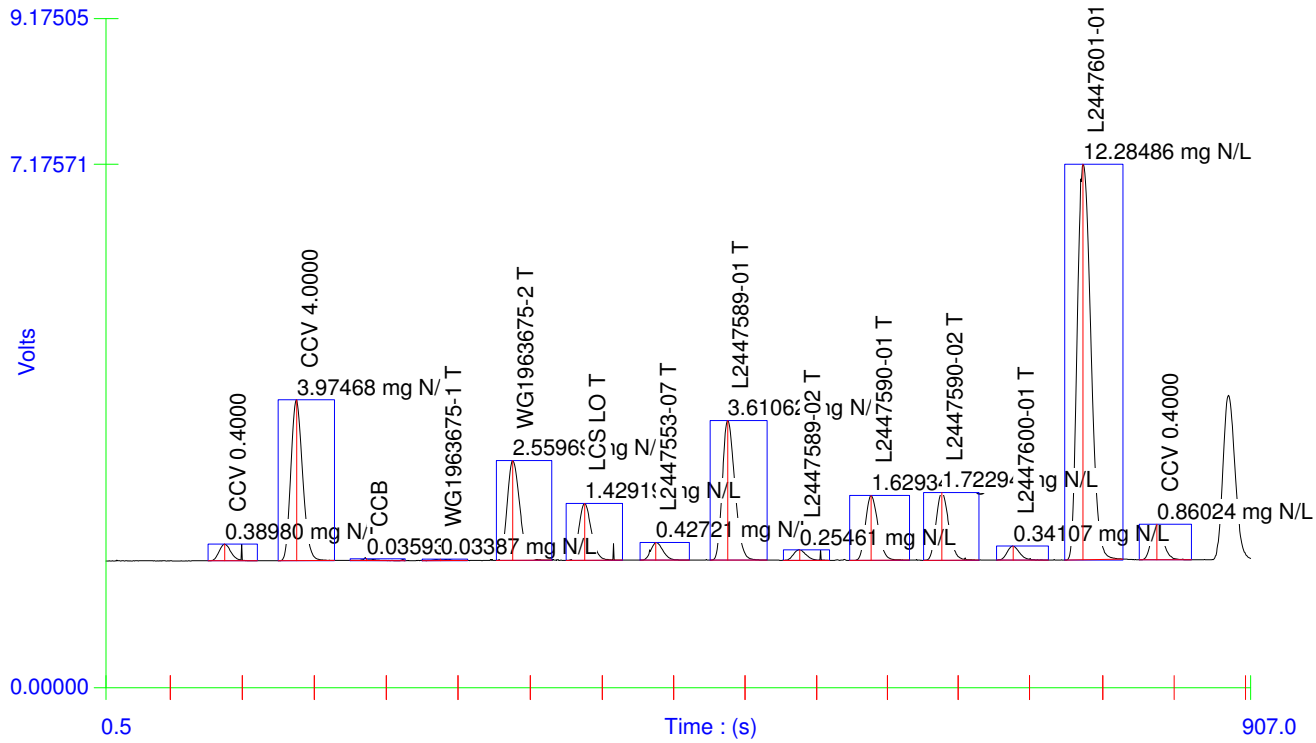
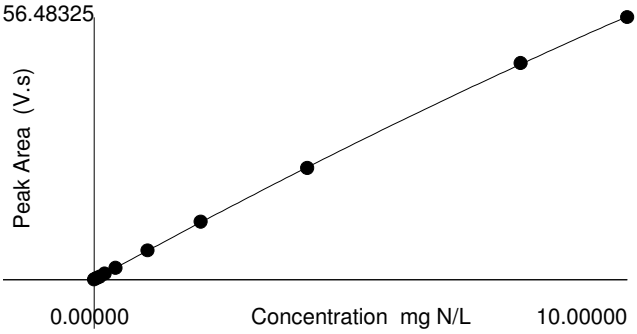


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.48325	5.06670	0.0	0.3	9.95687	8/27/2024	7:58:03 AM
2	8.00000	1	46.58753	4.28981	0.0	-0.5	8.05805	8/27/2024	7:58:59 AM
3	4.00000	1	24.04231	2.30151	0.0	0.8	3.97525	8/27/2024	7:59:56 AM
4	2.00000	1	12.52994	1.19029	0.0	-1.1	2.02083	8/27/2024	8:00:53 AM
5	1.00000	1	6.31600	0.59297	0.0	-0.6	1.00254	8/27/2024	8:01:51 AM
6	0.40000	1	2.52125	0.23552	0.0	1.2	0.39332	8/27/2024	8:02:49 AM
7	0.20000	1	1.29752	0.11649	0.0	0.2	0.19890	8/27/2024	8:03:47 AM
8	0.10000	1	0.61559	0.05781	0.0	8.3	0.09100	8/27/2024	8:04:46 AM
9	0.05000	1	0.36216	0.02907	0.0	-1.5	0.05097	8/27/2024	8:05:42 AM
10	0.00000	1	0.06537	0.00481			0.00415	8/27/2024	8:06:39 AM

Figure : 1 (Ammonia)



Area = - 0.06439 * Conc^2 + 6.30310 * Conc + 0.04188
Conc = 0.00033 * Area^2 + 0.15760 * Area - 0.00615
Correlation Coefficient (r) = 1.00000

Weighting : 1/x

Original Run Filename: OM_8-27-2024_09-06-26AM.OMN Created: 8/27/2024 9:06:26 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-27-2024_09-06-26AM.OMN Last Modified: 8/27/2024 9:31:06 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

	Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	
								TRAY B
	CCV 0.4000	1	S6	0.39782				99%
		Known Conc:		100.00000				
	CCV 4.0000	1	S3	3.99106				100%
		Known Conc:		100.00000				
		Calibration:		Table/Fig. : 1				
	CCB	1	S10	0.03362				
		Known Conc:		100.00000				
	L2447610-01 T	1	11	39.84799		15.00		
X	L2447611-01 T	1	12	49.34182		3.00		
X	L2447612-01 T	1	13	17.40214		3.00		
	L2447613-01 T	1	14	50.80532		60.00		
	L2447624-01 T	1	15	8.59894		3.00		
	L2447624-02 T	1	16	1.21881		3.00		
	WG1963675-4 T	1	17	8.55526		3.00		92%
	WG1963675-3 T	1	18	1.19222		3.00		RPD=2%
	L2447669-01 T	1	19	1.27032		15.00		
	L2447735-01 T	1	20	1.04475		3.00		
	CCV 0.4000	1	S6	0.42056				105%
		Known Conc:		100.00000				
	CCV 4.0000	1	S3	4.02104				101%
		Known Conc:		100.00000				
	CCB	1	S10	0.04204				
		Known Conc:		100.00000				
	L2447601-01 T; 10X	1	10	35.40182		30.00		
	L2447612-01 T	1	13	16.05857		3.00		
	L2447611-01 T; 20X	1	12	68.52055		60.00		
	CCV 0.4000	1	S6	0.41830				105%
		Known Conc:		100.00000				
	CCV 4.0000	1	S3	4.02941				101%
		Known Conc:		100.00000				
	CCB	1	S10	0.04104				
		Known Conc:		100.00000				

Channel 2 (Ammonia High) - Current View

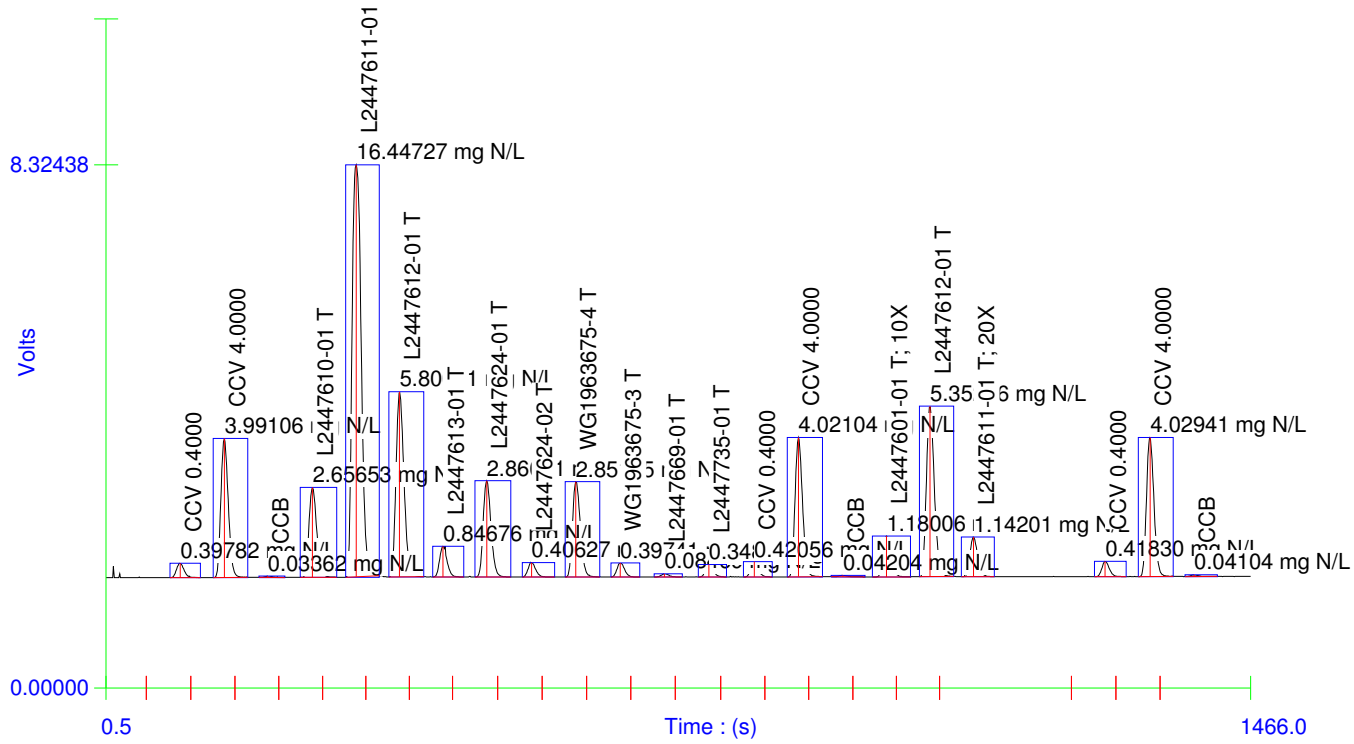
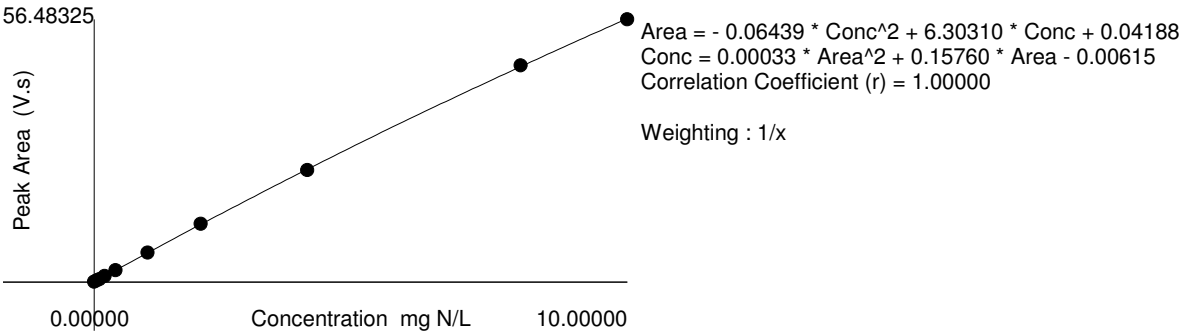


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.48325	5.06670	0.0	0.3	9.95687	8/27/2024	7:58:03 AM
2	8.00000	1	46.58753	4.28981	0.0	-0.5	8.05805	8/27/2024	7:58:59 AM
3	4.00000	1	24.04231	2.30151	0.0	0.8	3.97525	8/27/2024	7:59:56 AM
4	2.00000	1	12.52994	1.19029	0.0	-1.1	2.02083	8/27/2024	8:00:53 AM
5	1.00000	1	6.31600	0.59297	0.0	-0.6	1.00254	8/27/2024	8:01:51 AM
6	0.40000	1	2.52125	0.23552	0.0	1.2	0.39332	8/27/2024	8:02:49 AM
7	0.20000	1	1.29752	0.11649	0.0	0.2	0.19890	8/27/2024	8:03:47 AM
8	0.10000	1	0.61559	0.05781	0.0	8.3	0.09100	8/27/2024	8:04:46 AM
9	0.05000	1	0.36216	0.02907	0.0	-1.5	0.05097	8/27/2024	8:05:42 AM
10	0.00000	1	0.06537	0.00481			0.00415	8/27/2024	8:06:39 AM

Figure : 1 (Ammonia)



Original Run Filename: OM_8-27-2024_09-53-57AM.OMN Created: 8/27/2024 9:53:57 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-27-2024_09-53-57AM.OMN Last Modified: 8/27/2024 10:29:05 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

	Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	TRAY C
	CCV 0.4000	1	S6	0.38456				96%
		Known Conc:		100.00000				
	CCV 4.0000	1	S3	3.98936				100%
		Known Conc:		100.00000				
		Calibration:		Table/Fig. : 1				
	CCB	1	S10	0.02589				
		Known Conc:		100.00000				
	WG1964151-1	1	1	-0.01018		1.50		
	WG1964151-2	1	2	18.78248		7.50		94%
	LCS LO	1	3	2.10351		1.50		105%
	L2445995-01	1	4	0.16015		1.50		
	L2445995-02	1	5	0.02369		1.50		
	L2445995-03	1	6	0.03329		1.50		
	L2445995-04	1	7	0.13557		3.00		
	L2445995-05	1	8	0.03949		1.50		
	L2445995-06	1	9	0.04927		1.50		
	WG1964151-3	1	10	0.04020		1.50		RPD=NC
	CCV 0.4000	1	S6	0.40166				
		Known Conc:		100.00000				
	CCV 4.0000	1	S3	4.03293				
		Known Conc:		100.00000				
	CCB	1	S10	0.03750				
		Known Conc:		100.00000				
	WG1964151-4	1	11	4.29310		1.50		104%
	L2445995-07	1	12	0.23140		1.50		
	L2446081-01	1	13	10.51927		3.00		
	L2446081-02	1	14	0.31295		1.50		
	L2447382-01	1	15	0.03899		1.50		
	L2447382-02	1	16	0.03078		1.50		
	L2447432-01	1	17	3.28616		3.00		
	L2447433-01	1	18	0.69918		7.50		
	L2447471-01	1	19	0.18636		1.50		
	L2447596-01	1	20	0.07941		1.50		
	CCV 0.4000	1	S6	0.39691				99%
		Known Conc:		100.00000				
	CCV 4.0000	1	S3	4.00016				100%
		Known Conc:		100.00000				
	CCB	1	S10	0.03422				
		Known Conc:		100.00000				
X	L2447601-01	1	21	25.79253		3.00		
RERUN ↓	L2447613-01	1	22	24.19991		7.50		
	L2448458-01	1	23	32.04029		1.50		
	L2448458-03	1	24	32.28745		1.50		

Author: A1WETCHEMINSTRUMENT Date : 8/27/2024

Channel 2 (Ammonia High) - Current View

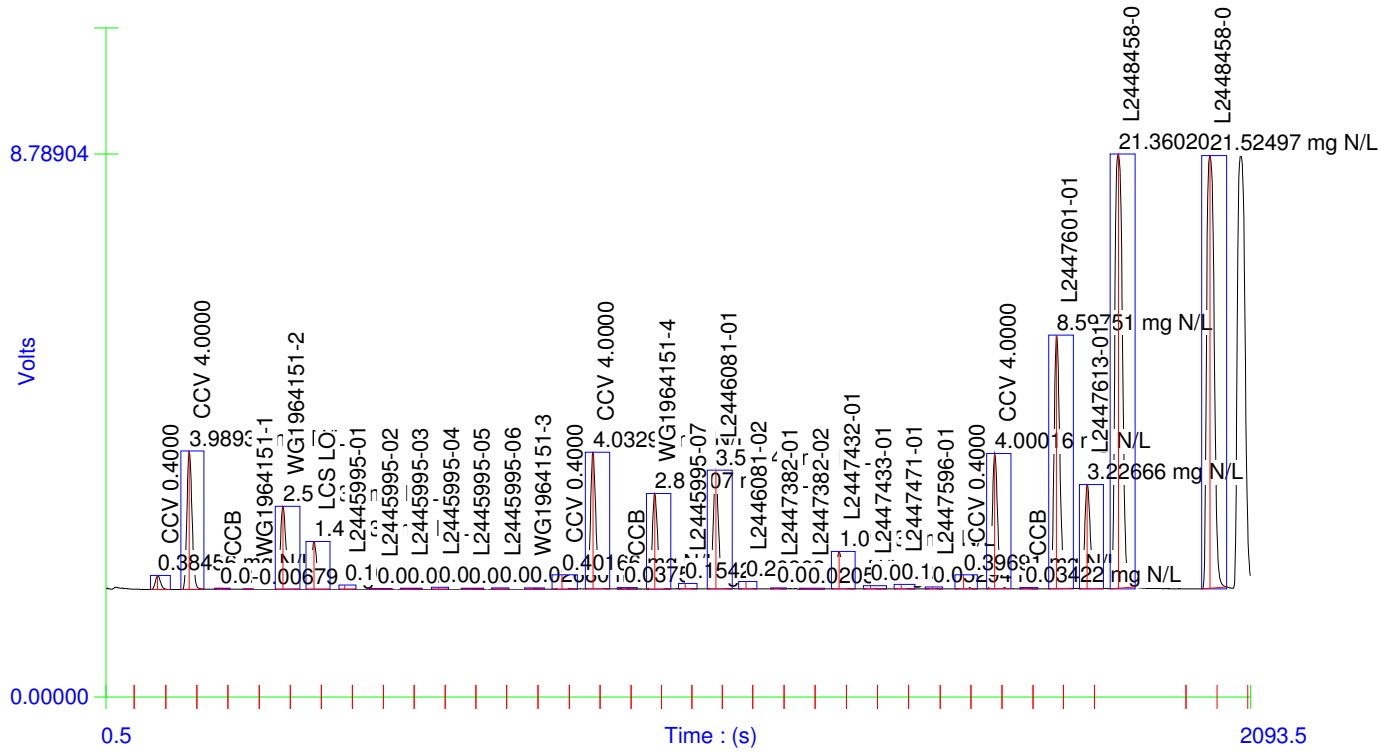
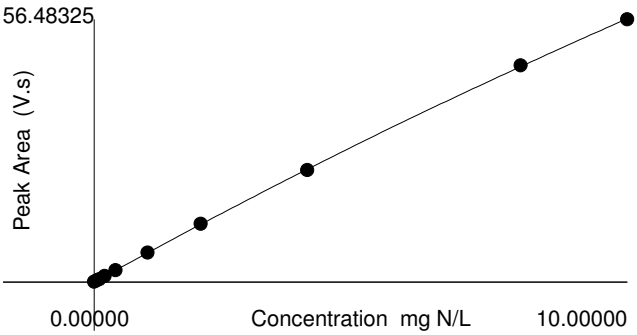


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.48325	5.06670	0.0	0.3	9.95687	8/27/2024	7:58:03 AM
2	8.00000	1	46.58753	4.28981	0.0	-0.5	8.05805	8/27/2024	7:58:59 AM
3	4.00000	1	24.04231	2.30151	0.0	0.8	3.97525	8/27/2024	7:59:56 AM
4	2.00000	1	12.52994	1.19029	0.0	-1.1	2.02083	8/27/2024	8:00:53 AM
5	1.00000	1	6.31600	0.59297	0.0	-0.6	1.00254	8/27/2024	8:01:51 AM
6	0.40000	1	2.52125	0.23552	0.0	1.2	0.39332	8/27/2024	8:02:49 AM
7	0.20000	1	1.29752	0.11649	0.0	0.2	0.19890	8/27/2024	8:03:47 AM
8	0.10000	1	0.61559	0.05781	0.0	8.3	0.09100	8/27/2024	8:04:46 AM
9	0.05000	1	0.36216	0.02907	0.0	-1.5	0.05097	8/27/2024	8:05:42 AM
10	0.00000	1	0.06537	0.00481			0.00415	8/27/2024	8:06:39 AM

Figure : 1 (Ammonia)



Area = - 0.06439 * Conc^2 + 6.30310 * Conc + 0.04188
Conc = 0.00033 * Area^2 + 0.15760 * Area - 0.00615
Correlation Coefficient (r) = 1.00000

Weighting : 1/x

Author: A1WETCHEMINSTRUMENT Date : 8/27/2024

Original Run Filename: OM_8-27-2024_10-41-53AM.OMN Created: 8/27/2024 10:41:53 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-27-2024_10-41-53AM.OMN Last Modified: 8/27/2024 10:55:32 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

	Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	
	CCV 0.4000	1	S6	0.42563				106%
		Known Conc:		100.00000				
	CCV 4.0000	1	S3	3.98726				100%
		Known Conc:		100.00000				
		Calibration:		Table/Fig. : 1				
	CCB	1	S10	0.04786				
		Known Conc:		100.00000				
	L2447601-01	1	21	25.77444		3.00		
	L2447613-01	1	22	24.14324		7.50		
	L2448458-01; 20X	1	23	44.48938		30.00		
	L2448458-03; 20X	1	24	38.80942		30.00		
	L2448458-05; 20X	1	25	42.00940		30.00		
X	CCV 0.4000	1	S6	0.51534				129%, RERUN OK
		Known Conc:		100.00000				

TRAY C

Channel 2 (Ammonia High) - Current View

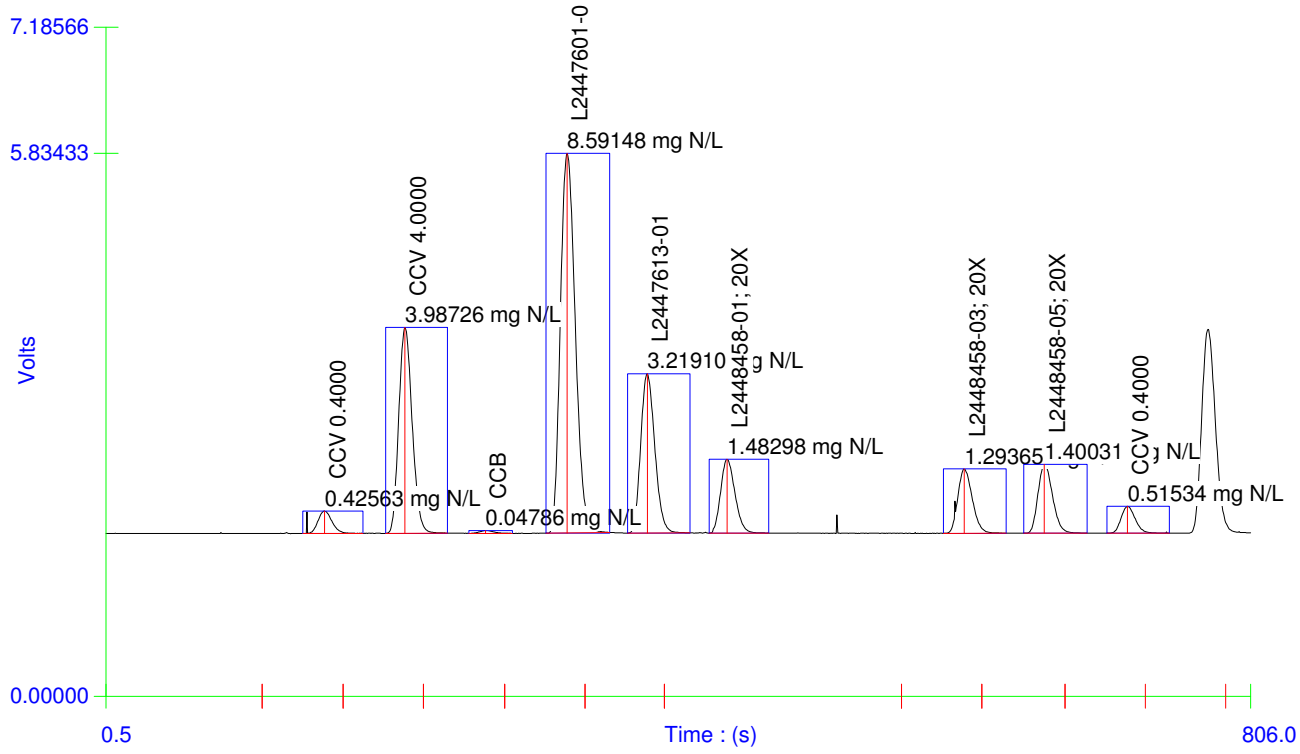
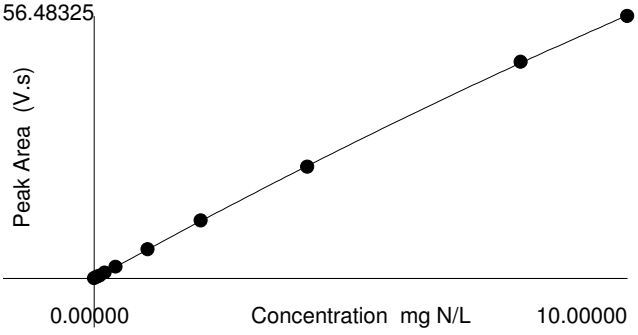


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.48325	5.06670	0.0	0.3	9.95687	8/27/2024	7:58:03 AM
2	8.00000	1	46.58753	4.28981	0.0	-0.5	8.05805	8/27/2024	7:58:59 AM
3	4.00000	1	24.04231	2.30151	0.0	0.8	3.97525	8/27/2024	7:59:56 AM
4	2.00000	1	12.52994	1.19029	0.0	-1.1	2.02083	8/27/2024	8:00:53 AM
5	1.00000	1	6.31600	0.59297	0.0	-0.6	1.00254	8/27/2024	8:01:51 AM
6	0.40000	1	2.52125	0.23552	0.0	1.2	0.39332	8/27/2024	8:02:49 AM
7	0.20000	1	1.29752	0.11649	0.0	0.2	0.19890	8/27/2024	8:03:47 AM
8	0.10000	1	0.61559	0.05781	0.0	8.3	0.09100	8/27/2024	8:04:46 AM
9	0.05000	1	0.36216	0.02907	0.0	-1.5	0.05097	8/27/2024	8:05:42 AM
10	0.00000	1	0.06537	0.00481			0.00415	8/27/2024	8:06:39 AM

Figure : 1 (Ammonia)



Area = - 0.06439 * Conc^2 + 6.30310 * Conc + 0.04188
Conc = 0.00033 * Area^2 + 0.15760 * Area - 0.00615
Correlation Coefficient (r) = 1.00000

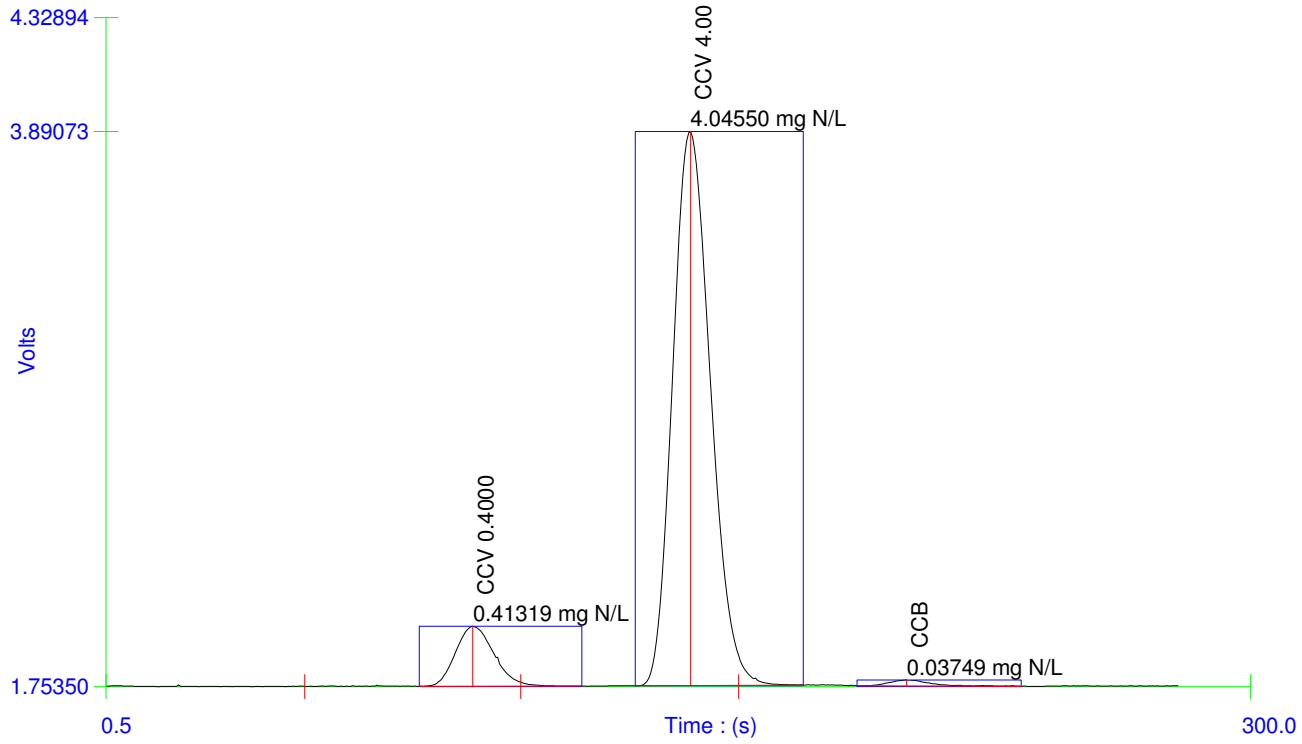
Weighting : 1/x

Author: A1WETCHEMINSTRUMENT Date : 8/27/2024

Original Run Filename: OM_8-27-2024_11-01-14AM.OMN Created: 8/27/2024 11:01:14 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-27-2024_11-01-14AM.OMN Last Modified: 8/27/2024 11:06:06 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	TRAY C
CCV 0.4000	1	S6	0.41319				103%
		Known Conc:	100.00000				
		Calibration:	Table/Fig. : 1				
CCV 4.0000	1	S3	4.04550				101%
		Known Conc:	100.00000				
CCB	1	S10	0.03749				
		Known Conc:	100.00000				

Channel 2 (Ammonia High) - Current View

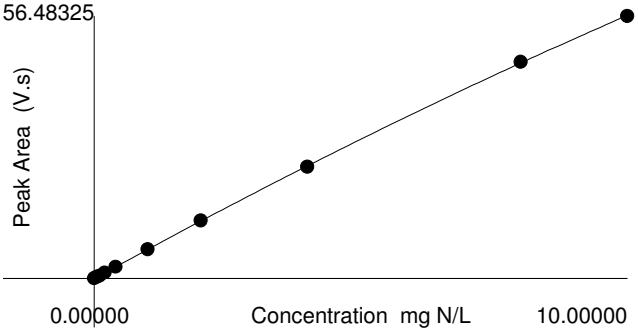


Author: A1WETCHEMINSTRUMENT Date : 8/27/2024

Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.48325	5.06670	0.0	0.3	9.95687	8/27/2024	7:58:03 AM
2	8.00000	1	46.58753	4.28981	0.0	-0.5	8.05805	8/27/2024	7:58:59 AM
3	4.00000	1	24.04231	2.30151	0.0	0.8	3.97525	8/27/2024	7:59:56 AM
4	2.00000	1	12.52994	1.19029	0.0	-1.1	2.02083	8/27/2024	8:00:53 AM
5	1.00000	1	6.31600	0.59297	0.0	-0.6	1.00254	8/27/2024	8:01:51 AM
6	0.40000	1	2.52125	0.23552	0.0	1.2	0.39332	8/27/2024	8:02:49 AM
7	0.20000	1	1.29752	0.11649	0.0	0.2	0.19890	8/27/2024	8:03:47 AM
8	0.10000	1	0.61559	0.05781	0.0	8.3	0.09100	8/27/2024	8:04:46 AM
9	0.05000	1	0.36216	0.02907	0.0	-1.5	0.05097	8/27/2024	8:05:42 AM
10	0.00000	1	0.06537	0.00481			0.00415	8/27/2024	8:06:39 AM

Figure : 1 (Ammonia)



Area = - 0.06439 * Conc^2 + 6.30310 * Conc + 0.04188
Conc = 0.00033 * Area^2 + 0.15760 * Area - 0.00615
Correlation Coefficient (r) = 1.00000

Weighting : 1/x

Original Run Filename: OM_8-27-2024_11-08-28AM.OMN Created: 8/27/2024 11:08:28 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-27-2024_11-08-28AM.OMN Last Modified: 8/27/2024 11:36:55 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

	Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	TRAY D
	CCV 0.4000	1	S6	0.40926				102%
		Known Conc:		100.00000				
		Calibration:		Table/Fig. : 1				
	CCV 4.0000	1	S3	4.06230				102%
		Known Conc:		100.00000				
	CCB	1	S10	0.03639				
		Known Conc:		100.00000				
	WG1964148-1	1	1	0.01548		1.50		
X	WG1964148-2	1	2	~~0.17497~~		~~7.50~~	1.5	0.03499
	WG1964148-3	1	3	~~3.71472~~		~~1.50~~	7.5	18.5736, 93%
	LCS LO	1	4	2.12997		1.50		106%
	L2447503-06	1	5	1.99025		1.50		
	L2447503-07	1	6	0.17432		1.50		
	L2447503-08	1	7	0.16902		1.50		
	WG1964148-5	1	8	4.12494		1.50		99%
	WG1964148-4	1	9	0.30097		1.50		RPD=56%
	L2447503-09	1	10	0.03814		1.50		
	CCV 0.4000	1	S6	0.41420				104%
		Known Conc:		100.00000				
	CCV 4.0000	1	S3	4.04509				101%
		Known Conc:		100.00000				
	CCB	1	S10	0.03863				
		Known Conc:		100.00000				
	L2447589-01	1	11	28.61041		15.00		
	L2447589-02	1	12	2.41640		1.50		
	L2447590-01	1	13	4.23935		3.00		
	L2447590-02	1	14	2.83003		1.50		
	L2447726-01	1	15	0.16743		1.50		
	L2447726-02	1	16	0.62223		7.50		
	WG1964148-2	1	2	0.04428		1.50		59%
	CCV 0.4000	1	S6	0.38987				97%
		Known Conc:		100.00000				
	CCV 4.0000	1	S3	3.86094				97%
		Known Conc:		100.00000				
	CCB	1	S10	0.03412				
		Known Conc:		100.00000				

Author: A1WETCHEMINSTRUMENT Date : 8/27/2024

Channel 2 (Ammonia High) - Current View

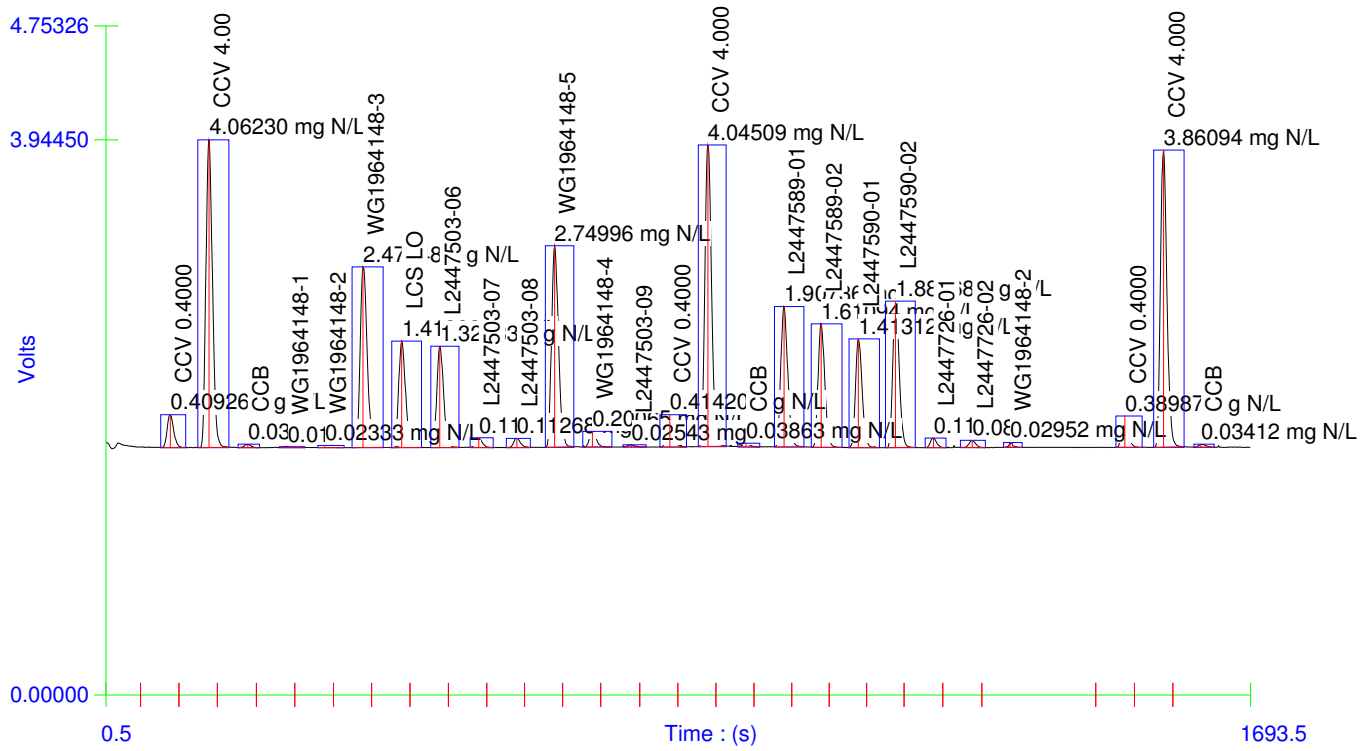
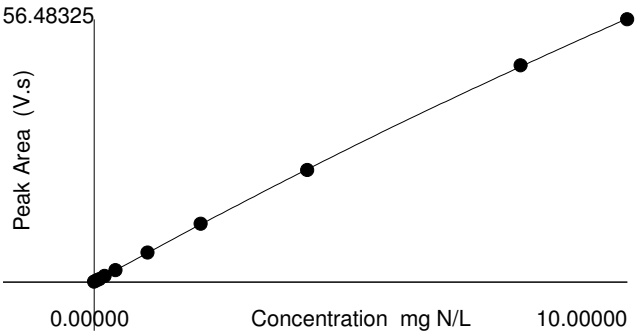


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.48325	5.06670	0.0	0.3	9.95687	8/27/2024	7:58:03 AM
2	8.00000	1	46.58753	4.28981	0.0	-0.5	8.05805	8/27/2024	7:58:59 AM
3	4.00000	1	24.04231	2.30151	0.0	0.8	3.97525	8/27/2024	7:59:56 AM
4	2.00000	1	12.52994	1.19029	0.0	-1.1	2.02083	8/27/2024	8:00:53 AM
5	1.00000	1	6.31600	0.59297	0.0	-0.6	1.00254	8/27/2024	8:01:51 AM
6	0.40000	1	2.52125	0.23552	0.0	1.2	0.39332	8/27/2024	8:02:49 AM
7	0.20000	1	1.29752	0.11649	0.0	0.2	0.19890	8/27/2024	8:03:47 AM
8	0.10000	1	0.61559	0.05781	0.0	8.3	0.09100	8/27/2024	8:04:46 AM
9	0.05000	1	0.36216	0.02907	0.0	-1.5	0.05097	8/27/2024	8:05:42 AM
10	0.00000	1	0.06537	0.00481			0.00415	8/27/2024	8:06:39 AM

Figure : 1 (Ammonia)



Area = - 0.06439 * Conc^2 + 6.30310 * Conc + 0.04188
Conc = 0.00033 * Area^2 + 0.15760 * Area - 0.00615
Correlation Coefficient (r) = 1.00000

Weighting : 1/x

Author: A1WETCHEMINSTRUMENT Date : 8/27/2024

Original Run Filename: OM_8-27-2024_11-37-52AM.OMN Created: 8/27/2024 11:37:52 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-27-2024_11-37-52AM.OMN Last Modified: 8/27/2024 11:54:06 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	TRAY E
CCV 0.4000	1	S6	0.39028				98%
	Known Conc:		100.00000				
	Calibration:		Table/Fig. : 1				
CCV 4.0000	1	S3	3.85821				96%
	Known Conc:		100.00000				
CCB	1	S10	0.03428				
	Known Conc:		100.00000				
WG1964149-1 D	1	1	0.01095		1.50		
WG1964149-2 D	1	2	18.09574		7.50		90%
LCS LO D	1	3	2.02298		1.50		101%
L2447428-01 D	1	4	0.20347		1.50		
L2447428-02 D	1	5	0.09299		1.50		
WG1964149-4 D	1	6	3.99685		1.50		98%
WG1964149-3 D	1	7	0.27966		1.50		RPD=100%
CCV 0.4000	1	S6	0.39156				98%
	Known Conc:		100.00000				
CCV 4.0000	1	S3	3.81530				95%
	Known Conc:		100.00000				
CCB	1	S10	0.03739				
	Known Conc:		100.00000				

Channel 2 (Ammonia High) - Current View

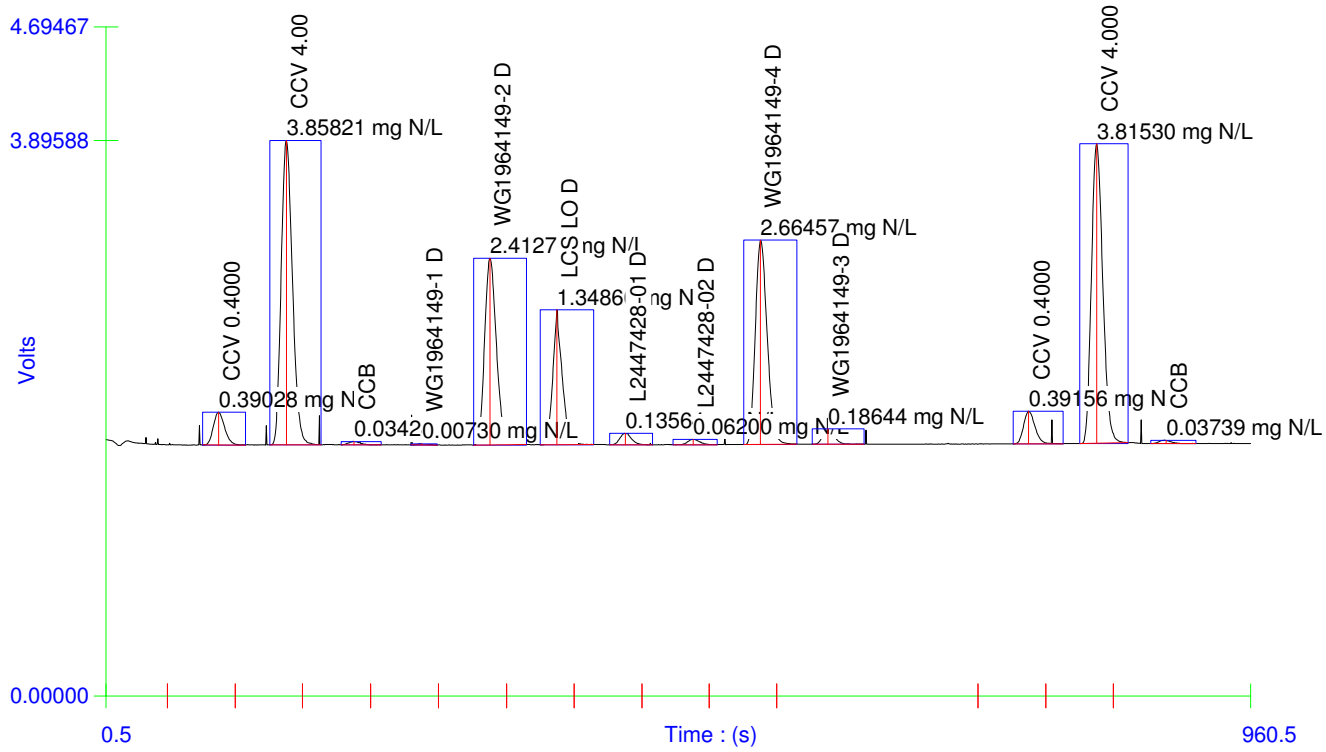
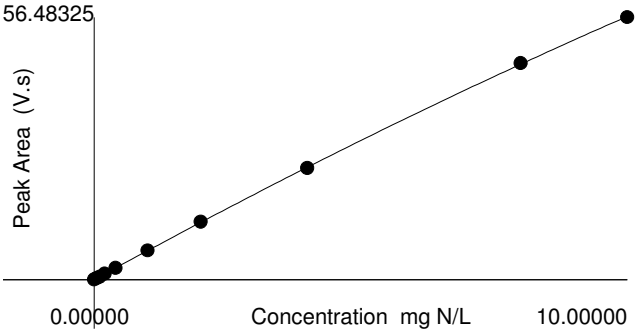


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.48325	5.06670	0.0	0.3	9.95687	8/27/2024	7:58:03 AM
2	8.00000	1	46.58753	4.28981	0.0	-0.5	8.05805	8/27/2024	7:58:59 AM
3	4.00000	1	24.04231	2.30151	0.0	0.8	3.97525	8/27/2024	7:59:56 AM
4	2.00000	1	12.52994	1.19029	0.0	-1.1	2.02083	8/27/2024	8:00:53 AM
5	1.00000	1	6.31600	0.59297	0.0	-0.6	1.00254	8/27/2024	8:01:51 AM
6	0.40000	1	2.52125	0.23552	0.0	1.2	0.39332	8/27/2024	8:02:49 AM
7	0.20000	1	1.29752	0.11649	0.0	0.2	0.19890	8/27/2024	8:03:47 AM
8	0.10000	1	0.61559	0.05781	0.0	8.3	0.09100	8/27/2024	8:04:46 AM
9	0.05000	1	0.36216	0.02907	0.0	-1.5	0.05097	8/27/2024	8:05:42 AM
10	0.00000	1	0.06537	0.00481			0.00415	8/27/2024	8:06:39 AM

Figure : 1 (Ammonia)



Area = - 0.06439 * Conc^2 + 6.30310 * Conc + 0.04188
Conc = 0.00033 * Area^2 + 0.15760 * Area - 0.00615
Correlation Coefficient (r) = 1.00000

Weighting : 1/x

Original Run Filename: OM_8-27-2024_01-58-12PM.OMN Created: 8/27/2024 1:58:12 PM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-27-2024_01-58-12PM.OMN Last Modified: 8/27/2024 2:23:53 PM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

	Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	
	CCV 0.4000	1	S6	0.36749				
			Known Conc:	100.00000				
	CCV 4.0000	1	S3	3.90267				
			Known Conc:	100.00000				
			Calibration:	Table/Fig. : 1				
	CCB	1	S10	0.02718				
			Known Conc:	100.00000				
WG1964002	WG1963999-1 T	1	1	0.03117				
	WG1963999-2 T	1	2	35.66363		15.00		89%
	LCS LO T	1	3	3.97391		3.00		99%
	L2447890-10 T	1	4	0.44676		3.00		
	WG1963999-4 T	1	5	8.09654		3.00		96%
	WG1963999-3 T	1	6	0.65528		3.00		RPD=38%
	L2447890-11 T	1	7	0.07661		3.00		
	L2447890-12 T	1	8	0.05765		3.00		
	L2447726-02 T	1	9	2.08420		30.00		
	L2447726-03 T	1	10	2.23656		3.00		
	CCV 0.4000	1	S6	0.42245				106%
			Known Conc:	100.00000				
	CCV 4.0000	1	S3	3.90635				98%
			Known Conc:	100.00000				
	CCB	1	S10	0.03804				
			Known Conc:	100.00000				
	L2447726-04 T	1	11	0.28238		3.00		
	WG1964002-4 T	1	12	8.11374		3.00		98%
	WG1964002-3 T	1	13	1.43294		3.00		RPD=134%
	CCV 0.4000	1	S6	0.38632				97%
			Known Conc:	100.00000				
	CCV 4.0000	1	S3	3.90598				98%
			Known Conc:	100.00000				
	CCB	1	S10	0.03990				
			Known Conc:	100.00000				

Author: A1WETCHEMINSTRUMENT Date : 8/27/2024

Channel 2 (Ammonia High) - Current View

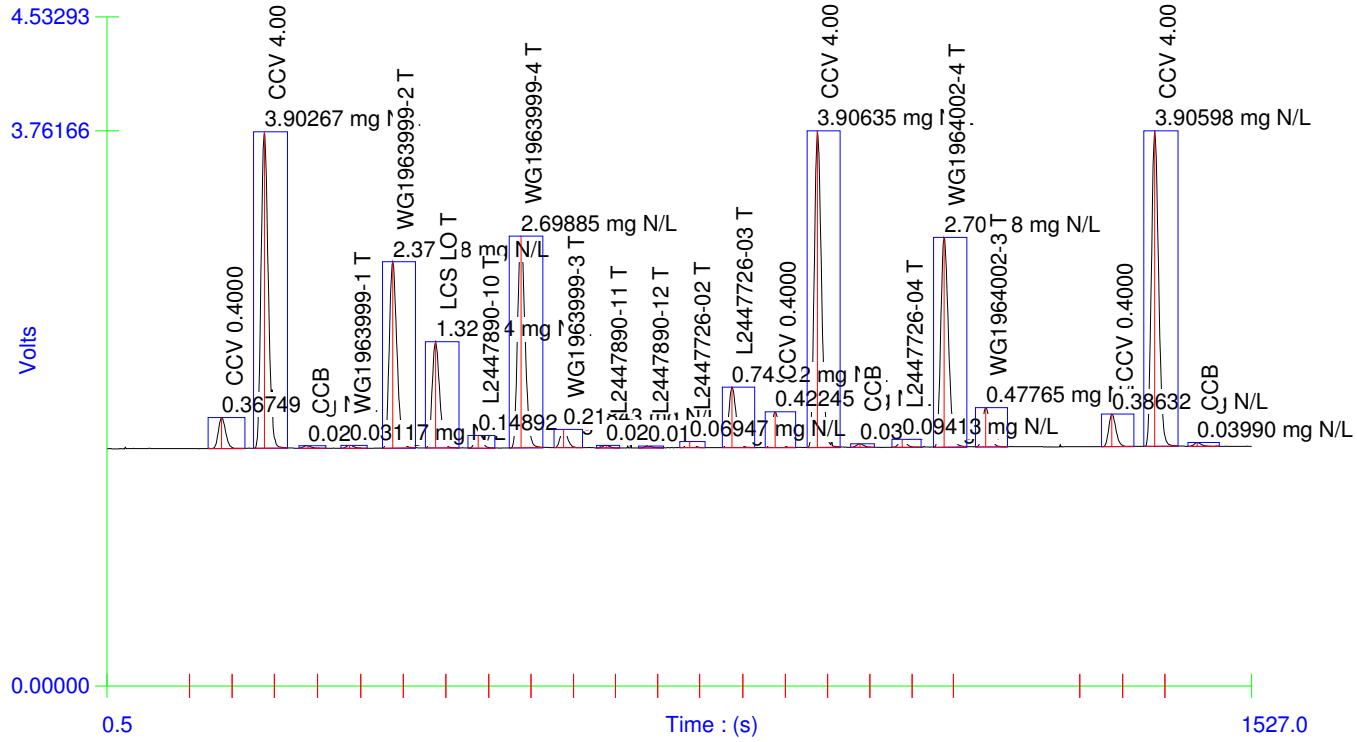
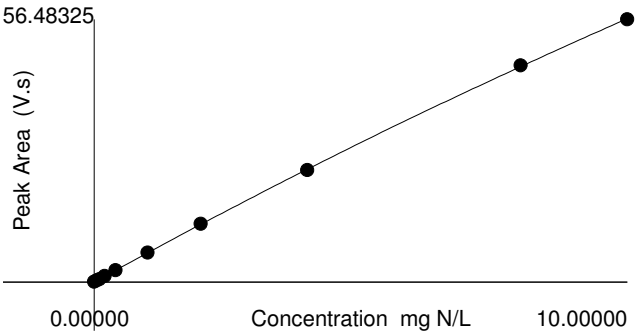


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.48325	5.06670	0.0	0.3	9.95687	8/27/2024	7:58:03 AM
2	8.00000	1	46.58753	4.28981	0.0	-0.5	8.05805	8/27/2024	7:58:59 AM
3	4.00000	1	24.04231	2.30151	0.0	0.8	3.97525	8/27/2024	7:59:56 AM
4	2.00000	1	12.52994	1.19029	0.0	-1.1	2.02083	8/27/2024	8:00:53 AM
5	1.00000	1	6.31600	0.59297	0.0	-0.6	1.00254	8/27/2024	8:01:51 AM
6	0.40000	1	2.52125	0.23552	0.0	1.2	0.39332	8/27/2024	8:02:49 AM
7	0.20000	1	1.29752	0.11649	0.0	0.2	0.19890	8/27/2024	8:03:47 AM
8	0.10000	1	0.61559	0.05781	0.0	8.3	0.09100	8/27/2024	8:04:46 AM
9	0.05000	1	0.36216	0.02907	0.0	-1.5	0.05097	8/27/2024	8:05:42 AM
10	0.00000	1	0.06537	0.00481			0.00415	8/27/2024	8:06:39 AM

Figure : 1 (Ammonia)



Area = - 0.06439 * Conc^2 + 6.30310 * Conc + 0.04188
Conc = 0.00033 * Area^2 + 0.15760 * Area - 0.00615
Correlation Coefficient (r) = 1.00000

Weighting : 1/x

Original Run Filename: OM_8-27-2024_02-28-01PM.OMN Created: 8/27/2024 2:28:01 PM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-27-2024_02-28-01PM.OMN Last Modified: 8/27/2024 2:59:20 PM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	TRAY G
CCV 0.4000	1	S6	0.40180				100%
	Known Conc:		100.00000				
CCV 4.0000	1	S3	4.02312				101%
	Known Conc:		100.00000				
	Calibration:		Table/Fig. : 1				
CCB	1	S10	0.04169				
	Known Conc:		100.00000				
WG1963995-1 T	1	1	0.02992				
WG1963995-2 T	1	2	37.31417		15.00		93%
LCS LO T	1	3	4.14044		3.00		104%
L2447694-01 T	1	4	7.15446		6.00		
L2447696-01 T	1	5	1.73798		3.00		
L2447737-01 T	1	6	4.16787		15.00		
L2447738-01 T	1	7	1.65717		15.00		
L2447740-03 T	1	8	28.53999		3.00		
L2447740-06 T	1	9	2.33841		3.00		
L2447890-01 T	1	10	0.34307		3.00		
CCV 0.4000	1	S6	0.40488				101%
	Known Conc:		100.00000				
CCV 4.0000	1	S3	4.00787				100%
	Known Conc:		100.00000				
CCB	1	S10	0.04814				
	Known Conc:		100.00000				
L2447890-02 T	1	11	0.37801		3.00		
L2447890-03 T	1	12	0.54870		3.00		
L2447890-04 T	1	13	0.96110		3.00		
L2447890-05 T	1	14	0.15275		3.00		
L2447890-06 T	1	15	0.11770		3.00		
L2447890-07 T	1	16	0.08107		3.00		
L2447890-08 T	1	17	0.04993		3.00		
L2447890-09 T	1	18	0.17113		3.00		
WG1963995-4 T	1	19	7.82591		3.00		98%
WG1963995-3 T	1	20	0.85270		3.00		RPD=NC
CCV 0.4000	1	S6	0.39960				100%
	Known Conc:		100.00000				
CCV 4.0000	1	S3	4.01159				100%
	Known Conc:		100.00000				
CCB	1	S10	0.03646				
	Known Conc:		100.00000				

Author: A1WETCHEMINSTRUMENT Date : 8/27/2024

Channel 2 (Ammonia High) - Current View

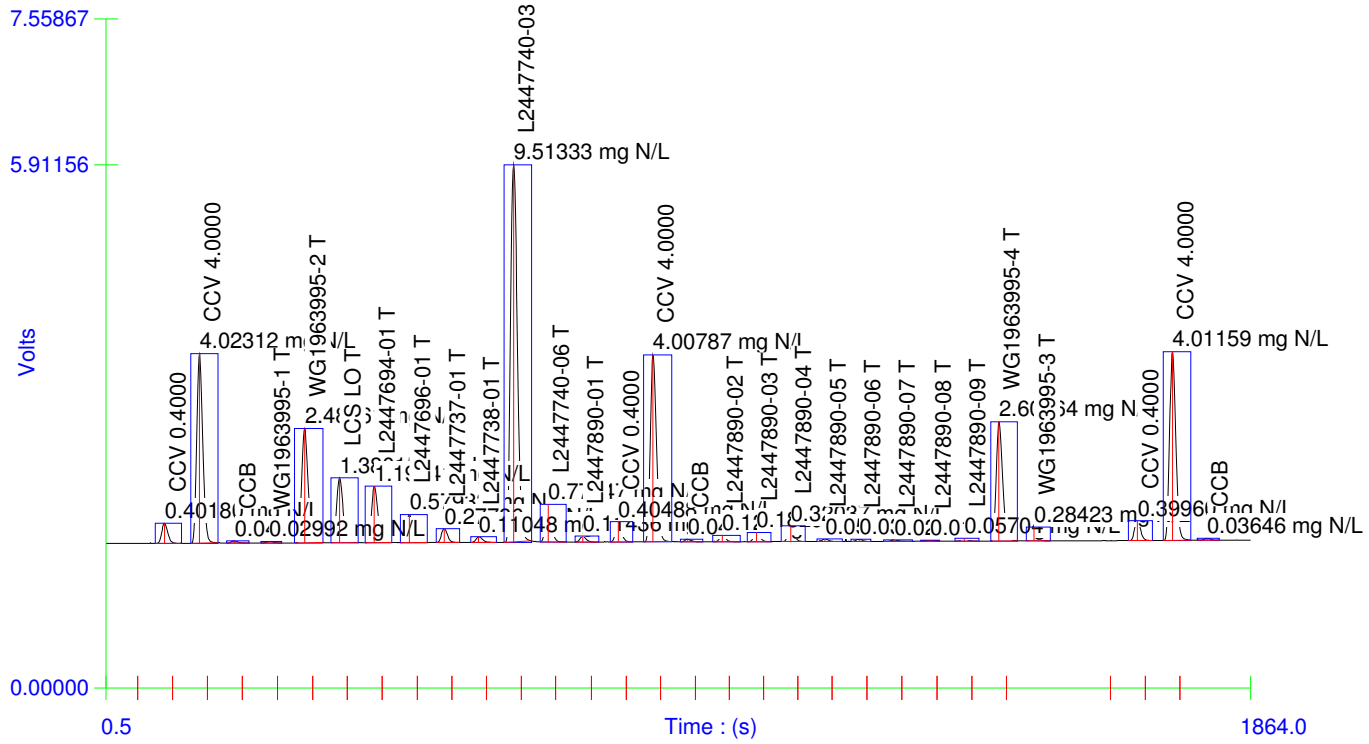
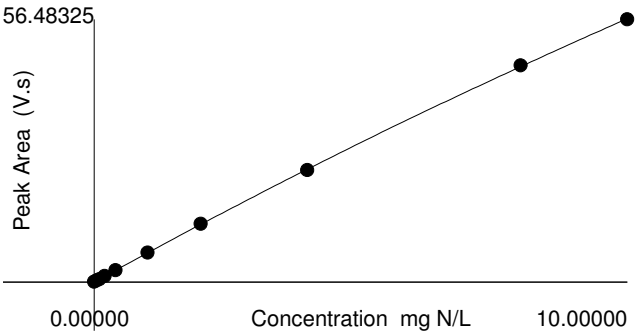


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.48325	5.06670	0.0	0.3	9.95687	8/27/2024	7:58:03 AM
2	8.00000	1	46.58753	4.28981	0.0	-0.5	8.05805	8/27/2024	7:58:59 AM
3	4.00000	1	24.04231	2.30151	0.0	0.8	3.97525	8/27/2024	7:59:56 AM
4	2.00000	1	12.52994	1.19029	0.0	-1.1	2.02083	8/27/2024	8:00:53 AM
5	1.00000	1	6.31600	0.59297	0.0	-0.6	1.00254	8/27/2024	8:01:51 AM
6	0.40000	1	2.52125	0.23552	0.0	1.2	0.39332	8/27/2024	8:02:49 AM
7	0.20000	1	1.29752	0.11649	0.0	0.2	0.19890	8/27/2024	8:03:47 AM
8	0.10000	1	0.61559	0.05781	0.0	8.3	0.09100	8/27/2024	8:04:46 AM
9	0.05000	1	0.36216	0.02907	0.0	-1.5	0.05097	8/27/2024	8:05:42 AM
10	0.00000	1	0.06537	0.00481			0.00415	8/27/2024	8:06:39 AM

Figure : 1 (Ammonia)



Quality Control

Form 5a
Matrix Spike

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-8B	**Matrix**	: WATER
Lab Sample ID	: L2447890-09		
Matrix Spike	: WG1963995-4	**MS Analysis Date**	: 08/27/24 14:51
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Nitrogen, Total Kjeldahl	0.171J	8	7.82	98					77-111	24

Form 5a
Matrix Spike

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-8C2	**Matrix**	: WATER
Lab Sample ID	: L2447890-10		
Matrix Spike	: WG1963999-4	**MS Analysis Date**	: 08/27/24 14:06
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Nitrogen, Total Kjeldahl	0.447	8	8.10	96					77-111	24

Form 6
Lab Duplicates

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-8B	**Matrix**	: WATER
Lab Sample ID	: L2447890-09	**Analysis Date**	: 08/27/24 14:50
Dup Sample ID	: WG1963995-3	**DUP Analysis Date**	: 08/27/24 14:52

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Nitrogen, Total Kjeldahl	0.171J	0.853	NC	24

Form 6
Lab Duplicates

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-8C2	**Matrix**	: WATER
Lab Sample ID	: L2447890-10	**Analysis Date**	: 08/27/24 14:05
Dup Sample ID	: WG1963999-3	**DUP Analysis Date**	: 08/27/24 14:07

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Nitrogen, Total Kjeldahl	0.447	0.655	38 Q	24

Form 7
Laboratory Control Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1963995-2	**LCS Analysis Date**	: 08/27/24 14:32
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (mg/l)	Found (mg/l)	%R	True (mg/l)	Found (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Nitrogen, Total Kjeldahl	40.0	37.3	93.					78-122	24

Form 7
Laboratory Control Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1963999-2	**LCS Analysis Date**	: 08/27/24 14:04
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Nitrogen, Total Kjeldahl	**40.0**	**35.7**	**89.**					**78-122**	**24**

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
Page: 1

WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container / Sample Preservation
Nitrogen, Total Kjeldahl	NONE	0.3	0.066	mg/l	78-122		77-111	24	24	4500NH3-H	28 days	1 - Plastic 500ml H2SO4 preserved
Nitrogen, Total Kjeldahl	NONE	0.3	0.066	mg/l	78-122		77-111	24	24	351.1	28 days	1 - Plastic 500ml H2SO4 preserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11468-1
Page: 1

WETCHEM (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container / Sample Preservation
Nitrogen, Total Kjeldahl	NONE	150	31.5	mg/kg	81-115	26	43-160	26	26	4500NH3-H	28 days	1 - Glass 250ml/8oz unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Calculations of Nitrogen in TKN

Aqueous samples:

Compute sample TKN –N concentration by comparing sample peak areas with standard curve, as determined by the Lachat instrument software.

If the sample has a concentration of less than 2ppm, calculate results by using the low curve generated on Channel 1.

If the sample concentration is greater than 2ppm, calculate the results by using the high curve generated on Channel 2.

To Compute the final results for aqueous samples, multiply the direct reading by the dilution factor based on the initial preparation volume. (also done using software)

TKN-N mg/L = mg/L direct reading x dilution factor

Sequence Logs

From Page No. ____

Tray A (07-56-04AM)
prep 8126124 @ 2:05

1	Hi ICV 8.0
2	Lo ICV 1.0
3	ICB
4	WG1963673-1T, Blk
5	-2T, LCS Hi, 5x
6	LCS Lo T
7	45995-01T
8	-02T
9	-03T
10	-04T (2x)
11	-05T
12	-06T
13	-07T
14	-07T MS
15	-07T Dup
16	46017-01T
17	-02T
18	47553-01T (5x)
19	-02T (5x)
20	-03T (5x)
21	-04T (5x)
22	-05T (5x)
23	-06T (5x)

Tray B (08-44-50AM, 09-06-26AM)
prep 8/26/24 @ 3:37

1	WG1963675-1T, Blk
2	-2T, LCS Hi, 5x
3	LCS Lo T
4	47553-07T (5x)
5	47589-01T (5x)
6	-02T (10x)
7	47590-01T (2x)
8	-02T
9	47600-01T (10x)
⊗ 10	47601-01T; 10x 1+10
11	47610-01T (5x)
⊗ 12	47611-01T; 20x 0.5+10
⊗ 13	47612-01T
14	47613-01T (20x)
15	47624-01T
16	-02T
17	-02T MS
18	-02T Dup
19	47669-01T (5x)
20	47735-01T

Date: 8/27/24
Sodium Phenolate: 7/29/24 R-4065
Sodium Hypochlorate: 7/29/24 stop tshap
Sodium Nitropruisside: 7/29/24 R-3969
Borric Acid Soln.: 7/29/24 R-4019
ICV 1.0: 8/20/24 WC-3448
ICV 8.0:
Cal. Std: 8/1/24 WC-3392
See Front Page for Instructions:

KTP

KTP

To Page No. ____

Witnessed & Understood by me, Date

Invented by: Date

Recorded by:

Tray C (09-53-57AM, 10-41-53AM, 11-01-14AM)
prep 8127124 @ 1:51

1 WG196415I-1, Blk
2 -2; LCS Hi; 5x
3 LCS Lo
4 45995-01
5 -02
6 -03
7 -04 (2x)
8 -05
9 -06
10 -06 Dup
11 -06 MS
12 -07
13 46081-01 (2x)
14 -02
15 47382-01 ~~(2x)~~ WSP
16 -02
17 47432-01 (2x)
18 47433-01 (5x)
19 47471-01
20 47596-01
21 47601-01 (2x)
22 47613-01 (5x)
23 48458-01; 20x 0.5+10
24 -03; 20x 0.5+10
25 -05; 20x 0.5+10

KEP

Tray D (11-08-28AM)
prep 8127124 @ 1:51

1 WG196414B-1, Blk
2 -2; LOQ, remn
3 -3; LCS Hi, 5x
4 LCS Lo
5 47503-06
6 -07
7 -08
8 -08 MS
9 -08 Dup
10 -09
11 47589-01 (10x)
12 -02
13 47590-01 (2x)
14 -02
15 47726-01
16 -02 (5x)
17 KEP
18

KEP

Tray E (11-37-52AM)
prep 8127124 @ 1:51

1 WG196414B-1D, Blk (SNH3)
2 -2D; LCS Hi, 5x
3 LCS Lo D
4 47428-01 D
5 -02 D
6 -02 D MS.
7 -02 D Dup

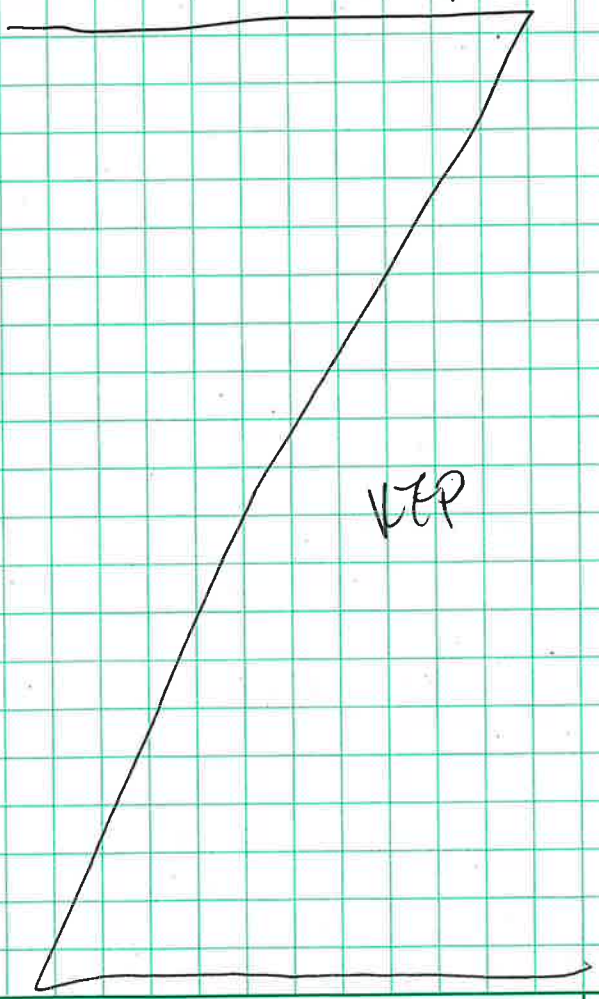
KEP

To Page No.

From Page No. ____

Tray F (01-58-12PM)
prep 8126124 @19:42, 19:47

1	WG1963999-1T; Blk
2	(4002)-2T; LCS Hi; 5X
3	LCS Lo T
4	47890-10T
5	70T MS
6	70T Dup
7	-11T
8	-12T
9	47726-02T (10X)
10	03T
11	04T
12	04T MS
13	04T Dup



Tray G
prep 8126124 @19:36

1	WG1963995-1T; Blk
2	-2T; LCS Hi; 5X
3	LCS Lo T
4	47694-01T (2X)
5	47696-01T
6	47737-01T (5X)
7	47738-01T (5X)
8	47740-03T
9	06T
10	47890-01T
11	02T
12	03T
13	04T
14	05T
15	06T
16	07T
17	08T
18	09T
19	09T MS
20	09T Dup

To Page No. ____

Sample Preparation

Sample	Volume	Dilution	Final Vol
	50mL	1X	150mL
Blank			
Low			
High			
L2447890 - 10 PA			
- 10 HP			
- 10 MS			
- 11			
- 12			

Same standards as reagents as previous page # 33

08/26/24 @ 19:42 CEF

Distilled by SAD 08 27 24 @ 12:00

Witnessed & Understood by me, | Date | Invented by: | Date

Recorded by:

Sample	Volume	Dilution	Final vol
	50mL	1X	150mL
Blank			
Low			
High			
L2447694 - 01		2X (25+50)/M=9.8	
7696 - 01		1X	
7737 - 01		5X (10+50)/M=12.088	
7738 - 01		M=18.5	
7740 - 03		1X	
- 06			
7890 - 01			
- 02			
- 03			
- 04			
- 05			
- 06			
- 07			
- 08			
- 09 PA			
- 09 DUP			
- 09 MS			

Same standards as reagents as page # 32

08/26/24 @ 19:36 CET

Distilled by SAD @ 12:00 - 08/27/24

Witnessed & Understood by me,	Date	Invented by:	Date
		Recorded by:	

Ammonia Analysis

Results

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-01	**Date Collected**	: 08/21/24 11:10
Client ID	: MW-3A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 09:22
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,350.1	**Analyst**	: KEP
Lab File ID	: NH320240828-B	**Instrument ID**	: LACHAT5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7664-41-7	Nitrogen, Ammonia	0.025	0.075	0.024	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-02	**Date Collected**	: 08/20/24 16:40
Client ID	: MW-6A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 09:23
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,350.1	**Analyst**	: KEP
Lab File ID	: NH320240828-B	**Instrument ID**	: LACHAT5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7664-41-7	Nitrogen, Ammonia	0.300	0.075	0.024	

Form 1
WETCHEM

Client	:	**Alpha Geoscience**	**Lab Number**	:	**L2447890**
Project Name	:	**RANCO MINE**	**Project Number**	:	**12123**
Lab ID	:	**L2447890-03**	**Date Collected**	:	**08/20/24 14:55**
Client ID	:	**MW-6B**	**Date Received**	:	**08/21/24**
Sample Location	:	**MANORVILLE, NY**	**Date Analyzed**	:	**08/28/24 09:24**
Sample Matrix	:	**WATER**	**Dilution Factor**	:	**1**
Analytical Method	:	**44,350.1**	**Analyst**	:	**KEP**
Lab File ID	:	**NH320240828-B**	**Instrument ID**	:	**LACHAT5**
Sample Amount	:		**%Solids**	:	**N/A**
Digestion Method	:		**Date Digested**	:	**08/27/24**

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7664-41-7	**Nitrogen, Ammonia**	**0.492**	**0.075**	**0.024**	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-04	**Date Collected**	: 08/20/24 17:55
Client ID	: MW-6C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 09:25
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,350.1	**Analyst**	: KEP
Lab File ID	: NH320240828-B	**Instrument ID**	: LACHAT5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7664-41-7	Nitrogen, Ammonia	0.913	0.075	0.024	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-05	**Date Collected**	: 08/20/24 16:30
Client ID	: MW-7A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 09:26
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,350.1	**Analyst**	: KEP
Lab File ID	: NH320240828-B	**Instrument ID**	: LACHAT5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7664-41-7	Nitrogen, Ammonia	0.059	0.075	0.024	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-06	**Date Collected**	: 08/21/24 09:20
Client ID	: MW-7B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 09:27
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,350.1	**Analyst**	: KEP
Lab File ID	: NH320240828-B	**Instrument ID**	: LACHAT5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7664-41-7	Nitrogen, Ammonia	0.063	0.075	0.024	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-07	**Date Collected**	: 08/21/24 10:50
Client ID	: MW-7C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 09:31
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,350.1	**Analyst**	: KEP
Lab File ID	: NH320240828-B	**Instrument ID**	: LACHAT5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7664-41-7	Nitrogen, Ammonia	ND	0.075	0.024	U

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-08	**Date Collected**	: 08/21/24 13:05
Client ID	: MW-8A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 09:32
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,350.1	**Analyst**	: KEP
Lab File ID	: NH320240828-B	**Instrument ID**	: LACHAT5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7664-41-7	Nitrogen, Ammonia	0.025	0.075	0.024	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-09	**Date Collected**	: 08/21/24 14:35
Client ID	: MW-8B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 09:33
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,350.1	**Analyst**	: KEP
Lab File ID	: NH320240828-B	**Instrument ID**	: LACHAT5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7664-41-7	Nitrogen, Ammonia	0.232	0.075	0.024	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-10	**Date Collected**	: 08/21/24 13:40
Client ID	: MW-8C2	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/28/24 09:34
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,350.1	**Analyst**	: KEP
Lab File ID	: NH320240828-B	**Instrument ID**	: LACHAT5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7664-41-7	Nitrogen, Ammonia	0.132	0.075	0.024	

Form 1
WETCHEM

Client	:	**Alpha Geoscience**	**Lab Number**	:	**L2447890**
Project Name	:	**RANCO MINE**	**Project Number**	:	**12123**
Lab ID	:	**L2447890-11**	**Date Collected**	:	**08/21/24 09:00**
Client ID	:	**MW-9B**	**Date Received**	:	**08/21/24**
Sample Location	:	**MANORVILLE, NY**	**Date Analyzed**	:	**08/29/24 12:14**
Sample Matrix	:	**WATER**	**Dilution Factor**	:	**1**
Analytical Method	:	**44,350.1**	**Analyst**	:	**KEP**
Lab File ID	:	**NH320240829-E**	**Instrument ID**	:	**LACHAT**
Sample Amount	:		**%Solids**	:	**N/A**
Digestion Method	:		**Date Digested**	:	**08/28/24**

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7664-41-7	**Nitrogen, Ammonia**	**0.217**	**0.075**	**0.024**	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-12	**Date Collected**	: 08/21/24 00:00
Client ID	: DUP	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/29/24 12:15
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,350.1	**Analyst**	: KEP
Lab File ID	: NH320240829-E	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/28/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7664-41-7	Nitrogen, Ammonia	0.048	0.075	0.024	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964497-1	**Date Collected**	: NA
Client ID	: WG1964497-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/28/24 09:18
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,350.1	**Analyst**	: KEP
Lab File ID	: NH320240828-B	**Instrument ID**	: LACHAT5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7664-41-7	Nitrogen, Ammonia	0.024	0.075	0.024	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964497-3	**Date Collected**	: 08/21/24 13:40
Client ID	: MW-8C2DUP	**Date Received**	: 08/21/24
Sample Location	:	**Date Analyzed**	: 08/28/24 09:36
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,350.1	**Analyst**	: KEP
Lab File ID	: NH320240828-B	**Instrument ID**	: LACHAT5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7664-41-7	Nitrogen, Ammonia	0.347	0.075	0.024	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1965074-1	**Date Collected**	: NA
Client ID	: WG1965074-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/29/24 11:42
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,350.1	**Analyst**	: KEP
Lab File ID	: NH320240829-E	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/28/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7664-41-7	Nitrogen, Ammonia	0.028	0.075	0.024	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1965074-3	**Date Collected**	: 08/21/24 00:00
Client ID	: DUPDUP	**Date Received**	: 08/21/24
Sample Location	:	**Date Analyzed**	: 08/29/24 12:17
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,350.1	**Analyst**	: KEP
Lab File ID	: NH320240829-E	**Instrument ID**	: LACHAT
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/28/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7664-41-7	Nitrogen, Ammonia	0.308	0.075	0.024	

Sample Raw Data

Original Run Filename: OM_8-29-2024_08-40-27AM.OMN Created: 8/29/2024 8:40:27 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-29-2024_08-40-27AM.OMN Last Modified: 8/29/2024 9:27:03 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	TRAY A
STD 1	1	S1	10.00000				
STD 2	1	S2	8.00000				
STD 3	1	S3	4.00000				
STD 4	1	S4	2.00000				
STD 5	1	S5	1.00000				
STD 6	1	S6	0.40000				
STD 7	1	S7	0.20000				
STD 8	1	S8	0.10000				
STD 9	1	S9	0.05000				
STD 10	1	S10	0.00000				
CCV 0.4000	1	S6	0.38578				96%
	Known Conc:		100.00000				
	Calibration:		Table/Fig. : 1				
CCV 4.0000	1	S3	3.94183				99%
	Known Conc:		100.00000				
CCB	1	S10	0.03396				
	Known Conc:		100.00000				
HI ICV 8.0	1	1	8.41445				105%
LO ICV 1.0	1	2	1.04997				105%
ICB	1	3	0.02657				
WG1965268-1	1	4	0.02619		1.50		
WG1965268-2	1	5	18.73373		7.50		94%
LCS LO	1	6	2.02179		1.50		101%
L2445598-03	1	7	0.18729		1.50		
WG1965268-4	1	8	3.96131		1.50		94%
WG1965268-3	1	9	0.30125		1.50		RPD=47%
L2448052-02	1	10	0.09035		1.50		
CCV 0.4000	1	S6	0.40119				100%
	Known Conc:		100.00000				
CCV 4.0000	1	S3	3.95015				99%
	Known Conc:		100.00000				
CCB	1	S10	0.03786				
	Known Conc:		100.00000				
L2448052-04	1	11	0.19436		1.50		
L2448052-06	1	12	0.09171		1.50		
L2448052-08	1	13	0.06466		3.00		
L2448052-10	1	14	0.06800		3.00		
L2448052-12	1	15	0.03872		1.50		
L2448052-14	1	16	0.04594		1.50		
L2448052-16	1	17	0.47005		1.50		
L2448052-18	1	18	0.16137		3.00		
L2448052-20	1	19	0.04045		1.50		
L2448052-22	1	20	0.05013		1.50		
CCV 0.4000	1	S6	0.39498				99%
	Known Conc:		100.00000				
CCV 4.0000	1	S3	3.96736				99%
	Known Conc:		100.00000				
CCB	1	S10	0.04100				
	Known Conc:		100.00000				
L2448052-24	1	21	0.06357		1.50		
L2448660-12	1	22	0.04663		1.50		
CCV 0.4000	1	S6	0.39235				98%
	Known Conc:		100.00000				
CCV 4.0000	1	S3	3.99739				100%
	Known Conc:		100.00000				
CCB	1	S10	0.03421				
	Known Conc:		100.00000				

Channel 2 (Ammonia High) - Current View

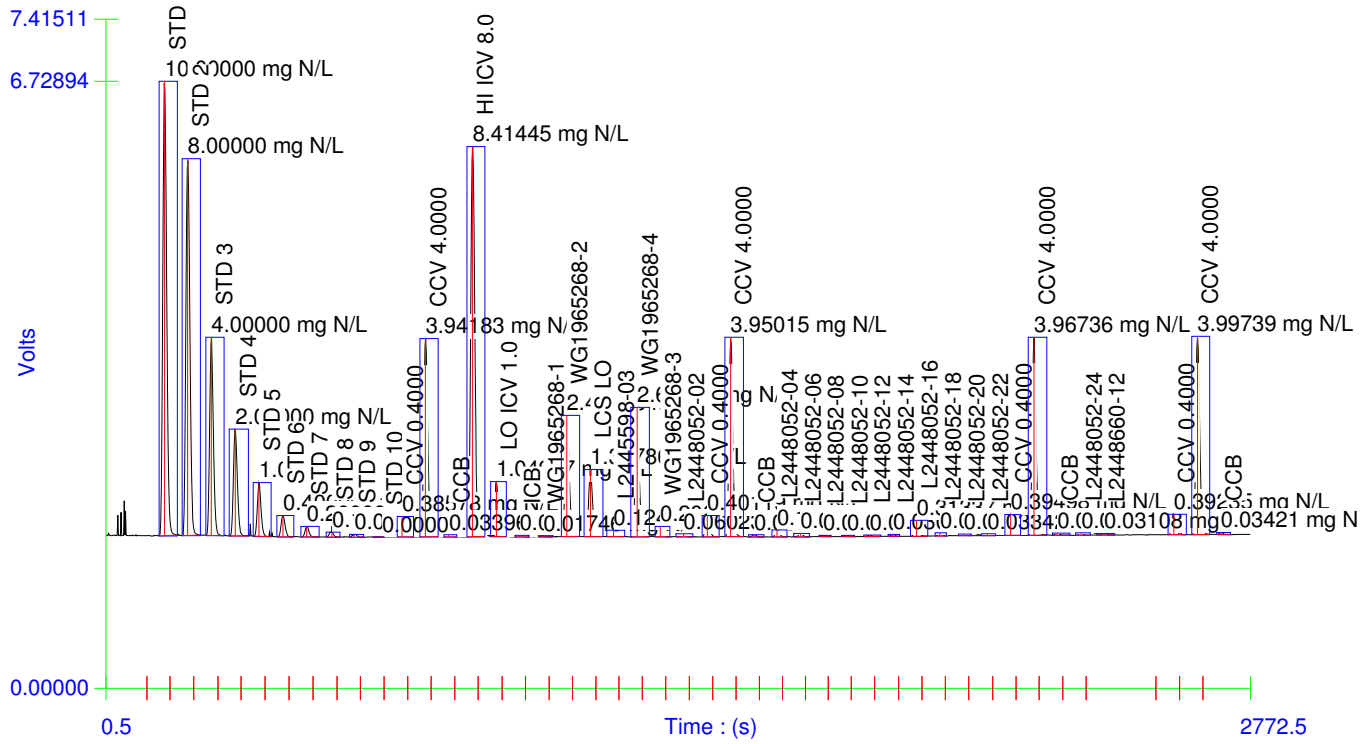
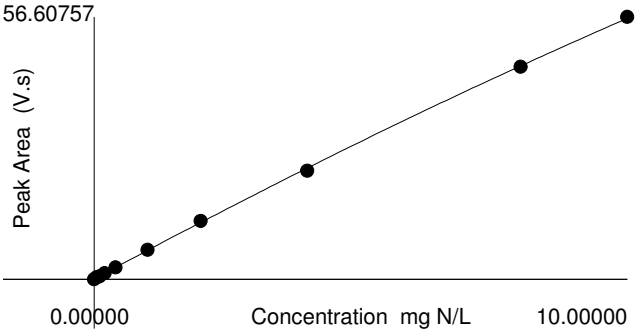


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.60757	5.03667	0.0	-0.6	10.04908	8/29/2024	8:42:23 AM
2	8.00000	1	45.85168	4.17511	0.0	0.4	7.97422	8/29/2024	8:43:20 AM
3	4.00000	1	23.47001	2.19770	0.0	2.4	3.90362	8/29/2024	8:44:17 AM
4	2.00000	1	12.59945	1.18315	0.0	-2.4	2.04691	8/29/2024	8:45:15 AM
5	1.00000	1	6.33095	0.59464	0.0	-1.5	1.01201	8/29/2024	8:46:12 AM
6	0.40000	1	2.58240	0.23752	0.0	-1.8	0.40564	8/29/2024	8:47:10 AM
7	0.20000	1	1.31741	0.11819	0.0	-1.9	0.20313	8/29/2024	8:48:08 AM
8	0.10000	1	0.63428	0.05340	0.0	5.3	0.09421	8/29/2024	8:49:07 AM
9	0.05000	1	0.39222	0.03233	0.0	-9.7	0.05569	8/29/2024	8:50:05 AM
10	0.00000	1	0.01080	0.00222			-0.00493	8/29/2024	8:51:02 AM

Author: A1WETCHEMINSTRUMENT Date : 8/29/2024

Figure : 1 (Ammonia)



Area = - 0.06303 * Conc^2 + 6.25464 * Conc + 0.04486
Conc = 0.00033 * Area^2 + 0.15879 * Area - 0.00665
Correlation Coefficient (r) = 0.99999

Weighting : 1/x

Original Run Filename: OM_8-29-2024_09-28-24AM.OMN Created: 8/29/2024 9:28:24 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-29-2024_09-28-24AM.OMN Last Modified: 8/29/2024 9:56:03 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

	Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	TRAY B
	CCV 0.4000	1	S6	0.38900				97%
			Known Conc:	100.00000				
			Calibration:	Table/Fig. : 1				
	CCV 4.0000	1	S3	3.98796				100%
			Known Conc:	100.00000				
	CCB	1	S10	0.04059				
			Known Conc:	100.00000				
	WG1964304-1 T	1	1	0.01898				
	WG1964304-2 T	1	2	37.33675		15.00		93%
	LCS LO T	1	3	4.23539		3.00		106%
	L2446599-01 T	1	4	1.12882		3.00		
	L2447939-01 T	1	5	0.52209		3.00		
	L2447944-01 T	1	6	0.94161		3.00		
X	L2447974-01 T	1	7	37.24152		3.00		
X	L2448037-01 T	1	8	5.61794		3.00		
	L2448051-01 T	1	9	1.94746		3.00		
	L2448054-01 T	1	10	1.32268		3.00		
	CCV 0.4000	1	S6	0.42878				107%
			Known Conc:	100.00000				
	CCV 4.0000	1	S3	3.99919				100%
			Known Conc:	100.00000				
	CCB	1	S10	0.04502				
			Known Conc:	100.00000				
	L2448078-01 T	1	11	0.16972		3.00		
	L2448078-02 T	1	12	0.08296		3.00		
	L2448078-03 T	1	13	0.11992		3.00		
	WG1964304-4 T	1	14	8.66499		3.00		107%
	WG1964304-3 T	1	15	0.59594		3.00		RPD=NC
	L2448094-01 T	1	16	1.84525		3.00		
	L2448114-01 T	1	17	8.03811		3.00		
	L2448135-02 T	1	18	8.21883		3.00		
X	L2448307-01 T	1	19	33.95841		3.00		
X	L2448307-02 T	1	20	15.71758		3.00		
X	CCV 0.4000	1	S6	0.66640				167%, RERUN OK
			Known Conc:	100.00000				

Channel 2 (Ammonia High) - Current View

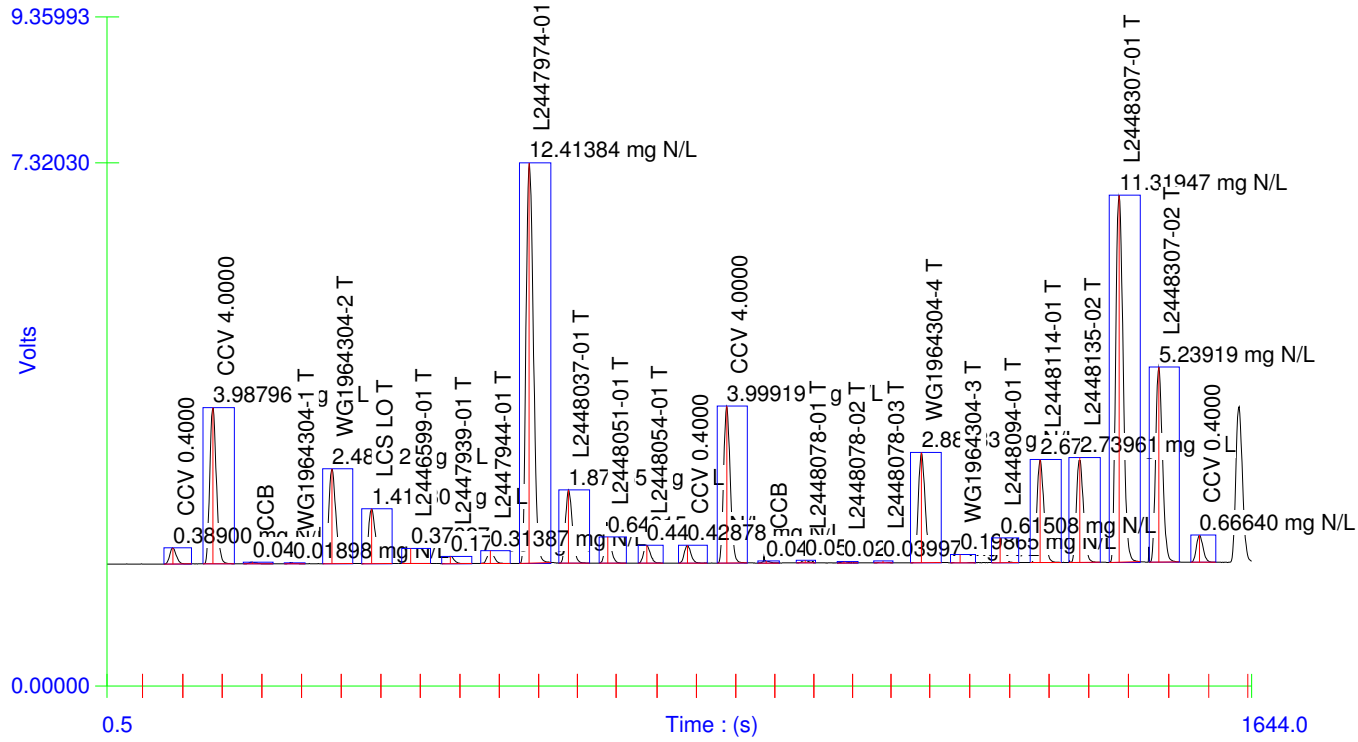
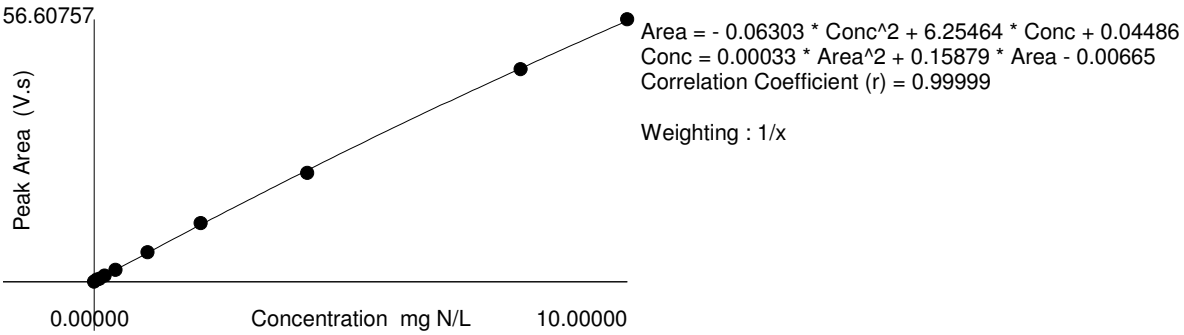


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.60757	5.03667	0.0	-0.6	10.04908	8/29/2024	8:42:23 AM
2	8.00000	1	45.85168	4.17511	0.0	0.4	7.97422	8/29/2024	8:43:20 AM
3	4.00000	1	23.47001	2.19770	0.0	2.4	3.90362	8/29/2024	8:44:17 AM
4	2.00000	1	12.59945	1.18315	0.0	-2.4	2.04691	8/29/2024	8:45:15 AM
5	1.00000	1	6.33095	0.59464	0.0	-1.5	1.01201	8/29/2024	8:46:12 AM
6	0.40000	1	2.58240	0.23752	0.0	-1.8	0.40564	8/29/2024	8:47:10 AM
7	0.20000	1	1.31741	0.11819	0.0	-1.9	0.20313	8/29/2024	8:48:08 AM
8	0.10000	1	0.63428	0.05340	0.0	5.3	0.09421	8/29/2024	8:49:07 AM
9	0.05000	1	0.39222	0.03233	0.0	-9.7	0.05569	8/29/2024	8:50:05 AM
10	0.00000	1	0.01080	0.00222			-0.00493	8/29/2024	8:51:02 AM

Figure : 1 (Ammonia)



Author: A1WETCHEMINSTRUMENT Date : 8/29/2024

Original Run Filename: OM_8-29-2024_10-03-27AM.OMN Created: 8/29/2024 10:03:27 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-29-2024_10-03-27AM.OMN Last Modified: 8/29/2024 10:16:49 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

TRAY B

Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	
CCV 0.4000	1	S6	0.39813				100%
	Known Conc:		100.00000				
CCV 4.0000	1	S3	3.98935				100%
	Known Conc:		100.00000				
	Calibration:		Table/Fig. : 1				
CCB	1	S10	0.03079				
	Known Conc:		100.00000				
L2448307-01 T; 10X	1	19	31.68833		30.00		
L2448307-02 T	1	20	14.59967		3.00		
L2447974-01 T; 10X	1	7	43.73756		30.00		
L2448037-01 T	1	8	4.53045		3.00		
CCV 0.4000	1	S6	0.41828				105%
	Known Conc:		100.00000				
CCV 4.0000	1	S3	4.00384				100%
	Known Conc:		100.00000				
CCB	1	S10	0.03463				
	Known Conc:		100.00000				

Channel 2 (Ammonia High) - Current View

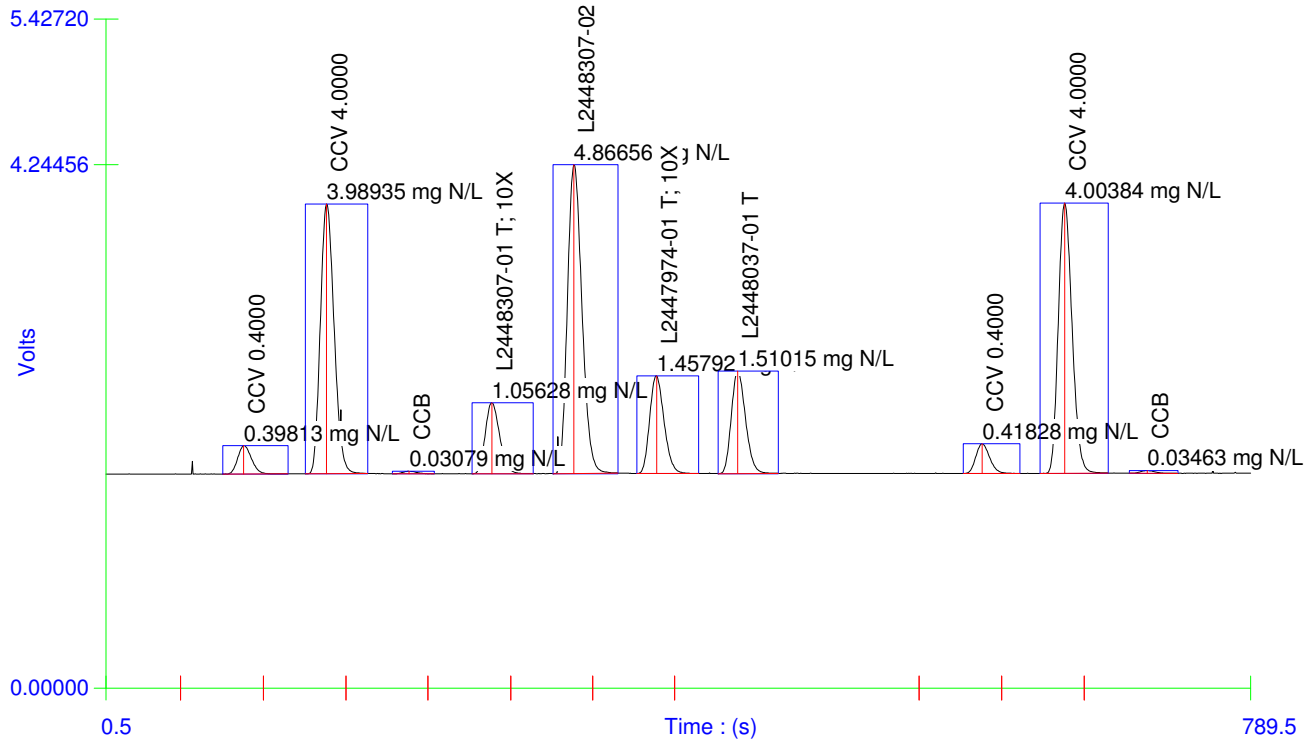
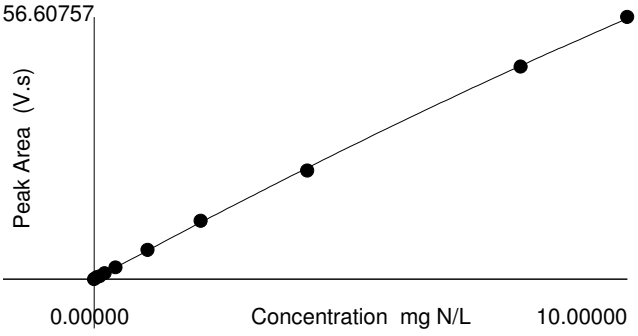


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.60757	5.03667	0.0	-0.6	10.04908	8/29/2024	8:42:23 AM
2	8.00000	1	45.85168	4.17511	0.0	0.4	7.97422	8/29/2024	8:43:20 AM
3	4.00000	1	23.47001	2.19770	0.0	2.4	3.90362	8/29/2024	8:44:17 AM
4	2.00000	1	12.59945	1.18315	0.0	-2.4	2.04691	8/29/2024	8:45:15 AM
5	1.00000	1	6.33095	0.59464	0.0	-1.5	1.01201	8/29/2024	8:46:12 AM
6	0.40000	1	2.58240	0.23752	0.0	-1.8	0.40564	8/29/2024	8:47:10 AM
7	0.20000	1	1.31741	0.11819	0.0	-1.9	0.20313	8/29/2024	8:48:08 AM
8	0.10000	1	0.63428	0.05340	0.0	5.3	0.09421	8/29/2024	8:49:07 AM
9	0.05000	1	0.39222	0.03233	0.0	-9.7	0.05569	8/29/2024	8:50:05 AM
10	0.00000	1	0.01080	0.00222			-0.00493	8/29/2024	8:51:02 AM

Figure : 1 (Ammonia)



Area = - 0.06303 * Conc^2 + 6.25464 * Conc + 0.04486
Conc = 0.00033 * Area^2 + 0.15879 * Area - 0.00665
Correlation Coefficient (r) = 0.99999

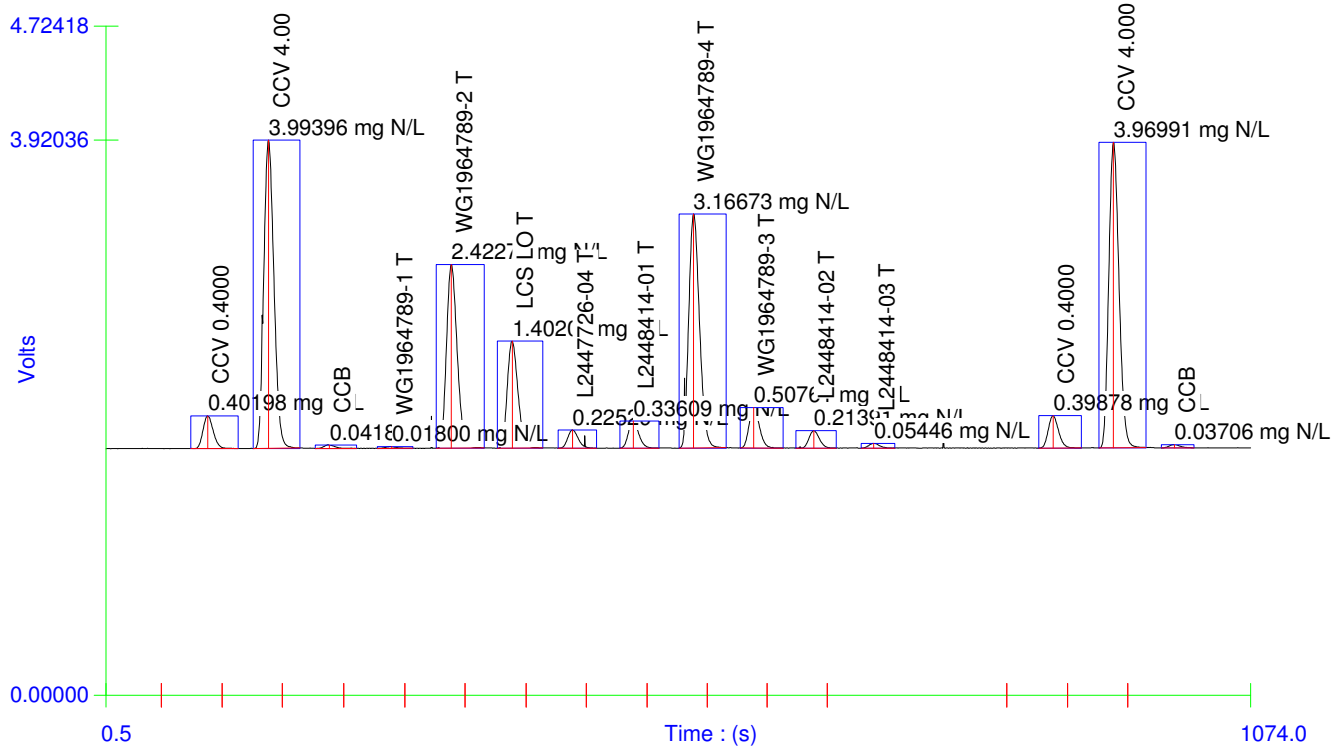
Weighting : 1/x

Author: A1WETCHEMINSTRUMENT Date : 8/29/2024

Original Run Filename: OM_8-29-2024_10-18-09AM.OMN Created: 8/29/2024 10:18:09 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-29-2024_10-18-09AM.OMN Last Modified: 8/29/2024 10:36:15 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	
CCV 0.4000	1	S6	0.40198				TRAY C
	Known Conc:		100.00000				100%
	Calibration:		Table/Fig. : 1				
CCV 4.0000	1	S3	3.99396				100%
	Known Conc:		100.00000				
CCB	1	S10	0.04189				
	Known Conc:		100.00000				
WG1964789-1 T	1	1	0.01800				
WG1964789-2 T	1	2	36.34163		15.00		91%
LCS LO T	1	3	4.20619		3.00		105%
L2447726-04 T	1	4	0.67586		3.00		
L2448414-01 T	1	5	1.00828		3.00		
WG1964789-4 T	1	6	9.50020		3.00		106%
WG1964789-3 T	1	7	1.52283		3.00		RPD=41%
L2448414-02 T	1	8	1.28347		6.00		
L2448414-03 T	1	9	0.16337		3.00		
CCV 0.4000	1	S6	0.39878				100%
	Known Conc:		100.00000				
CCV 4.0000	1	S3	3.96991				99%
	Known Conc:		100.00000				
CCB	1	S10	0.03706				
	Known Conc:		100.00000				

Channel 2 (Ammonia High) - Current View

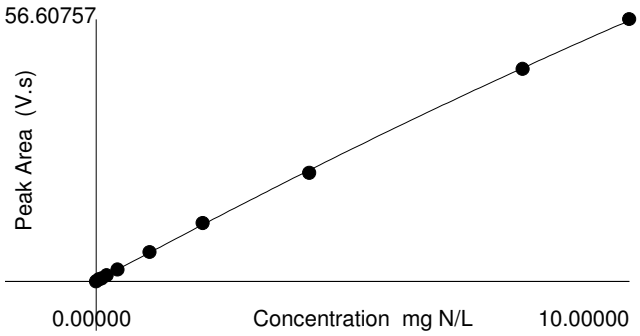


- 1 -

Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.60757	5.03667	0.0	-0.6	10.04908	8/29/2024	8:42:23 AM
2	8.00000	1	45.85168	4.17511	0.0	0.4	7.97422	8/29/2024	8:43:20 AM
3	4.00000	1	23.47001	2.19770	0.0	2.4	3.90362	8/29/2024	8:44:17 AM
4	2.00000	1	12.59945	1.18315	0.0	-2.4	2.04691	8/29/2024	8:45:15 AM
5	1.00000	1	6.33095	0.59464	0.0	-1.5	1.01201	8/29/2024	8:46:12 AM
6	0.40000	1	2.58240	0.23752	0.0	-1.8	0.40564	8/29/2024	8:47:10 AM
7	0.20000	1	1.31741	0.11819	0.0	-1.9	0.20313	8/29/2024	8:48:08 AM
8	0.10000	1	0.63428	0.05340	0.0	5.3	0.09421	8/29/2024	8:49:07 AM
9	0.05000	1	0.39222	0.03233	0.0	-9.7	0.05569	8/29/2024	8:50:05 AM
10	0.00000	1	0.01080	0.00222			-0.00493	8/29/2024	8:51:02 AM

Figure : 1 (Ammonia)



Area = - 0.06303 * Conc^2 + 6.25464 * Conc + 0.04486
Conc = 0.00033 * Area^2 + 0.15879 * Area - 0.00665
Correlation Coefficient (r) = 0.99999

Weighting : 1/x

Author: A1WETCHEMINSTRUMENT Date : 8/29/2024

Original Run Filename: OM_8-29-2024_10-38-16AM.OMN Created: 8/29/2024 10:38:16 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-29-2024_10-38-16AM.OMN Last Modified: 8/29/2024 10:53:36 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

	Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	
								TRAY D
	CCV 0.4000	1	S6	0.39577				99%
			Known Conc:	100.00000				
			Calibration:	Table/Fig. : 1				
	CCV 4.0000	1	S3	3.94155				99%
			Known Conc:	100.00000				
	CCB	1	S10	0.04174				
			Known Conc:	100.00000				
WG1965077	WG1965076-1	1	1	0.01710		1.50		
	WG1965076-2	1	2	18.66837		7.50		93%
	LCS LO	1	3	2.11536		1.50		106%
	L2447716-01	1	4	0.29302		1.50		
	L2447716-02	1	5	0.10997		1.50		
	L2447716-03	1	6	0.09544		1.50		
	WG1965076-4	1	7	4.10377		1.50		103%
X	WG1965076-3	1	8	0.30891		1.50		RERUN
	L2447716-04	1	9	0.05720		1.50		
	L2447998-01	1	10	17.84304		7.50		
X	CCV 0.4000	1	S6	0.55184				138%, RERUN OK
			Known Conc:	100.00000				

Channel 2 (Ammonia High) - Current View

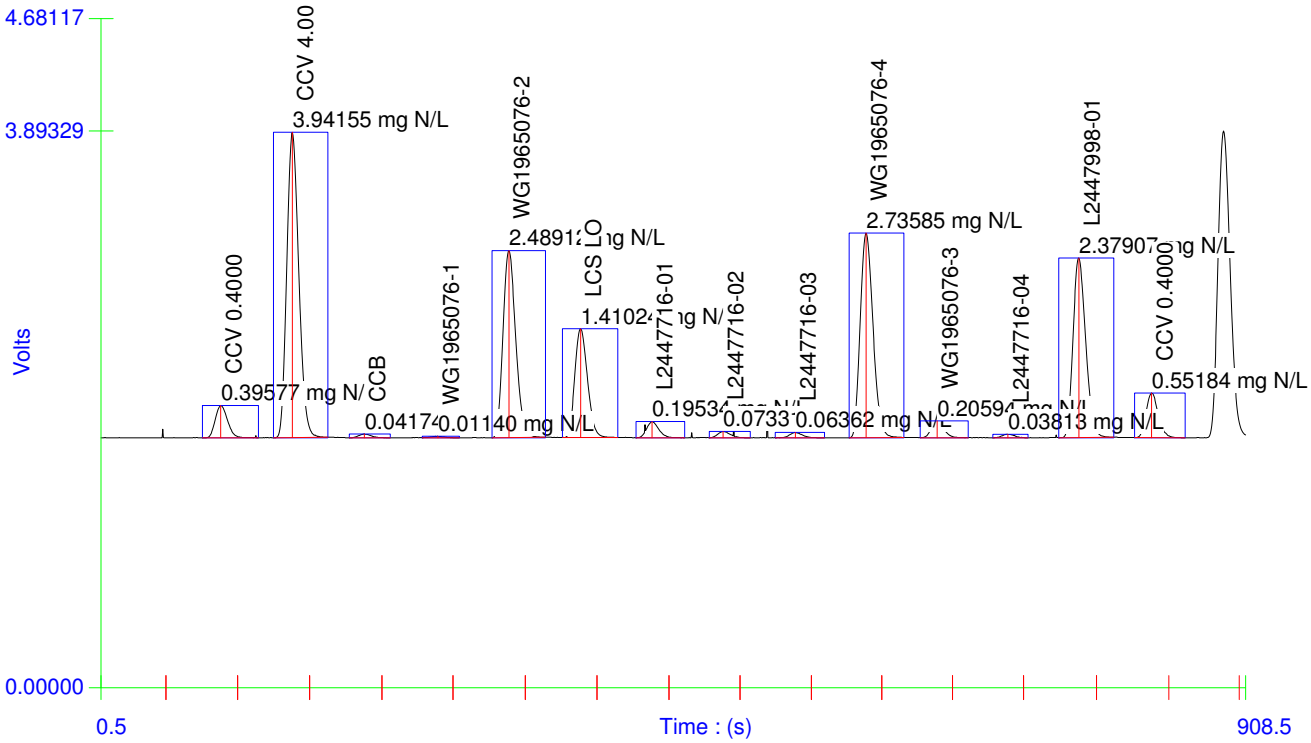
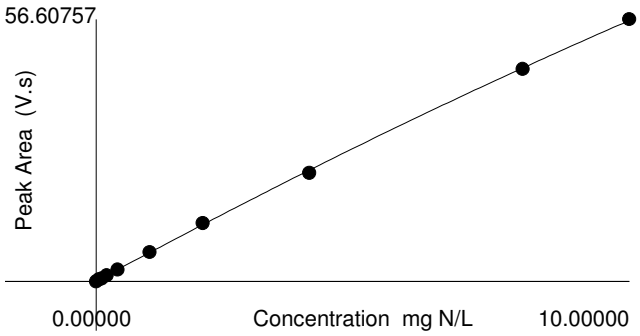


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.60757	5.03667	0.0	-0.6	10.04908	8/29/2024	8:42:23 AM
2	8.00000	1	45.85168	4.17511	0.0	0.4	7.97422	8/29/2024	8:43:20 AM
3	4.00000	1	23.47001	2.19770	0.0	2.4	3.90362	8/29/2024	8:44:17 AM
4	2.00000	1	12.59945	1.18315	0.0	-2.4	2.04691	8/29/2024	8:45:15 AM
5	1.00000	1	6.33095	0.59464	0.0	-1.5	1.01201	8/29/2024	8:46:12 AM
6	0.40000	1	2.58240	0.23752	0.0	-1.8	0.40564	8/29/2024	8:47:10 AM
7	0.20000	1	1.31741	0.11819	0.0	-1.9	0.20313	8/29/2024	8:48:08 AM
8	0.10000	1	0.63428	0.05340	0.0	5.3	0.09421	8/29/2024	8:49:07 AM
9	0.05000	1	0.39222	0.03233	0.0	-9.7	0.05569	8/29/2024	8:50:05 AM
10	0.00000	1	0.01080	0.00222			-0.00493	8/29/2024	8:51:02 AM

Figure : 1 (Ammonia)



Area = - 0.06303 * Conc^2 + 6.25464 * Conc + 0.04486
Conc = 0.00033 * Area^2 + 0.15879 * Area - 0.00665
Correlation Coefficient (r) = 0.99999

Weighting : 1/x

Author: A1WETCHEMINSTRUMENT Date : 8/29/2024

Original Run Filename: OM_8-29-2024_10-59-03AM.OMN Created: 8/29/2024 10:59:03 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-29-2024_10-59-03AM.OMN Last Modified: 8/29/2024 11:14:34 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

	Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	
	CCV 0.4000	1	S6	0.39883				TRAY D
		Known Conc:		100.00000				100%
	CCV 4.0000	1	S3	3.95209				99%
		Known Conc:		100.00000				
		Calibration:		Table/Fig. : 1				
	CCB	1	S10	0.03660				
		Known Conc:		100.00000				
	WG1965076-3	1	8	0.04543		1.50		RPD=NC
	L2448003-01	1	11	27.19009		7.50		
	WG1965077-4	1	12	4.53802		1.50		113%
	WG1965077-3	1	13	0.33697		1.50		RPD=NC
	L2446325-02	1	14	0.07411		1.50		
	L2446328-02	1	15	0.17745		1.50		
	L2446330-01	1	16	49.06628		7.50		
	L2446330-02	1	17	1.19585		1.50		
	L2446330-03	1	18	51.81464		7.50		
	L2446330-04	1	19	0.67820		1.50		
X	CCV 0.4000	1	S6	0.44384				111%, RERUN OK
		Known Conc:		100.00000				

Channel 2 (Ammonia High) - Current View

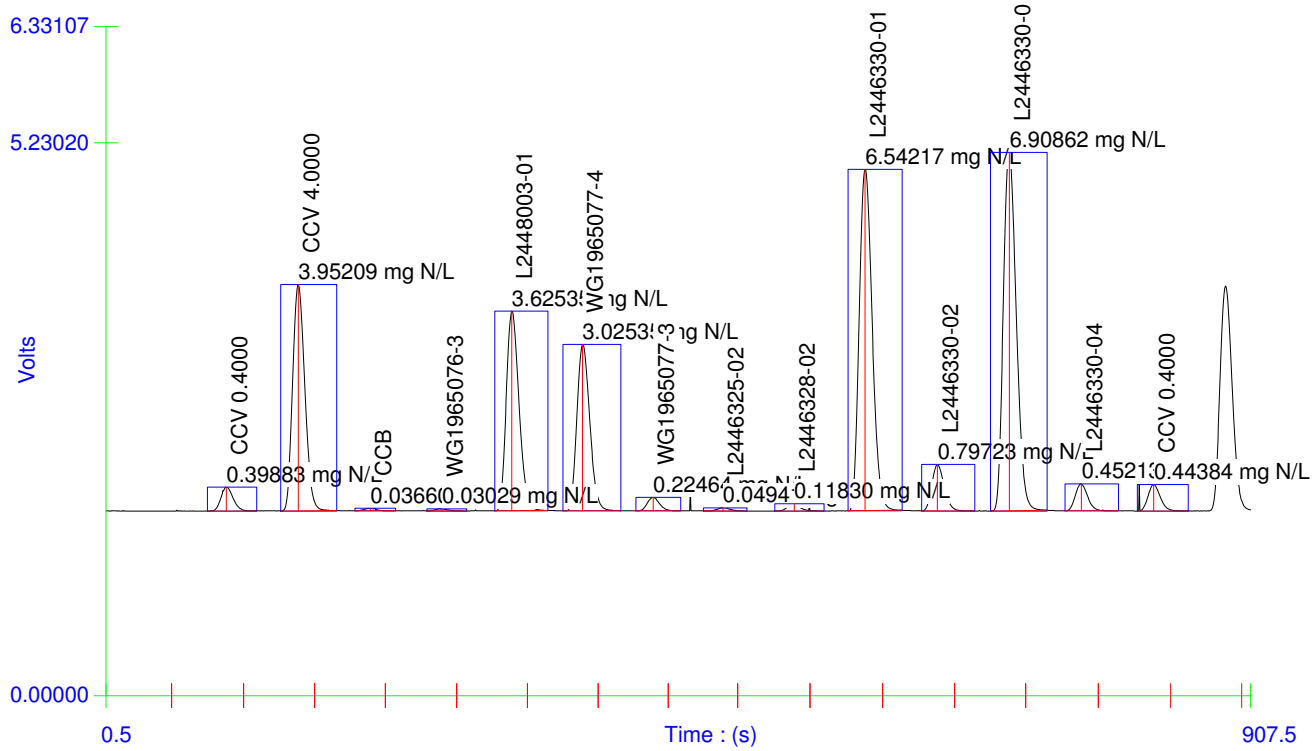
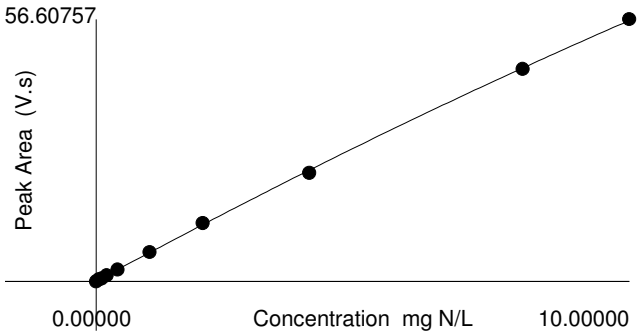


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.60757	5.03667	0.0	-0.6	10.04908	8/29/2024	8:42:23 AM
2	8.00000	1	45.85168	4.17511	0.0	0.4	7.97422	8/29/2024	8:43:20 AM
3	4.00000	1	23.47001	2.19770	0.0	2.4	3.90362	8/29/2024	8:44:17 AM
4	2.00000	1	12.59945	1.18315	0.0	-2.4	2.04691	8/29/2024	8:45:15 AM
5	1.00000	1	6.33095	0.59464	0.0	-1.5	1.01201	8/29/2024	8:46:12 AM
6	0.40000	1	2.58240	0.23752	0.0	-1.8	0.40564	8/29/2024	8:47:10 AM
7	0.20000	1	1.31741	0.11819	0.0	-1.9	0.20313	8/29/2024	8:48:08 AM
8	0.10000	1	0.63428	0.05340	0.0	5.3	0.09421	8/29/2024	8:49:07 AM
9	0.05000	1	0.39222	0.03233	0.0	-9.7	0.05569	8/29/2024	8:50:05 AM
10	0.00000	1	0.01080	0.00222			-0.00493	8/29/2024	8:51:02 AM

Figure : 1 (Ammonia)



Area = - 0.06303 * Conc^2 + 6.25464 * Conc + 0.04486
Conc = 0.00033 * Area^2 + 0.15879 * Area - 0.00665
Correlation Coefficient (r) = 0.99999

Weighting : 1/x

Original Run Filename: OM_8-29-2024_11-17-37AM.OMN Created: 8/29/2024 11:17:37 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-29-2024_11-17-37AM.OMN Last Modified: 8/29/2024 11:37:37 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

	Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	TRAY D
	CCV 0.4000	1	S6	0.40135				100%
		Known Conc:		100.00000				
		Calibration:		Table/Fig. : 1				
	CCV 4.0000	1	S3	3.91292				98%
		Known Conc:		100.00000				
	CCB	1	S10	0.03365				
		Known Conc:		100.00000				
X	L2446330-05	1	20	80.67973		7.50		
X	L2446330-06	1	21	0.83659		1.50		
	L2447949-01	1	22	0.17372		1.50		
	L2447949-02	1	23	0.16849		1.50		
	L2447949-03	1	24	0.09698		1.50		
	L2447949-04	1	25	0.10555		1.50		
	L2447949-05	1	26	0.11874		1.50		
	L2447949-06	1	27	0.06962		1.50		
	L2446330-05; 10X	1	20	77.91290		75.00		
	L2446330-06	1	21	0.18457		1.50		
	CCV 0.4000	1	S6	0.39743				99%
		Known Conc:		100.00000				
	CCV 4.0000	1	S3	3.89249				97%
		Known Conc:		100.00000				
	CCB	1	S10	0.03541				
		Known Conc:		100.00000				

Channel 2 (Ammonia High) - Current View

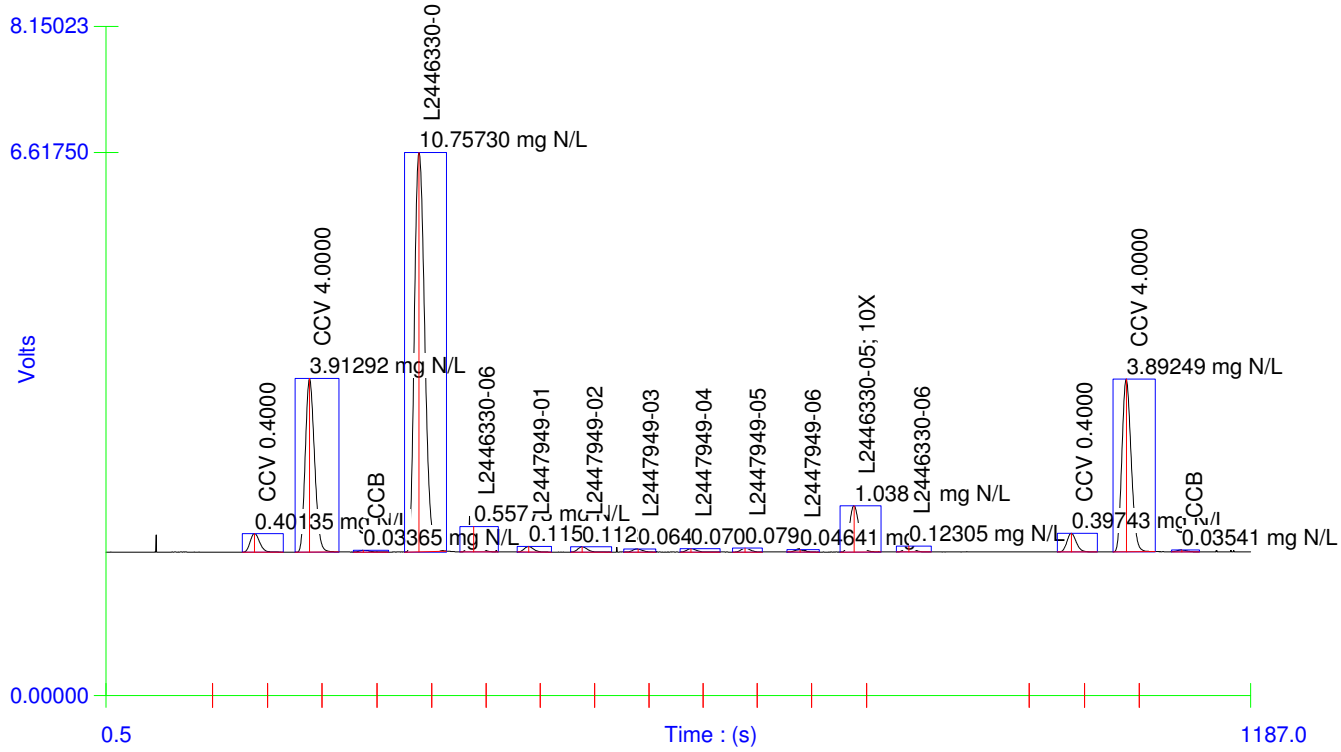
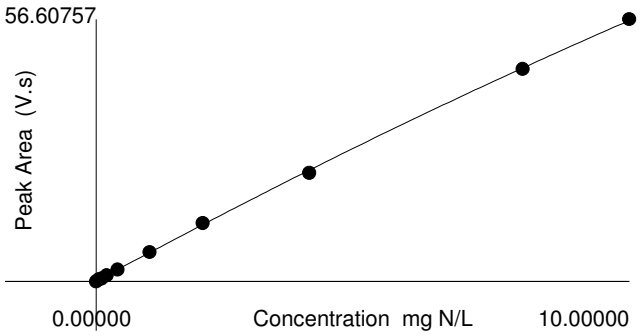


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.60757	5.03667	0.0	-0.6	10.04908	8/29/2024	8:42:23 AM
2	8.00000	1	45.85168	4.17511	0.0	0.4	7.97422	8/29/2024	8:43:20 AM
3	4.00000	1	23.47001	2.19770	0.0	2.4	3.90362	8/29/2024	8:44:17 AM
4	2.00000	1	12.59945	1.18315	0.0	-2.4	2.04691	8/29/2024	8:45:15 AM
5	1.00000	1	6.33095	0.59464	0.0	-1.5	1.01201	8/29/2024	8:46:12 AM
6	0.40000	1	2.58240	0.23752	0.0	-1.8	0.40564	8/29/2024	8:47:10 AM
7	0.20000	1	1.31741	0.11819	0.0	-1.9	0.20313	8/29/2024	8:48:08 AM
8	0.10000	1	0.63428	0.05340	0.0	5.3	0.09421	8/29/2024	8:49:07 AM
9	0.05000	1	0.39222	0.03233	0.0	-9.7	0.05569	8/29/2024	8:50:05 AM
10	0.00000	1	0.01080	0.00222			-0.00493	8/29/2024	8:51:02 AM

Figure : 1 (Ammonia)



Area = - 0.06303 * Conc^2 + 6.25464 * Conc + 0.04486
Conc = 0.00033 * Area^2 + 0.15879 * Area - 0.00665
Correlation Coefficient (r) = 0.99999

Weighting : 1/x

Author: A1WETCHEMINSTRUMENT Date : 8/29/2024

Original Run Filename: OM_8-29-2024_11-38-37AM.OMN Created: 8/29/2024 11:38:37 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-29-2024_11-38-37AM.OMN Last Modified: 8/29/2024 11:54:08 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

	Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	
	CCV 0.4000	1	S6	0.38951				TRAY E 97%
		Known Conc:		100.00000				
		Calibration:		Table/Fig. : 1				
	CCV 4.0000	1	S3	3.87014				97%
		Known Conc:		100.00000				
	CCB	1	S10	0.03700				
		Known Conc:		100.00000				
	WG1965074-1	1	1	0.02842		1.50		
	WG1965074-2	1	2	17.97228		7.50		90%
	LCS LO	1	3	1.99877		1.50		100%
	L2447726-03	1	4	2.07852		1.50		
	L2447726-04	1	5	0.16217		1.50		
X	L2447852-08	1	6	791.21204		30.00		
X	L2447852-10	1	7	840.72253		30.00		
X	L2447852-15	1	8	877.06439		30.00		
X	L2447852-18	1	9	828.31836		30.00		
X	L2447890-11	1	10	2.45264		1.50		
X	CCV 0.4000	1	S6	0.65868				165%, RERUN OK
		Known Conc:		100.00000				

Channel 2 (Ammonia High) - Current View

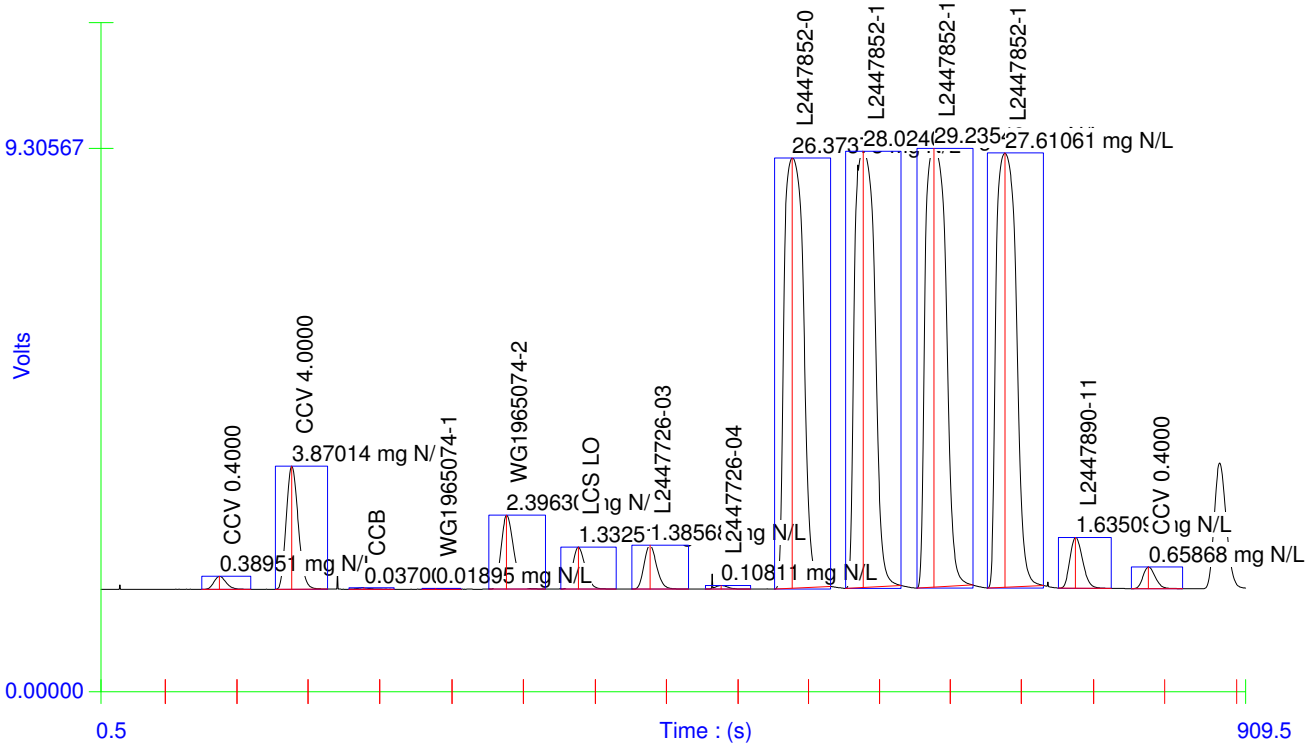
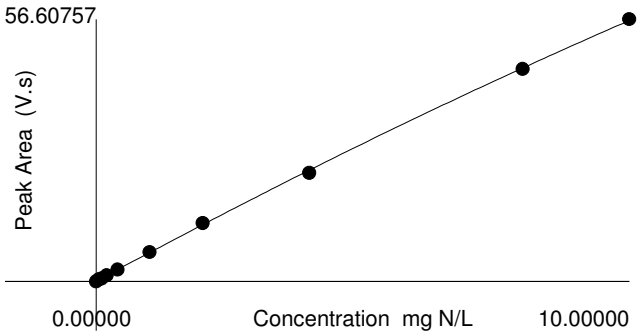


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.60757	5.03667	0.0	-0.6	10.04908	8/29/2024	8:42:23 AM
2	8.00000	1	45.85168	4.17511	0.0	0.4	7.97422	8/29/2024	8:43:20 AM
3	4.00000	1	23.47001	2.19770	0.0	2.4	3.90362	8/29/2024	8:44:17 AM
4	2.00000	1	12.59945	1.18315	0.0	-2.4	2.04691	8/29/2024	8:45:15 AM
5	1.00000	1	6.33095	0.59464	0.0	-1.5	1.01201	8/29/2024	8:46:12 AM
6	0.40000	1	2.58240	0.23752	0.0	-1.8	0.40564	8/29/2024	8:47:10 AM
7	0.20000	1	1.31741	0.11819	0.0	-1.9	0.20313	8/29/2024	8:48:08 AM
8	0.10000	1	0.63428	0.05340	0.0	5.3	0.09421	8/29/2024	8:49:07 AM
9	0.05000	1	0.39222	0.03233	0.0	-9.7	0.05569	8/29/2024	8:50:05 AM
10	0.00000	1	0.01080	0.00222			-0.00493	8/29/2024	8:51:02 AM

Figure : 1 (Ammonia)



Area = - 0.06303 * Conc^2 + 6.25464 * Conc + 0.04486
Conc = 0.00033 * Area^2 + 0.15879 * Area - 0.00665
Correlation Coefficient (r) = 0.99999

Weighting : 1/x

Author: A1WETCHEMINSTRUMENT Date : 8/29/2024

Original Run Filename: OM_8-29-2024_12-09-36PM.OMN Created: 8/29/2024 12:09:36 PM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-29-2024_12-09-36PM.OMN Last Modified: 8/29/2024 12:29:32 PM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	
CCV 0.4000	1	S6	0.41643				TRAY E
	Known Conc:		100.00000				
	Calibration:		Table/Fig. : 1				
CCV 4.0000	1	S3	3.90196				104%
	Known Conc:		100.00000				
CCB	1	S10	0.04579				
	Known Conc:		100.00000				
L2447890-11	1	10	0.21672		1.50		
L2447890-12	1	11	0.04824		1.50		
WG1965074-4	1	12	4.06562		1.50		98%
WG1965074-3	1	13	0.30848		1.50		
L2448136-04; 30X	1	14	1667.86133		900.00		
L2448136-10; 30X	1	15	1898.57507		900.00		
L2447852-08; 30X	1	6	1524.78235		900.00		
L2447852-10; 30X	1	7	1763.61353		900.00		
L2447852-15; 30X	1	8	2022.02576		900.00		
L2447852-18; 30X	1	9	1700.82410		900.00		
CCV 0.4000	1	S6	0.42607				102%
	Known Conc:		100.00000				RPD=NC
CCV 4.0000	1	S3	3.86632				
	Known Conc:		100.00000				
CCB	1	S10	0.04633				
	Known Conc:		100.00000				

Channel 2 (Ammonia High) - Current View

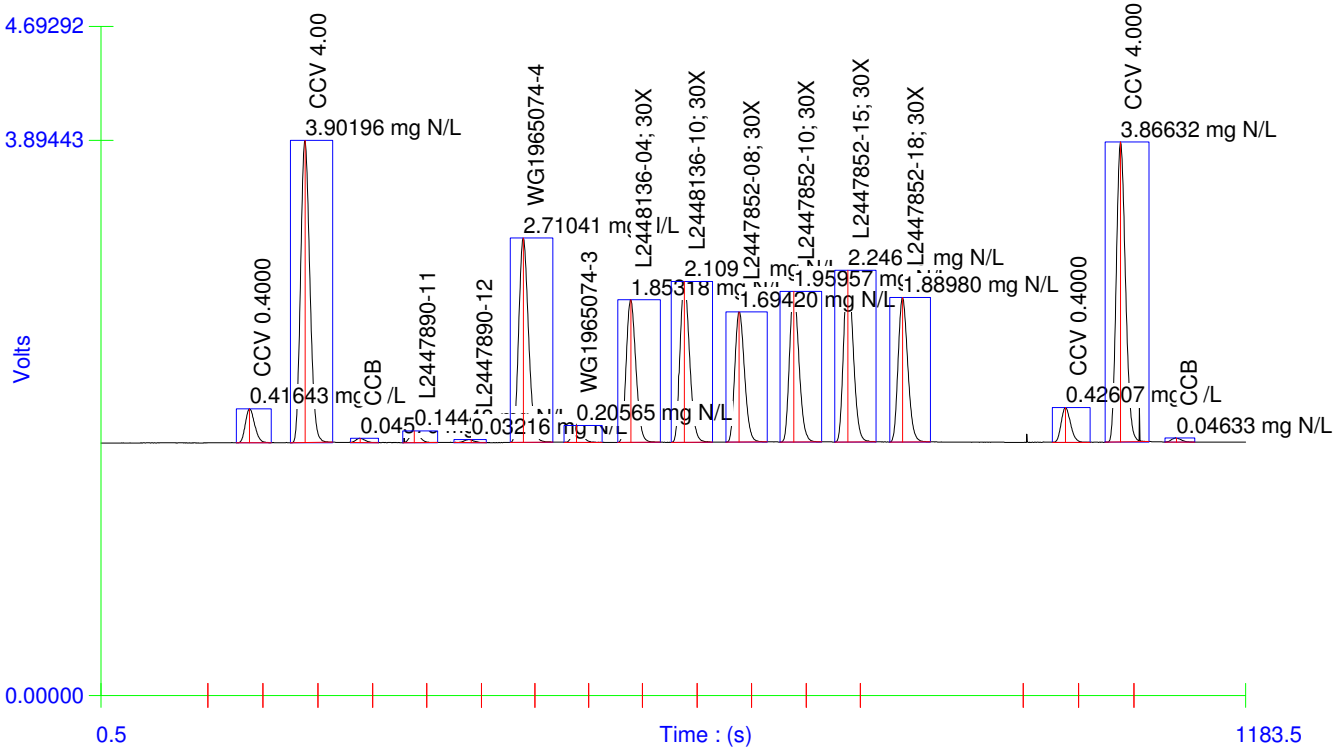
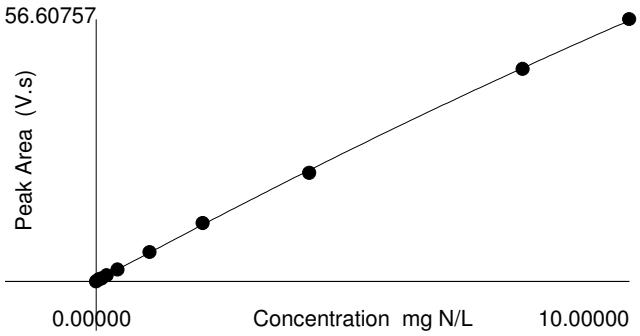


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.60757	5.03667	0.0	-0.6	10.04908	8/29/2024	8:42:23 AM
2	8.00000	1	45.85168	4.17511	0.0	0.4	7.97422	8/29/2024	8:43:20 AM
3	4.00000	1	23.47001	2.19770	0.0	2.4	3.90362	8/29/2024	8:44:17 AM
4	2.00000	1	12.59945	1.18315	0.0	-2.4	2.04691	8/29/2024	8:45:15 AM
5	1.00000	1	6.33095	0.59464	0.0	-1.5	1.01201	8/29/2024	8:46:12 AM
6	0.40000	1	2.58240	0.23752	0.0	-1.8	0.40564	8/29/2024	8:47:10 AM
7	0.20000	1	1.31741	0.11819	0.0	-1.9	0.20313	8/29/2024	8:48:08 AM
8	0.10000	1	0.63428	0.05340	0.0	5.3	0.09421	8/29/2024	8:49:07 AM
9	0.05000	1	0.39222	0.03233	0.0	-9.7	0.05569	8/29/2024	8:50:05 AM
10	0.00000	1	0.01080	0.00222			-0.00493	8/29/2024	8:51:02 AM

Figure : 1 (Ammonia)



Area = - 0.06303 * Conc^2 + 6.25464 * Conc + 0.04486
Conc = 0.00033 * Area^2 + 0.15879 * Area - 0.00665
Correlation Coefficient (r) = 0.99999

Weighting : 1/x

Original Run Filename: OM_8-28-2024_08-12-49AM.OMN Created: 8/28/2024 8:12:49 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-28-2024_08-12-49AM.OMN Last Modified: 8/28/2024 8:52:48 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

	Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	TRAY A
	STD 1	1	S1	10.00000				
	STD 2	1	S2	8.00000				
	STD 3	1	S3	4.00000				
	STD 4	1	S4	2.00000				
	STD 5	1	S5	1.00000				
	STD 6	1	S6	0.40000				
	STD 7	1	S7	0.20000				
	STD 8	1	S8	0.10000				
	STD 9	1	S9	0.05000				
	STD 10	1	S10	0.00000				
	CCV 0.4000	1	S6	0.39104				98%
		Known Conc:		100.00000				
		Calibration:		Table/Fig. : 1				
	CCV 4.0000	1	S3	4.02093				101%
		Known Conc:		100.00000				
	CCB	1	S10	0.03438				
		Known Conc:		100.00000				
	HI ICV 8.0	1	1	8.41469				105%
	LO ICV 1.0	1	2	1.05285				105%
	ICB	1	3	0.03363				
	WG1964621-1	1	4	0.02737		1.50		
	WG1964621-2	1	5	18.43698		7.50		92%
	LCS LO	1	6	2.02517		1.50		101%
	L2447624-01	1	7	5.04872		1.50		
	L2447624-02	1	8	0.38184		1.50		
	L2447639-01	1	9	3.40261		3.00		
	L2447639-02	1	10	0.57617		1.50		
	CCV 0.4000	1	S6	0.41488				104%
		Known Conc:		100.00000				
	CCV 4.0000	1	S3	4.08200				102%
		Known Conc:		100.00000				
	CCB	1	S10	0.04181				
		Known Conc:		100.00000				
	L2447640-01	1	11	4.36534		3.00		
	L2447640-02	1	12	0.20484		1.50		
	L2447672-01	1	13	1.69334		1.50		
	L2447672-02	1	14	1.04300		1.50		
	L2447690-01	1	15	8.11849		1.50		
	L2447690-02	1	16	0.80244		1.50		
	L2447709-01	1	17	0.17394		1.50		
	L2447709-02	1	18	0.07593		1.50		
X	L2447713-01	1	19	35.61909		3.00		
X	L2448899-01	1	20	0.78625		1.50		
X	CCV 0.4000	1	S6	0.44465				111%, RERUN OK
		Known Conc:		100.00000				

Author: A1WETCHEMINSTRUMENT Date : 8/28/2024

Channel 2 (Ammonia High) - Current View

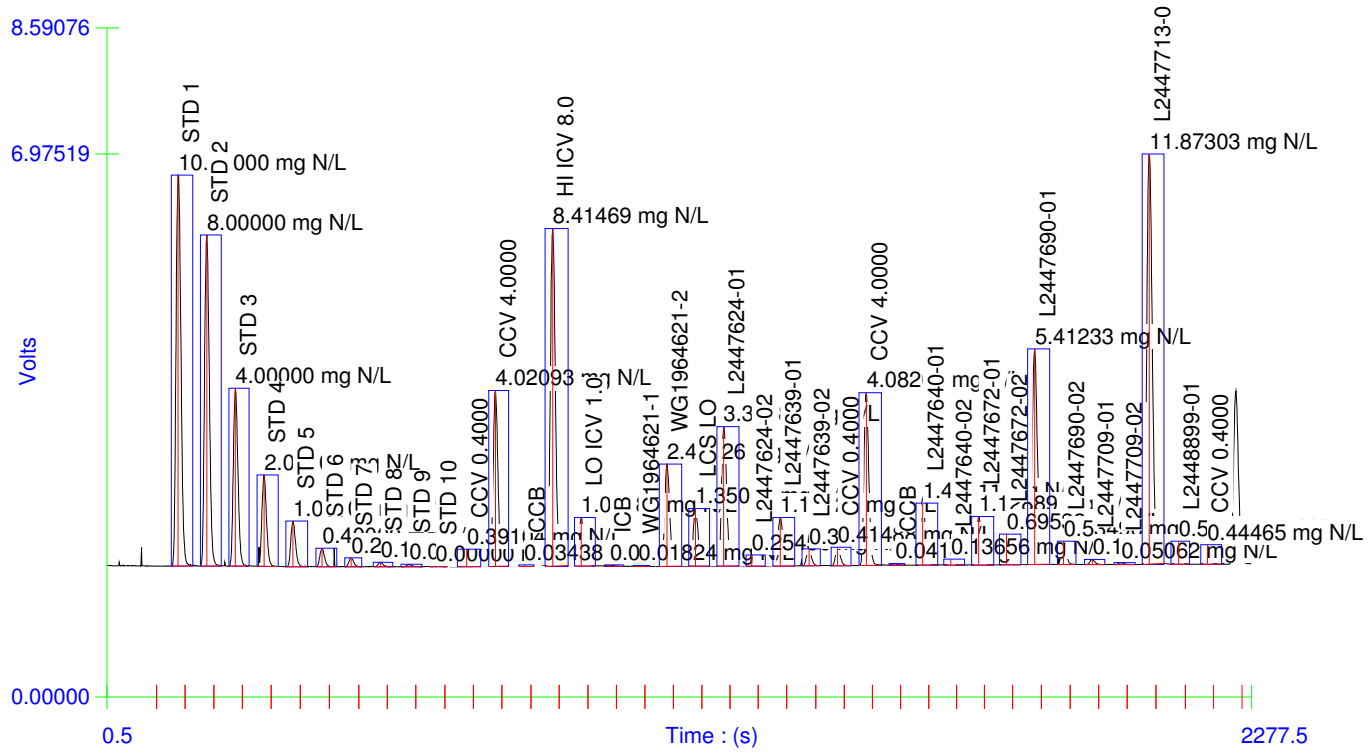
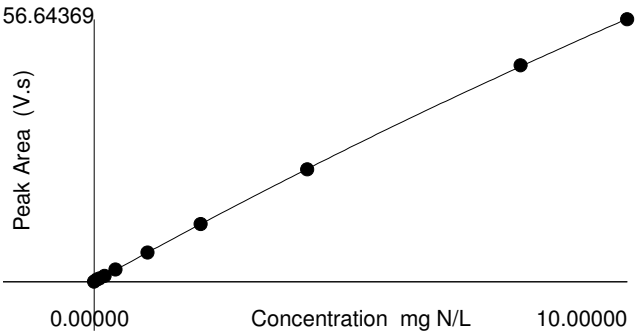


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.64369	5.02001	0.0	0.2	9.96164	8/28/2024	8:16:16 AM
2	8.00000	1	46.70343	4.24740	0.0	-0.5	8.05386	8/28/2024	8:17:12 AM
3	4.00000	1	24.22804	2.28305	0.0	0.4	3.99057	8/28/2024	8:18:10 AM
4	2.00000	1	12.37804	1.17121	0.0	0.5	1.98795	8/28/2024	8:19:07 AM
5	1.00000	1	6.28606	0.58530	0.0	0.1	0.99597	8/28/2024	8:20:04 AM
6	0.40000	1	2.59223	0.23573	0.0	-2.2	0.40691	8/28/2024	8:21:02 AM
7	0.20000	1	1.24367	0.11547	0.0	2.5	0.19419	8/28/2024	8:22:00 AM
8	0.10000	1	0.64598	0.05628	0.0	-0.5	0.10031	8/28/2024	8:22:58 AM
9	0.05000	1	0.36535	0.03034	0.0	-12.1	0.05631	8/28/2024	8:23:56 AM
10	0.00000	1	-0.02891	-0.00207			-0.00540	8/28/2024	8:24:52 AM

Figure : 1 (Ammonia)



Area = - 0.06719 * Conc^2 + 6.34766 * Conc + 0.00880
Conc = 0.00034 * Area^2 + 0.15642 * Area - 0.00088
Correlation Coefficient (r) = 1.00000

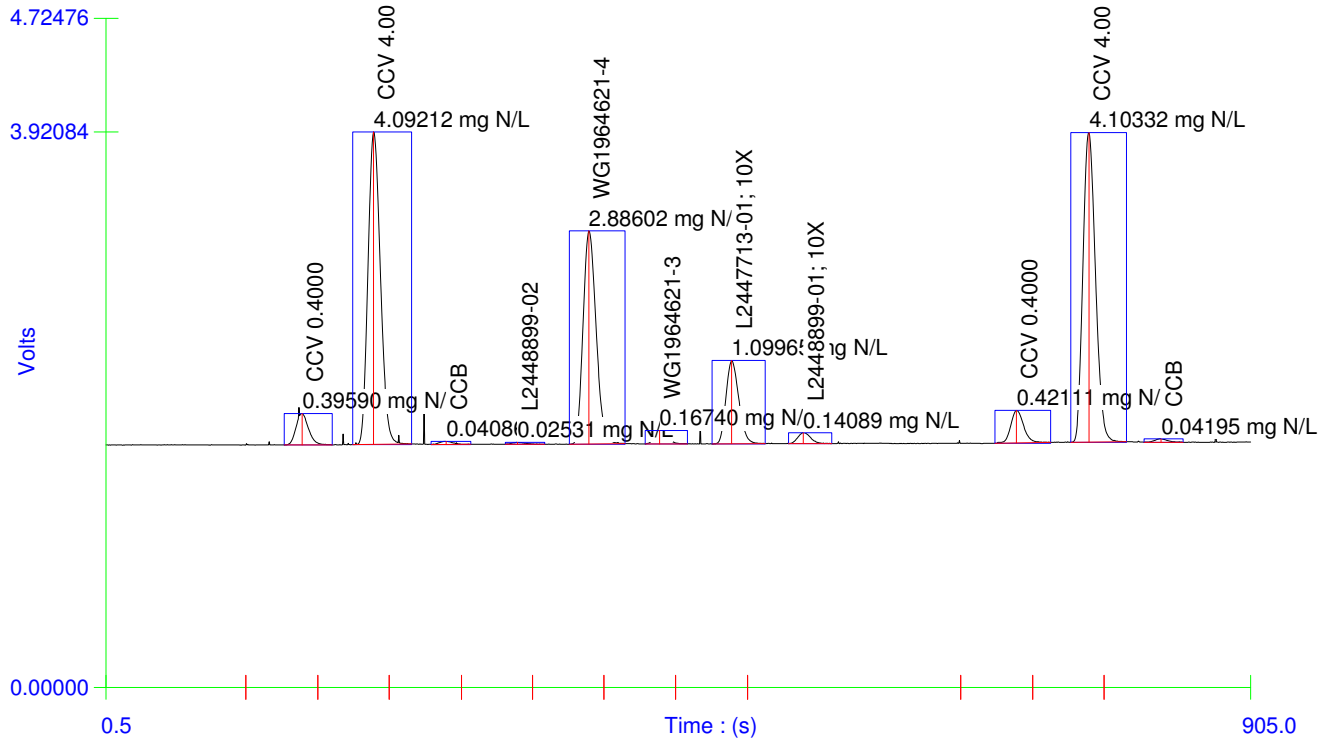
Weighting : 1/x

Author: A1WETCHEMINSTRUMENT Date : 8/28/2024

Original Run Filename: OM_8-28-2024_08-55-37AM.OMN Created: 8/28/2024 8:55:37 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-28-2024_08-55-37AM.OMN Last Modified: 8/28/2024 9:10:53 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	TRAY A
CCV 0.4000	1	S6	0.39590				99%
	Known Conc:		100.00000				
	Calibration:		Table/Fig. : 1				
CCV 4.0000	1	S3	4.09212				102%
	Known Conc:		100.00000				
CCB	1	S10	0.04086				
	Known Conc:		100.00000				
L2448899-02	1	21	0.03796		1.50		
WG1964621-4	1	22	4.32902		1.50		
WG1964621-3	1	23	0.25110		1.50		
L2447713-01; 10X	1	19	32.98962		30.00		
L2448899-01; ~~10X~~	1	20	0.21134		1.50		
CCV 0.4000	1	S6	0.42111				105%
	Known Conc:		100.00000				
CCV 4.0000	1	S3	4.10332				103%
	Known Conc:		100.00000				
CCB	1	S10	0.04195				
	Known Conc:		100.00000				

Channel 2 (Ammonia High) - Current View

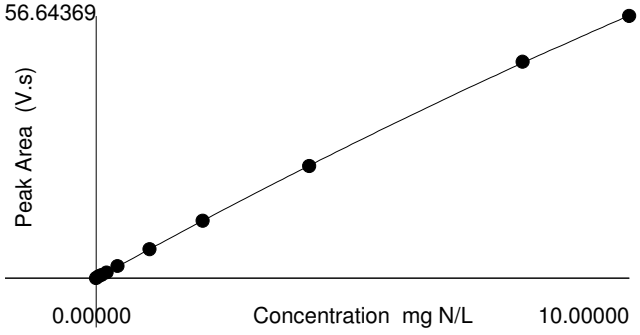


Author: A1WETCHEMINSTRUMENT Date : 8/28/2024

Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.64369	5.02001	0.0	0.2	9.96164	8/28/2024	8:16:16 AM
2	8.00000	1	46.70343	4.24740	0.0	-0.5	8.05386	8/28/2024	8:17:12 AM
3	4.00000	1	24.22804	2.28305	0.0	0.4	3.99057	8/28/2024	8:18:10 AM
4	2.00000	1	12.37804	1.17121	0.0	0.5	1.98795	8/28/2024	8:19:07 AM
5	1.00000	1	6.28606	0.58530	0.0	0.1	0.99597	8/28/2024	8:20:04 AM
6	0.40000	1	2.59223	0.23573	0.0	-2.2	0.40691	8/28/2024	8:21:02 AM
7	0.20000	1	1.24367	0.11547	0.0	2.5	0.19419	8/28/2024	8:22:00 AM
8	0.10000	1	0.64598	0.05628	0.0	-0.5	0.10031	8/28/2024	8:22:58 AM
9	0.05000	1	0.36535	0.03034	0.0	-12.1	0.05631	8/28/2024	8:23:56 AM
10	0.00000	1	-0.02891	-0.00207			-0.00540	8/28/2024	8:24:52 AM

Figure : 1 (Ammonia)



Area = - 0.06719 * Conc^2 + 6.34766 * Conc + 0.00880
Conc = 0.00034 * Area^2 + 0.15642 * Area - 0.00088
Correlation Coefficient (r) = 1.00000

Weighting : 1/x

Original Run Filename: OM_8-28-2024_09-14-41AM.OMN Created: 8/28/2024 9:14:41 AM
Original Run Author's Signature: [A1WETCHEMINSTRUMENT]
Current Run Filename: OM_8-28-2024_09-14-41AM.OMN Last Modified: 8/28/2024 9:43:09 AM
Current Run Author's Signature: [A1WETCHEMINSTRUMENT]
Description: Default New Run

	Sample	Rep.	Cup No.	Channel 2 Ammonia (mg N/L)	ADF	MDF	Weight	TRAY B
	CCV 0.4000	1	S6	0.39483				99%
		Known Conc:		100.00000				
	CCV 4.0000	1	S3	4.11184				103%
		Known Conc:		100.00000				
		Calibration:		Table/Fig. : 1				
	CCB	1	S10	0.03702				
		Known Conc:		100.00000				
	WG1964497-1	1	1	0.02419		1.50		
	WG1964497-2	1	2	18.49352		7.50		92%
	LCS LO	1	3	2.04675		1.50		102%
X	WG1964497-5	1	4	0.20139		1.50		269%, RERUN
	L2447890-01	1	5	0.02578		1.50		
	L2447890-02	1	6	0.30016		1.50		
	L2447890-03	1	7	0.49192		1.50		
	L2447890-04	1	8	0.91295		1.50		
	L2447890-05	1	9	0.05966		1.50		
	L2447890-06	1	10	0.06307		1.50		
	CCV 0.4000	1	S6	0.40420				101%
		Known Conc:		100.00000				
	CCV 4.0000	1	S3	4.15213				104%
		Known Conc:		100.00000				
	CCB	1	S10	0.03919				
		Known Conc:		100.00000				
	WG1964497-5	1	4	0.07099		1.50		95%
	L2447890-07	1	11	0.02035		1.50		
	L2447890-08	1	12	0.02542		1.50		
	L2447890-09	1	13	0.23156		1.50		
	L2447890-10	1	14	0.13225		1.50		
	WG1964497-4	1	15	4.29070		1.50		104%
	WG1964497-3	1	16	0.34675		1.50		RPD=90%
	CCV 0.4000	1	S6	0.40469				101%
		Known Conc:		100.00000				
	CCV 4.0000	1	S3	4.12894				103%
		Known Conc:		100.00000				
	CCB	1	S10	0.03876				
		Known Conc:		100.00000				

Author: A1WETCHEMINSTRUMENT Date : 8/28/2024

Channel 2 (Ammonia High) - Current View

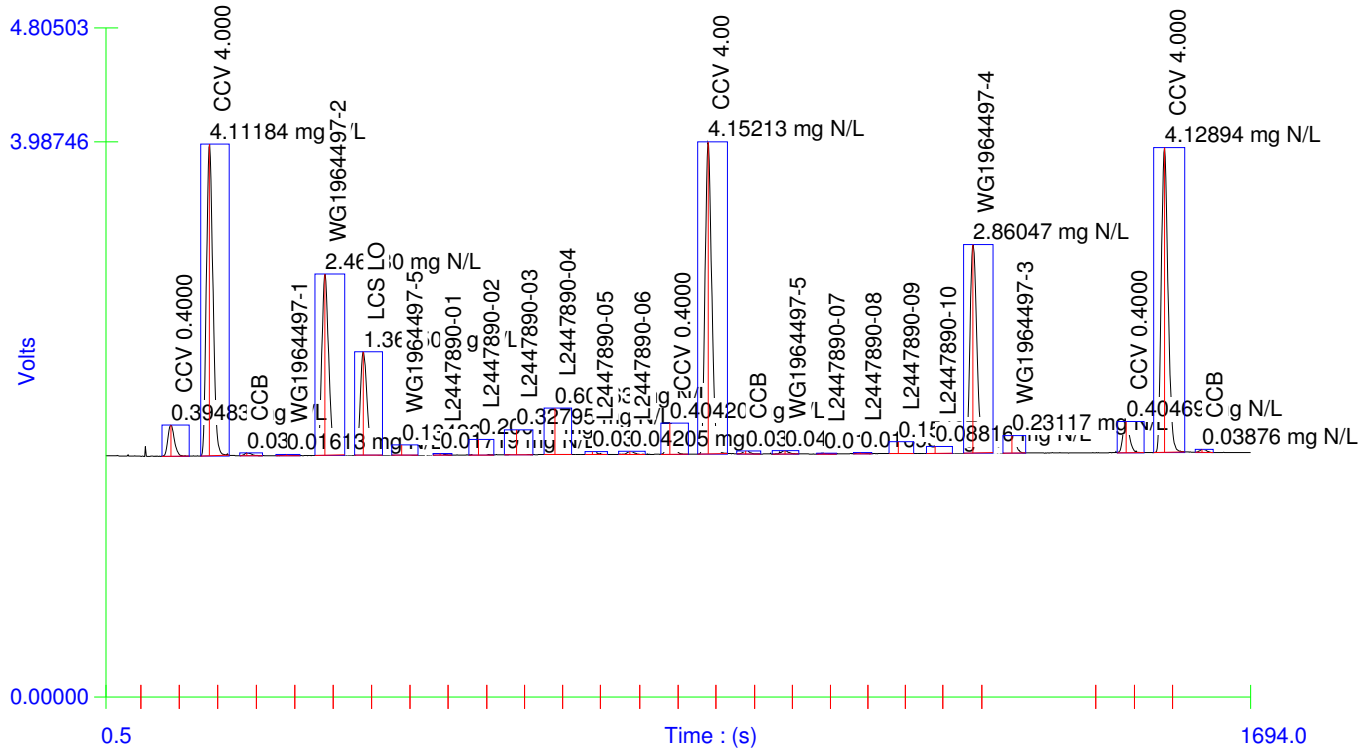
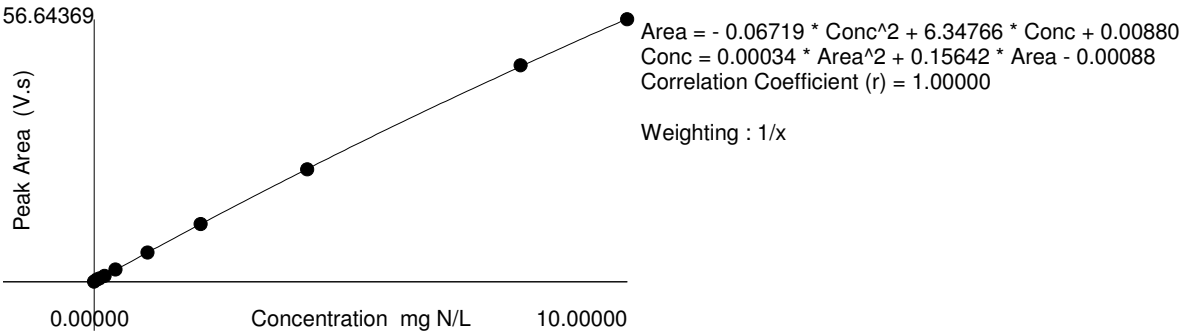


Table : 1 (Ammonia)

	Known Conc. (mg N/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg N/L)	Detection Date	Detection Time
1	10.00000	1	56.64369	5.02001	0.0	0.2	9.96164	8/28/2024	8:16:16 AM
2	8.00000	1	46.70343	4.24740	0.0	-0.5	8.05386	8/28/2024	8:17:12 AM
3	4.00000	1	24.22804	2.28305	0.0	0.4	3.99057	8/28/2024	8:18:10 AM
4	2.00000	1	12.37804	1.17121	0.0	0.5	1.98795	8/28/2024	8:19:07 AM
5	1.00000	1	6.28606	0.58530	0.0	0.1	0.99597	8/28/2024	8:20:04 AM
6	0.40000	1	2.59223	0.23573	0.0	-2.2	0.40691	8/28/2024	8:21:02 AM
7	0.20000	1	1.24367	0.11547	0.0	2.5	0.19419	8/28/2024	8:22:00 AM
8	0.10000	1	0.64598	0.05628	0.0	-0.5	0.10031	8/28/2024	8:22:58 AM
9	0.05000	1	0.36535	0.03034	0.0	-12.1	0.05631	8/28/2024	8:23:56 AM
10	0.00000	1	-0.02891	-0.00207			-0.00540	8/28/2024	8:24:52 AM

Figure : 1 (Ammonia)



Quality Control

Form 5a
Matrix Spike

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-8C2	**Matrix**	: WATER
Lab Sample ID	: L2447890-10		
Matrix Spike	: WG1964497-4	**MS Analysis Date**	: 08/28/24 09:35
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Nitrogen, Ammonia	0.132	4	4.29	104					90-110	20

Form 5a
Matrix Spike

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: DUP	**Matrix**	: WATER
Lab Sample ID	: L2447890-12		
Matrix Spike	: WG1965074-4	**MS Analysis Date**	: 08/29/24 12:16
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Nitrogen, Ammonia	0.048J	4	4.06	102					90-110	20

Form 6
Lab Duplicates

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-8C2	**Matrix**	: WATER
Lab Sample ID	: L2447890-10	**Analysis Date**	: 08/28/24 09:34
Dup Sample ID	: WG1964497-3	**DUP Analysis Date**	: 08/28/24 09:36

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Nitrogen, Ammonia	0.132	0.347	90 Q	20

Form 6
Lab Duplicates

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: DUP	**Matrix**	: WATER
Lab Sample ID	: L2447890-12	**Analysis Date**	: 08/29/24 12:15
Dup Sample ID	: WG1965074-3	**DUP Analysis Date**	: 08/29/24 12:17

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Nitrogen, Ammonia	0.048J	0.308	NC	20

Form 7
Laboratory Control Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1964497-2	**LCS Analysis Date**	: 08/28/24 09:19
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (mg/l)	Found (mg/l)	%R	True (mg/l)	Found (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Nitrogen, Ammonia	20.0	18.5	92.					90-110	20

Form 7
Laboratory Control Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1965074-2	**LCS Analysis Date**	: 08/29/24 11:43
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Nitrogen, Ammonia	**20.0**	**18.0**	**90.**					**90-110**	**20**

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
Page: 1

WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container / Sample Preservation
Nitrogen, Ammonia	7664-41-7	0.075	0.024	mg/l	80-120	20	80-120	20	20	4500NH3-BH	28 days	1 - Plastic 500ml H2SO4 preserved
Nitrogen, Ammonia	7664-41-7	0.075	0.024	mg/l	90-110	20	90-110	20	20	350.1	28 days	1 - Plastic 500ml H2SO4 preserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11468-1
Page: 1

WETCHEM (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container / Sample Preservation
Nitrogen, Ammonia	7664-41-7	7.5	2.79	mg/kg	83-115	20	55-144	20	20	4500NH3-BH	28 days	1 - Glass 250ml/8oz unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com
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Calculations of Nitrogen in Ammonia

Aqueous samples:

Compute sample NH_3 –N concentration by comparing sample peak areas with standard curve, as determined by the Lachat instrument software.

If the sample has a concentration of less than 2ppm, calculate results by using the low curve generated on Channel 1.

If the sample concentration is greater than 2ppm, calculate the results by using the high curve generated on Channel 2.

To Compute the final results for aqueous samples, multiply the direct reading by the dilution factor based on the initial preparation volume. (also done using software)

NH_3-N mg/L = mg/L direct reading x dilution factor

Sequence Logs

Tray A(08-12-49AM, 08-55-37AM)
prep 8127124 @21:23

1	~~WG~~ Hi ICV 8.0
2	Lo ICV 1.0
3	ICB
4	WG1964621-1, Blk
5	-2; LCS Hi, 5X
6	LCS Lo
7	47624-01
8	02
9	47639 -01 (2x)
10	02
11	47640 -01 (2x)
12	02
13	47672 -01
14	-02
15	47690 -01
16	02
17	47709 -01
18	02
19	47713 -01 (2x) . 10x 1+10
20	48899 -01, ~~10x~~ WG
21	-02
22	-02 MS
23	-02 Dup

Tray B(09-14-41AM)
prep 8127124 @18:03

1	WG1964497-1. Blk
2	-2; LCS Hi, 5X
3	LCS Lo
⊗ 4	-5; LOQ; rerun
5	47890 -01
6	-02
7	-03
8	-04
9	-05
10	-06
11	-07
12	-08
13	-09
14	-10
15	-10 MS
16	-10 Dup

Date: 8128124
Sodium Phenolate: 7/29/24 R-4065
Sodium Hypochlorate: 7/29/24 stockshop
Sodium Nitropruisside: 7/29/24 R-3969
Borric Acid Soln.: 7/29/24 R-4019
ICV 1.0: 8128124 WC-3448
ICV 8.0:
Cal. Std: 8/1/24 WC-3392
See Front Page for Instructions:

KEP

nessed & Understood by me, | Date | Invented by: | Date
Recorded by:

From Page No. ____

Tray A(08-40-27AM)
prep 8/29/24 @00:41

1	Hi FCV 8.0	
2	Lo FCV 1.0	
3	ICB	
4	WG1965268-1, BLK	
5	-2, LCS Hi, 5X	
6	LCS Lo	
7	45598	-03
8		-03 MS
9		-03 Dup
10	48052	-02
11		-04
12		-06
13		-08 (2x)
14		-10 (2x)
15		-12
16		-14
17		-16
18		-18 (2x)
19		-20
20		-22
21		-24
22	48660	-12

Date: 8/29/24
Sodium Phenolate: 7/29/24 R-4065
Sodium Hypochlorate: 7/29/24 stop tshop
Sodium Nitropruisside: 7/29/24 R-3969
Borric Acid Soln.: 7/29/24 R-4019
ICV 1.0:
ICV 8.0: 8/28/24 WC-3448
Cal. Std: 8/1/24 WC-3392
See Front Page for Instructions:

KTP

Tray B(09-28-24AM, 10-03-27AM)
prep 8/27/24 @17:40

1	WG1964304-1T, BLK	
2		-2T, LCS Hi, 5X
3	LCS LoT	
4	46599	-01T
5	47939	-01T
6	47944	-01T
⊗ 7	47974	-01T; 10x ITID
⊗ 8	48037	-01T
9	48057	-01T
10	48054	-01T
11	48078	-01T
12		-02T
13		-03T
14		-03T MS
15		-03T Dup
16	48094	-01T
17	48114	-01T
18	48135	-02T
⊗ 19	48307	-01T; 10x ITID
⊗ 20		-02T

KTP

Tray C(10-18-09AM)
prep 8/28/24 @6:49

1	WG1964789-1T, BLK	
2		-2T, LCS Hi, 5X
3	LCS LoT	
4	47726	-04T
5	48414	-01T
6		-01T MS
7		-01T Dup
8		-02T (2x)
9		-03T

To Page No. ____

om Page No. ____

Tray D (10-38-16AM, 10-59-03AM, 11-17-37AM)
prep 8/28/24 @ 22:41, @22:49

1	WG1965076-1 Blk
2	(5077)-2; LCS Hi; 5x
3	LCS Lo
4	477116-01
5	-02
6	-03
7	-04 MS
8	-04 Dup; rerun
9	-04
10	47998-01 (5x)
11	48003-01 (5x)
12	46325-02 MS
13	-02 Dup
14	-02
15	46328-02
16	46330-01 (5x)
17	-02
18	-03 (5x)
19	-04
20	-05 (5x); 10x 1+10
21	-06
22	47949-01
23	-02
24	-03
25	-04
26	-05
27	-06

KEP

Tray E (11-38-37AM, 12-09-36PM) ~~12-09-36PM~~ KEP

prep 8/28/24 @ 22:33

1	WG1965074-1 Blk
2	-2; LCS Hi; 5x
3	LCS Lo
4	477726-03
5	-04
⊗ 6	47852-08 (20x); 30x 1+30
⊗ 7	-10 (20x); 30x 1+30
⊗ 8	-15 (20x); 30x 1+30
⊗ 9	-18 (20x); 30x 1+30
⊗ 10	47890-11
11	-12
12	-12 MS
13	-12 Dup
14	48136-04 (20x); 30x 1+30
15	-10 (20x); 30x 1+30

KEP

Tray F
prep 8/29/24 @ 6:21

1	WG1965354-1 Blk
2	-2; LCS Hi; 5x
3	LCS Lo
4	48078-02
5	-02 MS
6	-02 Dup
7	-03
8	48107-01
9	48111-01
10	48128-02
11	-03; 10x 1+10
12	48167-02
13	48601-01

To Page No. ____

Sample Preparation

WG1965074

Sample	Volume	Dilution	Int. pH	Adj pH	final vol
	100mL	1X	2.2	~9.5	150mL
Blank					
Low					
High					
L2447726 - 03					
- 04					
7852 - 08		20x (5+100) matrix			
- 10					
- 15					
- 18					
7890 - 11		1X			
- 12 PA					
- 12 Dup					
- 12 ms					
8136 - 04		20x (5+100) matrix			
- 10					

Same standards as reagents as previous page # 169

08/28/24 @ 22:33 EST

To Page N

Page No. ____ WG1964497

Sample	Dil.	Vol.	Int. pH	Adj. pH	Final vol.
LOQ1	1X	100mL	<2	@9.5	150mL
Blank					
Low					
High					
L2447890-01					
-02					
-03					
-04					
-05					
-06					
-07					
-08					
-09					
-10 Pt					
-10 Dup					
-10 MS					

Same Std's 08 27 24 @ 18:03 SAD

1 Reagents

es previous

PG - # 166

To Page No. ____

sed & Understood by me, | Date | Invented by: | Date

Recorded by:

Nitrate and Nitrite Analysis

Results

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-01	**Date Collected**	: 08/21/24 11:10
Client ID	: MW-3A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 06:08
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,353.2	**Analyst**	: KAF
Lab File ID	: NO3240827-B1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Nitrate/Nitrite	0.077	0.10	0.046	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-02	**Date Collected**	: 08/20/24 16:40
Client ID	: MW-6A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 06:14
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,353.2	**Analyst**	: KAF
Lab File ID	: NO3240827-B1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Nitrate/Nitrite	ND	0.10	0.046	U

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-03	**Date Collected**	: 08/20/24 14:55
Client ID	: MW-6B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 06:18
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,353.2	**Analyst**	: KAF
Lab File ID	: NO3240827-B1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Nitrate/Nitrite	ND	0.10	0.046	U

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-04	**Date Collected**	: 08/20/24 17:55
Client ID	: MW-6C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 06:19
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,353.2	**Analyst**	: KAF
Lab File ID	: NO3240827-B1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Nitrate/Nitrite	ND	0.10	0.046	U

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-05	**Date Collected**	: 08/20/24 16:30
Client ID	: MW-7A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 06:20
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,353.2	**Analyst**	: KAF
Lab File ID	: NO3240827-B1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Nitrate/Nitrite	0.63	0.10	0.046	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-06	**Date Collected**	: 08/21/24 09:20
Client ID	: MW-7B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 06:21
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,353.2	**Analyst**	: KAF
Lab File ID	: NO3240827-B1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Nitrate/Nitrite	ND	0.10	0.046	U

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-07	**Date Collected**	: 08/21/24 10:50
Client ID	: MW-7C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 06:22
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,353.2	**Analyst**	: KAF
Lab File ID	: NO3240827-B1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Nitrate/Nitrite	0.84	0.10	0.046	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-08	**Date Collected**	: 08/21/24 13:05
Client ID	: MW-8A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 06:23
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,353.2	**Analyst**	: KAF
Lab File ID	: NO3240827-B1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Nitrate/Nitrite	2.6	0.10	0.046	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-09	**Date Collected**	: 08/21/24 14:35
Client ID	: MW-8B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 06:28
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,353.2	**Analyst**	: KAF
Lab File ID	: NO3240827-B1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Nitrate/Nitrite	1.8	0.10	0.046	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-10	**Date Collected**	: 08/21/24 13:40
Client ID	: MW-8C2	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 06:29
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,353.2	**Analyst**	: KAF
Lab File ID	: NO3240827-B1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Nitrate/Nitrite	0.16	0.10	0.046	

Form 1
WETCHEM

Client	:	**Alpha Geoscience**	**Lab Number**	:	**L2447890**
Project Name	:	**RANCO MINE**	**Project Number**	:	**12123**
Lab ID	:	**L2447890-11**	**Date Collected**	:	**08/21/24 09:00**
Client ID	:	**MW-9B**	**Date Received**	:	**08/21/24**
Sample Location	:	**MANORVILLE, NY**	**Date Analyzed**	:	**08/27/24 06:30**
Sample Matrix	:	**WATER**	**Dilution Factor**	:	**1**
Analytical Method	:	**44,353.2**	**Analyst**	:	**KAF**
Lab File ID	:	**NO3240827-B1**	**Instrument ID**	:	**FIA1**
Sample Amount	:		**%Solids**	:	**N/A**
Digestion Method	:		**Date Digested**	:	

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	**Nitrogen, Nitrate/Nitrite**	**5.1**	**0.10**	**0.046**	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-12	**Date Collected**	: 08/21/24 00:00
Client ID	: DUP	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 06:31
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,353.2	**Analyst**	: KAF
Lab File ID	: NO3240827-B1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Nitrate/Nitrite	5.1	0.10	0.046	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964146-1	**Date Collected**	: NA
Client ID	: WG1964146-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/27/24 03:56
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,353.2	**Analyst**	: KAF
Lab File ID	: NO3240827-A1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Nitrate/Nitrite	ND	0.10	0.046	U

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964146-3	**Date Collected**	: 08/21/24 11:10
Client ID	: MW-3ADUP	**Date Received**	: 08/21/24
Sample Location	:	**Date Analyzed**	: 08/27/24 06:09
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,353.2	**Analyst**	: KAF
Lab File ID	: NO3240827-B1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Nitrate/Nitrite	0.081	0.10	0.05	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964146-5	**Date Collected**	: 08/20/24 16:40
Client ID	: MW-6ADUP	**Date Received**	: 08/21/24
Sample Location	:	**Date Analyzed**	: 08/27/24 06:16
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,353.2	**Analyst**	: KAF
Lab File ID	: NO3240827-B1	**Instrument ID**	: FIA1
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Nitrogen, Nitrate/Nitrite	ND	0.10	0.05	U

Sample Raw Data

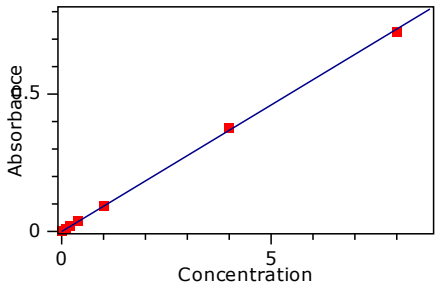
Graphical report generated by FIAsoft v3.1.10
Report generated on 2024-08-27 05:24:30
Data file (.dat): C:\FIAlab\Autosave Data\2024-08-27-052410.dat

Dataset Notes:

Analyst	

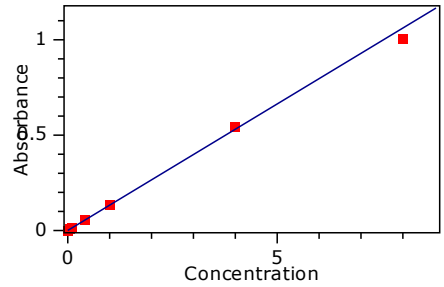
Dataset Notes Table Location: C:\FIAlab\FIAlab User Files\Tables\Dataset Notes\Analyst.csv

Calibrations:



Channel: 1-NOx
Fit_Order: 1
Weighting: 1/response
Standard relation
Coefficients:
A: -0.00042
B: 0.09213
R^2: 0.99973
RSE(%): 1.23252
% Max. for OVR: 100

InjNo	Name	Response	Known Conc. mg/L	Calc. Conc. mg/L	% Error	Time
2	NOx 8.0ppm	0.72450	8.00000	7.86800	1.65	2024-08-27T03:17:10
3	NOx 4.0ppm	0.37480	4.00000	4.07290	1.82	2024-08-27T03:18:20
4	NOx 1.0ppm	0.09180	1.00000	1.00070	0.07	2024-08-27T03:19:27
5	NOx 0.4ppm	0.03640	0.40000	0.39940	0.16	2024-08-27T03:20:35
6	NOx 0.2ppm	0.01800	0.20000	0.20010	0.04	2024-08-27T03:21:45
7	NOx 0.1ppm	0.00880	0.10000	0.10000	0.01	2024-08-27T03:22:55
8	NOx 0.0ppm	0.00000	0.00000	0.00480	NA	2024-08-27T03:24:05



Channel: 2-NO2
Fit_Order: 1
Weighting: 1/response
Standard relation
Coefficients:
A: 0.00037
B: 0.13265
R^2: 0.99870
RSE(%): 3.62392
% Max. for OVR: 100

InjNo	Name	Response	Known Conc. mg/L	Calc. Conc. mg/L	% Error	Time
9	Nitrite 8.0ppm	1.00230	8.00000	7.55300	5.59	2024-08-27T03:25:02
10	Nitrite 4.0ppm	0.54030	4.00000	4.07050	1.76	2024-08-27T03:26:12
11	Nitrite 1.0ppm	0.13430	1.00000	1.01000	1.00	2024-08-27T03:27:19
12	Nitrite 0.4ppm	0.05540	0.40000	0.41500	3.75	2024-08-27T03:28:29
13	Nitrite 0.1ppm	0.01380	0.10000	0.10130	1.33	2024-08-27T03:29:39
14	Nitrite 0.05ppm	0.00690	0.05000	0.04940	1.17	2024-08-27T03:30:49
15	Nitrite 0.0ppm	0.00010	0.00000	-0.00230	NA	2024-08-27T03:32:07

Results:

Channel: 1-NOx

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
Stabil	1	Unknown	?	0.0011	1	1	1	0.0161		2024-08-27T03:15:55
NOx 8.0ppm	2	Standard	8	0.7245	1	1	1	7.8680		2024-08-27T03:17:10
NOx 4.0ppm	3	Standard	4	0.3748	1	1	1	4.0729		2024-08-27T03:18:20
NOx 1.0ppm	4	Standard	1	0.0918	1	1	1	1.0007		2024-08-27T03:19:27
NOx 0.4ppm	5	Standard	0.4	0.0364	1	1	1	0.3994		2024-08-27T03:20:35
NOx 0.2ppm	6	Standard	0.2	0.0180	1	1	1	0.2001		2024-08-27T03:21:45
NOx 0.1ppm	7	Standard	0.1	0.0088	1	1	1	0.1000		2024-08-27T03:22:55
NOx 0.0ppm	8	Standard	0	0.0000	1	1	1	0.0048		2024-08-27T03:24:05
Nitrite 8.0ppm	9	Standard	?	0.7259	1	1	1	7.8830	OVR	2024-08-27T03:25:16
Nitrite 4.0ppm	10	Standard	?	0.3792	1	1	1	4.1203		2024-08-27T03:26:26
Nitrite 1.0ppm	11	Standard	?	0.0908	1	1	1	0.9905		2024-08-27T03:27:34
Nitrite 0.4ppm	12	Standard	?	0.0368	1	1	1	0.4039		2024-08-27T03:28:42
Nitrite 0.1ppm	13	Standard	?	0.0088	1	1	1	0.0995		2024-08-27T03:29:52
Nitrite 0.05ppm	14	Standard	?	0.0044	1	1	1	0.0521		2024-08-27T03:31:02
Nitrite 0.0ppm	15	Standard	?	0.0001	1	1	1	0.0053		2024-08-27T03:32:11
CCV NO3	16	QC	1	0.0930	1	1	1	1.0134		2024-08-27T03:33:21
CCV NO2	17	QC	?	0.0911	1	1	1	0.9929		2024-08-27T03:34:26
CCB	18	QC	0	0.0000	1	1	1	0.0043		2024-08-27T03:35:09
ICV NO3 5.0	19	QC	5	0.4781	1	1	1	5.1937		2024-08-27T03:36:44
ICV NO2 5.0	20	QC	?	0.4643	1	1	1	5.0442		2024-08-27T03:37:53
ICV NO3 0.5	21	QC	0.5	0.0487	1	1	1	0.5335		2024-08-27T03:39:02
ICV NO2 0.5	22	QC	?	0.0453	1	1	1	0.4966		2024-08-27T03:40:10
ICB	23	QC	0	0.0000	1	1	1	0.0045		2024-08-27T03:40:51
BLANK NO3	24	Unknown	?	0.0000	1	1	1	0.0049		2024-08-27T03:42:30
LCS NO3	25	Unknown	?	0.4799	1	1	1	5.2138		2024-08-27T03:43:33
BLANK NO2	26	Unknown	?	-0.0002	1	1	1	0.0026		2024-08-27T03:44:10
LCS NO2	27	Unknown	?	0.4672	1	1	1	5.0761		2024-08-27T03:45:45
CCV NO3	28	QC	1	0.0910	1	1	1	0.9921		2024-08-27T03:46:51
CCV NO2	29	QC	?	0.0914	1	1	1	0.9963		2024-08-27T03:47:57
CCB	30	QC	0	0.0000	1	1	1	0.0043		2024-08-27T03:48:40
WG1964143-1	31	Unknown	?	0.0001	1	1	1	0.0052		2024-08-27T03:50:29
WG1964143-2	32	Unknown	?	0.4629	1	1	1	5.0292		2024-08-27T03:51:21

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
WG1964144-1	33	Unknown	?	-0.0002	1	1	1	0.0020		2024-08-27T03:51:57
WG1964144-2	34	Unknown	?	0.4825	1	1	1	5.2412		2024-08-27T03:53:32
WG1964145-1	35	Unknown	?	-0.0002	1	1	1	0.0025		2024-08-27T03:54:09
WG1964145-2	36	Unknown	?	0.4808	1	1	1	5.2226		2024-08-27T03:55:44
WG1964146-1; WG1964147-1	37	Unknown	?	-0.0001	1	1	1	0.0033		2024-08-27T03:56:24
WG1964146-2; WG1964147-2	38	Unknown	?	0.4829	1	1	1	5.2455		2024-08-27T03:57:59
L2448599-01	39	Unknown	?	0.0020	1	1	1	0.0264		2024-08-27T03:59:06
L2448599-02	40	Unknown	?	0.0022	1	1	1	0.0285		2024-08-27T04:00:12
CCV NO3	41	QC	1	0.0938	1	1	1	1.0231		2024-08-27T04:01:18
CCV NO2	42	QC	?	0.0918	1	1	1	1.0005		2024-08-27T04:02:24
CCB	43	QC	0	0.0000	1	1	1	0.0044		2024-08-27T04:03:07
L2448607-01	44	Unknown	?	0.0431	1	1	1	0.4726		2024-08-27T04:04:41
WG1964144-3	45	Unknown	?	0.0417	1	1	1	0.4569		2024-08-27T04:05:48
WG1964144-4	46	Unknown	?	0.4130	1	1	1	4.4869		2024-08-27T04:06:54
WG1964143-3	47	Unknown	?	0.0424	1	1	1	0.4650		2024-08-27T04:07:59
WG1964143-4	48	Unknown	?	0.4194	1	1	1	4.5571		2024-08-27T04:09:05
L2448608-01	49	Unknown	?	0.6946	1	1	1	7.5435		2024-08-27T04:10:10
L2448621-01	50	Unknown	?	0.0327	1	1	1	0.3594		2024-08-27T04:11:16
L2448628-01	51	Unknown	?	0.0075	1	1	1	0.0862		2024-08-27T04:12:20
L2448628-02	52	Unknown	?	0.0075	1	1	1	0.0859		2024-08-27T04:13:25
L2448628-03	53	Unknown	?	0.0073	1	1	1	0.0834		2024-08-27T04:14:29
CCV NO3	54	QC	1	0.0940	1	1	1	1.0244		2024-08-27T04:15:34
CCV NO2	55	QC	?	0.0920	1	1	1	1.0028		2024-08-27T04:16:40
CCB	56	QC	0	0.0000	1	1	1	0.0045		2024-08-27T04:17:26
L2448629-01	57	Unknown	?	0.0360	1	1	1	0.3953		2024-08-27T04:18:59
L2448261-01A; 2.5 UP TO 25	58	Unknown	?	0.3382	10	1	1	36.7575		2024-08-27T04:20:09
L2448365-01B; 2.5 UP TO 25	59	Unknown	?	0.2375	10	1	1	25.8229		2024-08-27T04:21:15
L2445263-03; 0.5 UP TO 250	60	Unknown	?	0.1308	500	1	1	712.1213		2024-08-27T04:22:23
L2445834-01	61	Unknown	?	0.0955	1	1	1	1.0406		2024-08-27T04:23:29
L2446017-01	62	Unknown	?	0.0023	1	1	1	0.0300		2024-08-27T04:24:35

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
WG1964145-3	63	Unknown	?	0.0013	1	1	1	0.0191		2024-08-27T04:25:42
WG1964145-4	64	Unknown	?	0.3699	1	1	1	4.0192		2024-08-27T04:26:48
L2446017-02	65	Unknown	?	0.0007	1	1	1	0.0121		2024-08-27T04:27:54
L2447275-01	66	Unknown	?	0.0063	1	1	1	0.0732		2024-08-27T04:28:59
CCV NO3	67	QC	1	0.0933	1	1	1	1.0176		2024-08-27T04:30:03
CCV NO2	68	QC	?	0.0916	1	1	1	0.9983		2024-08-27T04:31:09
CCB	69	QC	0	0.0000	1	1	1	0.0045		2024-08-27T04:31:51
WG1964145-5	70	Unknown	?	0.0062	1	1	1	0.0721		2024-08-27T04:33:27
WG1964145-6	71	Unknown	?	0.3853	1	1	1	4.1864		2024-08-27T04:34:31
L2447297-01	72	Unknown	?	0.3430	1	1	1	3.7273		2024-08-27T04:35:36
L2447297-02	73	Unknown	?	0.2836	1	1	1	3.0831		2024-08-27T04:36:41
L2447421-03	74	Unknown	?	0.0525	1	1	1	0.5743		2024-08-27T04:37:45
L2447425-02	75	Unknown	?	0.0274	1	1	1	0.3014		2024-08-27T04:38:51
L2447429-01	76	Unknown	?	0.0023	1	1	1	0.0292		2024-08-27T04:40:00
L2447429-02	77	Unknown	?	0.0079	1	1	1	0.0902		2024-08-27T04:41:06
CCV NO3	78	QC	1	0.0932	1	1	1	1.0165		2024-08-27T04:42:11
CCV NO2	79	QC	?	0.0917	1	1	1	0.9998		2024-08-27T04:43:17
CCB	80	QC	0	0.0001	1	1	1	0.0052		2024-08-27T04:44:00

Channel: 2-NO2

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
Stabil	1	Unknown	?	0.0001	1	1	1	-0.0022		2024-08-27T03:16:29
NOx 8.0ppm	2	Standard	?	0.0003	1	1	1	-0.0002		2024-08-27T03:17:12
NOx 4.0ppm	3	Standard	?	0.0001	1	1	1	-0.0020		2024-08-27T03:18:09
NOx 1.0ppm	4	Standard	?	0.0001	1	1	1	-0.0018		2024-08-27T03:19:59
NOx 0.4ppm	5	Standard	?	0.0001	1	1	1	-0.0020		2024-08-27T03:20:49
NOx 0.2ppm	6	Standard	?	0.0001	1	1	1	-0.0024		2024-08-27T03:21:55
NOx 0.1ppm	7	Standard	?	0.0001	1	1	1	-0.0023		2024-08-27T03:23:27
NOx 0.0ppm	8	Standard	?	0.0000	1	1	1	-0.0024		2024-08-27T03:24:36
Nitrite 8.0ppm	9	Standard	8	1.0023	1	1	1	7.5530		2024-08-27T03:25:02
Nitrite 4.0ppm	10	Standard	4	0.5403	1	1	1	4.0705		2024-08-27T03:26:12
Nitrite 1.0ppm	11	Standard	1	0.1343	1	1	1	1.0100		2024-08-27T03:27:19
Nitrite 0.4ppm	12	Standard	0.4	0.0554	1	1	1	0.4150		2024-08-27T03:28:29
Nitrite	13	Standard	0.1	0.0138	1	1	1	0.1013		2024-08-

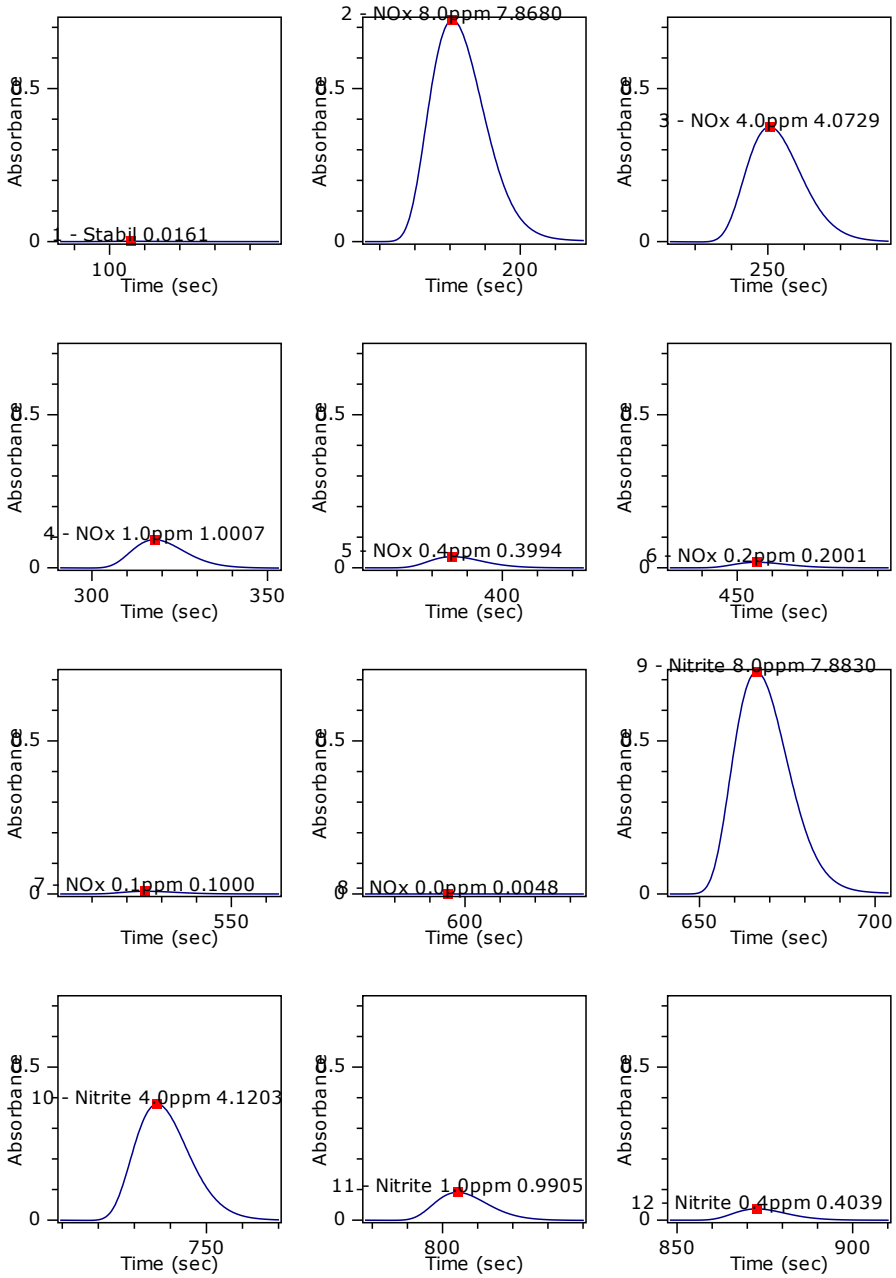
Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
0.1ppm										27T03:29:39
Nitrite 0.05ppm	14	Standard	0.05	0.0069	1	1	1	0.0494		2024-08-27T03:30:49
Nitrite 0.0ppm	15	Standard	0	0.0001	1	1	1	-0.0023		2024-08-27T03:32:07
CCV NO3	16	QC	?	0.0001	1	1	1	-0.0019		2024-08-27T03:33:14
CCV NO2	17	QC	1	0.1338	1	1	1	1.0060		2024-08-27T03:34:11
CCB	18	QC	0	0.0000	1	1	1	-0.0027		2024-08-27T03:35:28
ICV NO3 5.0	19	QC	?	0.0001	1	1	1	-0.0023		2024-08-27T03:36:33
ICV NO2 5.0	20	QC	5	0.6573	1	1	1	4.9523		2024-08-27T03:37:38
ICV NO3 0.5	21	QC	?	0.0000	1	1	1	-0.0025		2024-08-27T03:38:48
ICV NO2 0.5	22	QC	0.5	0.0683	1	1	1	0.5119		2024-08-27T03:39:57
ICB	23	QC	0	0.0000	1	1	1	-0.0025		2024-08-27T03:41:04
BLANK NO3	24	Unknown	?	0.0001	1	1	1	-0.0023		2024-08-27T03:42:23
LCS NO3	25	Unknown	?	0.0001	1	1	1	-0.0024		2024-08-27T03:43:21
BLANK NO2	26	Unknown	?	0.0001	1	1	1	-0.0023		2024-08-27T03:44:36
LCS NO2	27	Unknown	?	0.6527	1	1	1	4.9177		2024-08-27T03:45:30
CCV NO3	28	QC	?	0.0001	1	1	1	-0.0018		2024-08-27T03:46:39
CCV NO2	29	QC	1	0.1335	1	1	1	1.0040		2024-08-27T03:47:42
CCB	30	QC	0	0.0001	1	1	1	-0.0022		2024-08-27T03:48:57
WG1964143-1	31	Unknown	?	0.0001	1	1	1	-0.0019		2024-08-27T03:50:13
WG1964143-2	32	Unknown	?	0.6538	1	1	1	4.9255		2024-08-27T03:51:06
WG1964144-1	33	Unknown	?	0.0000	1	1	1	-0.0030		2024-08-27T03:51:57
WG1964144-2	34	Unknown	?	0.0001	1	1	1	-0.0022		2024-08-27T03:53:19
WG1964145-1	35	Unknown	?	0.0001	1	1	1	-0.0023		2024-08-27T03:54:29
WG1964145-2	36	Unknown	?	0.0000	1	1	1	-0.0024		2024-08-27T03:55:31
WG1964146-1; WG1964147-1	37	Unknown	?	0.0000	1	1	1	-0.0025		2024-08-27T03:56:46
WG1964146-2; WG1964147-2	38	Unknown	?	0.0001	1	1	1	-0.0023		2024-08-27T03:57:48
L2448599-01	39	Unknown	?	0.0020	1	1	1	0.0126		2024-08-27T03:58:51
L2448599-02	40	Unknown	?	0.0022	1	1	1	0.0141		2024-08-27T03:59:57
CCV NO3	41	QC	?	0.0000	1	1	1	-0.0027		2024-08-27T04:00:59
CCV NO2	42	QC	1	0.1342	1	1	1	1.0086		2024-08-27T04:02:08
CCB	43	QC	0	0.0001	1	1	1	-0.0021		2024-08-27T04:03:23
L2448607-01	44	Unknown	?	0.0412	1	1	1	0.3074		2024-08-27T04:04:26

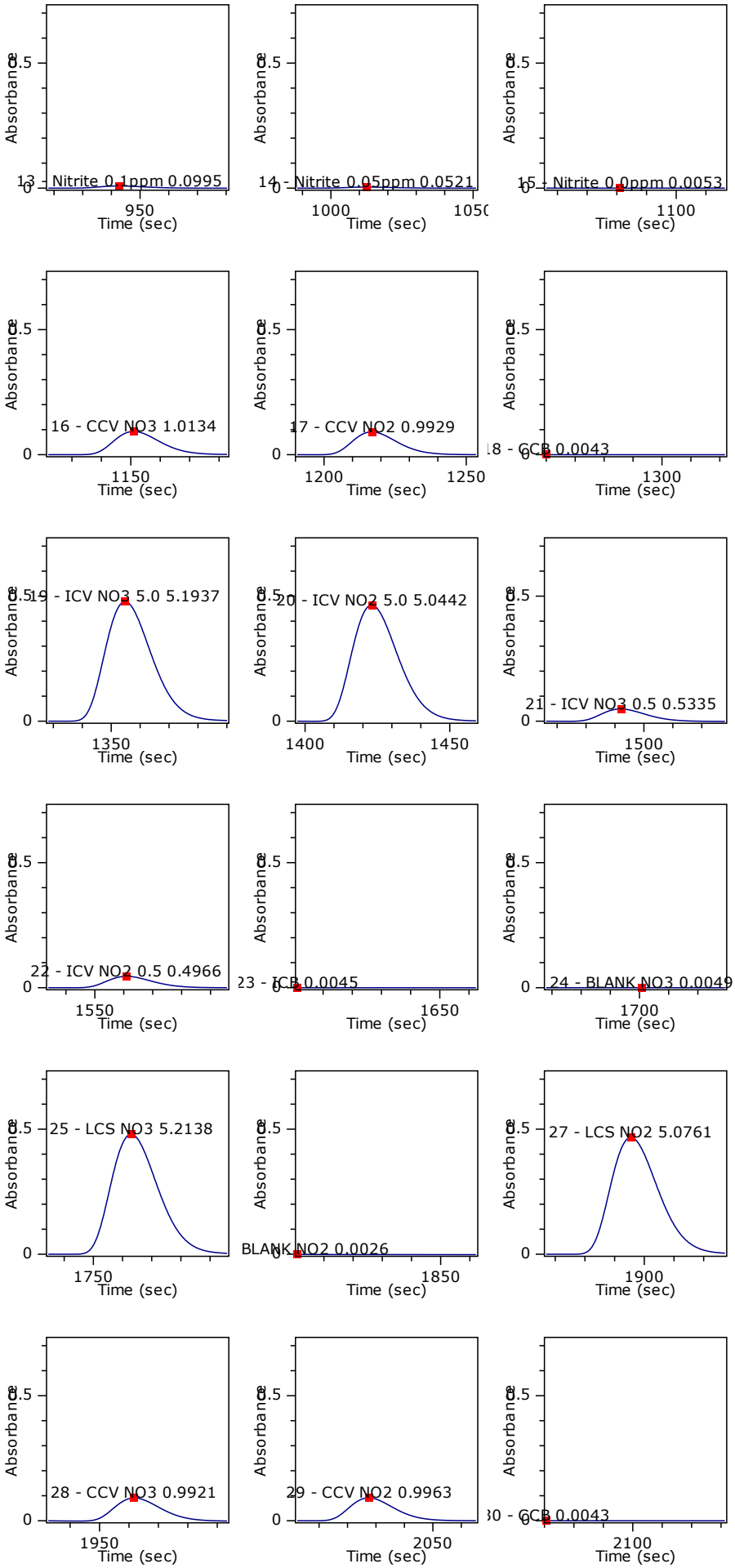
Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
WG1964144-3	45	Unknown	?	0.0395	1	1	1	0.2947		2024-08-27T04:05:32
WG1964144-4	46	Unknown	?	0.0397	1	1	1	0.2963		2024-08-27T04:06:38
WG1964143-3	47	Unknown	?	0.0410	1	1	1	0.3059		2024-08-27T04:07:44
WG1964143-4	48	Unknown	?	0.5653	1	1	1	4.2585		2024-08-27T04:08:50
L2448608-01	49	Unknown	?	0.0814	1	1	1	0.6106		2024-08-27T04:09:55
L2448621-01	50	Unknown	?	0.0204	1	1	1	0.1512		2024-08-27T04:11:00
L2448628-01	51	Unknown	?	0.0041	1	1	1	0.0280		2024-08-27T04:12:04
L2448628-02	52	Unknown	?	0.0040	1	1	1	0.0275		2024-08-27T04:13:09
L2448628-03	53	Unknown	?	0.0037	1	1	1	0.0249		2024-08-27T04:14:13
CCV NO3	54	QC	?	0.0000	1	1	1	-0.0024		2024-08-27T04:15:46
CCV NO2	55	QC	1	0.1341	1	1	1	1.0079		2024-08-27T04:16:25
CCB	56	QC	0	0.0000	1	1	1	-0.0025		2024-08-27T04:17:34
L2448629-01	57	Unknown	?	0.0223	1	1	1	0.1651		2024-08-27T04:18:45
L2448261-01A; 2.5 UP TO 25	58	Unknown	?	0.0002	10	1	1	-0.0163		2024-08-27T04:19:53
L2448365-01B; 2.5 UP TO 25	59	Unknown	?	0.0142	10	1	1	1.0418		2024-08-27T04:21:01
L2445263-03; 0.5 UP TO 250	60	Unknown	?	0.0018	500	1	1	5.4855		2024-08-27T04:22:07
L2445834-01	61	Unknown	?	0.0015	1	1	1	0.0083		2024-08-27T04:23:14
L2446017-01	62	Unknown	?	0.0020	1	1	1	0.0120		2024-08-27T04:24:20
WG1964145-3	63	Unknown	?	0.0007	1	1	1	0.0027		2024-08-27T04:25:26
WG1964145-4	64	Unknown	?	0.0037	1	1	1	0.0253		2024-08-27T04:26:32
L2446017-02	65	Unknown	?	0.0016	1	1	1	0.0095		2024-08-27T04:27:37
L2447275-01	66	Unknown	?	0.0009	1	1	1	0.0043		2024-08-27T04:28:42
CCV NO3	67	QC	?	0.0000	1	1	1	-0.0027		2024-08-27T04:30:08
CCV NO2	68	QC	1	0.1352	1	1	1	1.0163		2024-08-27T04:30:54
CCB	69	QC	0	0.0000	1	1	1	-0.0026		2024-08-27T04:32:05
WG1964145-5	70	Unknown	?	0.0009	1	1	1	0.0038		2024-08-27T04:33:10
WG1964145-6	71	Unknown	?	0.0011	1	1	1	0.0056		2024-08-27T04:34:15
L2447297-01	72	Unknown	?	0.0009	1	1	1	0.0042		2024-08-27T04:35:20
L2447297-02	73	Unknown	?	0.0018	1	1	1	0.0106		2024-08-27T04:36:25
L2447421-03	74	Unknown	?	0.0015	1	1	1	0.0087		2024-08-27T04:37:28
L2447425-02	75	Unknown	?	0.0000	1	1	1	-0.0024		2024-08-27T04:38:35
L2447429-01	76	Unknown	?	0.0014	1	1	1	0.0081		2024-08-27T04:39:43

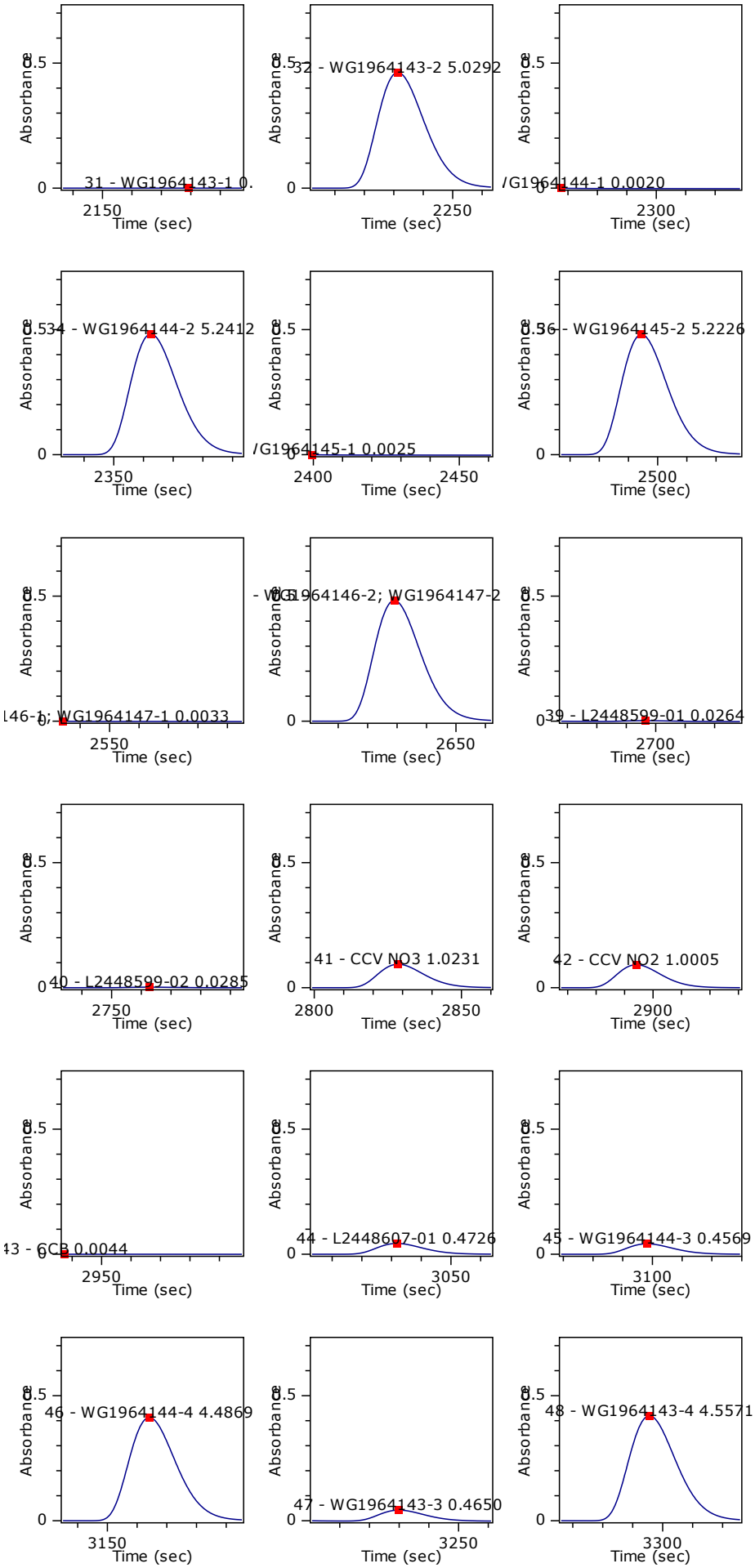
Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
L2447429-02	77	Unknown	?	0.0018	1	1	1	0.0108		2024-08-27T04:40:50
CCV NO3	78	QC	?	0.0000	1	1	1	-0.0025		2024-08-27T04:42:12
CCV NO2	79	QC	1	0.1330	1	1	1	0.9998		2024-08-27T04:43:02
CCB	80	QC	0	0.0000	1	1	1	-0.0026		2024-08-27T04:44:14

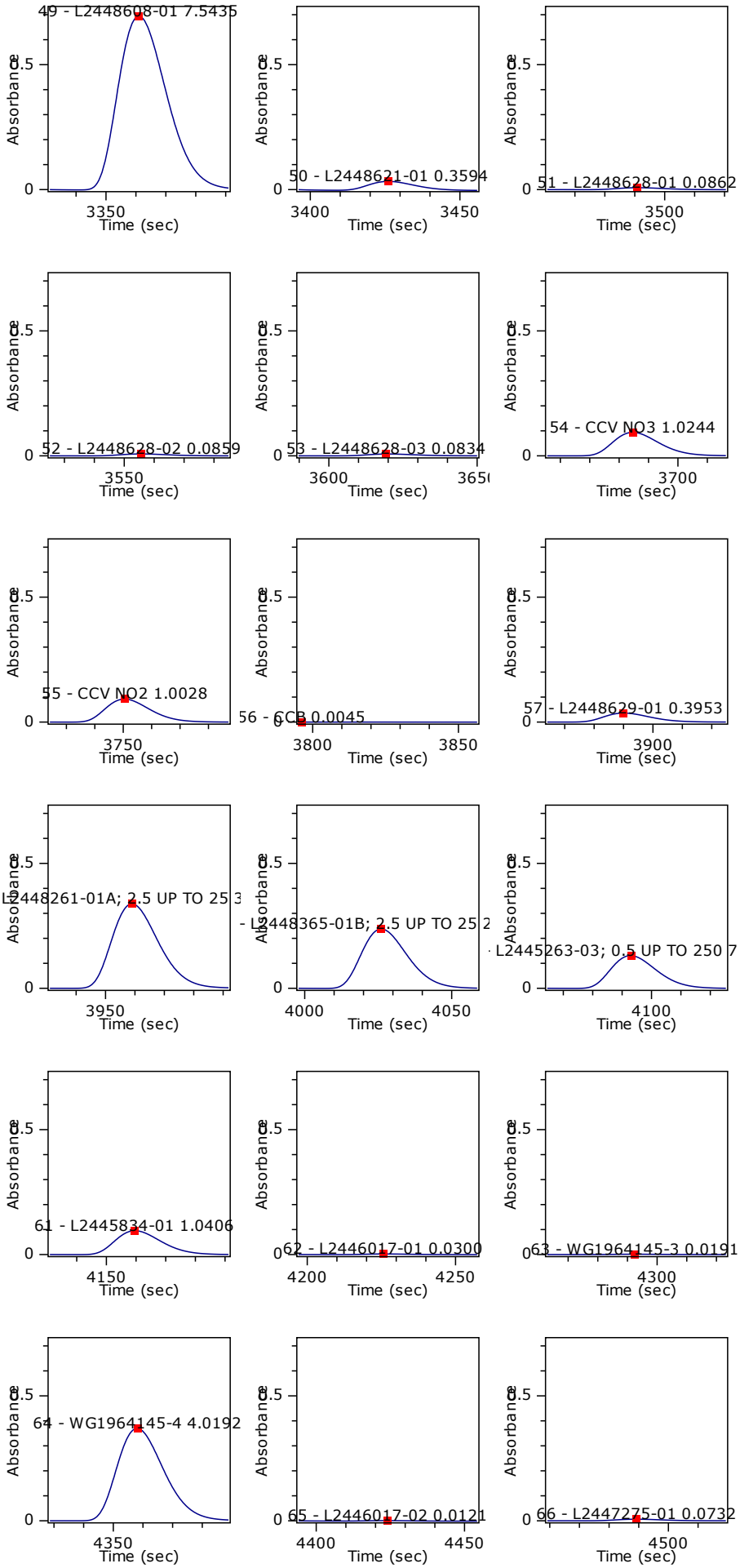
Peaks:

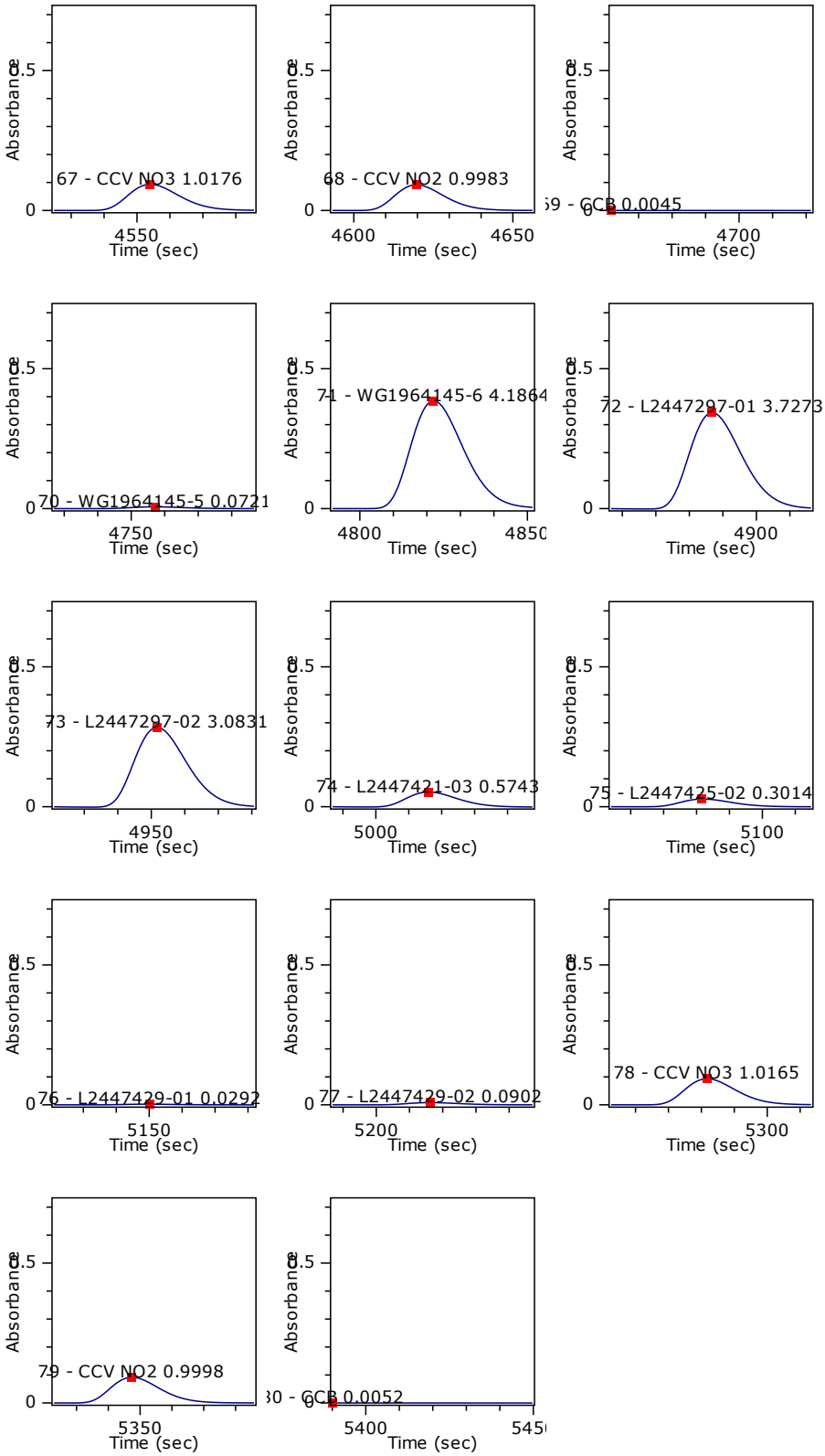
Channel: 1-NOx



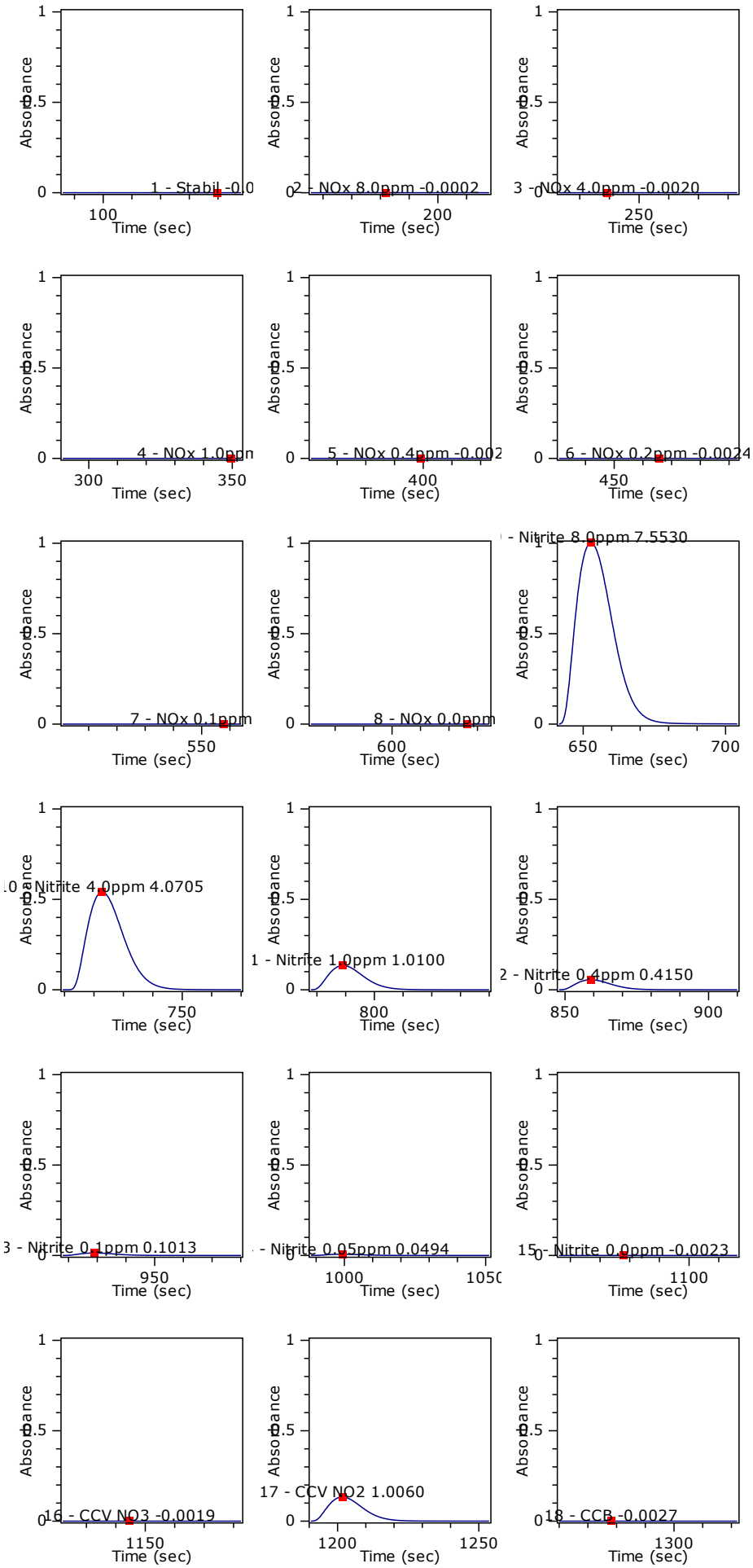

13 - Nitrite 0.1ppm 0.0995
14 - Nitrite 0.05ppm 0.0521
15 - Nitrite 0.0ppm 0.0053
16 - CCV NO3 1.0134
17 - CCV NO2 0.9929
18 - CCB 0.0043
19 - ICV NO3 5.0 5.1937
20 - ICV NO2 5.0 5.0442
21 - ICV NO3 0.5 0.5335
22 - ICV NO2 0.5 0.4966
23 - ICB 0.0045
24 - BLANK NO3 0.0049
25 - LCS NO3 5.2138
BLANK NO2 0.0026
27 - LCS NO2 5.0761
28 - CCV NO3 0.9921
29 - CCV NO2 0.9963
30 - CCB 0.0043
Absorbance
Time (sec)

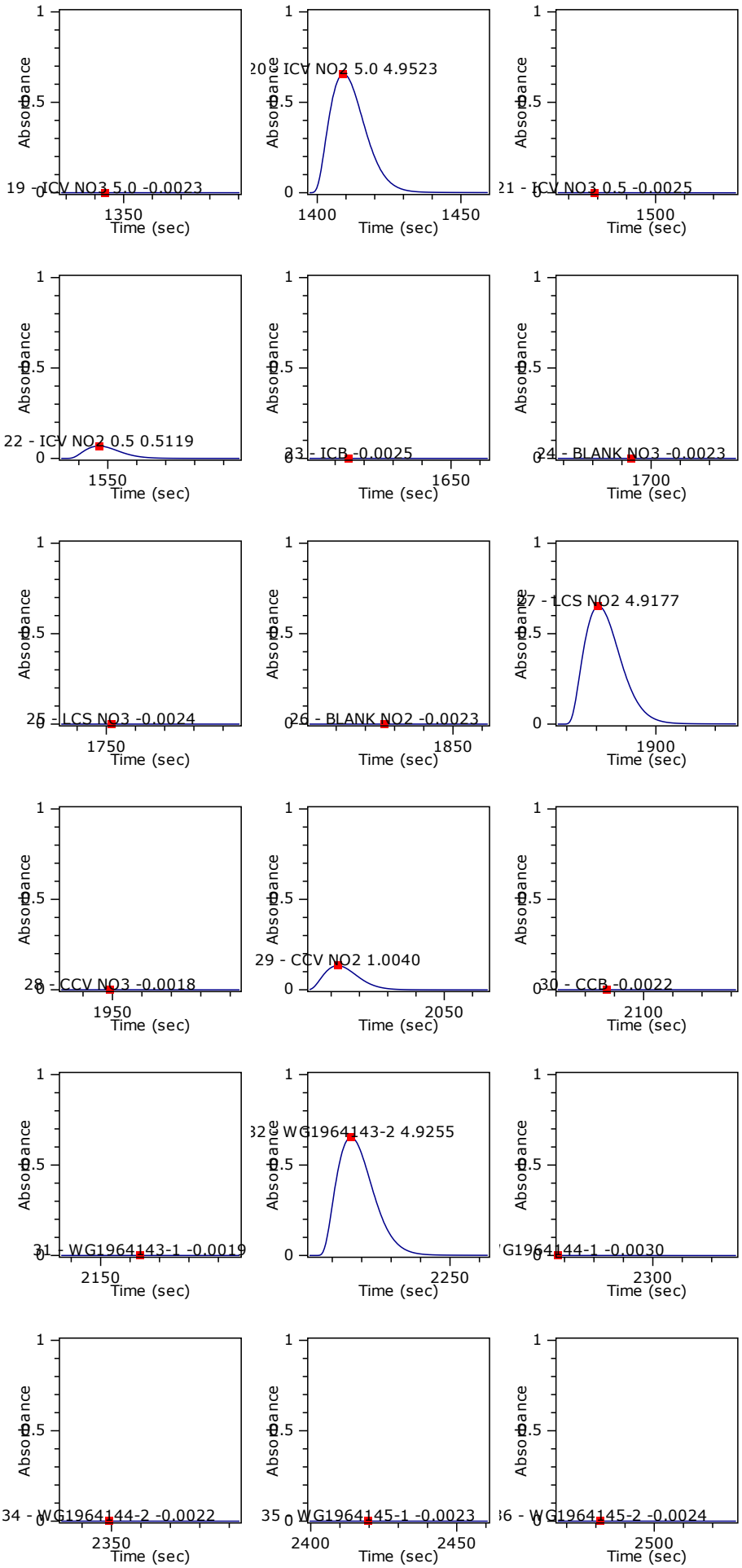

Absorbance
Time (sec)
31 - WG1964143-1 0.
32 - WG1964143-2 5.0292
/G1964144-1 0.0020
34 - WG1964144-2 5.2412
/G1964145-1 0.0025
36 - WG1964145-2 5.2226
46-1; WG1964147-1 0.0033
- WG1964146-2; WG1964147-2
39 - L2448599-01 0.0264
40 - L2448599-02 0.0285
41 - CCV NO3 1.0231
42 - CCV NO2 1.0005
43 - CCB 0.0044
44 - L2448607-01 0.4726
45 - WG1964144-3 0.4569
46 - WG1964144-4 4.4869
47 - WG1964143-3 0.4650
48 - WG1964143-4 4.5571

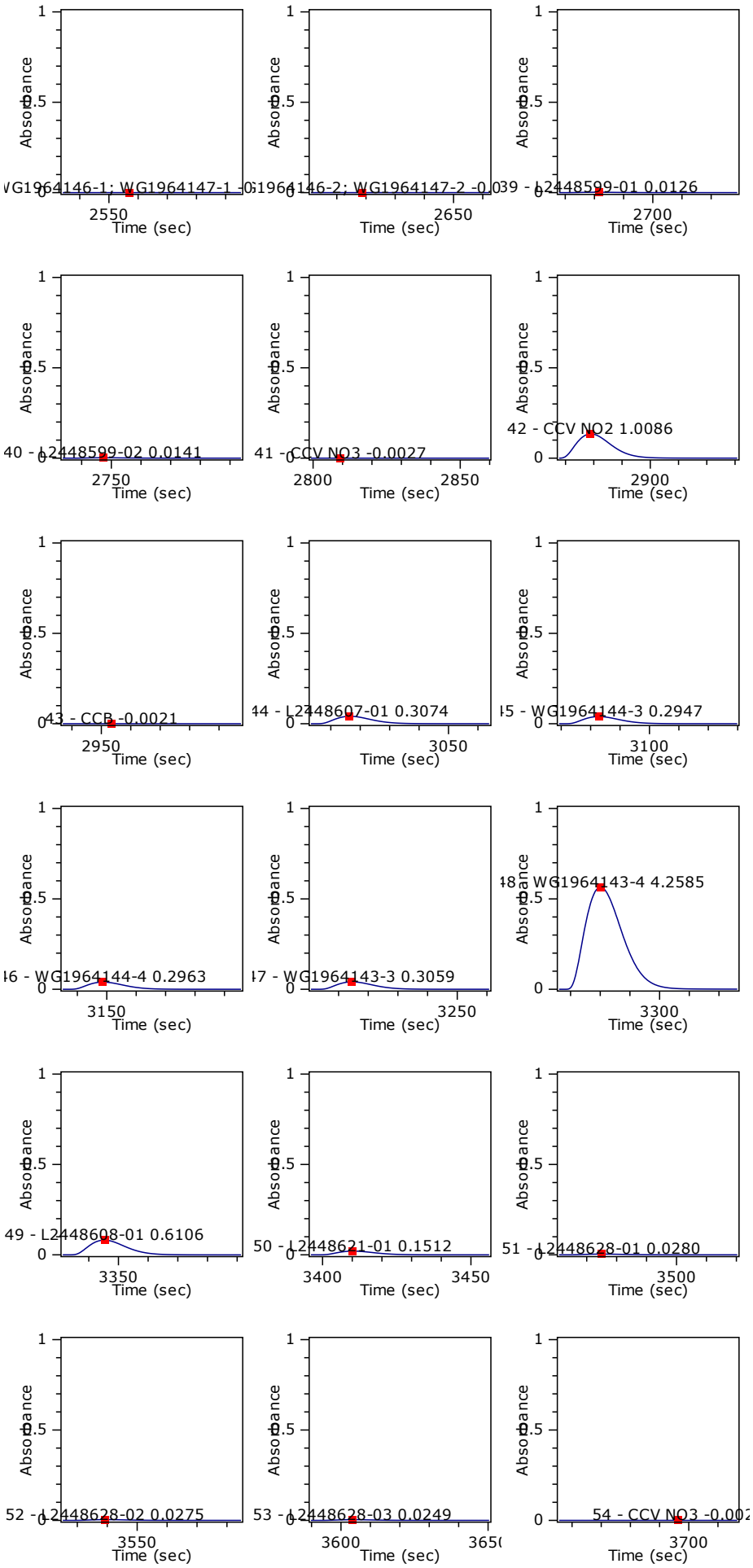

49 - L2448608-01 7.5435
50 - L2448621-01 0.3594
51 - L2448628-01 0.0862
52 - L2448628-02 0.0859
53 - L2448628-03 0.0834
54 - CCV NO3 1.0244
55 - CCV NO2 1.0028
56 - CCB 0.0045
57 - L2448629-01 0.3953
- L2448261-01A; 2.5 UP TO 25 3
- L2448365-01B; 2.5 UP TO 25 2
L2445263-03; 0.5 UP TO 250 7
61 - L2445834-01 1.0406
62 - L2446017-01 0.0300
63 - WG1964145-3 0.0191
64 - WG1964145-4 4.0192
65 - L2446017-02 0.0121
66 - L2447275-01 0.0732
Absorbance
Time (sec)

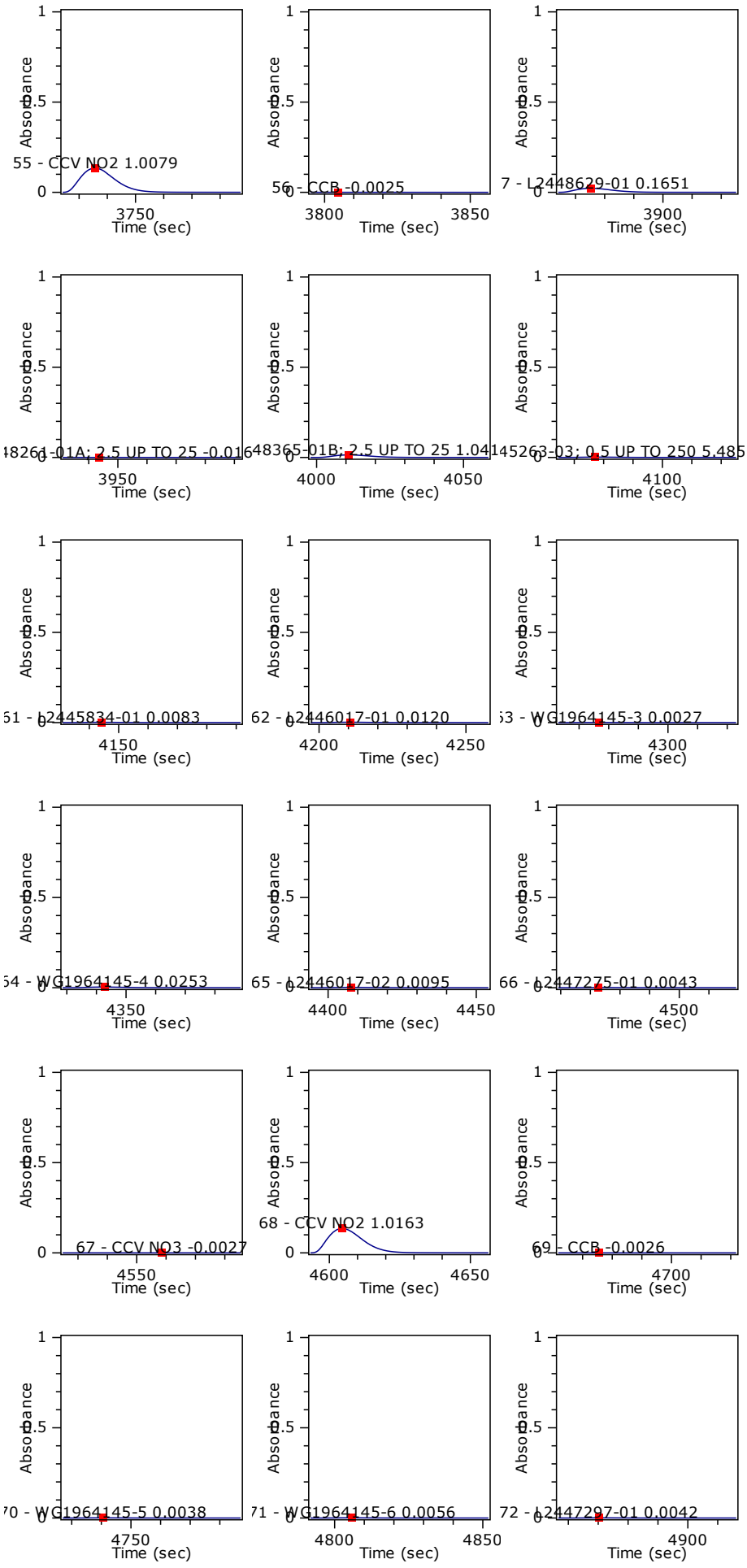


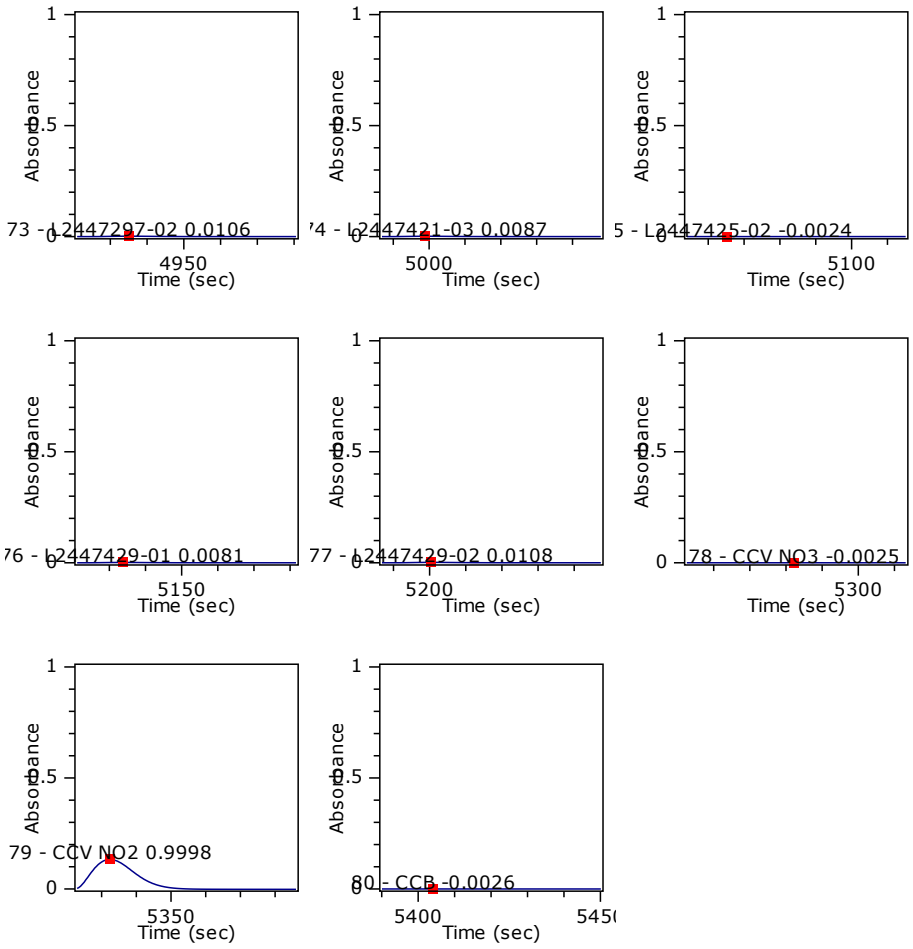
Channel: 2-NO2


1 - Stabil -0.0
2 - NOx 8.0ppm -0.0002
3 - NOx 4.0ppm -0.0020
4 - NOx 1.0ppm
5 - NOx 0.4ppm -0.002
6 - NOx 0.2ppm -0.0024
7 - NOx 0.1ppm
8 - NOx 0.0ppm
- Nitrite 8.0ppm 7.5530
.0 Nitrite 4.0ppm 4.0705
1 - Nitrite 1.0ppm 1.0100
2 - Nitrite 0.4ppm 0.4150
3 - Nitrite 0.1ppm 0.1013
- Nitrite 0.05ppm 0.0494
15 - Nitrite 0.0ppm -0.0023
16 - CCV NO3 -0.0019
17 - CCV NO2 1.0060
18 - CCB -0.0027
Absorbance
Time (sec)


19 - ICV NO3 5.0 -0.0023
20 - ICV NO2 5.0 4.9523
21 - ICV NO3 0.5 -0.0025
22 - ICV NO2 0.5 0.5119
23 - ICB -0.0025
24 - BLANK NO3 -0.0023
25 - LCS NO3 -0.0024
26 - BLANK NO2 -0.0023
27 - LCS NO2 4.9177
28 - CCV NO3 -0.0018
29 - CCV NO2 1.0040
30 - CCB -0.0022
31 - WG1964143-1 -0.0019
32 - WG1964143-2 4.9255
33 - WG1964144-1 -0.0030
34 - WG1964144-2 -0.0022
35 - WG1964145-1 -0.0023
36 - WG1964145-2 -0.0024
Absorbance
Time (sec)


WG1964146-1; WG1964147-1 -0
WG1964146-2; WG1964147-2 -0.039 - L2448599-01 0.0126
40 - L2448599-02 0.0141
41 - CCV NO3 -0.0027
42 - CCV NO2 1.0086
43 - CCB -0.0021
44 - L2448607-01 0.3074
45 - WG1964144-3 0.2947
46 - WG1964144-4 0.2963
47 - WG1964143-3 0.3059
48 - WG1964143-4 4.2585
49 - L2448608-01 0.6106
50 - L2448621-01 0.1512
51 - L2448628-01 0.0280
52 - L2448628-02 0.0275
53 - L2448628-03 0.0249
54 - CCV NO3 -0.00
Absorbance
Time (sec)


55 - CCV NO2 1.0079
56 - CCB -0.0025
7 - L2448629-01 0.1651
48261-01A; 2.5 UP TO 25 -0.016
648365-01B; 2.5 UP TO 25 1.041
45263-03; 0.5 UP TO 250 5.485
51 - L2445834-01 0.0083
62 - L2446017-01 0.0120
53 - WG1964145-3 0.0027
54 - WG1964145-4 0.0253
65 - L2446017-02 0.0095
66 - L2447275-01 0.0043
67 - CCV NO3 -0.0027
68 - CCV NO2 1.0163
69 - CCB -0.0026
70 - WG1964145-5 0.0038
71 - WG1964145-6 0.0056
72 - L2447297-01 0.0042
Absorbance
Time (sec)



Data Processing Parameters:

Channel: 1-NOx

Response parameter	Peak Height
Filter Type	None
Filter Window	3
Enable Peak Window	False
Peak Window Start	0
Peak Window Stop	0
Enable Baseline Correction	False
Enable 2 Point Correction	False
Baseline Start	0
Baseline Stop	0
Point 2 Baseline Start	0
Point 2 Baseline Stop	0
Background Correction	Single Wavelength
Ref Wavelength 1	600
Ref Wavelength 2	0

Channel: 2-NO2

Response parameter	Peak Height
Filter Type	None
Filter Window	3
Enable Peak Window	False
Peak Window Start	0
Peak Window Stop	0
Enable Baseline Correction	False
Enable 2 Point Correction	False

Baseline Start	0
Baseline Stop	0
Point 2 Baseline Start	0
Point 2 Baseline Stop	0
Background Correction	Single Wavelength
Ref Wavelength 1	600
Ref Wavelength 2	0

Method Log:

```
FIAsoft FIAsoft v3.1.10

FIAlyzer Settings
------------
FIAlab1 Serial Number: FIA31428
FIAlab2 Serial Number: FIA31429
Pump: Connected on COM8

Spectrometer Settings
Spectrometer1
------------
Spectrometer Type: tec5
Integration Time: 33
Bandwidth: 2
Data Acq Rate: 2
Use Full Spectrum: False
        |---  Low: 500nm
        |--- High: 650nm
Reduce to Boxcar: True

Spectrometer2
------------
Spectrometer Type: tec5
Integration Time: 2.6
Bandwidth: 2
Data Acq Rate: 2
Use Full Spectrum: False
        |---  Low: 500nm
        |--- High: 650nm
Reduce to Boxcar: True

Start Time
------------
2024-08-27T03:14:10

Method
------------
' Method Script for NOx-NO2

Autosave Data C:\FIAlab\Autosave Data\DateTime
FIAlab Injection Valve Sample Load
Message Cadmium Column on for NOx
FIAlab Peristaltic Pump Clockwise(%) 55

Autosampler Wash
Delay (sec) 2
Next Sample
Delay (sec) 35  'StartDelay2 - Controls initial sample introduction.

FIAlab1 Injection Valve Sample Inject
Autosampler Probe Up
Delay (sec) 2
Autosampler Position (#) Rinse
FIAlab2 Injection Valve Sample Inject
Delay (sec) 15   'StartDelay3 - Should be set equal to LoopDelay3

Autosampler Probe Up
Delay (sec) 5   'StartDelay4 - Should be set equal to LoopDelay4

Loop Start

   Analyte New Sample
```

```
    Delay (sec) 1
    Next Sample
    Autosampler Probe Force Down

    Spectrometer Reference Scan
    Spectrometer Absorbance Scanning

    Delay (sec) 3   ' LoopDelay1 - Controls sample transit & loop empty. Controls back baseline.

    FIAlab Injection Valve Sample Load

    Delay (sec) 35   ' LoopDelay2 - Controls sample transit & loop fill. Controls back baseline.

    FIAlab1 Injection Valve Sample Inject
    Autosampler Probe Up
    Delay (sec) 5
    Autosampler Position (#) Rinse
    FIAlab2 Injection Valve Sample Inject

    Delay (sec) 10   ' LoopDelay3 - Controls loop empty & probe rinse time. Inverse controls front baseline.

    Autosampler Probe Up

    Delay (sec) 3   ' LoopDelay4 - Controls loop empty. Inverse controls front baseline.

    Spectrometer Stop Scanning

Loop End

Autosampler Position (#) Rinse
Delay (sec) 20
Autosampler Probe Up
Delay (sec) 30
FIAlab Peristaltic Pump Clockwise(%) 5
Autoexport Report C:\FIAlab\autoreport\NOxNO2\DateTime
Message Run is Complete
```

Method File Location: C:\FIAlab\FIAlab User Files\Methods\Method_NOx+NO2.fia

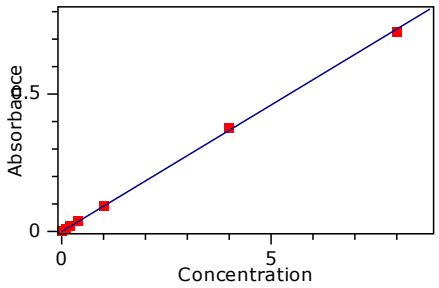
Graphical report generated by FIAsoft v3.1.10
Report generated on 2024-08-27 07:57:16
Data file (.dat): C:\FIAlab\Autosave Data\2024-08-27-073315.dat

Dataset Notes:

Analyst	

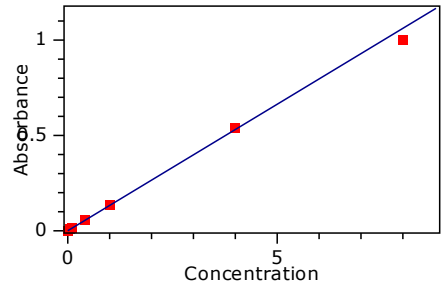
Dataset Notes Table Location: C:\FIAlab\FIAlab User Files\Tables\Dataset Notes\Analyst.csv

Calibrations:



Channel: 1-NOx
Fit_Order: 1
Weighting: 1/response
Standard relation
Coefficients:
A: -0.00042
B: 0.09213
R^2: 0.99973
RSE(%): 1.23252
% Max. for OVR: 100

InjNo	Name	Response	Known Conc. mg/L	Calc. Conc. mg/L	% Error	Time
10001	NOx 8.0ppm	0.72450	8.00000	7.86800	1.65	N/A
10002	NOx 4.0ppm	0.37480	4.00000	4.07290	1.82	N/A
10003	NOx 1.0ppm	0.09180	1.00000	1.00070	0.07	N/A
10004	NOx 0.4ppm	0.03640	0.40000	0.39940	0.16	N/A
10005	NOx 0.2ppm	0.01800	0.20000	0.20010	0.04	N/A
10006	NOx 0.1ppm	0.00880	0.10000	0.10000	0.01	N/A
10007	NOx 0.0ppm	0.00000	0.00000	0.00480	NA	N/A



Channel: 2-NO2
Fit_Order: 1
Weighting: 1/response
Standard relation
Coefficients:
A: 0.00037
B: 0.13265
R^2: 0.99870
RSE(%): 3.62392
% Max. for OVR: 100

InjNo	Name	Response	Known Conc. mg/L	Calc. Conc. mg/L	% Error	Time
10001	Nitrite 8.0ppm	1.00230	8.00000	7.55300	5.59	N/A
10002	Nitrite 4.0ppm	0.54030	4.00000	4.07050	1.76	N/A
10003	Nitrite 1.0ppm	0.13430	1.00000	1.01000	1.00	N/A
10004	Nitrite 0.4ppm	0.05540	0.40000	0.41500	3.75	N/A
10005	Nitrite 0.1ppm	0.01380	0.10000	0.10130	1.33	N/A
10006	Nitrite 0.05ppm	0.00690	0.05000	0.04940	1.17	N/A
10007	Nitrite 0.0ppm	0.00010	0.00000	-0.00230	NA	N/A

Results:

Channel: 1-NOx

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
Stabil	1	Unknown	?	0.0001	1	1	1	0.0055		2024-08-27T05:55:16
CCV NO3	2	QC	1	0.0950	1	1	1	1.0359		2024-08-27T05:56:26
CCV NO2	3	QC	?	0.0926	1	1	1	1.0092		2024-08-27T05:57:32
CCB	4	QC	0	0.0000	1	1	1	0.0047		2024-08-27T05:58:15

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
L2447476-01	5	Unknown	?	0.4094	1	1	1	4.4480		2024-08-27T05:59:50
L2447476-02	6	Unknown	?	0.0285	1	1	1	0.3139		2024-08-27T06:00:57
L2447553-02	7	Unknown	?	0.1007	1	1	1	1.0970		2024-08-27T06:02:03
L2447553-04	8	Unknown	?	0.1559	1	1	1	1.6966		2024-08-27T06:03:10
L2447553-07	9	Unknown	?	0.1783	1	1	1	1.9399		2024-08-27T06:04:15
L2447675-01	10	Unknown	?	0.8027	1	1	1	8.7169	OVR	2024-08-27T06:05:21
L2447719-02	11	Unknown	?	0.0710	1	1	1	0.7748		2024-08-27T06:06:26
L2447939-01	12	Unknown	?	0.1048	1	1	1	1.1425		2024-08-27T06:07:31
L2447890-01	13	Unknown	?	0.0066	1	1	1	0.0766		2024-08-27T06:08:36
WG1964146-3	14	Unknown	?	0.0071	1	1	1	0.0814		2024-08-27T06:09:41
CCV NO3	15	QC	1	0.0934	1	1	1	1.0183		2024-08-27T06:10:45
CCV NO2	16	QC	?	0.0914	1	1	1	0.9964		2024-08-27T06:11:51
CCB	17	QC	0	0.0000	1	1	1	0.0044		2024-08-27T06:12:32
WG1964146-4	18	Unknown	?	0.3882	1	1	1	4.2185		2024-08-27T06:14:08
L2447890-02	19	Unknown	?	0.0004	1	1	1	0.0085		2024-08-27T06:15:14
WG1964146-5	20	Unknown	?	0.0016	1	1	1	0.0217		2024-08-27T06:16:18
WG1964146-6	21	Unknown	?	0.3830	1	1	1	4.1613		2024-08-27T06:17:26
L2447890-03	22	Unknown	?	0.0004	1	1	1	0.0093		2024-08-27T06:18:31
L2447890-04	23	Unknown	?	0.0012	1	1	1	0.0175		2024-08-27T06:19:39
L2447890-05	24	Unknown	?	0.0578	1	1	1	0.6316		2024-08-27T06:20:45
L2447890-06	25	Unknown	?	0.0015	1	1	1	0.0207		2024-08-27T06:21:52
L2447890-07	26	Unknown	?	0.0768	1	1	1	0.8385		2024-08-27T06:22:58
L2447890-08	27	Unknown	?	0.2349	1	1	1	2.5541		2024-08-27T06:24:03
CCV NO3	28	QC	1	0.0930	1	1	1	1.0136		2024-08-27T06:25:09
CCV NO2	29	QC	?	0.0916	1	1	1	0.9983		2024-08-27T06:26:14
CCB	30	QC	0	0.0000	1	1	1	0.0046		2024-08-27T06:26:59
L2447890-09	31	Unknown	?	0.1660	1	1	1	1.8058		2024-08-27T06:28:34
L2447890-10	32	Unknown	?	0.0141	1	1	1	0.1579		2024-08-27T06:29:40
L2447890-11	33	Unknown	?	0.4740	1	1	1	5.1492		2024-08-27T06:30:46
L2447890-12	34	Unknown	?	0.4732	1	1	1	5.1411		2024-08-27T06:31:50
L2447759-01	35	Unknown	?	0.0708	1	1	1	0.7728		2024-08-27T06:32:55
WG1964147-3	36	Unknown	?	0.0713	1	1	1	0.7781		2024-08-27T06:34:00
WG1964147-4	37	Unknown	?	0.4499	1	1	1	4.8875		2024-08-27T06:35:05

Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
L2447759-02	38	Unknown	?	0.0911	1	1	1	0.9937		2024-08-27T06:36:11
L2448051-01	39	Unknown	?	0.0024	1	1	1	0.0310		2024-08-27T06:37:18
L2448135-02	40	Unknown	?	0.0043	1	1	1	0.0513		2024-08-27T06:38:25
CCV NO3	41	QC	1	0.0943	1	1	1	1.0284		2024-08-27T06:39:31
CCV NO2	42	QC	?	0.0927	1	1	1	1.0108		2024-08-27T06:40:36
CCB	43	QC	0	0.0001	1	1	1	0.0052		2024-08-27T06:41:48
L2447675-01D; 2.5 UP TO 25	44	Unknown	?	0.0835	10	1	1	9.1121		2024-08-27T06:42:57
L2447719-02	45	Unknown	?	0.0727	1	1	1	0.7939		2024-08-27T06:44:05
CCV NO3	46	QC	1	0.0928	1	1	1	1.0112		2024-08-27T06:45:10
CCV NO2	47	QC	?	0.0914	1	1	1	0.9960		2024-08-27T06:46:16
CCB	48	QC	0	0.0000	1	1	1	0.0043		2024-08-27T06:46:59

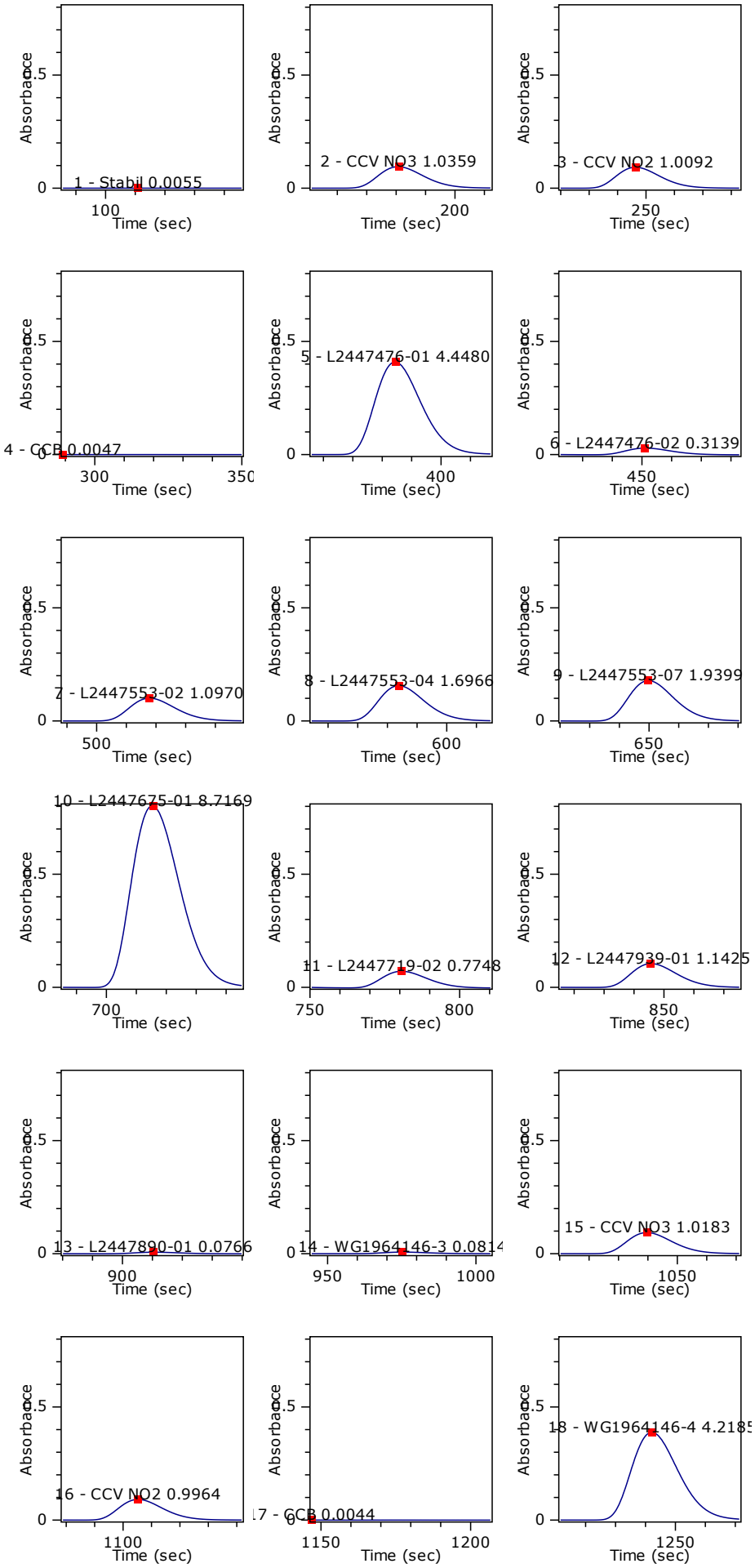
Channel: 2-NO2

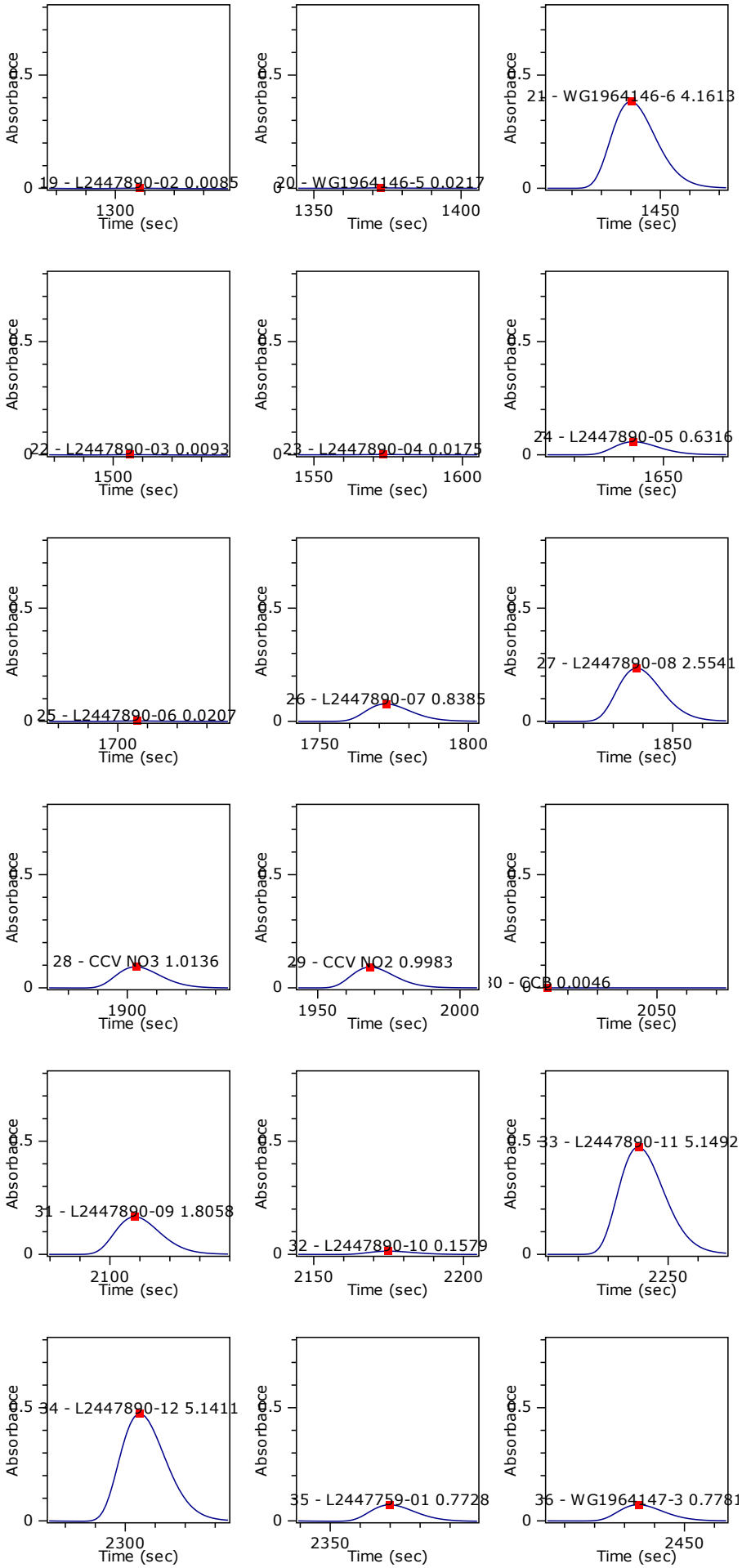
Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
Stabil	1	Unknown	?	0.0000	1	1	1	-0.0025		2024-08-27T05:55:14
CCV NO3	2	QC	?	0.0000	1	1	1	-0.0025		2024-08-27T05:56:10
CCV NO2	3	QC	1	0.1348	1	1	1	1.0135		2024-08-27T05:57:17
CCB	4	QC	0	0.0001	1	1	1	-0.0022		2024-08-27T05:58:23
L2447476-01	5	Unknown	?	0.0015	1	1	1	0.0087		2024-08-27T05:59:34
L2447476-02	6	Unknown	?	0.0013	1	1	1	0.0067		2024-08-27T06:00:41
L2447553-02	7	Unknown	?	0.0023	1	1	1	0.0144		2024-08-27T06:01:46
L2447553-04	8	Unknown	?	0.0016	1	1	1	0.0094		2024-08-27T06:02:53
L2447553-07	9	Unknown	?	0.0019	1	1	1	0.0117		2024-08-27T06:03:59
L2447675-01	10	Unknown	?	0.0062	1	1	1	0.0443		2024-08-27T06:05:05
L2447719-02	11	Unknown	?	0.0006	1	1	1	0.0019		2024-08-27T06:06:10
L2447939-01	12	Unknown	?	0.0007	1	1	1	0.0028		2024-08-27T06:07:15
L2447890-01	13	Unknown	?	0.0002	1	1	1	-0.0016		2024-08-27T06:08:19
WG1964146-3	14	Unknown	?	0.0002	1	1	1	-0.0016		2024-08-27T06:09:22
CCV NO3	15	QC	?	0.0000	1	1	1	-0.0025		2024-08-27T06:10:33
CCV NO2	16	QC	1	0.1344	1	1	1	1.0101		2024-08-27T06:11:35
CCB	17	QC	0	0.0001	1	1	1	-0.0023		2024-08-27T06:12:47
WG1964146-4	18	Unknown	?	0.0003	1	1	1	-0.0006		2024-08-27T06:13:53
L2447890-02	19	Unknown	?	0.0012	1	1	1	0.0065		2024-08-27T06:14:56

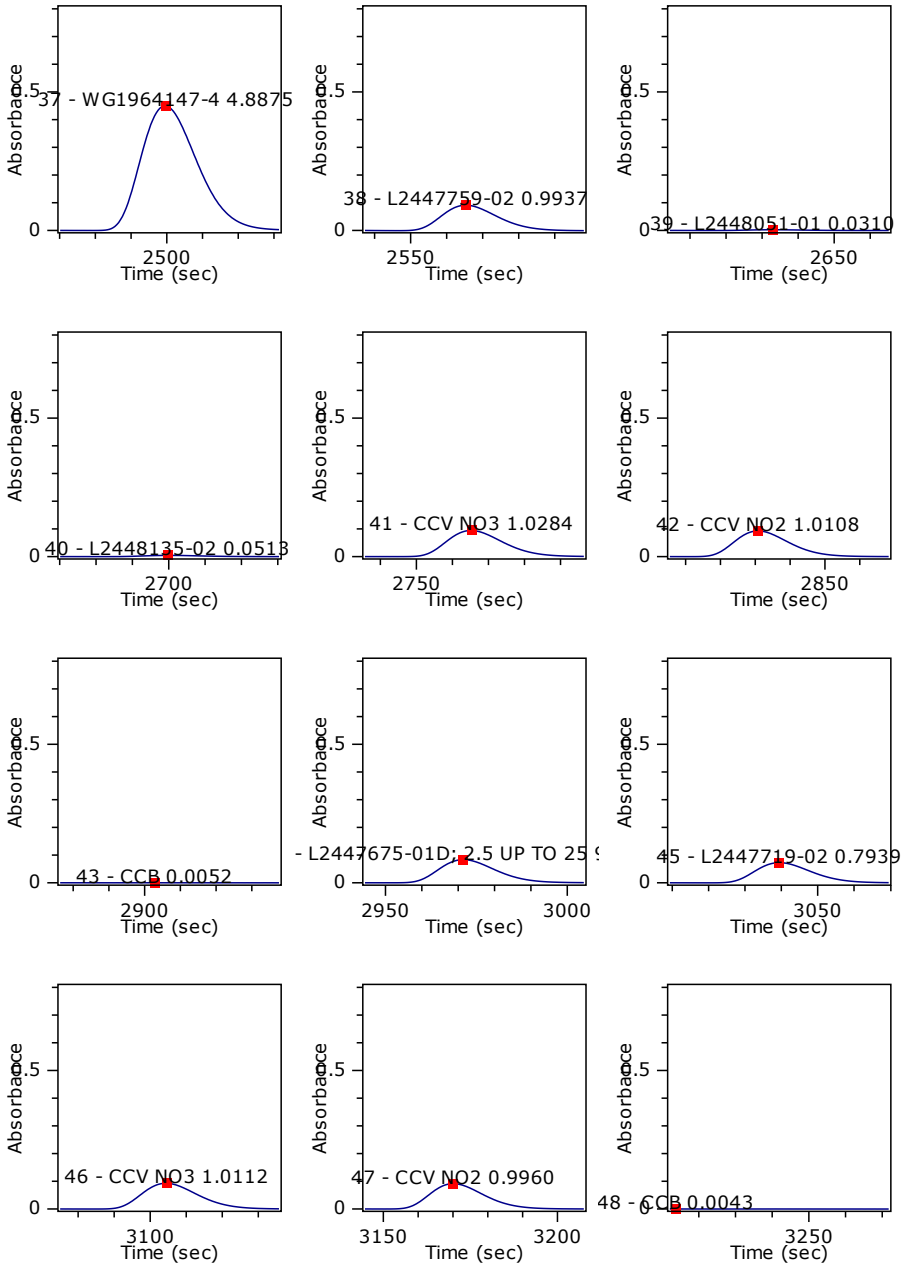
Name	Inj. No.	Type	Known Conc. mg/L	Response	MDF	ADF	Weight	Calc. Conc. mg/L	Flags	Time
WG1964146-5	20	Unknown	?	0.0013	1	1	1	0.0066		2024-08-27T06:16:03
WG1964146-6	21	Unknown	?	0.0014	1	1	1	0.0078		2024-08-27T06:17:10
L2447890-03	22	Unknown	?	0.0008	1	1	1	0.0030		2024-08-27T06:18:16
L2447890-04	23	Unknown	?	0.0008	1	1	1	0.0033		2024-08-27T06:19:23
L2447890-05	24	Unknown	?	0.0008	1	1	1	0.0032		2024-08-27T06:20:30
L2447890-06	25	Unknown	?	0.0008	1	1	1	0.0031		2024-08-27T06:21:35
L2447890-07	26	Unknown	?	0.0009	1	1	1	0.0039		2024-08-27T06:22:41
L2447890-08	27	Unknown	?	0.0006	1	1	1	0.0016		2024-08-27T06:23:48
CCV NO3	28	QC	?	0.0000	1	1	1	-0.0025		2024-08-27T06:24:54
CCV NO2	29	QC	1	0.1365	1	1	1	1.0262		2024-08-27T06:25:59
CCB	30	QC	0	0.0000	1	1	1	-0.0025		2024-08-27T06:27:10
L2447890-09	31	Unknown	?	0.0008	1	1	1	0.0033		2024-08-27T06:28:17
L2447890-10	32	Unknown	?	0.0008	1	1	1	0.0034		2024-08-27T06:29:23
L2447890-11	33	Unknown	?	0.0008	1	1	1	0.0033		2024-08-27T06:30:28
L2447890-12	34	Unknown	?	0.0004	1	1	1	0.0003		2024-08-27T06:31:34
L2447759-01	35	Unknown	?	0.0009	1	1	1	0.0036		2024-08-27T06:32:38
WG1964147-3	36	Unknown	?	0.0001	1	1	1	-0.0018		2024-08-27T06:33:42
WG1964147-4	37	Unknown	?	0.0002	1	1	1	-0.0010		2024-08-27T06:34:47
L2447759-02	38	Unknown	?	0.0000	1	1	1	-0.0025		2024-08-27T06:35:54
L2448051-01	39	Unknown	?	0.0010	1	1	1	0.0045		2024-08-27T06:37:03
L2448135-02	40	Unknown	?	0.0027	1	1	1	0.0176		2024-08-27T06:38:10
CCV NO3	41	QC	?	0.0000	1	1	1	-0.0026		2024-08-27T06:39:33
CCV NO2	42	QC	1	0.1356	1	1	1	1.0194		2024-08-27T06:40:21
CCB	43	QC	0	0.0001	1	1	1	-0.0022		2024-08-27T06:41:37
L2447675-01D; 2.5 UP TO 25	44	Unknown	?	0.0007	10	1	1	0.0212		2024-08-27T06:42:42
L2447719-02	45	Unknown	?	0.0006	1	1	1	0.0017		2024-08-27T06:43:49
CCV NO3	46	QC	?	0.0000	1	1	1	-0.0026		2024-08-27T06:45:21
CCV NO2	47	QC	1	0.1343	1	1	1	1.0093		2024-08-27T06:46:00
CCB	48	QC	0	0.0000	1	1	1	-0.0025		2024-08-27T06:47:12

Peaks:

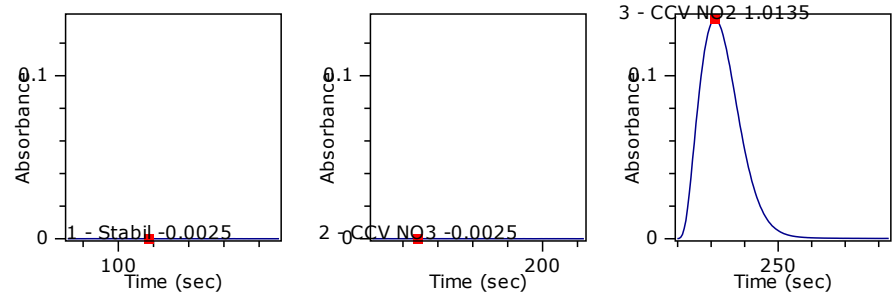
Channel: 1-NOx

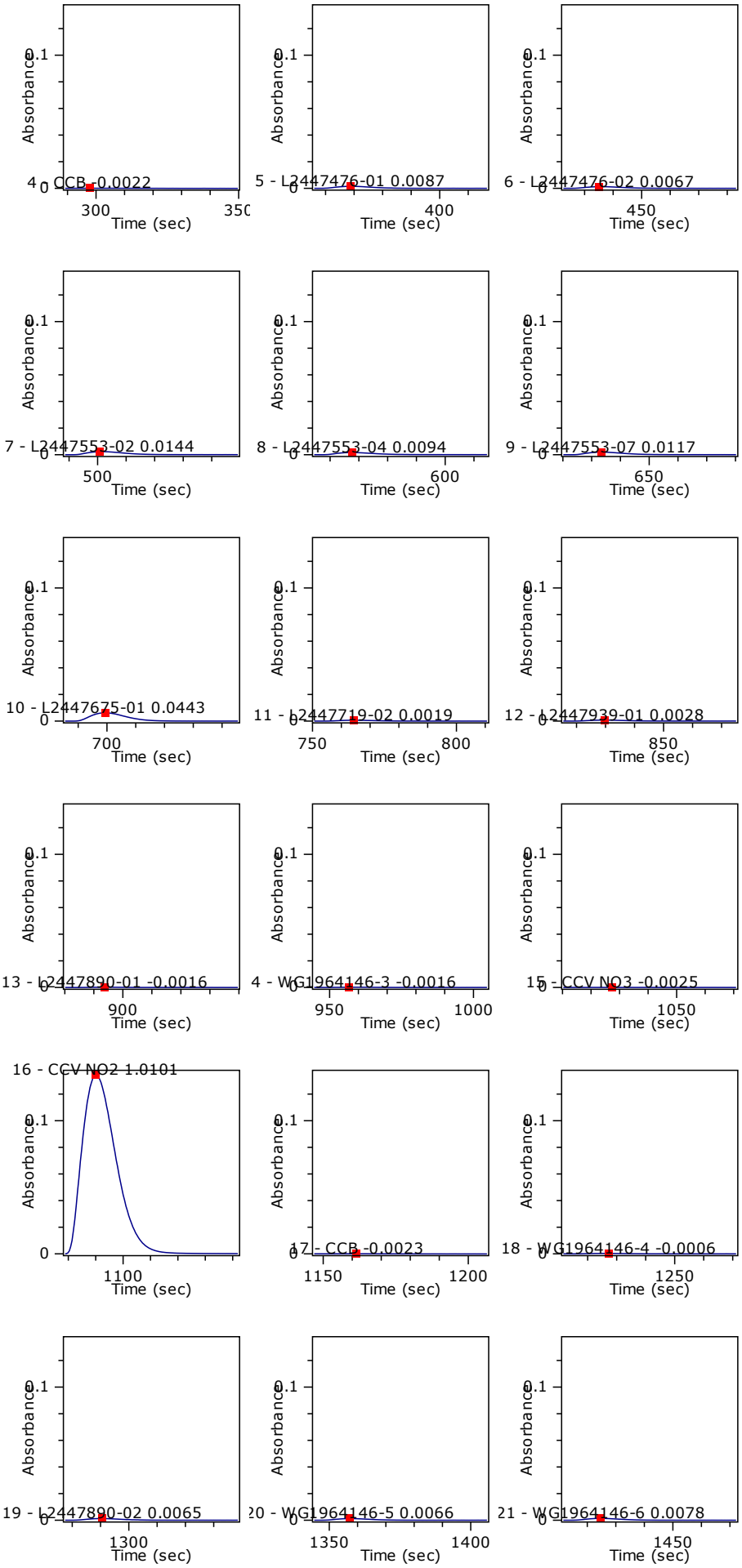

1 - Stabil 0.0055
2 - CCV NO3 1.0359
3 - CCV NO2 1.0092
4 - CCB 0.0047
5 - L2447476-01 4.4480
6 - L2447476-02 0.3139
7 - L2447553-02 1.0970
8 - L2447553-04 1.6966
9 - L2447553-07 1.9399
10 - L2447675-01 8.7169
11 - L2447719-02 0.7748
12 - L2447939-01 1.1425
13 - L2447890-01 0.0766
14 - WG1964146-3 0.0814
15 - CCV NO3 1.0183
16 - CCV NO2 0.9964
17 - CCB 0.0044
18 - WG1964146-4 4.2185
Absorbance
Time (sec)

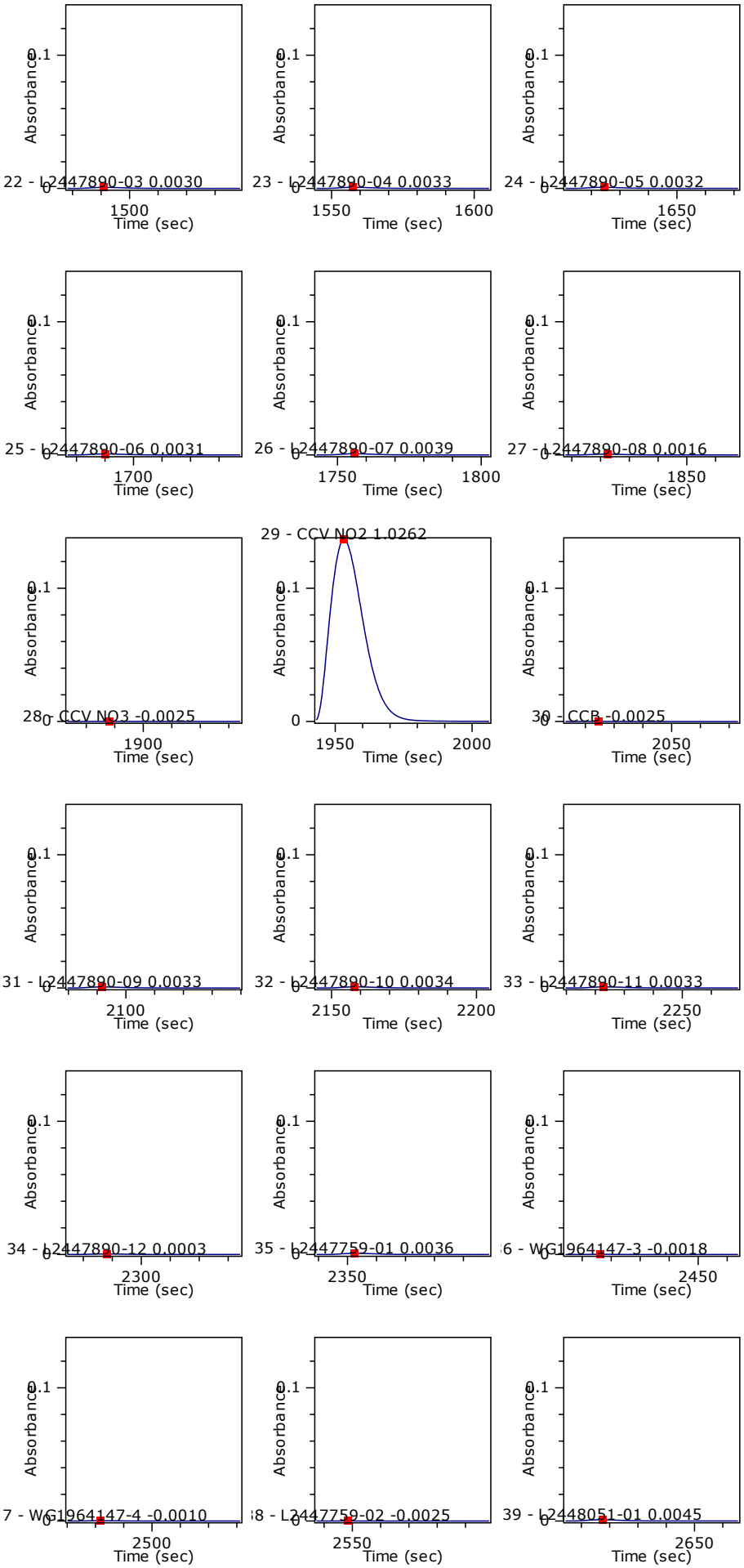

Absorbance
Time (sec)
19 - L2447890-02 0.0085
20 - WG1964146-5 0.0217
21 - WG1964146-6 4.1613
22 - L2447890-03 0.0093
23 - L2447890-04 0.0175
24 - L2447890-05 0.6316
25 - L2447890-06 0.0207
26 - L2447890-07 0.8385
27 - L2447890-08 2.5541
28 - CCV NO3 1.0136
29 - CCV NO2 0.9983
30 - CCB 0.0046
31 - L2447890-09 1.8058
32 - L2447890-10 0.1579
33 - L2447890-11 5.1492
34 - L2447890-12 5.1411
35 - L2447759-01 0.7728
36 - WG1964147-3 0.7781

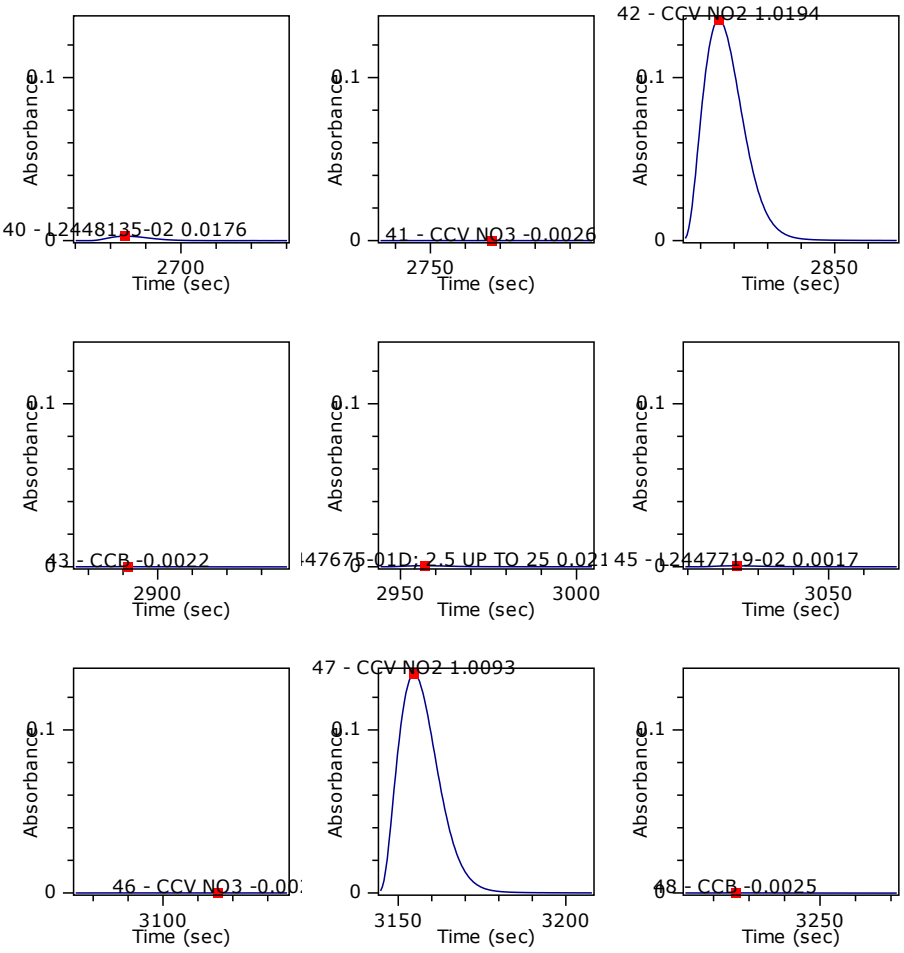


Channel: 2-NO2




4 - CCB -0.0022
5 - L2447476-01 0.0087
6 - L2447476-02 0.0067
7 - L2447553-02 0.0144
8 - L2447553-04 0.0094
9 - L2447553-07 0.0117
10 - L2447675-01 0.0443
11 - L2447719-02 0.0019
12 - L2447939-01 0.0028
13 - L2447890-01 -0.0016
14 - WG1964146-3 -0.0016
15 - CCV NO3 -0.0025
16 - CCV NO2 1.0101
17 - CCB -0.0023
18 - WG1964146-4 -0.0006
19 - L2447890-02 0.0065
20 - WG1964146-5 0.0066
21 - WG1964146-6 0.0078
Absorbance
Time (sec)


22 - L2447890-03 0.0030
23 - L2447890-04 0.0033
24 - L2447890-05 0.0032
25 - L2447890-06 0.0031
26 - L2447890-07 0.0039
27 - L2447890-08 0.0016
28 - CCV NO3 -0.0025
29 - CCV NO2 1.0262
30 - CCB -0.0025
31 - L2447890-09 0.0033
32 - L2447890-10 0.0034
33 - L2447890-11 0.0033
34 - L2447890-12 0.0003
35 - L2447759-01 0.0036
6 - WG1964147-3 -0.0018
7 - WG1964147-4 -0.0010
8 - L2447759-02 -0.0025
39 - L2448051-01 0.0045
Absorbance
Time (sec)



Data Processing Parameters:

Channel: 1-NOx

Response parameter	Peak Height
Filter Type	None
Filter Window	3
Enable Peak Window	False
Peak Window Start	0
Peak Window Stop	0
Enable Baseline Correction	False
Enable 2 Point Correction	False
Baseline Start	0
Baseline Stop	0
Point 2 Baseline Start	0
Point 2 Baseline Stop	0
Background Correction	Single Wavelength
Ref Wavelength 1	600
Ref Wavelength 2	0

Channel: 2-NO2

Response parameter	Peak Height
Filter Type	None
Filter Window	3
Enable Peak Window	False
Peak Window Start	0
Peak Window Stop	0
Enable Baseline Correction	False
Enable 2 Point Correction	False

Baseline Start	0
Baseline Stop	0
Point 2 Baseline Start	0
Point 2 Baseline Stop	0
Background Correction	Single Wavelength
Ref Wavelength 1	600
Ref Wavelength 2	0

Method Log:

```
FIAsoft FIAsoft v3.1.10

FIAlyzer Settings
------------
FIAlab1 Serial Number: FIA31428
FIAlab2 Serial Number: FIA31429
Pump: Connected on COM8

Spectrometer Settings
Spectrometer1
------------
Spectrometer Type: tec5
Integration Time: 33
Bandwidth: 2
Data Acq Rate: 2
Use Full Spectrum: False
        |---  Low: 500nm
        |--- High: 650nm
Reduce to Boxcar: True

Spectrometer2
------------
Spectrometer Type: tec5
Integration Time: 2.6
Bandwidth: 2
Data Acq Rate: 2
Use Full Spectrum: False
        |---  Low: 500nm
        |--- High: 650nm
Reduce to Boxcar: True

Start Time
------------
2024-08-27T05:53:26

Method
------------
' Method Script for NOx-NO2

Autosave Data C:\FIAlab\Autosave Data\DateTime
FIAlab Injection Valve Sample Load
Message Cadmium Column on for NOx
FIAlab Peristaltic Pump Clockwise(%) 55

Autosampler Wash
Delay (sec) 2
Next Sample
Delay (sec) 35  'StartDelay2 - Controls initial sample introduction.

FIAlab1 Injection Valve Sample Inject
Autosampler Probe Up
Delay (sec) 2
Autosampler Position (#) Rinse
FIAlab2 Injection Valve Sample Inject
Delay (sec) 15   'StartDelay3 - Should be set equal to LoopDelay3

Autosampler Probe Up
Delay (sec) 5   'StartDelay4 - Should be set equal to LoopDelay4

Loop Start

   Analyte New Sample
```

```
    Delay (sec) 1
    Next Sample
    Autosampler Probe Force Down

    Spectrometer Reference Scan
    Spectrometer Absorbance Scanning

    Delay (sec) 3   ' LoopDelay1 - Controls sample transit & loop empty. Controls back baseline.

    FIAlab Injection Valve Sample Load

    Delay (sec) 35   ' LoopDelay2 - Controls sample transit & loop fill. Controls back baseline.

    FIAlab1 Injection Valve Sample Inject
    Autosampler Probe Up
    Delay (sec) 5
    Autosampler Position (#) Rinse
    FIAlab2 Injection Valve Sample Inject

    Delay (sec) 10   ' LoopDelay3 - Controls loop empty & probe rinse time. Inverse controls front baseline.

    Autosampler Probe Up

    Delay (sec) 3   ' LoopDelay4 - Controls loop empty. Inverse controls front baseline.

    Spectrometer Stop Scanning

Loop End

Autosampler Position (#) Rinse
Delay (sec) 20
Autosampler Probe Up
Delay (sec) 30
FIAlab Peristaltic Pump Clockwise(%) 5
Autoexport Report C:\FIAlab\autoreport\NOxNO2\DateTime
Message Run is Complete
```

Method File Location: C:\FIAlab\FIAlab User Files\Methods\Method_NOx+NO2.fia

Quality Control

Form 5a
Matrix Spike

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-3A	**Matrix**	: WATER
Lab Sample ID	: L2447890-01		
Matrix Spike	: WG1964146-4	**MS Analysis Date**	: 08/27/24 06:13
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Nitrogen, Nitrate/Nitrite	0.077J	4	4.2	105					80-120	20

Form 5a
Matrix Spike

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-6A	**Matrix**	: WATER
Lab Sample ID	: L2447890-02		
Matrix Spike	: WG1964146-6	**MS Analysis Date**	: 08/27/24 06:17
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Nitrogen, Nitrate/Nitrite	ND	4	4.2	105					80-120	20

Form 6
Lab Duplicates

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-3A	**Matrix**	: WATER
Lab Sample ID	: L2447890-01	**Analysis Date**	: 08/27/24 06:08
Dup Sample ID	: WG1964146-3	**DUP Analysis Date**	: 08/27/24 06:09

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Nitrogen, Nitrate/Nitrite	0.077J	0.081J	NC	20

Form 6
Lab Duplicates

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-6A	**Matrix**	: WATER
Lab Sample ID	: L2447890-02	**Analysis Date**	: 08/27/24 06:14
Dup Sample ID	: WG1964146-5	**DUP Analysis Date**	: 08/27/24 06:16

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Nitrogen, Nitrate/Nitrite	ND	ND	NC	20

Form 7
Laboratory Control Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1964146-2	**LCS Analysis Date**	: 08/27/24 03:57
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Nitrogen, Nitrate/Nitrite	**5.00**	**5.20**	**104.**					**90-110**	**20**

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
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WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container / Sample Preservation
Nitrogen, Nitrate	14797-55-8	0.1	0.0228	mg/l	90-110		83-113	6	6	353.2	48 hours	1 - Plastic 250ml unpreserved
Nitrogen, Nitrate	14797-55-8	0.1	0.0228	mg/l	90-110		83-113	17	17	4500NO3-F	48 hours	1 - Plastic 250ml unpreserved
Nitrogen, Nitrite	NONE	0.05	0.0143	mg/l	90-110	20	80-120	20	20	353.2	48 hours	1 - Plastic 250ml unpreserved
Nitrogen, Nitrite	NONE	0.05	0.0143	mg/l	90-110	20	80-120	20	20	4500NO3-F	48 hours	1 - Plastic 250ml unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11468-1
Page: 1

WETCHEM (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Nitrogen, Nitrate	14797-55-8	1	0.261	mg/kg	90-110	20	80-120	20	20	4500NO3-F	48 hours	1 - Glass 250ml/8oz unpreserved
Nitrogen, Nitrite	NONE	1	0.282	mg/kg	90-110	20	80-120	20	20	4500NO3-F	48 hours	1 - Glass 250ml/8oz unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Calculations of Nitrogen, Nitrate

Aqueous Samples:
Compute sample N in NO3 concentration by comparing sample peak areas with standard curve, as determined by the Lachat instrument software.

Calculate results by using reading on Channel 1 (NO3+NO2) and Channel 2 (NO2)

$$NO3\ mg/I = (NO3+NO2)\ mg/L - (NO2)\ mg/L$$

To compute final results for aqueous samples, multiply the direct reading by the dilution factor (also done using software)

$$(NO3)\text{-}N\ mg/L = mg/L\ direct\ reading \times dilution\ factor$$

Calculations of Nitrogen, Nitrite

Aqueous Samples:
Compute sample N in NO2 concentration by comparing sample peak areas with standard curve, as determined by the Lachat instrument software.

Calculate results by using reading on Channel 2 (NO2)

To compute final results for aqueous samples, multiply the direct reading by the dilution factor (also done using software)

$$(NO2)\text{-}N\ mg/L = mg/L\ direct\ reading \times dilution\ factor$$

Sequence Logs

Date:	Initals:	Syringe Lot:	Syringe Lot: 20230620
082724	KAF	Filter Lot:	Filter Lot: 18048470A

Injection #	Rack #	Sample ID:	Comments:
19	RA1	ICV NO3 5	*Buffer: NO3NO2_081524_BUFFER*
20	RA2	ICV NO2 5	*Color: NO3NO2_081524_COLOR*
21	RA3	ICV NO3 0.5	*NO3 MS: NO3_080224_200PPM_CAL*
22	RA4	ICV NO2 0.5	*NO2 MS: NO2_082724_200PPM_CAL*
23	RA5	ICB	*ICV NO3 5: NO3_082424_5PPM_ICV*
X	RA6	5X DILUTER CHECK	*ICV NO2 5: NO2_082324_5PPM_ICV*
24	RA7	BLANK NO3	*ICV NO3 0.5: NO3_082724_0.5PPM_ICV*
25	RA8	LCS NO3	*ICV NO2 0.5: NO2_082724_0.5PPM_ICV*
26	RA9	BLANK NO2	
27	RA10	LCS NO2	
31	RA11	WG1964143-1; NO2	*OOH*
32	RA12	WG1964143-2; NO2	*DW*
33	RA13	WG1964144-1; NO3	GOING OOH
34	RA14	WG1964144-2; NO3	FIELD BLANK
35	RA15	WG1964145-1; CNO3	
36	RA16	WG1964145-2; CNO3	
37	RA17	WG1964146/147-1; CNO3	
38	RA18	WG1964146/147-2; CNO3	
39	RA19	L2448599-01	
40	RA20	L2448599-02	
44	RA21	L2448607-01	
45	RA22	WG1964144-3; CNO3	
46	RA23	WG1964144-4; CNO3	
47	RA24	WG1964143-3; NO2	
48	RA25	WG1964143-4; NO2	
49	RA26	L2448608-01	
50	RA27	L2448621-01	
51	RA28	L2448628-01	
52	RA29	L2448628-02	
53	RA30	L2448628-03	
57	RA31	L2448629-01	
58	RA32	L2448261-01A	
59	RA33	L2448365-01B	
60	RA34	L2445263-03	
61	RA35	L2445834-01	
62	RA36	L2446017-01	
63	RA37	WG1964145-3; CNO3	
64	RA38	WG1964145-4; CNO3	
65	RA39	L2446017-02	
66	RA40	L2447275-01	
70	RA41	WG1964145-5; CNO3	
71	RA42	WG1964145-6; CNO3	
72	RA43	L2447297-01	

Injection #	Rack #	Sample ID:	Comments:
73	RA44	L2447297-02	
74	RA45	L2447421-03	
75	RA46	L2447425-02	
76	RA47	L2447429-01	
77	RA48	L2447429-02	
5	RA49	L2447476-01	
6	RA50	L2447476-02	
7	RA51	L2447553-02	
8	RA52	L2447553-04	
9	RA53	L2447553-07	
10	RA54	L2447675-01	
11; 45	RA55	L2447719-02	
12	RA56	L2447939-01	
13	RA57	L2447890-01	
14	RA58	WG1964146-3; CNO3	
18	RA59	WG1964146-4; CNO3	
19	RA60	L2447890-02	
20	RA61	WG1964146-5; CNO3	
21	RA62	WG1964146-6; CNO3	
22	RA63	L2447890-03	
23	RA64	L2447890-04	
24	RA65	L2447890-05	
25	RA66	L2447890-06	
26	RA67	L2447890-07	
27	RA68	L2447890-08	
31	RA69	L2447890-09	
32	RA70	L2447890-10	
33	RA71	L2447890-11	
34	RA72	L2447890-12	
35	RA73	L2447759-01	L2447944-01
36	RA74	WG1964147-3; CNO3	
37	RA75	WG1964147-4; CNO3	
38	RA76	L2447759-02	
39	RA77	L2448051-01	
40	RA78	L2448135-02	
44	RC1	L2447675-01	

Injection #	Rack #	Sample ID:	Comments:	
	1	ICV NO3 5		
	2	ICV NO2 5		
	3	ICV NO3 0.5		
	4	ICV NO2 0.5		
	5	ICB		
	6	5X DILUTER CHECK		
	7	WG1964237-1; CNO3	5.1253	0.102506
	8	WG1964237-2; CNO3	5.0283	0.100566
	9	L2447684-01	5.3651	0.107302
	10	WG1964237-3; CNO3	5.5926	0.111852
	11	WG1964237-4; CNO3	5.1318	0.102636
	12	L2447684-02	5.3347	0.106694
	13	L2447684-03	5.2401	0.104802

Total Dissolved Solids Analysis

Results

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-01	**Date Collected**	: 08/21/24 11:10
Client ID	: MW-3A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 03:24
Sample Matrix	: WATER	**Dilution Factor**	: 1.3
Analytical Method	: 121,2540C	**Analyst**	: DEW
Lab File ID	: WG1964162.pdf	**Instrument ID**	: BALANCE#22
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Solids, Total Dissolved	50.	13	4.0	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-02	**Date Collected**	: 08/20/24 16:40
Client ID	: MW-6A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 03:24
Sample Matrix	: WATER	**Dilution Factor**	: 1.3
Analytical Method	: 121,2540C	**Analyst**	: DEW
Lab File ID	: WG1964162.pdf	**Instrument ID**	: BALANCE#22
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Solids, Total Dissolved	130	13	4.0	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-03	**Date Collected**	: 08/20/24 14:55
Client ID	: MW-6B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 03:24
Sample Matrix	: WATER	**Dilution Factor**	: 1.3
Analytical Method	: 121,2540C	**Analyst**	: DEW
Lab File ID	: WG1964162.pdf	**Instrument ID**	: BALANCE#22
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Solids, Total Dissolved	180	13	4.0	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-04	**Date Collected**	: 08/20/24 17:55
Client ID	: MW-6C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 03:24
Sample Matrix	: WATER	**Dilution Factor**	: 1.3
Analytical Method	: 121,2540C	**Analyst**	: DEW
Lab File ID	: WG1964162.pdf	**Instrument ID**	: BALANCE#22
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Solids, Total Dissolved	260	13	4.0	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-05	**Date Collected**	: 08/20/24 16:30
Client ID	: MW-7A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 03:24
Sample Matrix	: WATER	**Dilution Factor**	: 1.3
Analytical Method	: 121,2540C	**Analyst**	: DEW
Lab File ID	: WG1964162.pdf	**Instrument ID**	: BALANCE#22
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Solids, Total Dissolved	150	13	4.0	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-06	**Date Collected**	: 08/21/24 09:20
Client ID	: MW-7B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 03:24
Sample Matrix	: WATER	**Dilution Factor**	: 1.3
Analytical Method	: 121,2540C	**Analyst**	: DEW
Lab File ID	: WG1964162.pdf	**Instrument ID**	: BALANCE#22
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Solids, Total Dissolved	140	13	4.0	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-07	**Date Collected**	: 08/21/24 10:50
Client ID	: MW-7C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 03:24
Sample Matrix	: WATER	**Dilution Factor**	: 1.3
Analytical Method	: 121,2540C	**Analyst**	: DEW
Lab File ID	: WG1964162.pdf	**Instrument ID**	: BALANCE#22
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Solids, Total Dissolved	110	13	4.0	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-08	**Date Collected**	: 08/21/24 13:05
Client ID	: MW-8A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 03:24
Sample Matrix	: WATER	**Dilution Factor**	: 1.3
Analytical Method	: 121,2540C	**Analyst**	: DEW
Lab File ID	: WG1964162.pdf	**Instrument ID**	: BALANCE#22
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Solids, Total Dissolved	180	13	4.0	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-09	**Date Collected**	: 08/21/24 14:35
Client ID	: MW-8B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 03:24
Sample Matrix	: WATER	**Dilution Factor**	: 1.3
Analytical Method	: 121,2540C	**Analyst**	: DEW
Lab File ID	: WG1964162.pdf	**Instrument ID**	: BALANCE#22
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Solids, Total Dissolved	140	13	4.0	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-10	**Date Collected**	: 08/21/24 13:40
Client ID	: MW-8C2	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 03:24
Sample Matrix	: WATER	**Dilution Factor**	: 1.3
Analytical Method	: 121,2540C	**Analyst**	: DEW
Lab File ID	: WG1964162.pdf	**Instrument ID**	: BALANCE#22
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Solids, Total Dissolved	160	13	4.0	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-11	**Date Collected**	: 08/21/24 09:00
Client ID	: MW-9B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 03:24
Sample Matrix	: WATER	**Dilution Factor**	: 1.3
Analytical Method	: 121,2540C	**Analyst**	: DEW
Lab File ID	: WG1964162.pdf	**Instrument ID**	: BALANCE#22
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Solids, Total Dissolved	74.	13	4.0	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-12	**Date Collected**	: 08/21/24 00:00
Client ID	: DUP	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 03:24
Sample Matrix	: WATER	**Dilution Factor**	: 1.3
Analytical Method	: 121,2540C	**Analyst**	: DEW
Lab File ID	: WG1964162.pdf	**Instrument ID**	: BALANCE#22
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Solids, Total Dissolved	81.	13	4.0	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964162-1	**Date Collected**	: NA
Client ID	: WG1964162-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/27/24 03:24
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2540C	**Analyst**	: DEW
Lab File ID	: WG1964162.pdf	**Instrument ID**	: BALANCE#22
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Solids, Total Dissolved	ND	10	3.1	U

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964162-3	**Date Collected**	: 08/21/24 11:55
Client ID	: WG1964162-3 DUP	**Date Received**	: 08/22/24
Sample Location	:	**Date Analyzed**	: 08/27/24 03:24
Sample Matrix	: WATER	**Dilution Factor**	: 1.3
Analytical Method	: 121,2540C	**Analyst**	: DEW
Lab File ID	: WG1964162.pdf	**Instrument ID**	: BALANCE#22
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Solids, Total Dissolved	790	13	4.0	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964162-4	**Date Collected**	: 08/21/24 09:20
Client ID	: WG1964162-4 DUP	**Date Received**	: 08/22/24
Sample Location	:	**Date Analyzed**	: 08/27/24 03:24
Sample Matrix	: WATER	**Dilution Factor**	: 1.3
Analytical Method	: 121,2540C	**Analyst**	: DEW
Lab File ID	: WG1964162.pdf	**Instrument ID**	: BALANCE#22
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
NONE	Solids, Total Dissolved	510	13	4.0	

Sample Raw Data

Wet Chemistry Gravimetric ELN

Printed: AUG-28-24 08:43:43

WorkGroup	WG1964162	**Temp In (C)**	180	**Temp In (C)**	180	**Temp In (C)**	180	**Temp In (C)**		**Temp In (C)**					
Title	Solids, Total Dissolved	**Temp Out (C)**	180	**Temp Out (C)**	180	**Temp Out (C)**	180	**Temp Out (C)**		**Temp Out (C)**					
Method	SM2540C	**Time In**	28-AUG-24 00:05	**Time In**	28-AUG-24 04:53	**Time In**	28-AUG-24 06:58	**Time In**		**Time In**					
Instrument	BALANCE#22	**Time Out**	28-AUG-24 03:58	**Time Out**	28-AUG-24 06:53	**Time Out**	28-AUG-24 08:14	**Time Out**		**Time Out**					

Evaporation	**Temp In (C)**	**Time In**	**LCS Lot #**	**TrueValue**	**Units**
	90	27-AUG-24 08:56	071124D	500	mg/l

Sample #	Analysis Date	Analyst	Cup ID	Filter Lot	Tare Weight (gm)	Sample Volume (ml)	Net Weight (1) (gm)	Net Weight (2) (gm)	Net Weight (3) (gm)	Net Weight (4) (gm)	Net Weight (5) (gm)	Result mg/L	Dil	Comment
L2447890-01	27-AUG-24 03:24	DEB WHELAN	EU	71910422	63.839	80	63.843	63.8432				50.00	1.3	
L2447890-02	27-AUG-24 03:24	DEB WHELAN	AZ	71910422	71.5395	80	71.5502	71.5505				133.75	1.3	
L2447890-03	27-AUG-24 03:24	DEB WHELAN	A3	71910422	58.1002	80	58.1147	58.1145				178.75	1.3	
L2447890-04	27-AUG-24 03:24	DEB WHELAN	CE	71910422	64.7355	80	64.7567	64.7571				265.00	1.3	
L2447890-05	27-AUG-24 03:24	DEB WHELAN	RZ	71910422	79.1573	80	79.1693	79.1697				150.00	1.3	
L2447890-06	27-AUG-24 03:24	DEB WHELAN	FL	71910422	64.2279	80	64.2395	64.2398				145.00	1.3	
L2447890-07	27-AUG-24 03:24	DEB WHELAN	XC	71910422	64.8769	80	64.886	64.886				113.75	1.3	
L2447890-08	27-AUG-24 03:24	DEB WHELAN	XO	71910422	64.4809	80	64.4956	64.4957				183.75	1.3	
L2447890-09	27-AUG-24 03:24	DEB WHELAN	H8	71910422	64.3187	80	64.33	64.3303				141.25	1.3	T4
L2447890-10	27-AUG-24 03:24	DEB WHELAN	XB	71910422	71.0755	80	71.0887	71.0886				163.75	1.3	
L2447890-11	27-AUG-24 03:24	DEB WHELAN	EY	71910422	65.0892	80	65.0951	65.0952				73.75	1.3	
L2447890-12	27-AUG-24 03:24	DEB WHELAN	MN	71910422	75.2143	80	75.2208	75.221				81.25	1.3	
L2447939-01	27-AUG-24 03:24	DEB WHELAN	B4	71910422	79.3473	80	79.4315	79.4313				1050.00	1.3	
L2447944-01	27-AUG-24 03:24	DEB WHELAN	BIR	71910422	84.4961	80	84.6033	84.6032				1338.75	1.3	
L2447981-01	27-AUG-24 03:24	DEB WHELAN	RK	71910422	84.0963	80	84.1598	84.1598				793.75	1.3	
L2447981-02	27-AUG-24 03:24	DEB WHELAN	SE	71910422	83.9068	80	83.9388	83.9399	83.9401			400.00	1.3	
L2447981-03	27-AUG-24 03:24	DEB WHELAN	QG	71910422	107.0517	80	107.0907	107.0909				487.50	1.3	
L2447981-04	27-AUG-24 03:24	DEB WHELAN	QF	71910422	116.5956	80	116.6613	116.6612				820.00	1.3	
L2448044-01	27-AUG-24 03:24	DEB WHELAN	QM	71910422	106.8201	80	107.4598	107.4621	107.4442			7801.25	1.3	INF
L2448044-02	27-AUG-24 03:24	DEB WHELAN	QD	71910422	107.8332	80	108.4757	108.4754				8027.50	1.3	EFF
WG1964162-1	27-AUG-24 03:24	DEB WHELAN	W12	71910422	64.7223	100	64.7216	64.7219				-7.00	1	T3
WG1964162-2	27-AUG-24 03:24	DEB WHELAN	ER	71910422	57.8652	50	57.89	57.8903				496.00	2	
WG1964162-3	27-AUG-24 03:24	DEB WHELAN	SC	71910422	67.0462	80	67.1101	67.1097				793.75	1.3	
WG1964162-4	27-AUG-24 03:24	DEB WHELAN	P8	71910422	70.7205	80	70.7616	70.7615				512.50	1.3	

Quality Control

Form 6
Lab Duplicates

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 08/27/24 03:24
Dup Sample ID	: WG1964162-3	**DUP Analysis Date**	: 08/27/24 03:24

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Solids, Total Dissolved	790	790	0	10

Form 6
Lab Duplicates

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 08/27/24 03:24
Dup Sample ID	: WG1964162-4	**DUP Analysis Date**	: 08/27/24 03:24

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Solids, Total Dissolved	490	510	4	10

Form 7
Laboratory Control Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1964162-2	**LCS Analysis Date**	: 08/27/24 03:24
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
	True	Found	%R	True	Found	%R	RPD	Recovery	RPD
Parameter	(mg/l)	(mg/l)		(mg/l)	(mg/l)			Limits	Limit
Solids, Total Dissolved	500.	500.	99.					80-120	10

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
Page: 1

WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Solids, Total Dissolved	NONE	10	3.07	mg/l	80-120			10	10	2540C	7 days	1 - Plastic 500ml unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Calculations of TDS

$$\text{mgTDS/L} = \frac{(A - B) \times 1000}{\text{Sample volume, (L)}}$$

Where:

A = Final weight (weight of dish + dried residue, g)
B = Initial weight (weight of clean dish, g)

Alkalinity Analysis

Results

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-01	**Date Collected**	: 08/21/24 11:10
Client ID	: MW-3A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 11:55
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MKT
Lab File ID	: 240826_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	19.1	2.00	NA	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-02	**Date Collected**	: 08/20/24 16:40
Client ID	: MW-6A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 11:56
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MKT
Lab File ID	: 240826_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	69.9	2.00	NA	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-03	**Date Collected**	: 08/20/24 14:55
Client ID	: MW-6B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 11:59
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MKT
Lab File ID	: 240826_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	113.	2.00	NA	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-04	**Date Collected**	: 08/20/24 17:55
Client ID	: MW-6C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 12:02
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MKT
Lab File ID	: 240826_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	217.	2.00	NA	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-05	**Date Collected**	: 08/20/24 16:30
Client ID	: MW-7A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 12:08
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MKT
Lab File ID	: 240826_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	47.2	2.00	NA	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-06	**Date Collected**	: 08/21/24 09:20
Client ID	: MW-7B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 12:10
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MKT
Lab File ID	: 240826_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	63.8	2.00	NA	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-07	**Date Collected**	: 08/21/24 10:50
Client ID	: MW-7C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 12:13
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MKT
Lab File ID	: 240826_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	43.7	2.00	NA	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-08	**Date Collected**	: 08/21/24 13:05
Client ID	: MW-8A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 12:15
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MKT
Lab File ID	: 240826_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	80.0	2.00	NA	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-09	**Date Collected**	: 08/21/24 14:35
Client ID	: MW-8B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 12:17
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MKT
Lab File ID	: 240826_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	66.8	2.00	NA	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-10	**Date Collected**	: 08/21/24 13:40
Client ID	: MW-8C2	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 12:20
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MKT
Lab File ID	: 240826_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	98.1	2.00	NA	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-11	**Date Collected**	: 08/21/24 09:00
Client ID	: MW-9B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 12:23
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MKT
Lab File ID	: 240826_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	12.1	2.00	NA	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-12	**Date Collected**	: 08/21/24 00:00
Client ID	: DUP	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 12:24
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MKT
Lab File ID	: 240826_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	11.3	2.00	NA	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1963872-1	**Date Collected**	: NA
Client ID	: WG1963872-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/26/24 15:33
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MKT
Lab File ID	: 240826_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	ND	2.00	NA	U

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1963872-3	**Date Collected**	: 08/21/24 10:55
Client ID	: WG1963872-3 DUP	**Date Received**	: 08/21/24
Sample Location	:	**Date Analyzed**	: 08/26/24 11:09
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,2320B	**Analyst**	: MKT
Lab File ID	: 240826_csv.csv	**Instrument ID**	: TITR5
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg CaCO3/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
471-34-1	Alkalinity, Total	27.8	2.00	NA	

Sample Raw Data

Results Editor

LabX

Result Overview

Sample start t	Zero poin	Unit of Ze	Data marl	Slope 1 (C	Unit of Sl	Data marl	Sensor ty	List of sta	Standard	Comment	Temperat
	7.136	pH		-53.72	mV/pH						

Results Editor

Result Overview

Sample ID1	Potentia	Unit of P	Data ma	Sample start	Volume	Unit of V	Density [	Unit of D	Cor	Uni	Tempera	Unit of T	Commer
--	7.02	pH		8/26/2024 8	0	mL	1.0	g/mL	1.0		25.0	°C	

Titration report

LabX

Method

Method ID	Alk Total (2)	**Release state**	Released
Name	EP/EP	**Modified by**	SystemInternal
Modified on	10/14/2023 11:44:43 AM		

Summary

Samples

	Sample ID	Name	Result	State
1	Rinse,MKT	Sample size	50 mL	
		Potential R4	7.41 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.999 mL	OK
		Consumption 4.2 R3	0.999 mL	OK
		Content R5	19.980 mg/L	OK
		ALK LOW R6	19.980 mg/L	OK
2	Rinse,MKT	Sample size	50 mL	
		Potential R4	5.36 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.063 mL	OK
		Consumption 4.2 R3	0.069 mL	OK
		Content R5	1.260 mg/L	OK
		ALK LOW R6	1.140 mg/L	OK
3	WG1963790-1	Sample size	50 mL	
		Potential R4	5.19 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.041 mL	OK
		Consumption 4.2 R3	0.051 mL	OK
		Content R5	0.820 mg/L	OK
		ALK LOW R6	0.620 mg/L	OK
4	xLCS	Sample size	50 mL	
		Potential R4	10.98 pH	OK
		Consumption 8.3 R1	4.908 mL	OK
		Consumption 4.5 R2	5.275 mL	OK
		Consumption 4.2 R3	5.282 mL	OK
		Content R5	105.500 mg/L	OK
		ALK LOW R6	105.360 mg/L	OK
5	L2447798-01	Sample size	50 mL	
		Potential R4	5.76 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	12.640 mL	OK
		Consumption 4.2 R3	12.761 mL	OK
		Content R5	252.800 mg/L	OK
		ALK LOW R6	250.380 mg/L	OK
6	WG1963790-2	Sample size	50 mL	

Titration report

		Potential R4	5.97 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	12.731 mL	OK
		Consumption 4.2 R3	12.877 mL	OK
		Content R5	254.620 mg/L	OK
		ALK LOW R6	251.700 mg/L	OK
7	L2447798-03	Sample size	50 mL	
		Potential R4	6.14 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	6.916 mL	OK
		Consumption 4.2 R3	6.965 mL	OK
		Content R5	138.320 mg/L	OK
		ALK LOW R6	137.340 mg/L	OK
8	L2447798-05	Sample size	50 mL	
		Potential R4	6.19 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	7.687 mL	OK
		Consumption 4.2 R3	7.740 mL	OK
		Content R5	153.740 mg/L	OK
		ALK LOW R6	152.680 mg/L	OK
9	L2447798-07	Sample size	50 mL	
		Potential R4	6.77 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	1.509 mL	OK
		Consumption 4.2 R3	1.513 mL	OK
		Content R5	30.180 mg/L	OK
		ALK LOW R6	30.100 mg/L	OK
10	L2447798-09	Sample size	50 mL	
		Potential R4	9.28 pH	OK
		Consumption 8.3 R1	2.519 mL	OK
		Consumption 4.5 R2	10.246 mL	OK
		Consumption 4.2 R3	10.287 mL	OK
		Content R5	204.920 mg/L	OK
		ALK LOW R6	204.100 mg/L	OK
11	L2447798-11	Sample size	50 mL	
		Potential R4	5.53 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	1.312 mL	OK
		Consumption 4.2 R3	1.320 mL	OK
		Content R5	26.240 mg/L	OK
		ALK LOW R6	26.080 mg/L	OK
12	L2447798-13	Sample size	50 mL	
		Potential R4	7.15 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	9.346 mL	OK
		Consumption 4.2 R3	9.409 mL	OK
		Content R5	186.920 mg/L	OK

Titration report

		ALK LOW R6	185.660 mg/L	OK
13	L2447798-15	Sample size	50 mL	
		Potential R4	5.54 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	2.469 mL	OK
		Consumption 4.2 R3	2.505 mL	OK
		Content R5	49.380 mg/L	OK
		ALK LOW R6	48.660 mg/L	OK
14	L2447798-17	Sample size	50 mL	
		Potential R4	5.50 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	3.817 mL	OK
		Consumption 4.2 R3	3.886 mL	OK
		Content R5	76.340 mg/L	OK
		ALK LOW R6	74.960 mg/L	OK
15	L2447798-19	Sample size	50 mL	
		Potential R4	5.78 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	4.395 mL	OK
		Consumption 4.2 R3	4.429 mL	OK
		Content R5	87.900 mg/L	OK
		ALK LOW R6	87.220 mg/L	OK
16	L2447798-21	Sample size	50 mL	
		Potential R4	5.75 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	5.482 mL	OK
		Consumption 4.2 R3	6.529 mL	OK
		Content R5	109.640 mg/L	OK
		ALK LOW R6	88.700 mg/L	OK
17	L2447798-23	Sample size	50 mL	
		Potential R4	5.84 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	5.474 mL	OK
		Consumption 4.2 R3	5.523 mL	OK
		Content R5	109.480 mg/L	OK
		ALK LOW R6	108.500 mg/L	OK
18	L2447657-01 2x+10	Sample size	50 mL	
		Potential R4	5.31 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	2.591 mL	OK
		Consumption 4.2 R3	2.766 mL	OK
		Content R5	51.820 mg/L	OK
		ALK LOW R6	48.320 mg/L	OK
19	L2447718-01	Sample size	50 mL	
		Potential R4	5.68 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	1.386 mL	OK

Titration report

		Consumption 4.2 R3	1.400 mL	OK
		Content R5	27.720 mg/L	OK
		ALK LOW R6	27.440 mg/L	OK
20	WG1963872-3	Sample size	50 mL	
		Potential R4	5.46 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	1.391 mL	OK
		Consumption 4.2 R3	1.409 mL	OK
		Content R5	27.820 mg/L	OK
		ALK LOW R6	27.460 mg/L	OK
21	WG1963872-4	Sample size	50 mL	
		Potential R4	10.32 pH	OK
		Consumption 8.3 R1	4.531 mL	OK
		Consumption 4.5 R2	6.863 mL	OK
		Consumption 4.2 R3	6.866 mL	OK
		Content R5	137.260 mg/L	OK
		ALK LOW R6	137.200 mg/L	OK
22	L2447718-02	Sample size	50 mL	
		Potential R4	5.28 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	2.296 mL	OK
		Consumption 4.2 R3	2.402 mL	OK
		Content R5	45.920 mg/L	OK
		ALK LOW R6	43.800 mg/L	OK
23	L2447852-08 2x+20	Sample size	50 mL	
		Potential R4	7.86 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
24	L2447852-10 2x+20	Sample size	50 mL	
		Potential R4	8.16 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
25	L2447852-15 2x+20	Sample size	50 mL	
		Potential R4	7.20 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
26	L2447852-18 2x+20	Sample size	50 mL	
		Potential R4	8.21 pH	OK

Titration report

		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
27	L2447890-01	Sample size	50 mL	
		Potential R4	8.28 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.959 mL	OK
		Consumption 4.2 R3	0.962 mL	OK
		Content R5	19.180 mg/L	OK
		ALK LOW R6	19.120 mg/L	OK
28	L2447890-02	Sample size	50 mL	
		Potential R4	5.58 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	3.494 mL	OK
		Consumption 4.2 R3	3.524 mL	OK
		Content R5	69.880 mg/L	OK
		ALK LOW R6	69.280 mg/L	OK
29	L2447890-03	Sample size	50 mL	
		Potential R4	5.75 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	5.640 mL	OK
		Consumption 4.2 R3	5.672 mL	OK
		Content R5	112.800 mg/L	OK
		ALK LOW R6	112.160 mg/L	OK
30	L2447890-04	Sample size	50 mL	
		Potential R4	5.93 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	10.861 mL	OK
		Consumption 4.2 R3	10.937 mL	OK
		Content R5	217.220 mg/L	OK
		ALK LOW R6	215.700 mg/L	OK
31	L2447890-05	Sample size	50 mL	
		Potential R4	5.53 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	2.359 mL	OK
		Consumption 4.2 R3	2.383 mL	OK
		Content R5	47.180 mg/L	OK
		ALK LOW R6	46.700 mg/L	OK
32	L2447890-06	Sample size	50 mL	
		Potential R4	5.58 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	3.189 mL	OK
		Consumption 4.2 R3	3.214 mL	OK
		Content R5	63.780 mg/L	OK
		ALK LOW R6	63.280 mg/L	OK

Titration report

33	L2447890-07	Sample size	50 mL	
		Potential R4	5.51 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	2.185 mL	OK
		Consumption 4.2 R3	2.209 mL	OK
		Content R5	43.700 mg/L	OK
		ALK LOW R6	43.220 mg/L	OK
34	L2447890-08	Sample size	50 mL	
		Potential R4	5.66 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	3.998 mL	OK
		Consumption 4.2 R3	4.035 mL	OK
		Content R5	79.960 mg/L	OK
		ALK LOW R6	79.220 mg/L	OK
35	L2447890-09	Sample size	50 mL	
		Potential R4	5.67 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	3.342 mL	OK
		Consumption 4.2 R3	3.365 mL	OK
		Content R5	66.840 mg/L	OK
		ALK LOW R6	66.380 mg/L	OK
36	L2447890-10	Sample size	50 mL	
		Potential R4	5.75 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	4.906 mL	OK
		Consumption 4.2 R3	4.941 mL	OK
		Content R5	98.120 mg/L	OK
		ALK LOW R6	97.420 mg/L	OK
37	L2447890-11	Sample size	50 mL	
		Potential R4	5.23 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.620 mL	OK
		Consumption 4.2 R3	0.633 mL	OK
		Content R5	12.400 mg/L	OK
		ALK LOW R6	12.140 mg/L	OK
38	L2447890-12	Sample size	50 mL	
		Potential R4	5.16 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.582 mL	OK
		Consumption 4.2 R3	0.597 mL	OK
		Content R5	11.640 mg/L	OK
		ALK LOW R6	11.340 mg/L	OK
39	L2448167-01 2x+10	Sample size	50 mL	
		Potential R4	5.78 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	5.818 mL	OK
		Consumption 4.2 R3	5.907 mL	OK

Titration report

		Content R5	116.360 mg/L	OK
		ALK LOW R6	114.580 mg/L	OK
40	L2447852-08 5x+20	Sample size	50 mL	
		Potential R4	9.09 pH	OK
		Consumption 8.3 R1	0.173 mL	OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
41	L2447852-10 5x+20	Sample size	50 mL	
		Potential R4	7.26 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
42	L2447852-15 5x+20	Sample size	50 mL	
		Potential R4	7.10 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
43	L2447852-18 5x+20	Sample size	50 mL	
		Potential R4	7.28 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
44	L2447852-08 10x+20	Sample size	50 mL	
		Potential R4	7.23 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
45	L2447852-10 10x+20	Sample size	50 mL	
		Potential R4	6.74 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
46	L2447852-15 10x+20	Sample size	50 mL	
		Potential R4	6.63 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK

Titration report

		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
47	L2447852-18 10x+20	Sample size	50 mL	
		Potential R4	6.79 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	NaN mL	Not OK
		Consumption 4.2 R3	NaN mL	Not OK
		Content R5	NaN mg/L	Not OK
		ALK LOW R6	NaN mg/L	Not OK
48	WG1963872-2	Sample size	50 mL	
		Potential R4	11.04 pH	OK
		Consumption 8.3 R1	4.903 mL	OK
		Consumption 4.5 R2	5.260 mL	OK
		Consumption 4.2 R3	5.260 mL	OK
		Content R5	105.200 mg/L	OK
		ALK LOW R6	105.200 mg/L	OK
49	WG1963872-1	Sample size	50 mL	
		Potential R4	5.61 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.063 mL	OK
		Consumption 4.2 R3	0.070 mL	OK
		Content R5	1.260 mg/L	OK
		ALK LOW R6	1.120 mg/L	OK
50	ccv	Sample size	50 mL	
		Potential R4	10.97 pH	OK
		Consumption 8.3 R1	4.899 mL	OK
		Consumption 4.5 R2	5.289 mL	OK
		Consumption 4.2 R3	5.293 mL	OK
		Content R5	105.780 mg/L	OK
		ALK LOW R6	105.700 mg/L	OK
51	ccb	Sample size	50 mL	
		Potential R4	5.49 pH	OK
		Consumption 8.3 R1	NaN mL	Not OK
		Consumption 4.5 R2	0.066 mL	OK
		Consumption 4.2 R3	0.070 mL	OK
		Content R5	1.320 mg/L	OK
		ALK LOW R6	1.240 mg/L	OK

Statistics

R1

Mean	NaN mL		
Maximum	4.908 mL	**Minimum**	0.173 mL
Standard deviation	NaN mL	**Rel. standard deviation**	NaN %

Titration report

Total samples	51	**Samples excluded**	0

R2

Mean	NaN mL		
Maximum	12.731 mL	**Minimum**	0.041 mL
Standard deviation	NaN mL	**Rel. standard deviation**	NaN %
Total samples	51	**Samples excluded**	0

R3

Mean	NaN mL		
Maximum	12.877 mL	**Minimum**	0.051 mL
Standard deviation	NaN mL	**Rel. standard deviation**	NaN %
Total samples	51	**Samples excluded**	0

R4

Mean	6.67 pH		
Maximum	11.04 pH	**Minimum**	5.16 pH
Standard deviation	1.60 pH	**Rel. standard deviation**	24.004 %
Total samples	51	**Samples excluded**	0

R5

Mean	NaN mg/L		
Maximum	254.620 mg/L	**Minimum**	0.820 mg/L
Standard deviation	NaN mg/L	**Rel. standard deviation**	NaN %
Total samples	51	**Samples excluded**	0

R6

Mean	NaN mg/L		
Maximum	251.700 mg/L	**Minimum**	0.620 mg/L
Standard deviation	NaN mg/L	**Rel. standard deviation**	NaN %
Total samples	51	**Samples excluded**	0

Used Instruments

Name	T7 Excellence Titrator	**Serial number**	C329519495

Responsible User

Time	Login name	Full name
8/26/2024 9:01:21 AM	SystemInternal	System internal account

Quality Control

Form 5a
Matrix Spike

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: L2447718-01		
Matrix Spike	: WG1963872-4	**MS Analysis Date**	: 08/26/24 11:11
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
	Sample Conc.	Spike Added	Spike Conc.	%R	Spike Added	Spike Conc.	%R	RPD	Recovery Limits	RPD Limit
Parameter	(mg CaCO3/L)	(mg CaCO3/L)	(mg CaCO3/L)		(mg CaCO3/L)	(mg CaCO3/L)				
Alkalinity, Total	27.7	100	137.	110					86-116	10

Form 6
Lab Duplicates

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: NA	**Analysis Date**	: 08/26/24 11:08
Dup Sample ID	: WG1963872-3	**DUP Analysis Date**	: 08/26/24 11:09

Parameter	Sample Concentration (mg CaCO3/L)	Duplicate Concentration (mg CaCO3/L)	RPD	RPD Limit
Alkalinity, Total	27.7	27.8	0	10

Form 7
Laboratory Control Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1963872-2	**LCS Analysis Date**	: 08/26/24 15:30
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
	True	Found	%R	True	Found	%R	RPD	Recovery	RPD
Parameter	(mg CaCO3/L)	(mg CaCO3/L)		(mg CaCO3/L)	(mg CaCO3/L)			Limits	Limit
Alkalinity, Total	100.	105.	105.					90-110	10

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
Page: 1

WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Alkalinity, Total	471-34-1	2		mg CaCO3/L	90-110	10	86-116	10	10	2320B	14 days	1 - Plastic 250ml unpreserved/No Headspace

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Calculations of Alkalinity

$$\text{Alkalinity, mg } CaCO_3/L = \frac{A \times N \times 50{,}000}{\text{mL Sample}}$$

Where:

A = mL of the standard acid titrated

N = normality of the standard acid

Results are calculated using Mettler Toledo software.

Standard sample size is 50mL, 0.02N Sulfuric acid for titration

Sequence Logs

CAL	240826	LCS 7.0	7.02	INT:	mkt
pH 4	3295	Titrant:	4193		
pH 7	3386	LCS:	3257		
pH 10	3298	MS:	3255		
LCS	3409				

1	Rinse,MKT	42	L2447852-15 5x+20
2	Rinse,MKT	43	L2447852-18 5x+20
3	WG1963790-1	44	L2447852-08 10x+20
4	xLCS	45	L2447852-10 10x+20
5	L2447798-01	46	L2447852-15 10x+20
6	WG1963790-2	47	L2447852-18 10x+20
7	L2447798-03	48	WG1963872-2
8	L2447798-05	49	WG1963872-1
9	L2447798-07	50	ccv
10	L2447798-09	51	ccb
11	L2447798-11		
12	L2447798-13		
13	L2447798-15		
14	L2447798-17		
15	L2447798-19		
16	L2447798-21		
17	L2447798-23		
18	L2447657-01 2x+10		
19	L2447718-01		
20	WG1963872-3		
21	WG1963872-4		
22	L2447718-02		
23	L2447852-08 2x+20		
24	L2447852-10 2x+20		
25	L2447852-15 2x+20		
26	L2447852-18 2x+20		
27	L2447890-01		
28	L2447890-02		
29	L2447890-03		
30	L2447890-04		
31	L2447890-05		
32	L2447890-06		
33	L2447890-07		
34	L2447890-08		
35	L2447890-09		
36	L2447890-10		
37	L2447890-11		
38	L2447890-12		
39	L2448167-01 2x+10		
40	L2447852-08 5x+20		
41	L2447852-10 5x+20		

Phosphates Analysis

Results

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-01	**Date Collected**	: 08/21/24 11:10
Client ID	: MW-3A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 17:26
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500P-E(M)	**Analyst**	: MEF
Lab File ID	: PHOS082724-WG1964457.csv	**Instrument ID**	: SEAL2
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7723-14-0	Phosphate, Total	0.015	0.031	0.012	J

Form 1
WETCHEM

Client	:	**Alpha Geoscience**	**Lab Number**	:	**L2447890**
Project Name	:	**RANCO MINE**	**Project Number**	:	**12123**
Lab ID	:	**L2447890-02**	**Date Collected**	:	**08/20/24 16:40**
Client ID	:	**MW-6A**	**Date Received**	:	**08/21/24**
Sample Location	:	**MANORVILLE, NY**	**Date Analyzed**	:	**08/27/24 17:31**
Sample Matrix	:	**WATER**	**Dilution Factor**	:	**1**
Analytical Method	:	**121,4500P-E(M)**	**Analyst**	:	**MEF**
Lab File ID	:	**PHOS082724-WG1964457.csv**	**Instrument ID**	:	**SEAL2**
Sample Amount	:		**%Solids**	:	**N/A**
Digestion Method	:		**Date Digested**	:	**08/27/24**

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7723-14-0	**Phosphate, Total**	**0.083**	**0.031**	**0.012**	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-03	**Date Collected**	: 08/20/24 14:55
Client ID	: MW-6B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 17:32
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500P-E(M)	**Analyst**	: MEF
Lab File ID	: PHOS082724-WG1964457.csv	**Instrument ID**	: SEAL2
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7723-14-0	Phosphate, Total	0.028	0.031	0.012	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-04	**Date Collected**	: 08/20/24 17:55
Client ID	: MW-6C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 17:32
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500P-E(M)	**Analyst**	: MEF
Lab File ID	: PHOS082724-WG1964457.csv	**Instrument ID**	: SEAL2
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7723-14-0	Phosphate, Total	0.058	0.031	0.012	

Form 1
WETCHEM

Client	:	**Alpha Geoscience**	**Lab Number**	:	**L2447890**
Project Name	:	**RANCO MINE**	**Project Number**	:	**12123**
Lab ID	:	**L2447890-05**	**Date Collected**	:	**08/20/24 16:30**
Client ID	:	**MW-7A**	**Date Received**	:	**08/21/24**
Sample Location	:	**MANORVILLE, NY**	**Date Analyzed**	:	**08/27/24 17:33**
Sample Matrix	:	**WATER**	**Dilution Factor**	:	**1**
Analytical Method	:	**121,4500P-E(M)**	**Analyst**	:	**MEF**
Lab File ID	:	**PHOS082724-WG1964457.csv**	**Instrument ID**	:	**SEAL2**
Sample Amount	:		**%Solids**	:	**N/A**
Digestion Method	:		**Date Digested**	:	**08/27/24**

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7723-14-0	**Phosphate, Total**	**0.043**	**0.031**	**0.012**	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-06	**Date Collected**	: 08/21/24 09:20
Client ID	: MW-7B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 17:34
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500P-E(M)	**Analyst**	: MEF
Lab File ID	: PHOS082724-WG1964457.csv	**Instrument ID**	: SEAL2
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7723-14-0	Phosphate, Total	0.083	0.031	0.012	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-07	**Date Collected**	: 08/21/24 10:50
Client ID	: MW-7C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 17:35
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500P-E(M)	**Analyst**	: MEF
Lab File ID	: PHOS082724-WG1964457.csv	**Instrument ID**	: SEAL2
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7723-14-0	Phosphate, Total	0.034	0.031	0.012	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-08	**Date Collected**	: 08/21/24 13:05
Client ID	: MW-8A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 17:36
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500P-E(M)	**Analyst**	: MEF
Lab File ID	: PHOS082724-WG1964457.csv	**Instrument ID**	: SEAL2
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7723-14-0	Phosphate, Total	0.022	0.031	0.012	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-09	**Date Collected**	: 08/21/24 14:35
Client ID	: MW-8B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 17:37
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500P-E(M)	**Analyst**	: MEF
Lab File ID	: PHOS082724-WG1964457.csv	**Instrument ID**	: SEAL2
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7723-14-0	Phosphate, Total	0.040	0.031	0.012	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-10	**Date Collected**	: 08/21/24 13:40
Client ID	: MW-8C2	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 17:40
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500P-E(M)	**Analyst**	: MEF
Lab File ID	: PHOS082724-WG1964457.csv	**Instrument ID**	: SEAL2
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7723-14-0	Phosphate, Total	0.058	0.031	0.012	

Form 1
WETCHEM

Client	:	**Alpha Geoscience**	**Lab Number**	:	**L2447890**
Project Name	:	**RANCO MINE**	**Project Number**	:	**12123**
Lab ID	:	**L2447890-11**	**Date Collected**	:	**08/21/24 09:00**
Client ID	:	**MW-9B**	**Date Received**	:	**08/21/24**
Sample Location	:	**MANORVILLE, NY**	**Date Analyzed**	:	**08/27/24 17:41**
Sample Matrix	:	**WATER**	**Dilution Factor**	:	**1**
Analytical Method	:	**121,4500P-E(M)**	**Analyst**	:	**MEF**
Lab File ID	:	**PHOS082724-WG1964457.csv**	**Instrument ID**	:	**SEAL2**
Sample Amount	:		**%Solids**	:	**N/A**
Digestion Method	:		**Date Digested**	:	**08/27/24**

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7723-14-0	**Phosphate, Total**	**0.015**	**0.031**	**0.012**	**J**

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-12	**Date Collected**	: 08/21/24 00:00
Client ID	: DUP	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/27/24 17:42
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500P-E(M)	**Analyst**	: MEF
Lab File ID	: PHOS082724-WG1964457.csv	**Instrument ID**	: SEAL2
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7723-14-0	Phosphate, Total	ND	0.031	0.012	U

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964457-1	**Date Collected**	: NA
Client ID	: WG1964457-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/27/24 17:18
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500P-E(M)	**Analyst**	: MEF
Lab File ID	: PHOS082724-WG1964457.csv	**Instrument ID**	: SEAL2
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7723-14-0	Phosphate, Total	ND	0.031	0.012	U

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964457-3	**Date Collected**	: 08/21/24 11:10
Client ID	: MW-3ADUP	**Date Received**	: 08/21/24
Sample Location	:	**Date Analyzed**	: 08/27/24 17:29
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 121,4500P-E(M)	**Analyst**	: MEF
Lab File ID	: PHOS082724-WG1964457.csv	**Instrument ID**	: SEAL2
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	: 08/27/24

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
7723-14-0	Phosphate, Total	0.012	0.031	0.012	J

Sample Raw Data

AQ400Tray Report

Software version :	2.4.5
Report requested by :	mflaherty
Date \ Time :	27-Aug-2024 17:58:42
Tray number :	1
Tray name :	WG1964452,7

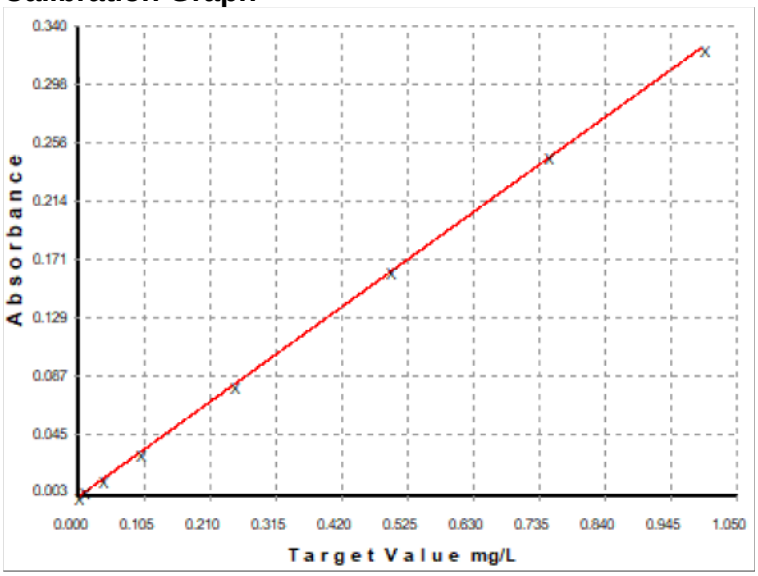
T-Phos 1

Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0026	0.003	0.000	
S90	0.0054	0.012	0.010	16.70
S91	0.0138	0.038	0.040	-6.22
S92	0.0328	0.096	0.100	-3.81
S93	0.0820	0.248	0.250	-0.85
S94	0.1644	0.502	0.500	0.42
S95	0.2469	0.757	0.750	0.88
S96	0.3241	0.995	1.000	-0.50
S0	0.0026	0.003	0.000	

Polynomial Order :	1
Correlation Coefficient :	0.9999
Carryover(%) :	-0.0
Calibration equation:	y = bx + a
y =:	Concentration mg/L
x =:	Measured absorbance
a =:	-5.083504E-03
b =:	3.085199E+00
Date & Time :	27-Aug-2024 11:22:54

Calibration Graph



Reagents

Reagent Name	Batch Number	Operator	Expiry Date
TP Working Color			
TP Ascorbic			

Test Results

Cup	Type	ID	Sample Details	Result	Units	QC Pro	Auto Dil.	Man Dil.	User	Time & Date
2	ICV	ICV	27-AUG-2024 16-35	0.453	mg/L				EYA	27-Aug-2024 17:16:10
3	ICB	ICB	27-AUG-2024 16-35	0.004	mg/L				EYA	27-Aug-2024 17:17:06
4	U1	WG1964452-1	27-AUG-2024 16-35	0.002ELL	mg/L				EYA	27-Aug-2024 17:18:02
5	U2	WG1964452-2	27-AUG-2024 16-35	0.459	mg/L				EYA	27-Aug-2024 17:18:58
6	U3	L2447363-03	27-AUG-2024 16-35	0.012	mg/L				EYA	27-Aug-2024 17:19:54
7	U4	L2448340-01	27-AUG-2024 16-35	0.086	mg/L				EYA	27-Aug-2024 17:20:50
8	U5	WG1964452-3	27-AUG-2024 16-35	0.085	mg/L				EYA	27-Aug-2024 17:21:46
9	U6	WG1964452-4	27-AUG-2024 16-35	0.587	mg/L				EYA	27-Aug-2024 17:22:42
10	U7	L2448340-02	27-AUG-2024 16-35	0.086	mg/L				EYA	27-Aug-2024 17:23:38
11	U8	L2448340-03	27-AUG-2024 16-35	0.202	mg/L				EYA	27-Aug-2024 17:24:34
12	U9	L2448340-04	27-AUG-2024 16-35	0.186	mg/L				EYA	27-Aug-2024 17:25:30
13	U10	L2447890-01O	27-AUG-2024 16-35	0.005	mg/L				EYA	27-Aug-2024 17:26:26
	CCV	CCV		0.476	mg/L				EYA	27-Aug-2024 17:27:22
	CCB	CCB		0.004	mg/L				EYA	27-Aug-2024 17:28:18
14	U11	WG1964457-3O	27-AUG-2024 16-35	0.004	mg/L				EYA	27-Aug-2024 17:29:14
15	U12	WG1964457-4O	27-AUG-2024 16-35	0.481	mg/L				EYA	27-Aug-2024 17:30:10
16	U13	L2447890-02O	27-AUG-2024 16-35	0.027	mg/L				EYA	27-Aug-2024 17:31:06
17	U14	L2447890-03O	27-AUG-2024 16-35	0.009	mg/L				EYA	27-Aug-2024 17:32:02
18	U15	L2447890-04O	27-AUG-2024 16-35	0.019	mg/L				EYA	27-Aug-2024 17:32:58

19	U16	L2447890-05O	27-AUG-2024 16-35	0.014	mg/L		EYA	27-Aug-2024 17:33:54
20	U17	L2447890-06O	27-AUG-2024 16-35	0.027	mg/L		EYA	27-Aug-2024 17:34:50
21	U18	L2447890-07O	27-AUG-2024 16-35	0.011	mg/L		EYA	27-Aug-2024 17:35:46
22	U19	L2447890-08O	27-AUG-2024 16-35	0.007	mg/L		EYA	27-Aug-2024 17:36:40
23	U20	L2447890-09O	27-AUG-2024 16-35	0.013	mg/L		EYA	27-Aug-2024 17:37:36
	CCV	CCV		0.463	mg/L		EYA	27-Aug-2024 17:38:33
	CCB	CCB		0.002	mg/L		EYA	27-Aug-2024 17:39:29
24	U21	L2447890-10O	27-AUG-2024 16-35	0.019	mg/L		EYA	27-Aug-2024 17:40:25
25	U22	L2447890-11O	27-AUG-2024 16-35	0.005	mg/L		EYA	27-Aug-2024 17:41:21
26	U23	L2447890-12O	27-AUG-2024 16-35	0.003	mg/L		EYA	27-Aug-2024 17:42:17
	CCV	CCV		0.465	mg/L		EYA	27-Aug-2024 17:43:13
	CCB	CCB		0.004	mg/L		EYA	27-Aug-2024 17:44:09

Quality Control

Form 5a
Matrix Spike

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-3A	**Matrix**	: WATER
Lab Sample ID	: L2447890-01		
Matrix Spike	: WG1964457-4	**MS Analysis Date**	: 08/27/24 17:30
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Phosphate, Total	0.015J	1.53	1.48	97					80-120	15

Form 6
Lab Duplicates

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-3A	**Matrix**	: WATER
Lab Sample ID	: L2447890-01	**Analysis Date**	: 08/27/24 17:26
Dup Sample ID	: WG1964457-3	**DUP Analysis Date**	: 08/27/24 17:29

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Phosphate, Total	0.015J	0.012J	NC	15

Form 7
Laboratory Control Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1964457-2	**LCS Analysis Date**	: 08/27/24 17:18
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (mg/l)	Found (mg/l)	%R	True (mg/l)	Found (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Phosphate, Total	1.53	1.41	92.					84-118	15

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
Page: 1

WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Phosphorus, Total	7723-14-0	0.01	0.004	mg/l	80-120		75-125	20	20	4500P-E	28 days	1 - Plastic 500ml H2SO4 preserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11468-1
Page: 1

WETCHEM (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container / Sample Preservation
Phosphorus, Total	7723-14-0	5	1.67	mg/kg	52-148	20	75-125	20	20	4500P-E	28 days	1 - Glass 250ml/8oz unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
Page: 1

WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Phosphorus, Orthophosphate	7723-14-0	0.005	0.001	mg/l	90-110		80-120	20	20	4500P-E	48 hours	1 - Plastic 500ml unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11468-1
Page: 1

WETCHEM (SOIL)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container / Sample Preservation
Phosphorus, Orthophosphate	7723-14-0	0.05	0.05	mg/kg						4500P-E	48 hours	1 - Glass 250ml/8oz unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

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Calculations of TPhosphorus

Aqueous samples:

Calculate the concentration value of the sample directly from the standard curve. All calculations are done by SEAL (segmant flow spectrometer).

$$\text{Mg TPhosphorus/L} = \frac{\text{absorbance - y-intercept}}{\text{slope}} \times \text{Dilution Factor}$$

Wet Chemistry
By
IC Methods

Results

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-01	**Date Collected**	: 08/21/24 11:10
Client ID	: MW-3A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 20:50
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,300.0	**Analyst**	: AVT,
Lab File ID	: WG1964126-127-606	**Instrument ID**	: IC3
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
24959-67-9	Bromide	ND	0.050	0.013	U
16887-00-6	Chloride	10.7	0.500	0.083	
16984-48-8	Fluoride	0.042	0.050	0.037	J
14808-79-8	Sulfate	5.37	1.00	0.454	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-02	**Date Collected**	: 08/20/24 16:40
Client ID	: MW-6A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 21:02
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,300.0	**Analyst**	: AVT,
Lab File ID	: WG1964126-127-606	**Instrument ID**	: IC3
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
24959-67-9	Bromide	ND	0.050	0.013	U
16887-00-6	Chloride	22.4	0.500	0.083	
16984-48-8	Fluoride	0.067	0.050	0.037	
14808-79-8	Sulfate	14.7	1.00	0.454	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-03	**Date Collected**	: 08/20/24 14:55
Client ID	: MW-6B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 21:14
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,300.0	**Analyst**	: AVT,
Lab File ID	: WG1964126-127-606	**Instrument ID**	: IC3
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
24959-67-9	Bromide	0.057	0.050	0.013	
16887-00-6	Chloride	21.9	0.500	0.083	
16984-48-8	Fluoride	0.069	0.050	0.037	
14808-79-8	Sulfate	23.2	1.00	0.454	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-04	**Date Collected**	: 08/20/24 17:55
Client ID	: MW-6C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 21:26
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,300.0	**Analyst**	: AVT,
Lab File ID	: WG1964126-127-606	**Instrument ID**	: IC3
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
24959-67-9	Bromide	0.101	0.050	0.013	
16887-00-6	Chloride	21.0	0.500	0.083	
16984-48-8	Fluoride	0.090	0.050	0.037	
14808-79-8	Sulfate	14.6	1.00	0.454	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-05	**Date Collected**	: 08/20/24 16:30
Client ID	: MW-7A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 21:38
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,300.0	**Analyst**	: AVT,
Lab File ID	: WG1964126-127-606	**Instrument ID**	: IC3
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
24959-67-9	Bromide	0.043	0.050	0.013	J
16887-00-6	Chloride	13.1	0.500	0.083	
16984-48-8	Fluoride	0.056	0.050	0.037	
14808-79-8	Sulfate	15.5	1.00	0.454	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-06	**Date Collected**	: 08/21/24 09:20
Client ID	: MW-7B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 22:27
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,300.0	**Analyst**	: AVT,
Lab File ID	: WG1964126-127-606	**Instrument ID**	: IC3
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
24959-67-9	Bromide	ND	0.050	0.013	U
16887-00-6	Chloride	22.5	0.500	0.083	
16984-48-8	Fluoride	0.065	0.050	0.037	
14808-79-8	Sulfate	16.6	1.00	0.454	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-07	**Date Collected**	: 08/21/24 10:50
Client ID	: MW-7C	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 22:39
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,300.0	**Analyst**	: AVT,
Lab File ID	: WG1964126-127-606	**Instrument ID**	: IC3
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
24959-67-9	Bromide	ND	0.050	0.013	U
16887-00-6	Chloride	22.2	0.500	0.083	
16984-48-8	Fluoride	0.047	0.050	0.037	J
14808-79-8	Sulfate	23.2	1.00	0.454	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-08	**Date Collected**	: 08/21/24 13:05
Client ID	: MW-8A	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 22:51
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,300.0	**Analyst**	: AVT,
Lab File ID	: WG1964126-127-606	**Instrument ID**	: IC3
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
24959-67-9	Bromide	ND	0.050	0.013	U
16887-00-6	Chloride	15.2	0.500	0.083	
16984-48-8	Fluoride	0.063	0.050	0.037	
14808-79-8	Sulfate	29.4	1.00	0.454	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-09	**Date Collected**	: 08/21/24 14:35
Client ID	: MW-8B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 23:03
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,300.0	**Analyst**	: AVT,
Lab File ID	: WG1964126-127-606	**Instrument ID**	: IC3
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
24959-67-9	Bromide	ND	0.050	0.013	U
16887-00-6	Chloride	22.0	0.500	0.083	
16984-48-8	Fluoride	0.122	0.050	0.037	
14808-79-8	Sulfate	23.9	1.00	0.454	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-10	**Date Collected**	: 08/21/24 13:40
Client ID	: MW-8C2	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 23:15
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,300.0	**Analyst**	: AVT,
Lab File ID	: WG1964126-127-606	**Instrument ID**	: IC3
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
24959-67-9	Bromide	ND	0.050	0.013	U
16887-00-6	Chloride	22.1	0.500	0.083	
16984-48-8	Fluoride	0.083	0.050	0.037	
14808-79-8	Sulfate	24.3	1.00	0.454	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-11	**Date Collected**	: 08/21/24 09:00
Client ID	: MW-9B	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 23:27
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,300.0	**Analyst**	: AVT,
Lab File ID	: WG1964126-127-606	**Instrument ID**	: IC3
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
24959-67-9	Bromide	0.072	0.050	0.013	
16887-00-6	Chloride	12.3	0.500	0.083	
16984-48-8	Fluoride	ND	0.050	0.037	U
14808-79-8	Sulfate	19.6	1.00	0.454	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: L2447890-12	**Date Collected**	: 08/21/24 00:00
Client ID	: DUP	**Date Received**	: 08/21/24
Sample Location	: MANORVILLE, NY	**Date Analyzed**	: 08/26/24 23:39
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,300.0	**Analyst**	: AVT,
Lab File ID	: WG1964126-127-606	**Instrument ID**	: IC3
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
24959-67-9	Bromide	0.072	0.050	0.013	
16887-00-6	Chloride	12.2	0.500	0.083	
16984-48-8	Fluoride	ND	0.050	0.037	U
14808-79-8	Sulfate	19.6	1.00	0.454	

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964126-1	**Date Collected**	: NA
Client ID	: WG1964126-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/26/24 20:26
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,300.0	**Analyst**	: AVT,
Lab File ID	: WG1964126-127-606	**Instrument ID**	: IC3
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
24959-67-9	Bromide	ND	0.050	0.013	U
16887-00-6	Chloride	0.144	0.500	0.083	J
16984-48-8	Fluoride	ND	0.050	0.037	U
14808-79-8	Sulfate	ND	1.00	0.454	U

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964126-4	**Date Collected**	: 08/21/24 11:10
Client ID	: MW-3ADUP	**Date Received**	: 08/21/24
Sample Location	:	**Date Analyzed**	: 08/27/24 04:29
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,300.0	**Analyst**	: AVT,
Lab File ID	: WG1964126-127-606	**Instrument ID**	: IC3
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14808-79-8	Sulfate	5.41	1.00	0.454	
16887-00-6	Chloride	10.7	0.500	0.084	
24959-67-9	Bromide	0.042	0.050	0.013	J
16984-48-8	Fluoride	0.043	0.050	0.037	J

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964127-1	**Date Collected**	: NA
Client ID	: WG1964127-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/27/24 01:52
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,300.0	**Analyst**	: AVT,
Lab File ID	: WG1964126-127-606	**Instrument ID**	: IC3
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
24959-67-9	Bromide	ND	0.050	0.013	U
16887-00-6	Chloride	0.144	0.500	0.083	J
16984-48-8	Fluoride	ND	0.050	0.037	U
14808-79-8	Sulfate	ND	1.00	0.454	U

Form 1
WETCHEM

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Lab ID	: WG1964127-4	**Date Collected**	: 08/21/24 09:00
Client ID	: MW-9BDUP	**Date Received**	: 08/21/24
Sample Location	:	**Date Analyzed**	: 08/27/24 04:54
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 44,300.0	**Analyst**	: AVT,
Lab File ID	: WG1964126-127-606	**Instrument ID**	: IC3
Sample Amount	:	**%Solids**	: N/A
Digestion Method	:	**Date Digested**	:

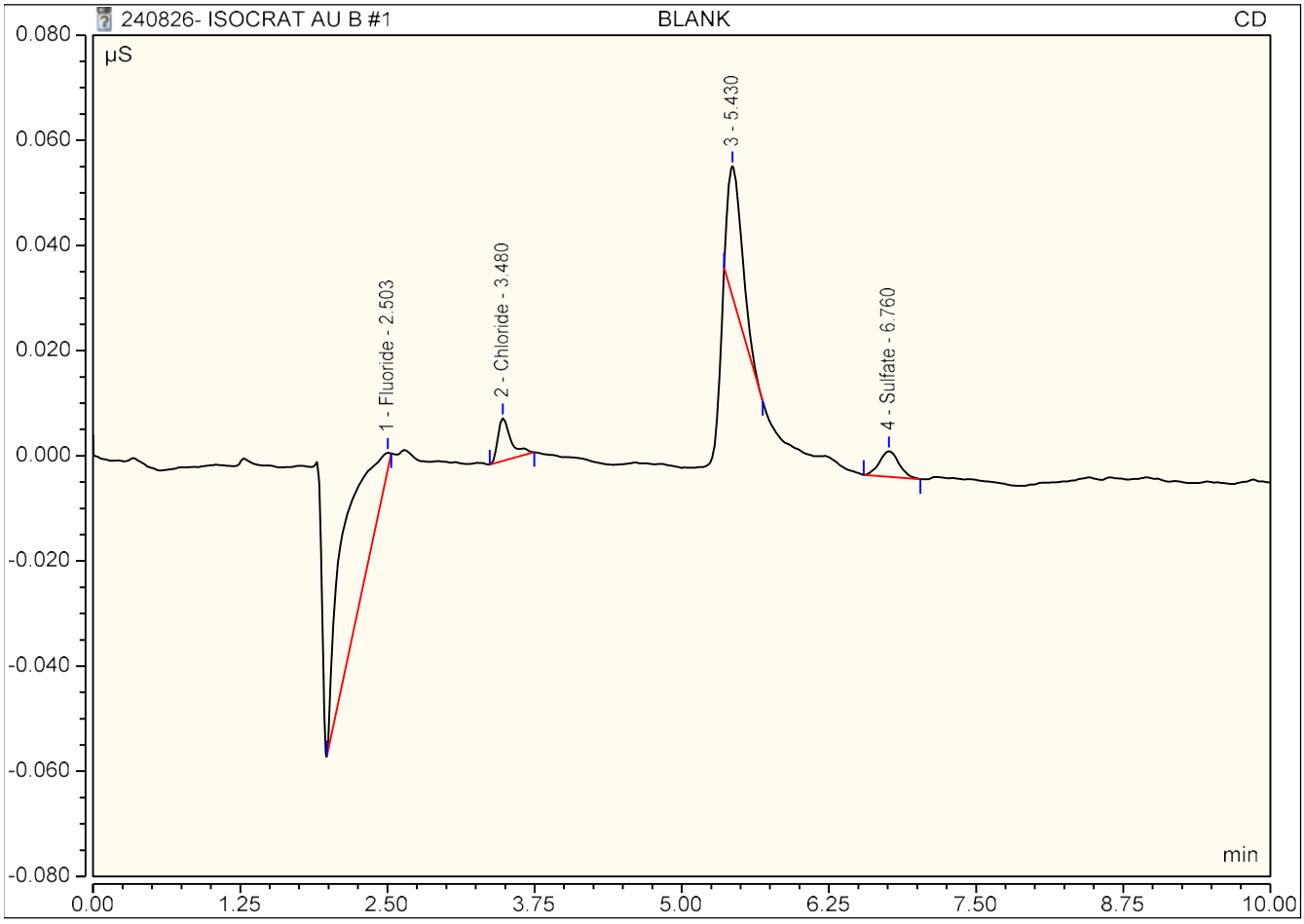
		mg/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
14808-79-8	Sulfate	19.7	1.00	0.454	
16887-00-6	Chloride	12.3	0.500	0.084	
24959-67-9	Bromide	0.072	0.050	0.013	
16984-48-8	Fluoride	ND	0.050	0.037	U

Sample Raw Data

Peak Integration Report

Sample Name:	**BLANK**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**18-Jul-2024 / 21:02**	*Run Time:*	**10.00**

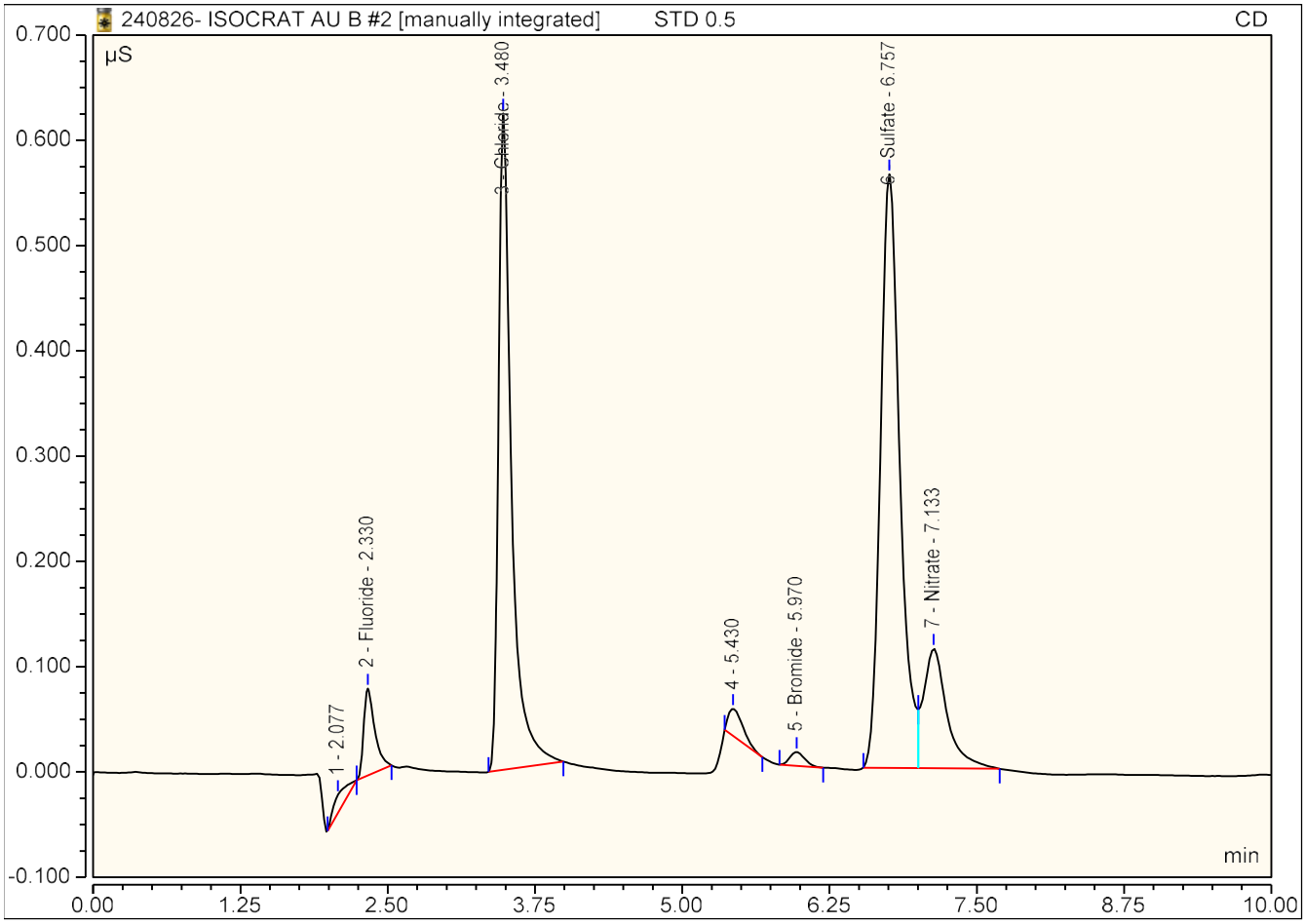
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
1	2.50	**Fluoride**	BMB	0.010	0.003	0.0447
2	3.48	**Chloride**	BMB	0.001	0.008	0.1306
4	6.76	**Sulfate**	BMB	0.001	0.005	0.1437
TOTAL:				0.01	0.02	0.32



Peak Integration Report

Sample Name:	**STD 0.5**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**18-Jul-2024 / 21:14**	*Run Time:*	**10.00**

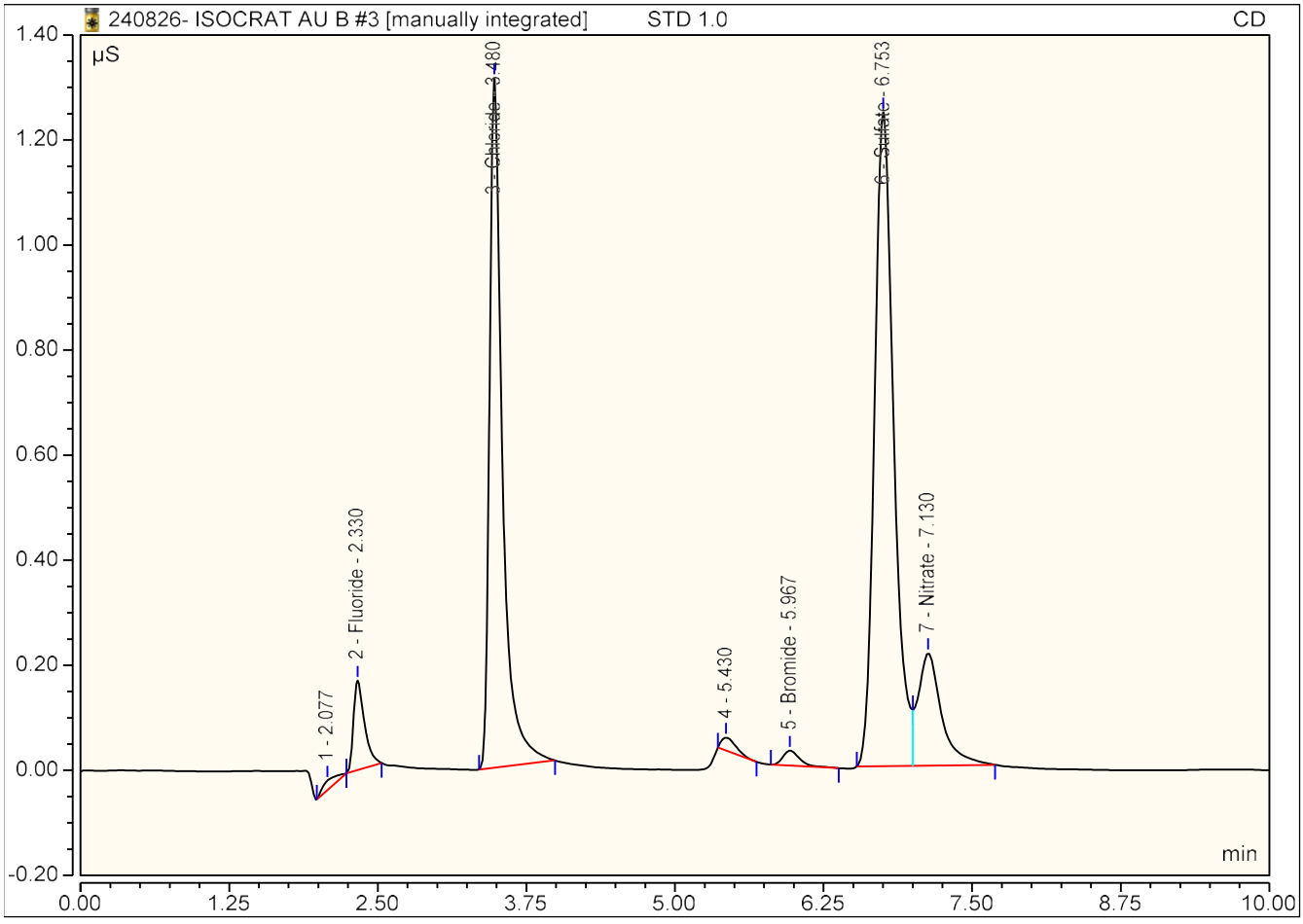
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.33	**Fluoride**	BMB	0.009	0.083	0.0437
3	3.48	**Chloride**	BMB*	0.080	0.624	0.3214
5	5.97	**Bromide**	BMB	0.002	0.013	0.0485
6	6.76	**Sulfate**	BM *	0.107	0.564	0.5065
7	7.13	**Nitrate**	MB*	0.026	0.114	0.0422
TOTAL:				0.22	1.40	0.96



Peak Integration Report

Sample Name:	**STD 1.0**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**18-Jul-2024 / 21:26**	*Run Time:*	**10.00**

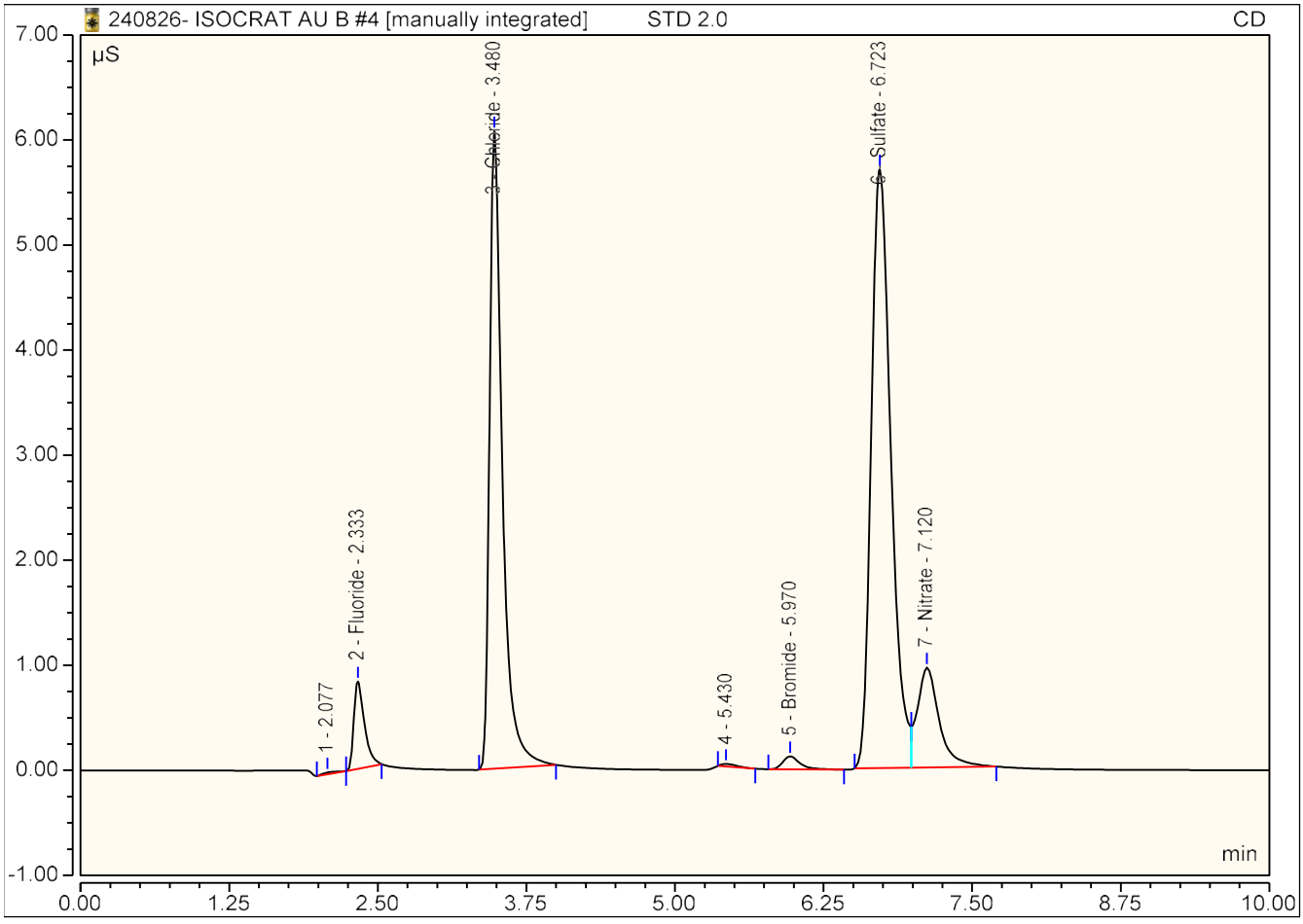
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.33	**Fluoride**	BMB	0.018	0.171	0.0600
3	3.48	**Chloride**	BMB*	0.165	1.313	0.5266
5	5.97	**Bromide**	BMB	0.005	0.029	0.0695
6	6.75	**Sulfate**	BM *	0.231	1.245	0.9336
7	7.13	**Nitrate**	MB*	0.049	0.214	0.0607
TOTAL:				0.47	2.97	1.65



Peak Integration Report

Sample Name:	**STD 2.0**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**18-Jul-2024 / 21:38**	*Run Time:*	**10.00**

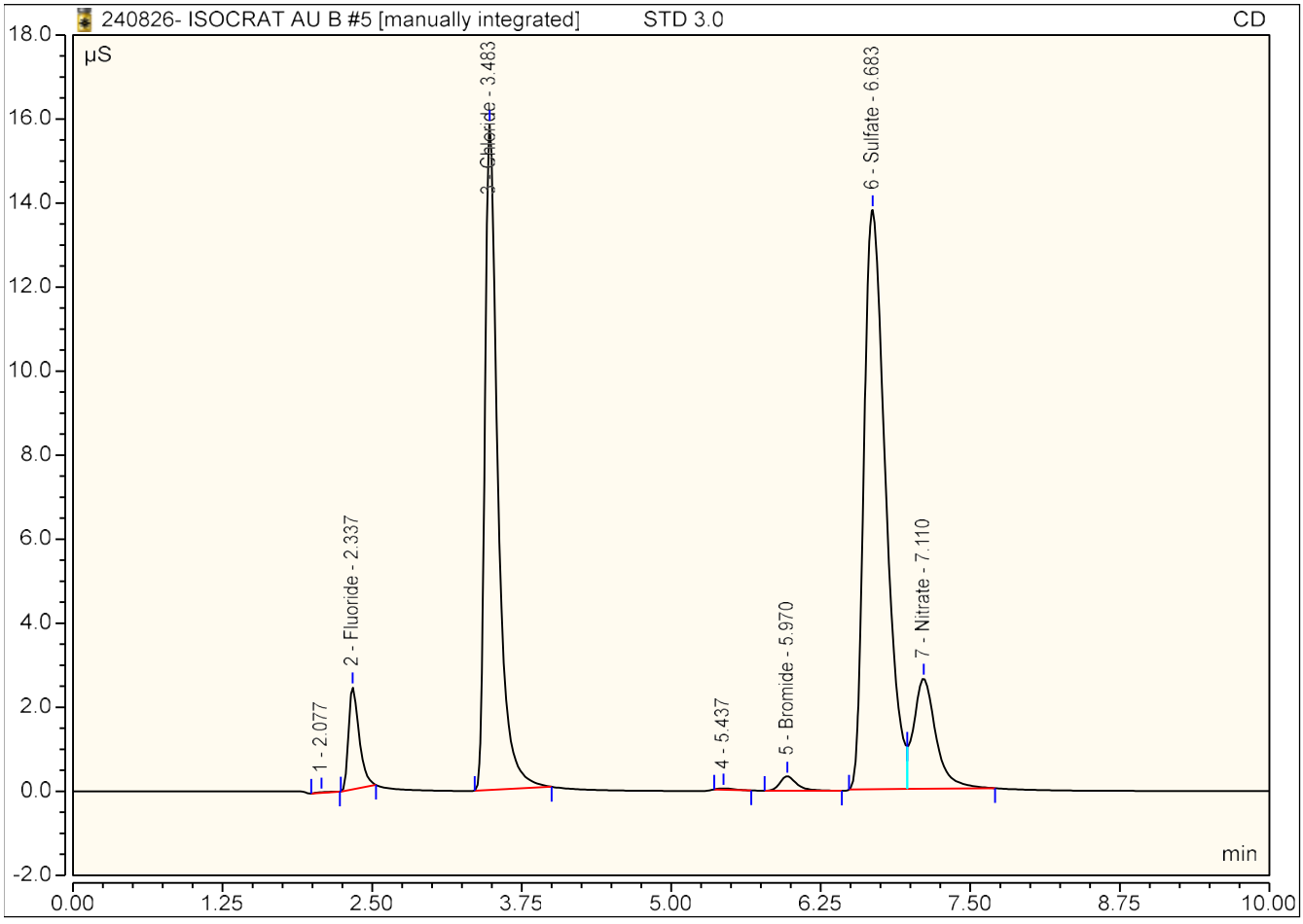
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.33	**Fluoride**	BMB	0.086	0.831	0.1787
3	3.48	**Chloride**	BMB*	0.757	6.068	1.9618
5	5.97	**Bromide**	BMB	0.021	0.124	0.1898
6	6.72	**Sulfate**	BM *	1.091	5.700	3.8785
7	7.12	**Nitrate**	MB*	0.204	0.950	0.1861
TOTAL:				2.16	13.67	6.39



Peak Integration Report

Sample Name:	**STD 3.0**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**18-Jul-2024 / 21:50**	*Run Time:*	**10.00**

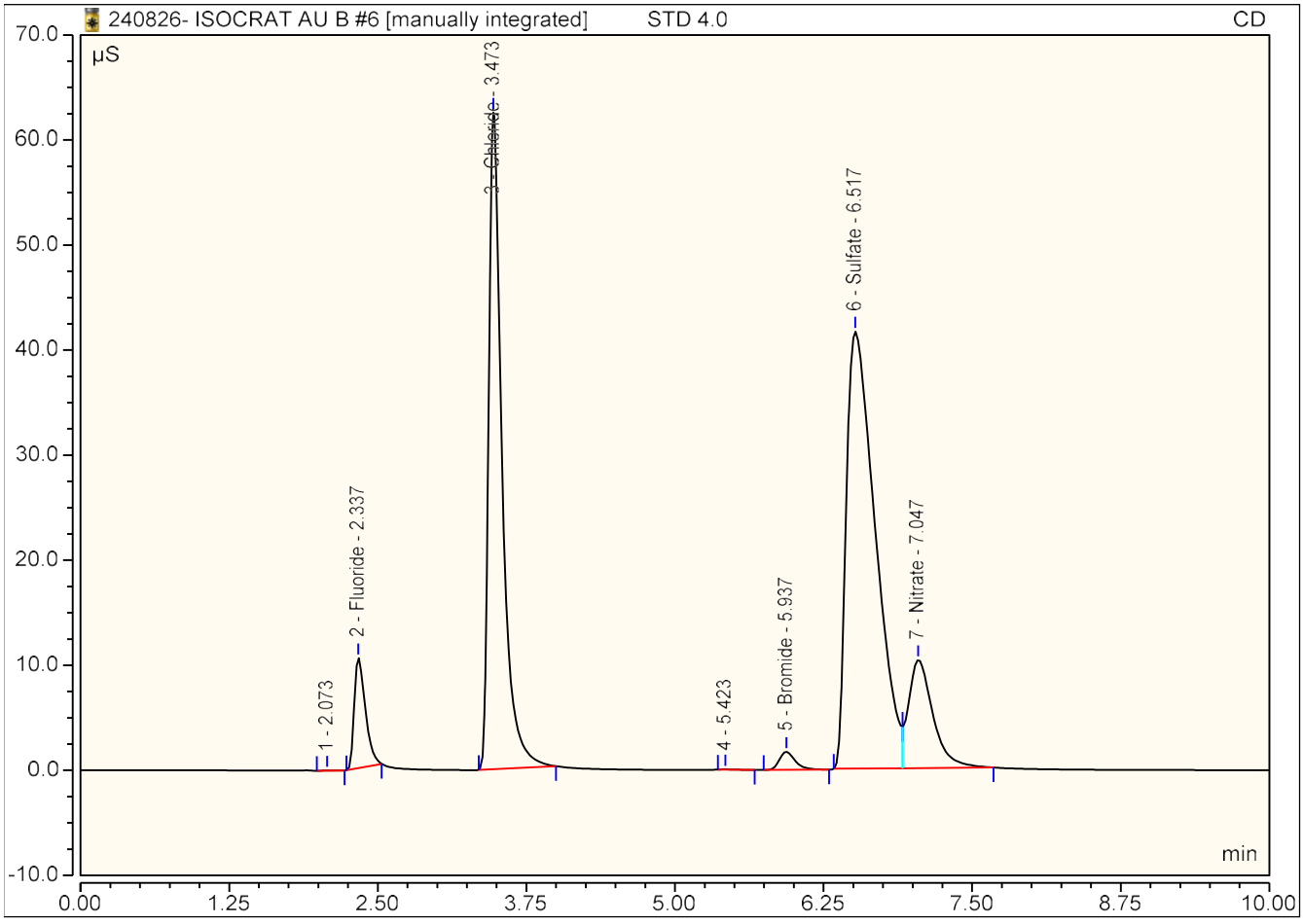
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.34	**Fluoride**	BMB	0.251	2.433	0.4696
3	3.48	**Chloride**	BMB*	2.000	15.829	4.9722
5	5.97	**Bromide**	BMB	0.057	0.343	0.4559
6	6.68	**Sulfate**	BM *	2.875	13.786	9.9947
7	7.11	**Nitrate**	MB*	0.568	2.632	0.4800
TOTAL:				5.75	35.02	16.37



Peak Integration Report

Sample Name:	**STD 4.0**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**18-Jul-2024 / 22:02**	*Run Time:*	**10.00**

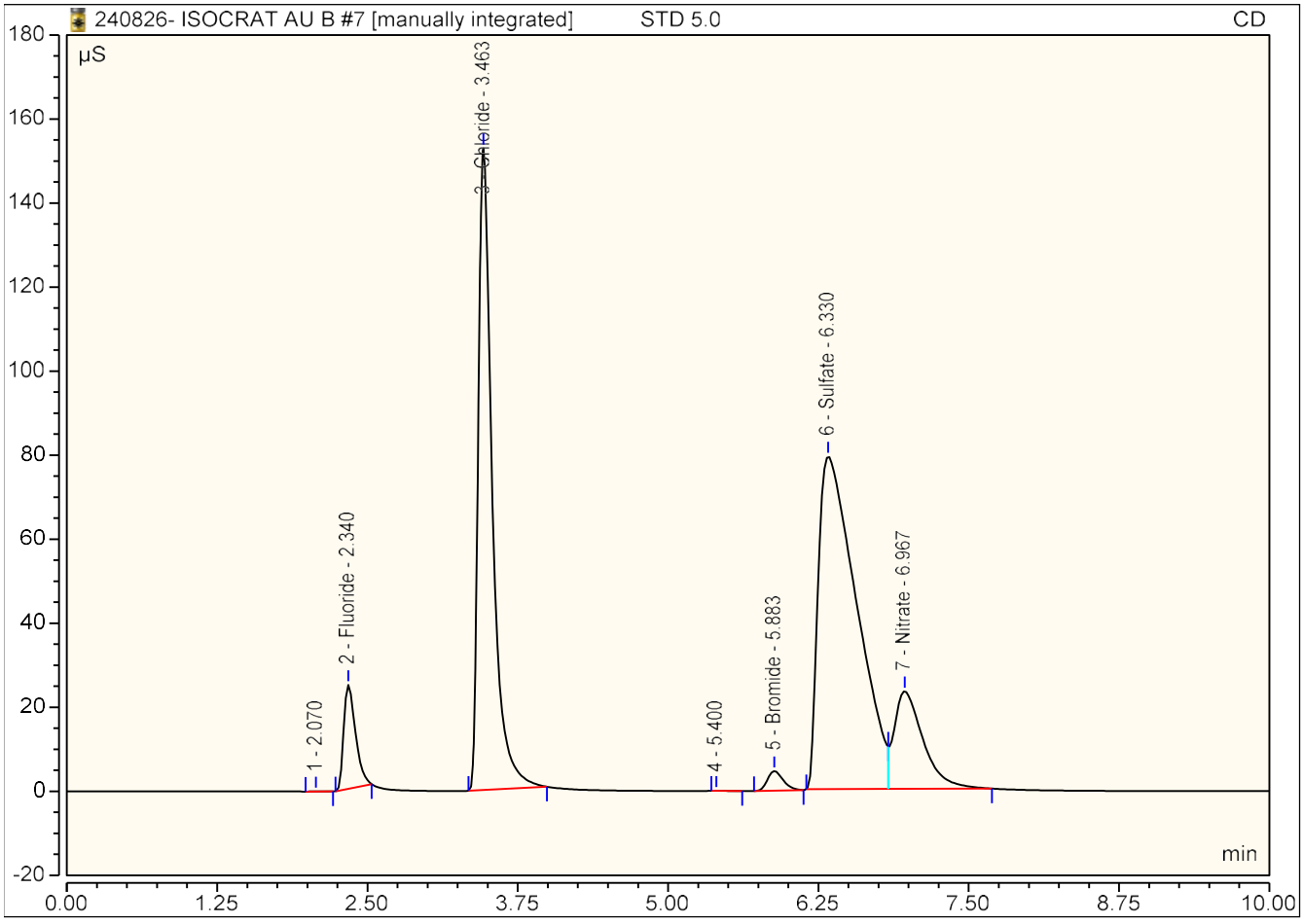
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.34	**Fluoride**	BMB	1.137	10.480	2.0320
3	3.47	**Chloride**	BMB*	8.179	62.483	19.9406
5	5.94	**Bromide**	BMB	0.267	1.717	2.0113
6	6.52	**Sulfate**	BM *	11.719	41.601	40.3013
7	7.05	**Nitrate**	MB*	2.458	10.297	2.0059
TOTAL:				23.76	126.58	66.29



Peak Integration Report

Sample Name:	**STD 5.0**	*Inj. Vol.:*	**25.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**18-Jul-2024 / 22:14**	*Run Time:*	**10.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.34	**Fluoride**	BMB	2.815	24.696	4.9909
3	3.46	**Chloride**	BMB*	20.600	152.752	50.0274
5	5.88	**Bromide**	BMB	0.703	4.665	5.2423
6	6.33	**Sulfate**	BM *	29.105	79.210	99.8855
7	6.97	**Nitrate**	MB*	6.519	23.232	5.2847
TOTAL:				59.74	284.56	165.43



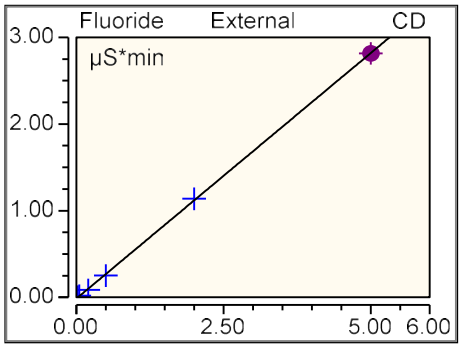
Calibration Batch Report

Sequence:	**240826- ISOCRAT AU B**	*Injection Volume:*	**25.00**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**18-Jul-2024 / 22:14**	*Run Time:*	**10**

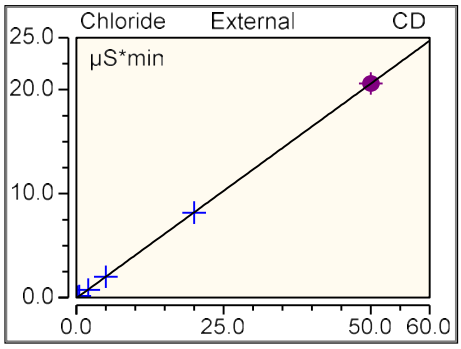
Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
Fluoride	Area	in, WithOffse	6.000	-0.016	0.567	0.000	99.9847
Chloride	Area	in, WithOffse	6.000	-0.053	0.413	0.000	99.9994
Bromide	Area	in, WithOffse	5.000	-0.005	0.135	0.000	99.8872
Sulfate	Area	in, WithOffse	6.000	-0.041	0.292	0.000	99.9984
Nitrate	Area	in, WithOffse	5.000	-0.026	1.238	0.000	99.9623
		AVERAGE:		-0.0281	0.5291	0.0000	99.9664

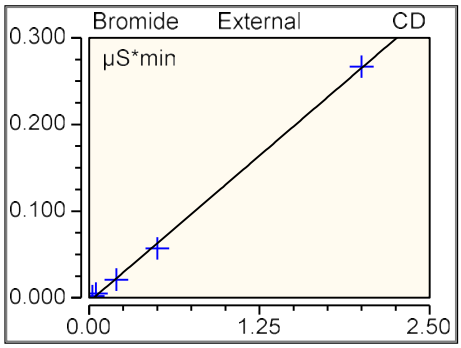
Injection Name	Ret.Time min CD	Area µS*min CD	Height µS CD	Amount CD
	Fluoride	Fluoride	Fluoride	Fluoride
STD 0.5	2.330	0.0090	0.083	0.044
STD 1.0	2.330	0.0182	0.171	0.060
STD 2.0	2.333	0.0856	0.831	0.179
STD 3.0	2.337	0.2506	2.433	0.470
STD 4.0	2.337	1.1369	10.480	2.032
STD 5.0	2.340	2.8153	24.696	4.991
Average	2.334			
Rel. Std. Dev.	0.173 %			



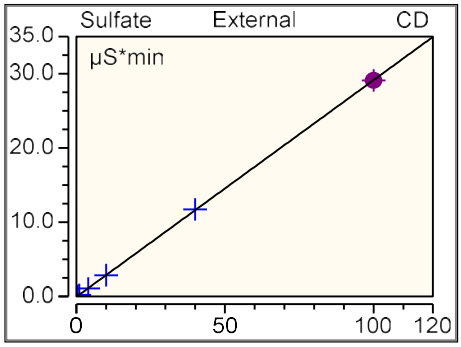
Injection Name	Ret.Time min CD	Area µS*min CD	Height µS CD	Amount CD
	Chloride	Chloride	Chloride	Chloride
STD 0.5	3.480	0.0798	0.624	0.321
STD 1.0	3.480	0.1645	1.313	0.527
STD 2.0	3.480	0.7570	6.068	1.962
STD 3.0	3.483	1.9998	15.829	4.972
STD 4.0	3.473	8.1791	62.483	19.941
STD 5.0	3.463	20.5997	152.752	50.027
Average	3.477			
Rel. Std. Dev.	0.210 %			



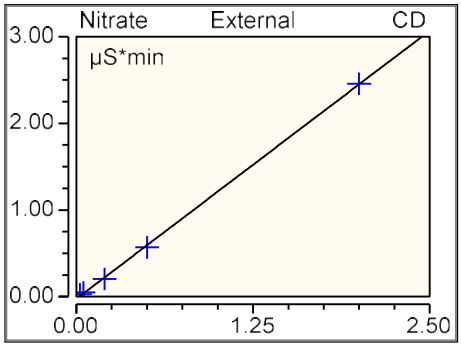
Injection Name	Ret.Time min CD	Area µS*min CD	Height µS CD	Amount CD
	Bromide	Bromide	Bromide	Bromide
STD 0.5	5.970	0.0019	0.013	0.049
STD 1.0	5.967	0.0047	0.029	0.070
STD 2.0	5.970	0.0210	0.124	0.190
STD 3.0	5.970	0.0569	0.343	0.456
STD 4.0	5.937	0.2668	1.717	2.011
STD 5.0	5.883	0.7028	4.665	5.242
Average	5.949			
Rel. Std. Dev.	0.587 %			



Injection Name	Ret.Time min CD	Area µS*min CD	Height µS CD	Amount CD
	Sulfate	Sulfate	Sulfate	Sulfate
STD 0.5	6.757	0.1068	0.564	0.506
STD 1.0	6.753	0.2314	1.245	0.934
STD 2.0	6.723	1.0907	5.700	3.878
STD 3.0	6.683	2.8754	13.786	9.995
STD 4.0	6.517	11.7185	41.601	40.301
STD 5.0	6.330	29.1046	79.210	99.886
Average	6.627			
Rel. Std. Dev.	2.575 %			



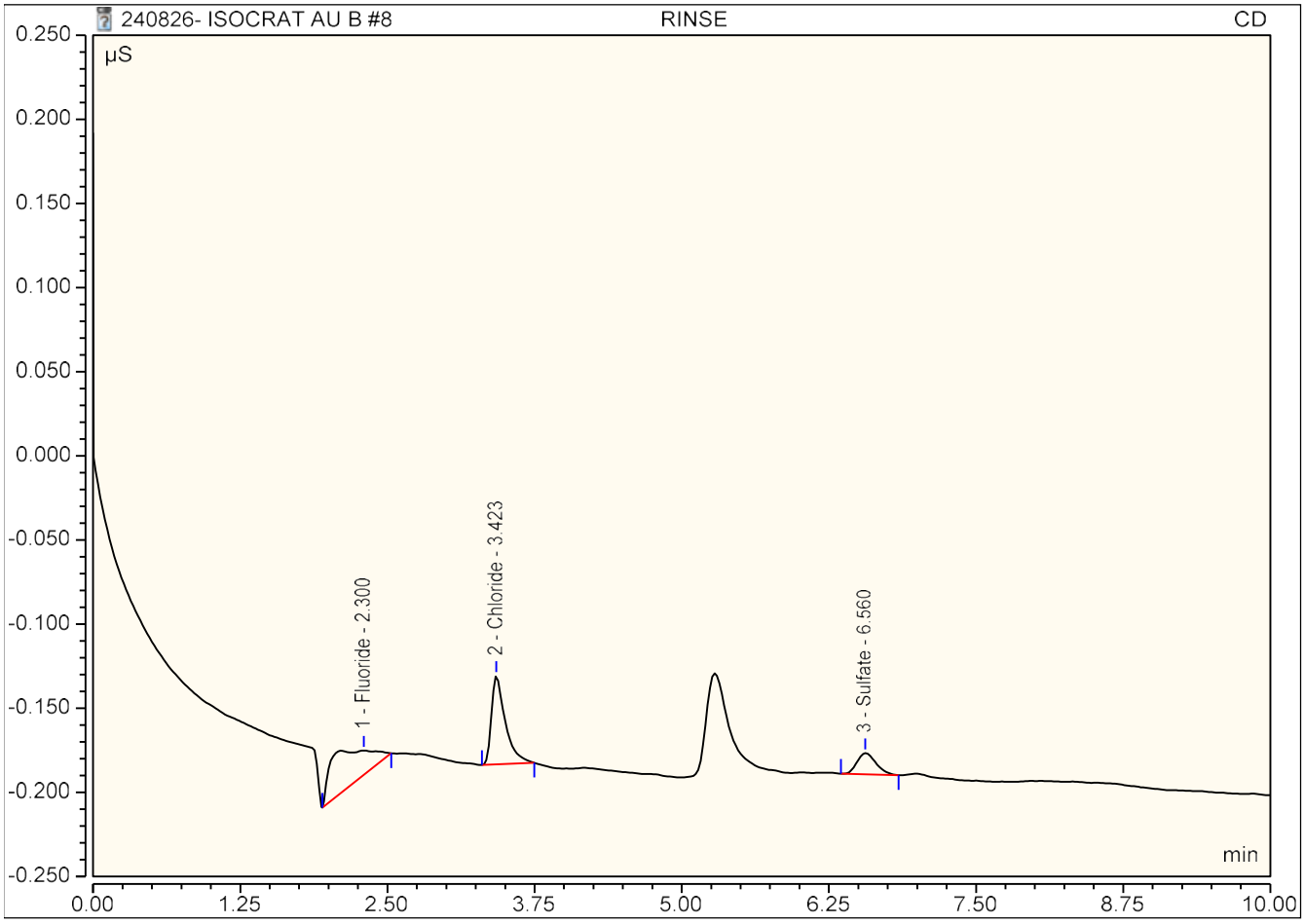
Injection Name	Ret.Time min CD	Area µS*min CD	Height µS CD	Amount CD
	Nitrate	Nitrate	Nitrate	Nitrate
STD 0.5	7.133	0.0262	0.114	0.042
STD 1.0	7.130	0.0491	0.214	0.061
STD 2.0	7.120	0.2045	0.950	0.186
STD 3.0	7.110	0.5684	2.632	0.480
STD 4.0	7.047	2.4581	10.297	2.006
STD 5.0	6.967	6.5187	23.232	5.285
Average	7.084			
Rel. Std. Dev.	0.930 %			



Peak Integration Report

Sample Name:	**RINSE**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 19:25**	*Run Time:*	**10.00**

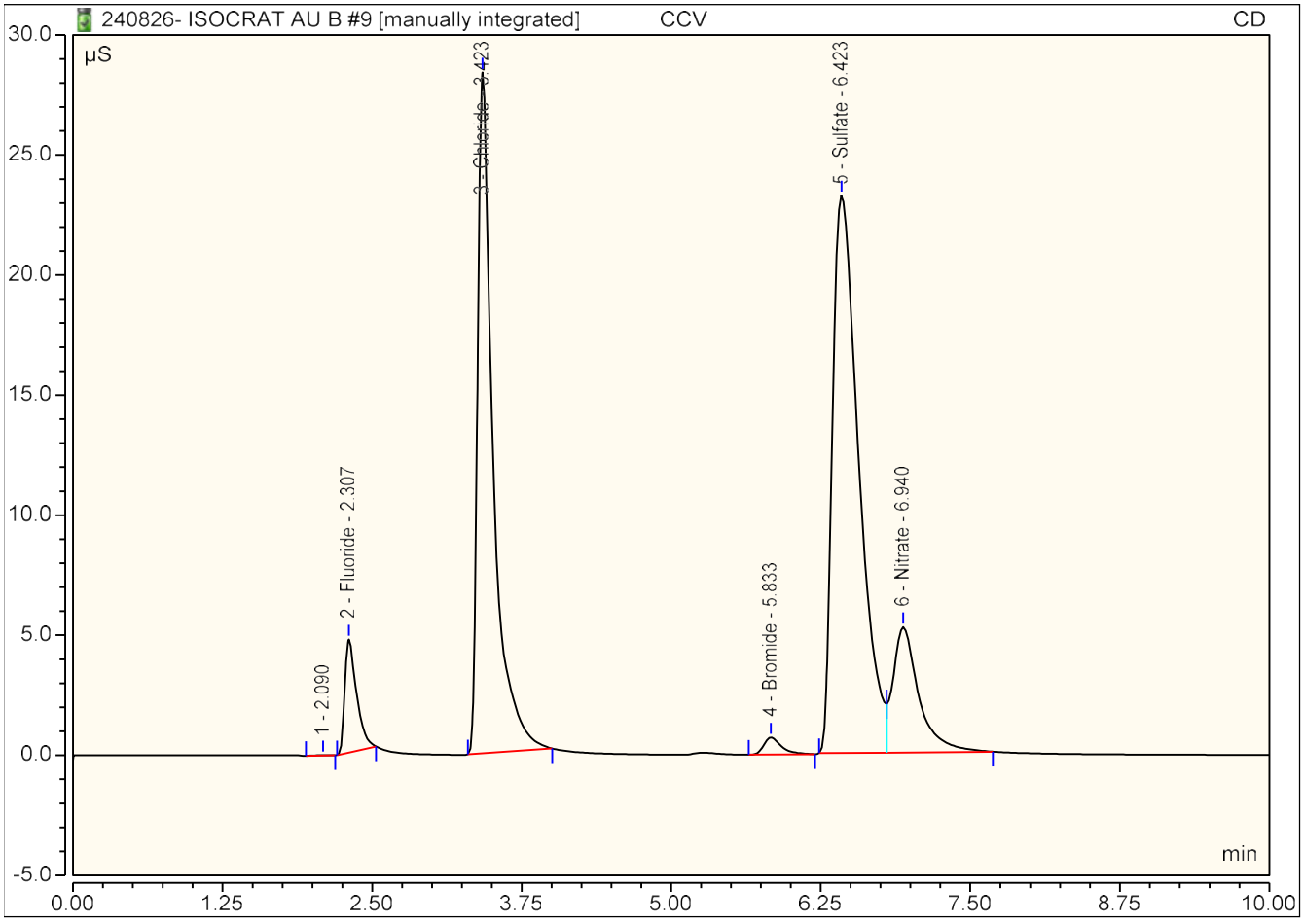
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
1	2.30	**Fluoride**	BMB	0.009	0.014	0.0430
2	3.42	**Chloride**	BMB	0.007	0.053	0.1455
3	6.56	**Sulfate**	BMB	0.002	0.013	0.1485
TOTAL:				0.02	0.08	0.34



Peak Integration Report

Sample Name:	**CCV**	*Inj. Vol.:*	**25.00**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 19:37**	*Run Time:*	**10.00**

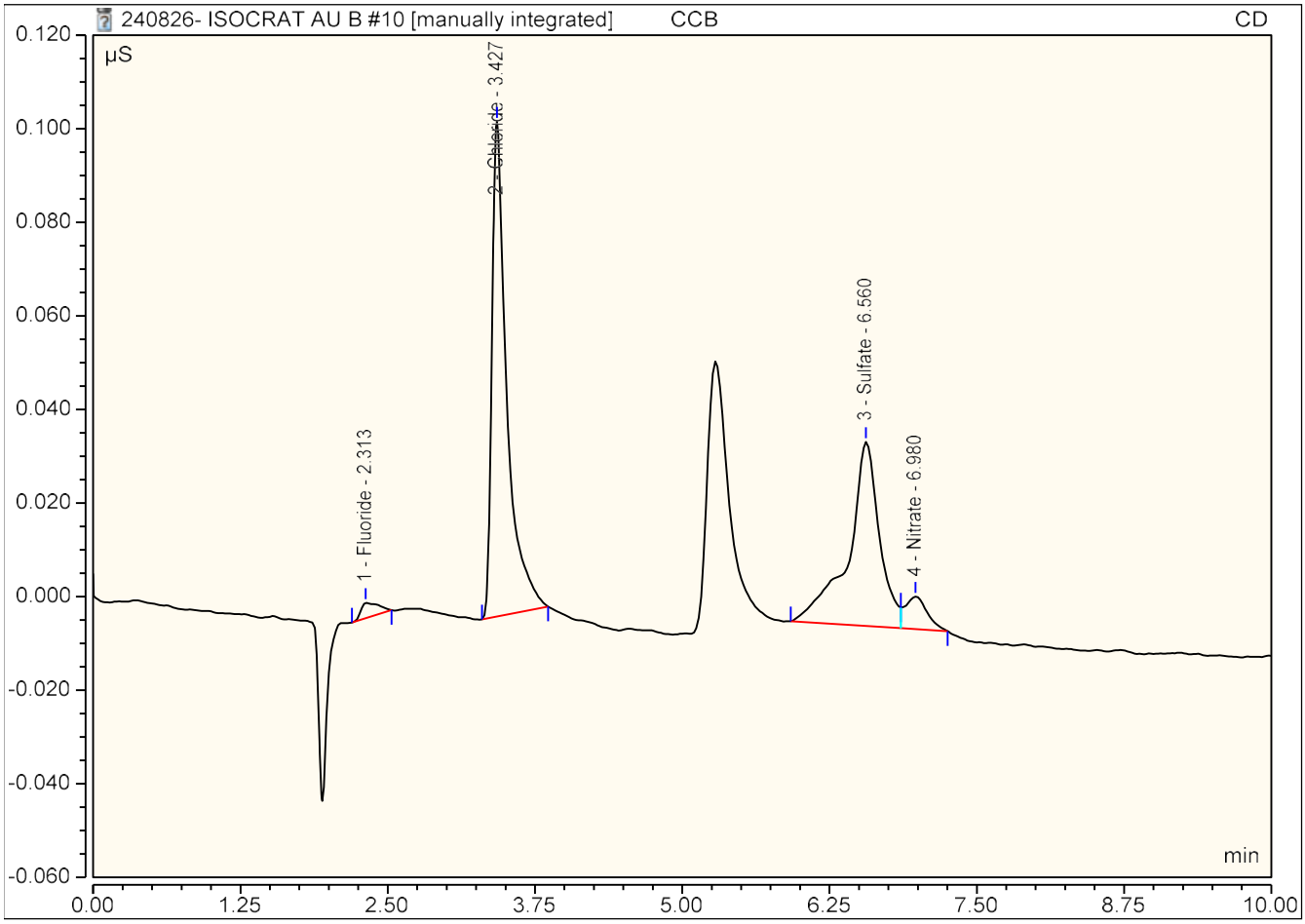
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.536	4.712	0.9721
3	3.42	**Chloride**	BMB*	4.240	28.350	10.3994
4	5.83	**Bromide**	BMB	0.121	0.714	0.9342
5	6.42	**Sulfate**	BM *	5.921	23.229	20.4308
6	6.94	**Nitrate**	MB*	1.314	5.219	1.0822
TOTAL:				12.13	62.22	33.82



Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 19:49**	*Run Time:*	**10.00**

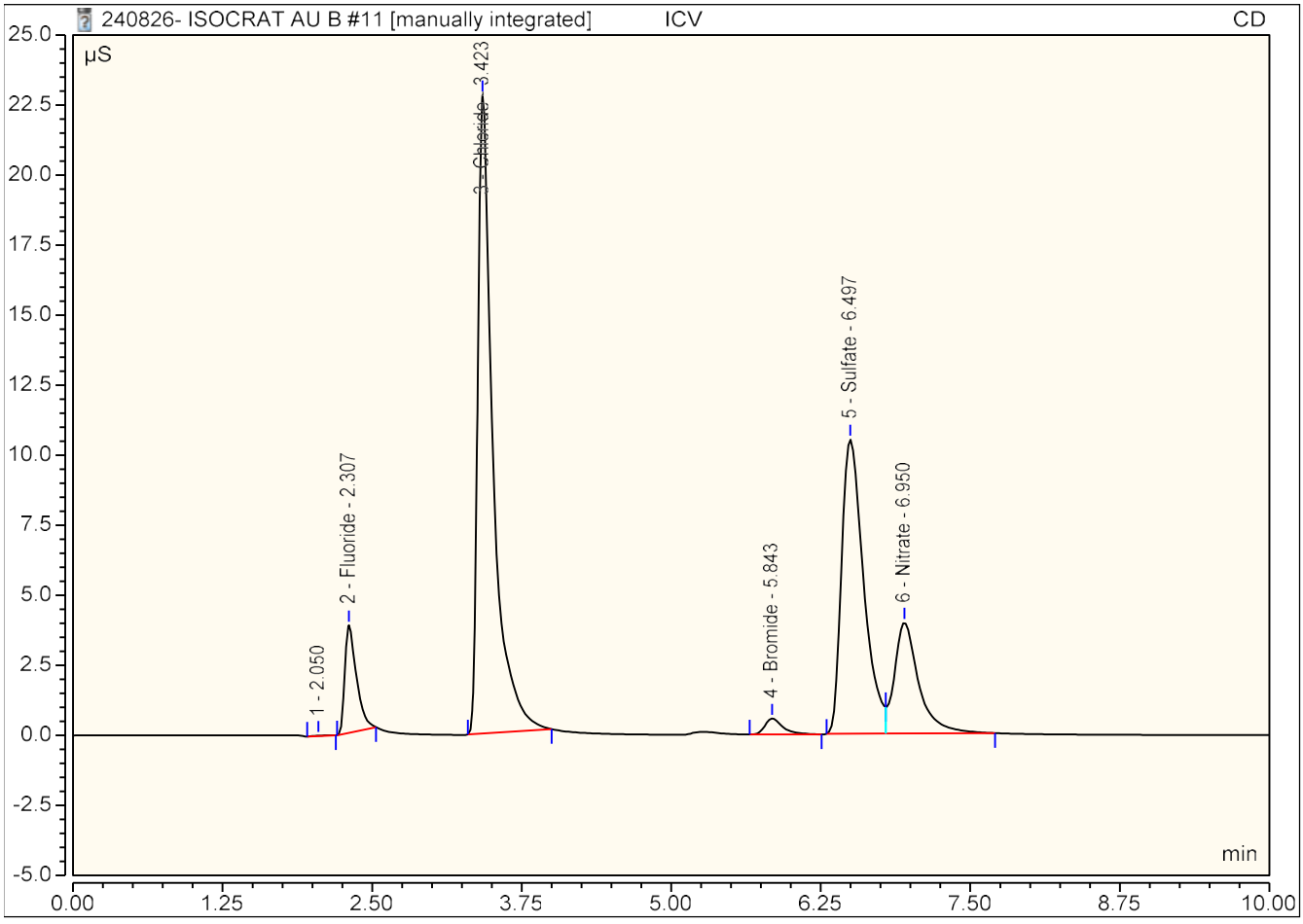
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
1	2.31	**Fluoride**	BMB	0.001	0.003	0.0288
2	3.43	**Chloride**	BMB*	0.015	0.106	0.1654
3	6.56	**Sulfate**	BM *	0.012	0.039	0.1819
4	6.98	**Nitrate**	MB*	0.002	0.007	0.0223
TOTAL:				0.03	0.16	0.40



Peak Integration Report

Sample Name:	**ICV**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 20:01**	*Run Time:*	**10.00**

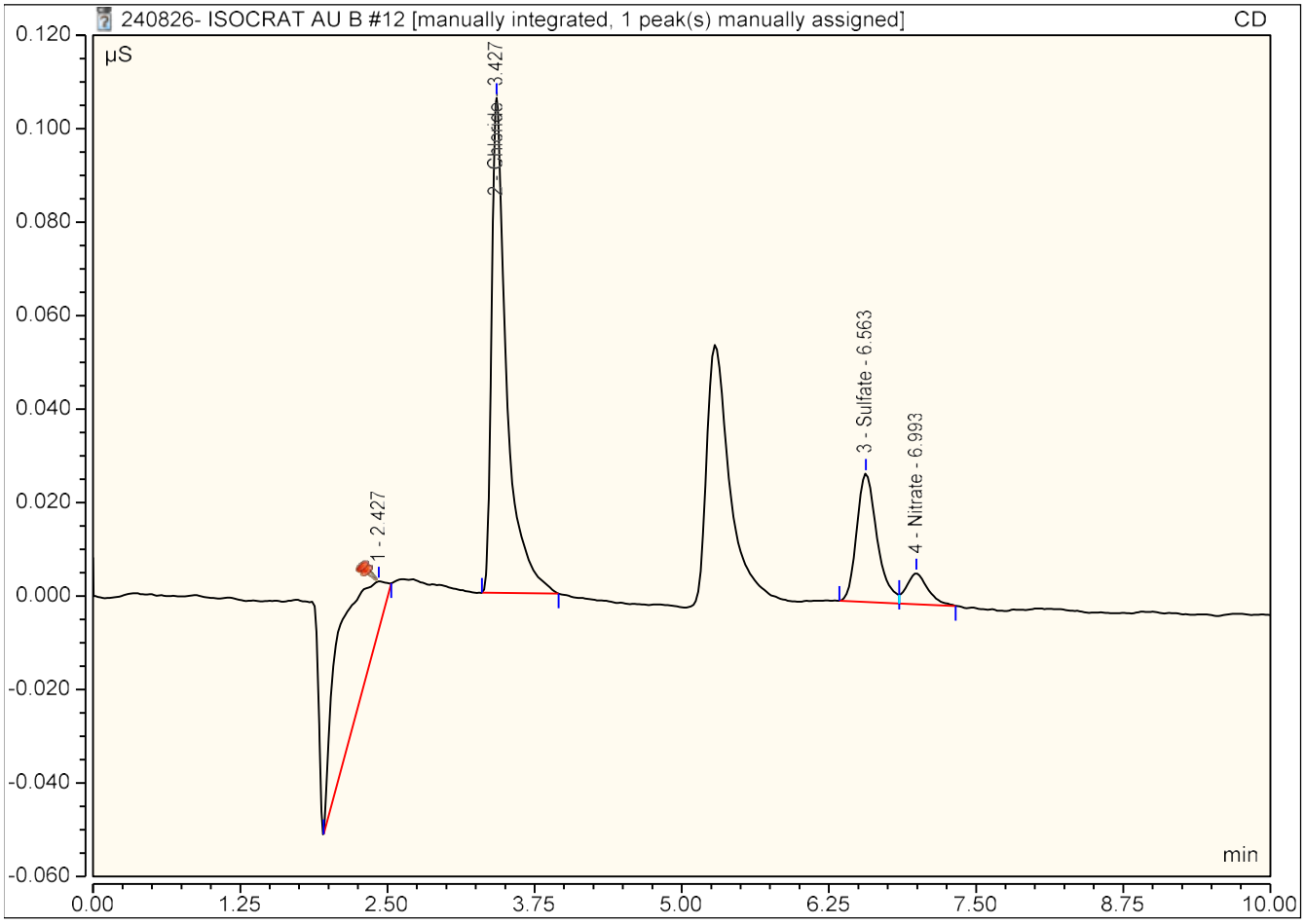
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.431	3.837	0.7870
3	3.42	**Chloride**	BMB*	3.348	22.792	8.2378
4	5.84	**Bromide**	BMB	0.099	0.572	0.7677
5	6.50	**Sulfate**	BM *	2.251	10.503	7.8539
6	6.95	**Nitrate**	MB*	0.930	3.959	0.7719
TOTAL:				7.06	41.66	18.42



Peak Integration Report

Sample Name:	**ICB**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 20:14**	*Run Time:*	**10.00**

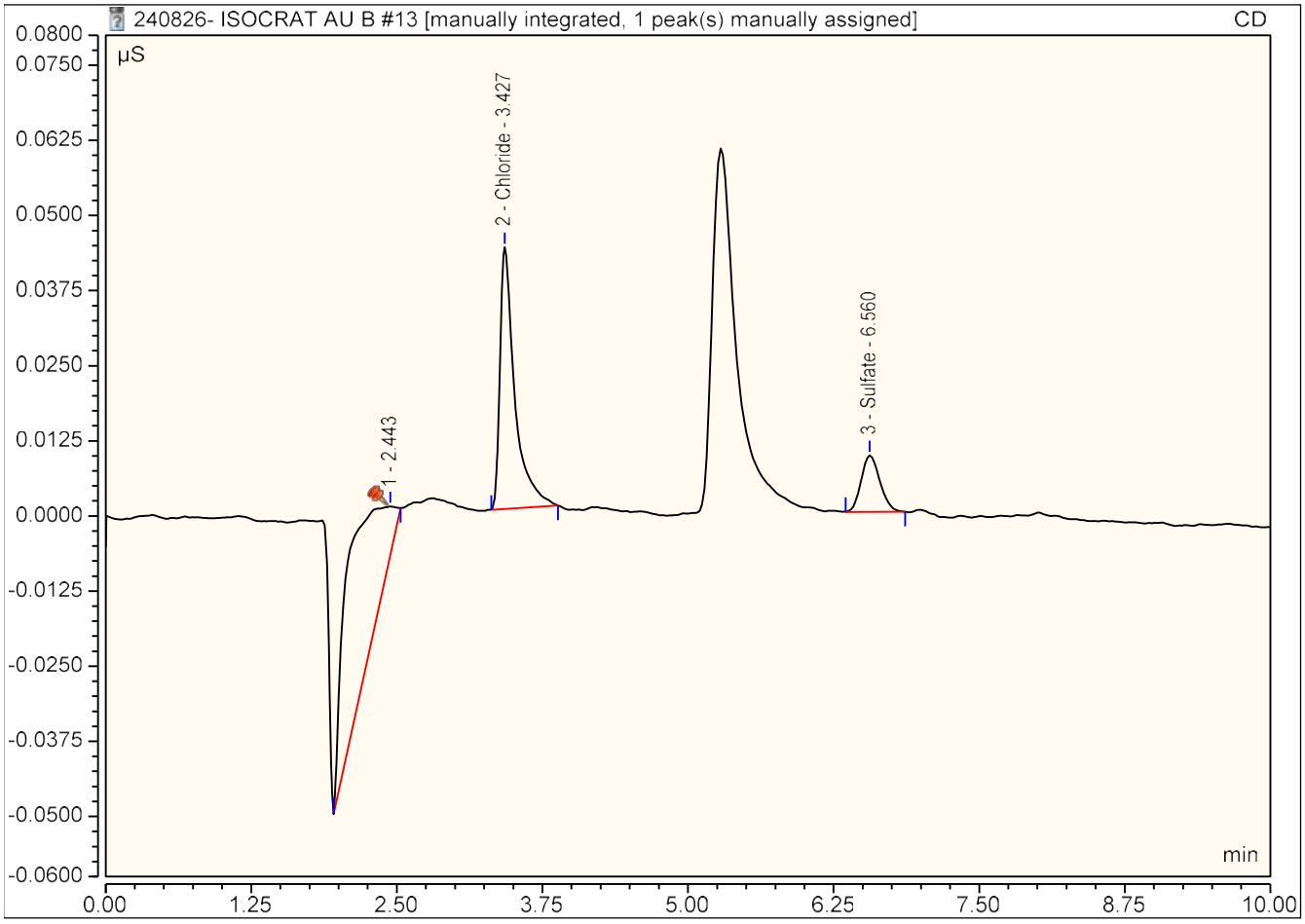
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	3.43	**Chloride**	BMB*	0.016	0.106	0.1661
3	6.56	**Sulfate**	BM *	0.006	0.027	0.1593
4	6.99	**Nitrate**	MB*	0.001	0.007	0.0222
TOTAL:				0.02	0.14	0.35



Peak Integration Report

Sample Name:	**BLK**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 20:26**	*Run Time:*	**10.00**

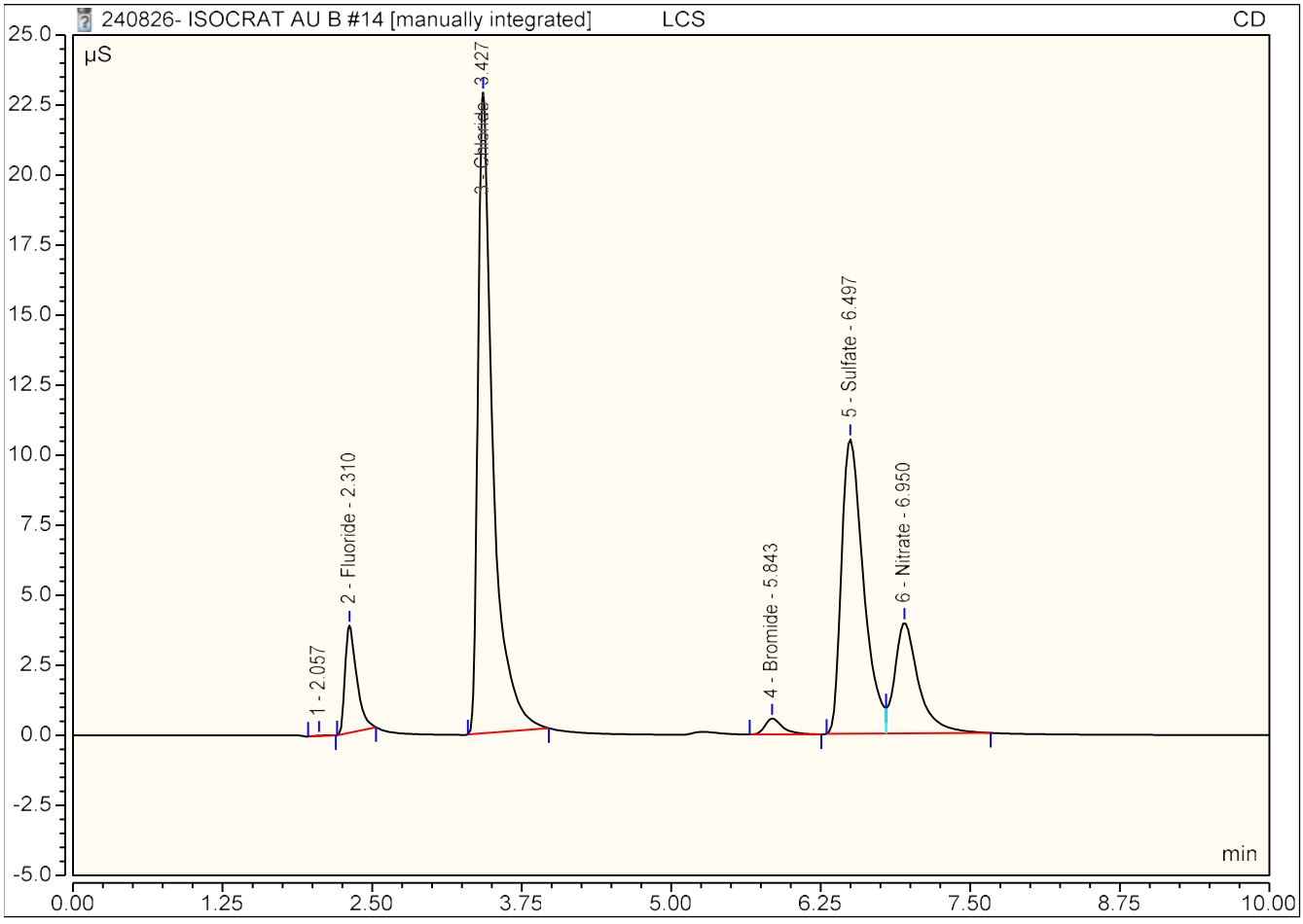
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	3.43	**Chloride**	BMB*	0.006	0.044	0.1435
3	6.56	**Sulfate**	BMB	0.002	0.009	0.1464
TOTAL:				0.01	0.05	0.29



Peak Integration Report

Sample Name:	**LCS**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 20:38**	*Run Time:*	**10.00**

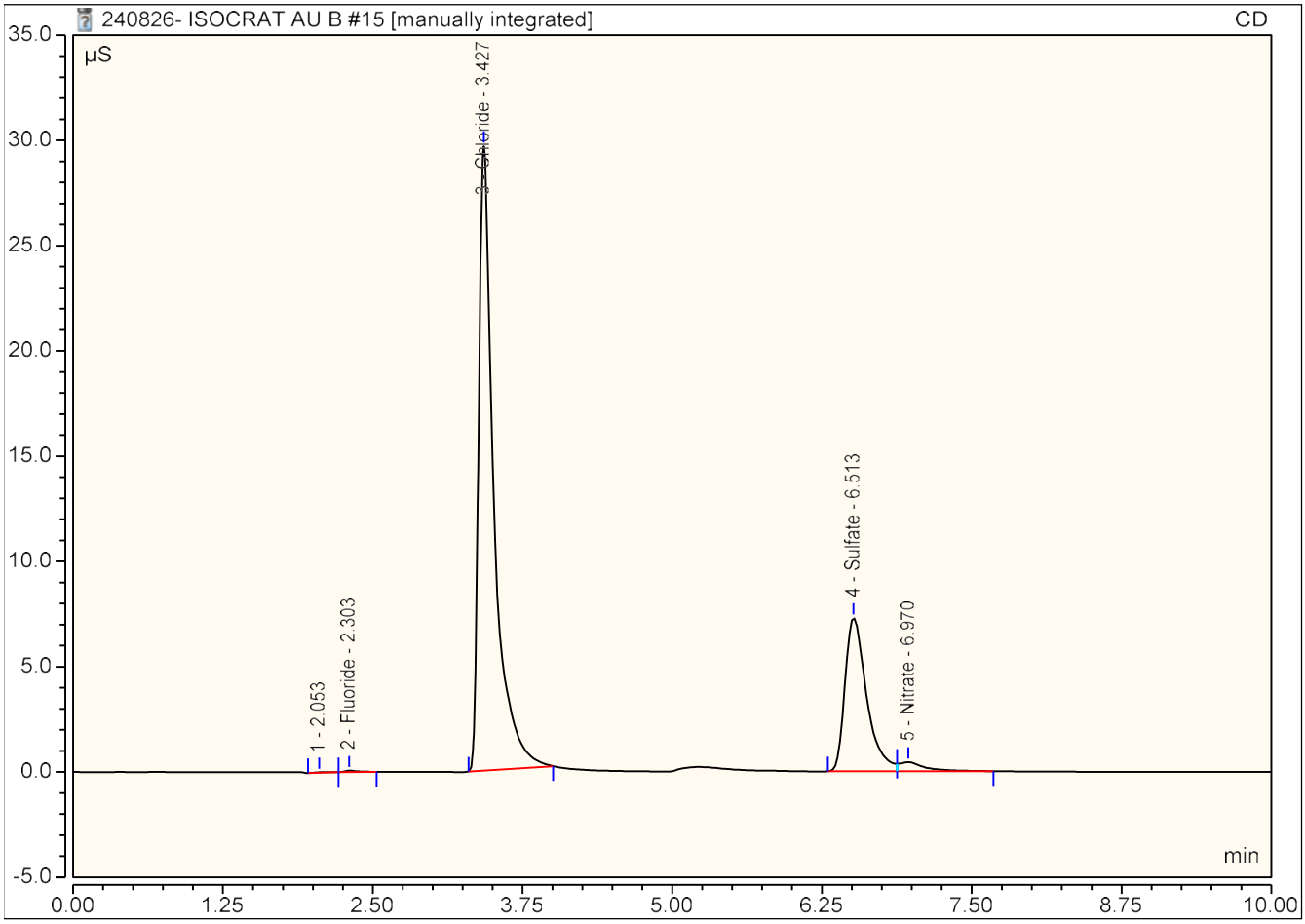
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.428	3.832	0.7829
3	3.43	**Chloride**	BMB*	3.329	22.883	8.1913
4	5.84	**Bromide**	BMB	0.098	0.572	0.7625
5	6.50	**Sulfate**	BM *	2.247	10.516	7.8427
6	6.95	**Nitrate**	MB*	0.916	3.945	0.7607
TOTAL:				7.02	41.75	18.34



Peak Integration Report

Sample Name:	**L2447890-01 F CL SO4 BR**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 20:50**	*Run Time:*	**10.00**

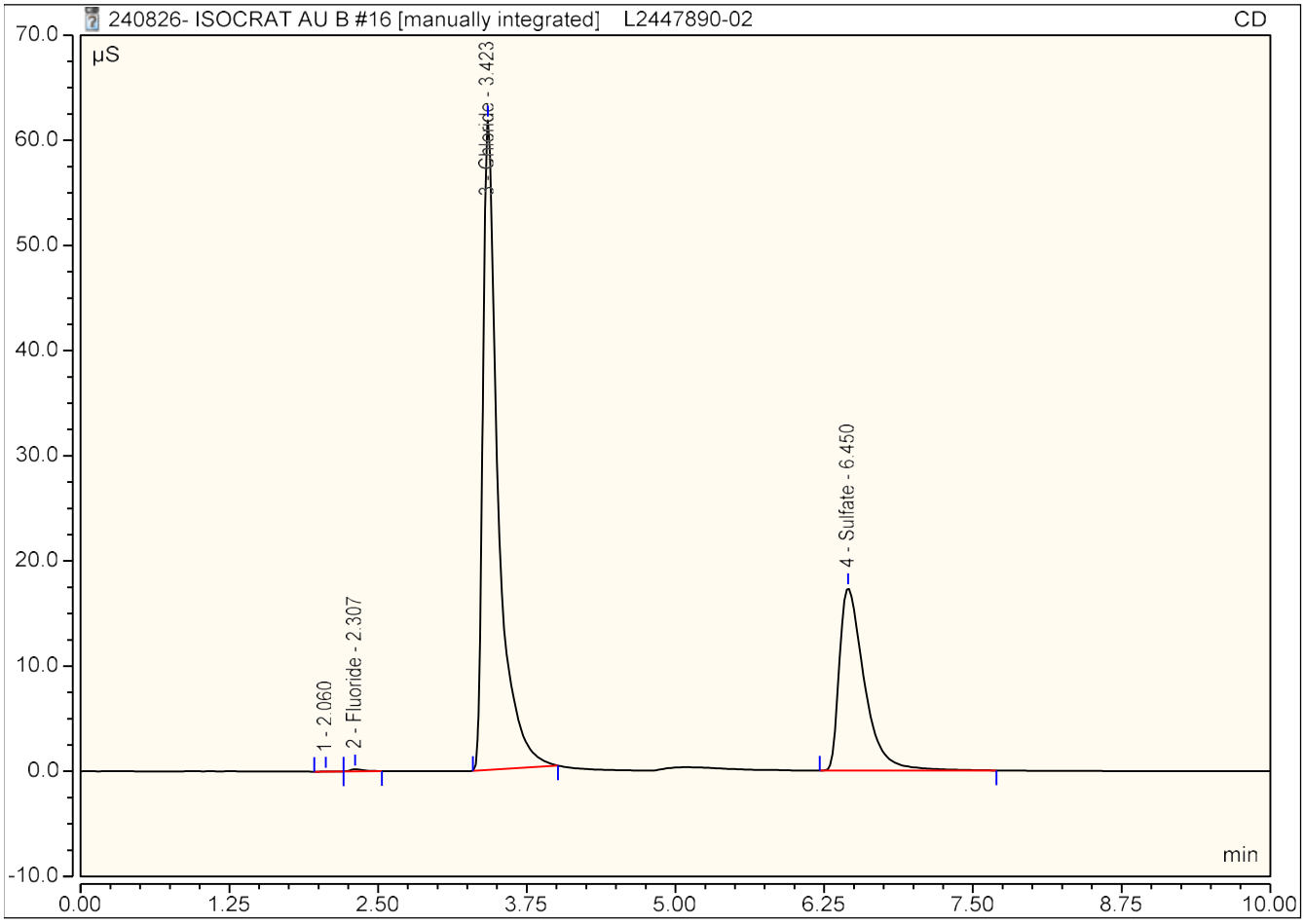
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.30	**Fluoride**	BMB	0.008	0.069	0.0423
3	3.43	**Chloride**	BMB*	4.362	29.664	10.6947
4	6.51	**Sulfate**	BM *	1.526	7.283	5.3707
5	6.97	**Nitrate**	MB*	0.110	0.437	0.1099
TOTAL:				6.01	37.45	16.22



Peak Integration Report

Sample Name:	**L2447890-02**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 21:02**	*Run Time:*	**10.00**

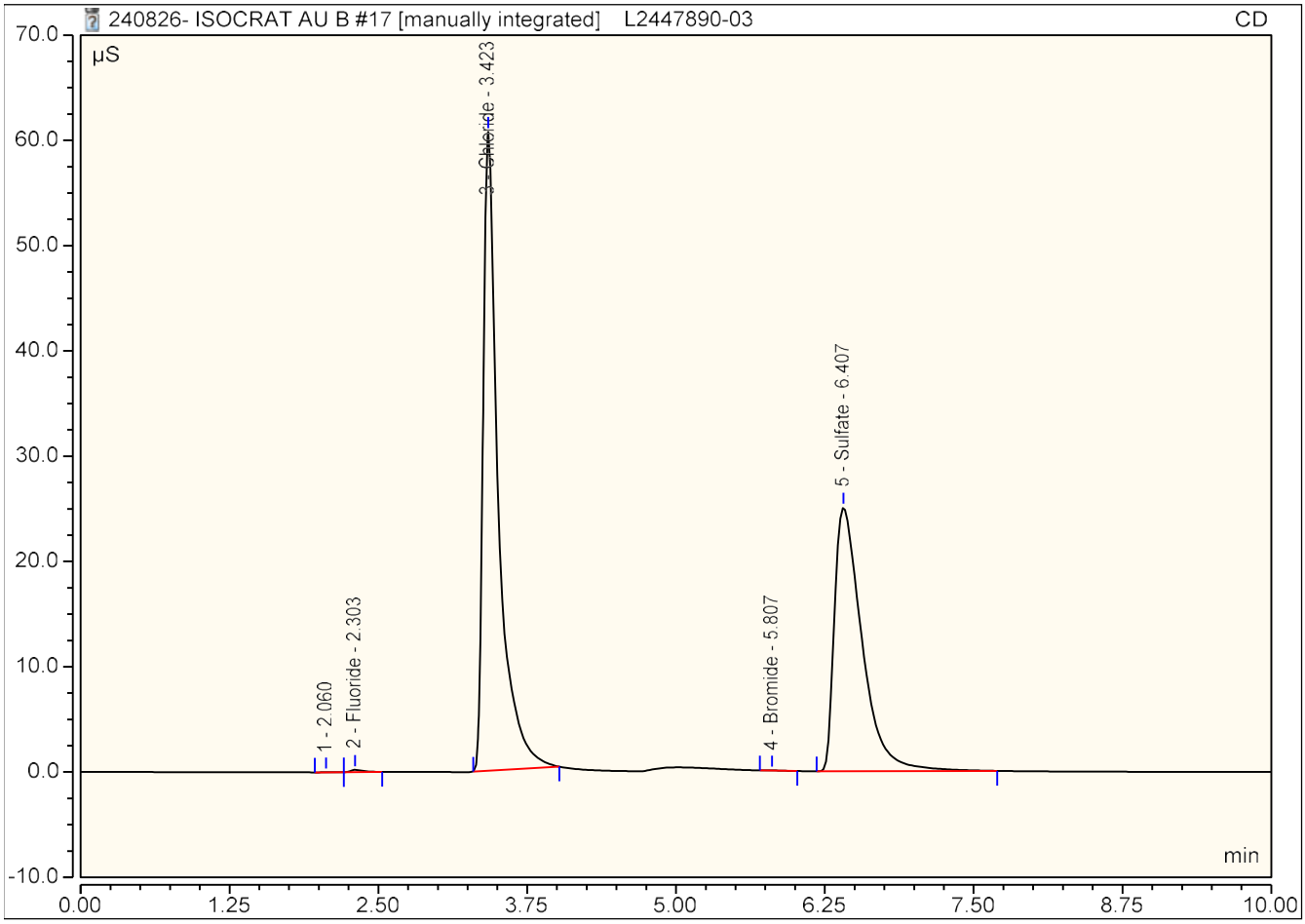
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.023	0.197	0.0679
3	3.42	**Chloride**	BMB*	9.212	61.775	22.4432
4	6.45	**Sulfate**	BMB	4.245	17.370	14.6880
TOTAL:				13.48	79.34	37.20



Peak Integration Report

Sample Name:	**L2447890-03**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 21:14**	*Run Time:*	**10.00**

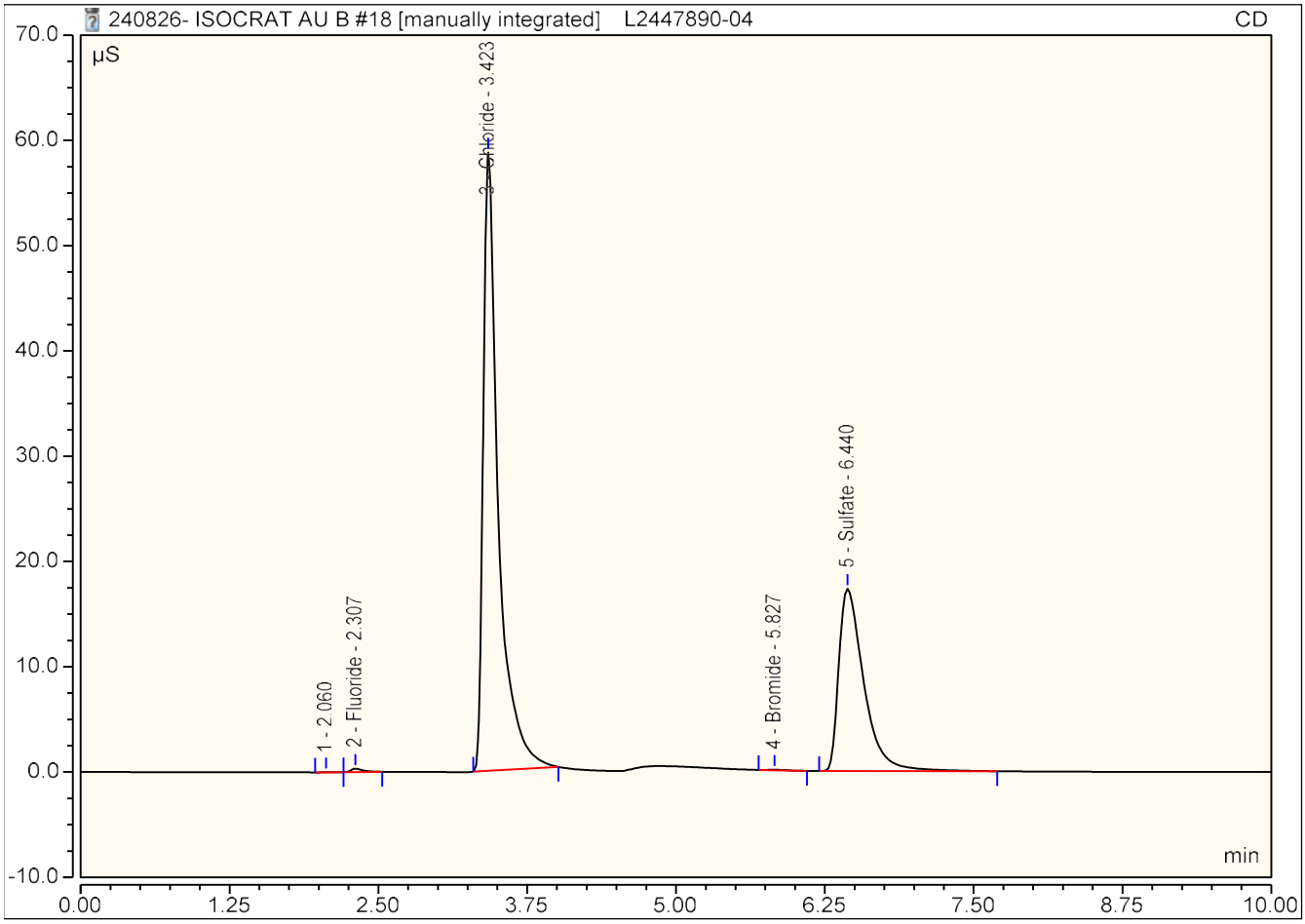
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.30	**Fluoride**	BMB	0.024	0.207	0.0696
3	3.42	**Chloride**	BMB*	8.992	60.698	21.9089
4	5.81	**Bromide**	BMB	0.003	0.021	0.0579
5	6.41	**Sulfate**	BMB	6.726	25.056	23.1906
TOTAL:				15.74	85.98	45.23



Peak Integration Report

Sample Name:	**L2447890-04**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 21:26**	*Run Time:*	**10.00**

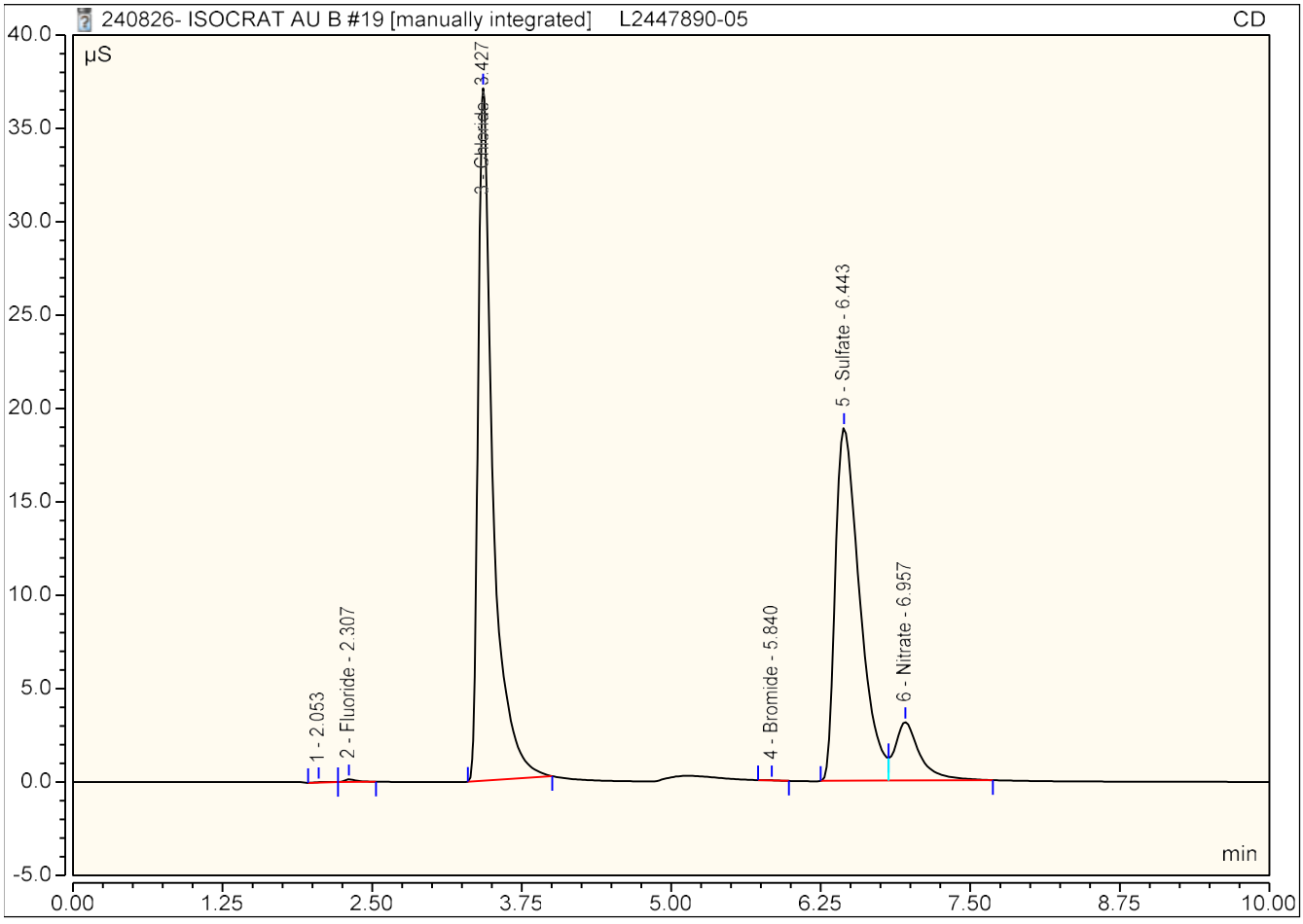
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.036	0.310	0.0907
3	3.42	**Chloride**	BMB*	8.618	58.735	21.0041
4	5.83	**Bromide**	BMB	0.009	0.059	0.1009
5	6.44	**Sulfate**	BMB	4.211	17.321	14.5715
TOTAL:				12.87	76.43	35.77



Peak Integration Report

Sample Name:	**L2447890-05**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 21:38**	*Run Time:*	**10.00**

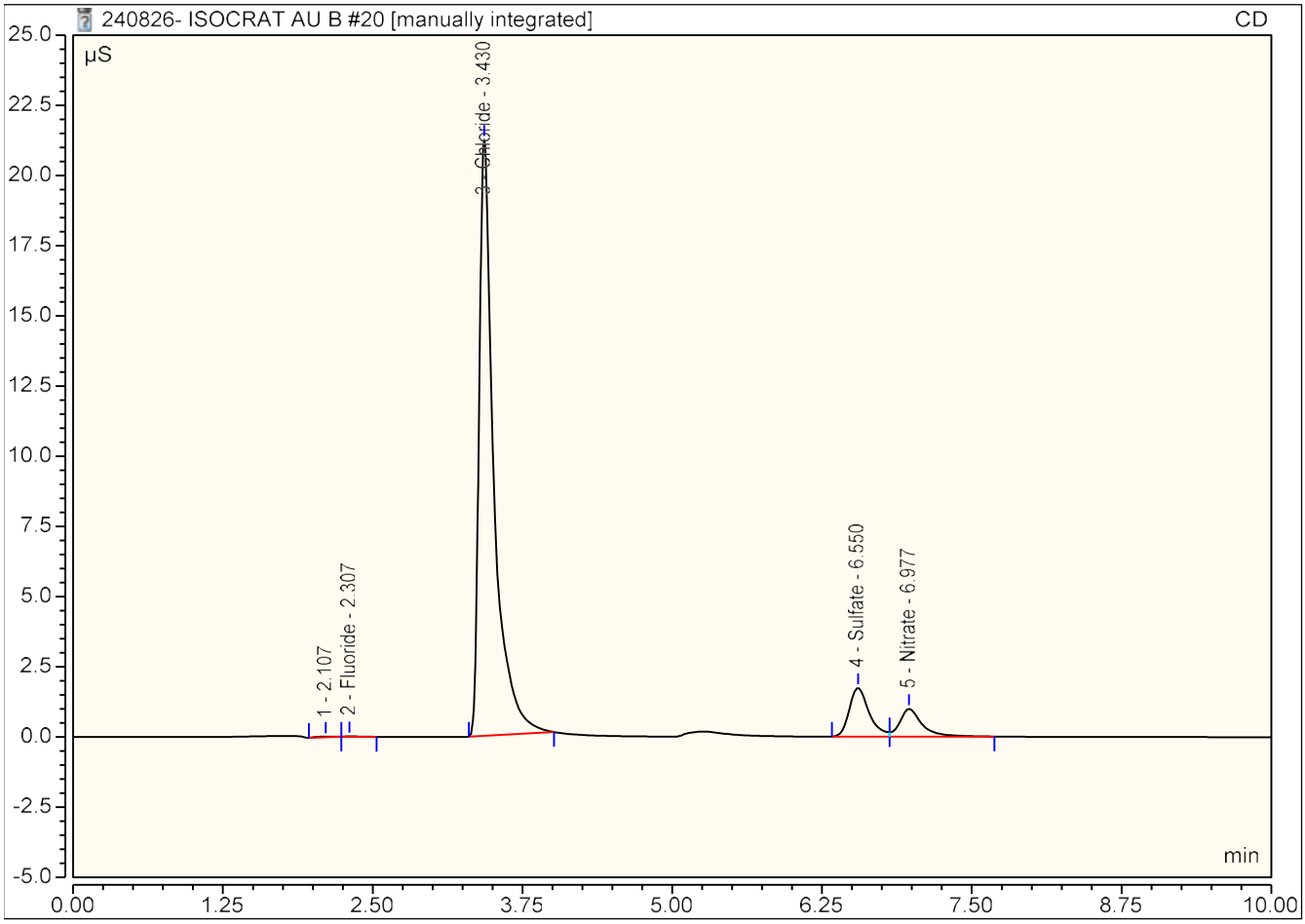
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.016	0.143	0.0568
3	3.43	**Chloride**	BMB*	5.347	37.070	13.0802
4	5.84	**Bromide**	BMB	0.001	0.010	0.0430
5	6.44	**Sulfate**	BM *	4.478	18.895	15.4871
6	6.96	**Nitrate**	MB*	0.755	3.128	0.6303
TOTAL:				10.60	59.25	29.30



Peak Integration Report

Sample Name:	**L2447726-01; 10X CL**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**10.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 21:50**	*Run Time:*	**10.00**

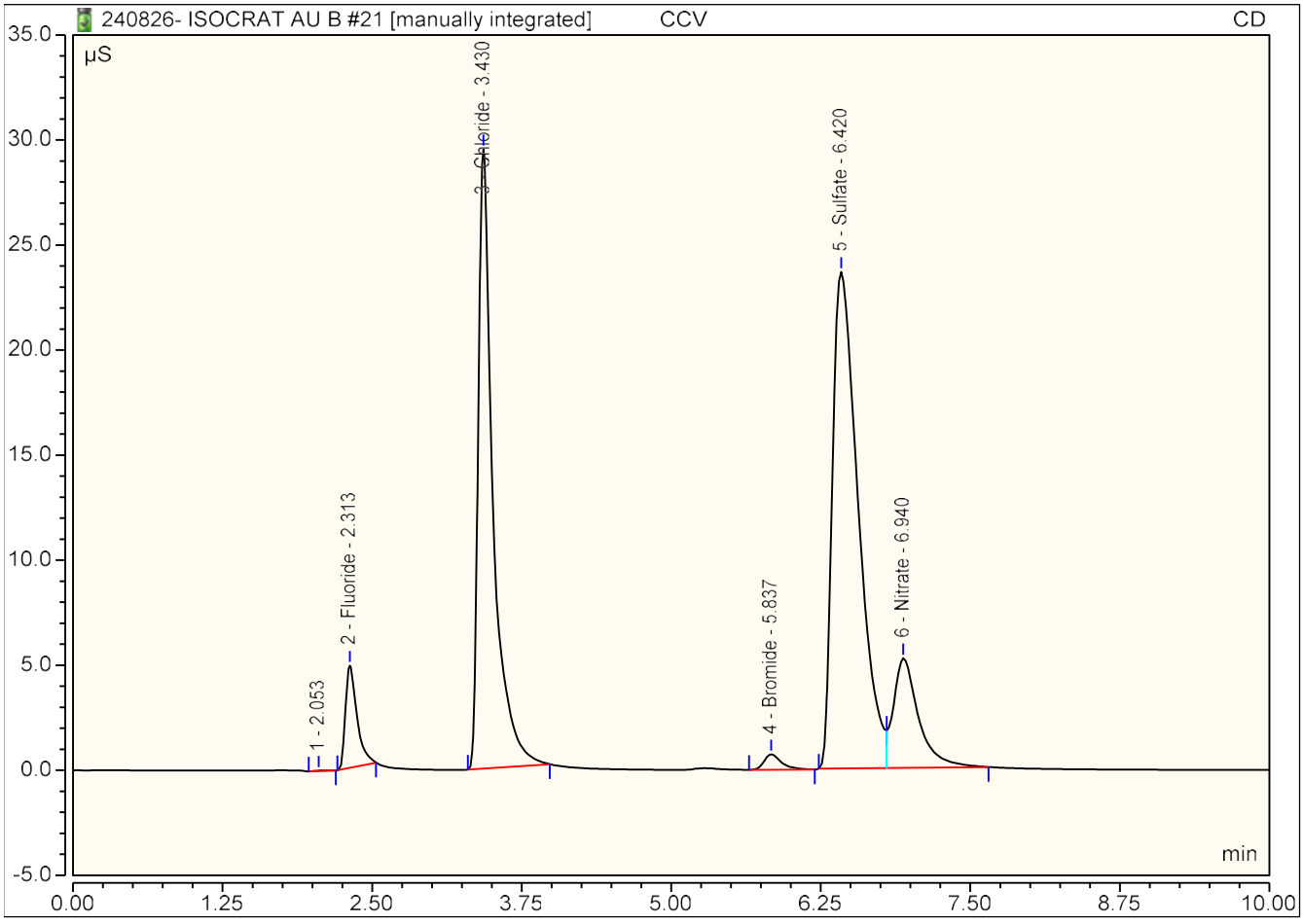
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.003	0.019	0.3232
3	3.43	**Chloride**	BMB*	3.028	21.232	74.6209
4	6.55	**Sulfate**	BM *	0.331	1.734	12.7558
5	6.98	**Nitrate**	MB*	0.212	0.987	1.9243
TOTAL:				3.57	23.97	89.62



Peak Integration Report

Sample Name:	**CCV**	*Inj. Vol.:*	**25.00**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 22:02**	*Run Time:*	**10.00**

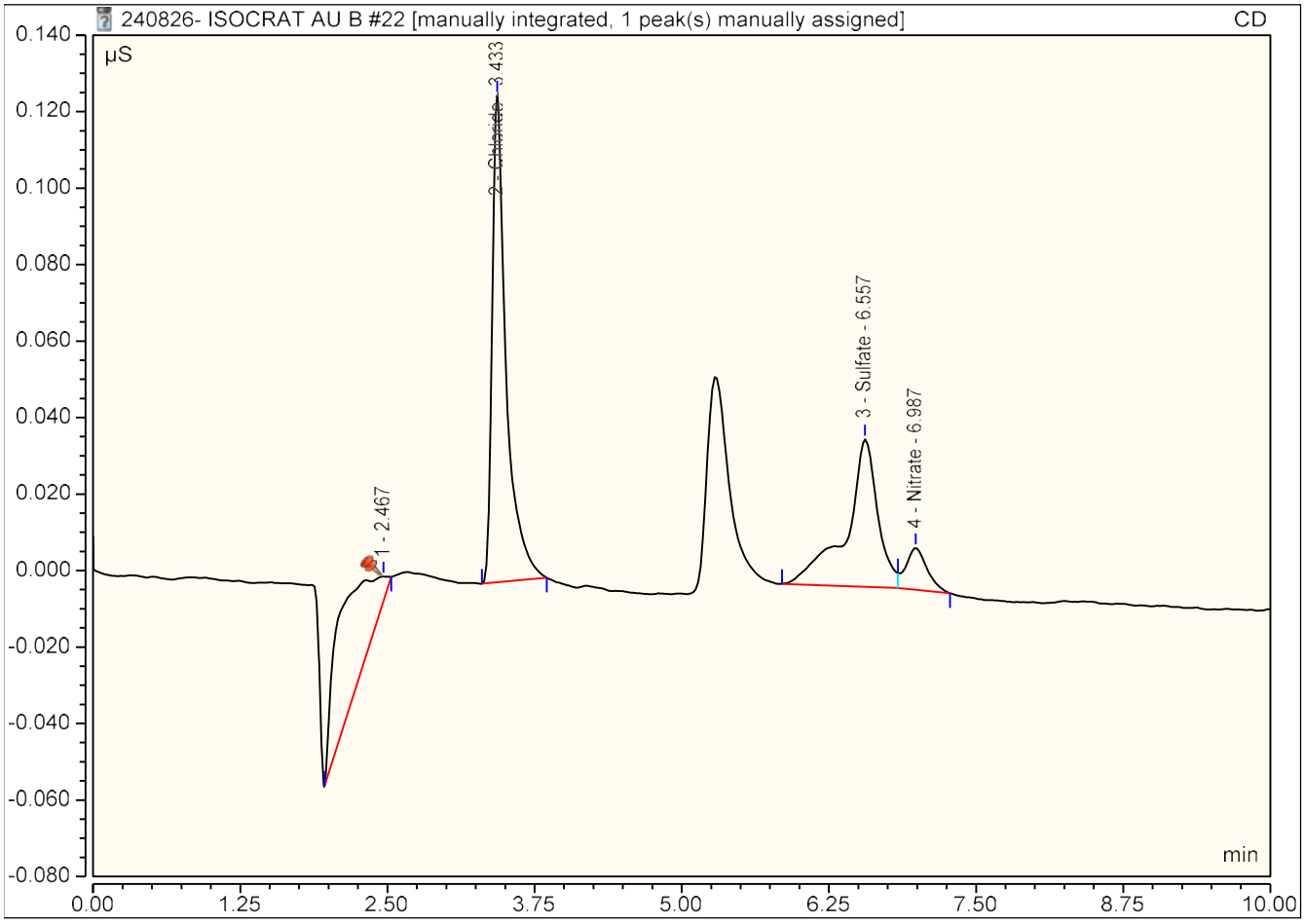
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.539	4.868	0.9788
3	3.43	**Chloride**	BMB*	4.216	29.482	10.3407
4	5.84	**Bromide**	BMB	0.123	0.736	0.9435
5	6.42	**Sulfate**	BM *	5.919	23.637	20.4250
6	6.94	**Nitrate**	MB*	1.274	5.217	1.0494
TOTAL:				12.07	63.94	33.74



Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 22:15**	*Run Time:*	**10.00**

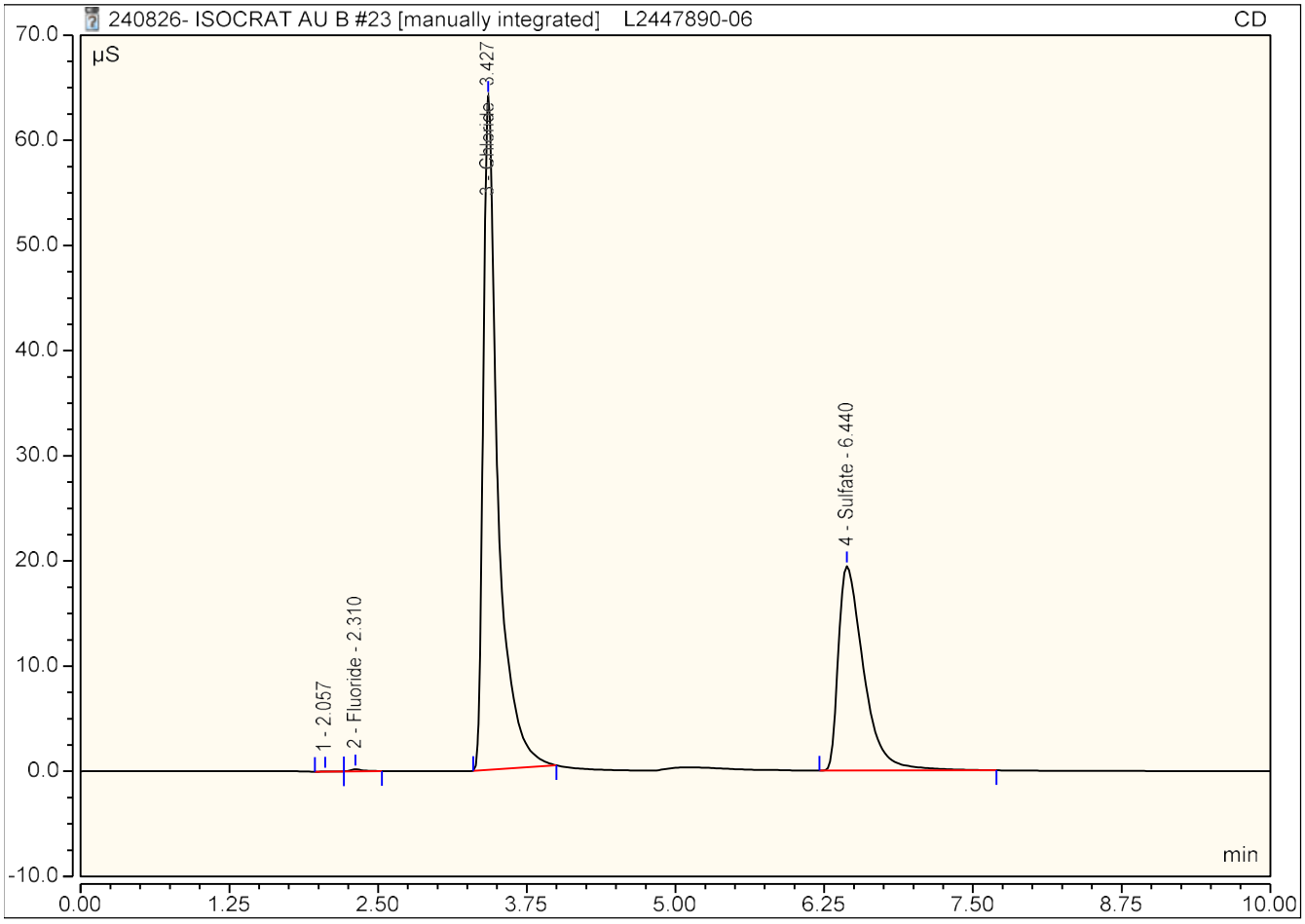
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	3.43	**Chloride**	BMB*	0.017	0.127	0.1703
3	6.56	**Sulfate**	BM *	0.012	0.039	0.1817
4	6.99	**Nitrate**	MB*	0.002	0.011	0.0229
TOTAL:				0.03	0.18	0.37



Peak Integration Report

Sample Name:	**L2447890-06**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 22:27**	*Run Time:*	**10.00**

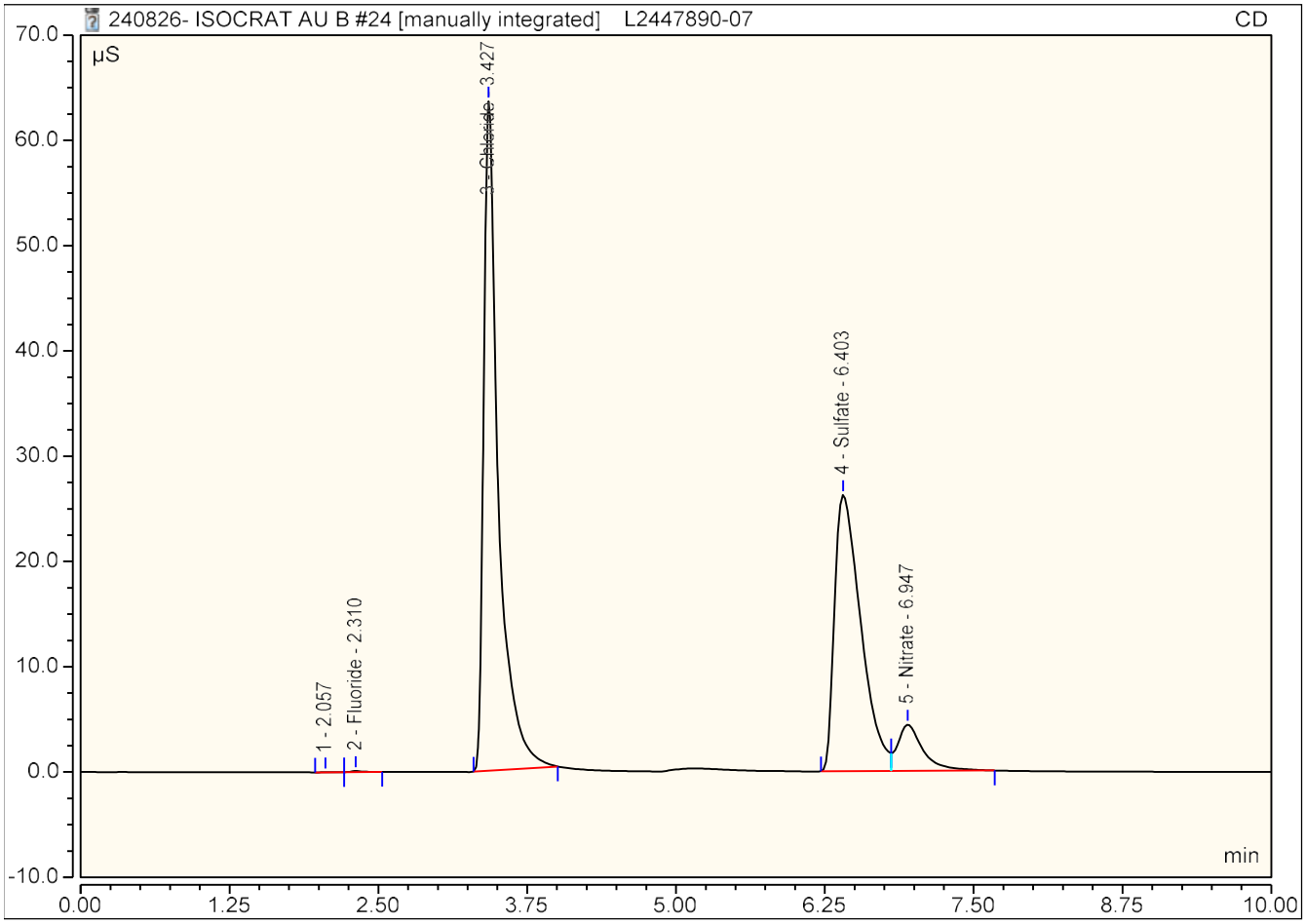
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.021	0.188	0.0652
3	3.43	**Chloride**	BMB*	9.232	64.095	22.4901
4	6.44	**Sulfate**	BMB	4.803	19.456	16.6015
TOTAL:				14.06	83.74	39.16



Peak Integration Report

Sample Name:	**L2447890-07**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 22:39**	*Run Time:*	**10.00**

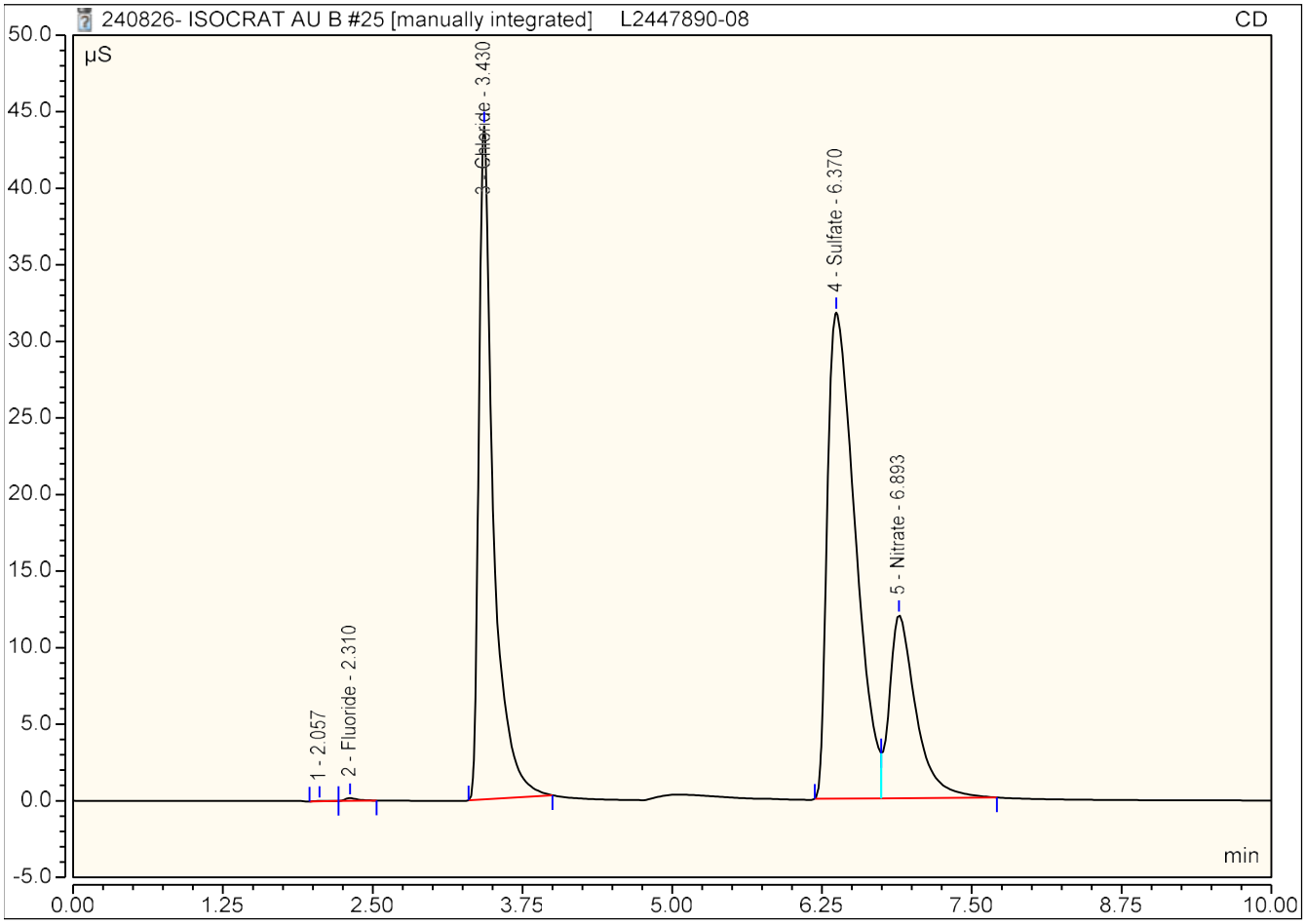
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.011	0.099	0.0477
3	3.43	**Chloride**	BMB*	9.132	63.583	22.2498
4	6.40	**Sulfate**	BM *	6.721	26.239	23.1740
5	6.95	**Nitrate**	MB*	1.082	4.397	0.8944
TOTAL:				16.95	94.32	46.37



Peak Integration Report

Sample Name:	**L2447890-08**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 22:51**	*Run Time:*	**10.00**

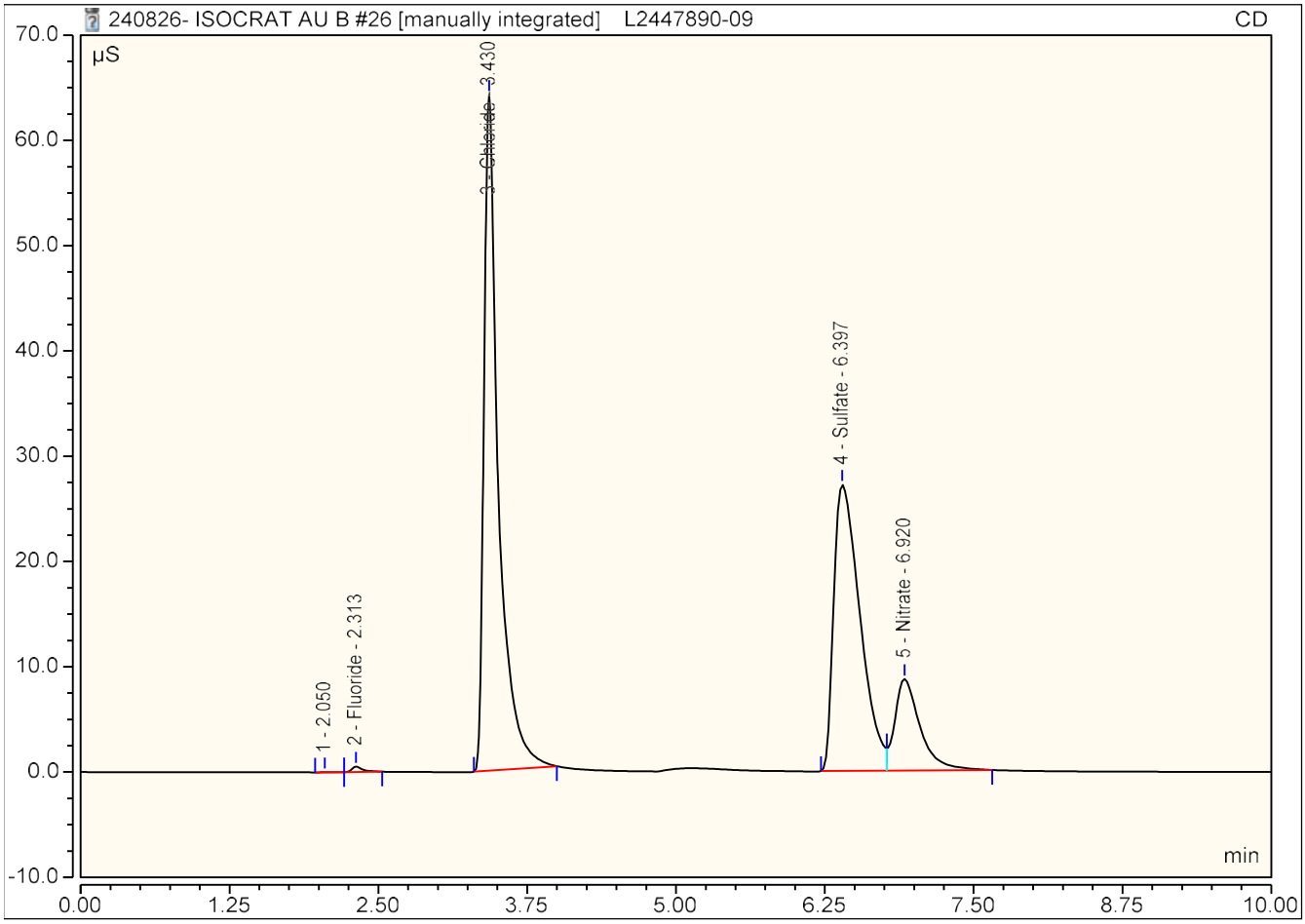
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.020	0.182	0.0634
3	3.43	**Chloride**	BMB*	6.206	43.967	15.1617
4	6.37	**Sulfate**	BM *	8.544	31.762	29.4216
5	6.89	**Nitrate**	MB*	3.074	11.953	2.5032
TOTAL:				17.84	87.86	47.15



Peak Integration Report

Sample Name:	**L2447890-09**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 23:03**	*Run Time:*	**10.00**

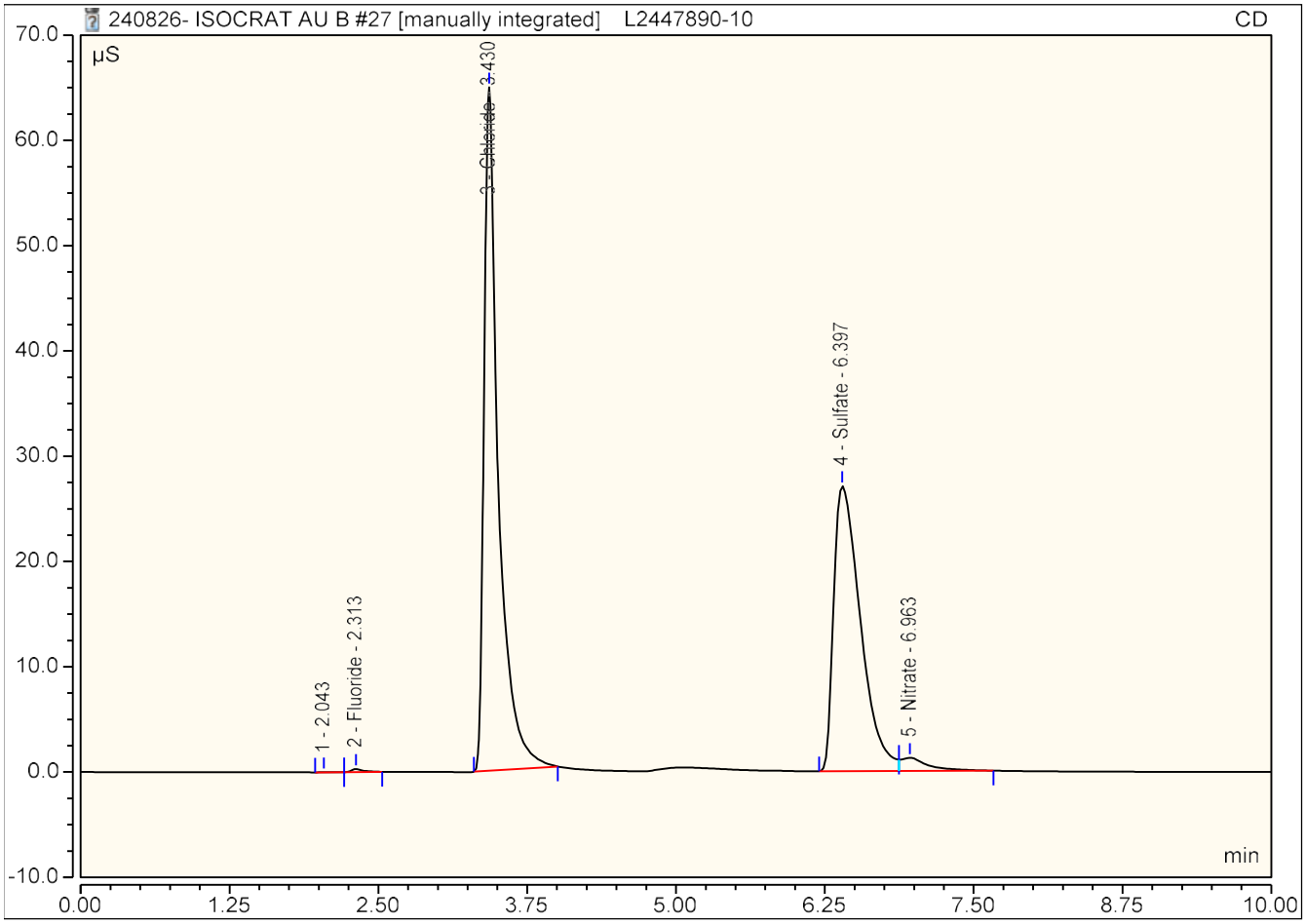
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.053	0.507	0.1221
3	3.43	**Chloride**	BMB*	9.053	64.193	22.0577
4	6.40	**Sulfate**	BM *	6.942	27.187	23.9316
5	6.92	**Nitrate**	MB*	2.139	8.689	1.7485
TOTAL:				18.19	100.57	47.86



Peak Integration Report

Sample Name:	**L2447890-10**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 23:15**	*Run Time:*	**10.00**

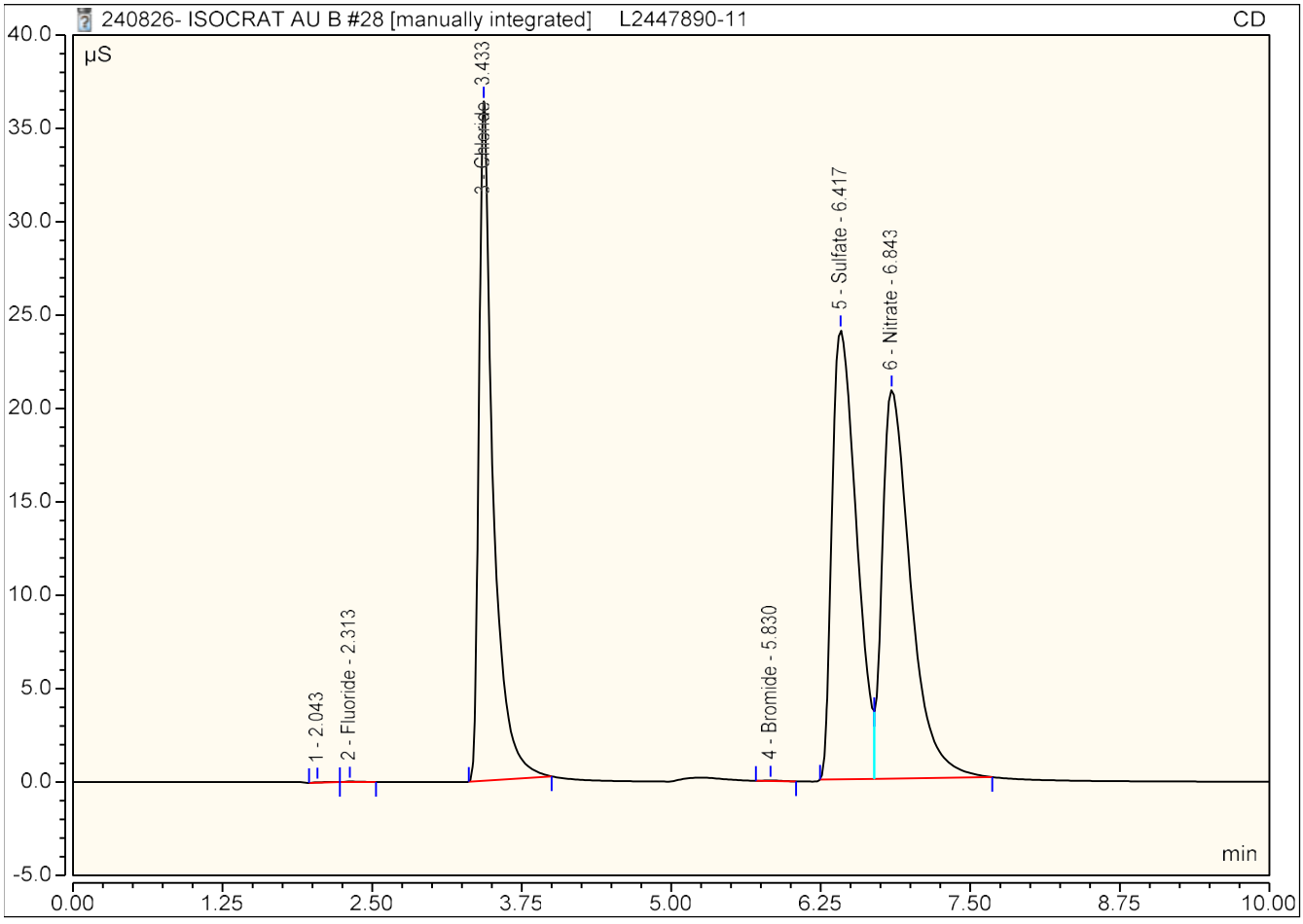
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.032	0.296	0.0836
3	3.43	**Chloride**	BMB*	9.078	64.920	22.1183
4	6.40	**Sulfate**	BM *	7.053	27.086	24.3106
5	6.96	**Nitrate**	MB*	0.332	1.251	0.2894
TOTAL:				16.49	93.55	46.80



Peak Integration Report

Sample Name:	**L2447890-11**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 23:27**	*Run Time:*	**10.00**

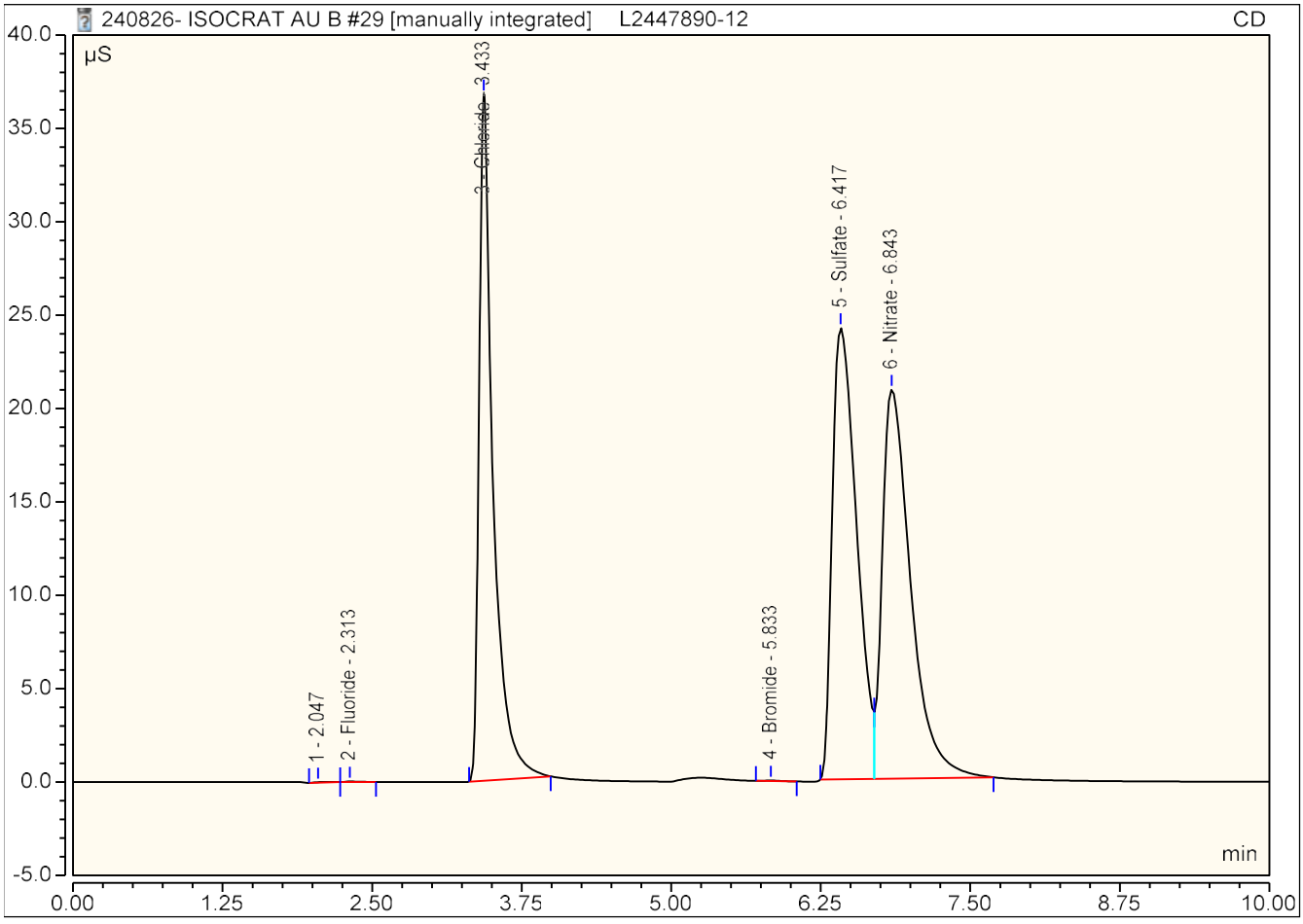
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.004	0.034	0.0347
3	3.43	**Chloride**	BMB*	5.013	36.368	12.2705
4	5.83	**Bromide**	BMB	0.005	0.036	0.0722
5	6.42	**Sulfate**	BM *	5.688	24.055	19.6335
6	6.84	**Nitrate**	MB*	5.762	20.802	4.6733
TOTAL:				16.47	81.29	36.68



Peak Integration Report

Sample Name:	**L2447890-12**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 23:39**	*Run Time:*	**10.00**

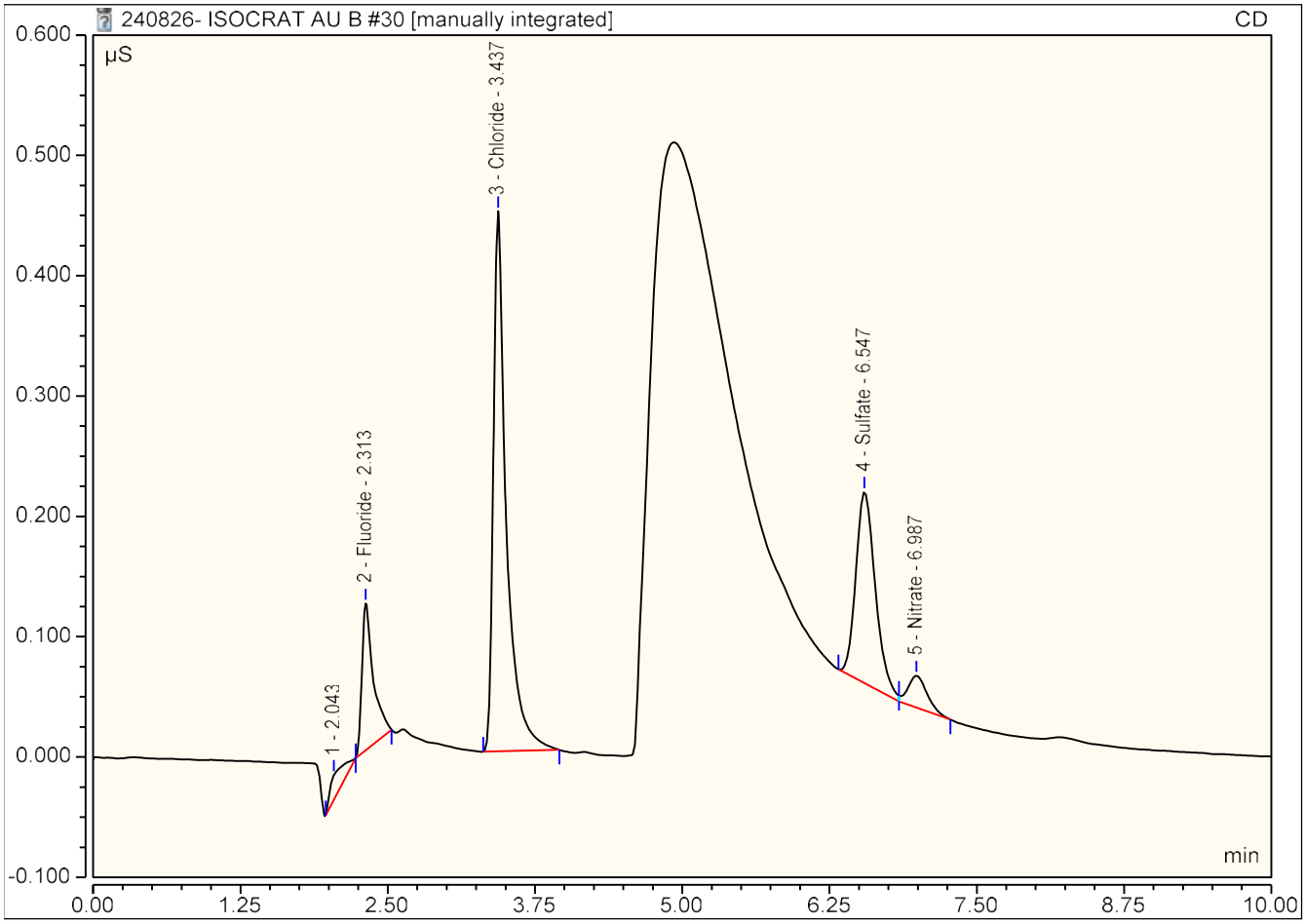
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.004	0.034	0.0347
3	3.43	**Chloride**	BMB*	4.994	36.757	12.2264
4	5.83	**Bromide**	BMB	0.005	0.036	0.0728
5	6.42	**Sulfate**	BM *	5.682	24.170	19.6146
6	6.84	**Nitrate**	MB*	5.752	20.836	4.6655
TOTAL:				16.44	81.83	36.61



Peak Integration Report

Sample Name:	**L2448414-01 CL SO4 BR**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**26-Aug-2024 / 23:51**	*Run Time:*	**10.00**

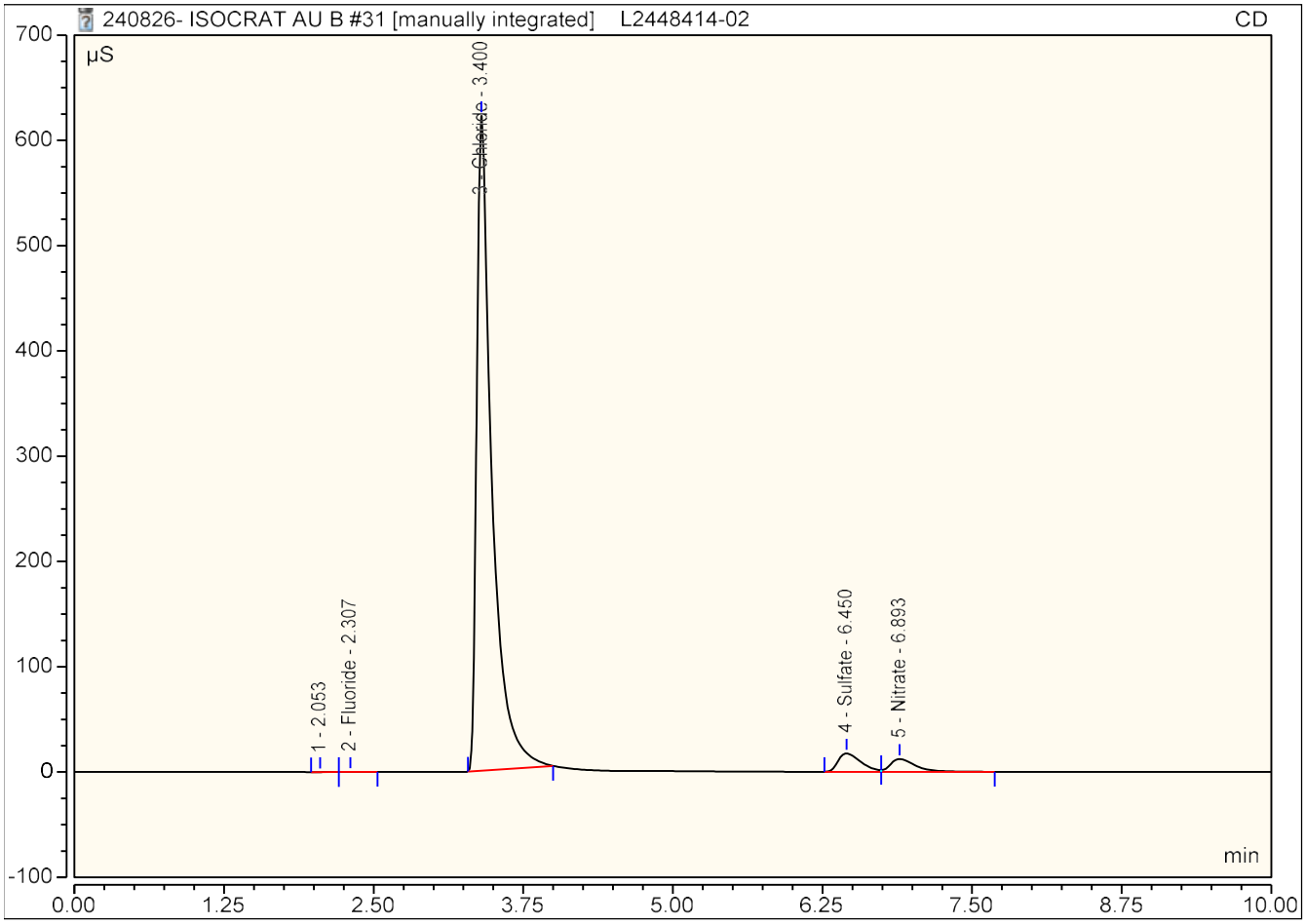
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.014	0.122	0.0518
3	3.44	**Chloride**	BMB*	0.057	0.449	0.2668
4	6.55	**Sulfate**	BM *	0.031	0.159	0.2455
5	6.99	**Nitrate**	MB*	0.005	0.027	0.0251
TOTAL:				0.11	0.76	0.59



Peak Integration Report

Sample Name:	**L2448414-02**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 00:03**	*Run Time:*	**10.00**

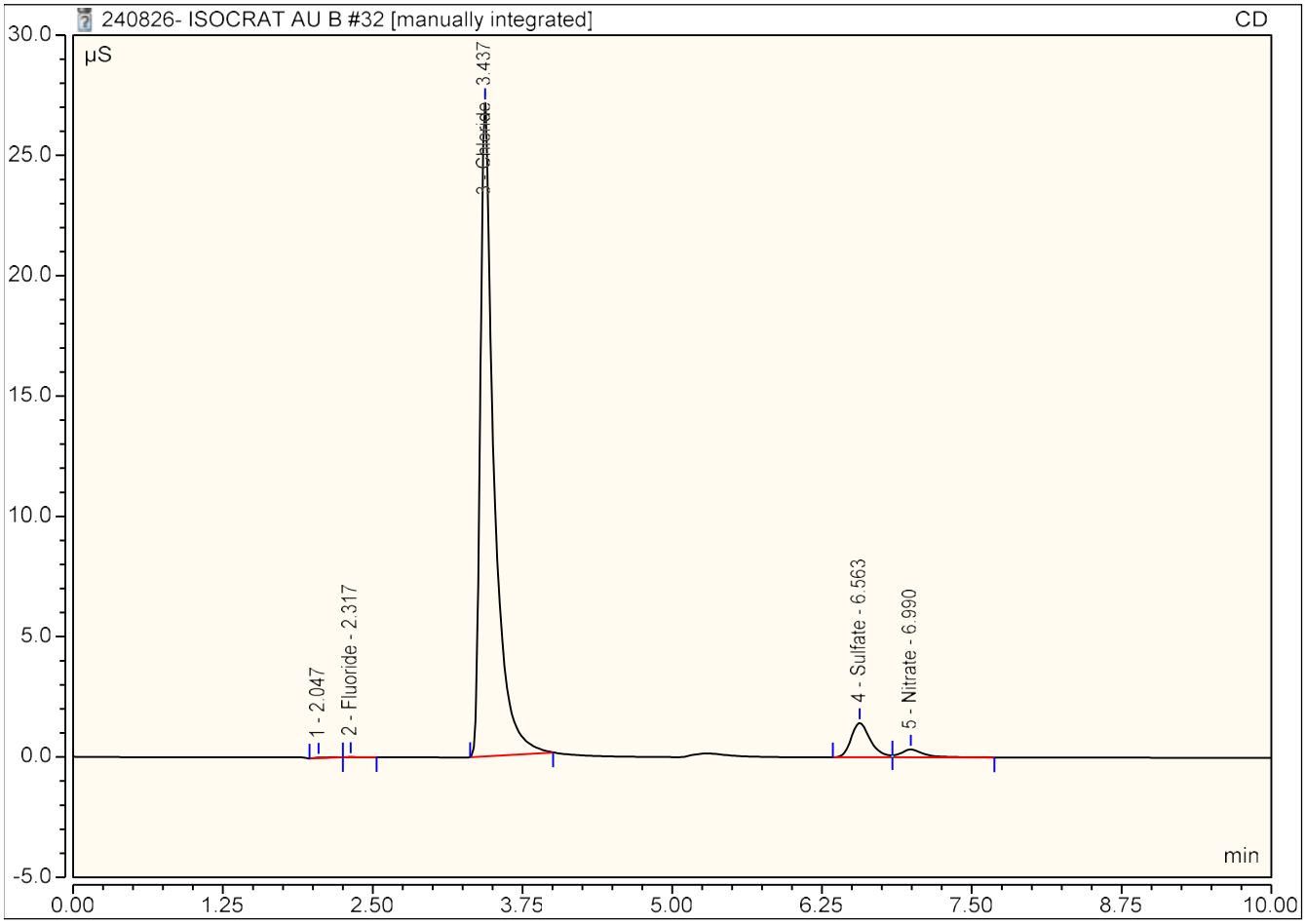
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.019	0.172	0.0612
3	3.40	**Chloride**	BMB*	91.621	622.004	222.0665
4	6.45	**Sulfate**	BM *	3.847	17.469	13.3244
5	6.89	**Nitrate**	MB*	2.974	12.223	2.4223
TOTAL:				98.46	651.87	237.87



Peak Integration Report

Sample Name:	**L2447726-04; 10X CL**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**10.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 00:16**	*Run Time:*	**10.00**

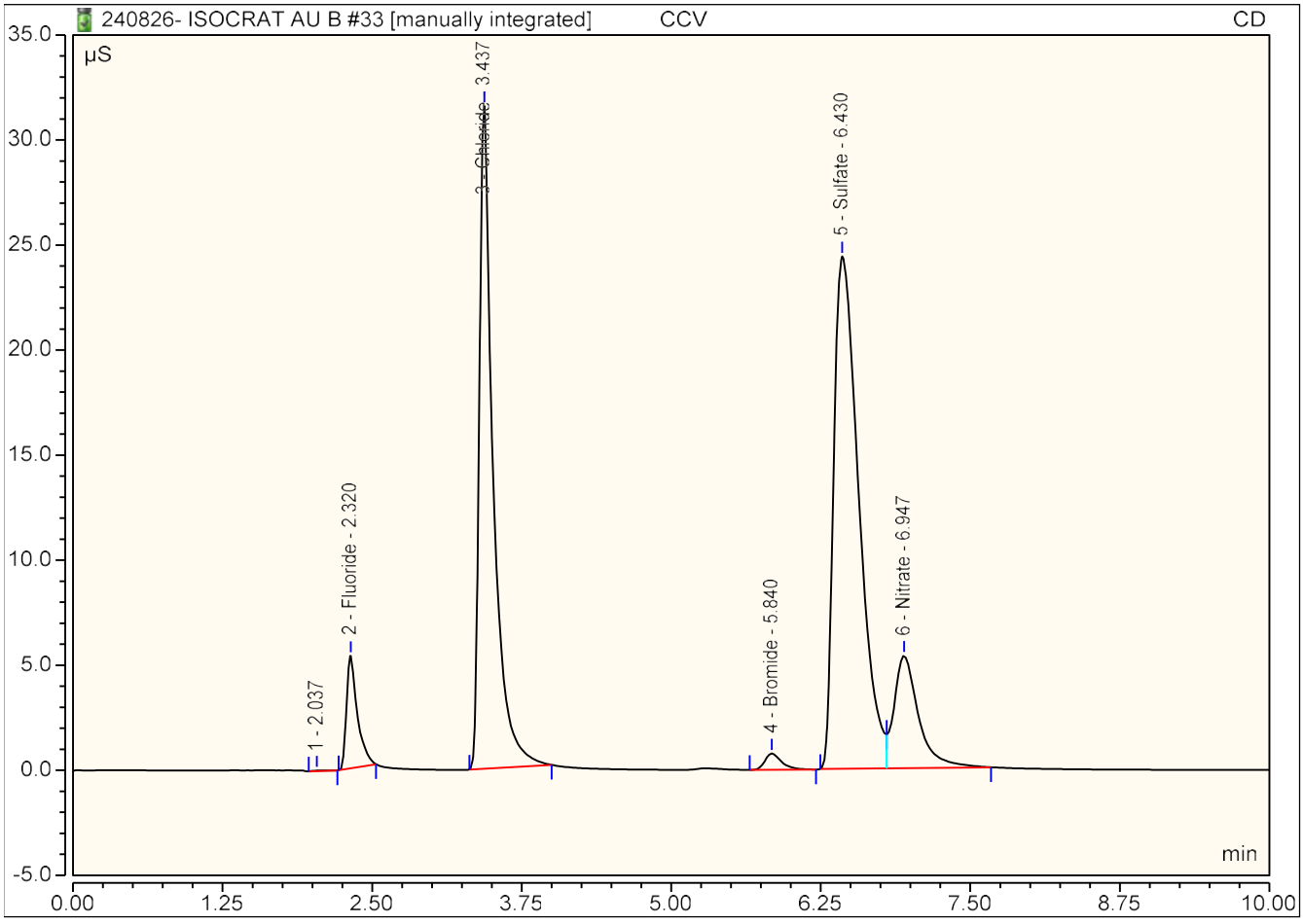
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.002	0.013	0.3073
3	3.44	**Chloride**	BMB*	3.602	27.147	88.5341
4	6.56	**Sulfate**	BM *	0.267	1.427	10.5436
5	6.99	**Nitrate**	MB*	0.073	0.327	0.7982
TOTAL:				3.94	28.91	100.18



Peak Integration Report

Sample Name:	**CCV**	*Inj. Vol.:*	**25.00**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 00:28**	*Run Time:*	**10.00**

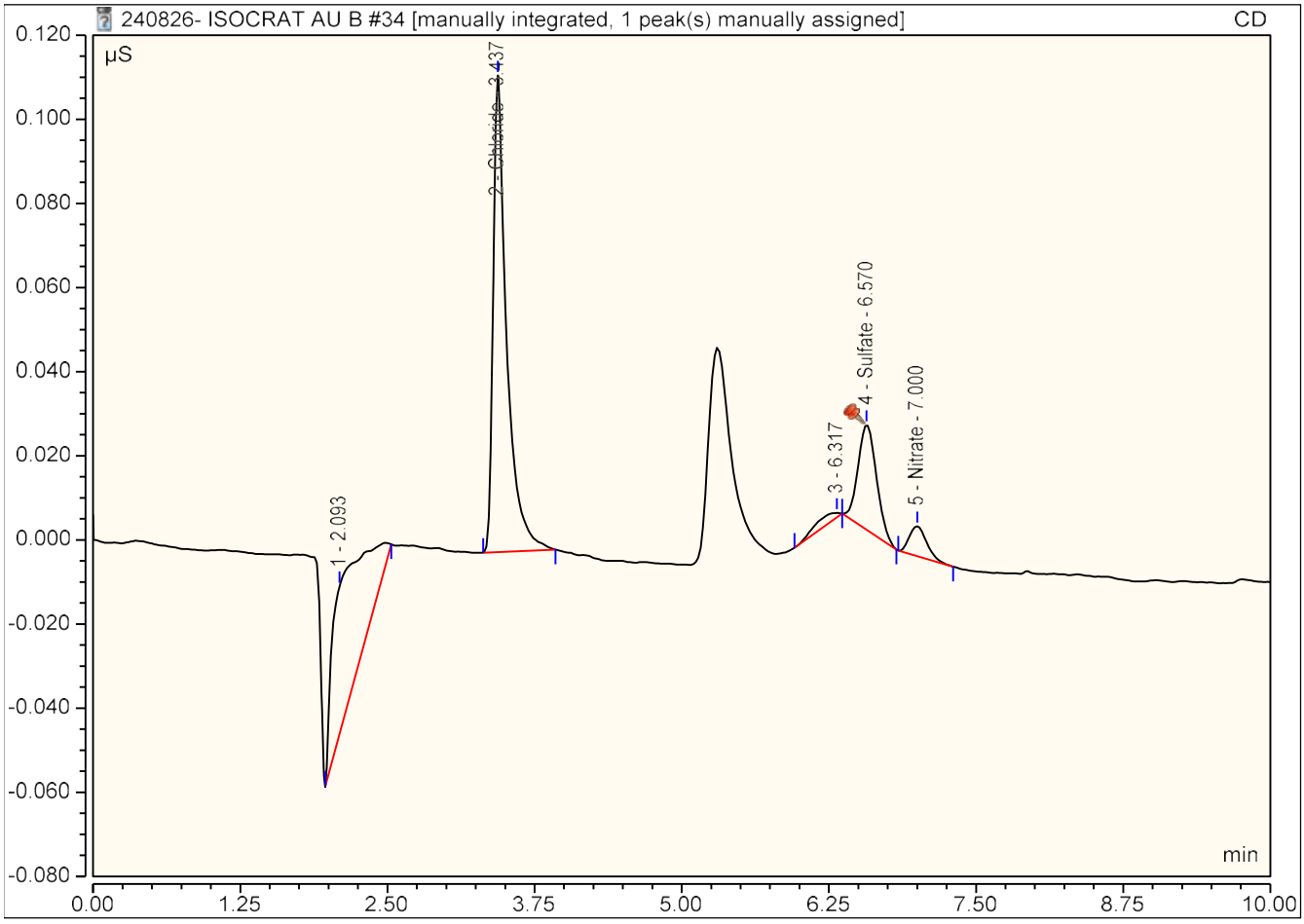
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.557	5.352	1.0106
3	3.44	**Chloride**	BMB*	4.235	31.541	10.3874
4	5.84	**Bromide**	BMB	0.125	0.771	0.9598
5	6.43	**Sulfate**	BM *	5.915	24.377	20.4128
6	6.95	**Nitrate**	MB*	1.271	5.346	1.0475
TOTAL:				12.10	67.39	33.82



Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 00:40**	*Run Time:*	**10.00**

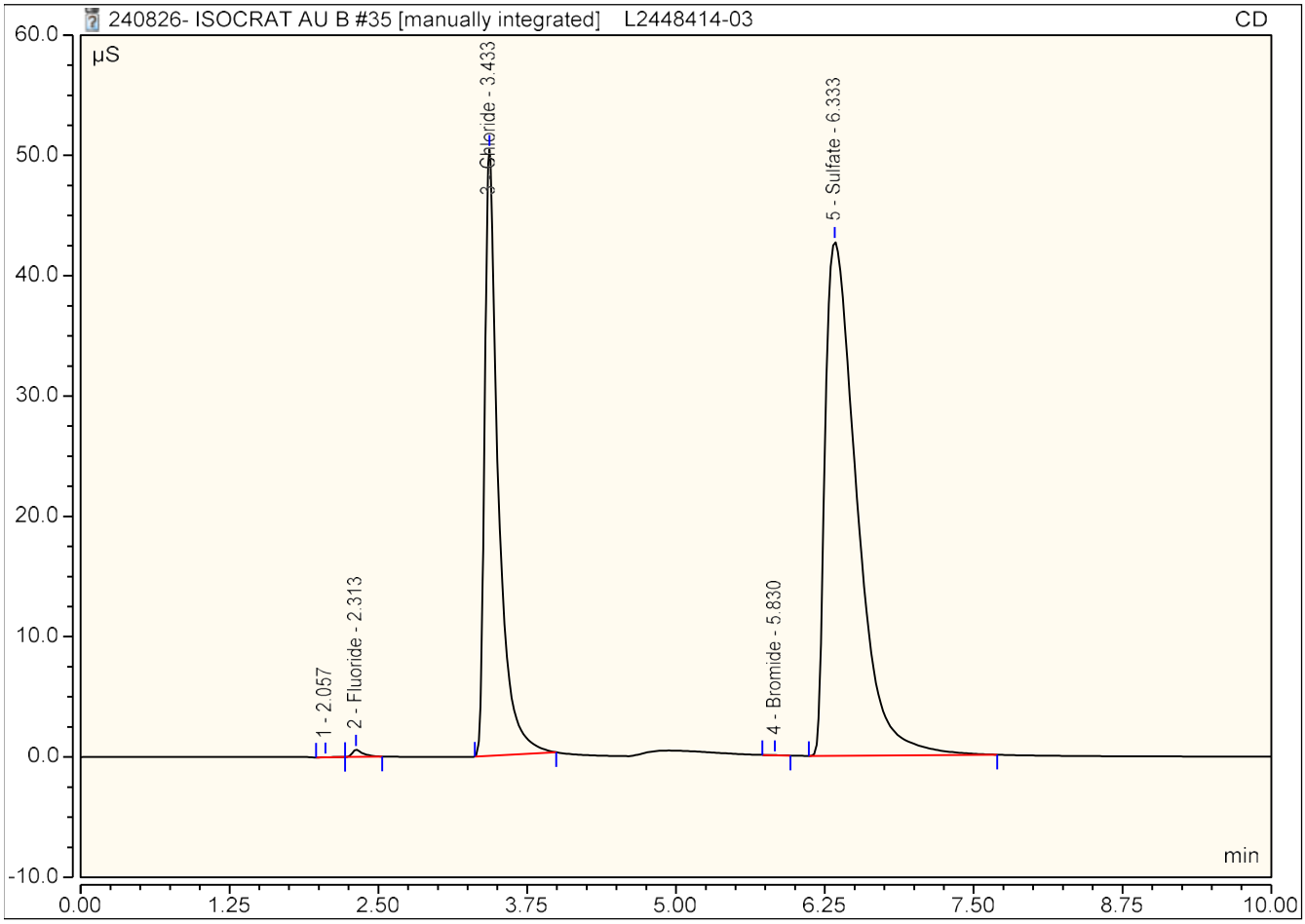
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	3.44	**Chloride**	BMB*	0.015	0.113	0.1644
4	6.57	**Sulfate**	BMB^	0.005	0.025	0.1561
5	7.00	**Nitrate**	BMB	0.001	0.007	0.0220
TOTAL:				0.02	0.15	0.34



Peak Integration Report

Sample Name:	**L2448414-03**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 00:52**	*Run Time:*	**10.00**

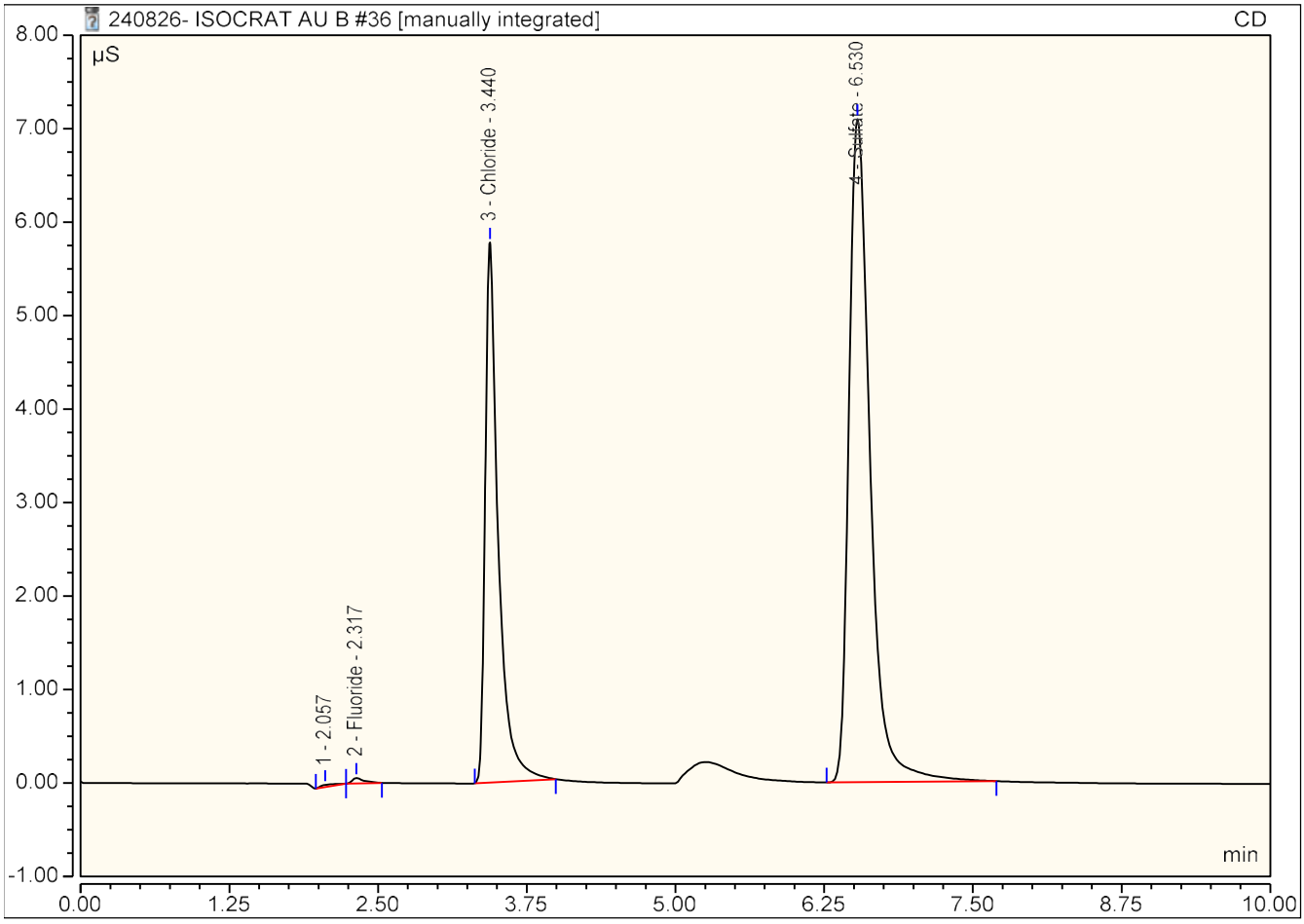
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.062	0.605	0.1376
3	3.43	**Chloride**	BMB*	6.746	50.380	16.4692
4	5.83	**Bromide**	BMB	0.001	0.006	0.0390
5	6.33	**Sulfate**	BMB	13.156	42.731	45.2295
TOTAL:				19.97	93.72	61.88



Peak Integration Report

Sample Name:	**XL2448414-03; 10X**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**10.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 01:04**	*Run Time:*	**10.00**

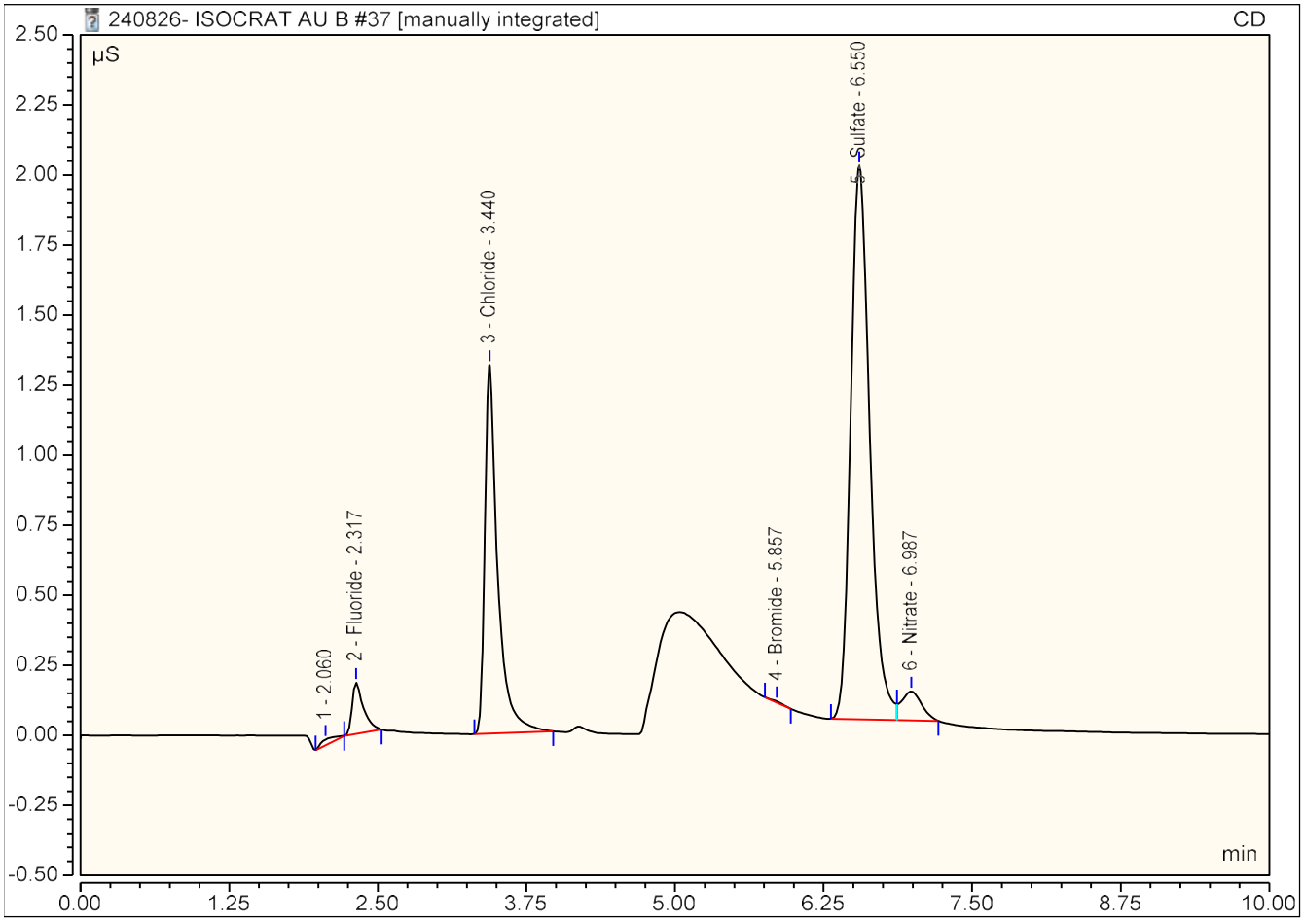
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.007	0.060	0.3998
3	3.44	**Chloride**	BMB*	0.737	5.776	19.1232
4	6.53	**Sulfate**	BMB	1.459	7.095	51.3903
TOTAL:				2.20	12.93	70.91



Peak Integration Report

Sample Name:	**L2447726-02 CL**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 01:16**	*Run Time:*	**10.00**

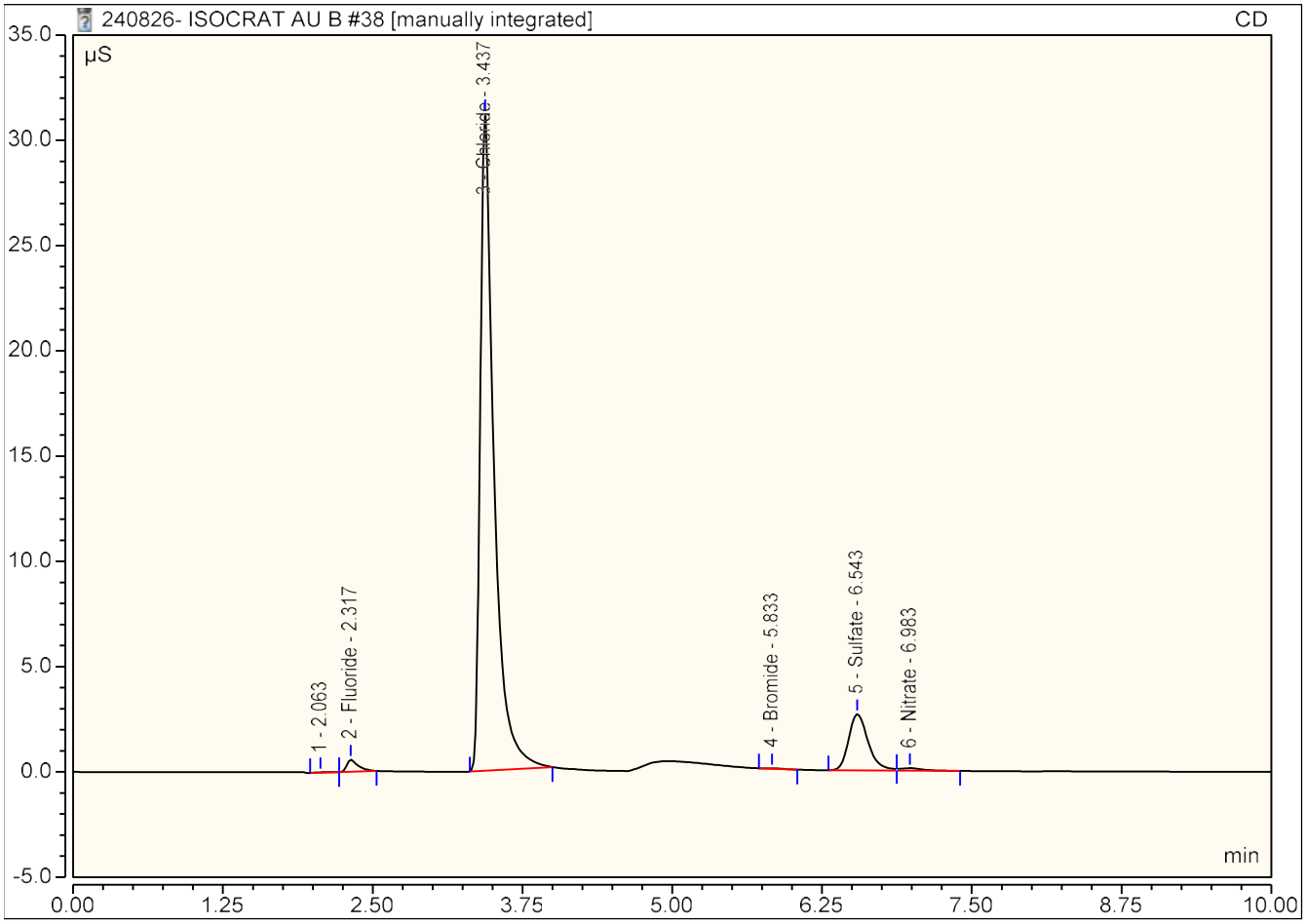
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.020	0.183	0.0636
3	3.44	**Chloride**	BMB*	0.164	1.316	0.5262
4	5.86	**Bromide**	BMB	0.000	0.005	0.0381
5	6.55	**Sulfate**	BM *	0.369	1.975	1.4035
6	6.99	**Nitrate**	MB*	0.020	0.104	0.0374
TOTAL:				0.57	3.58	2.07



Peak Integration Report

Sample Name:	**L2447726-03 CL**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 01:28**	*Run Time:*	**10.00**

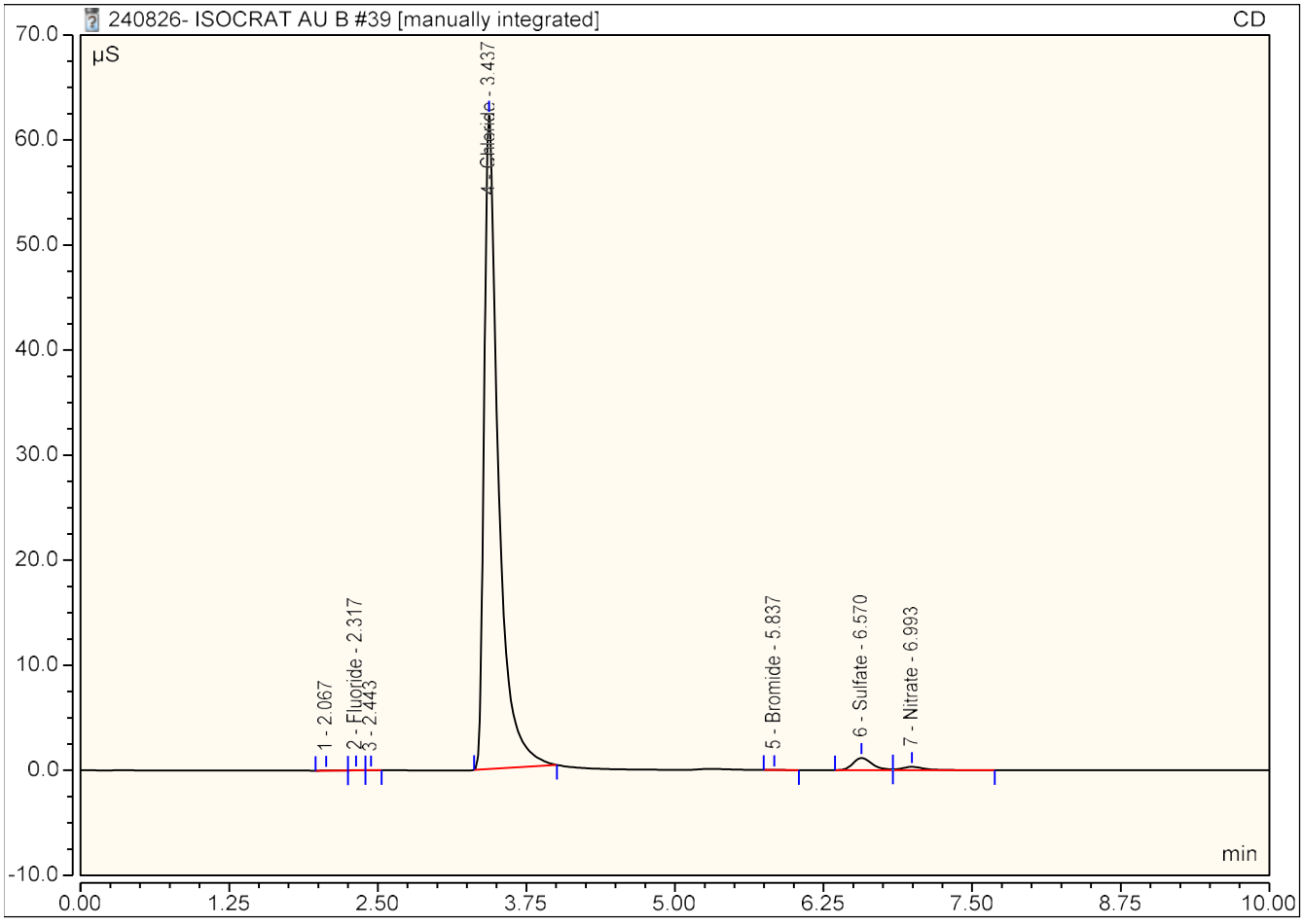
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.062	0.573	0.1371
3	3.44	**Chloride**	BMB*	4.166	31.183	10.2199
4	5.83	**Bromide**	BMB	0.003	0.023	0.0600
5	6.54	**Sulfate**	BM *	0.506	2.676	1.8742
6	6.98	**Nitrate**	MB*	0.026	0.119	0.0424
TOTAL:				4.76	34.57	12.33



Peak Integration Report

Sample Name:	**L2447831-02; 25X CL**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**25.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 01:40**	*Run Time:*	**10.00**

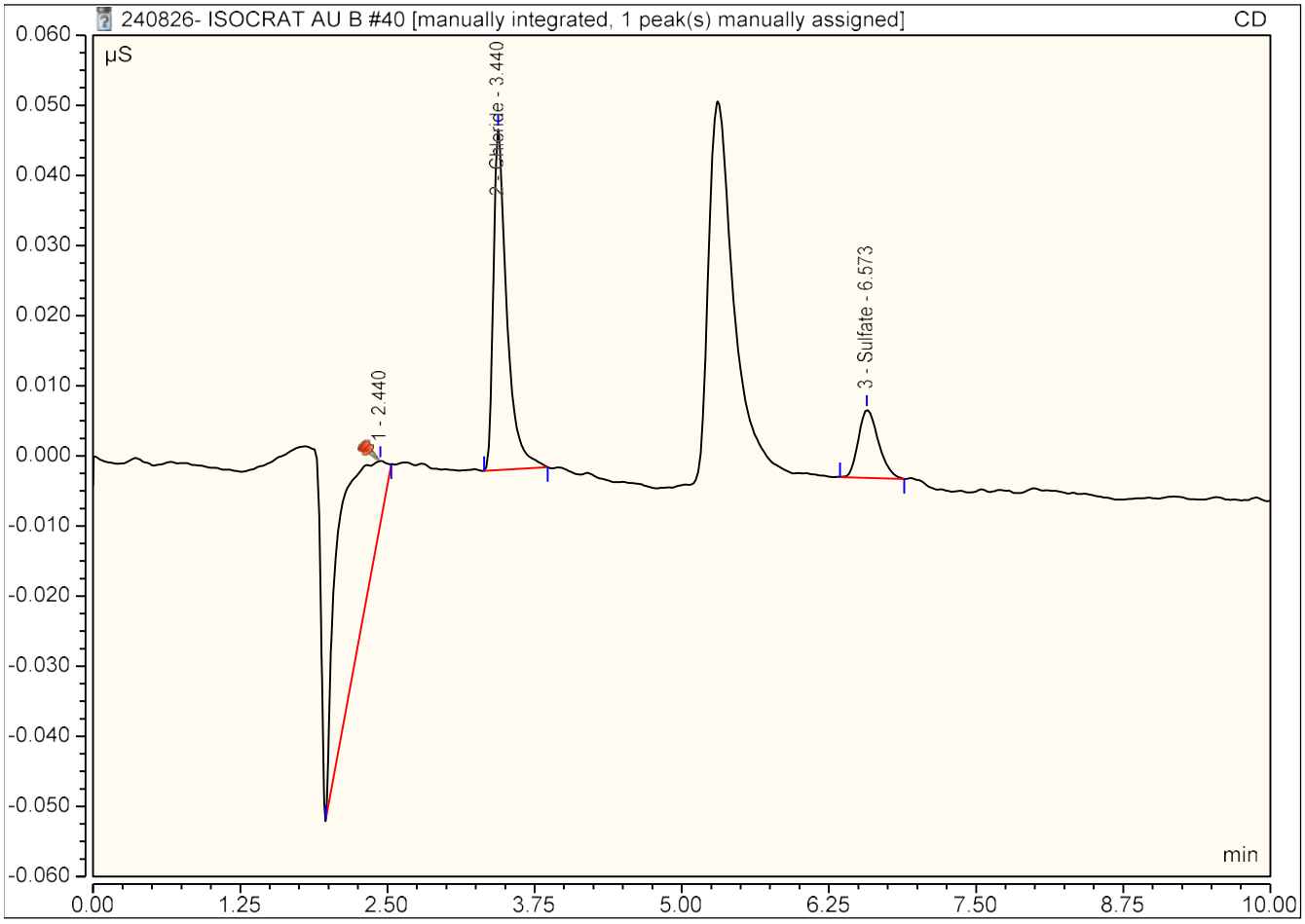
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.001	0.010	0.7280
4	3.44	**Chloride**	BMB*	8.693	62.219	529.6272
5	5.84	**Bromide**	BMB	0.001	0.004	0.9697
6	6.57	**Sulfate**	BM *	0.218	1.174	22.1684
7	6.99	**Nitrate**	MB*	0.071	0.322	1.9530
TOTAL:				8.98	63.73	555.45



Peak Integration Report

Sample Name:	**BLK-2**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 01:52**	*Run Time:*	**10.00**

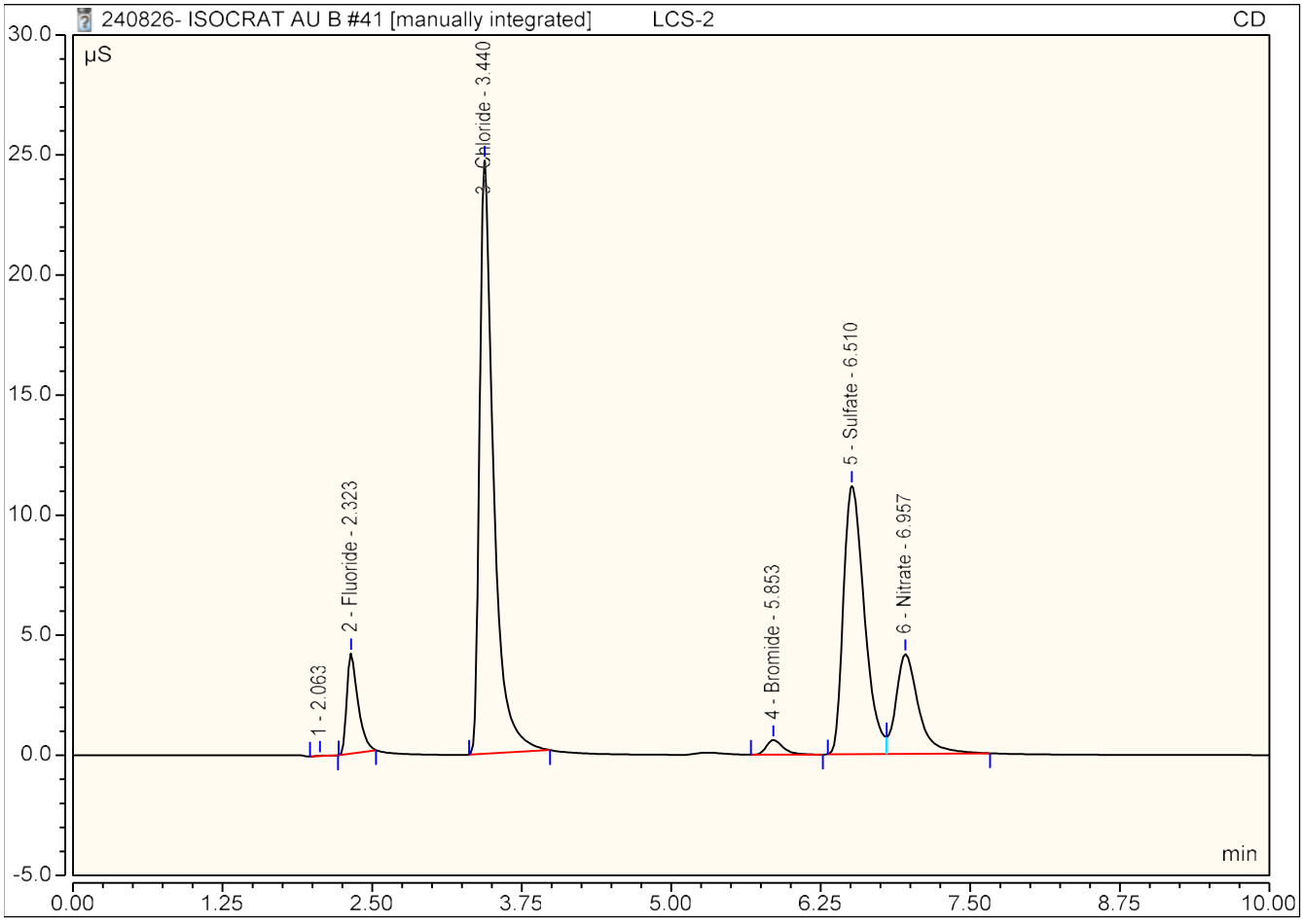
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	3.44	**Chloride**	BMB*	0.006	0.049	0.1436
3	6.57	**Sulfate**	BMB	0.002	0.010	0.1471
TOTAL:				0.01	0.06	0.29



Peak Integration Report

Sample Name:	**LCS-2**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 02:04**	*Run Time:*	**10.00**

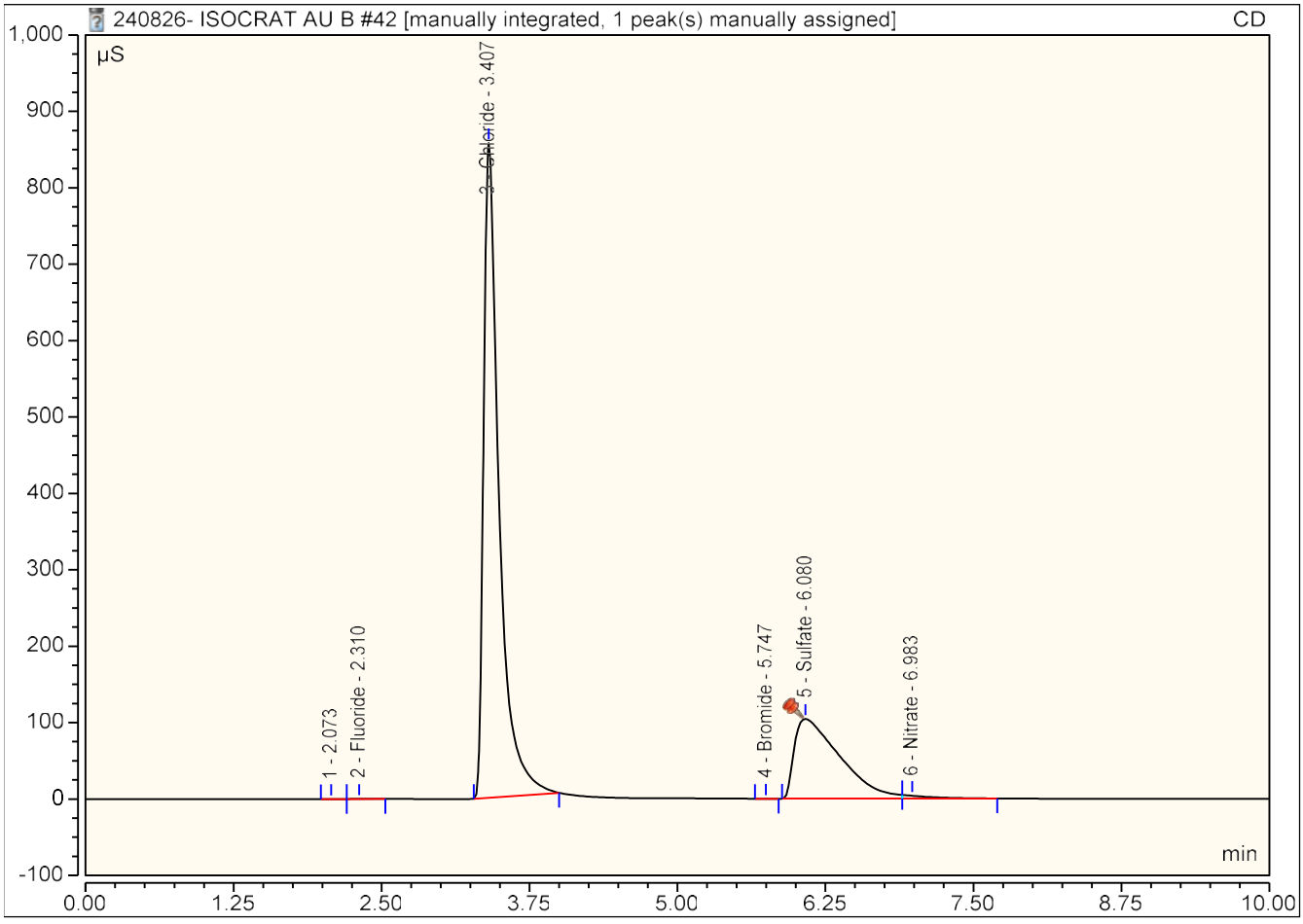
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.449	4.177	0.8199
3	3.44	**Chloride**	BMB*	3.352	24.716	8.2483
4	5.85	**Bromide**	BMB	0.101	0.612	0.7795
5	6.51	**Sulfate**	BM *	2.270	11.169	7.9202
6	6.96	**Nitrate**	MB*	0.908	4.150	0.7545
TOTAL:				7.08	44.82	18.52



Peak Integration Report

Sample Name:	**L2448589-01 NO3**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 02:16**	*Run Time:*	**10.00**

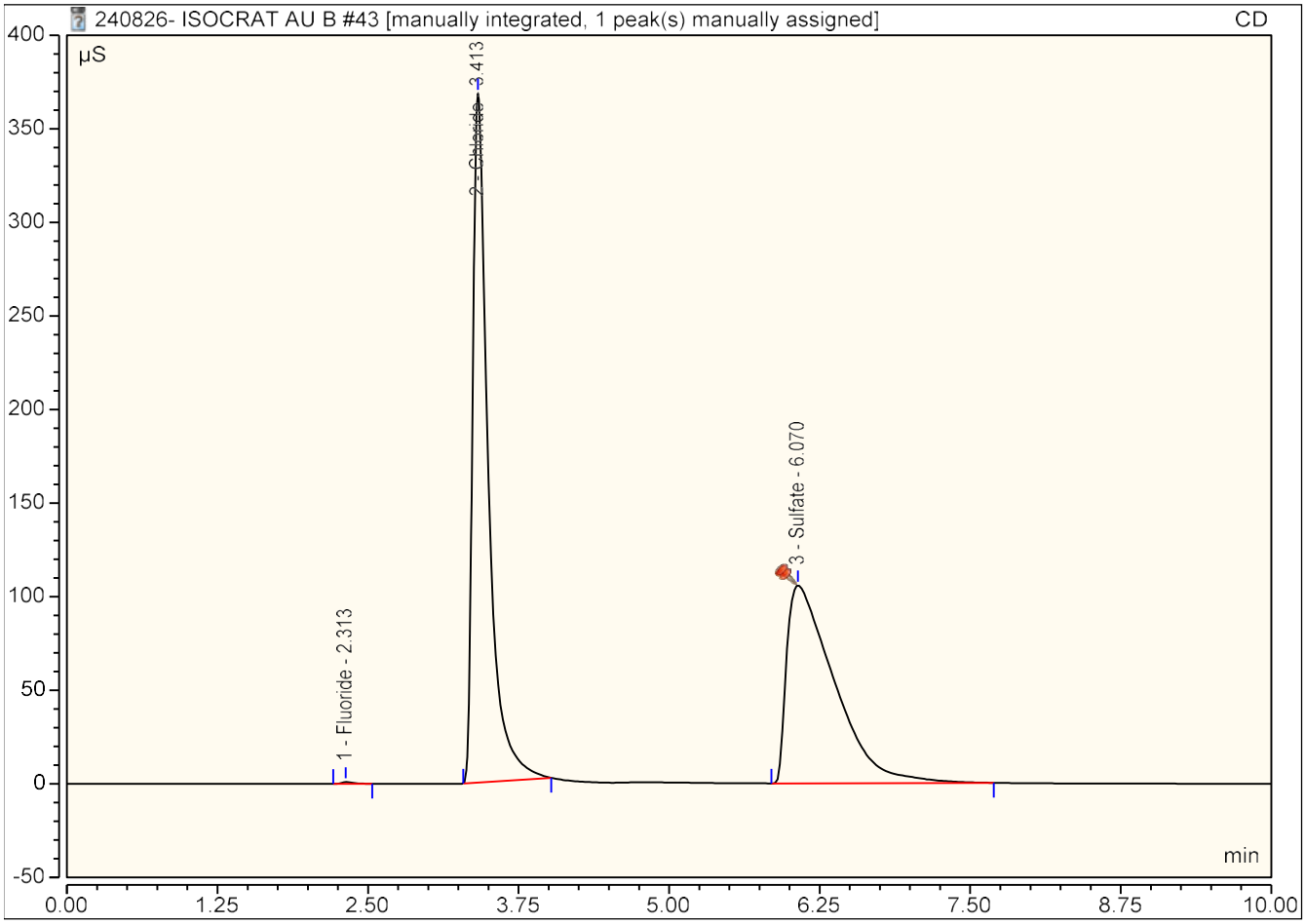
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.31	**Fluoride**	BMB	0.034	0.293	0.0873
3	3.41	**Chloride**	BMB*	129.613	856.952	314.0944
4	5.75	**Bromide**	BMB	0.003	0.031	0.0602
5	6.08	**Sulfate**	BM *^	46.209	104.327	158.5054
6	6.98	**Nitrate**	MB*	1.141	3.685	0.9422
TOTAL:				177.00	965.29	473.69



Peak Integration Report

Sample Name:	**L2448589-02 NO3**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 02:28**	*Run Time:*	**10.00**

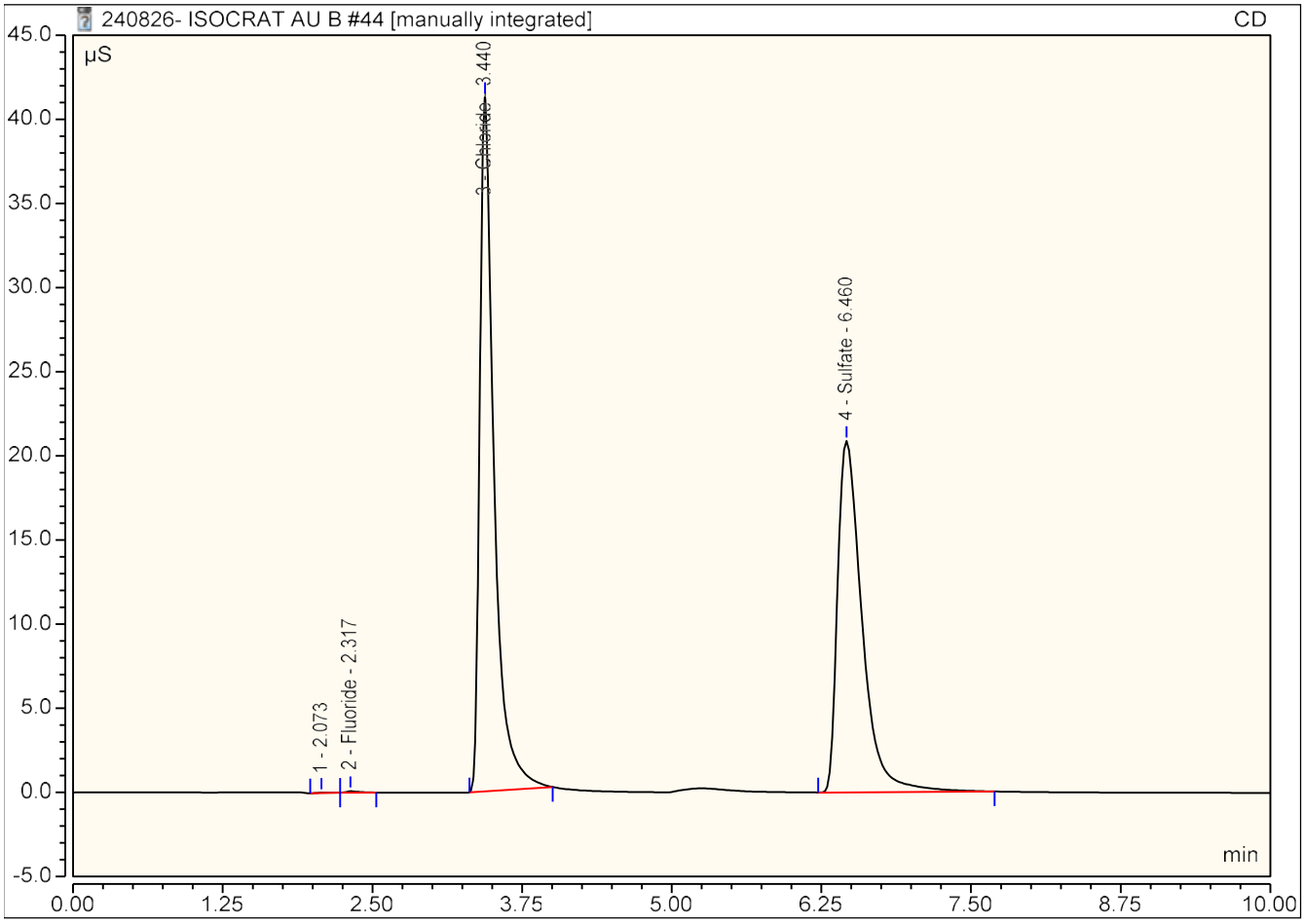
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
1	2.31	**Fluoride**	BMB	0.108	0.990	0.2190
2	3.41	**Chloride**	BMB*	54.921	368.153	133.1661
3	6.07	**Sulfate**	BMB^	48.253	105.828	165.5091
TOTAL:				103.28	474.97	298.89



Peak Integration Report

Sample Name:	**L2448589-02; 10X CL SO4**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**10.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 02:41**	*Run Time:*	**10.00**

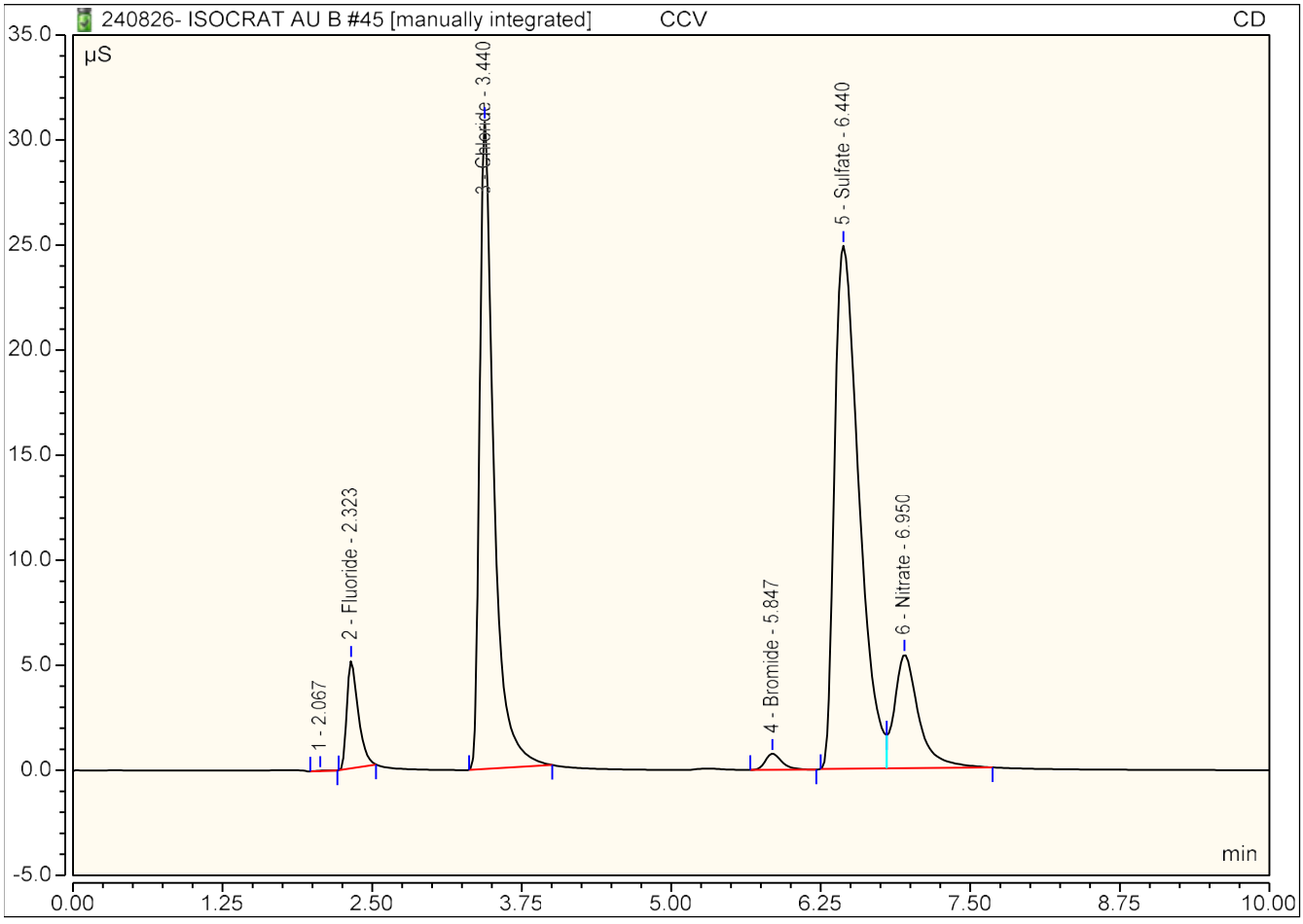
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.010	0.087	0.4526
3	3.44	**Chloride**	BMB*	5.709	41.262	139.5744
4	6.46	**Sulfate**	BMB	4.955	20.877	171.2131
TOTAL:				10.67	62.23	311.24



Peak Integration Report

Sample Name:	**CCV**	*Inj. Vol.:*	**25.00**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 02:53**	*Run Time:*	**10.00**

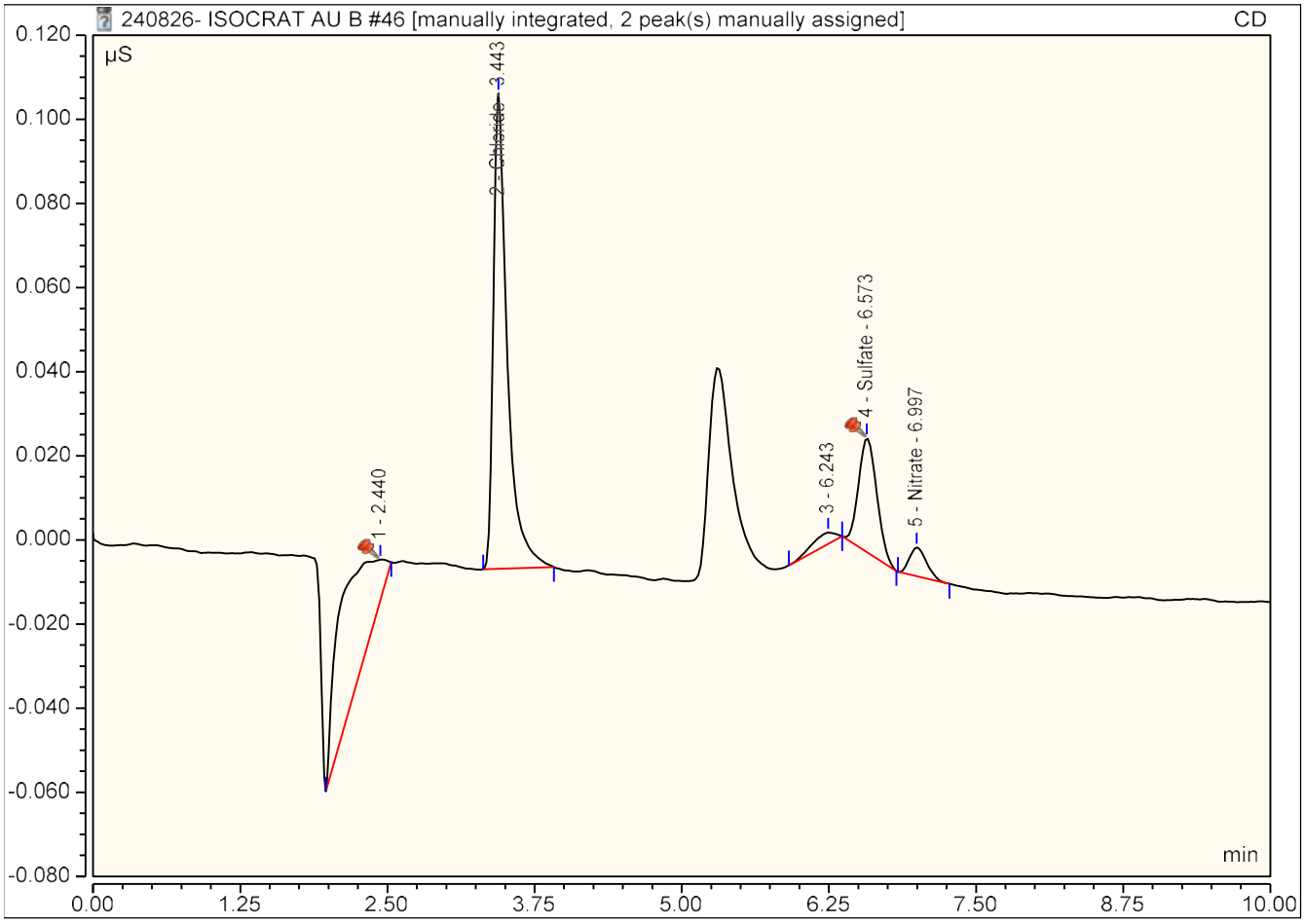
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.562	5.130	1.0186
3	3.44	**Chloride**	BMB*	4.232	30.789	10.3799
4	5.85	**Bromide**	BMB	0.125	0.774	0.9616
5	6.44	**Sulfate**	BM *	5.906	24.895	20.3816
6	6.95	**Nitrate**	MB*	1.276	5.409	1.0514
TOTAL:				12.10	67.00	33.79



Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 03:05**	*Run Time:*	**10.00**

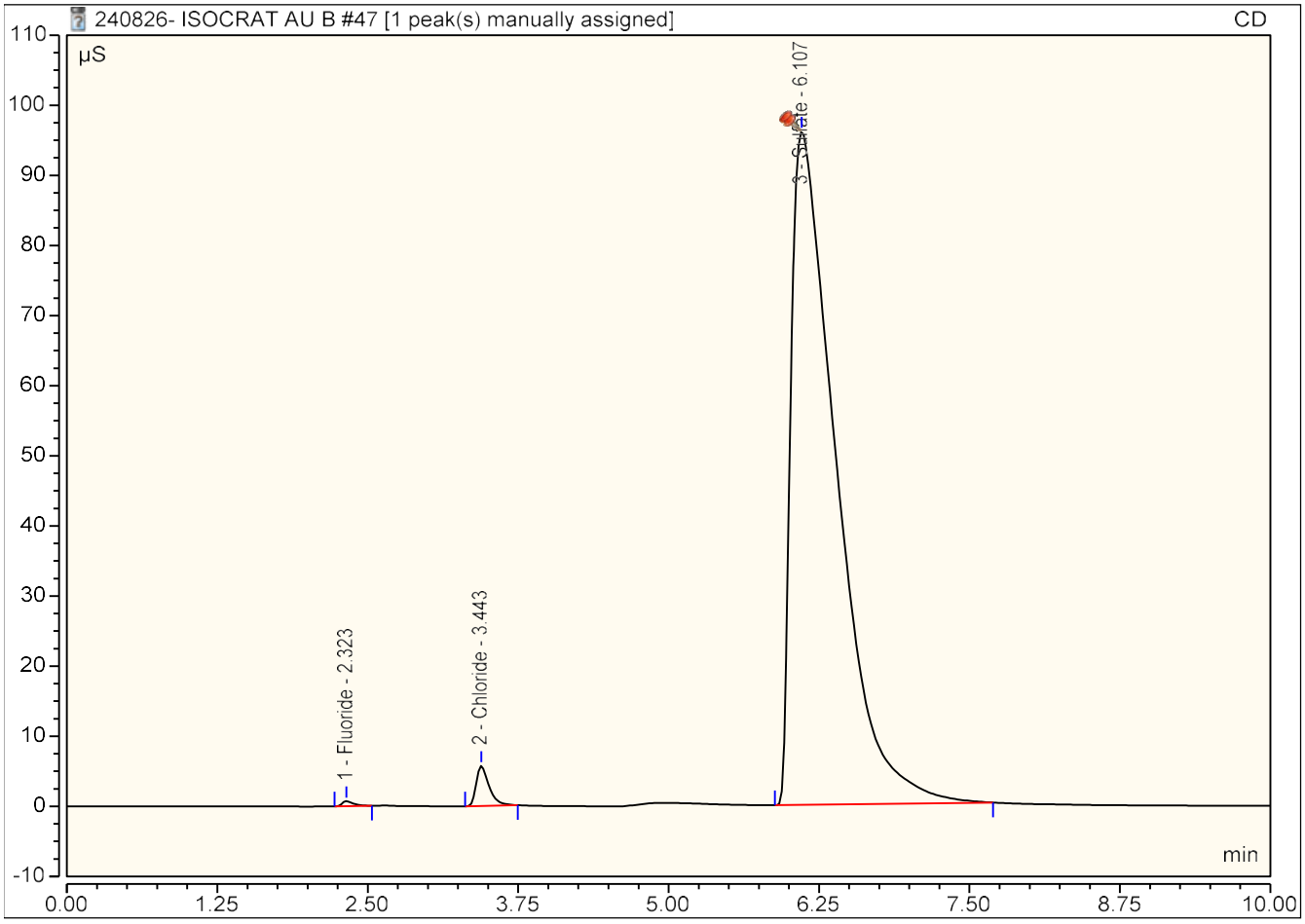
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	3.44	**Chloride**	BMB*	0.015	0.113	0.1653
4	6.57	**Sulfate**	BMB^	0.005	0.027	0.1572
5	7.00	**Nitrate**	BMB	0.001	0.007	0.0220
TOTAL:				0.02	0.15	0.34



Peak Integration Report

Sample Name:	**L2448589-03 CL NO3**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 03:17**	*Run Time:*	**10.00**

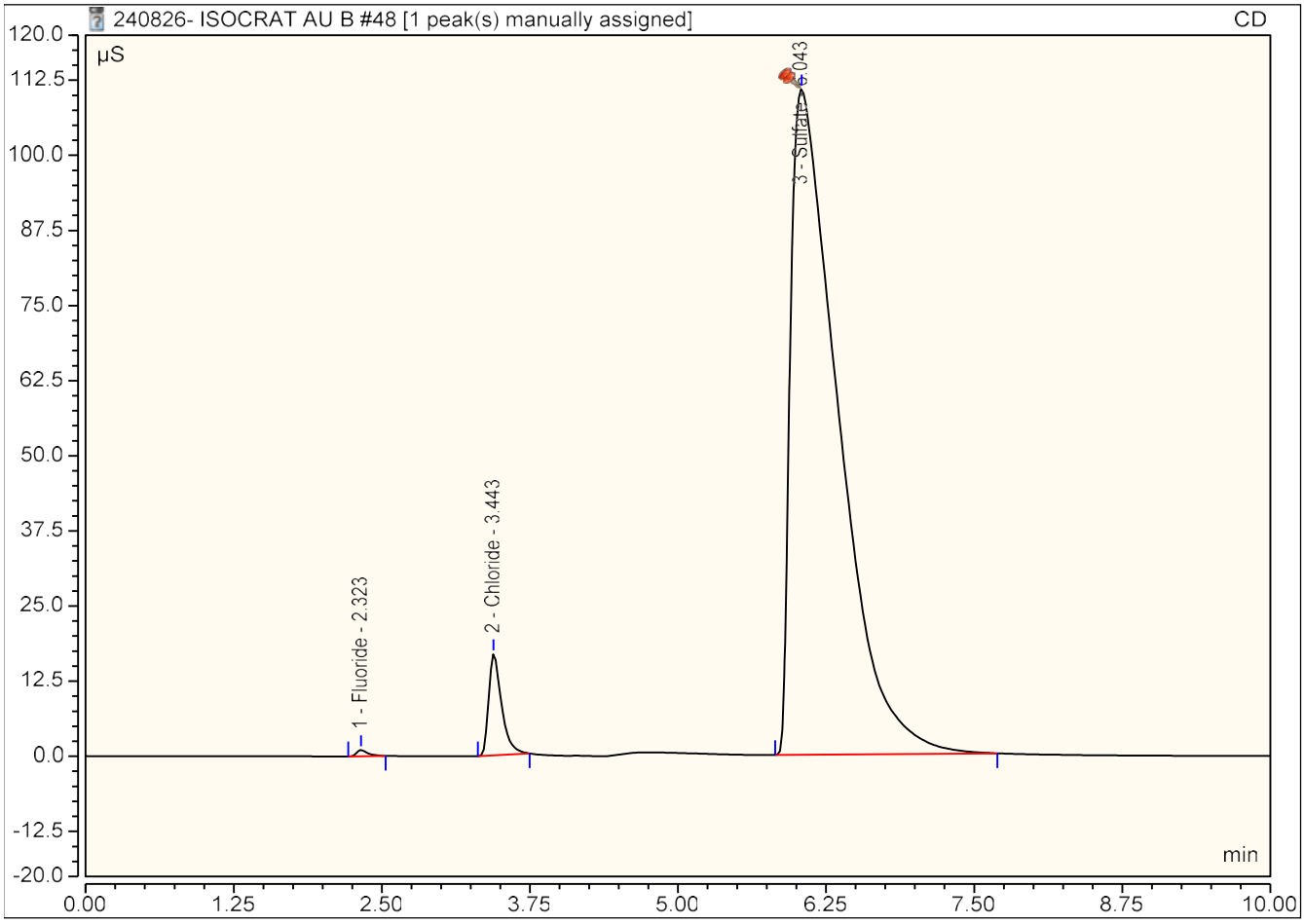
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
1	2.32	**Fluoride**	BMB	0.078	0.707	0.1662
2	3.44	**Chloride**	BMB	0.702	5.735	1.8287
3	6.11	**Sulfate**	BMB^	41.656	96.055	142.9001
TOTAL:				42.44	102.50	144.90



Peak Integration Report

Sample Name:	**L2448589-04 CL NO3**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 03:29**	*Run Time:*	**10.00**

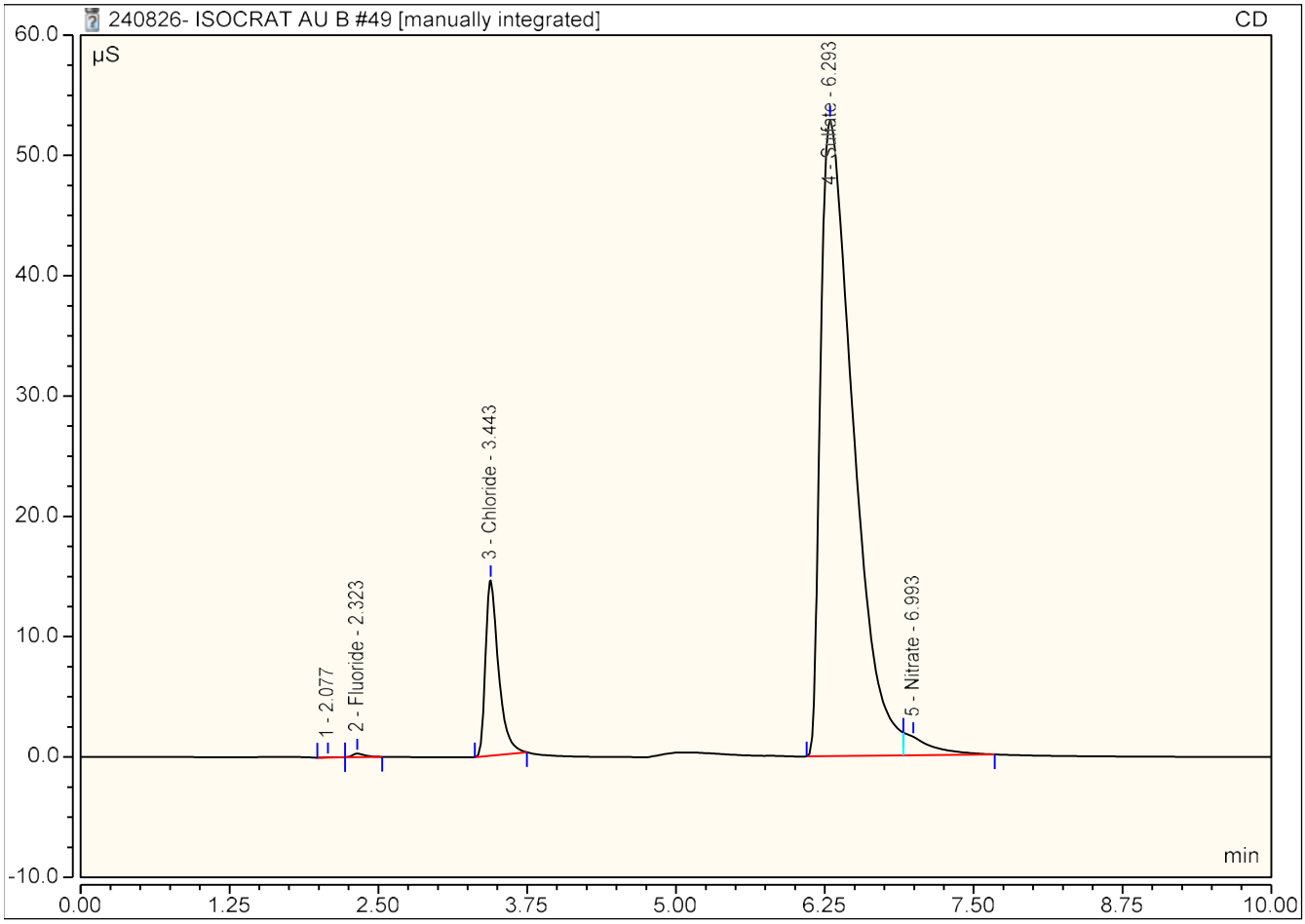
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
1	2.32	**Fluoride**	BMB	0.111	1.029	0.2243
2	3.44	**Chloride**	BMB	2.142	16.875	5.3172
3	6.04	**Sulfate**	BMB^	51.606	110.782	177.0004
TOTAL:				53.86	128.69	182.54



Peak Integration Report

Sample Name:	**XL2448589-05**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 03:41**	*Run Time:*	**10.00**

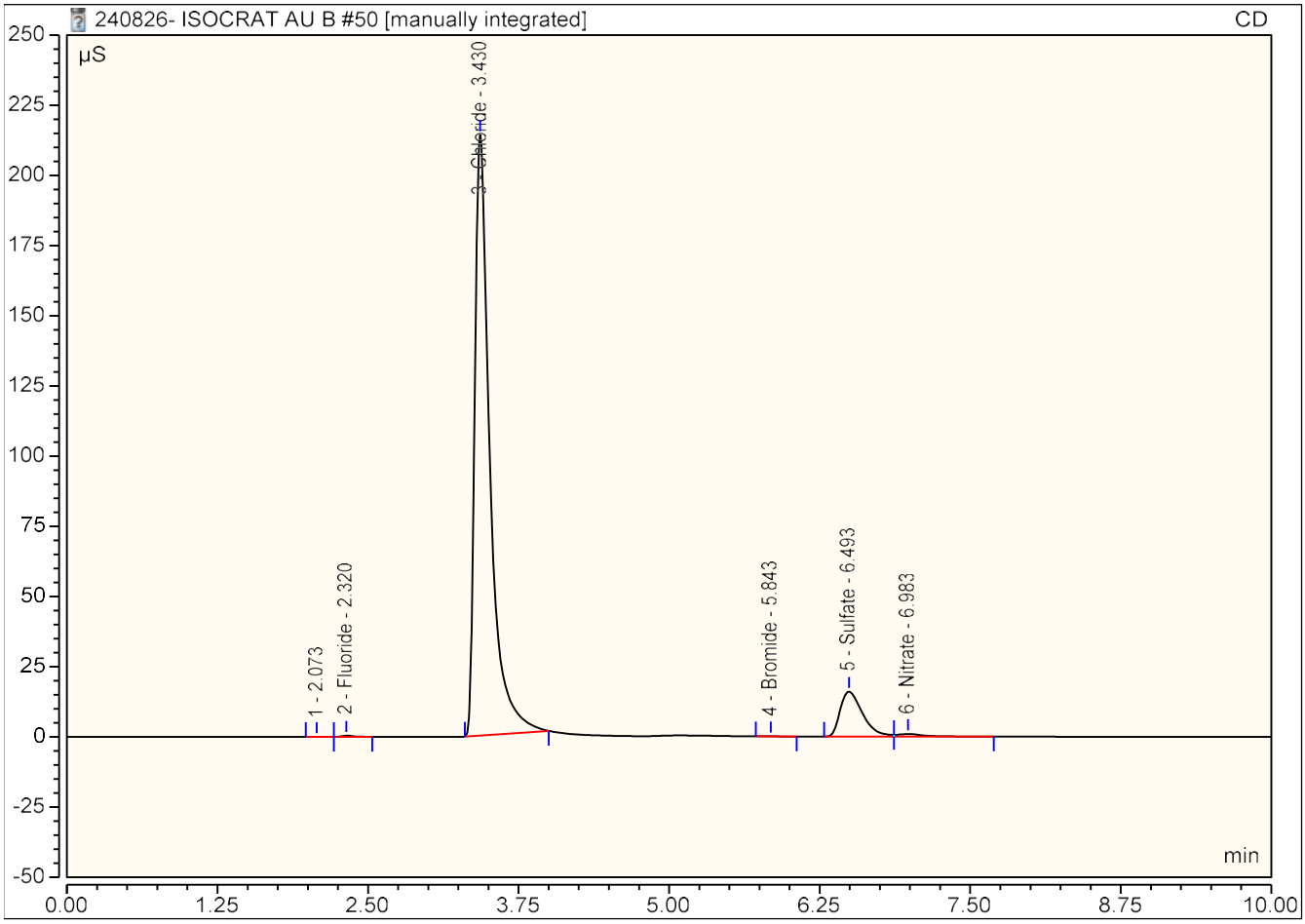
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.034	0.306	0.0887
3	3.44	**Chloride**	BMB	1.845	14.578	4.5965
4	6.29	**Sulfate**	BM *	16.776	52.838	57.6349
5	6.99	**Nitrate**	MB*	0.443	1.527	0.3787
TOTAL:				19.10	69.25	62.70



Peak Integration Report

Sample Name:	**L2448589-16 SO4 NO3**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 03:53**	*Run Time:*	**10.00**

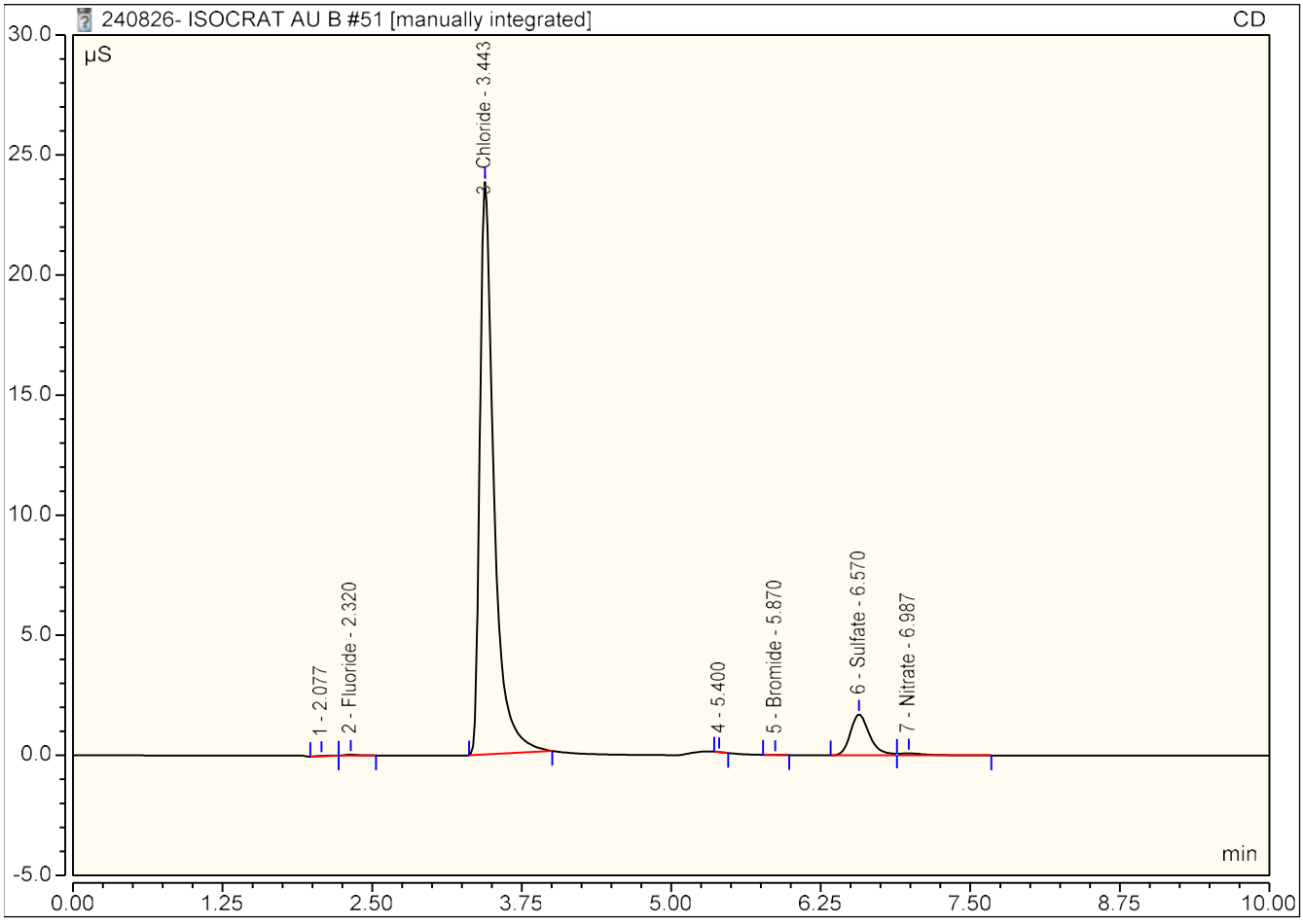
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.047	0.428	0.1107
3	3.43	**Chloride**	BMB*	31.060	213.958	75.3649
4	5.84	**Bromide**	BMB	0.006	0.041	0.0787
5	6.49	**Sulfate**	BM *	3.456	16.031	11.9863
6	6.98	**Nitrate**	MB*	0.240	0.959	0.2151
TOTAL:				34.81	231.42	87.76



Peak Integration Report

Sample Name:	**L2448589-16; 10X CL**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**10.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 04:05**	*Run Time:*	**10.00**

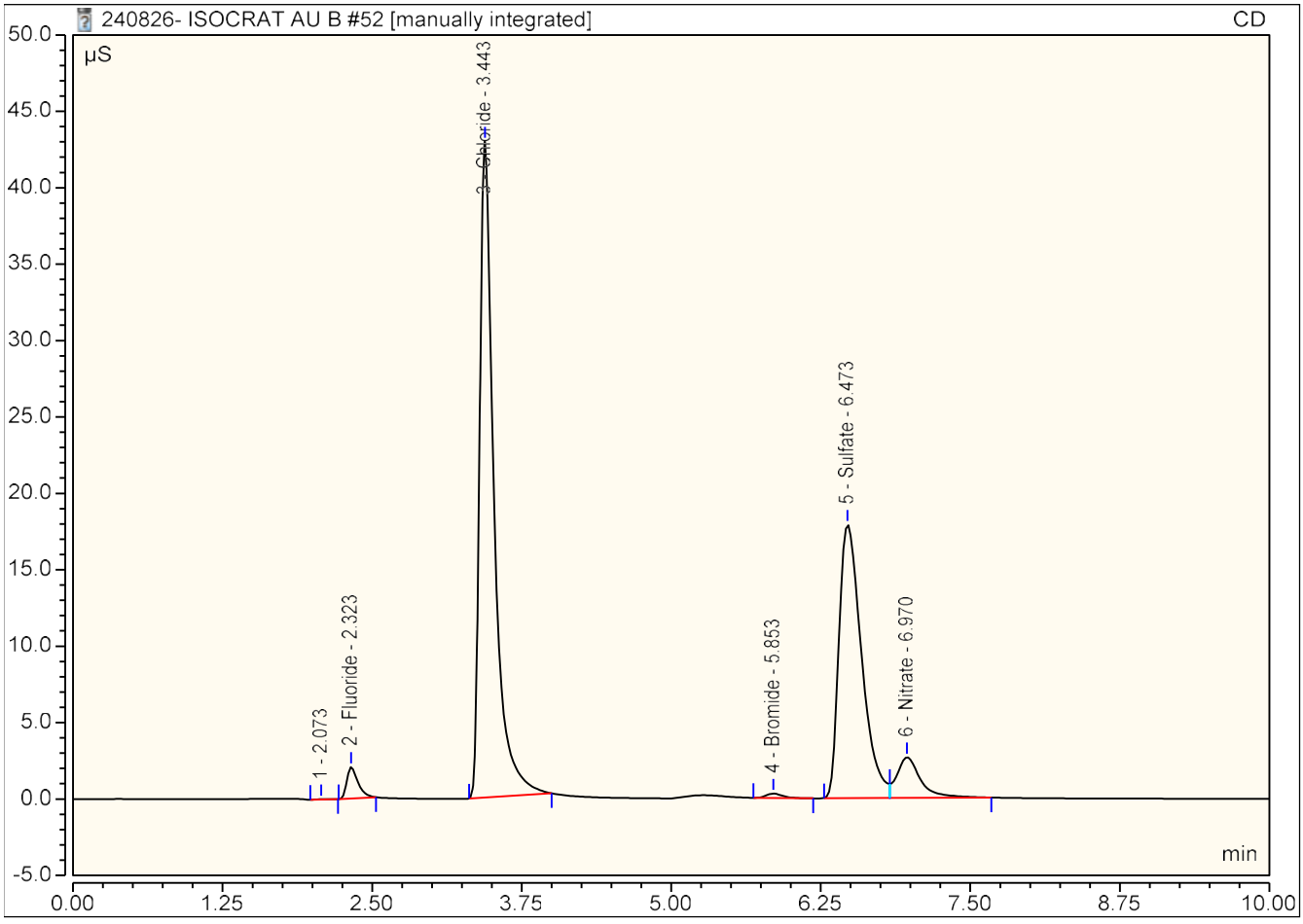
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.005	0.039	0.3602
3	3.44	**Chloride**	BMB*	3.257	23.844	80.1671
5	5.87	**Bromide**	BMB	0.000	0.003	0.3672
6	6.57	**Sulfate**	BM *	0.317	1.700	12.2642
7	6.99	**Nitrate**	MB*	0.022	0.086	0.3887
TOTAL:				3.60	25.67	93.55



Peak Integration Report

Sample Name:	**L2447890-01 MS**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 04:17**	*Run Time:*	**10.00**

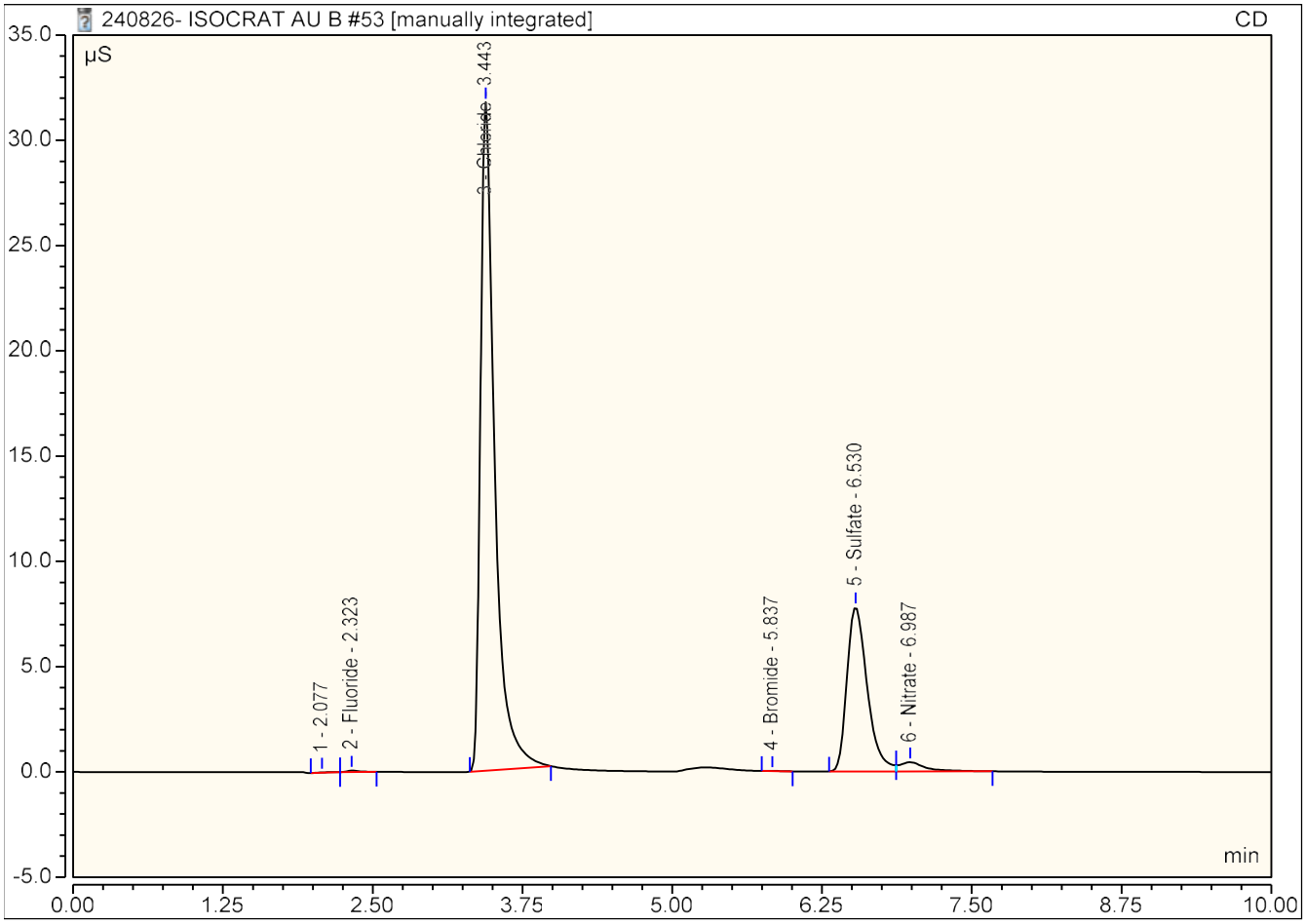
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.221	2.063	0.4170
3	3.44	**Chloride**	BMB*	5.946	42.935	14.5302
4	5.85	**Bromide**	BMB	0.046	0.287	0.3726
5	6.47	**Sulfate**	BM *	3.932	17.891	13.6172
6	6.97	**Nitrate**	MB*	0.610	2.657	0.5132
TOTAL:				10.75	65.83	29.45



Peak Integration Report

Sample Name:	**L2447890-01 DUP**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 04:29**	*Run Time:*	**10.00**

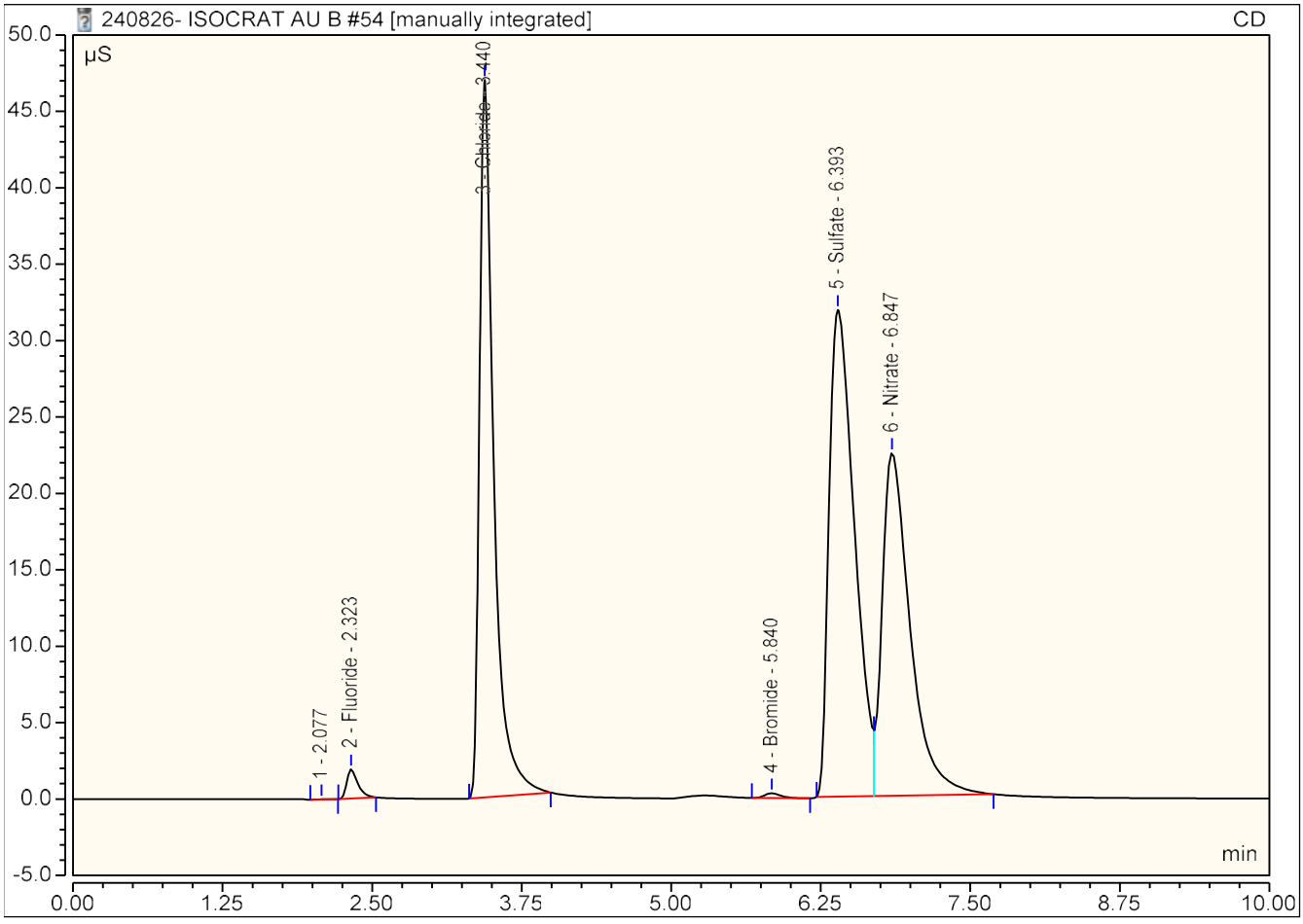
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.009	0.073	0.0430
3	3.44	**Chloride**	BMB*	4.360	31.740	10.6895
4	5.84	**Bromide**	BMB	0.001	0.007	0.0420
5	6.53	**Sulfate**	BM *	1.538	7.798	5.4107
6	6.99	**Nitrate**	MB*	0.108	0.436	0.1084
TOTAL:				6.02	40.05	16.29



Peak Integration Report

Sample Name:	**L2447890-11 MS**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 04:41**	*Run Time:*	**10.00**

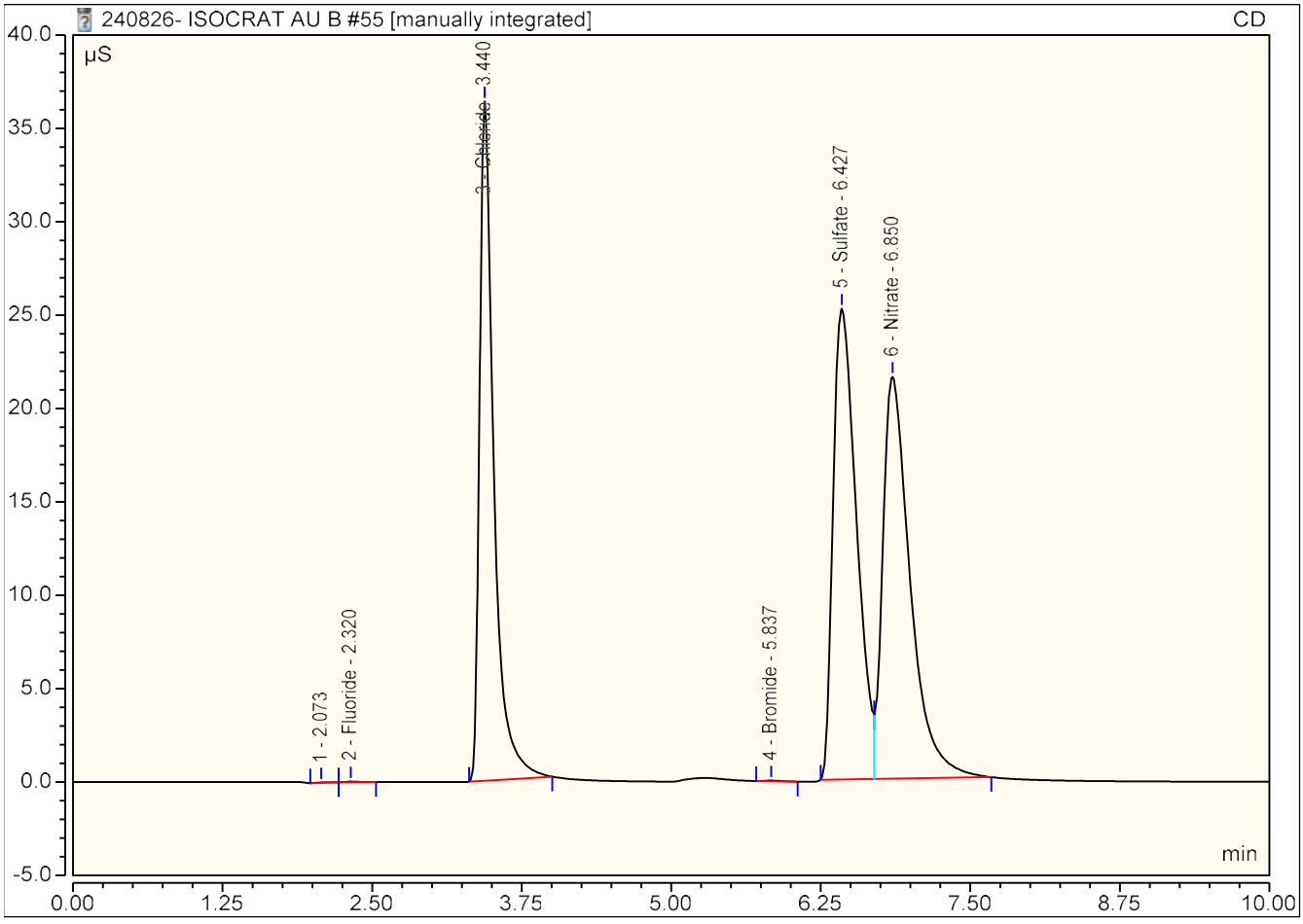
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.204	1.917	0.3882
3	3.44	**Chloride**	BMB*	6.491	46.956	15.8503
4	5.84	**Bromide**	BMB	0.049	0.314	0.3980
5	6.39	**Sulfate**	BM *	7.777	31.841	26.7918
6	6.85	**Nitrate**	MB*	6.098	22.438	4.9452
TOTAL:				20.62	103.46	48.37



Peak Integration Report

Sample Name:	**L2447890-11 DUP**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 04:54**	*Run Time:*	**10.00**

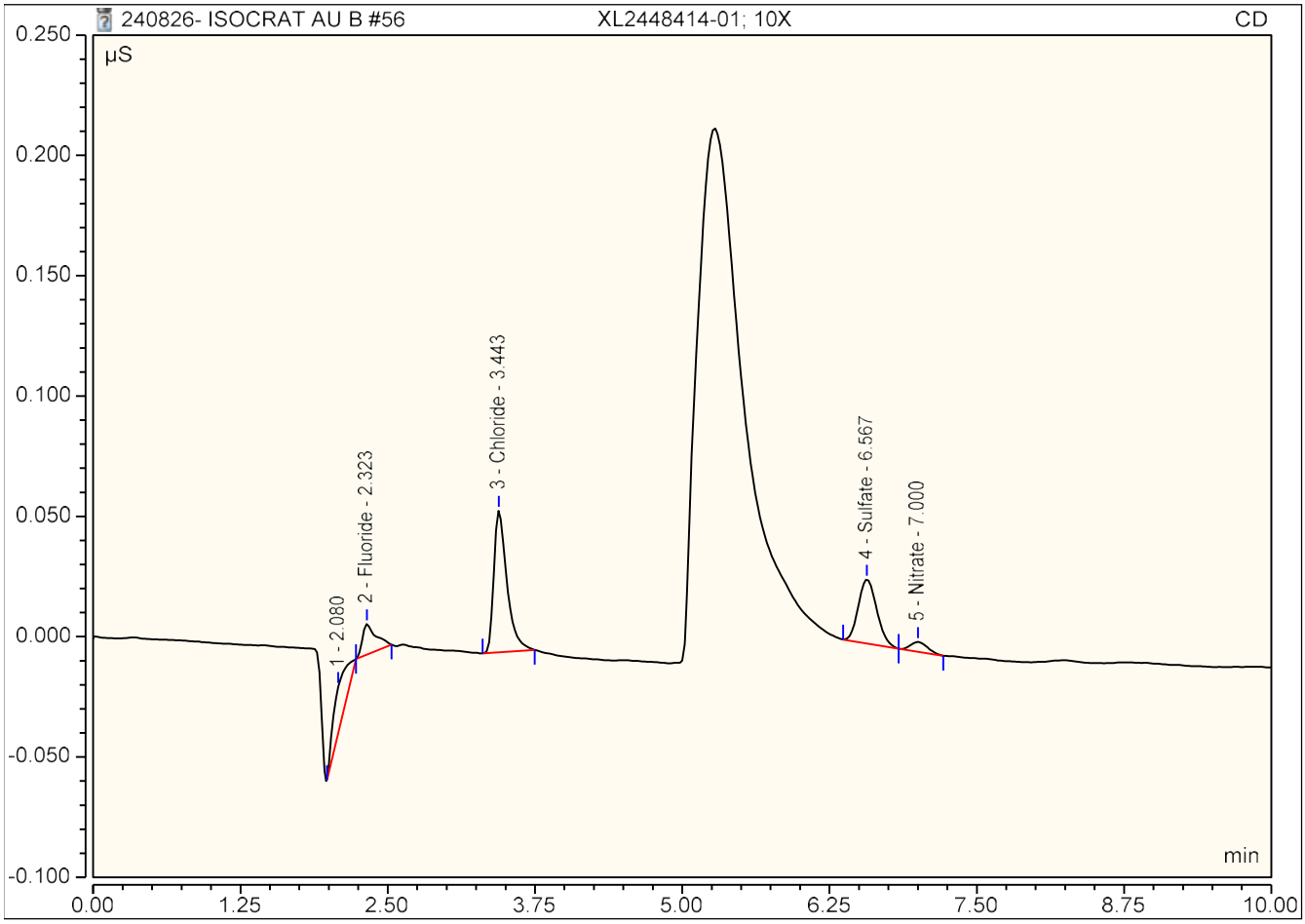
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.004	0.033	0.0350
3	3.44	**Chloride**	BMB*	5.011	36.377	12.2666
4	5.84	**Bromide**	BMB	0.005	0.036	0.0722
5	6.43	**Sulfate**	BM *	5.698	25.205	19.6687
6	6.85	**Nitrate**	MB*	5.728	21.520	4.6463
TOTAL:				16.45	83.17	36.69



Peak Integration Report

Sample Name:	**XL2448414-01; 10X**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**10.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 05:06**	*Run Time:*	**10.00**

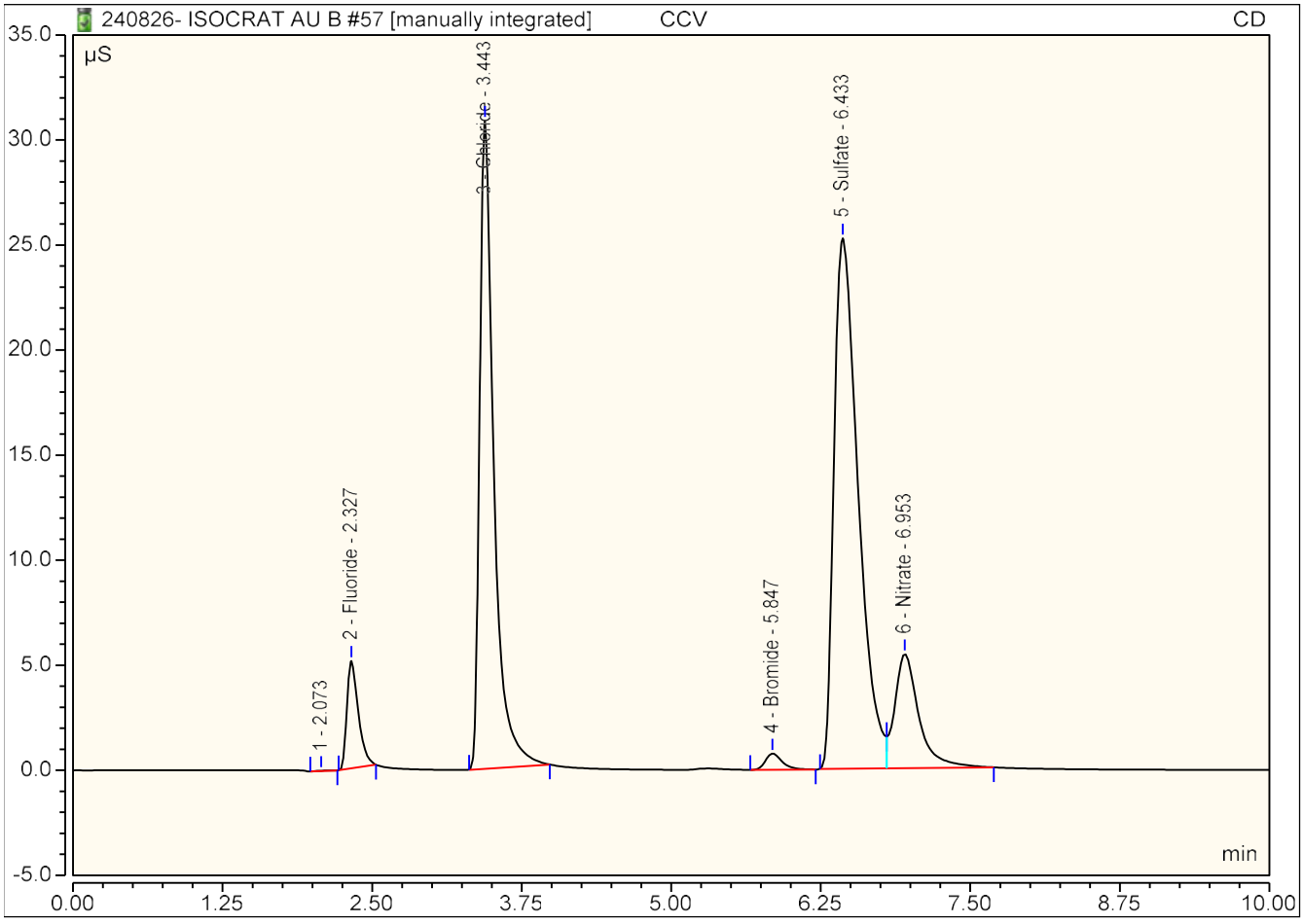
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.002	0.013	0.3087
3	3.44	**Chloride**	BMB	0.008	0.059	1.4643
4	6.57	**Sulfate**	BMB	0.005	0.027	1.5698
5	7.00	**Nitrate**	BMB	0.001	0.004	0.2160
TOTAL:				0.01	0.10	3.56



Peak Integration Report

Sample Name:	**CCV**	*Inj. Vol.:*	**25.00**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 05:18**	*Run Time:*	**10.00**

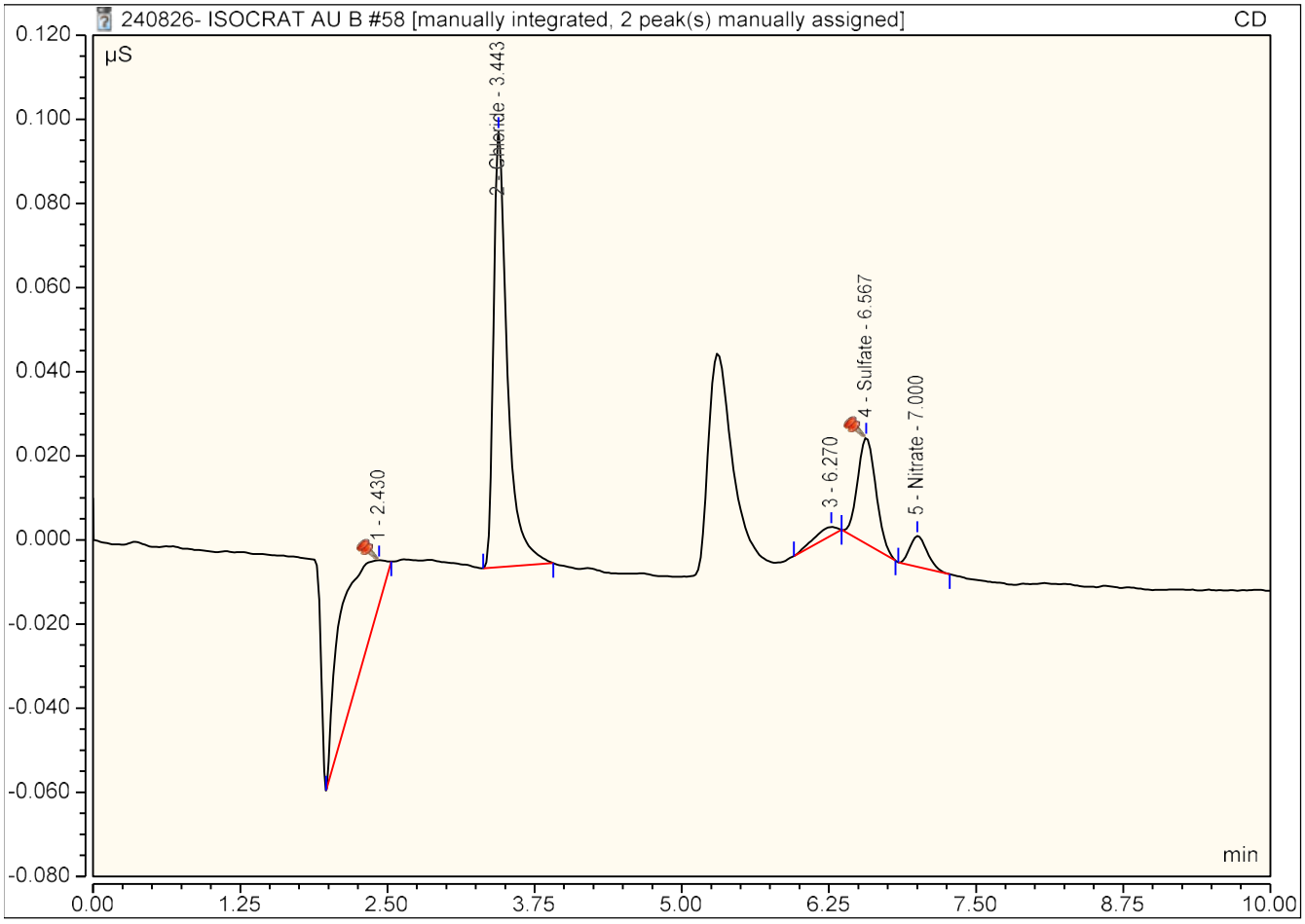
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.33	**Fluoride**	BMB	0.563	5.122	1.0199
3	3.44	**Chloride**	BMB*	4.226	30.849	10.3653
4	5.85	**Bromide**	BMB	0.124	0.771	0.9535
5	6.43	**Sulfate**	BM *	5.928	25.240	20.4562
6	6.95	**Nitrate**	MB*	1.271	5.427	1.0471
TOTAL:				12.11	67.41	33.84



Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 05:30**	*Run Time:*	**10.00**

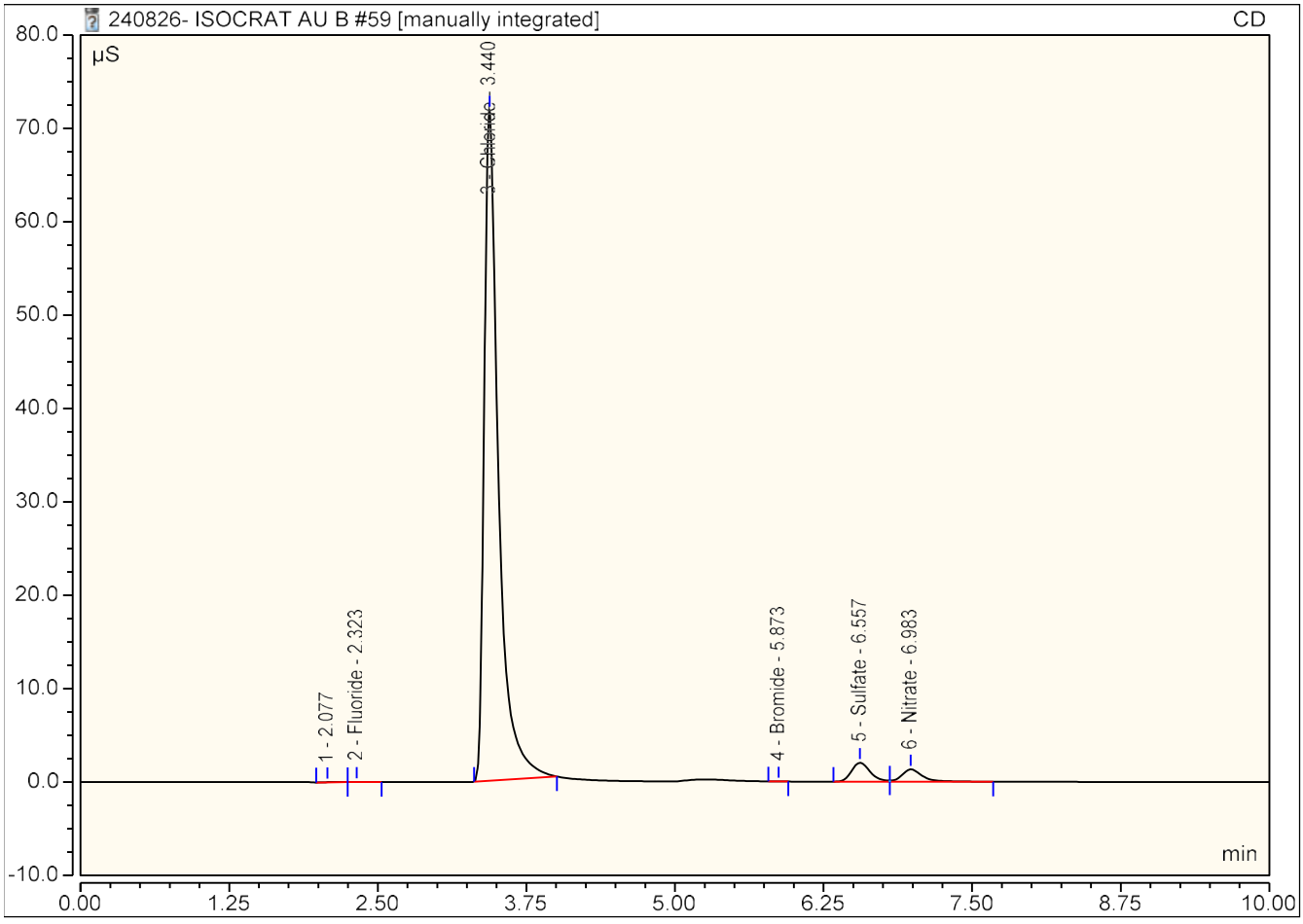
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	3.44	**Chloride**	BMB*	0.014	0.103	0.1623
4	6.57	**Sulfate**	BMB^	0.005	0.025	0.1561
5	7.00	**Nitrate**	BMB	0.001	0.007	0.0221
TOTAL:				0.02	0.14	0.34



Peak Integration Report

Sample Name:	**L2448414-02; 10X CL**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**10.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 05:42**	*Run Time:*	**10.00**

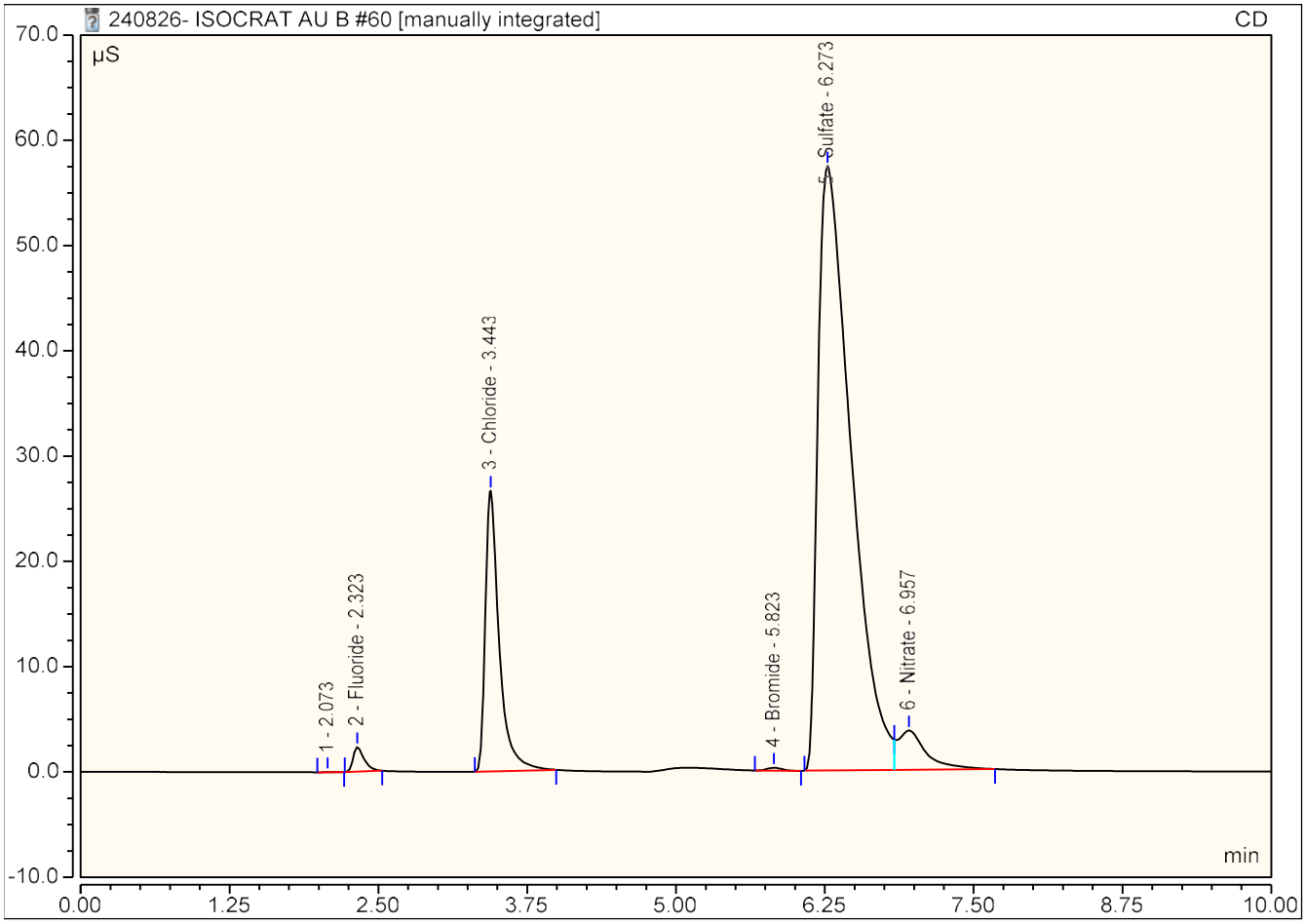
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.002	0.017	0.3190
3	3.44	**Chloride**	BMB*	10.047	71.781	244.6514
4	5.87	**Bromide**	BMB	0.000	0.001	0.3513
5	6.56	**Sulfate**	BM *	0.370	2.034	14.0767
6	6.98	**Nitrate**	MB*	0.265	1.316	2.3500
TOTAL:				10.68	75.15	261.75



Peak Integration Report

Sample Name:	**L2448589-05 MS**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 05:54**	*Run Time:*	**10.00**

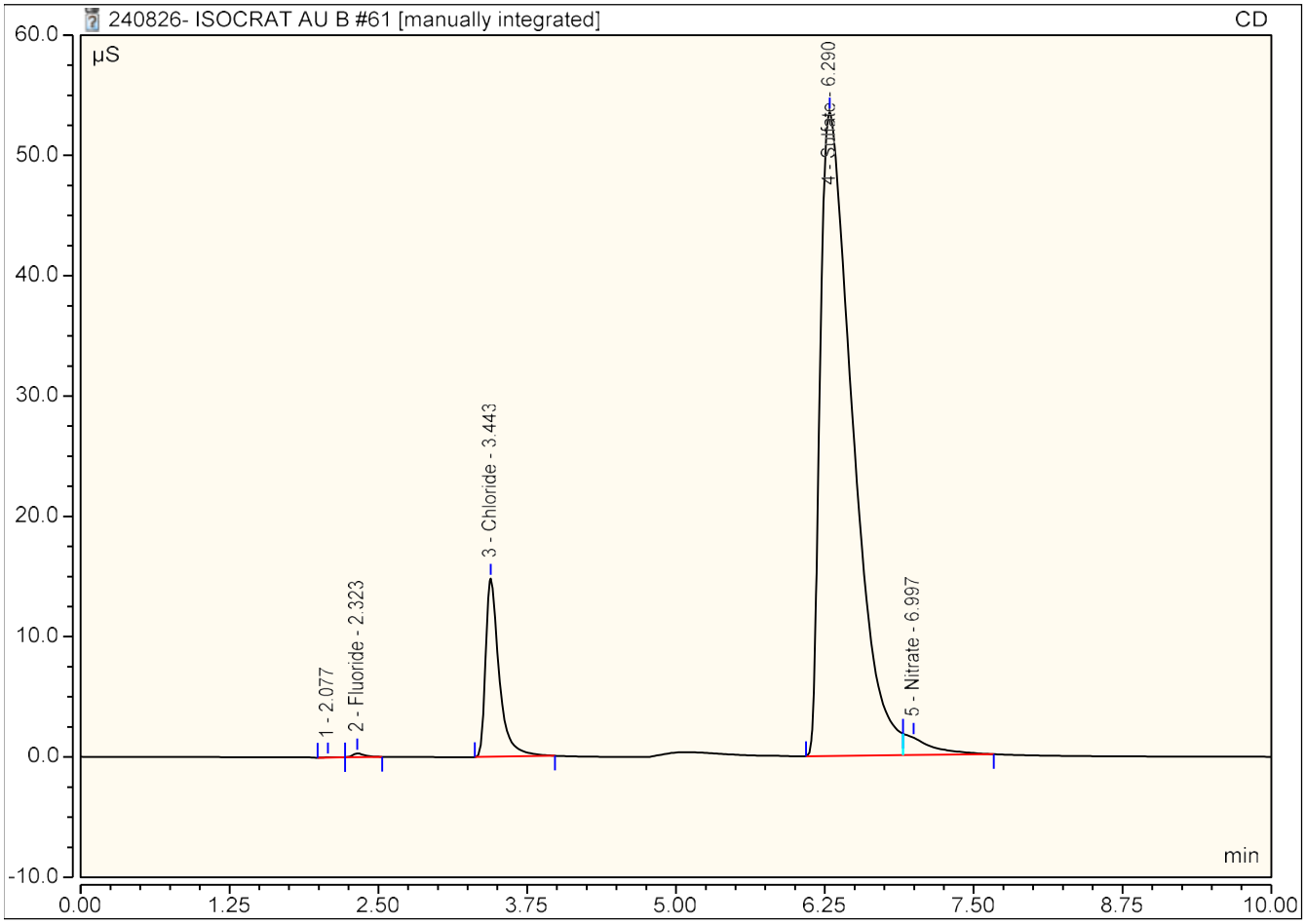
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.249	2.324	0.4662
3	3.44	**Chloride**	BMB*	3.594	26.642	8.8334
4	5.82	**Bromide**	BMB	0.042	0.278	0.3441
5	6.27	**Sulfate**	BM *	18.479	57.386	63.4715
6	6.96	**Nitrate**	MB*	1.039	3.738	0.8602
TOTAL:				23.40	90.37	73.98



Peak Integration Report

Sample Name:	**L2448589-05 DUP**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 06:06**	*Run Time:*	**10.00**

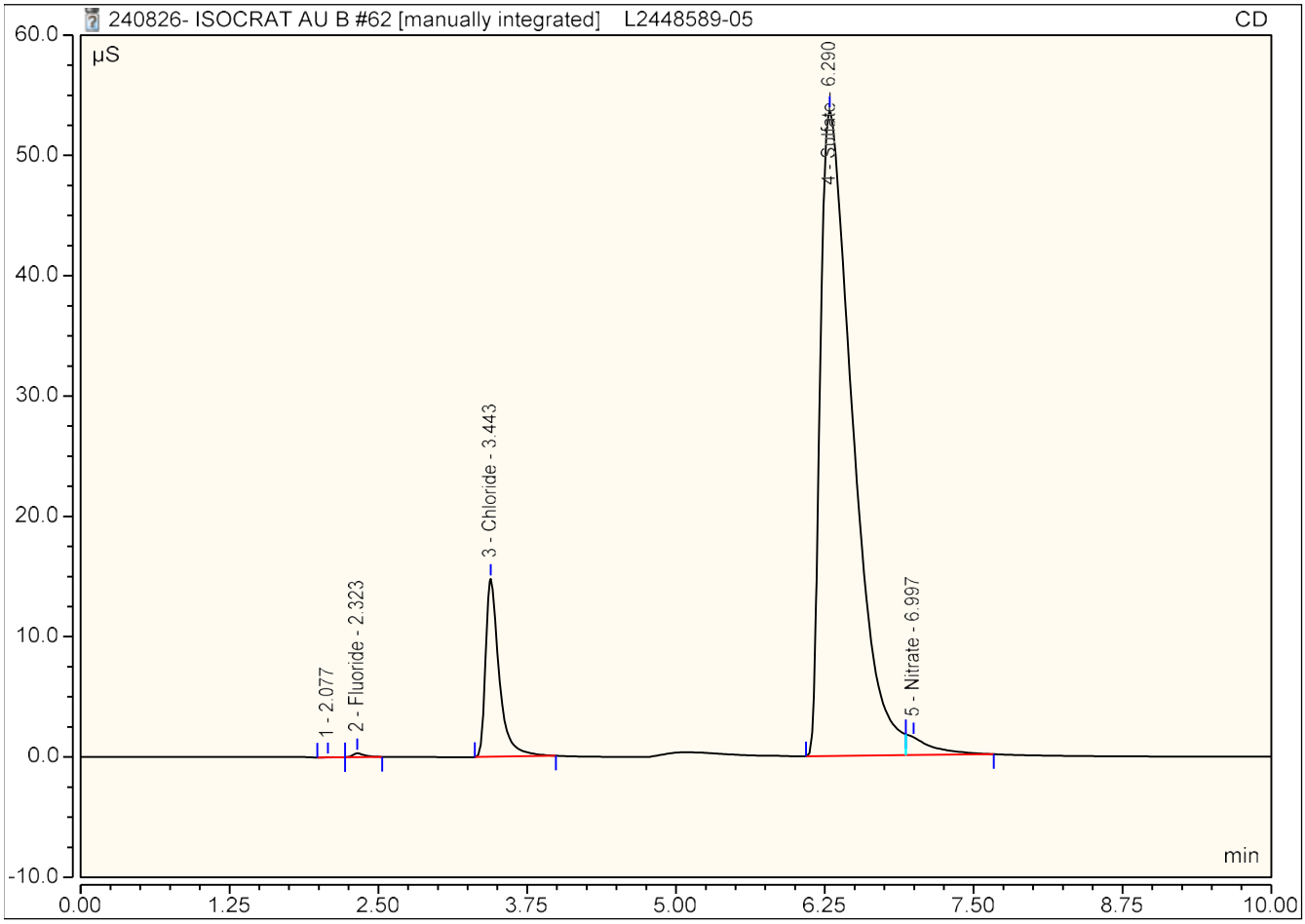
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.035	0.310	0.0890
3	3.44	**Chloride**	BMB*	1.955	14.812	4.8628
4	6.29	**Sulfate**	BM *	16.839	53.496	57.8515
5	7.00	**Nitrate**	MB*	0.426	1.436	0.3649
TOTAL:				19.25	70.05	63.17



Peak Integration Report

Sample Name:	**L2448589-05**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 06:18**	*Run Time:*	**10.00**

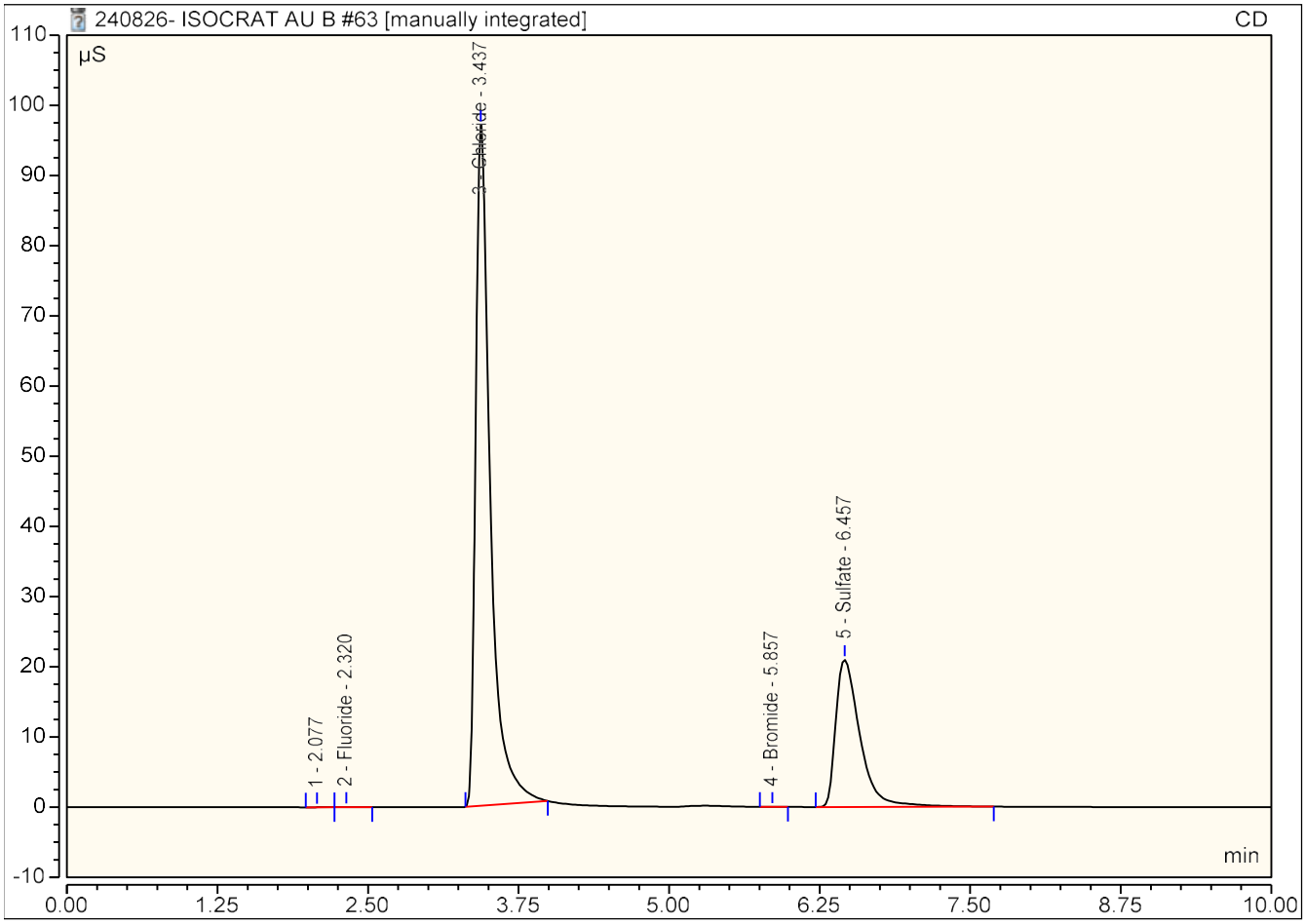
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.034	0.310	0.0886
3	3.44	**Chloride**	BMB*	1.953	14.781	4.8582
4	6.29	**Sulfate**	BM *	16.873	53.598	57.9673
5	7.00	**Nitrate**	MB*	0.392	1.471	0.3374
TOTAL:				19.25	70.16	63.25



Peak Integration Report

Sample Name:	**L2448589-01; 10X CL SO4**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**10.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 06:30**	*Run Time:*	**10.00**

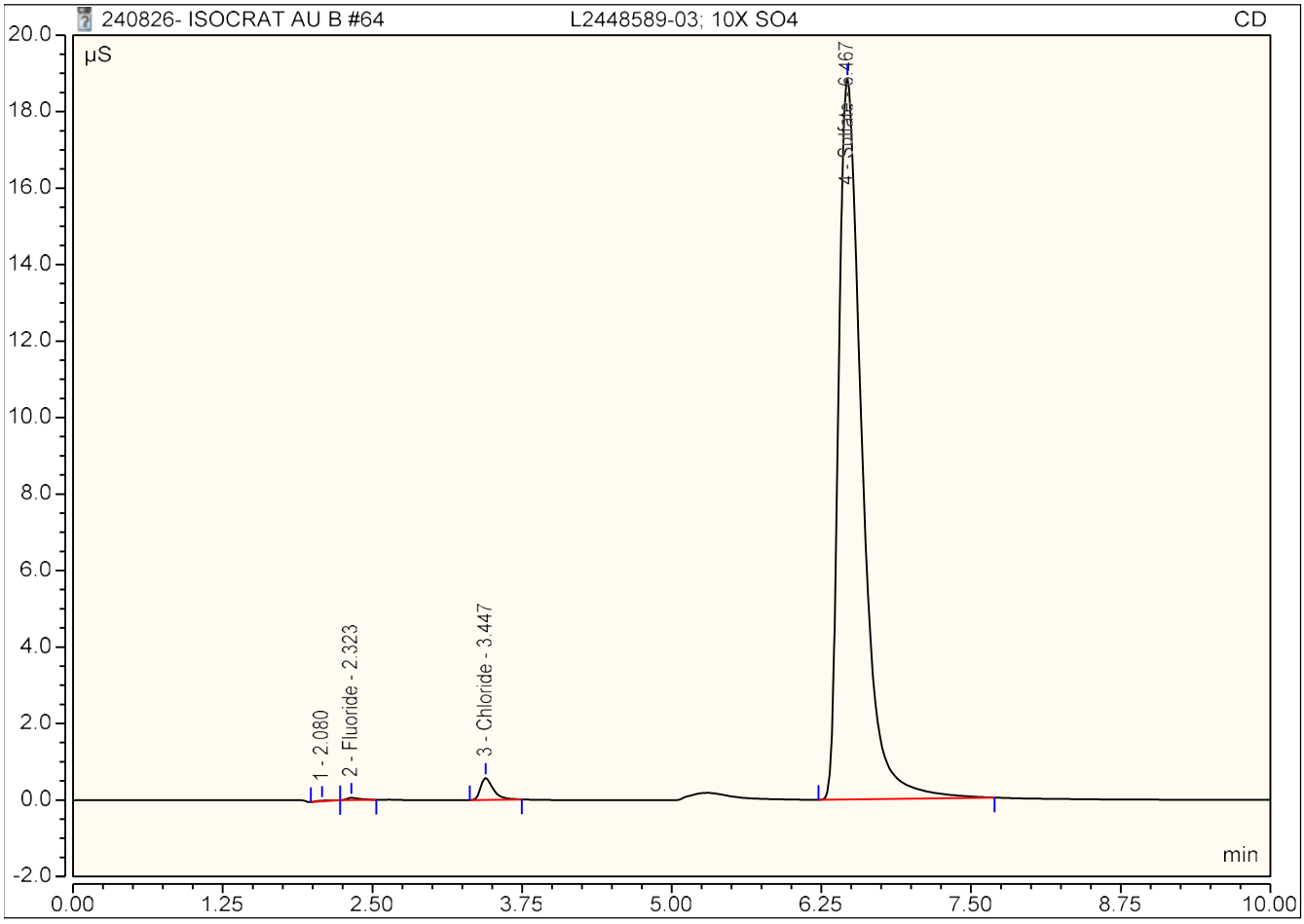
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.004	0.030	0.3437
3	3.44	**Chloride**	BMB*	13.641	96.985	331.7145
4	5.86	**Bromide**	BMB	0.000	0.003	0.3700
5	6.46	**Sulfate**	BMB	4.881	20.958	168.6866
TOTAL:				18.53	117.98	501.11



Peak Integration Report

Sample Name:	**L2448589-03; 10X SO4**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**10.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 06:42**	*Run Time:*	**10.00**

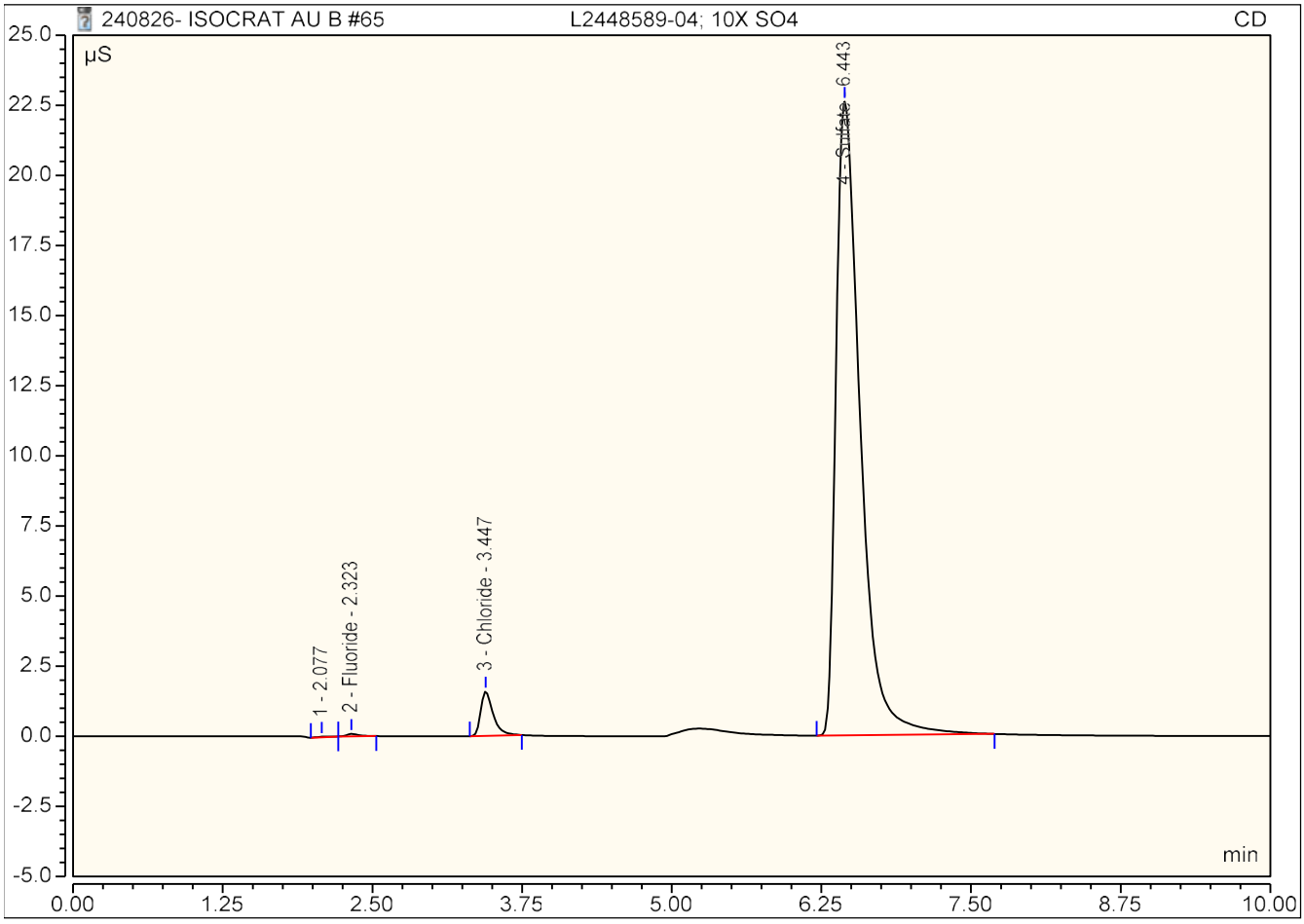
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.008	0.065	0.4171
3	3.45	**Chloride**	BMB	0.071	0.577	2.9988
4	6.47	**Sulfate**	BMB	4.273	18.841	147.8406
TOTAL:				4.35	19.48	151.26



Peak Integration Report

Sample Name:	**L2448589-04; 10X SO4**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**10.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 06:54**	*Run Time:*	**10.00**

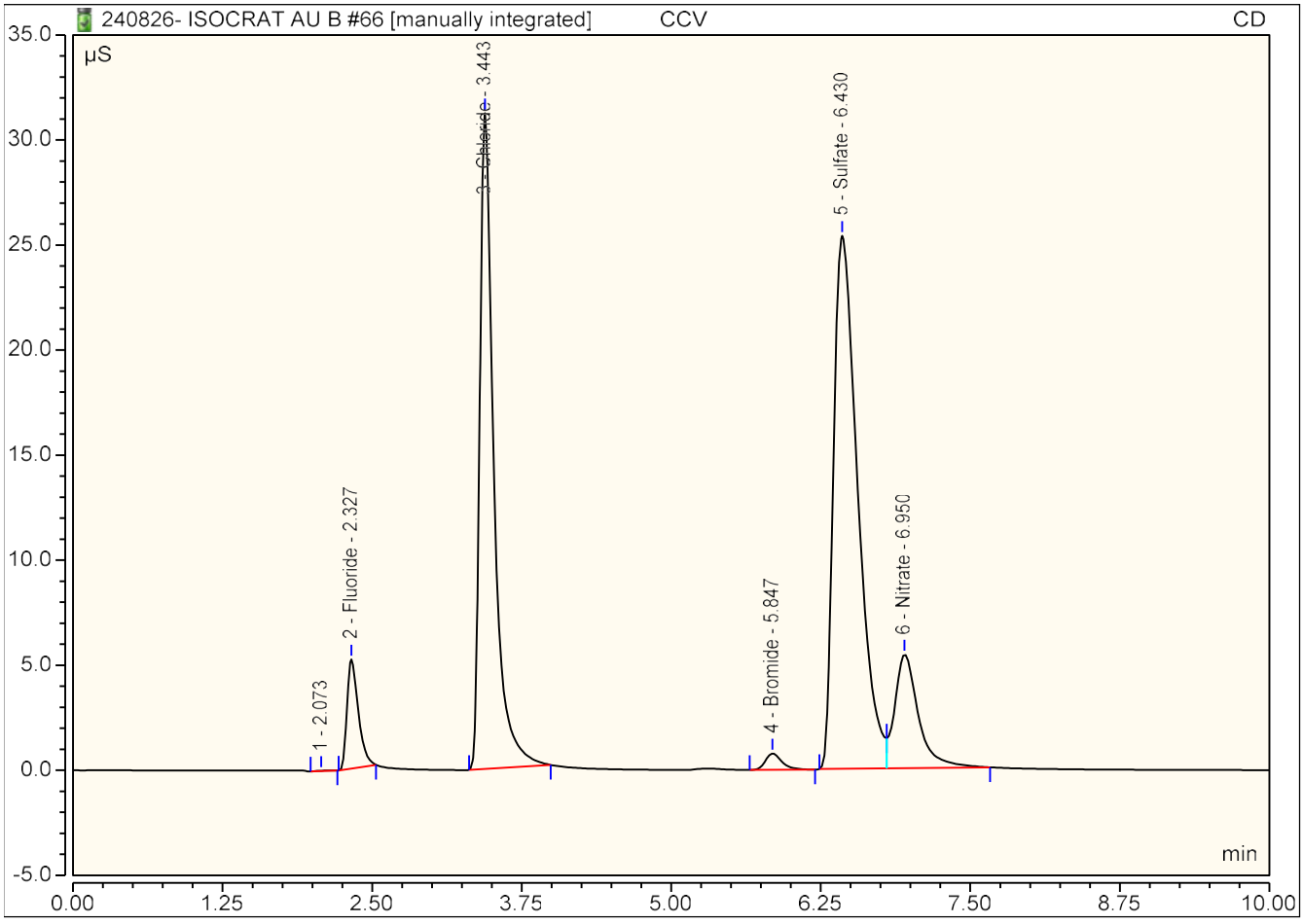
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.32	**Fluoride**	BMB	0.010	0.089	0.4571
3	3.45	**Chloride**	BMB	0.191	1.586	5.9036
4	6.44	**Sulfate**	BMB	5.314	22.604	183.5219
TOTAL:				5.51	24.28	189.88



Peak Integration Report

Sample Name:	**CCV**	*Inj. Vol.:*	**25.00**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 07:06**	*Run Time:*	**10.00**

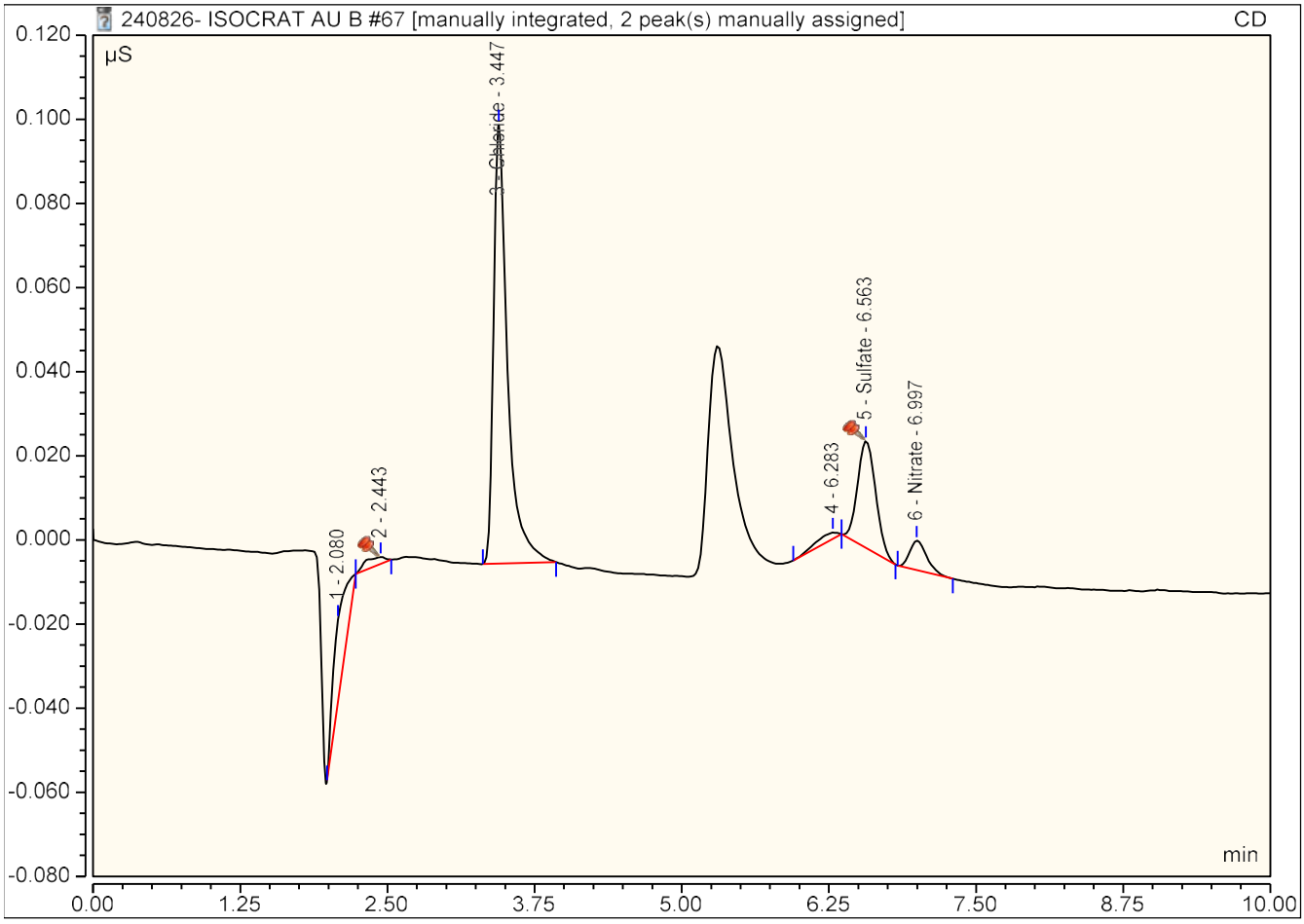
No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
2	2.33	**Fluoride**	BMB	0.566	5.193	1.0249
3	3.44	**Chloride**	BMB*	4.236	31.210	10.3879
4	5.85	**Bromide**	BMB	0.125	0.781	0.9571
5	6.43	**Sulfate**	BM *	5.947	25.366	20.5217
6	6.95	**Nitrate**	MB*	1.245	5.413	1.0264
TOTAL:				12.12	67.96	33.92



Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**25.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Instrument Method:	**Anions_050420_ThermoFisher**	*Operator:*	**IC 4**
Inj. Date / Time:	**27-Aug-2024 / 07:19**	*Run Time:*	**10.00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount
3	3.45	**Chloride**	BMB*	0.014	0.104	0.1627
5	6.56	**Sulfate**	BMB^	0.005	0.025	0.1560
6	7.00	**Nitrate**	BMB	0.001	0.007	0.0220
TOTAL:				0.02	0.14	0.34



Anion Summary Report

No.	Name	Dilution	Amount CD Fluoride	Amount CD Chloride	Amount CD Nitrate	Amount CD Sulfate	Amount CD Bromide
1	BLANK	1.0	0.0447	0.1306	n.a.	0.1437	n.a.
2	STD 0.5	1.0	0.0437	0.3214	0.0422	0.5065	0.0485
3	STD 1.0	1.0	0.0600	0.5266	0.0607	0.9336	0.0695
4	STD 2.0	1.0	0.1787	1.9618	0.1861	3.8785	0.1898
5	STD 3.0	1.0	0.4696	4.9722	0.4800	9.9947	0.4559
6	STD 4.0	1.0	2.0320	19.9406	2.0059	40.3013	2.0113
7	STD 5.0	1.0	4.9909	50.0274	5.2847	99.8855	5.2423
8	RINSE	1.0	0.0430	0.1455	n.a.	0.1485	n.a.
9	CCV	1.0	0.9721	10.3994	1.0822	20.4308	0.9342
10	CCB	1.0	0.0288	0.1654	0.0223	0.1819	n.a.
11	ICV	1.0	0.7870	8.2378	0.7719	7.8539	0.7677
12	ICB	1.0	n.a.	0.1661	0.0222	0.1593	n.a.
13	BLK	1.0	n.a.	0.1435	n.a.	0.1464	n.a.
14	LCS	1.0	0.7829	8.1913	0.7607	7.8427	0.7625
15	L2447890-01 F CL SO4 BR	1.0	0.0423	10.6947	0.1099	5.3707	n.a.
16	L2447890-02	1.0	0.0679	22.4432	n.a.	14.6880	n.a.
17	L2447890-03	1.0	0.0696	21.9089	n.a.	23.1906	0.0579
18	L2447890-04	1.0	0.0907	21.0041	n.a.	14.5715	0.1009
19	L2447890-05	1.0	0.0568	13.0802	0.6303	15.4871	0.0430
20	L2447726-01; 10X CL	10.0	0.3232	74.6209	1.9243	12.7558	n.a.
21	CCV	1.0	0.9788	10.3407	1.0494	20.4250	0.9435
22	CCB	1.0	n.a.	0.1703	0.0229	0.1817	n.a.
23	L2447890-06	1.0	0.0652	22.4901	n.a.	16.6015	n.a.
24	L2447890-07	1.0	0.0477	22.2498	0.8944	23.1740	n.a.
25	L2447890-08	1.0	0.0634	15.1617	2.5032	29.4216	n.a.
26	L2447890-09	1.0	0.1221	22.0577	1.7485	23.9316	n.a.
27	L2447890-10	1.0	0.0836	22.1183	0.2894	24.3106	n.a.
28	L2447890-11	1.0	0.0347	12.2705	4.6733	19.6335	0.0722
29	L2447890-12	1.0	0.0347	12.2264	4.6655	19.6146	0.0728
30	L2448414-01 CL SO4 BR	1.0	0.0518	0.2668	0.0251	0.2455	n.a.
31	L2448414-02	1.0	0.0612	222.0665	2.4223	13.3244	n.a.
32	L2447726-04; 10X CL	10.0	0.3073	88.5341	0.7982	10.5436	n.a.
33	CCV	1.0	1.0106	10.3874	1.0475	20.4128	0.9598
34	CCB	1.0	n.a.	0.1644	0.0220	0.1561	n.a.
35	L2448414-03	1.0	0.1376	16.4692	n.a.	45.2295	0.0390
36	XL2448414-03; 10X	10.0	0.3998	19.1232	n.a.	51.3903	n.a.
37	L2447726-02 CL	1.0	0.0636	0.5262	0.0374	1.4035	0.0381
38	L2447726-03 CL	1.0	0.1371	10.2199	0.0424	1.8742	0.0600
39	L2447831-02; 25X CL	25.0	0.7280	529.6272	1.9530	22.1684	0.9697
40	BLK-2	1.0	n.a.	0.1436	n.a.	0.1471	n.a.
41	LCS-2	1.0	0.8199	8.2483	0.7545	7.9202	0.7795
42	L2448589-01 NO3	1.0	0.0873	314.0944	0.9422	158.5054	0.0602
43	L2448589-02 NO3	1.0	0.2190	133.1661	n.a.	165.5091	n.a.
44	L2448589-02; 10X CL SO4	10.0	0.4526	139.5744	n.a.	171.2131	n.a.

45	CCV	1.0	1.0186	10.3799	1.0514	20.3816	0.9616
46	CCB	1.0	n.a.	0.1653	0.0220	0.1572	n.a.
47	L2448589-03 CL NO3	1.0	0.1662	1.8287	n.a.	142.9001	n.a.
48	L2448589-04 CL NO3	1.0	0.2243	5.3172	n.a.	177.0004	n.a.
49	XL2448589-05	1.0	0.0887	4.5965	0.3787	57.6349	n.a.
50	L2448589-16 SO4 NO3	1.0	0.1107	75.3649	0.2151	11.9863	0.0787
51	L2448589-16; 10X CL	10.0	0.3602	80.1671	0.3887	12.2642	0.3672
52	L2447890-01 MS	1.0	0.4170	14.5302	0.5132	13.6172	0.3726
53	L2447890-01 DUP	1.0	0.0430	10.6895	0.1084	5.4107	0.0420
54	L2447890-11 MS	1.0	0.3882	15.8503	4.9452	26.7918	0.3980
55	L2447890-11 DUP	1.0	0.0350	12.2666	4.6463	19.6687	0.0722
56	XL2448414-01; 10X	10.0	0.3087	1.4643	0.2160	1.5698	n.a.
57	CCV	1.0	1.0199	10.3653	1.0471	20.4562	0.9535
58	CCB	1.0	n.a.	0.1623	0.0221	0.1561	n.a.
59	L2448414-02; 10X CL	10.0	0.3190	244.6514	2.3500	14.0767	0.3513
60	L2448589-05 MS	1.0	0.4662	8.8334	0.8602	63.4715	0.3441
61	L2448589-05 DUP	1.0	0.0890	4.8628	0.3649	57.8515	n.a.
62	L2448589-05	1.0	0.0886	4.8582	0.3374	57.9673	n.a.
63	L2448589-01; 10X CL SO4	10.0	0.3437	331.7145	n.a.	168.6866	0.3700
64	L2448589-03; 10X SO4	10.0	0.4171	2.9988	n.a.	147.8406	n.a.
65	L2448589-04; 10X SO4	10.0	0.4571	5.9036	n.a.	183.5219	n.a.
66	CCV	1.0	1.0249	10.3879	1.0264	20.5217	0.9571
67	CCB	1.0	n.a.	0.1627	0.0220	0.1560	n.a.
	Sum:	181.000	24.3761		55.7899	2349.8971	19.9466
	Average:	2.701	0.4132		1.1158	35.0731	0.5867
	Rel.Std.Dev:	157.314 %	1.7387		1.2848	1.4720	1.6004

Inject Time	Comment
18/Jul/2024 21:02	AU
18/Jul/2024 21:14	LOT#240715-0.5
18/Jul/2024 21:26	LOT#240715-1.0
18/Jul/2024 21:38	LOT#240715-2.0
18/Jul/2024 21:50	LOT#240715-3.0
18/Jul/2024 22:02	LOT#240715-4.0
18/Jul/2024 22:14	LOT#240715-5.0
26/Aug/2024 19:25	NG1964126-127-606
26/Aug/2024 19:37	LOT#240820-C
26/Aug/2024 19:49	AU
26/Aug/2024 20:01	LOT#240820-I
26/Aug/2024 20:14	AU
26/Aug/2024 20:26	AU
26/Aug/2024 20:38	LOT#240820-I
26/Aug/2024 20:50	AU
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26/Aug/2024 21:14	AU
26/Aug/2024 21:26	AU
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26/Aug/2024 22:02	LOT#240820-C
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27/Aug/2024 06:54	AU
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27/Aug/2024 07:19	AU
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	#DIV/0!
	#DIV/0!

Quality Control

Form 5a
Matrix Spike

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-3A	**Matrix**	: WATER
Lab Sample ID	: L2447890-01		
Matrix Spike	: WG1964126-3	**MS Analysis Date**	: 08/27/24 04:17
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Bromide	ND	0.4	0.373	93					90-110	20
Chloride	10.7	4	14.5	96					90-110	18
Fluoride	0.042J	0.4	0.417	104					90-110	15
Sulfate	5.37	8	13.6	103					90-110	20

Form 5a
Matrix Spike

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-9B	**Matrix**	: WATER
Lab Sample ID	: L2447890-11		
Matrix Spike	: WG1964127-3	**MS Analysis Date**	: 08/27/24 04:41
Matrix Spike Dup	:	**MSD Analysis Date**	:

		Matrix Spike Sample				Matrix Spike Duplicate					
Parameter	Sample Conc. (mg/l)	Spike Added (mg/l)	Spike Conc. (mg/l)	%R		Spike Added (mg/l)	Spike Conc. (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Bromide	0.072	0.4	0.398	81	Q					90-110	20
Chloride	12.3	4	15.8	89	Q					90-110	18
Fluoride	ND	0.4	0.388	97						90-110	15
Sulfate	19.6	8	26.8	90						90-110	20

Form 6
Lab Duplicates

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-3A	**Matrix**	: WATER
Lab Sample ID	: L2447890-01	**Analysis Date**	: 08/26/24 20:50
Dup Sample ID	: WG1964126-4	**DUP Analysis Date**	: 08/27/24 04:29

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Bromide	ND	0.042J	NC	20
Chloride	10.7	10.7	0	18
Fluoride	0.042J	0.043J	NC	15
Sulfate	5.37	5.41	1	20

Form 6
Lab Duplicates

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: MW-9B	**Matrix**	: WATER
Lab Sample ID	: L2447890-11	**Analysis Date**	: 08/26/24 23:27
Dup Sample ID	: WG1964127-4	**DUP Analysis Date**	: 08/27/24 04:54

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Bromide	0.072	0.072	0	20
Chloride	12.3	12.3	0	18
Fluoride	ND	ND	NC	15
Sulfate	19.6	19.7	1	20

Form 7
Laboratory Control Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1964126-2	**LCS Analysis Date**	: 08/26/24 20:38
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (mg/l)**	**Found (mg/l)**	**%R**	**True (mg/l)**	**Found (mg/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
Bromide	0.800	0.762	95.					90-110	20
Chloride	8.00	8.19	102.					90-110	18
Fluoride	0.800	0.783	98.					90-110	15
Sulfate	8.00	7.84	98.					90-110	20

Form 7
Laboratory Control Sample

Client	: Alpha Geoscience	**Lab Number**	: L2447890
Project Name	: RANCO MINE	**Project Number**	: 12123
Client Sample ID	: NA	**Matrix**	: WATER
Lab Sample ID	: WG1964127-2	**LCS Analysis Date**	: 08/27/24 02:04
Dup Sample ID	:	**LCSD Analysis Date**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (mg/l)	Found (mg/l)	%R	True (mg/l)	Found (mg/l)	%R	RPD	Recovery Limits	RPD Limit
Bromide	0.800	0.780	98.					90-110	20
Chloride	8.00	8.25	103.					90-110	18
Fluoride	0.800	0.820	102.					90-110	15
Sulfate	8.00	7.92	99.					90-110	20

Date Created: 11/11/21
Created By: Jason Hebert
File: PM11467-1
Page: 1

WETCHEM (WATER)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Method	Holding Time	Container/Sample Preservation
Bromide	24959-67-9	0.05	0.0132	mg/l	90-110		90-110	20	20	300.0	28 days	1 - Plastic 250ml unpreserved
Chloride	16887-00-6	0.5	0.0839	mg/l	90-110		64-148	18	18	9056	28 days	1 - Plastic 250ml unpreserved
Chloride	16887-00-6	0.5	0.0839	mg/l	90-110		90-110	18	18	300.0	28 days	1 - Plastic 250ml unpreserved
Fluoride	16984-48-8	0.05	0.037	mg/l	90-110		81-124	15	15	9056	28 days	1 - Plastic 500ml unpreserved
Fluoride	16984-48-8	0.05	0.037	mg/l	90-110		90-110	15	15	300.0	28 days	1 - Plastic 500ml unpreserved
Nitrogen, Nitrate	14797-55-8	0.05	0.0128	mg/l	90-110		90-110	15	15	300.0	48 hours	1 - Plastic 250ml unpreserved
Nitrogen, Nitrate	14797-55-8	0.05	0.0128	mg/l	90-110		80-120	15	15	9056	48 hours	1 - Plastic 250ml unpreserved
Sulfate	14808-79-8	1	0.454	mg/l	90-110		72-124	20	20	9056	28 days	1 - Plastic 500ml unpreserved
Sulfate	14808-79-8	1	0.454	mg/l	90-110		90-110	20	20	300.0	28 days	1 - Plastic 500ml unpreserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Calculations of Anions by Ion Chromatography

Aqueous samples:

The Dionex calculates the area of the peaks produced by the instrument, compares them to the peak area of the calibration standard stored in its memory, and calculates result in mg/L.

If the sample was manually diluted prior to analysis, the calculated mean must be manually multiplied by the dilution factor. The Reported Detection Limit is also multiplied by the same dilution factor.

$$\text{Result, mg/L} = \frac{\text{area - y-intercept}}{\text{slope}} \times \text{Dilution Factor}$$

Subcontracted Data

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

August 30, 2024

Melissa Deyo
Alpha Analytical Laboratory
8 Walkup Drive
Westborough, MA 01581

Project Location: L2447890
Client Job Number:
Project Number: L2447890
Laboratory Work Order Number: 24H3575

Enclosed are results of analyses for samples as received by the laboratory on August 26, 2024. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Rebecca Faust
Project Manager

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B384278 18

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Alpha Analytical Laboratory
8 Walkup Drive
Westborough, MA 01581
ATTN: Melissa Deyo

REPORT DATE: 8/30/2024

PURCHASE ORDER NUMBER:

PROJECT NUMBER: L2447890

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 24H3575

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: L2447890

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-3A	24H3575-01	Water		SM21-23 4500S-F	
MW-6A	24H3575-02	Water		SM21-23 4500S-F	
MW-6B	24H3575-03	Water		SM21-23 4500S-F	
MW-6C	24H3575-04	Water		SM21-23 4500S-F	
MW-7A	24H3575-05	Water		SM21-23 4500S-F	
MW-7B	24H3575-06	Water		SM21-23 4500S-F	
MW-7C	24H3575-07	Water		SM21-23 4500S-F	
MW-8A	24H3575-08	Water		SM21-23 4500S-F	
MW-8B	24H3575-09	Water		SM21-23 4500S-F	
MW-8C2	24H3575-10	Water		SM21-23 4500S-F	
MW-9B	24H3575-11	Water		SM21-23 4500S-F	
DUP	24H3575-12	Water		SM21-23 4500S-F	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SM21-23 4500S-F

Qualifications:

H-01

Recommended sample holding time was exceeded, but analysis was performed before 2X the allowable holding time.

Analyte & Samples(s) Qualified:

Sulfide

24H3575-02[MW-6A], 24H3575-03[MW-6B], 24H3575-04[MW-6C], 24H3575-05[MW-7A], 24H3575-11[MW-9B], 24H3575-12[DUP]

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-3A Sampled: 8/21/2024 11:10

Sample ID: 24H3575-01

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

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Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-6A Sampled: 8/20/2024 16:40

Sample ID: 24H3575-02

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	H-01	SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

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Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-6B Sampled: 8/20/2024 14:55

Sample ID: 24H3575-03

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	H-01	SM21-23 4500S-F	8/27/24	8/29/24 9:30	DET

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Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-6C Sampled: 8/20/2024 17:55

Sample ID: 24H3575-04

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	H-01	SM21-23 4500S-F	8/27/24	8/29/24 9:30	DET

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Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-7A Sampled: 8/20/2024 16:30

Sample ID: 24H3575-05

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	H-01	SM21-23 4500S-F	8/27/24	8/29/24 9:30	DET

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Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-7B Sampled: 8/21/2024 09:20

Sample ID: 24H3575-06

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

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Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-7C Sampled: 8/21/2024 10:50

Sample ID: 24H3575-07

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

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Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-8A Sampled: 8/21/2024 13:05

Sample ID: 24H3575-08

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

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Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-8B Sampled: 8/21/2024 14:35

Sample ID: 24H3575-09

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

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Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-8C2 Sampled: 8/21/2024 13:40

Sample ID: 24H3575-10

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

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Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-9B Sampled: 8/21/2024 09:00

Sample ID: 24H3575-11

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	H-01	SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

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Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: DUP Sampled: 8/21/2024 00:00

Sample ID: 24H3575-12

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	H-01	SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

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Sample Extraction Data

SM21-23 4500S-F

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
24H3575-01 [MW-3A]	B384278	200	200	08/28/24
24H3575-02 [MW-6A]	B384278	200	200	08/28/24
24H3575-06 [MW-7B]	B384278	200	200	08/28/24
24H3575-07 [MW-7C]	B384278	200	200	08/28/24
24H3575-08 [MW-8A]	B384278	200	200	08/28/24
24H3575-09 [MW-8B]	B384278	200	200	08/28/24
24H3575-10 [MW-8C2]	B384278	200	200	08/28/24
24H3575-11 [MW-9B]	B384278	200	200	08/28/24
24H3575-12 [DUP]	B384278	200	200	08/28/24

SM21-23 4500S-F

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
24H3575-03 [MW-6B]	B384282	200	200	08/27/24
24H3575-04 [MW-6C]	B384282	200	200	08/27/24
24H3575-05 [MW-7A]	B384282	200	200	08/27/24

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B384278 - SM21-23 4500S-F										
Blank (B384278-BLK1)				Prepared & Analyzed: 08/28/24						
Sulfide	ND	2.0	mg/L							
LCS (B384278-BS1)				Prepared & Analyzed: 08/28/24						
Sulfide	9.2	2.0	mg/L	10.0		92.0	79.7-122			
Batch B384282 - SM21-23 4500S-F										
Blank (B384282-BLK1)				Prepared: 08/27/24 Analyzed: 08/29/24						
Sulfide	ND	2.0	mg/L							
LCS (B384282-BS1)				Prepared: 08/27/24 Analyzed: 08/29/24						
Sulfide	8.0	2.0	mg/L	10.0		80.0	79.7-122			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-01	Recommended sample holding time was exceeded, but analysis was performed before 2X the allowable holding time.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SM21-23 4500S-F in Water	
Sulfide	NY,NH,RI,NC,ME,CT

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Department of Public Health	PH-0821	12/31/2024
NY	New York State Department of Health	10899 NELAP	04/1/2025
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2025
RI	Rhode Island Department of Health	LAO00373	12/30/2024
NC	North Carolina Div. of Water Quality	652	12/31/2024
ME	State of Maine	MA00100	06/9/2025

24H3575 RF

ALPHA ANALYTICAL
World Class Chemistry

Subcontract Chain of Custody

Pace New England
39 Spruce St
East Longmeadow, MA 01028

1 of 2

Alpha Job Number
L2447890

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 716.427.5229
Email: Melissa.Deyo@pacelabs.com

Project Information

Project Location: NY
Project Manager: Melissa Deyo

Turnaround & Deliverables Information

Due Date:
Deliverables:

Regulatory Requirements/Report Limits

State/Federal Program:
Regulatory Criteria: NY-TOGS-GA

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2447890

Report to include Method Blank, LCS/LCSD:

Additional Comments: Invoices to: invoices@pacelabs.coupahost.com Reports to: west.subreports@pacelabs.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
	MW-3A	08-21-24 11:10	WATER	Sulfide	
	MW-6A	08-20-24 16:40	WATER	Sulfide	
	MW-6B	08-20-24 14:55	WATER	Sulfide	
	MW-6C	08-20-24 17:55	WATER	Sulfide	
	MW-7A	08-20-24 16:30	WATER	Sulfide	
	MW-7B	08-21-24 09:20	WATER	Sulfide	
	MW-7C	08-21-24 10:50	WATER	Sulfide	
	MW-8A	08-21-24 13:05	WATER	Sulfide	
	MW-8B	08-21-24 14:35	WATER	Sulfide	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	PAS	2/26/24	PAL	8/26/24 07:01
	PAS	8/26/24 08:37	36	8/26/24 837
Form No: AL_subcoc				

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24H3575 RF

Subcontract Chain of Custody

Pace New England
39 Spruce St
East Longmeadow, MA 01028

2 of 2

Alpha Job Number
L2447890

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 716.427.5229
Email: Melissa.Deyo@pacelabs.com

Project Information

Project Location: NY
Project Manager: Melissa Deyo

Turnaround & Deliverables Information

Due Date:
Deliverables:

Regulatory Requirements/Report Limits

State/Federal Program:
Regulatory Criteria: NY-TOGS-GA

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2447890

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
01	MW-8C2	08-21-24 13:40	WATER	Sulfide	
02	MW-9B	08-21-24 09:00	WATER	Sulfide	
03	DUP	08-21-24 00:00	WATER	Sulfide	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	FPS	8/26/24 7:01	PAS	8/26/24 07:01
	PAS	8/26/24 09:37	SG	8/26/24 857
Form No: AL_subcoc				

Table of Contents

DC#_Title: ENV-FRM-ELON-0001 v08_Sample Receiving Checklist

Effective Date: 06/11/2024

Log In Back-Sheet

Client Alpha

Project # 12447890

MCP/RCP Required no

Deliverable Package Requirement none

Location NY

PWSID# (When Applicable) no

Arrival Method:

Courier ☑ Fed Ex ☐ Walk In ☐ Other ☐

Received By / Date / Time ER 8/26/24 0837

Back-Sheet By / Date / Time MM 8/26/24 1733

Temperature Method Gun # 4

WV samples: Yes (see note*) / No (follow normal procedure)

Temp < 6° C Actual Temperature 3.6

Rush Samples: Yes / No Notify No

Short Hold: Yes / No Notify No

Notes regarding Samples/COC outside of SOP:

Login Sample Receipt Checklist – (Rejection Criteria Listing – Using Acceptance Policy) Any False statement will be brought to the attention of the Client – True or False

	True	False
Received on Ice	☑	☐
Received in Cooler	☑	☐
Custody Seal: DATE TIME	☐	☑
COC Relinquished	☑	☐
COC/Samples Labels Agree	☑	☐
All Samples in Good Condition	☑	☐
Samples Received within Holding Time	☑	☐
Is there enough Volume	☑	☐
Proper Media/Container Used	☑	☐
Splitting Samples Required	☐	☑
MS/MSD	☐	☑
Trip Blanks	☐	☑
Lab to Filters	☐	☑
COC Legible	☑	☐

COC Included: (Check all included)

Client ☑ Analysis ☑ Sampler Name ☐

Project ☑ IDs ☑ Collection Date/Time ☑

All Samples Proper pH: N/A ☑ ☐

Additional Container Notes

**Note: West Virginia requires all samples to have their temperature taken. Note any outliers.*

Qualtrax ID: 120836

Page 1 of 2

Qualtrax ID: 120836

Sample	Soils Jars (Circle Amb/Clear)				Ambers						Plastics												VOA Vials					Other / Fill in					
	16oz Amb/Clear	8oz Amb/Clear	4oz Amb/Clear	2oz Amb/Clear	1 Liter			250mL		100mL	1 Liter		500mL		250mL								Unpreserved	HCl	MeOH	D.I. Water	Bisulfate	Col/Bact					
					Unpreserved	HCL	Sulfuric	Sulfuric	Phosphoric	HCl	Unpreserved	Unpreserved	Sulfuric	Unpreserved	Sulfuric	Trizma	Sulfuric	Nitric	NaOH	Ammonium Acetate	NaOH/Zinc											
1																					2											
2																					→											
3																					→											
4																					→											
5																					→											
6																					→											
7																					→											
8																					→											
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18																																
19																																
20																																

Pace	DC#_Title: ENV-FRM-ELON-0001 v08_Sample Receiving Checklist
	Effective Date: 06/11/2024

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

September 03, 2024

Pace MA
Pace MA
Eight Walkup Drive
Westborough, MA 01581

RE: Project: L2447890
Pace Project No.: 50381096

Dear Pace MA:

Enclosed are the analytical results for sample(s) received by the laboratory on August 27, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tina Sayer

Tina Sayer
tina.sayer@pacelabs.com
(317)228-3127
Project Manager

Enclosures

cc: Melissa Deyo, Pace MA

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: L2447890
Pace Project No.: 50381096

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: L2447890
Pace Project No.: 50381096

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50381096001	**MW-3A**	Water	08/21/24 11:10	08/27/24 09:05
50381096002	**MW-6A**	Water	08/20/24 16:40	08/27/24 09:05
50381096003	**MW-6B**	Water	08/20/24 14:55	08/27/24 09:05
50381096004	**MW-6C**	Water	08/20/24 17:55	08/27/24 09:05
50381096005	**MW-7A**	Water	08/20/24 16:30	08/27/24 09:05
50381096006	**MW-7B**	Water	08/21/24 09:20	08/27/24 09:05
50381096007	**MW-7C**	Water	08/21/24 10:50	08/27/24 09:05
50381096008	**MW-8A**	Water	08/21/24 13:05	08/27/24 09:05
50381096009	**MW-8B**	Water	08/21/24 14:35	08/27/24 09:05
50381096010	**MW-8C2**	Water	08/21/24 13:40	08/27/24 09:05
50381096011	**MW-9B**	Water	08/21/24 09:00	08/27/24 09:05
50381096012	**DUP**	Water	08/21/24 00:00	08/27/24 09:05

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SAMPLE ANALYTE COUNT

Project: L2447890
Pace Project No.: 50381096

Lab ID	Sample ID	Method	Analysts	Analytes Reported
50381096001	**MW-3A**	EPA 9056	ADM	1
50381096002	**MW-6A**	EPA 9056	ADM	1
50381096003	**MW-6B**	EPA 9056	ADM	1
50381096004	**MW-6C**	EPA 9056	ADM	1
50381096005	**MW-7A**	EPA 9056	ADM	1
50381096006	**MW-7B**	EPA 9056	ADM	1
50381096007	**MW-7C**	EPA 9056	ADM	1
50381096008	**MW-8A**	EPA 9056	ADM	1
50381096009	**MW-8B**	EPA 9056	ADM	1
50381096010	**MW-8C2**	EPA 9056	ADM	1
50381096011	**MW-9B**	EPA 9056	ADM	1
50381096012	**DUP**	EPA 9056	ADM	1

PASI-I = Pace Analytical Services - Indianapolis

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(317)228-3100

ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-3A **Lab ID: 50381096001** Collected: 08/21/24 11:10 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		08/31/24 21:25		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-6A **Lab ID: 50381096002** Collected: 08/20/24 16:40 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		08/31/24 21:42		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-6B **Lab ID: 50381096003** Collected: 08/20/24 14:55 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		08/31/24 22:00		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-6C **Lab ID: 50381096004** Collected: 08/20/24 17:55 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		08/31/24 22:52		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-7A **Lab ID: 50381096005** Collected: 08/20/24 16:30 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		08/31/24 23:09		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-7B **Lab ID: 50381096006** Collected: 08/21/24 09:20 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		09/01/24 00:01		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-7C **Lab ID: 50381096007** Collected: 08/21/24 10:50 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		09/01/24 00:18		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-8A **Lab ID: 50381096008** Collected: 08/21/24 13:05 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		09/01/24 00:35		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-8B **Lab ID: 50381096009** Collected: 08/21/24 14:35 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		09/01/24 00:52		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-8C2 **Lab ID: 50381096010** Collected: 08/21/24 13:40 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		09/01/24 01:10		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-9B **Lab ID: 50381096011** Collected: 08/21/24 09:00 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		09/01/24 01:27		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: DUP **Lab ID: 50381096012** Collected: 08/21/24 00:00 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		09/01/24 01:44		

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(317)228-3100

QUALITY CONTROL DATA

Project: L2447890
Pace Project No.: 50381096

QC Batch: 807138 | Analysis Method: EPA 9056
QC Batch Method: EPA 9056 | Analysis Description: 9056 Iodide by IC
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50381096001, 50381096002, 50381096003, 50381096004, 50381096005, 50381096006, 50381096007, 50381096008, 50381096009, 50381096010, 50381096011, 50381096012

METHOD BLANK: 3691616 Matrix: Water
Associated Lab Samples: 50381096001, 50381096002, 50381096003, 50381096004, 50381096005, 50381096006, 50381096007, 50381096008, 50381096009, 50381096010, 50381096011, 50381096012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iodide	mg/L	ND	0.50	09/01/24 02:02	

LABORATORY CONTROL SAMPLE: 3691617

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iodide	mg/L	5	5.2	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3691618 3691619

Parameter	Units	50381096003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iodide	mg/L	ND	10	10	10	10.0	99	100	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: L2447890
Pace Project No.: 50381096

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L2447890
Pace Project No.: 50381096

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50381096001	**MW-3A**	EPA 9056	807138		
50381096002	**MW-6A**	EPA 9056	807138		
50381096003	**MW-6B**	EPA 9056	807138		
50381096004	**MW-6C**	EPA 9056	807138		
50381096005	**MW-7A**	EPA 9056	807138		
50381096006	**MW-7B**	EPA 9056	807138		
50381096007	**MW-7C**	EPA 9056	807138		
50381096008	**MW-8A**	EPA 9056	807138		
50381096009	**MW-8B**	EPA 9056	807138		
50381096010	**MW-8C2**	EPA 9056	807138		
50381096011	**MW-9B**	EPA 9056	807138		
50381096012	**DUP**	EPA 9056	807138		

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Pg 1 of 2

ALPHA ANALYTICAL
World Class Chemistry

Subcontract Chain

Pace Analytical (Indianapolc
7726 Moller Road
Indianapolis, IN 46268

WO# : 50381096

50381096

Alpha Job Number
L2447890

Client Information	Project Information	Regulatory Requirements/Report Limits
Client: Alpha Analytical Labs Address: Eight Walkup Drive Westborough, MA 01581-1019 Phone: 716.427.5229 Email: Melissa.Deyo@pacelabs.com	Project Location: NY Project Manager: Melissa Deyo **Turnaround & Deliverables Information** Due Date: Deliverables:	State/Federal Program: Regulatory Criteria: NY-TOGS-GA

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2447890

Report to include Method Blank, LCS/LCSD:

Additional Comments: Invoices to: invoices@pacelabs.coupahost.com Reports to: west.subreports@pacelabs.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
	MW-3A	08-21-24 11:10	WATER	Iodide 001	
	MW-6A	08-20-24 16:40	WATER	Iodide 002	
	MW-6B	08-20-24 14:55	WATER	Iodide 003	
	MW-6C	08-20-24 17:55	WATER	Iodide 004	
	MW-7A	08-20-24 16:30	WATER	Iodide 005	
	MW-7B	08-21-24 09:20	WATER	Iodide 006	
	MW-7C	08-21-24 10:50	WATER	Iodide 007	
	MW-8A	08-21-24 13:05	WATER	Iodide 008	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
		8/26/24	Fedex	
	Fedex	8/27/24 905	LA / Pace	8/27/24 905
Form No: AL_subcoc				

Pg 2082

Subcontract Chain of Custody

Pace Analytical (Indianapolis, IN)
7726 Moller Road
Indianapolis, IN 46268

Alpha Job Number
L2447890

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 716.427.5229
Email: Melissa.Deyo@pacelabs.com

Project Information

Project Location: NY
Project Manager: Melissa Deyo

Turnaround & Deliverables Information

Due Date:
Deliverables:

Regulatory Requirements/Report Limits

State/Federal Program:

Regulatory Criteria: NY-TOGS-GA

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2447890

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
	MW-8B	08-21-24 14:35	WATER	Iodide 009	
	MW-8C2	08-21-24 13:40	WATER	Iodide 006	
	MW-9B	08-21-24 09:00	WATER	Iodide 007	
	DUP	08-21-24 00:00	WATER	Iodide 012	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
		8/26/24	Fedex	
	Fedex	8/27/24 925		8/27/24 905
Form No: AL_subcoc				

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 8/27/24 1050

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No
   (If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 9 A (B) C D E F G H I
4. **Cooler Temperature(s):** 1.0/1.0 | | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☒ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			✓
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a PINK dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit			Matrix
1																		1											WT
2																		↓											↓
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																		↓											↓

Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
Red	Yellow	Green	Black
HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	CG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	CG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3B	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

NT3U	Non Teflon 250mL unpreserved plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

ANALYTICAL REPORT

September 13, 2024

Pace Analytical (Alpha) - Westborough,MA

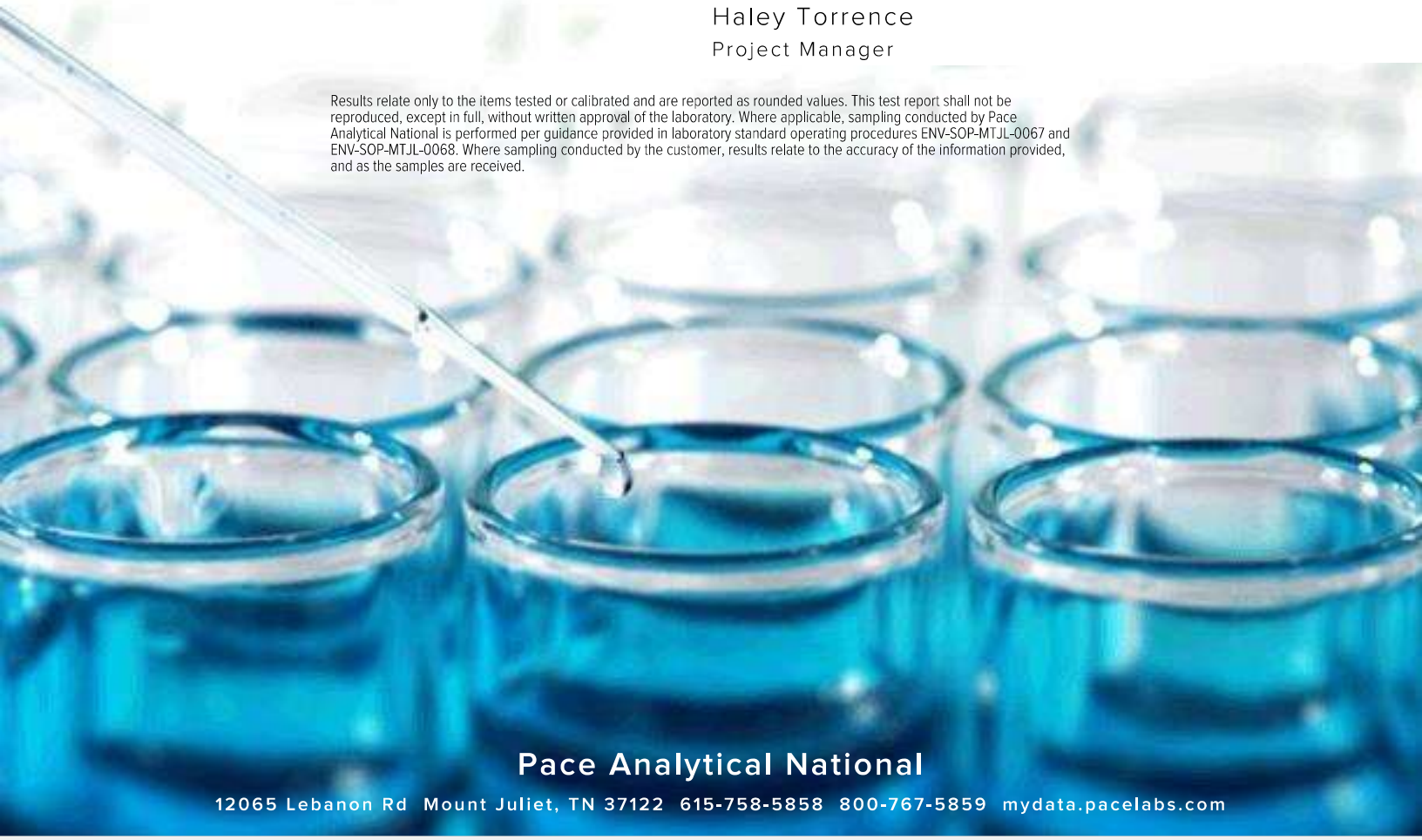
Sample Delivery Group:	L1771851
Samples Received:	08/27/2024
Project Number:	L2447890
Description:	

Report To: Melissa Deyo
8 Walkup Drive
Westborough, MA 01581

Entire Report Reviewed By:

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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MW-3A L1771851-01 WW

Collected by	Collected date/time	Received date/time
	08/21/24 11:10	08/27/24 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 200.8	WG2356031	1	09/12/24 07:05	09/12/24 18:07	LD	Mt. Juliet, TN

MW-6A L1771851-02 WW

Collected by	Collected date/time	Received date/time
	08/20/24 16:40	08/27/24 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 200.8	WG2356031	1	09/12/24 07:05	09/12/24 18:10	LD	Mt. Juliet, TN

MW-6B L1771851-03 WW

Collected by	Collected date/time	Received date/time
	08/20/24 14:55	08/27/24 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 200.8	WG2356031	1	09/12/24 07:05	09/12/24 17:29	LD	Mt. Juliet, TN

MW-9B L1771851-04 WW

Collected by	Collected date/time	Received date/time
	08/21/24 09:00	08/27/24 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 200.8	WG2356031	1	09/12/24 07:05	09/12/24 18:13	LD	Mt. Juliet, TN

DUP L1771851-05 WW

Collected by	Collected date/time	Received date/time
	08/21/24 00:00	08/27/24 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 200.8	WG2356031	1	09/12/24 07:05	09/12/24 18:17	LD	Mt. Juliet, TN

FIELD BLANK L1771851-06 WW

Collected by	Collected date/time	Received date/time
	08/21/24 09:30	08/27/24 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 200.8	WG2356031	1	09/12/24 07:05	09/12/24 18:20	LD	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Haley Torrence
Project Manager

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Uranium	U		0.0854	1.00	1	09/12/2024 18:07	WG2356031

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Uranium	U		0.0854	1.00	1	09/12/2024 18:10	WG2356031

Metals (ICPMS) by Method 200.8

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Uranium	0.382	J	0.0854	1.00	1	09/12/2024 17:29	WG2356031

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Uranium	U		0.0854	1.00	1	09/12/2024 18:13	WG2356031

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Uranium	U		0.0854	1.00	1	09/12/2024 18:17	WG2356031

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Uranium	U		0.0854	1.00	1	09/12/2024 18:20	WG2356031

Method Blank (MB)

(MB) R4119250-1 09/12/24 17:23

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Uranium	U		0.0854	1.00

Laboratory Control Sample (LCS)

(LCS) R4119250-2 09/12/24 17:26

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Uranium	50.0	48.6	97.2	85.0-115	

L1771851-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1771851-03 09/12/24 17:29 • (MS) R4119250-4 09/12/24 17:36 • (MSD) R4119250-5 09/12/24 17:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Uranium	50.0	0.382	47.7	50.0	94.7	99.2	1	70.0-130			4.61	20

L1771853-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1771853-03 09/12/24 17:42 • (MS) R4119250-6 09/12/24 17:46 • (MSD) R4119250-7 09/12/24 17:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Uranium	50.0	0.570	49.3	49.2	97.5	97.2	1	70.0-130			0.228	20

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

G179

Subcontract Chain of Custody

Pace Analytical National
12065 Lebanon Road
Mt. Juliet, TN 37122

Alpha Job Number
L2447890

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 716.427.5229
Email: Melissa.Deyo@pacelabs.com

Project Information

Project Location: NY
Project Manager: Melissa Deyo

Turnaround & Deliverables Information

Due Date:
Deliverables:

Regulatory Requirements/Report Limits

State/Federal Program:

Regulatory Criteria: NY-TOGS-GA

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2447890

Report to include Method Blank, LCS/LCSD:

Additional Comments: Invoices to: invoices@pacelabs.coupahost.com Reports to: west.subreports@pacelabs.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
UM 1851	MW-3A -01	08-21-24 11:10	WATER	Uranium by EPA 200.8	
	MW-6A -02	08-20-24 16:40	WATER	Uranium by EPA 200.8	
	MW-6B -03	08-20-24 14:55	WATER	Uranium by EPA 200.8	MS;MSD
	MW-9B -04	08-21-24 09:00	WATER	Uranium by EPA 200.8	
	DUP -05	08-21-24 00:00	WATER	Uranium by EPA 200.8	
	FIELD BLANK -06	08-21-24 09:30	WATER	Uranium by EPA 200.8	

TLA9 3.1+0.3=3.4 7781 8524 0990

Sample Receipt Checklist

COC Seal Present/Intact:	X Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	X Y N		

Container: 1 8 AB 08/27/2024

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/26/24		08/27/2024 0830

Form No: AL_subcoc

Tracking Numbers	Temperature
7781 8527 0990	11A9 3.140.3=3.4
7781 8527 1004	11A9 2.340.3=2.6

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

September 19, 2024

Melissa Gulli
Alpha Analytical
8 Walkup Drive
Westborough, MA 01581

RE: Project: L2447890
Pace Project No.: 30713417

Dear Melissa Gulli:

Enclosed are the analytical results for sample(s) received by the laboratory on August 28, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Skyler C. Richmond
skyler.richmond@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Customer Service, Alpha Analytical

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: L2447890
Pace Project No.: 30713417

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: L2447890
Pace Project No.: 30713417

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30713417001	**MW-3A**	Water	08/21/24 11:10	08/28/24 20:48
30713417002	**MW-6A**	Water	08/20/24 16:40	08/28/24 20:48
30713417003	**MW-6B**	Water	08/20/24 14:55	08/28/24 20:48
30713417004	**MW-6B MS**	Water	08/20/24 14:55	08/28/24 20:48
30713417005	**MW-6B MSD**	Water	08/20/24 14:55	08/28/24 20:48
30713417006	**MW-9B**	Water	08/21/24 09:00	08/28/24 20:48
30713417007	**DUP**	Water	08/21/24 00:00	08/28/24 20:48
30713417008	**FIELD BLANK**	Water	08/21/24 09:30	08/28/24 20:48

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: L2447890
Pace Project No.: 30713417

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30713417001	**MW-3A**	EPA 903.1	REH1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		HSL-300	JJY	3	PASI-PA
30713417002	**MW-6A**	EPA 903.1	REH1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		HSL-300	JJY	3	PASI-PA
30713417003	**MW-6B**	EPA 903.1	REH1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		HSL-300	JJY	3	PASI-PA
30713417004	**MW-6B MS**	EPA 903.1	REH1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		HSL-300	JJY	1	PASI-PA
30713417005	**MW-6B MSD**	EPA 903.1	REH1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		HSL-300	JJY	1	PASI-PA
30713417006	**MW-9B**	EPA 903.1	REH1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		HSL-300	JJY	3	PASI-PA
30713417007	**DUP**	EPA 903.1	REH1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		HSL-300	JJY	3	PASI-PA
30713417008	**FIELD BLANK**	EPA 903.1	REH1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA
		HSL-300	JJY	3	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: L2447890
Pace Project No.: 30713417

Sample: MW-3A **Lab ID: 30713417001** Collected: 08/21/24 11:10 Received: 08/28/24 20:48 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.113 ± 0.685 (1.33) C:NA T:91%**	pCi/L	09/11/24 13:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.171 ± 0.303 (0.663) C:81% T:90%**	pCi/L	09/17/24 11:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Thorium-228	HSL-300	**-0.018 ± 0.118 (0.354) C:NA T:87%**	pCi/L	09/17/24 08:57	14274-82-9	
Thorium-230	HSL-300	**0.000 ± 0.107 (0.081) C:NA T:87%**	pCi/L	09/17/24 08:57	14269-63-7	
Thorium-232	HSL-300	**-0.014 ± 0.107 (0.177) C:NA T:87%**	pCi/L	09/17/24 08:57	7440-29-1	

Sample: MW-6A **Lab ID: 30713417002** Collected: 08/20/24 16:40 Received: 08/28/24 20:48 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.318 ± 0.530 (0.922) C:NA T:95%**	pCi/L	09/11/24 13:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.854 ± 0.380 (0.617) C:81% T:87%**	pCi/L	09/17/24 11:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Thorium-228	HSL-300	**0.033 ± 0.135 (0.338) C:NA T:87%**	pCi/L	09/17/24 08:57	14274-82-9	
Thorium-230	HSL-300	**-0.007 ± 0.105 (0.146) C:NA T:87%**	pCi/L	09/17/24 08:57	14269-63-7	
Thorium-232	HSL-300	**0.057 ± 0.106 (0.114) C:NA T:87%**	pCi/L	09/17/24 08:57	7440-29-1	

Sample: MW-6B **Lab ID: 30713417003** Collected: 08/20/24 14:55 Received: 08/28/24 20:48 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.303 ± 0.583 (1.02) C:NA T:93%**	pCi/L	09/11/24 13:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.748 ± 0.399 (0.715) C:77% T:90%**	pCi/L	09/17/24 11:31	15262-20-1	
	Pace Analytical Services - Greensburg					
Thorium-228	HSL-300	**-0.065 ± 0.113 (0.379) C:NA T:83%**	pCi/L	09/17/24 08:57	14274-82-9	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: L2447890
Pace Project No.: 30713417

Sample: MW-6B **Lab ID: 30713417003** Collected: 08/20/24 14:55 Received: 08/28/24 20:48 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Thorium-230	HSL-300	**-0.015 ± 0.109 (0.181) C:NA T:83%**	pCi/L	09/17/24 08:57	14269-63-7	
Thorium-232	HSL-300	**0.000 ± 0.109 (0.083) C:NA T:83%**	pCi/L	09/17/24 08:57	7440-29-1	

Sample: MW-6B MS **Lab ID: 30713417004** Collected: 08/20/24 14:55 Received: 08/28/24 20:48 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**93.46 %REC ± NA (NA) C:NA T:NA**	pCi/L	09/11/24 13:03	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**87.27 %REC ± NA (NA) C:NA T:NA**	pCi/L	09/17/24 11:31	15262-20-1	
		Pace Analytical Services - Greensburg				
Thorium-230	HSL-300	**99.78 %REC ± NA (NA) C:NA T:NA**	pCi/L	09/17/24 08:57	14269-63-7	

Sample: MW-6B MSD **Lab ID: 30713417005** Collected: 08/20/24 14:55 Received: 08/28/24 20:48 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**80.27 %REC 15.18RPD ± NA (NA) C:NA T:NA**	pCi/L	09/11/24 13:03	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**77.11 %REC 12.37RPD ± NA (NA) C:NA T:NA**	pCi/L	09/17/24 11:32	15262-20-1	
		Pace Analytical Services - Greensburg				
Thorium-230	HSL-300	**90.32 %REC 9.96RPD ± NA (NA) C:NA T:NA**	pCi/L	09/17/24 08:57	14269-63-7	

Sample: MW-9B **Lab ID: 30713417006** Collected: 08/21/24 09:00 Received: 08/28/24 20:48 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**0.0559 ± 0.425 (0.840) C:NA T:97%**	pCi/L	09/11/24 13:16	13982-63-3	

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1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: L2447890
Pace Project No.: 30713417

Sample: MW-9B **Lab ID: 30713417006** Collected: 08/21/24 09:00 Received: 08/28/24 20:48 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.38 ± 0.483 (0.685) C:86% T:89%**	pCi/L	09/17/24 14:41	15262-20-1	
	Pace Analytical Services - Greensburg					
Thorium-228	HSL-300	**0.065 ± 0.129 (0.284) C:NA T:85%**	pCi/L	09/17/24 08:57	14274-82-9	
Thorium-230	HSL-300	**0.060 ± 0.109 (0.082) C:NA T:85%**	pCi/L	09/17/24 08:57	14269-63-7	
Thorium-232	HSL-300	**0.091 ± 0.109 (0.082) C:NA T:85%**	pCi/L	09/17/24 08:57	7440-29-1	

Sample: DUP **Lab ID: 30713417007** Collected: 08/21/24 00:00 Received: 08/28/24 20:48 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.168 ± 0.478 (0.887) C:NA T:95%**	pCi/L	09/11/24 13:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.502 ± 0.362 (0.702) C:85% T:87%**	pCi/L	09/17/24 14:41	15262-20-1	
	Pace Analytical Services - Greensburg					
Thorium-228	HSL-300	**0.003 ± 0.117 (0.162) C:NA T:84%**	pCi/L	09/17/24 08:57	14274-82-9	
Thorium-230	HSL-300	**-0.008 ± 0.114 (0.158) C:NA T:84%**	pCi/L	09/17/24 08:57	14269-63-7	
Thorium-232	HSL-300	**0.009 ± 0.114 (0.211) C:NA T:84%**	pCi/L	09/17/24 08:57	7440-29-1	

Sample: FIELD BLANK **Lab ID: 30713417008** Collected: 08/21/24 09:30 Received: 08/28/24 20:48 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-0.111 ± 0.460 (0.962) C:NA T:97%**	pCi/L	09/11/24 13:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**0.135 ± 0.350 (0.782) C:81% T:85%**	pCi/L	09/17/24 14:41	15262-20-1	
	Pace Analytical Services - Greensburg					
Thorium-228	HSL-300	**0.075 ± 0.134 (0.284) C:NA T:86%**	pCi/L	09/17/24 08:57	14274-82-9	
Thorium-230	HSL-300	**0.032 ± 0.114 (0.086) C:NA T:86%**	pCi/L	09/17/24 08:57	14269-63-7	
Thorium-232	HSL-300	**0.000 ± 0.114 (0.086) C:NA T:86%**	pCi/L	09/17/24 08:57	7440-29-1	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: L2447890
Pace Project No.: 30713417

QC Batch: 692584 Analysis Method: HSL-300
QC Batch Method: HSL-300 Analysis Description: HSL300(AS) Actinides
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30713417001, 30713417002, 30713417003, 30713417004, 30713417005, 30713417006, 30713417007, 30713417008

METHOD BLANK: 3372805 Matrix: Water
Associated Lab Samples: 30713417001, 30713417002, 30713417003, 30713417004, 30713417005, 30713417006, 30713417007, 30713417008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Thorium-228	0.032 ± 0.177 (0.444) C:NA T:78%	pCi/L	09/17/24 08:57	
Thorium-230	0.000 ± 0.121 (0.091) C:NA T:78%	pCi/L	09/17/24 08:57	
Thorium-232	0.000 ± 0.121 (0.091) C:NA T:78%	pCi/L	09/17/24 08:57	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: L2447890
Pace Project No.: 30713417

QC Batch: 692823 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30713417001, 30713417002, 30713417003, 30713417004, 30713417005, 30713417006, 30713417007, 30713417008

METHOD BLANK: 3373827 Matrix: Water
Associated Lab Samples: 30713417001, 30713417002, 30713417003, 30713417004, 30713417005, 30713417006, 30713417007, 30713417008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0455 ± 0.302 (0.697) C:82% T:87%	pCi/L	09/17/24 14:15	

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Greensburg, PA 15601
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QUALITY CONTROL - RADIOCHEMISTRY

Project: L2447890
Pace Project No.: 30713417

QC Batch: 692822 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30713417001, 30713417002, 30713417003, 30713417004, 30713417005, 30713417006, 30713417007, 30713417008

METHOD BLANK: 3373825 Matrix: Water
Associated Lab Samples: 30713417001, 30713417002, 30713417003, 30713417004, 30713417005, 30713417006, 30713417007, 30713417008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.257 (0.557) C:NA T:100%	pCi/L	09/11/24 12:51	

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QUALIFIERS

Project: L2447890
Pace Project No.: 30713417

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. Is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L2447890
Pace Project No.: 30713417

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30713417001	**MW-3A**	EPA 903.1	692822		
30713417002	**MW-6A**	EPA 903.1	692822		
30713417003	**MW-6B**	EPA 903.1	692822		
30713417004	**MW-6B MS**	EPA 903.1	692822		
30713417005	**MW-6B MSD**	EPA 903.1	692822		
30713417006	**MW-9B**	EPA 903.1	692822		
30713417007	**DUP**	EPA 903.1	692822		
30713417008	**FIELD BLANK**	EPA 903.1	692822		
30713417001	**MW-3A**	EPA 904.0	692823		
30713417002	**MW-6A**	EPA 904.0	692823		
30713417003	**MW-6B**	EPA 904.0	692823		
30713417004	**MW-6B MS**	EPA 904.0	692823		
30713417005	**MW-6B MSD**	EPA 904.0	692823		
30713417006	**MW-9B**	EPA 904.0	692823		
30713417007	**DUP**	EPA 904.0	692823		
30713417008	**FIELD BLANK**	EPA 904.0	692823		
30713417001	**MW-3A**	HSL-300	692584		
30713417002	**MW-6A**	HSL-300	692584		
30713417003	**MW-6B**	HSL-300	692584		
30713417004	**MW-6B MS**	HSL-300	692584		
30713417005	**MW-6B MSD**	HSL-300	692584		
30713417006	**MW-9B**	HSL-300	692584		
30713417007	**DUP**	HSL-300	692584		
30713417008	**FIELD BLANK**	HSL-300	692584		

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ALPHA ANALYTICAL
World Class Chemistry

Subcontract Chain of Custody

Pace Analytical (Greensburg, PA)
1638 Roseytown Rd, Suite 2
Greensburg, PA 15601

Alpha Job Number
L2447890

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 716.427.5229
Email: Melissa.Deyo@pacelabs.com

Project Information

Project Location: NY
Project Manager: Melissa Deyo

Turnaround & Deliverables Information

Due Date:
Deliverables:

Regulatory Requirements/Report Limits

State/Federal Program:
Regulatory Criteria: NY-TOGS-GA

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2447890

Report to include Method Blank, LCS/LCSD:

Additional Comments: Invoices to: invoices@pacelabs.coupahost.com Reports to: west.subreports@pacelabs.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
001	MW-3A	08-21-24 11:10	WATER	Radium 226; Radium 228; Thorium	
002	MW-6A	08-20-24 16:40	WATER	Radium 226; Radium 228; Thorium	
003	MW-6B	08-20-24 14:55	WATER	Radium 226; Radium 228; Thorium	MS;MSD
004	MW-9B	08-21-24 09:00	WATER	Radium 226; Radium 228; Thorium	
005	DUP	08-21-24 00:00	WATER	Radium 226; Radium 228; Thorium	
006	FIELD BLANK	08-21-24 09:30	WATER	Radium 226; Radium 228; Thorium	

WO#: 30713417
30713417

Received by Pace Greensburg
Therm ID 19 Corr Factor +0.05
Receipt Temp 1.8
Corrected Temp 1.3
Correct Preservation (Y)/N

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/27/24 1813		8/27 1813
	8/27 2200		8/28 1230
	8/28 1625		8-28-24 20:48

Form No: AL_subcoc

DC#_Title: ENV-FRM-GBUR-0088 v07_Sample Condition Upon Receipt-Greensburg

Effective Date: 01/04/2024

WO# : 30713417

PM: SCR Due Date: 09/20/24

CLIENT: ALPHA ANALYT

Client Name: Alpha

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other

Tracking Number: _____

Initial/Date

Examined By: JS 8/29/24

Labeled By: JS 8/29/24

Temped By: VB 8-28-24

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☑ No

Thermometer Used: 19 Type of Ice: (Wet) Blue None

Cooler Temperature: Observed Temp 1.4 °C Correction Factor: -0.5 °C Final Temp: 0.9 °C 1.3

1.4 1.8

Temp should be above freezing to 6°C

pH paper Lot# 1002931 D.P.D. Residual Chlorine Lot # _____

Comments:	Yes	No	NA	
Chain of Custody Present	✓			1.
Chain of Custody Filled Out:	✓			2.
-Were client corrections present on COC		✓		
Chain of Custody Relinquished	✓			3.
Sampler Name & Signature on COC:		✓		4.
Sample Labels match COC:	✓			5.
-Includes date/time/ID Matrix:	WT			
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used:	✓			10.
-Pace Containers Used		✓		
Containers Intact:	✓			11.
Orthophosphate field filtered:			✓	12.
Hex Cr Aqueous samples field filtered:			✓	13.
Organic Samples checked for dichlorination			✓	14:
Filtered volume received for dissolved tests:			✓	15:
All containers checked for preservation:	✓			16.
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix				PH<2
All containers meet method preservation requirements:	✓			Initial when completed JS Date/Time of Preservation
				Lot# of added Preservative
8260C/D: Headspace in VOA Vials (> 6mm)			✓	17.
624.1: Headspace in VOA Vials (0mm)			✓	18.
Radon: Headspace in RAD Vials (0mm)			✓	19.
Trip Blank Present:		✓		Trip blank custody seal present? YES or NO
Rad Samples Screened <.05 mrem/hr.	X			Initial when completed VB Date: 8-28-24 Survey Meter SN: 25014380

Comments:

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.
PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Qualtrax ID: 55680

Page 1 of 1

DC#_Title: ENV-FRM-GBUR-0072 v04_Sample Container Count Offshore Projects
Effective Date: 04/18/2024

Client Alpha

Site

Page 1 of 1

Profile/EZ Login Number 7088

Notes

Sample Line Item	Matrix	Amber Glass					Plastic								Vials					Other									
		AG1H	AG3S	AG3U	AG5U	AG5T	BP1N	BP1U	BP2S	BP2U	BP3B	BP3N	BP3S	BP3U	DG9S	VG9H	VG9T	VG9U	VOAK	WGFU	WGKU	ZPLC	GCUB	GJN	12GN	AG1U	BG1U	BP2N	
1	WT						4																					1	
2	↓						↓																					↓	
3							12																					3	
4							4																					1	
5							↓																					↓	
6	↓																												

Container Codes

Glass

GJN	1 Gallon Jug with HNO3	DG9S	40mL amber VOA vial H2SO4
AG5U	100mL amber glass unpreserved	VG9U	40mL clear VOA vial
AG5T	100mL amber glass Na Thiosulfate	VG9T	40mL clear VOA vial Na Thiosulfate
GJN	1 Gallon Jug	VG9H	40mL clear VOA vial HCl
AG1S	1L amber glass H2SO4	JGFU	4oz amber wide jar
AG1H	1L amber glass HCl	WGFU	4oz wide jar unpreserved
AG1T	1L amber glass NA Thiosulfate	BG2U	500mL clear glass unpreserved
BG1U	1L clear glass unpreserved	AG2U	500mL amber glass unpreserved
AG3S	250mL amber glass H2SO4	WGKU	8oz wide jar unpr
AG3U	250mL amber glass unpreserved	GN	General

Plastic/Misc.

GCUB	1 gallon cubitainer
12GN	1/2 gallon cubitainer
SP5T	120mL coliform Na Thiosulfate
BP1N	1L plastic HNO3
BP1U	1L plastic unpreserved
BP3S	250mL plastic H2SO4
BP3N	250mL plastic HNO3
BP3U	250mL plastic unpreserved
	plastic NAOH
	plastic H2SO4
	plastic unpreserved

EZI	5g Encore
VOAK	Kit Volatile Solid
I	Wipe/Swab
ZPLC	Siploc Bag

WT	Water
SL	Solid
OL	Non-Aq Liquid
WP	Wipe

WO#: 30713417
PM: SCR Due Date: 09/20/24
CLIENT: ALPHA ANALYT

Qualtrax ID: 55678

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 50381096

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

September 03, 2024

Pace MA
Pace MA
Eight Walkup Drive
Westborough, MA 01581

RE: Project: L2447890
Pace Project No.: 50381096

Dear Pace MA:

Enclosed are the analytical results for sample(s) received by the laboratory on August 27, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tina Sayer

Tina Sayer
tina.sayer@pacelabs.com
(317)228-3127
Project Manager

Enclosures

cc: Melissa Deyo, Pace MA

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Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: L2447890
Pace Project No.: 50381096

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

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Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: L2447890
Pace Project No.: 50381096

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50381096001	**MW-3A**	Water	08/21/24 11:10	08/27/24 09:05
50381096002	**MW-6A**	Water	08/20/24 16:40	08/27/24 09:05
50381096003	**MW-6B**	Water	08/20/24 14:55	08/27/24 09:05
50381096004	**MW-6C**	Water	08/20/24 17:55	08/27/24 09:05
50381096005	**MW-7A**	Water	08/20/24 16:30	08/27/24 09:05
50381096006	**MW-7B**	Water	08/21/24 09:20	08/27/24 09:05
50381096007	**MW-7C**	Water	08/21/24 10:50	08/27/24 09:05
50381096008	**MW-8A**	Water	08/21/24 13:05	08/27/24 09:05
50381096009	**MW-8B**	Water	08/21/24 14:35	08/27/24 09:05
50381096010	**MW-8C2**	Water	08/21/24 13:40	08/27/24 09:05
50381096011	**MW-9B**	Water	08/21/24 09:00	08/27/24 09:05
50381096012	**DUP**	Water	08/21/24 00:00	08/27/24 09:05

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SAMPLE ANALYTE COUNT

Project: L2447890
Pace Project No.: 50381096

Lab ID	Sample ID	Method	Analysts	Analytes Reported
50381096001	**MW-3A**	EPA 9056	ADM	1
50381096002	**MW-6A**	EPA 9056	ADM	1
50381096003	**MW-6B**	EPA 9056	ADM	1
50381096004	**MW-6C**	EPA 9056	ADM	1
50381096005	**MW-7A**	EPA 9056	ADM	1
50381096006	**MW-7B**	EPA 9056	ADM	1
50381096007	**MW-7C**	EPA 9056	ADM	1
50381096008	**MW-8A**	EPA 9056	ADM	1
50381096009	**MW-8B**	EPA 9056	ADM	1
50381096010	**MW-8C2**	EPA 9056	ADM	1
50381096011	**MW-9B**	EPA 9056	ADM	1
50381096012	**DUP**	EPA 9056	ADM	1

PASI-I = Pace Analytical Services - Indianapolis

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-3A **Lab ID: 50381096001** Collected: 08/21/24 11:10 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		08/31/24 21:25		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-6A **Lab ID: 50381096002** Collected: 08/20/24 16:40 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		08/31/24 21:42		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-6B **Lab ID: 50381096003** Collected: 08/20/24 14:55 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		08/31/24 22:00		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-6C **Lab ID: 50381096004** Collected: 08/20/24 17:55 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		08/31/24 22:52		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-7A **Lab ID: 50381096005** Collected: 08/20/24 16:30 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		08/31/24 23:09		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-7B **Lab ID: 50381096006** Collected: 08/21/24 09:20 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		09/01/24 00:01		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-7C **Lab ID: 50381096007** Collected: 08/21/24 10:50 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		09/01/24 00:18		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-8A **Lab ID: 50381096008** Collected: 08/21/24 13:05 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		09/01/24 00:35		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-8B **Lab ID: 50381096009** Collected: 08/21/24 14:35 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		09/01/24 00:52		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-8C2 **Lab ID: 50381096010** Collected: 08/21/24 13:40 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		09/01/24 01:10		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: MW-9B **Lab ID: 50381096011** Collected: 08/21/24 09:00 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		09/01/24 01:27		

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ANALYTICAL RESULTS

Project: L2447890
Pace Project No.: 50381096

Sample: DUP **Lab ID: 50381096012** Collected: 08/21/24 00:00 Received: 08/27/24 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC	Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		09/01/24 01:44		

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QUALITY CONTROL DATA

Project: L2447890
Pace Project No.: 50381096

QC Batch: 807138 — Analysis Method: EPA 9056
QC Batch Method: EPA 9056 — Analysis Description: 9056 Iodide by IC
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50381096001, 50381096002, 50381096003, 50381096004, 50381096005, 50381096006, 50381096007, 50381096008, 50381096009, 50381096010, 50381096011, 50381096012

METHOD BLANK: 3691616 — Matrix: Water
Associated Lab Samples: 50381096001, 50381096002, 50381096003, 50381096004, 50381096005, 50381096006, 50381096007, 50381096008, 50381096009, 50381096010, 50381096011, 50381096012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iodide	mg/L	ND	0.50	09/01/24 02:02	

LABORATORY CONTROL SAMPLE: 3691617

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iodide	mg/L	5	5.2	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3691618 3691619

Parameter	Units	50381096003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iodide	mg/L	ND	10	10	10	10.0	99	100	80-120	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALIFIERS

Project: L2447890
Pace Project No.: 50381096

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L2447890
Pace Project No.: 50381096

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50381096001	**MW-3A**	EPA 9056	807138		
50381096002	**MW-6A**	EPA 9056	807138		
50381096003	**MW-6B**	EPA 9056	807138		
50381096004	**MW-6C**	EPA 9056	807138		
50381096005	**MW-7A**	EPA 9056	807138		
50381096006	**MW-7B**	EPA 9056	807138		
50381096007	**MW-7C**	EPA 9056	807138		
50381096008	**MW-8A**	EPA 9056	807138		
50381096009	**MW-8B**	EPA 9056	807138		
50381096010	**MW-8C2**	EPA 9056	807138		
50381096011	**MW-9B**	EPA 9056	807138		
50381096012	**DUP**	EPA 9056	807138		

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Pg 1 of 2

ALPHA ANALYTICAL
World Class Chemistry

Subcontract Chain

Pace Analytical (Indianapolc
7726 Moller Road
Indianapolis, IN 46268

WO# : 50381096

50381096

Alpha Job Number
L2447890

Client Information	Project Information	Regulatory Requirements/Report Limits
Client: Alpha Analytical Labs Address: Eight Walkup Drive Westborough, MA 01581-1019 Phone: 716.427.5229 Email: Melissa.Deyo@pacelabs.com	Project Location: NY Project Manager: Melissa Deyo **Turnaround & Deliverables Information** Due Date: Deliverables:	State/Federal Program: Regulatory Criteria: NY-TOGS-GA

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2447890

Report to include Method Blank, LCS/LCSD:

Additional Comments: Invoices to: invoices@pacelabs.coupahost.com Reports to: west.subreports@pacelabs.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
	MW-3A	08-21-24 11:10	WATER	Iodide 001	
	MW-6A	08-20-24 16:40	WATER	Iodide 002	
	MW-6B	08-20-24 14:55	WATER	Iodide 003	
	MW-6C	08-20-24 17:55	WATER	Iodide 004	
	MW-7A	08-20-24 16:30	WATER	Iodide 005	
	MW-7B	08-21-24 09:20	WATER	Iodide 006	
	MW-7C	08-21-24 10:50	WATER	Iodide 007	
	MW-8A	08-21-24 13:05	WATER	Iodide 008	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
		8/26/24	Fedex	
	Fedex	8/27/24 905	LA / Pace	8/27/24 905
Form No: AL_subcoc				

Subcontract Chain of Custody

Pace Analytical (Indianapolis, IN)
7726 Moller Road
Indianapolis, IN 46268

Alpha Job Number
L2447890

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 716.427.5229
Email: Melissa.Deyo@pacelabs.com

Project Information

Project Location: NY
Project Manager: Melissa Deyo

Turnaround & Deliverables Information

Due Date:
Deliverables:

Regulatory Requirements/Report Limits

State/Federal Program:

Regulatory Criteria: NY-TOGS-GA

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2447890

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
	MW-8B	08-21-24 14:35	WATER	Iodide 009	
	MW-8C2	08-21-24 13:40	WATER	Iodide 006	
	MW-9B	08-21-24 09:00	WATER	Iodide 007	
	DUP	08-21-24 00:00	WATER	Iodide 012	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
		8/26/24	Fedex	
	Fedex	8/27/24 925		8/27/24 905
Form No: AL_subcoc				

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 8/27/24 10^{50}

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No
   (If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 9 A (B) C D E F G H I
4. **Cooler Temperature(s):** 1.0/1.0 | | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☒ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			✓
Short Hold Time Analysis (48 hours or less)? Analysis:		✓				
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a PINK dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit			Matrix
1																		1											WT
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

Nitric	Sulfuric	Sodium Hydroxide	Sodium Hydroxide/ ZnAc
Red	Yellow	Green	Black
HNO3 <2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	CG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	CG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3B	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

NT3U	Non Teflon 250mL unpreserved plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

SAMPLE NO.

MW-3A

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Lab Sample ID: 50381096001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Iodide	ND	U	mg/L	1	08/31/2024 21:25

SAMPLE NO.

MW-6A

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Lab Sample ID: 50381096002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Iodide	ND	U	mg/L	1	08/31/2024 21:42

SAMPLE NO.

MW-6B

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Lab Sample ID: 50381096003 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Iodide	ND	U	mg/L	1	08/31/2024 22:00

SAMPLE NO.

MW-6C

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Lab Sample ID: 50381096004 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Iodide	ND	U	mg/L	1	08/31/2024 22:52

SAMPLE NO.

MW-7A

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Lab Sample ID: 50381096005 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Iodide	ND	U	mg/L	1	08/31/2024 23:09

SAMPLE NO.

MW-7B

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Lab Sample ID: 50381096006 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Iodide	ND	U	mg/L	1	09/01/2024 00:01

SAMPLE NO.

MW-7C

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Lab Sample ID: 50381096007 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Iodide	ND	U	mg/L	1	09/01/2024 00:18

SAMPLE NO.

MW-8A

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Lab Sample ID: 50381096008 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Iodide	ND	U	mg/L	1	09/01/2024 00:35

SAMPLE NO.

MW-8B

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Lab Sample ID: 50381096009 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Iodide	ND	U	mg/L	1	09/01/2024 00:52

SAMPLE NO.

MW-8C2

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Lab Sample ID: 50381096010 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Iodide	ND	U	mg/L	1	09/01/2024 01:10

SAMPLE NO.

MW-9B

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Lab Sample ID: 50381096011 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Iodide	ND	U	mg/L	1	09/01/2024 01:27

SAMPLE NO.

DUP

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Lab Sample ID: 50381096012 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Iodide	ND	U	mg/L	1	09/01/2024 01:44

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Initial Calibration Verification Source: 391054

Continuing Calibration Verification Source: 392572

Concentration Units: mg/L Instrument ID: 50IC05

	Initial Calibration Verification				Continuing Calibration Verification						
	08/28/2024 02:26				08/31/2024 19:59			08/31/2024 23:26			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Iodide	5.0	4.9	98.5	90-110	1.0	0.96	96.0	1.0	0.99	98.6	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 392572

Concentration Units: mg/L Instrument ID: 50IC05

	Continuing Calibration Verification			
	09/01/2024 02:36			Control Limit
Analyte	True	Found	%R	
Iodide	1.0	0.97	96.8	90-110

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract : L2447890

Method Blank Matrix: Water Instrument ID: 50IC05

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank (mg/L)		Continuing Calibration Blank (mg/L)						Method Blank	
	08/28/2024 02:44	C	08/31/2024 20:16	C	08/31/2024 23:43	C	09/01/2024 02:53	C	3691616	C
Iodide	0.068	U	0.068	U	0.068	U	0.068	U	ND	U

SAMPLE NO.

3691618MS

FORM V INORGANIC-1

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Matrix: Water Basis: Wet Parent Sample ID: MW-6B

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Iodide	mg/L	80-120	10	ND	10.0	99

SAMPLE NO.

3691619MSD

FORM V INORGANIC-2

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Matrix: Water Basis: Wet Parent Sample ID: MW-6B

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Iodide	mg/L	80-120	10.0	ND	10.0	100

SAMPLE NO.

3691619MSD

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Matrix: Water Concentration Units: mg/L

Percent Moisture: Basis: Wet

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Iodide	15	10	10.0	0

SAMPLE NO.

3691617LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Iodide	mg/L	5.0	5.2	104	80	120

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Preparation Method: EPA 9056 Batch: GCSV 57417

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
3691616	3691616BLANK	09/01/2024	10	10
3691617	3691617LCS	09/01/2024	10	10
3691618	3691618MS	08/31/2024	10	10
3691619	3691619MSD	08/31/2024	10	10
50381096001	MW-3A	08/31/2024	10	10
50381096002	MW-6A	08/31/2024	10	10
50381096003	MW-6B	08/31/2024	10	10
50381096004	MW-6C	08/31/2024	10	10
50381096005	MW-7A	08/31/2024	10	10
50381096006	MW-7B	09/01/2024	10	10
50381096007	MW-7C	09/01/2024	10	10
50381096008	MW-8A	09/01/2024	10	10
50381096009	MW-8B	09/01/2024	10	10
50381096010	MW-8C2	09/01/2024	10	10
50381096011	MW-9B	09/01/2024	10	10
50381096012	DUP	09/01/2024	10	10

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Indiana SDG No. : 50381096 Contract: L2447890

Instrument ID: 50IC05 Analysis Method: EPA 9056

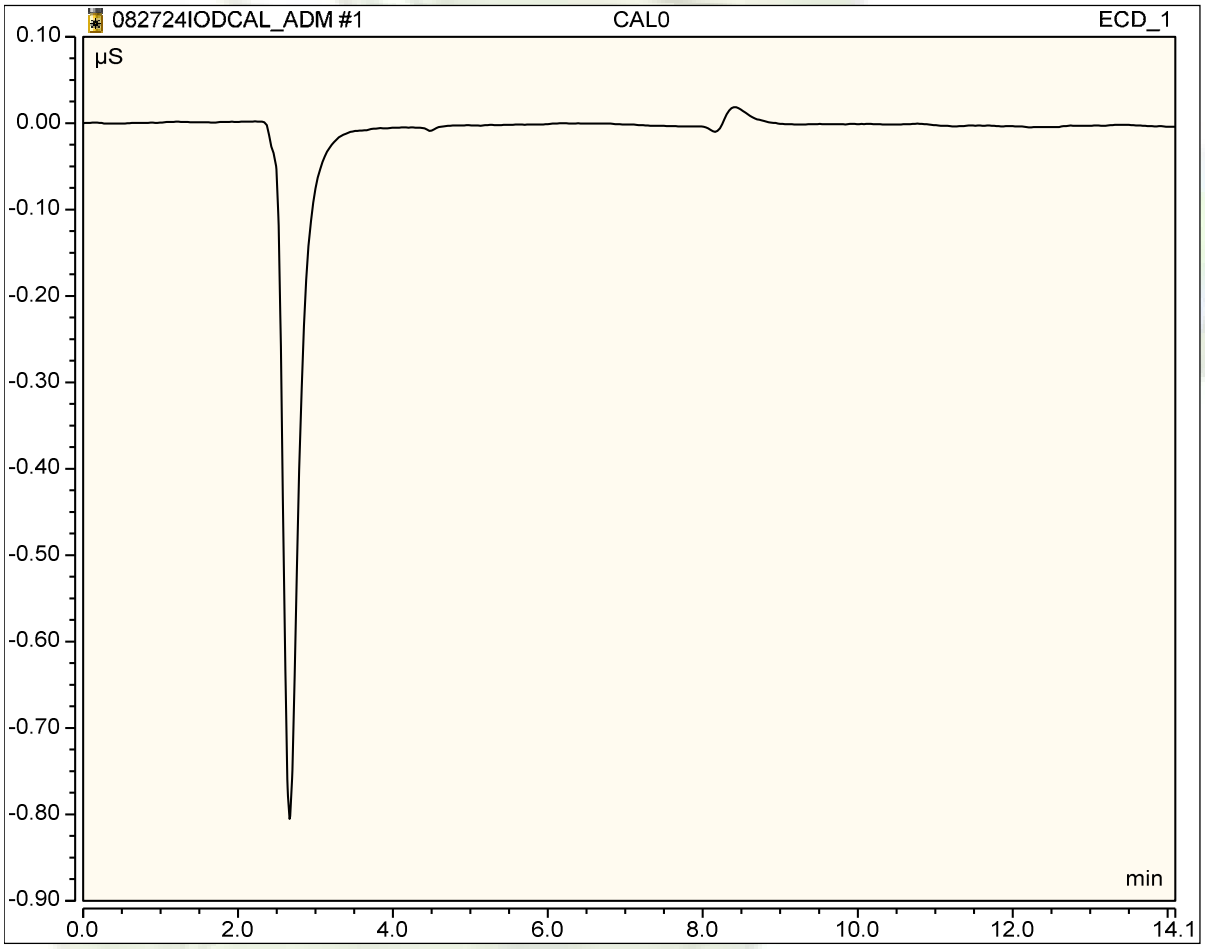
Start Date: 08/28/2024 00:43 End Date: 09/01/2024 02:53

Sample Name	Lab Sample ID	D/F	Date	Time	iodi
25524929CAL0	25524929CAL0	1	08/28/2024	00:43	X
25524930CAL1	25524930CAL1	1	08/28/2024	01:00	X
25524931CAL2	25524931CAL2	1	08/28/2024	01:17	X
25524932CAL3	25524932CAL3	1	08/28/2024	01:35	X
25524933CAL4	25524933CAL4	1	08/28/2024	01:52	X
25524934CAL5	25524934CAL5	1	08/28/2024	02:09	X
25524935ICV	25524935ICV	1	08/28/2024	02:26	X
25524936ICB	25524936ICB	1	08/28/2024	02:44	X
25550975CCV	25550975CCV	1	08/31/2024	19:59	X
25550976CCB	25550976CCB	1	08/31/2024	20:16	X
MW-3A	50381096001	1	08/31/2024	21:25	X
MW-6A	50381096002	1	08/31/2024	21:42	X
MW-6B	50381096003	1	08/31/2024	22:00	X
3691618MS	3691618	1	08/31/2024	22:17	X
3691619MSD	3691619	1	08/31/2024	22:34	X
MW-6C	50381096004	1	08/31/2024	22:52	X
MW-7A	50381096005	1	08/31/2024	23:09	X
25550977CCV	25550977CCV	1	08/31/2024	23:26	X
25550978CCB	25550978CCB	1	08/31/2024	23:43	X
MW-7B	50381096006	1	09/01/2024	00:01	X
MW-7C	50381096007	1	09/01/2024	00:18	X
MW-8A	50381096008	1	09/01/2024	00:35	X
MW-8B	50381096009	1	09/01/2024	00:52	X
MW-8C2	50381096010	1	09/01/2024	01:10	X
MW-9B	50381096011	1	09/01/2024	01:27	X
DUP	50381096012	1	09/01/2024	01:44	X
3691616BLANK	3691616	1	09/01/2024	02:02	X
3691617LCS	3691617	1	09/01/2024	02:19	X
25550980CCV	25550980CCV	1	09/01/2024	02:36	X
25550981CCB	25550981CCB	1	09/01/2024	02:53	X

CAL0
391048

Sample Name:	**CAL0**	Injection Volume (uL):	**25.00**
Vial Number:	GC2	Channel:	**ECD_1**
Sample Type:	Calibration Standard	Calibration:	**08/28/24 09:32**
Control Pro ram:	**! "**IC**"!** I**#$%&**S22	**'** luent Stoc**(**:	**388568**
) uanti***+,** ethod:	C**&**L**-** I**#$**I**$'** **"!**	**$**ilution **.** actor	**1.0000**
/ ecordin Time:	**08/28/2024 00:43**	Sample **0** ei ht:	**1.0000**
/ un Time (min):	**12+1"**	Sy**3**tem Name:	**50IC05**

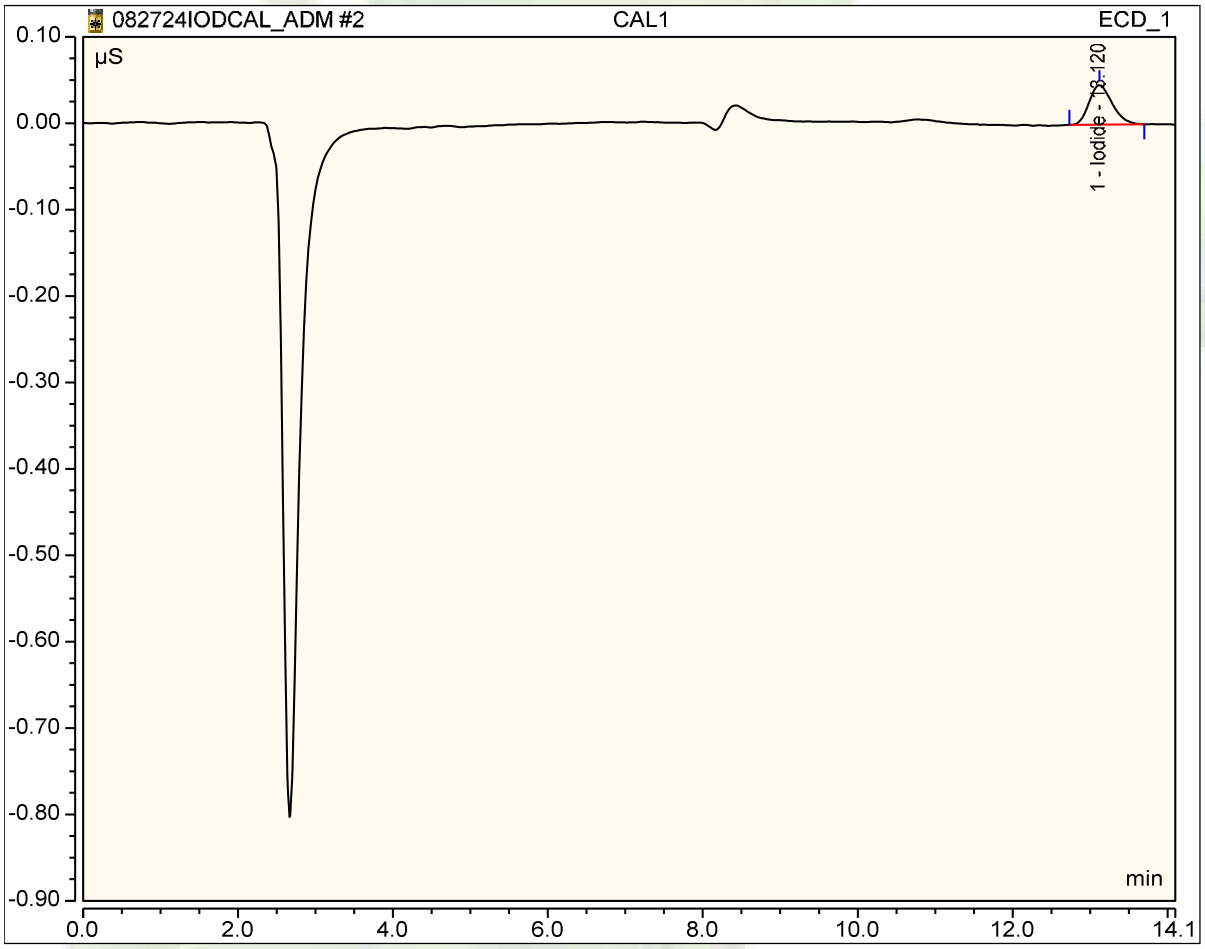
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



CAL1
391049

Sample Name:	**CAL1**	Injection Volume (uL):	**25.00**
Vial Number:	GC4	Channel:	**ECD_1**
Sample Type:	Calibration Standard	Calibration:	**08/28/24 09:32**
Control Pro ram:	! "IC"! I# $ %&S22	' luent Stoc(:	**388568**
) uanti*+, ethod:	C&L- I# $ I$ ' "!	$ilution . actor	**1.0000**
/ ecordin Time:	**08/28/2024 01:00**	Sample 0 ei ht:	**1.0000**
/ un Time (min):	12+1"	Sy3tem Name:	**50IC05**

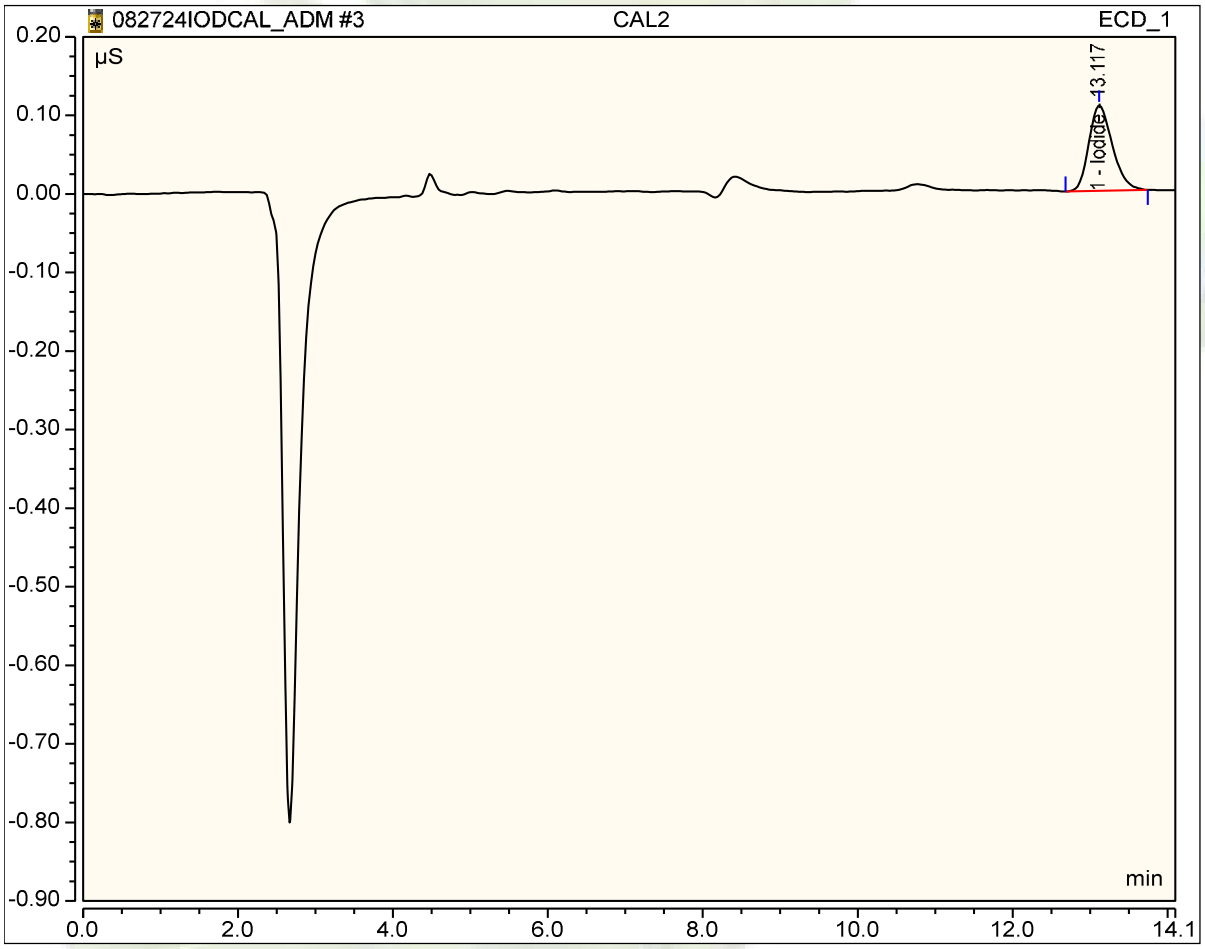
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.12	**Iodide**	0.4550	0.016	0.046	BMB



CAL2
391050

Sample Name:	**CAL2**	Injection Volume (uL):	**25.00**
Vial Number:	**5**2	Channel:	**ECD_1**
Sample Type:	Calibration Standard	Calibration:	**08/28/24 09:32**
Control Pro ram:	**! "**IC**"!** I**#$%&**S22	**'** luent Stoc**(**:	**388568**
) uanti***+,** ethod:	C**&**L- I**#$**I**$' "!**	**$**ilution **.** actor	**1.0000**
/ ecordin Time:	**08/28/2024 01:17**	Sample **0** ei ht:	**1.0000**
/ un Time (min):	**12-1"**	Sy**3**tem Name:	**50IC05**

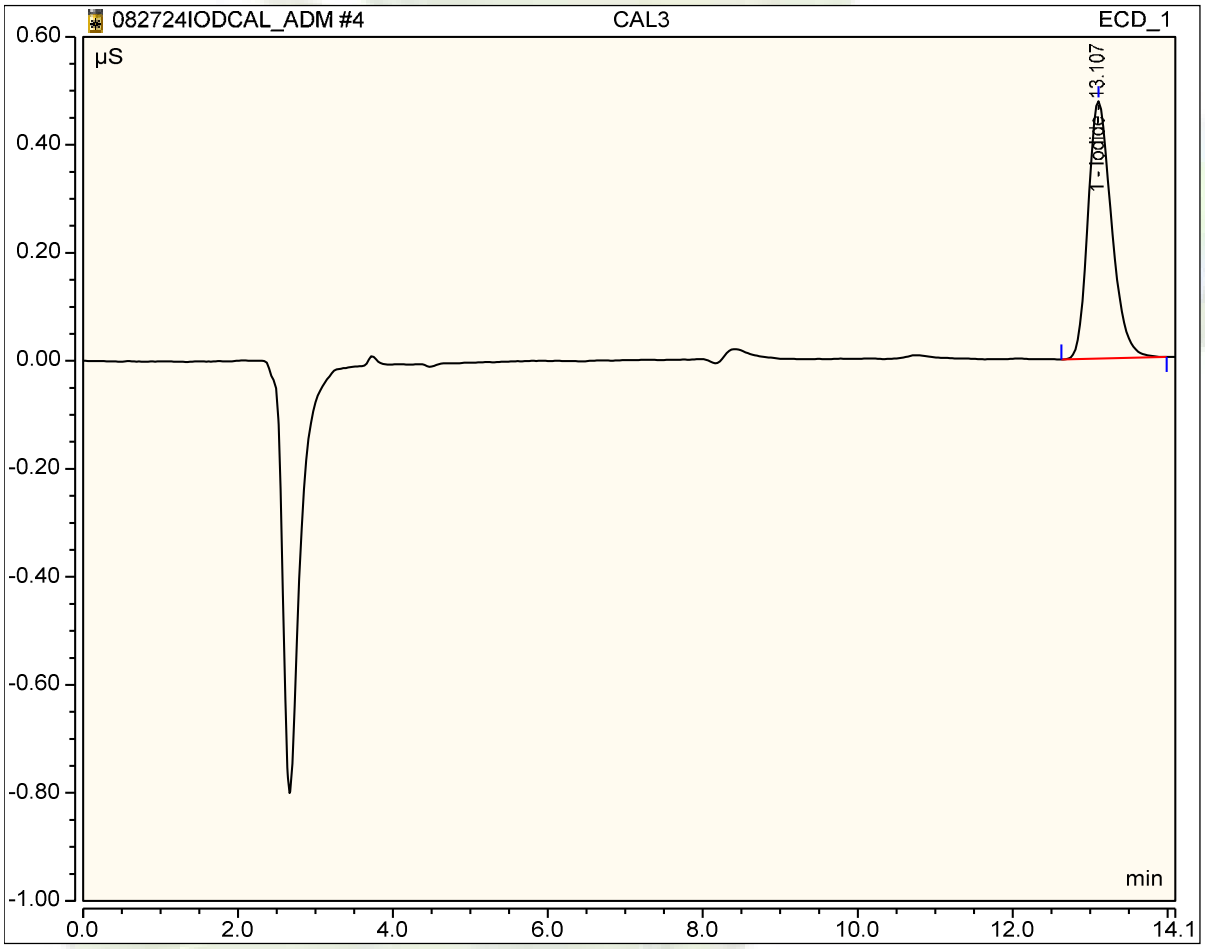
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.12	**Iodide**	1.1122	0.038	0.109	BMB



CAL3
391051

Sample Name:	**CAL3**	Injection Volume (uL):	**25.00**
Vial Number:	GC**2**	Channel:	**ECD_1**
Sample Type:	Calibration Standard	Calibration:	**08/28/24 09:32**
Control Pro ram:	**! "**IC**"!** I**#$%&**S22	**'** luent Stoc**(**:	**388568**
) uanti***+,** ethod:	C**&**L**-** I**#$**I**$'** **"!**	**$**ilution **.** actor	**1.0000**
/ ecordin Time:	**08/28/2024 01:35**	Sample **0** ei ht:	**1.0000**
/ un Time (min):	**12-1"**	Sy**3**tem Name:	**50IC05**

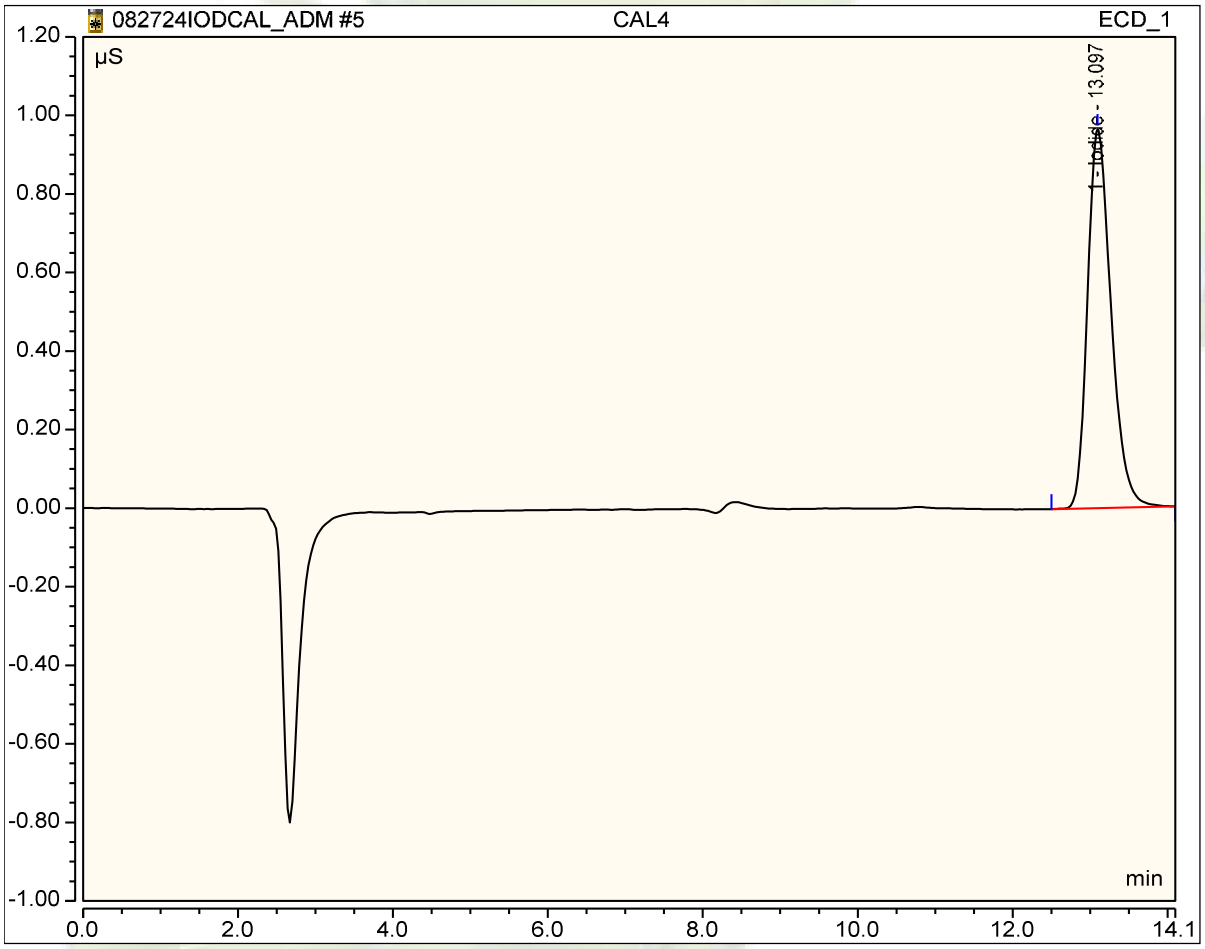
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.11	**Iodide**	4.9021	0.168	0.477	BMB



CAL4
391052

Sample Name:	**CAL4**	Injection Volume (uL):	**25.00**
Vial Number:	GC*!*	Channel:	**ECD_1**
Sample Type:	Calibration Standard	Calibration:	**08/28/24 09:32**
Control Pro ram:	*! "*IC*"! I# $ %&*S22	*'* luent Stoc*(*:	**388568**
) uanti*+,* ethod:	C&L- I# $ I$ *'* *"!*	*$* ilution *.* actor	**1.0000**
/ ecordin Time:	**08/28/2024 01:52**	Sample *0* ei ht:	**1.0000**
/ un Time (min):	*12-1"*	Sy*3*tem Name:	**50IC05**

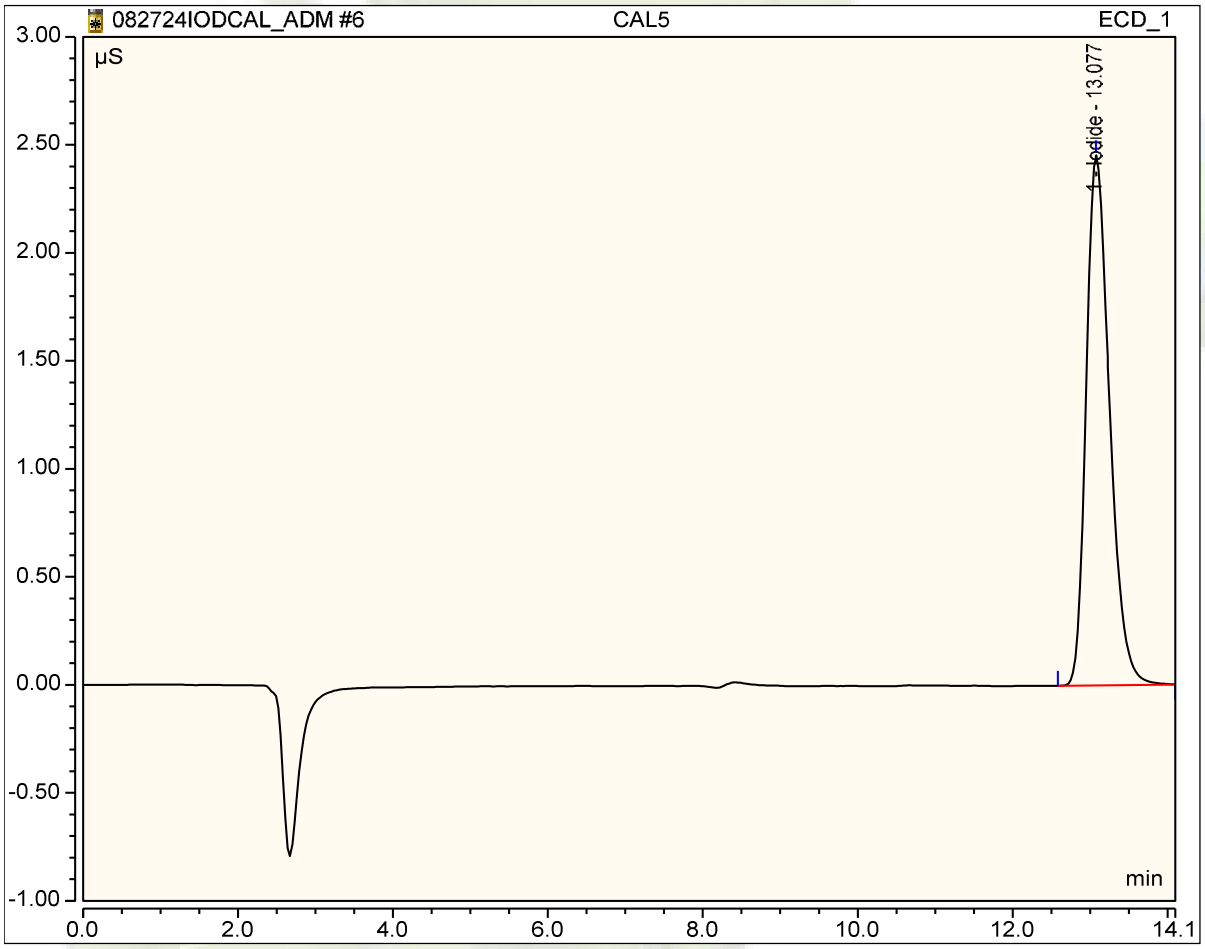
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.10	**Iodide**	9.9378	0.341	0.965	BMB



CAL5
391053

Sample Name:	**CAL5**	Injection Volume (uL):	**25.00**
Vial Number:	GC**6**	Channel:	**ECD_1**
Sample Type:	Calibration Standard	Calibration:	**08/28/24 09:32**
Control Pro ram:	**! "**IC**"! **I**# $ %&**S22	**'** luent Stoc**(**:	**388568**
) uanti**+,** ethod:	C**&**L**-** I**# $ **I**$ ' "!**	**$**ilution **.** actor	**1.0000**
/ ecordin Time:	**08/28/2024 02:09**	Sample **0** ei ht:	**1.0000**
/ un Time (min):	**12-1"**	Sy**3**tem Name:	**50IC05**

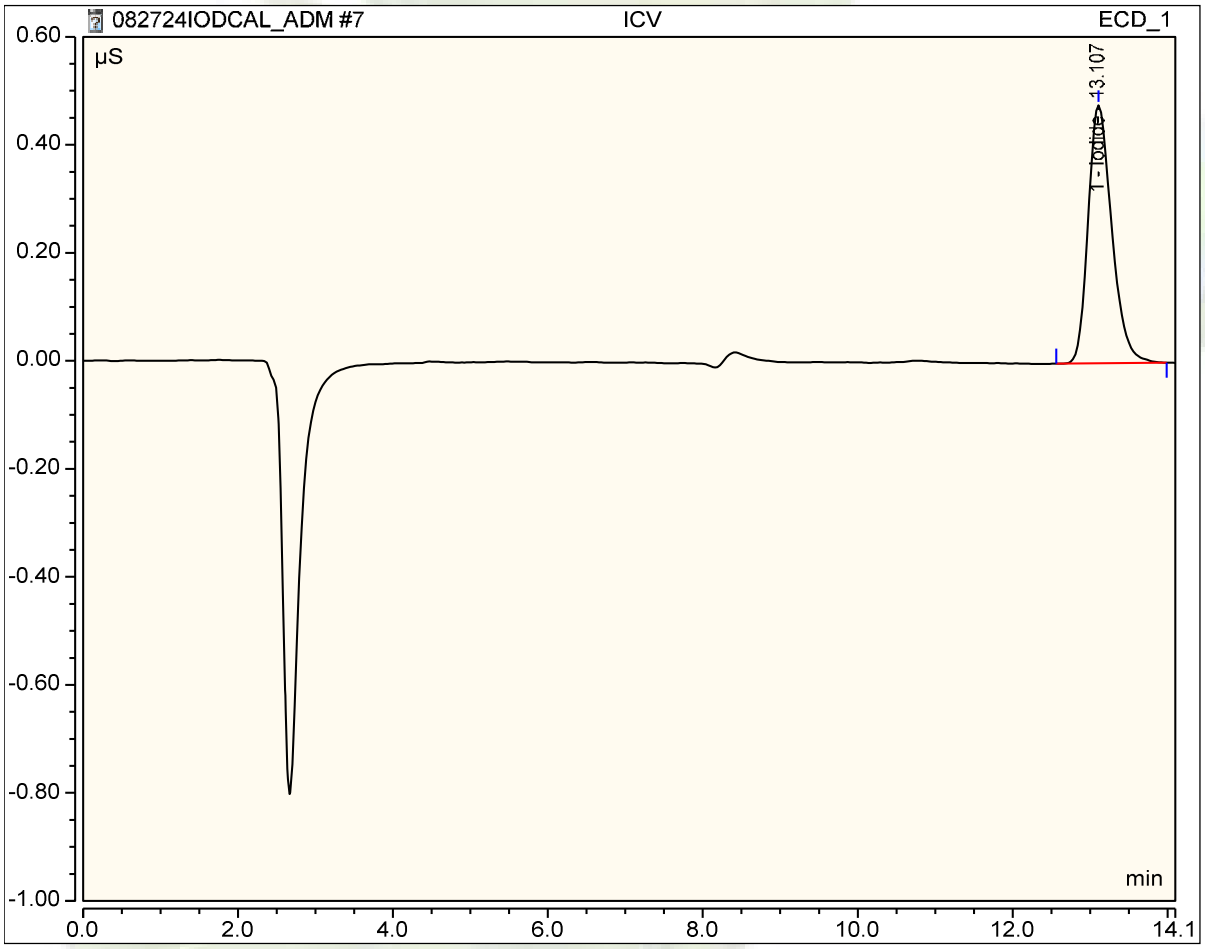
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.08	**Iodide**	25.0931	0.859	2.454	BMB



ICV
391054

Sample Name:	**ICV**	Injection Volume (uL):	**25.00**
Vial Number:	GC**7**	Channel:	**ECD_1**
Sample Type:	**8**n(no**9**n	Calibration:	**08/28/24 09:32**
Control Pro ram:	**! "**IC**"!** I#**$ %&**S22	**'** luent Stoc**(**:	**388568**
) uanti***+,** ethod:	C**&**L- I#**$** I**$ ' "!**	**$**ilution **.** actor	**1.0000**
/ ecordin Time:	**08/28/2024 02:26**	Sample **0** ei ht:	**1.0000**
/ un Time (min):	**12-1"**	Sy**3**tem Name:	**50IC05**

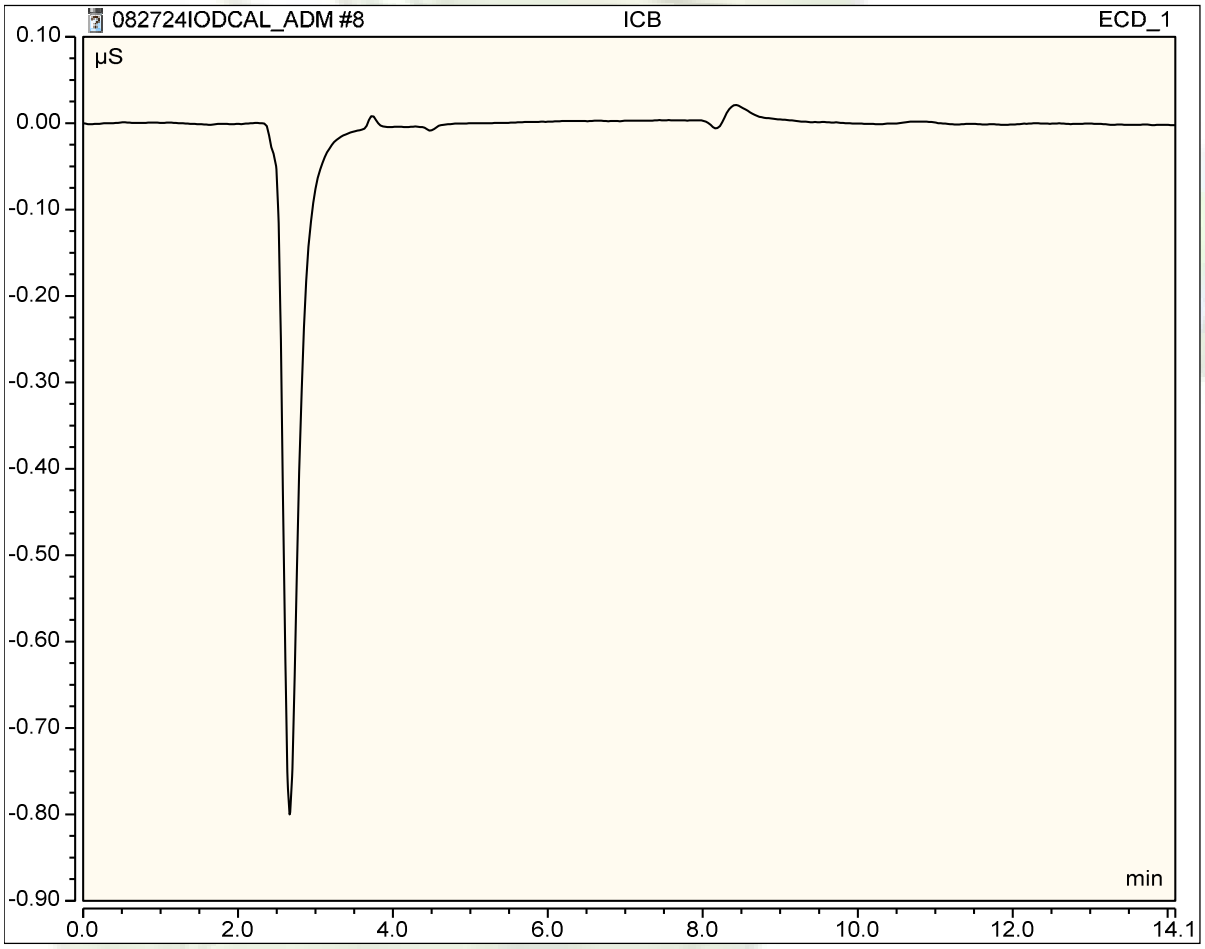
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.11	**Iodide**	4.9239	0.169	0.477	BMB



ICB
340111

Sample Name:	**ICB**	Injection Volume (uL):	**25.00**
Vial Number:	**51**	Channel:	**ECD_1**
Sample Type:	**8**n(no**9**n	Calibration:	**08/28/24 09:32**
Control Pro ram:	**! "**IC**"!** I#**$ %&**S22	**'** luent Stoc**(**:	**388568**
) uanti***+,** ethod:	C**&**L- I#**$** I**$' "!**	**$**ilution **.** actor	**1.0000**
/ ecordin Time:	**08/28/2024 02:44**	Sample **0** ei ht:	**1.0000**
/ un Time (min):	**12+1"**	Sy**3**tem Name:	**50IC05**

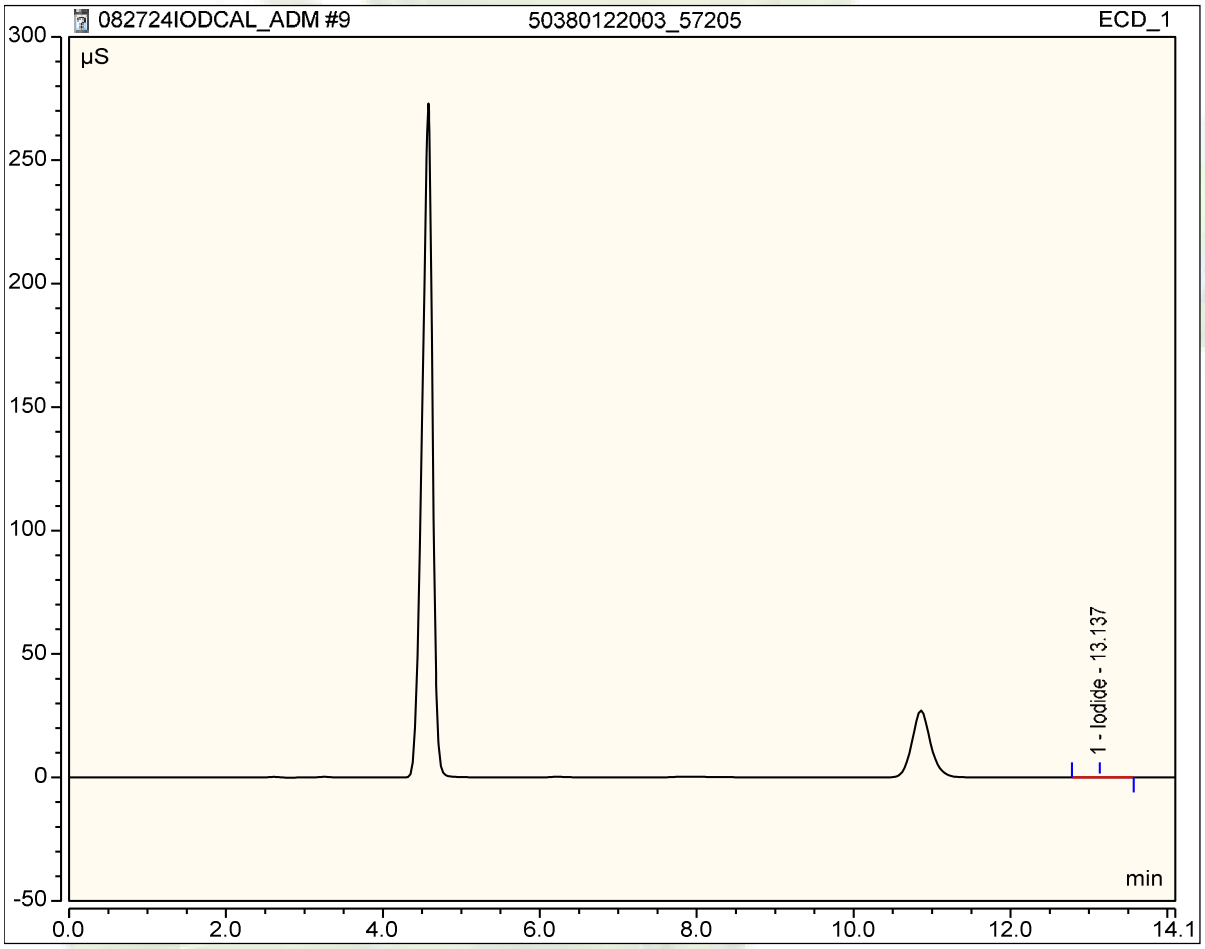
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



50380122003_57205

Sample Name:	**50380122003_57205**	Injection Volume (uL):	**25.00**
Vial Number:	GC:	Channel:	**ECD_1**
Sample Type:	8n(no9n	Calibration:	**08/28/24 09:32**
Control Pro ram:	!"IC"! I#$%&S22	' luent Stoc(:	**388568**
) uanti*+, ethod:	C&L- I#I' "!	$ilution . actor	**1.0000**
/ ecordin Time:	**08/28/2024 03:01**	Sample 0 ei ht:	**1.0000**
/ un Time (min):	12-1"	Sy3tem Name:	**50IC05**

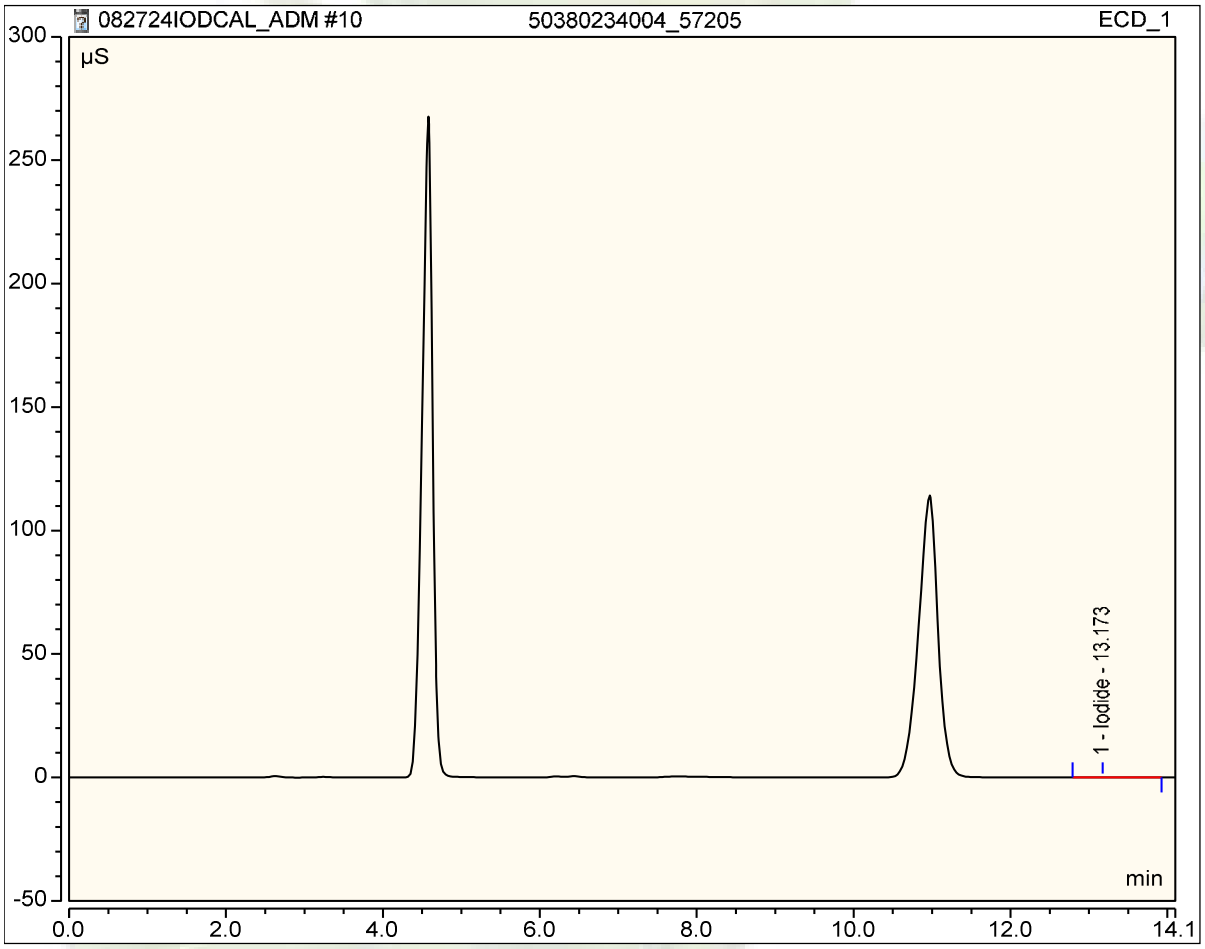
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.14	**Iodide**	0.0798	0.003	0.009	BMB



50380234004_57205

Sample Name:	**50380234004_57205**	Injection Volume (uL):	**25.00**
Vial Number:	G**$1**	Channel:	**ECD_1**
Sample Type:	**8**n(no**9**n	Calibration:	**08/28/24 09:32**
Control Pro ram:	**!**"IC"**!** I#$%&S22	**'** luent Stoc(:	**388568**
) uanti*+, ethod:	C&L- I#I' "!	**$**ilution **.** actor	**1.0000**
/ ecordin Time:	**08/28/2024 03:18**	Sample **0** ei ht:	**1.0000**
/ un Time (min):	**12-1"**	Sy**3**tem Name:	**50IC05**

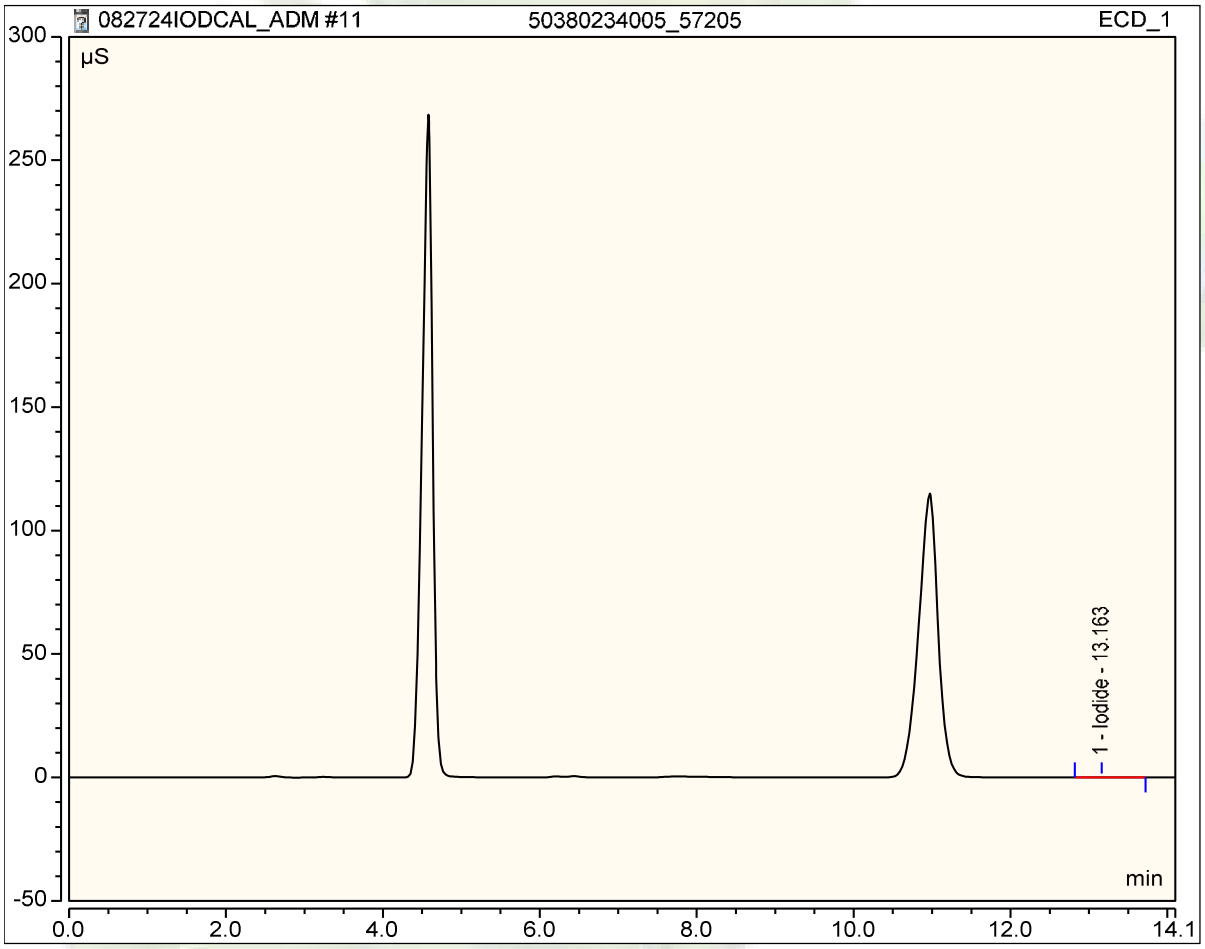
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.17	**Iodide**	0.3029	0.011	0.031	BMB



50380234005_57205

Sample Name:	**50380234005_57205**	Injection Volume (uL):	**25.00**
Vial Number:	G$2	Channel:	**ECD_1**
Sample Type:	8n(no9n	Calibration:	**08/28/24 09:32**
Control Pro ram:	!"IC"!I#$%&S22	' luent Stoc(:	**388568**
)uanti*+, ethod:	C&L-I#I' "!	$ilution . actor	**1.0000**
/ecordin Time:	**08/28/2024 03:35**	Sample 0 ei ht:	**1.0000**
/un Time (min):	12-1"	Sy3tem Name:	**50IC05**

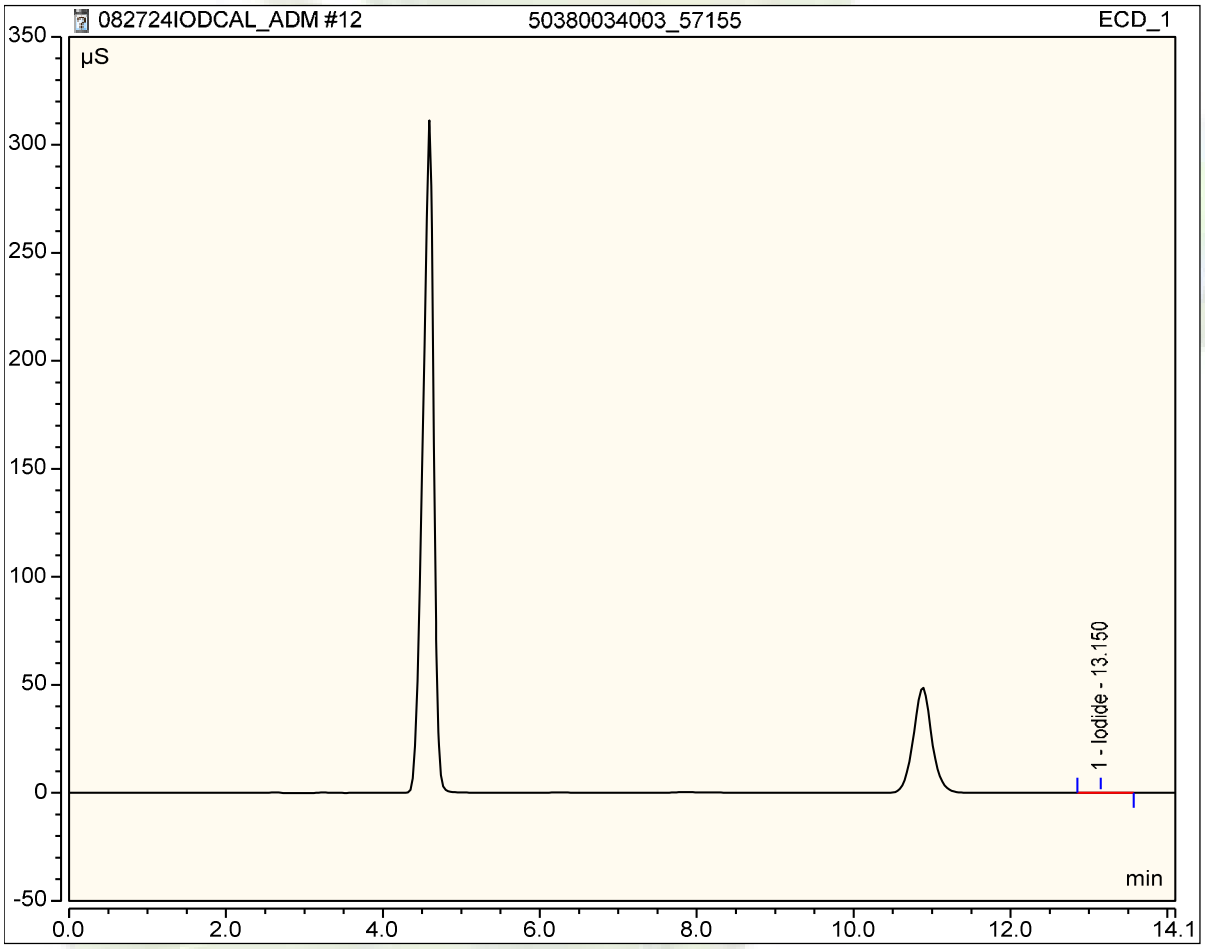
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.16	**Iodide**	0.2984	0.011	0.032	BMB



50380034003_57155

Sample Name:	**50380034003_57155**	Injection Volume (uL):	**25.00**
Vial Number:	G**$4**	Channel:	**ECD_1**
Sample Type:	**8**n(no**9**n	Calibration:	**08/28/24 09:32**
Control Pro ram:	**!"**IC**"!**I#$%&S22	**'** luent Stoc(:	**388568**
) uanti*+, ethod:	C&L-I#I'**"!**	**$**ilution **.** actor	**1.0000**
/ ecordin Time:	**08/28/2024 03:53**	Sample **0** ei ht:	**1.0000**
/ un Time (min):	**12-1"**	Sy**3**tem Name:	**50IC05**

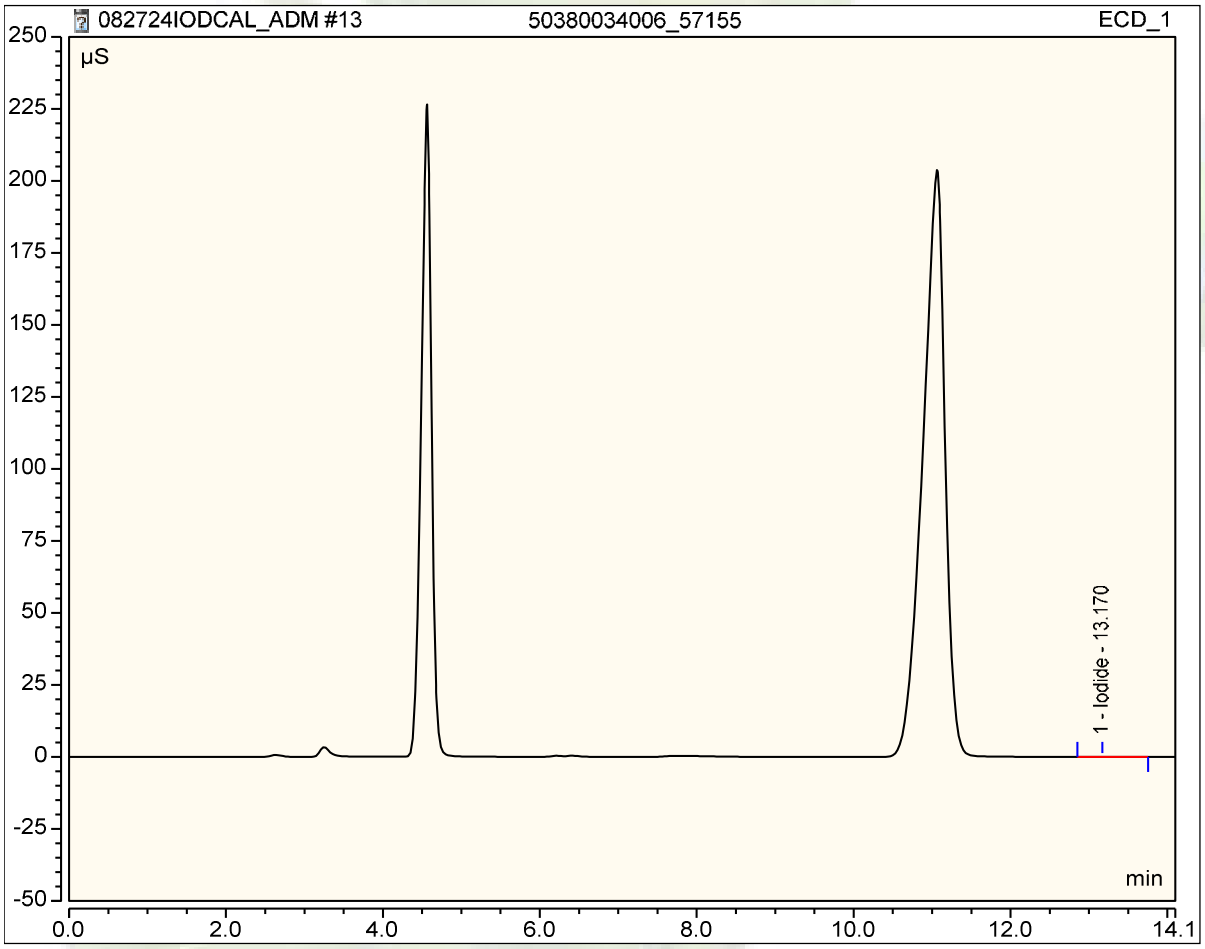
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.15	**Iodide**	0.1179	0.004	0.014	BMB



50380034006_57155

Sample Name:	**50380034006_57155**	Injection Volume (uL):	**25.00**
Vial Number:	G**$2**	Channel:	**ECD_1**
Sample Type:	**8**n(no**9**n	Calibration:	**08/28/24 09:32**
Control Pro ram:	**!"**IC**"!**I#**$**%**&**S22	**'** luent Stoc**(**:	**388568**
) uanti*+**,** ethod:	C**&**L-I#**$**I**$'"!**	**$**ilution **.** actor	**1.0000**
/ ecordin Time:	**08/28/2024 04:10**	Sample **0** ei ht:	**1.0000**
/ un Time (min):	**12-1"**	Sy**3**tem Name:	**50IC05**

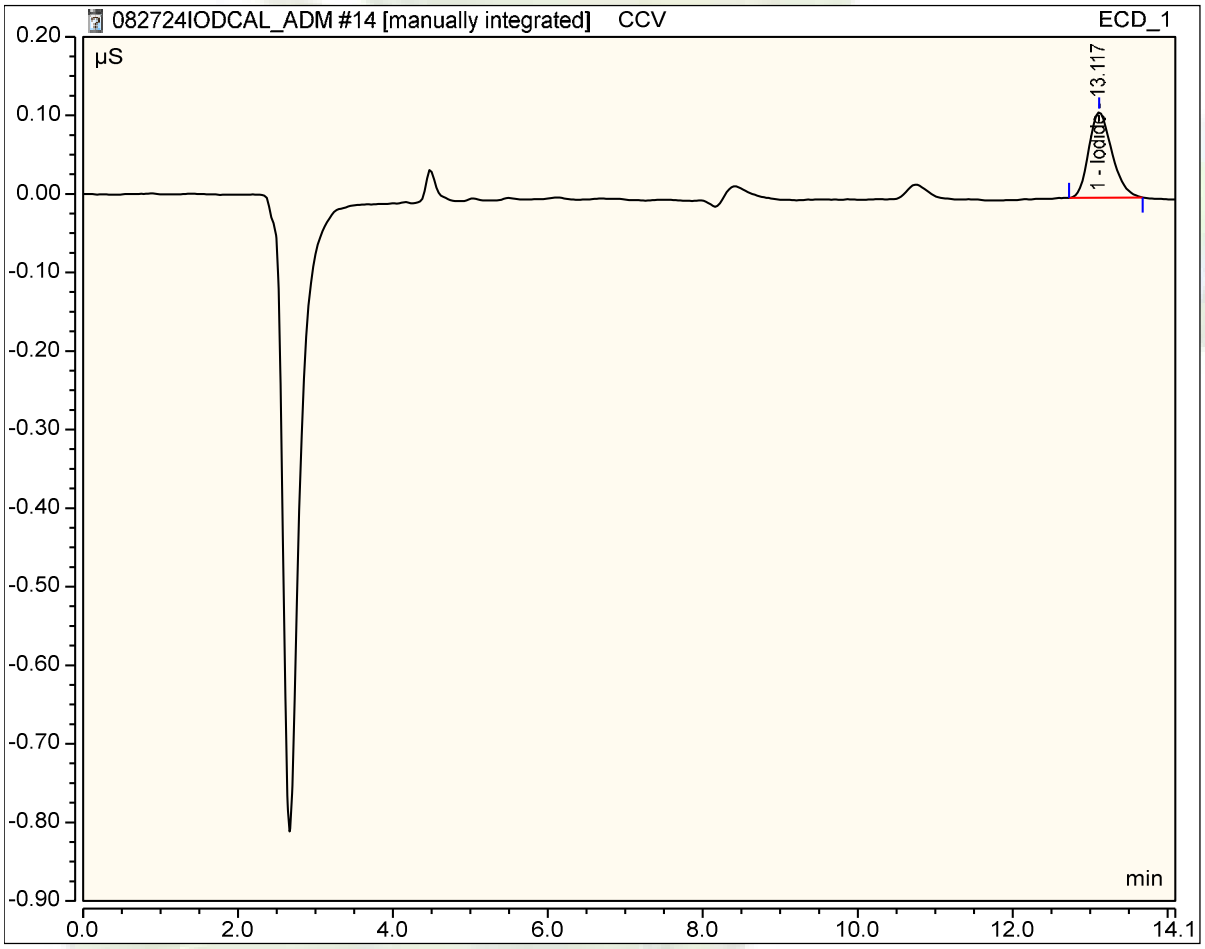
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.17	**Iodide**	0.2185	0.008	0.024	BMB



CCV
389128

Sample Name:	**CCV**	Injection Volume (uL):	**25.00**
Vial Number:	**52**	Channel:	**ECD_1**
Sample Type:	**8n(no9n**	Calibration:	**08/28/24 09:32**
Control Pro ram:	**!"IC"! I#$%&S22**	' luent Stoc(:	**388568**
) uanti*+, ethod:	C&L- I#I' "!	$ilution . actor	**1.0000**
/ ecordin Time:	**08/28/2024 04:27**	Sample **0** ei ht:	**1.0000**
/ un Time (min):	**12-1"**	Sy3tem Name:	**50IC05**

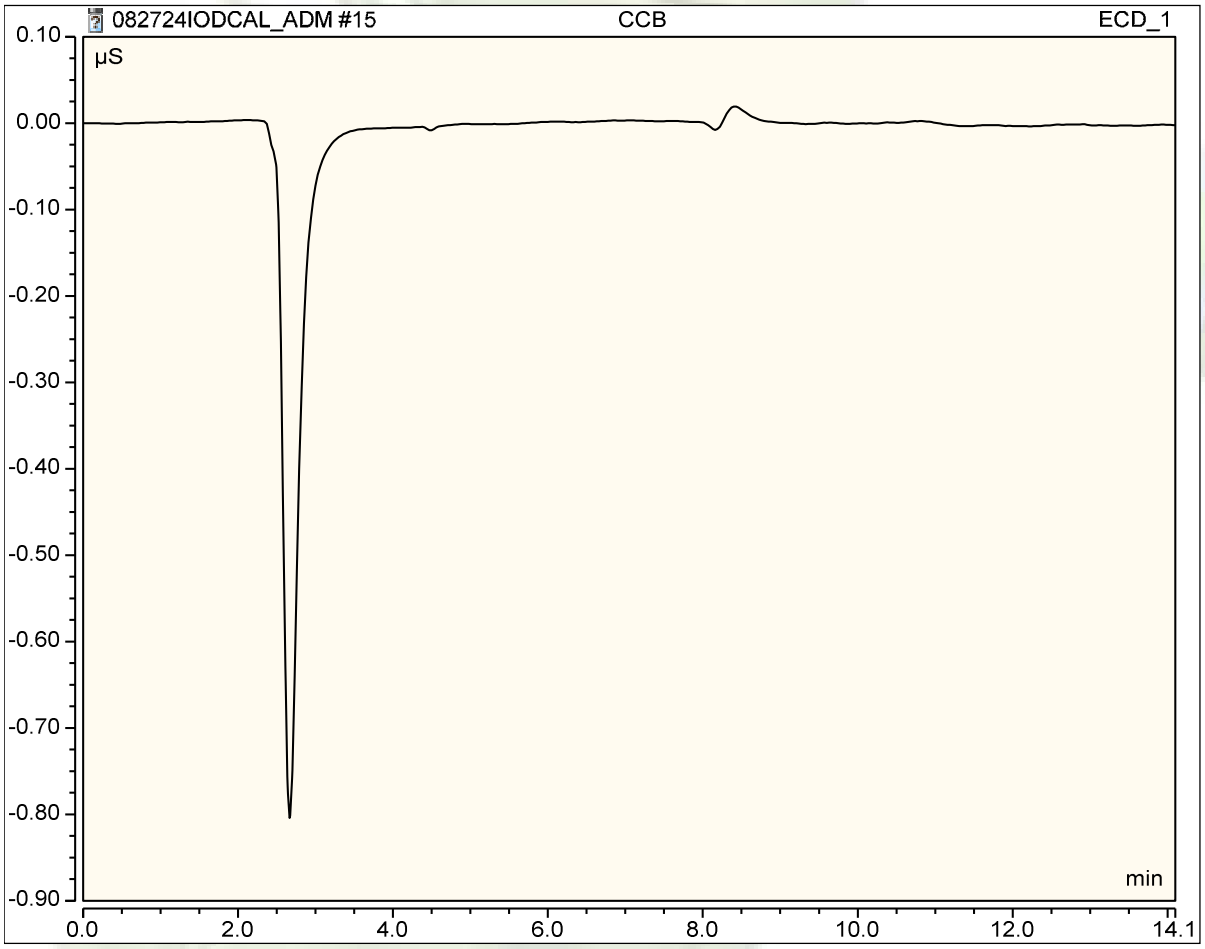
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.12	**Iodide**	1.0971	0.038	0.109	BMB*



CCB
340111

Sample Name:	**CCB**	Injection Volume (uL):	**25.00**
Vial Number:	**51**	Channel:	**ECD_1**
Sample Type:	**8**n(no**9**n	Calibration:	**08/28/24 09:32**
Control Pro ram:	**!"**IC**"!**I#$%&S22	**'** luent Stoc(:	**388568**
) uanti*+, ethod:	C&L-I#I'**"!**	**$**ilution **.** actor	**1.0000**
/ ecordin Time:	**08/28/2024 04:45**	Sample **0** ei ht:	**1.0000**
/ un Time (min):	**12-1"**	Sy**3**tem Name:	**50IC05**

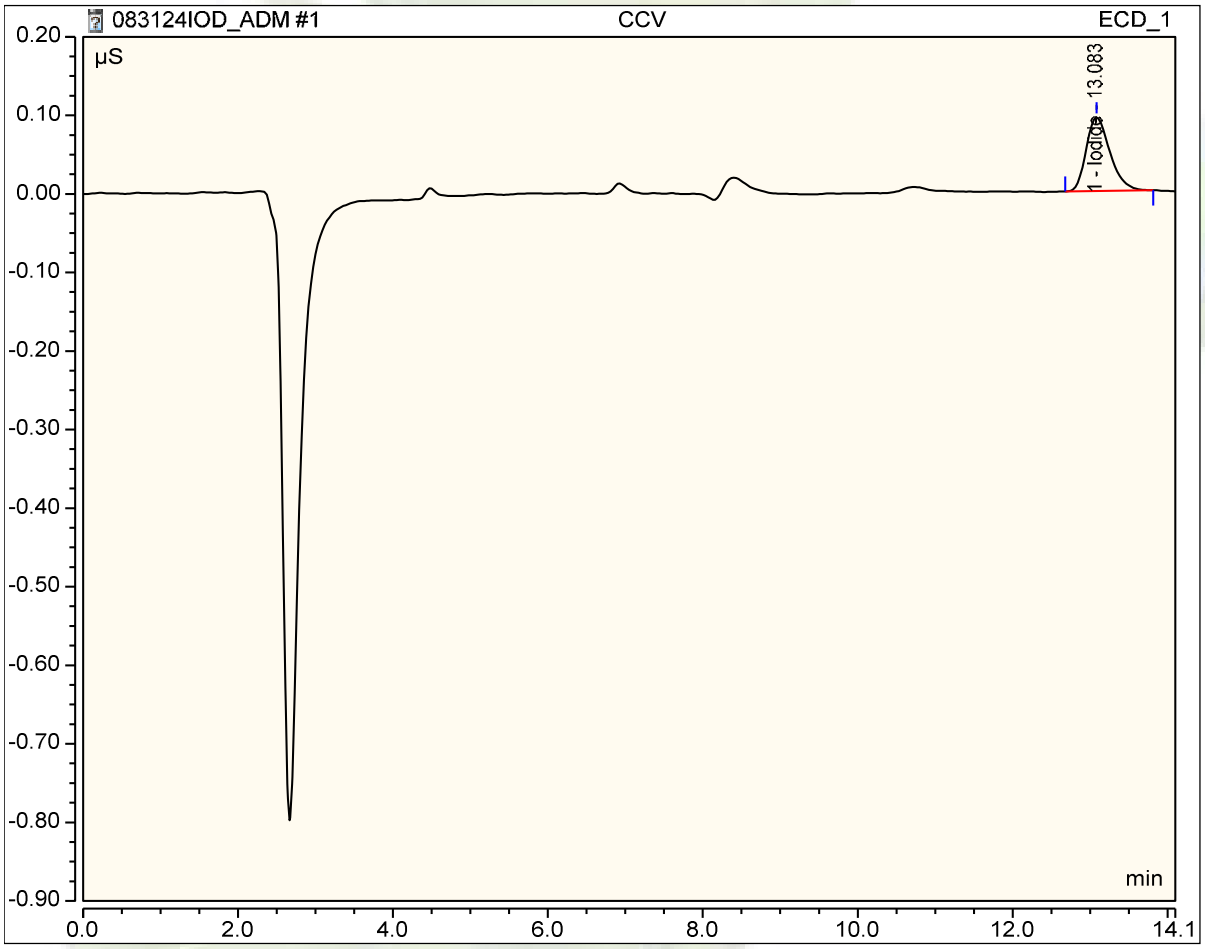
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



CCV
392572

Sample Name:	**CCV**	*Injection Volume (uL):*	**25.00**
Vial Number:	*B2*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 16:31**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

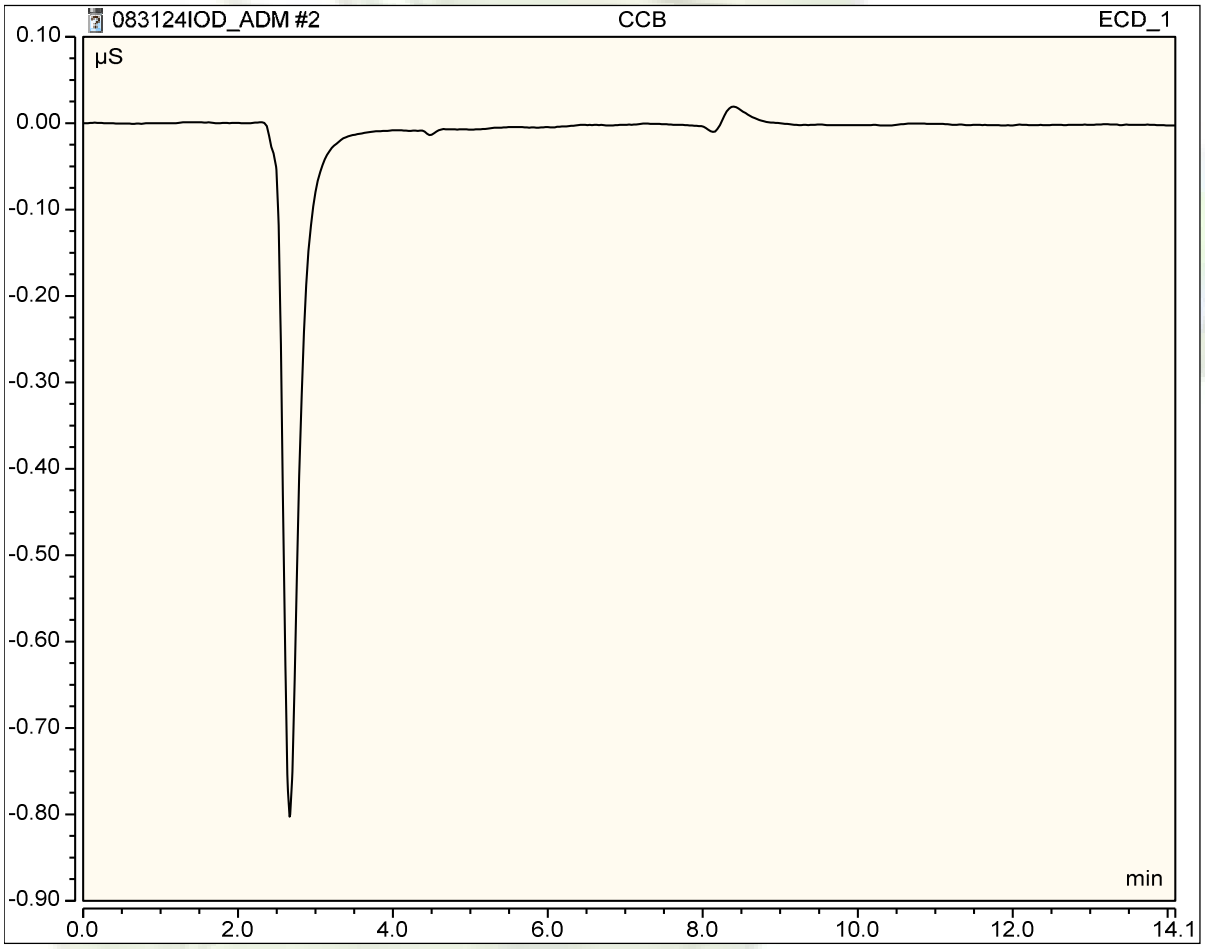
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.08	**Iodide**	0.9699	0.034	0.094	BMB



CCB
340111

Sample Name:	**CCB**	*Injection Volume (uL):*	**25.00**
Vial Number:	*B1*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 16:49**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

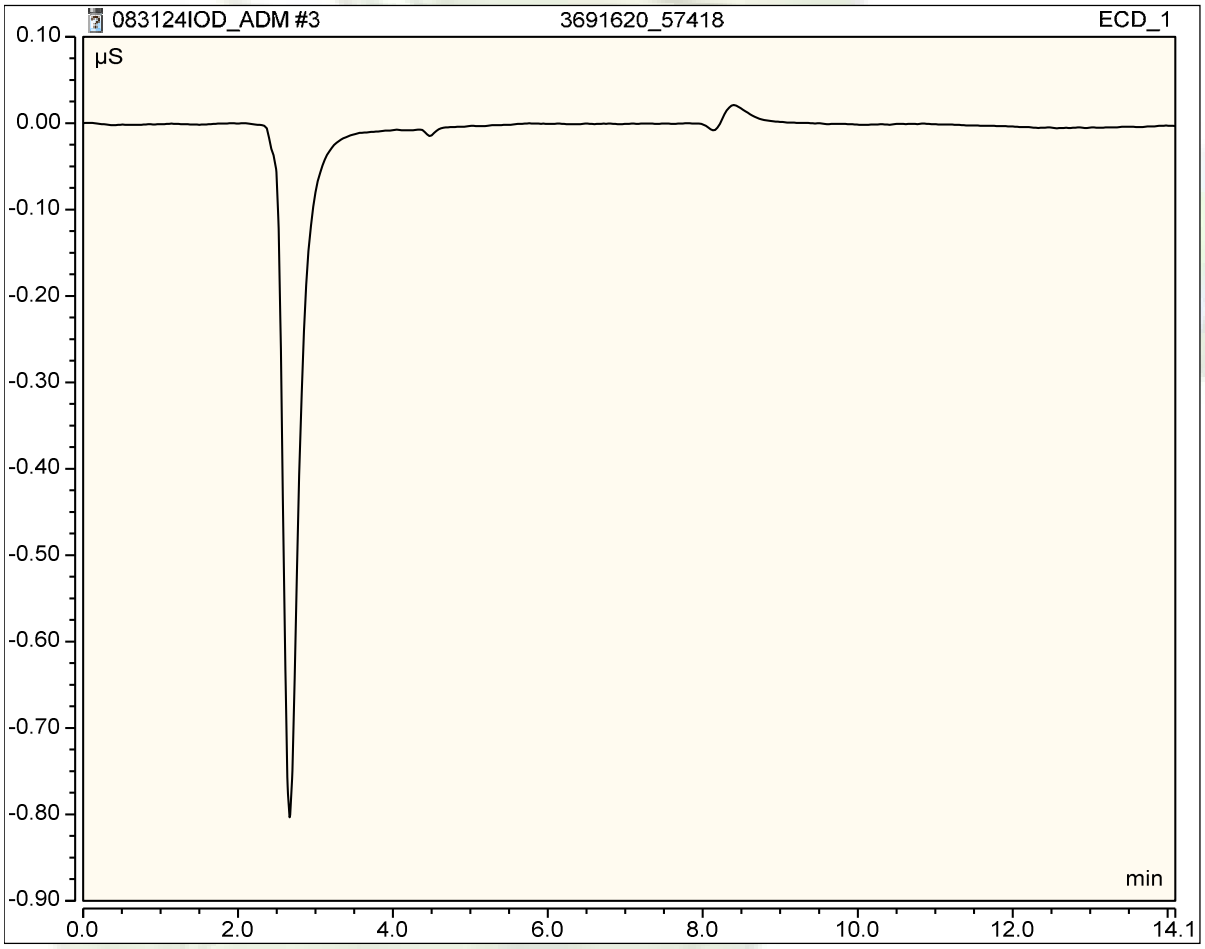
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



3691620_57418
340111

Sample Name:	**3691620_57418**	*Injection Volume (uL):*	**25.00**
Vial Number:	*B1*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 17:06**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

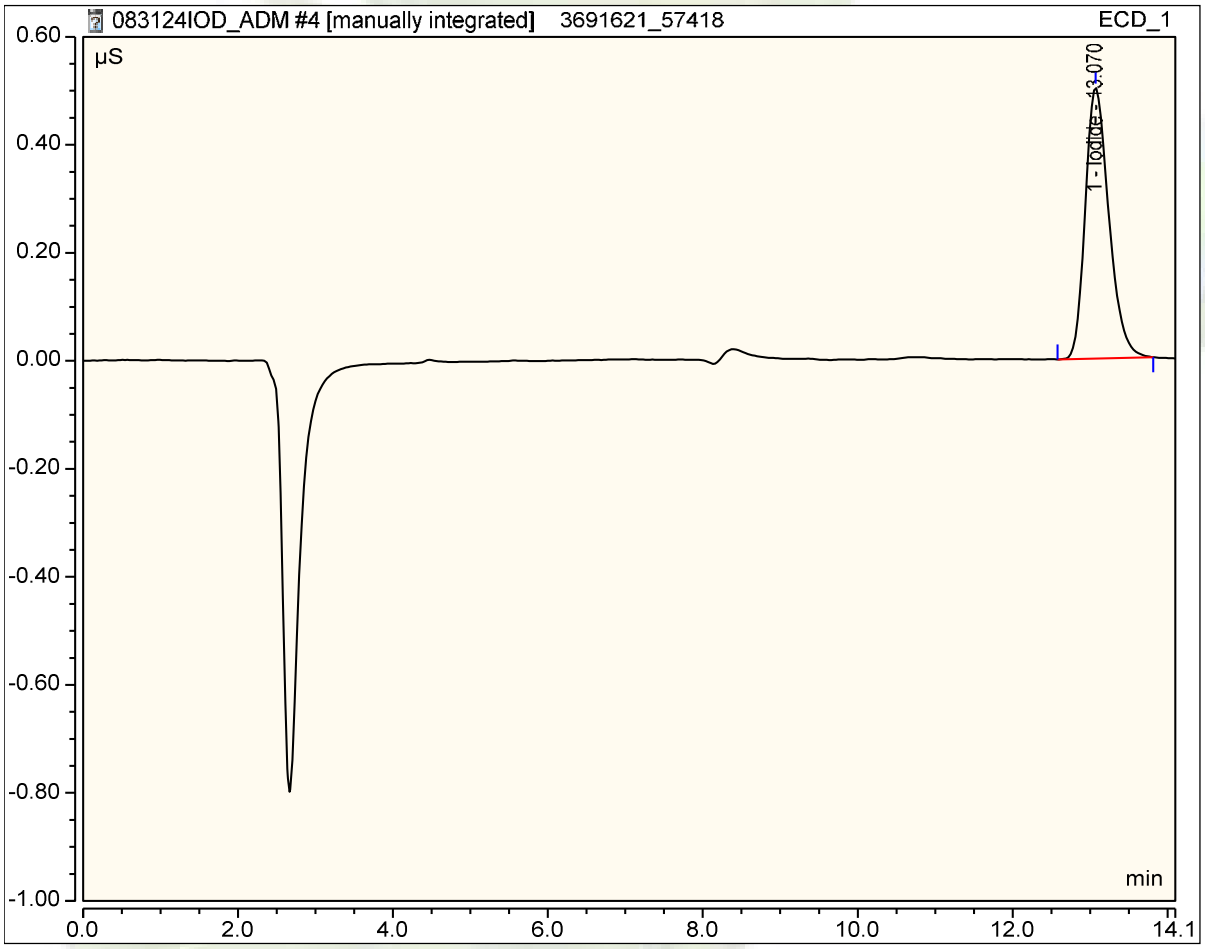
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



3691621_57418
377680

Sample Name:	**3691621_57418**	*Injection Volume (uL):*	**25.00**
Vial Number:	*B3*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 17:23**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

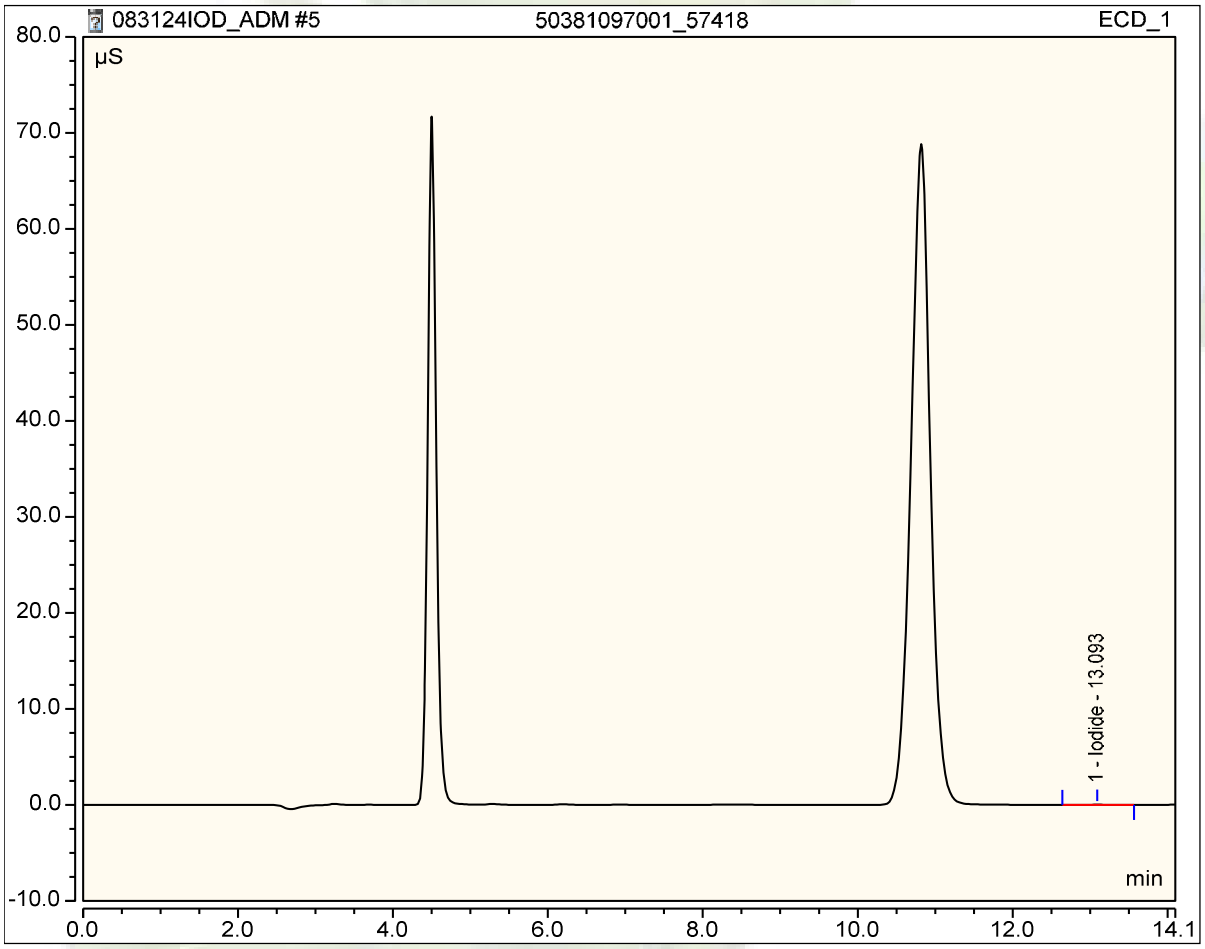
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.07	**Iodide**	5.1739	0.177	0.502	BMB*



50381097001_57418

Sample Name:	**50381097001_57418**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RA1*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 17:41**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

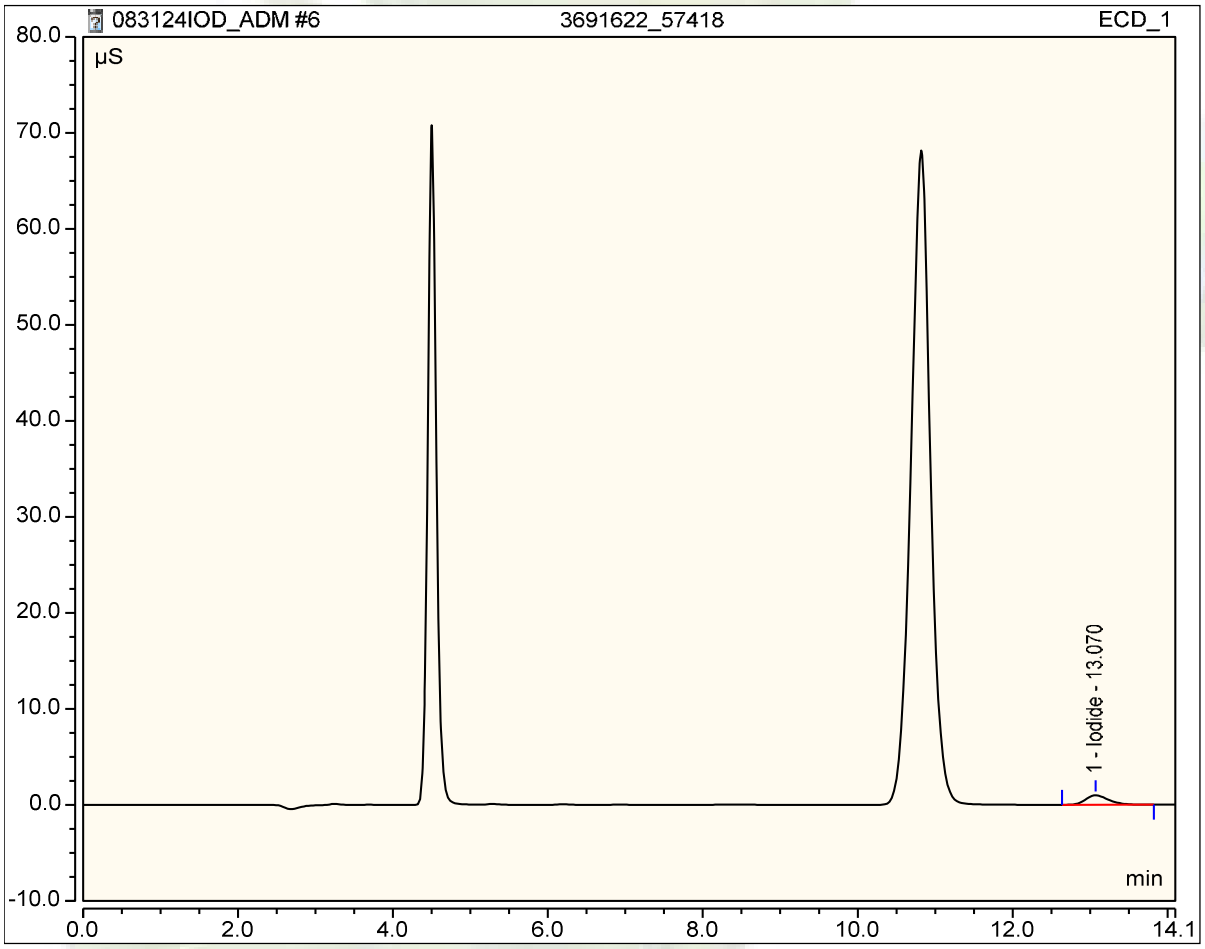
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.09	**Iodide**	0.1334	0.005	0.013	BMB



3691622_57418

Sample Name:	**3691622_57418**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RA2*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 17:58**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

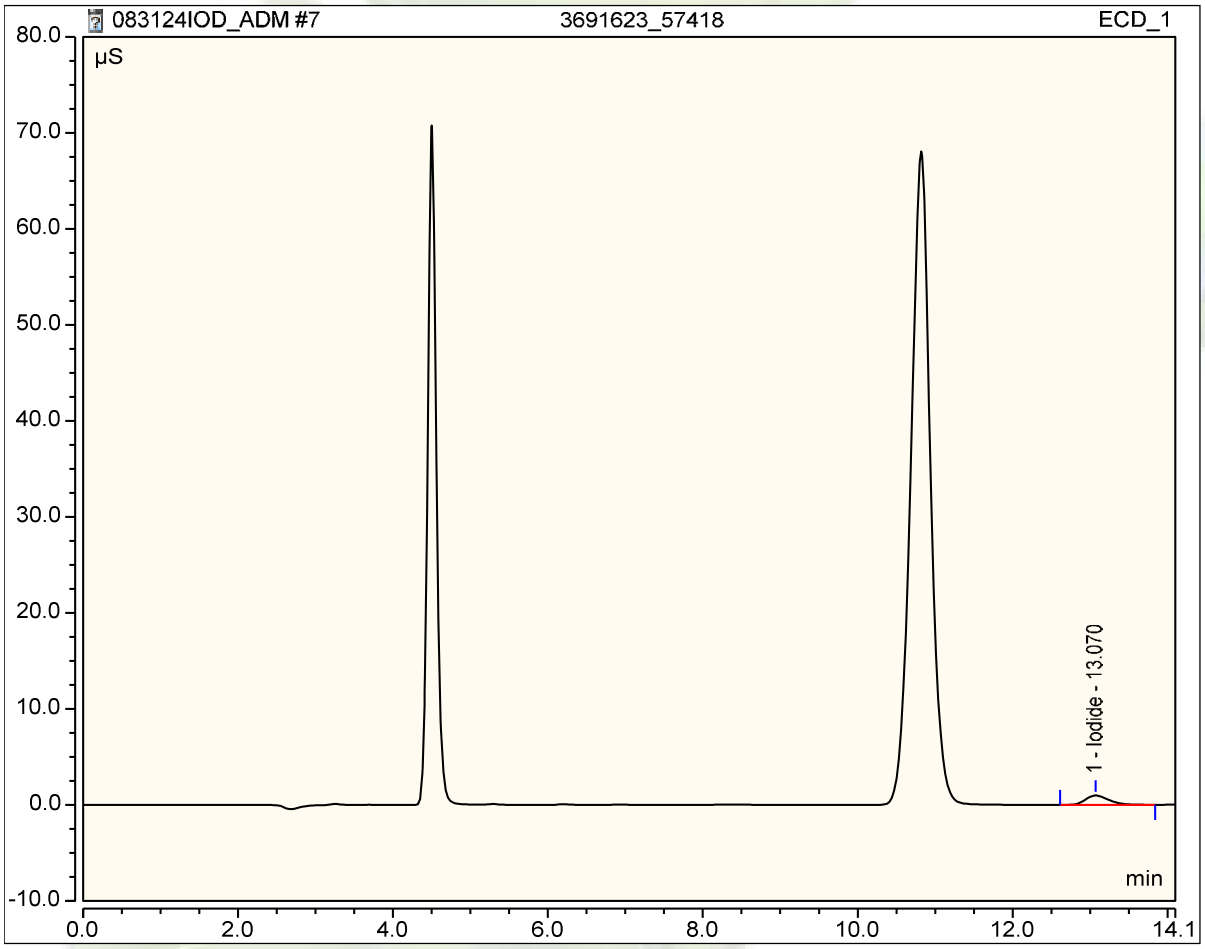
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.07	**Iodide**	9.9933	0.342	0.982	BMB



3691623_57418

Sample Name:	**3691623_57418**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RA2*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 18:15**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

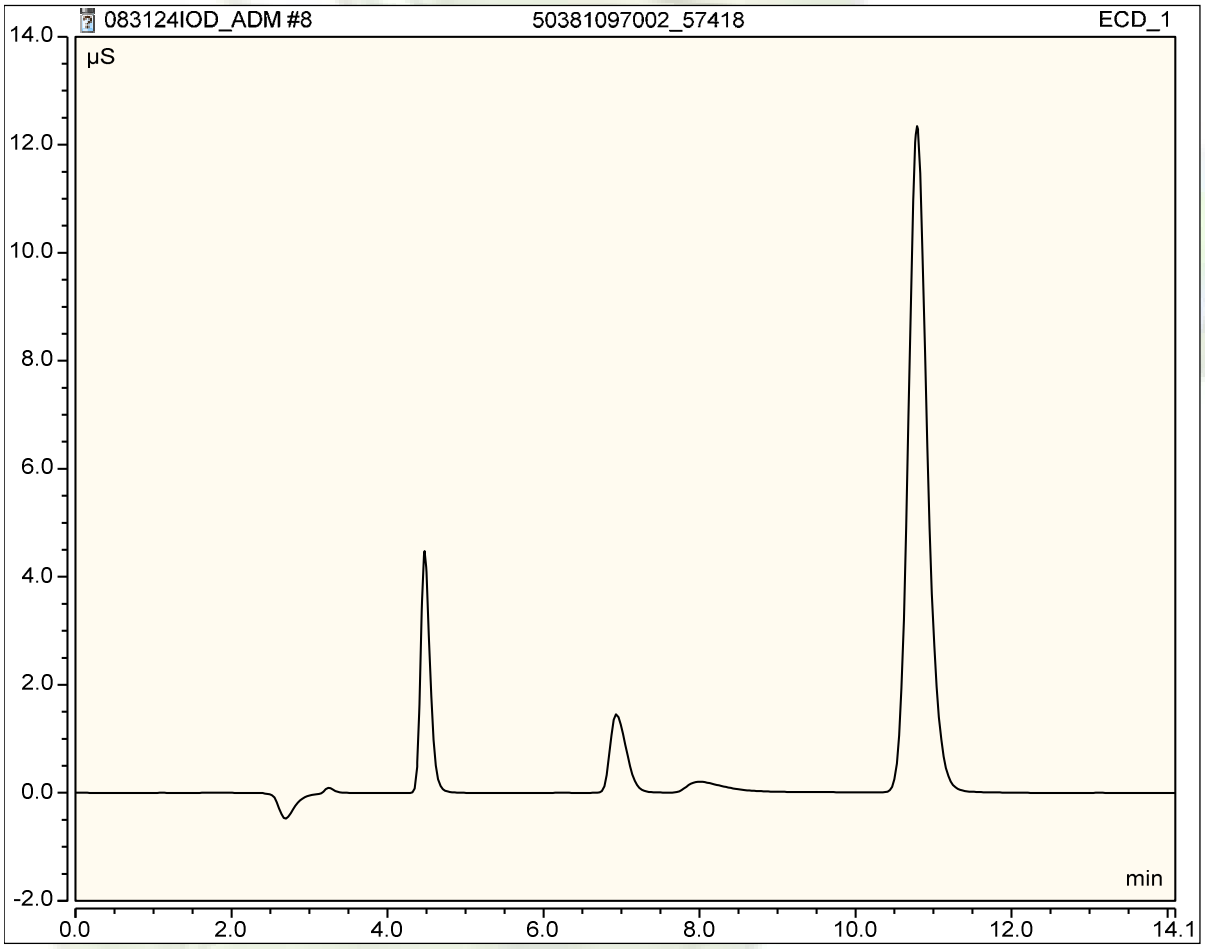
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.07	**Iodide**	9.9896	0.342	0.980	BMB



50381097002_57418

Sample Name:	**50381097002_57418**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RA3*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 18:32**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

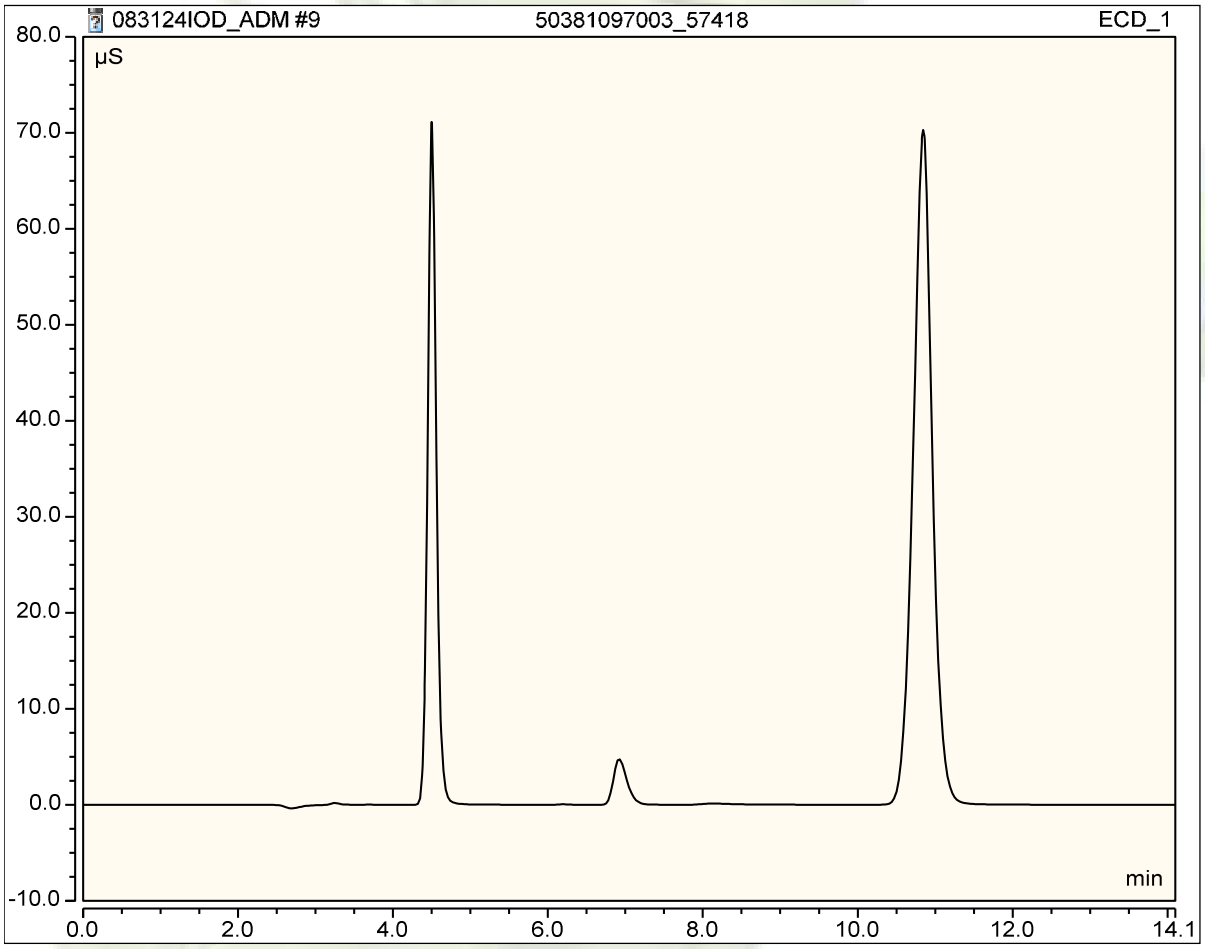
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



50381097003_57418

Sample Name:	**50381097003_57418**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RA4*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 18:50**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

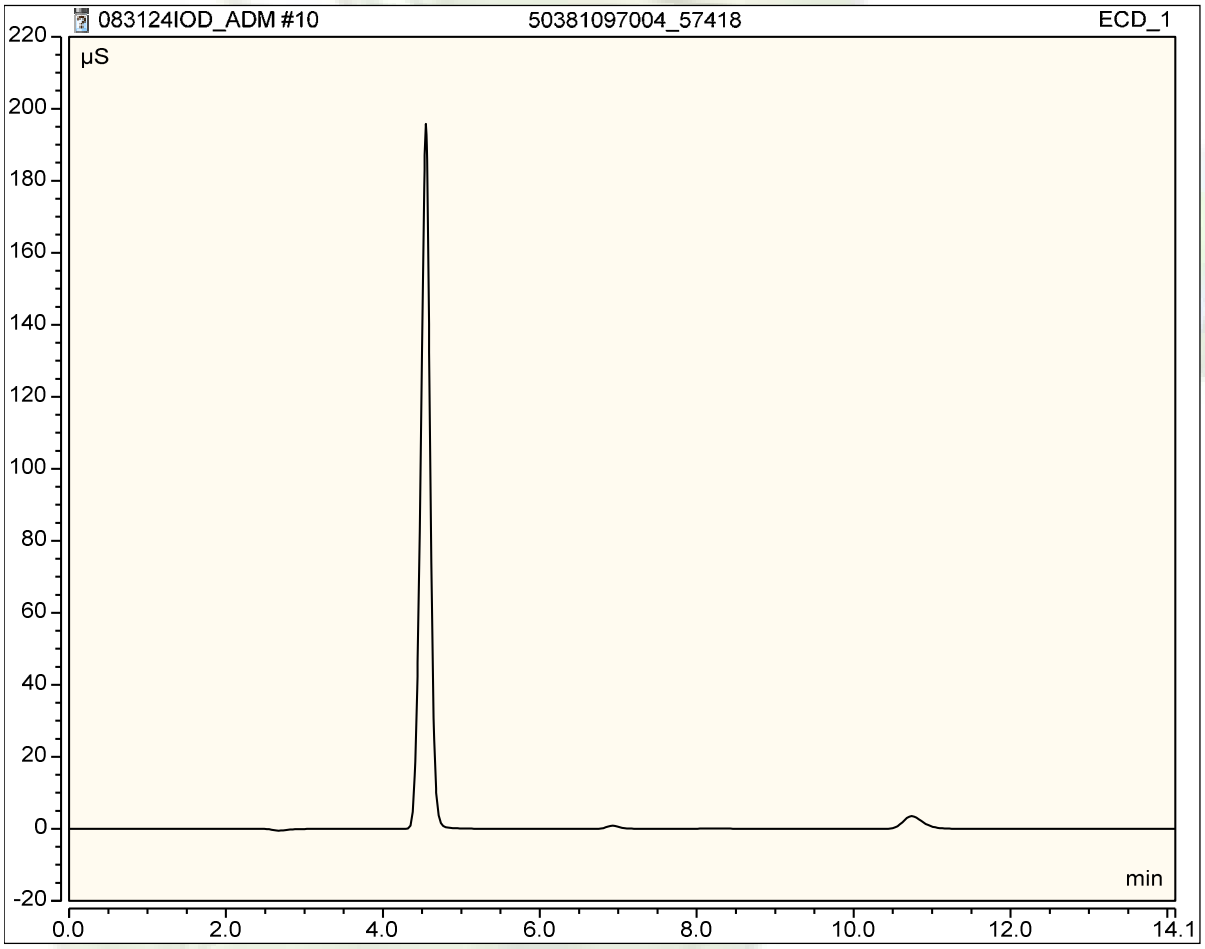
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



50381097004_57418

Sample Name:	**50381097004_57418**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RA5*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 19:07**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

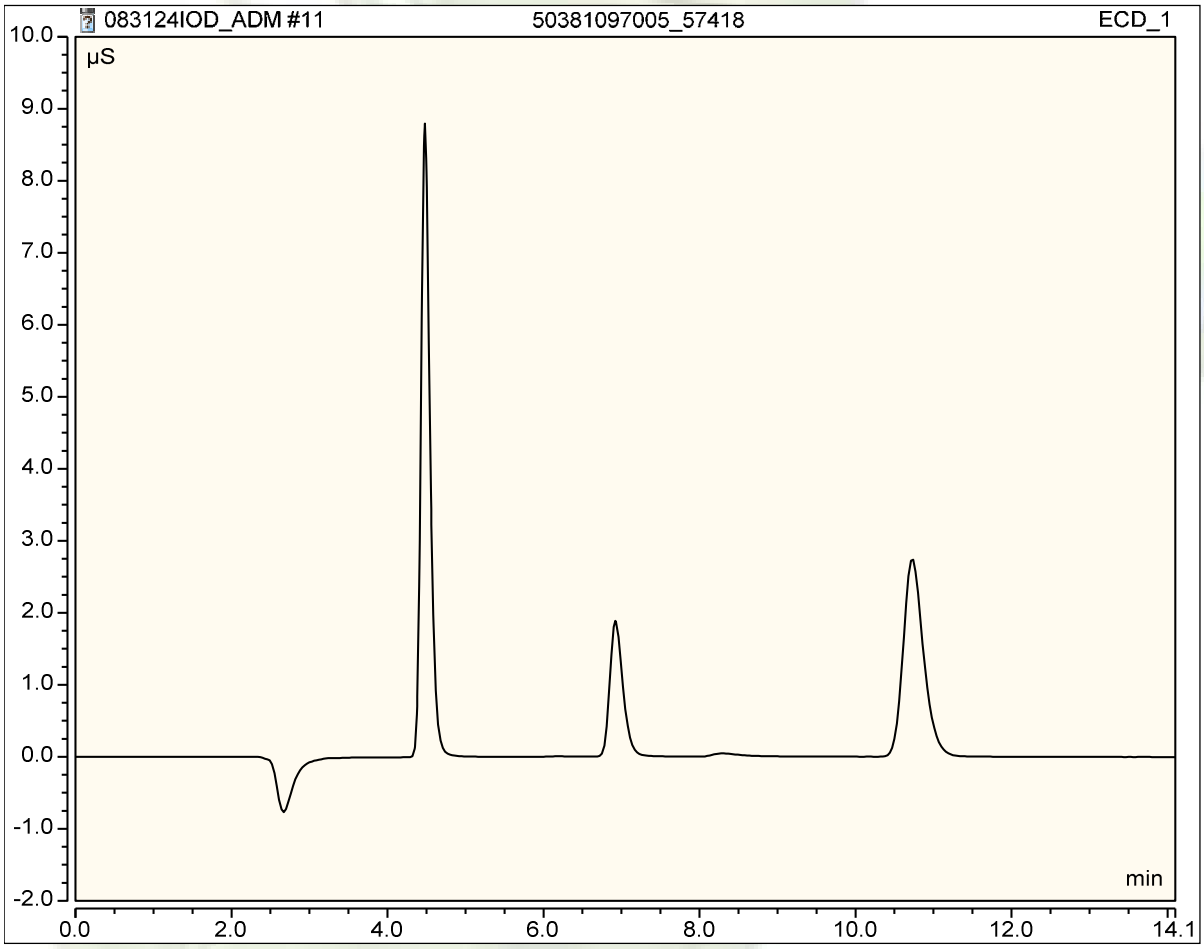
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



50381097005_57418

Sample Name:	**50381097005_57418**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RA6*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 19:24**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

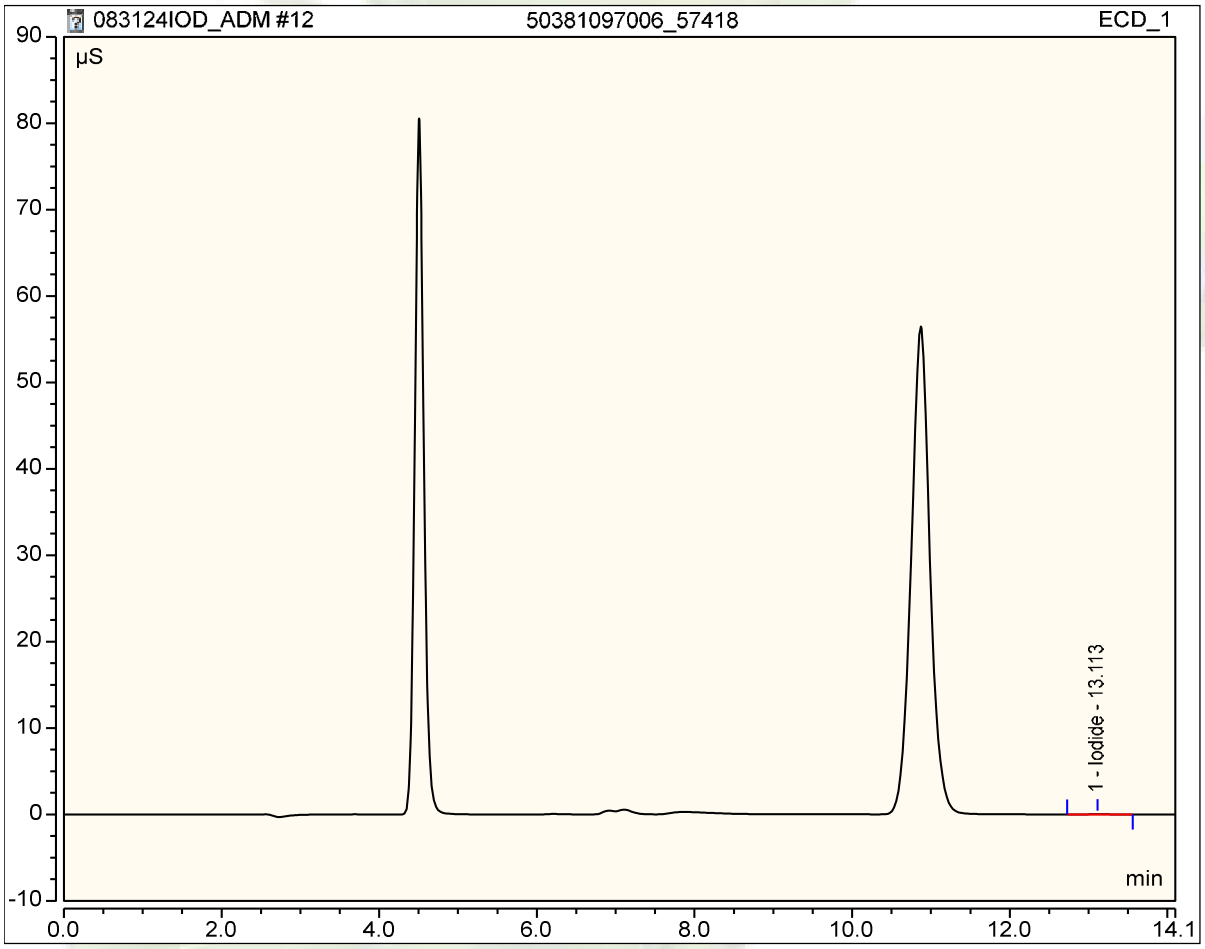
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



50381097006_57418

Sample Name:	**50381097006_57418**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RA7*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 19:42**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

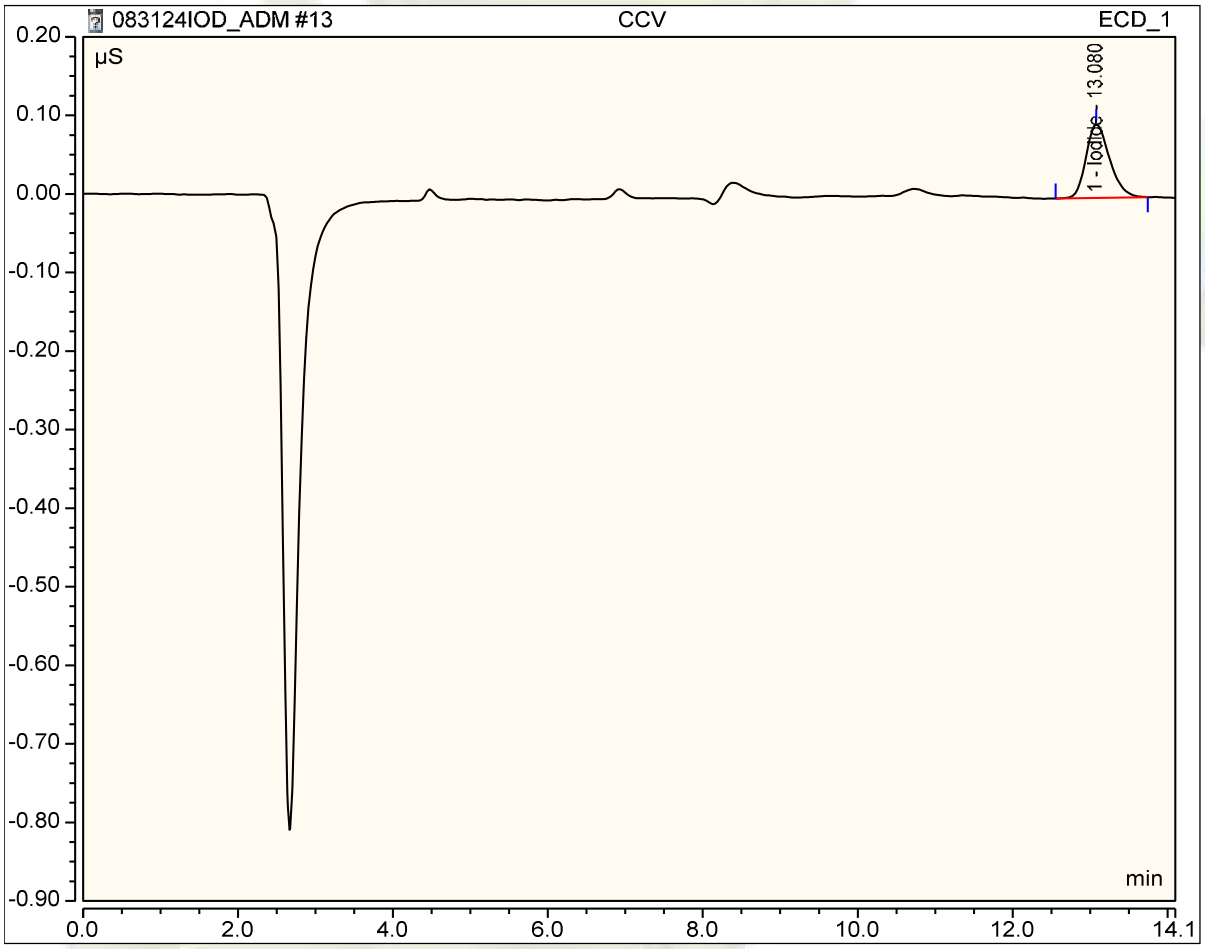
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.11	**Iodide**	0.1077	0.004	0.012	BMB



CCV
392572

Sample Name:	**CCV**	*Injection Volume (uL):*	**25.00**
Vial Number:	*B2*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 19:59**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

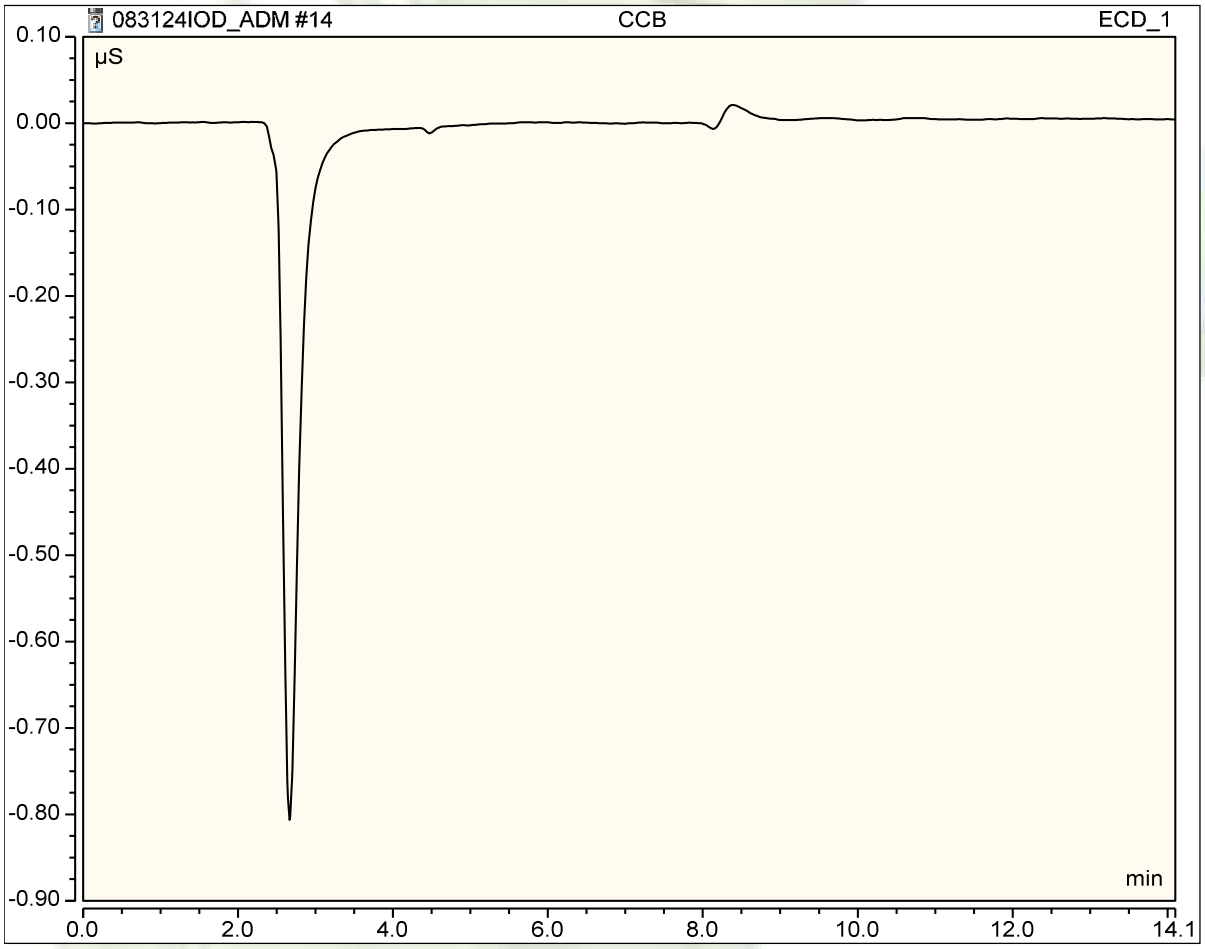
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.08	**Iodide**	0.9604	0.033	0.094	BMB



CCB
340111

Sample Name:	**CCB**	*Injection Volume (uL):*	**25.00**
Vial Number:	*B1*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 20:16**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

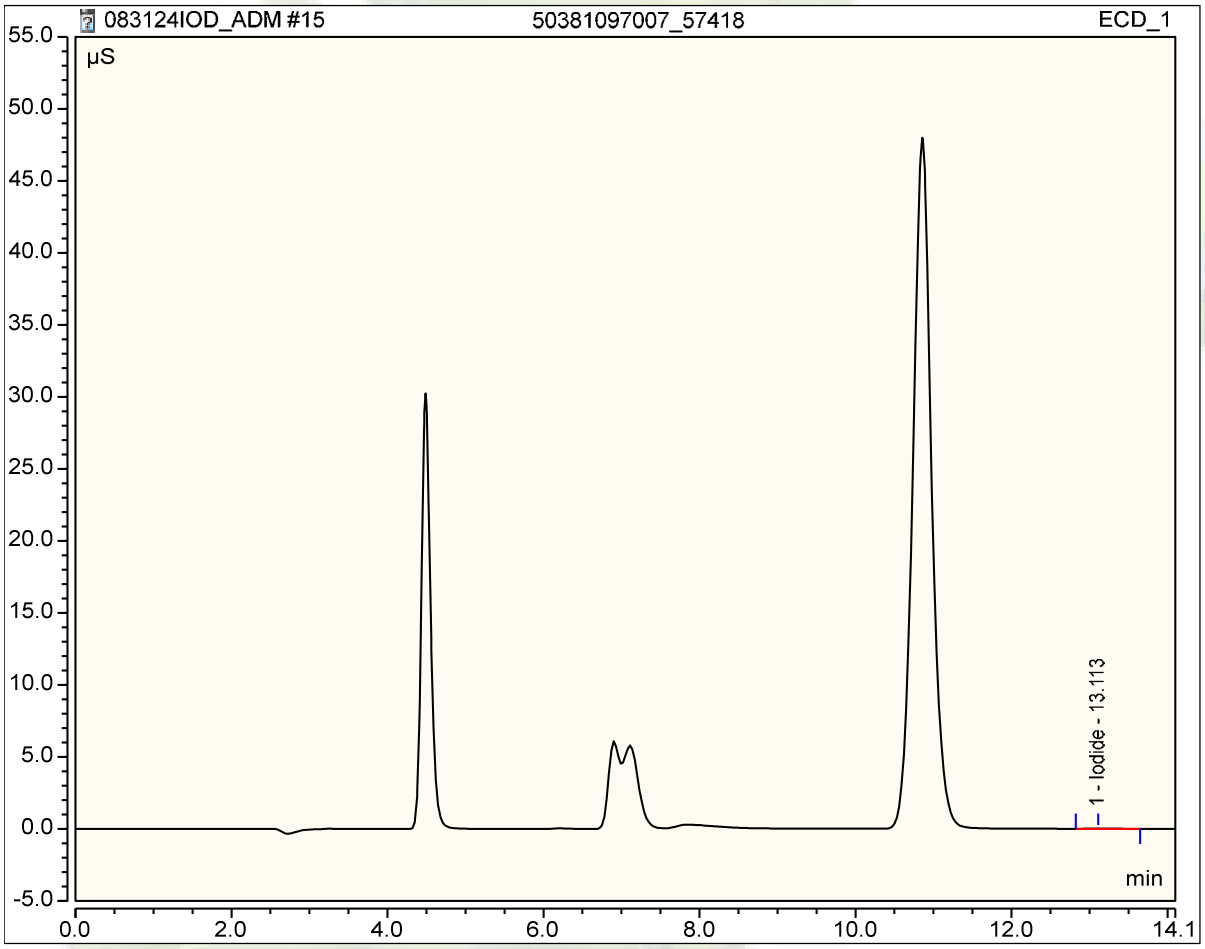
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



50381097007_57418

Sample Name:	**50381097007_57418**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RA8*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 20:33**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

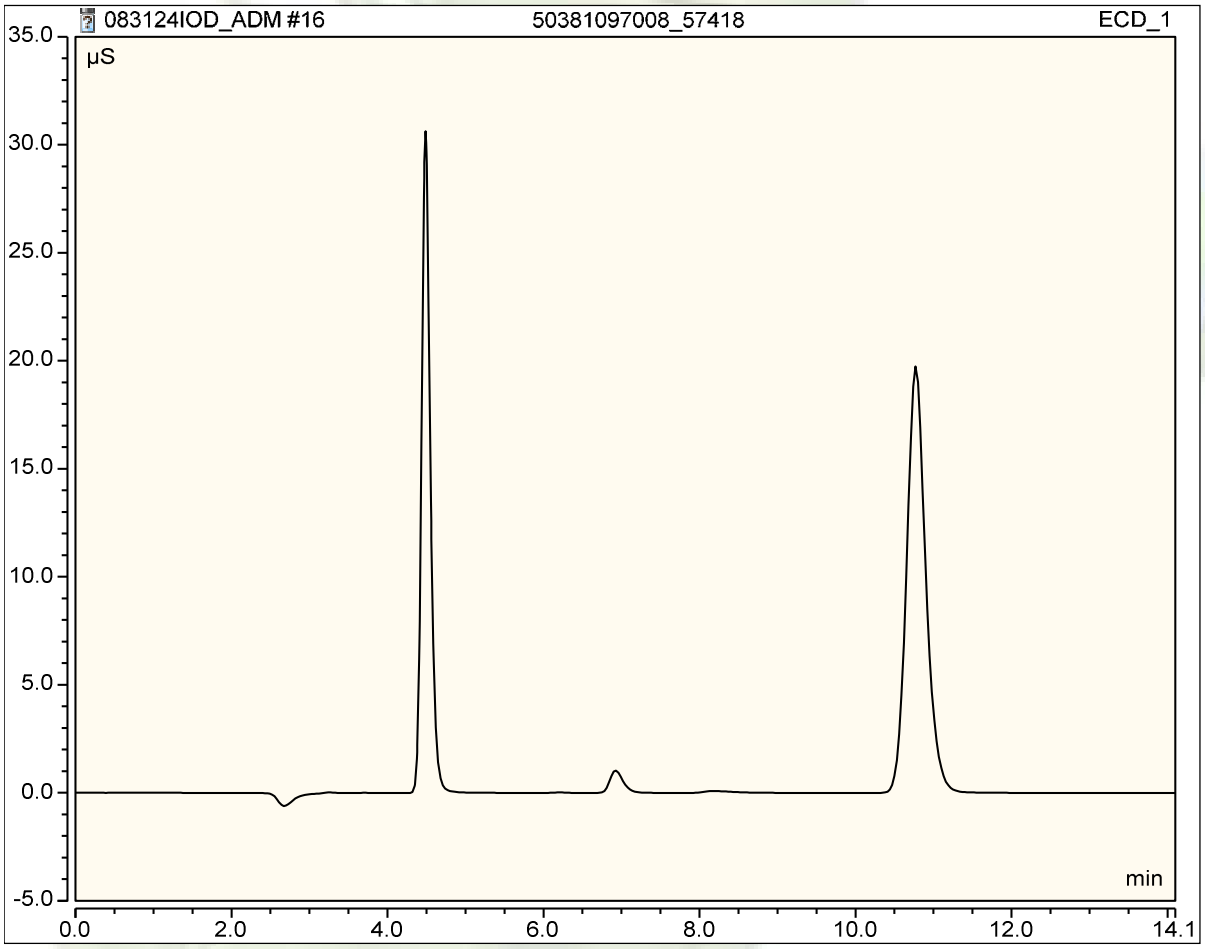
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.11	**Iodide**	0.0347	0.001	0.004	BMB



50381097008_57418

Sample Name:	**50381097008_57418**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RB1*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 20:51**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

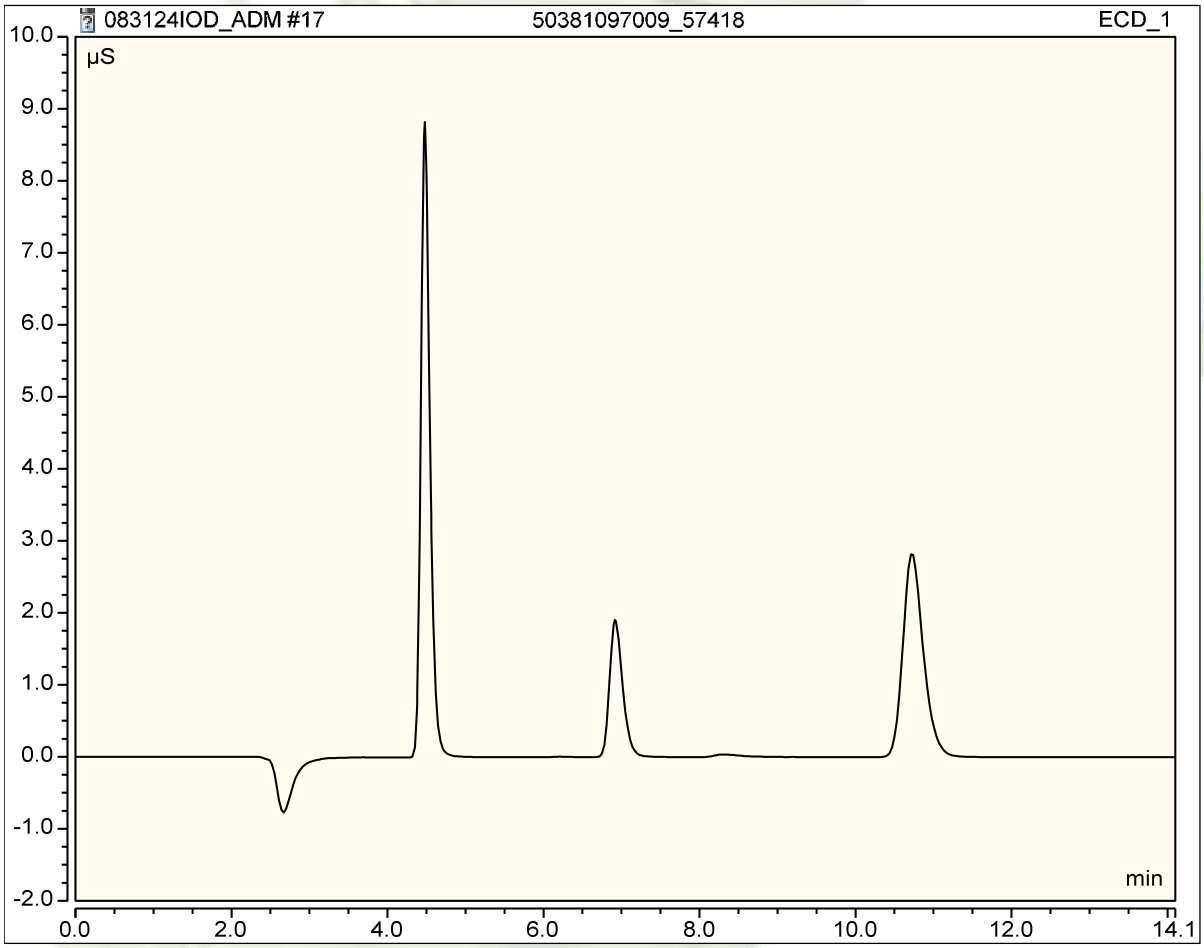
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



50381097009_57418

Sample Name:	**50381097009_57418**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RB2*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 21:08**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

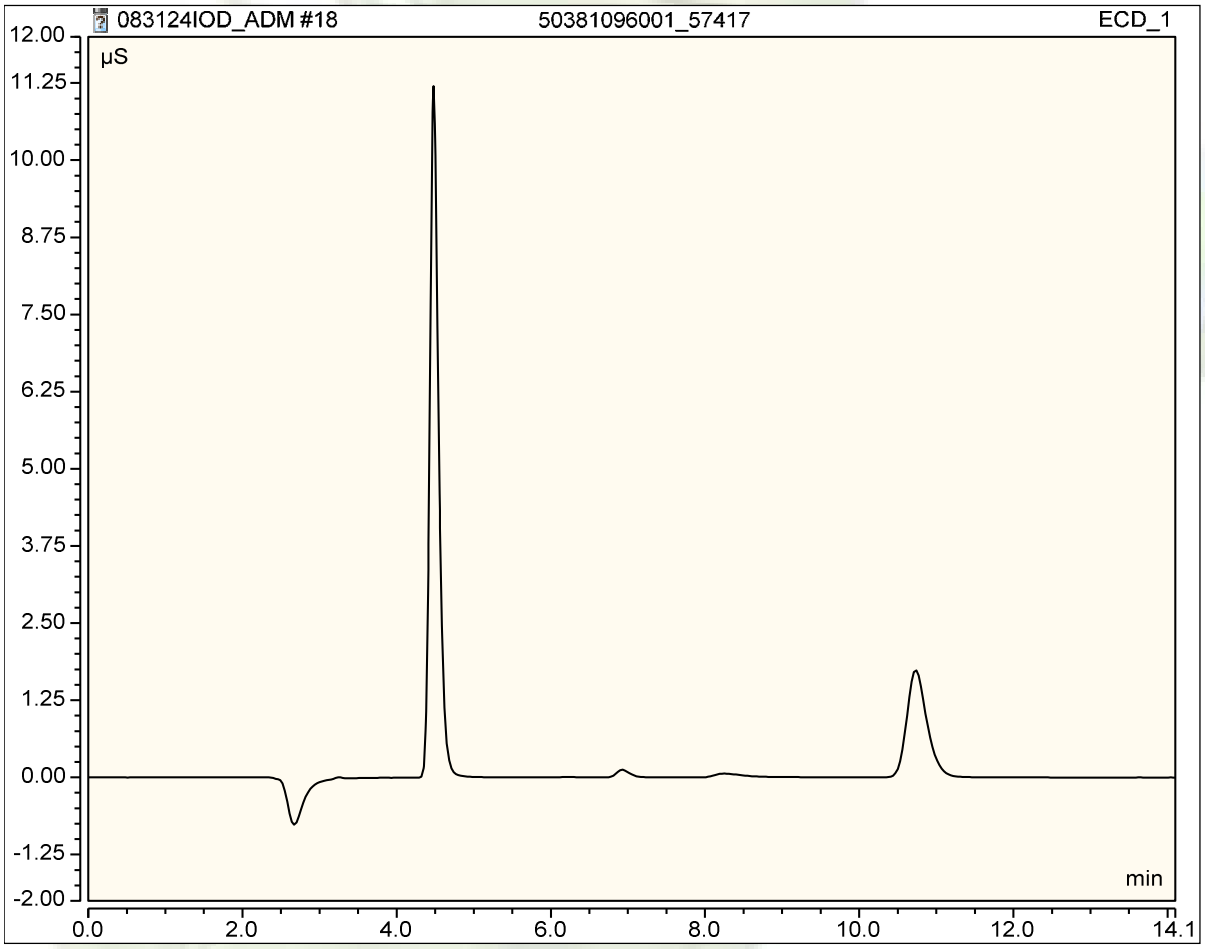
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



50381096001_57417

Sample Name:	**50381096001_57417**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RB3*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 21:25**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

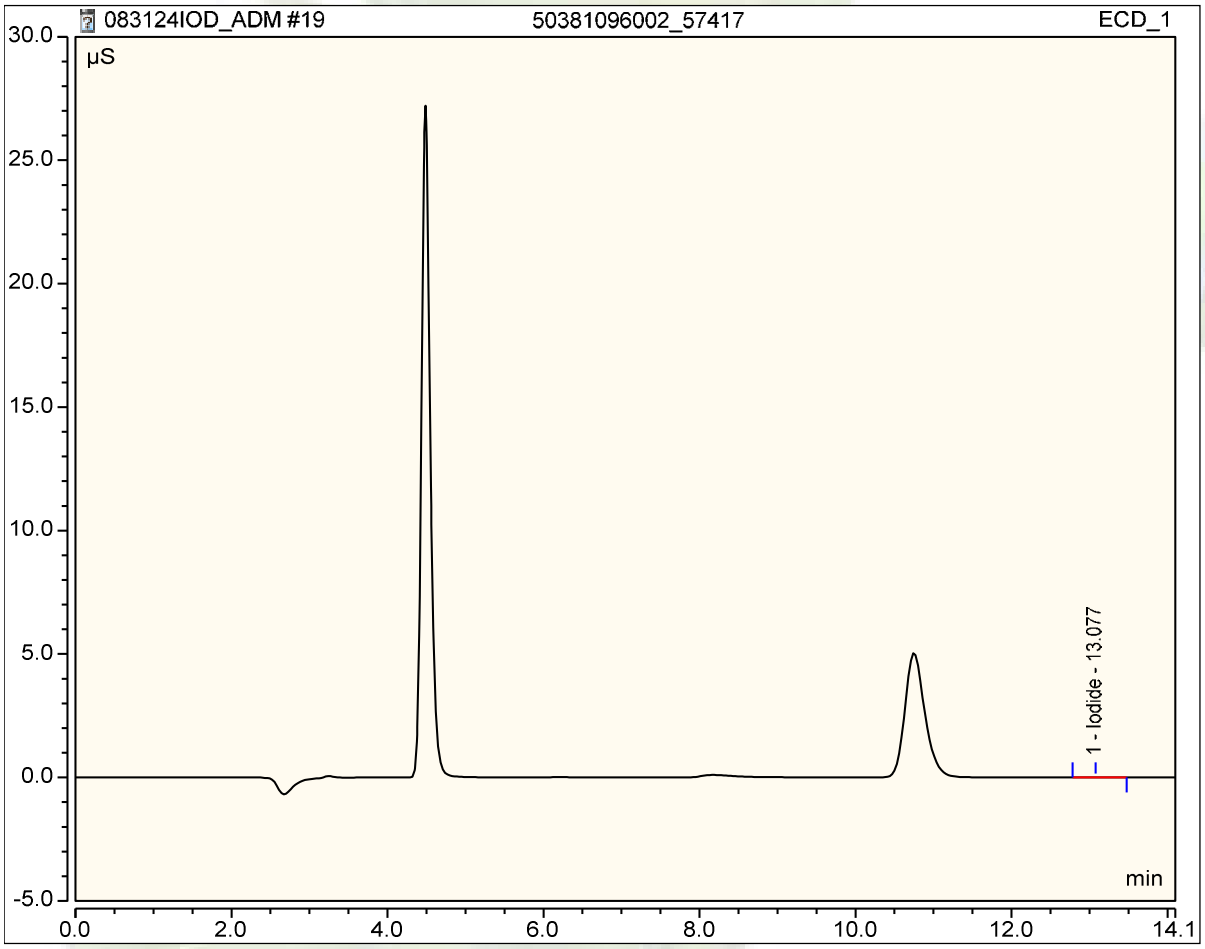
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



50381096002_57417

Sample Name:	**50381096002_57417**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RB4*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 21:42**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

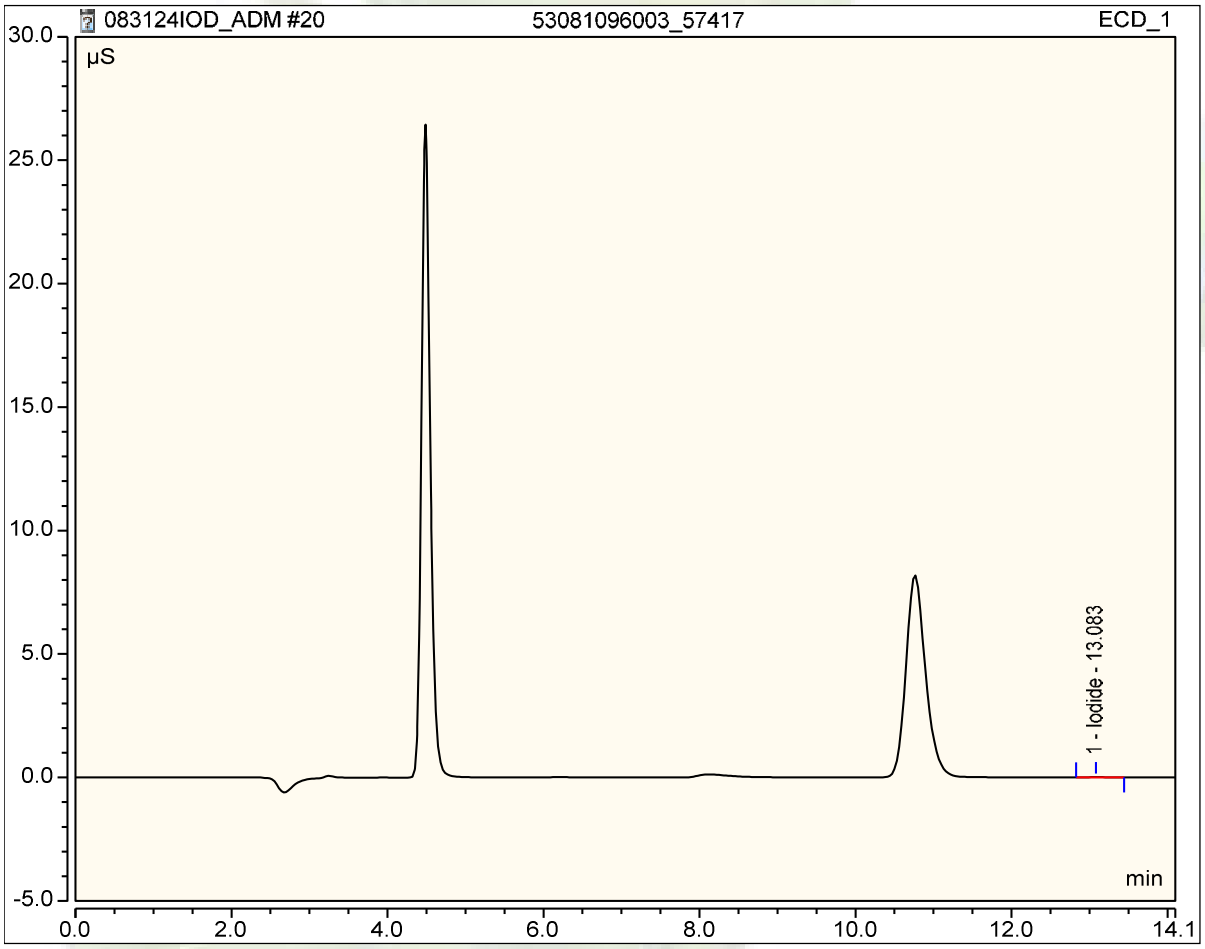
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.08	**Iodide**	0.0233	0.001	0.003	BMB



53081096003_57417

Sample Name:	**53081096003_57417**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RB5*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 22:00**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

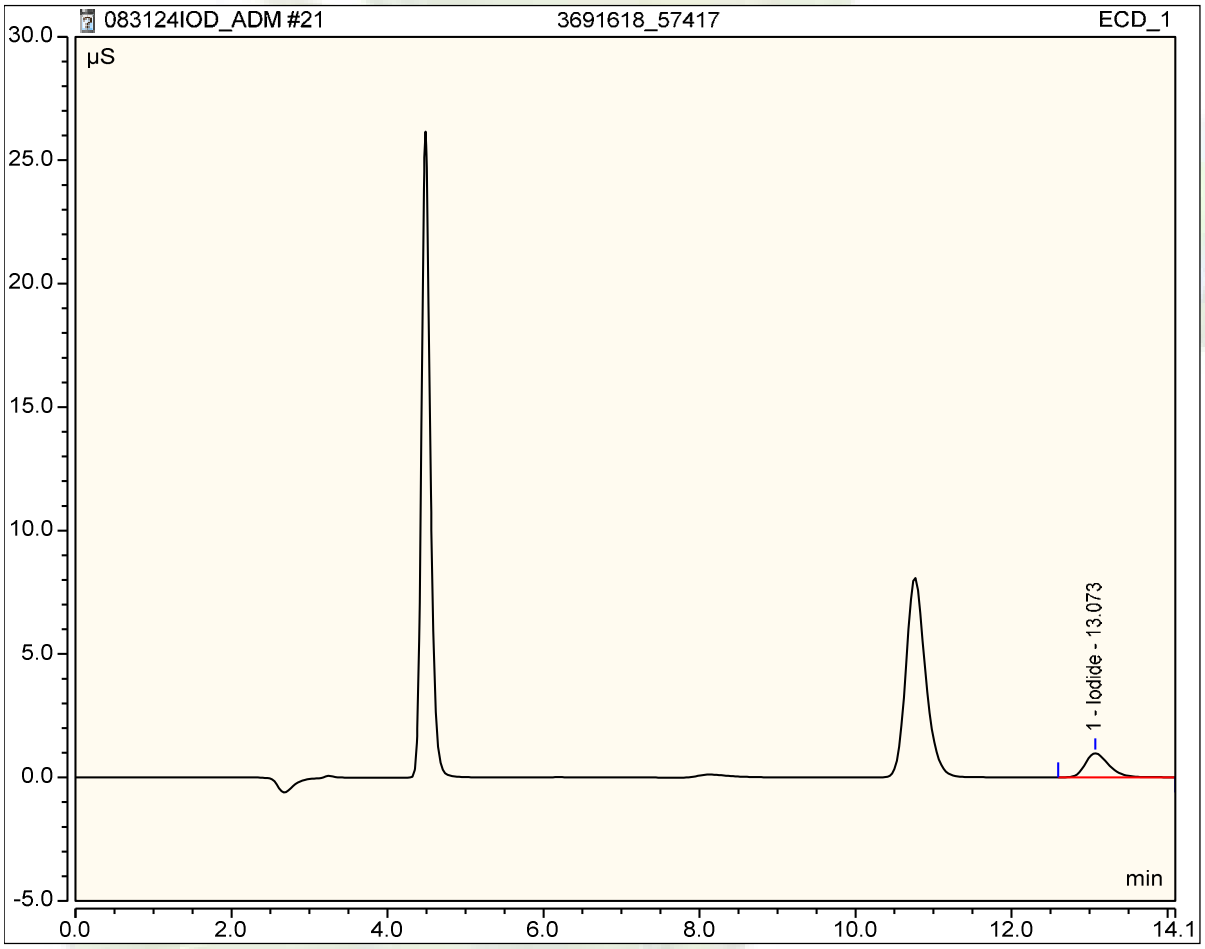
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.08	**Iodide**	0.0420	0.002	0.006	BMB



3691618_57417

Sample Name:	**3691618_57417**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RB6*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 22:17**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

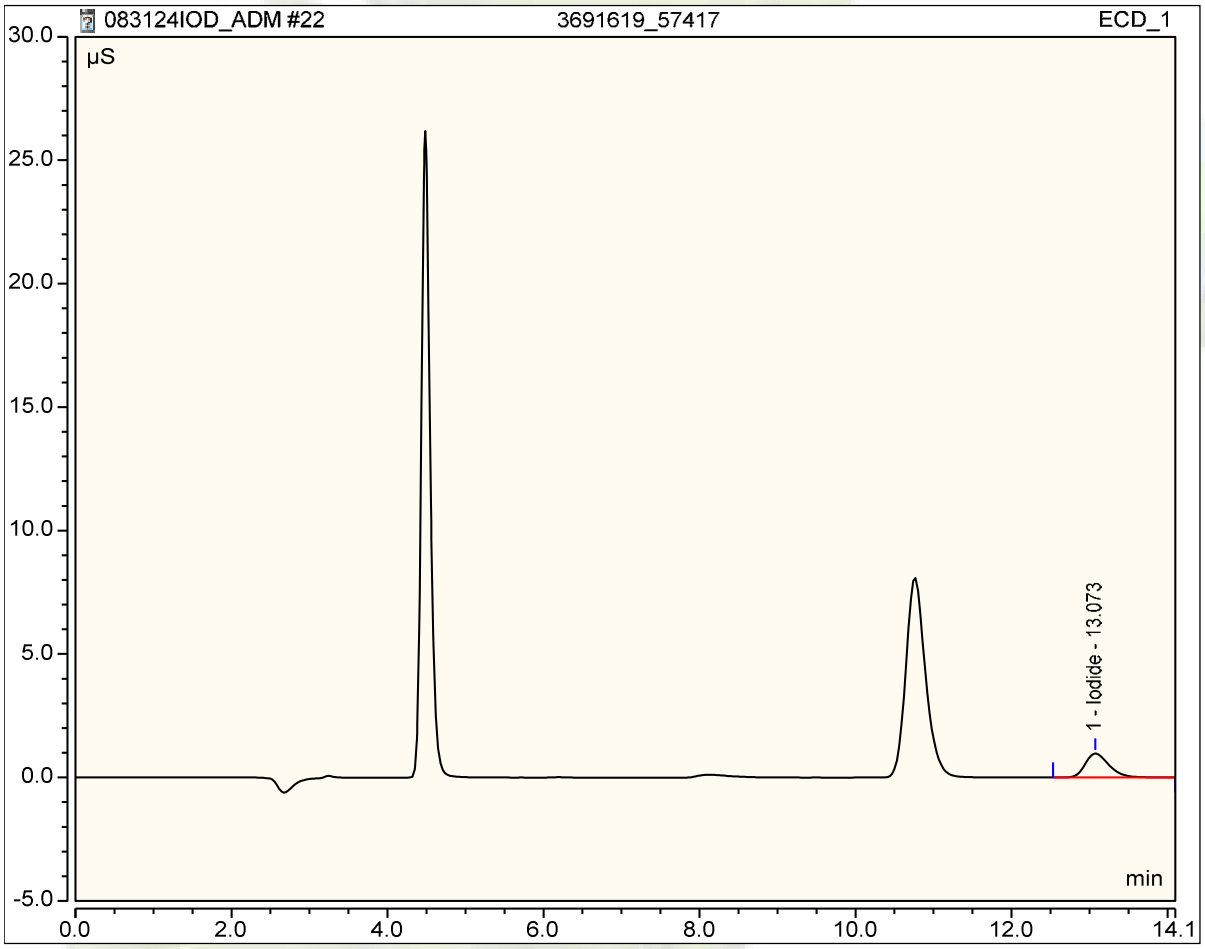
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.07	**Iodide**	9.9847	0.342	0.972	BMB



3691619_57417

Sample Name:	**3691619_57417**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RB6*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 22:34**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

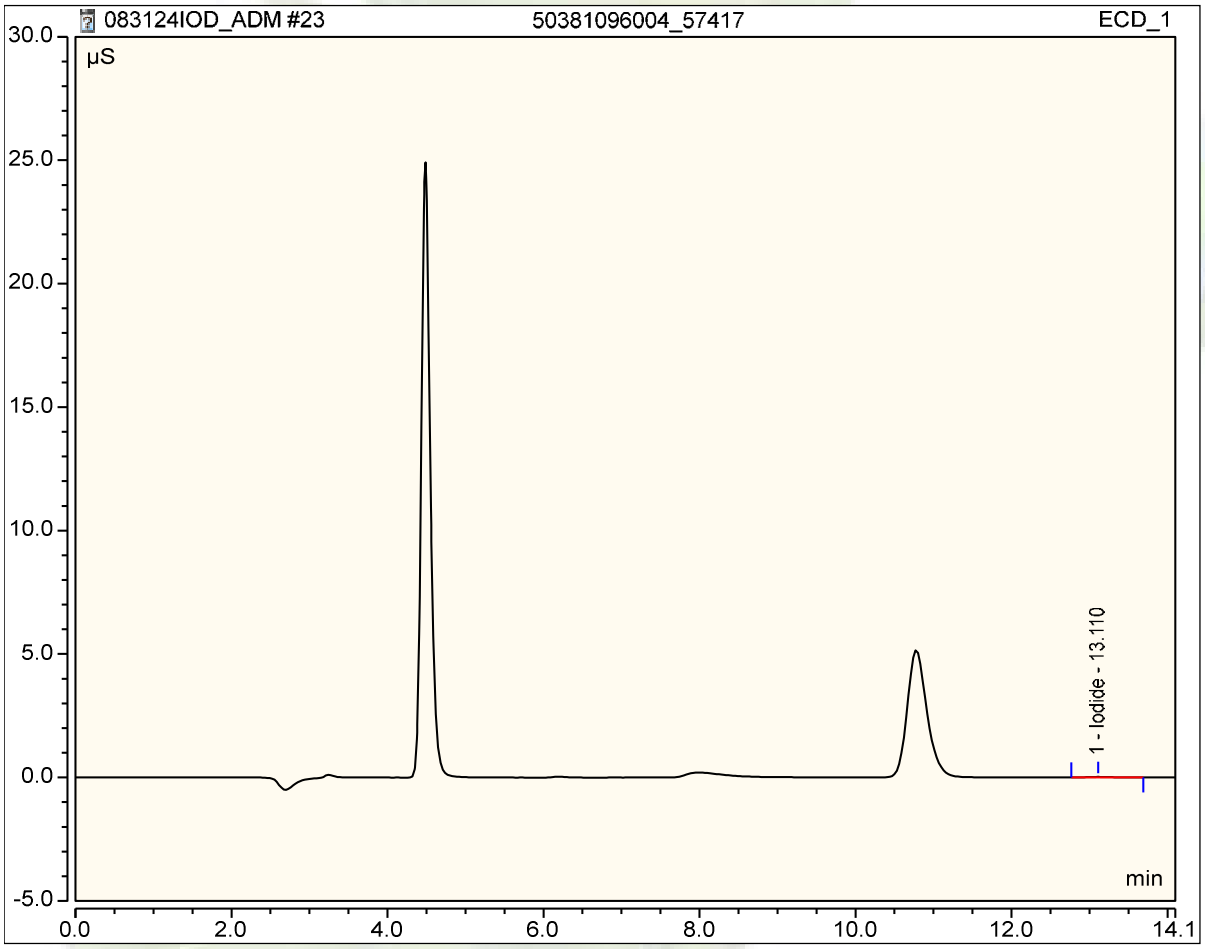
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.07	**Iodide**	10.0017	0.343	0.972	BMB



50381096004_57417

Sample Name:	**50381096004_57417**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RB7*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 22:52**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

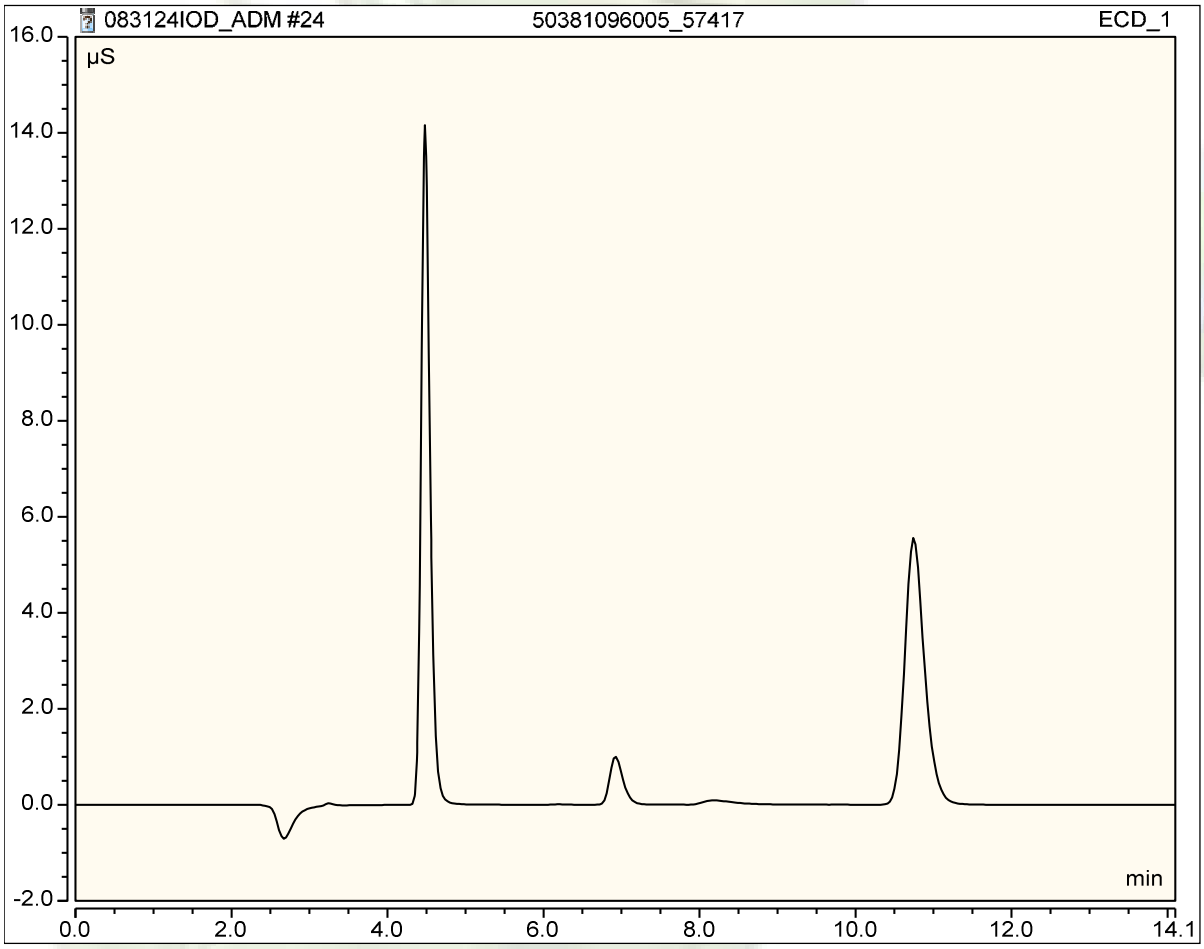
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.11	**Iodide**	0.2355	0.008	0.024	BMB



50381096005_57417

Sample Name:	**50381096005_57417**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RB8*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 23:09**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

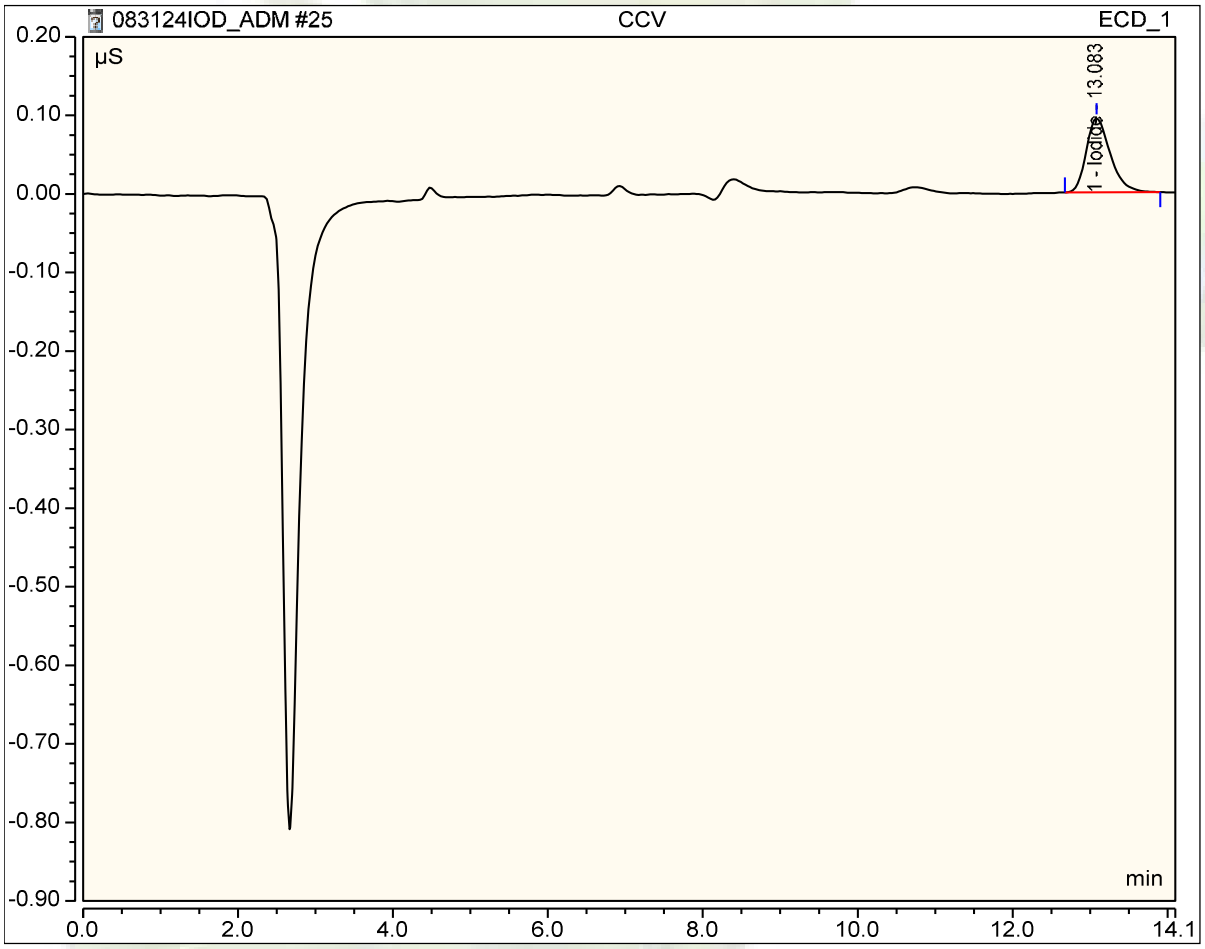
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



CCV
392572

Sample Name:	**CCV**	*Injection Volume (uL):*	**25.00**
Vial Number:	*B2*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 23:26**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

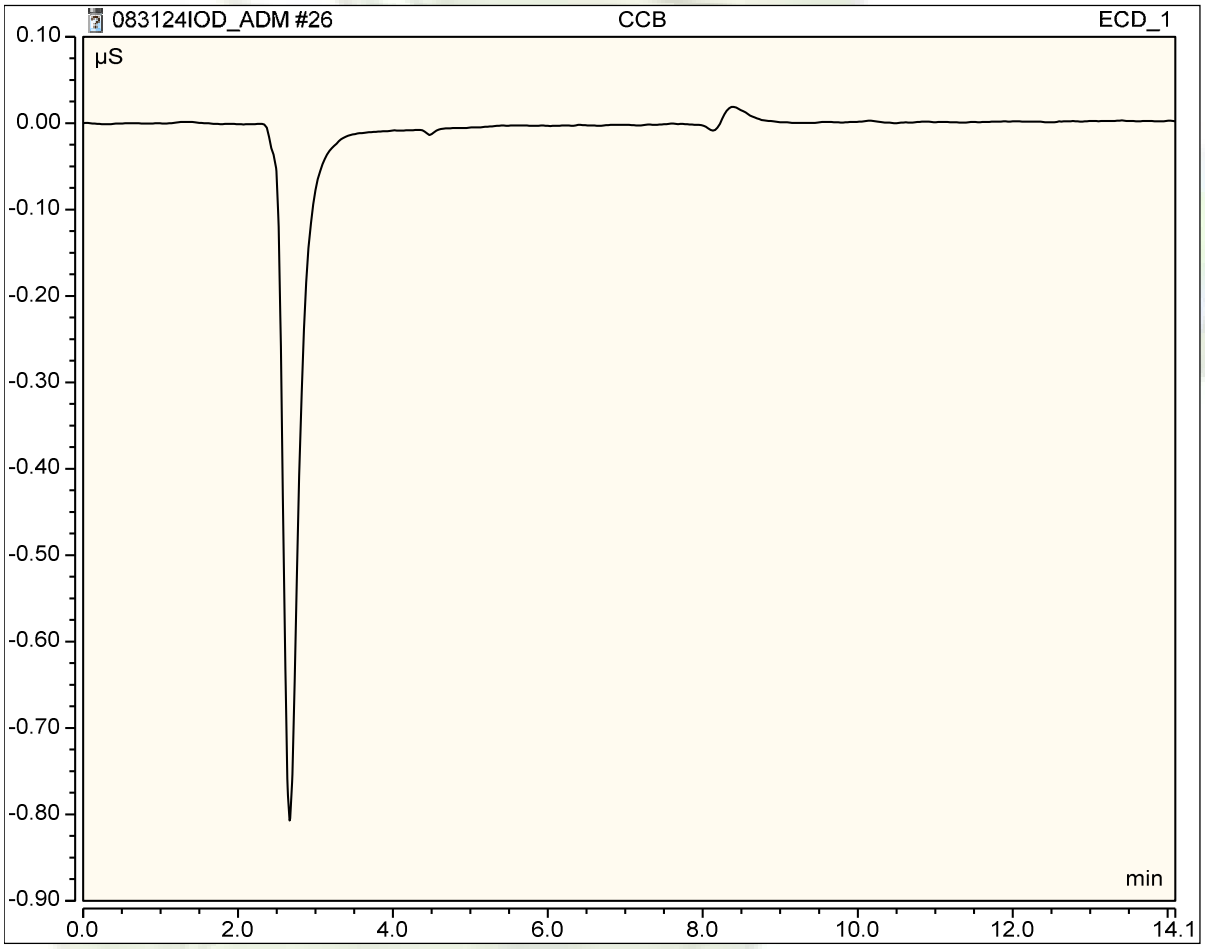
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.08	**Iodide**	0.9855	0.034	0.095	BMB



CCB
340111

Sample Name:	**CCB**	*Injection Volume (uL):*	**25.00**
Vial Number:	*B1*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**08/31/2024 23:43**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

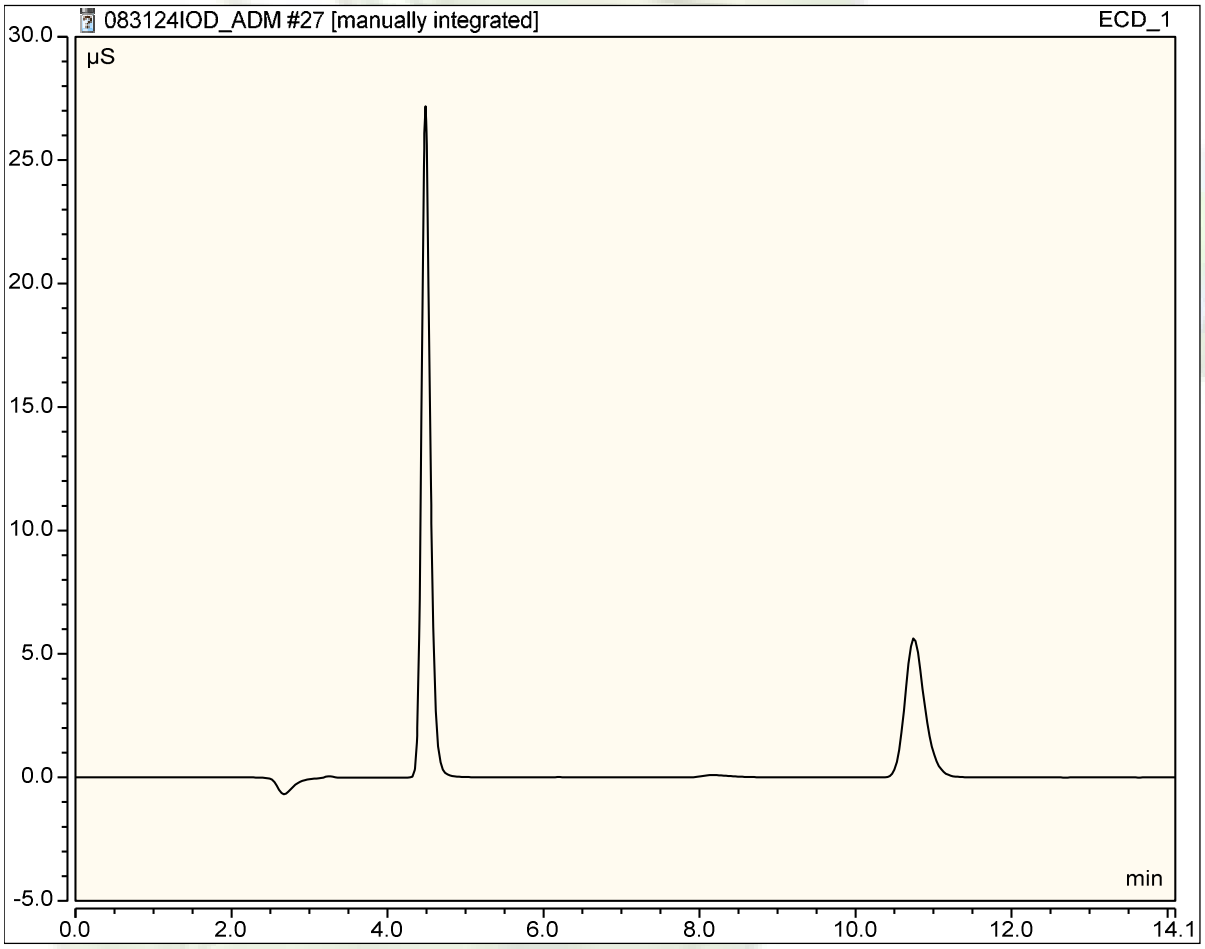
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



50381096006_57417

Sample Name:	**50381096006_57417**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RC1*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**09/01/2024 00:01**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

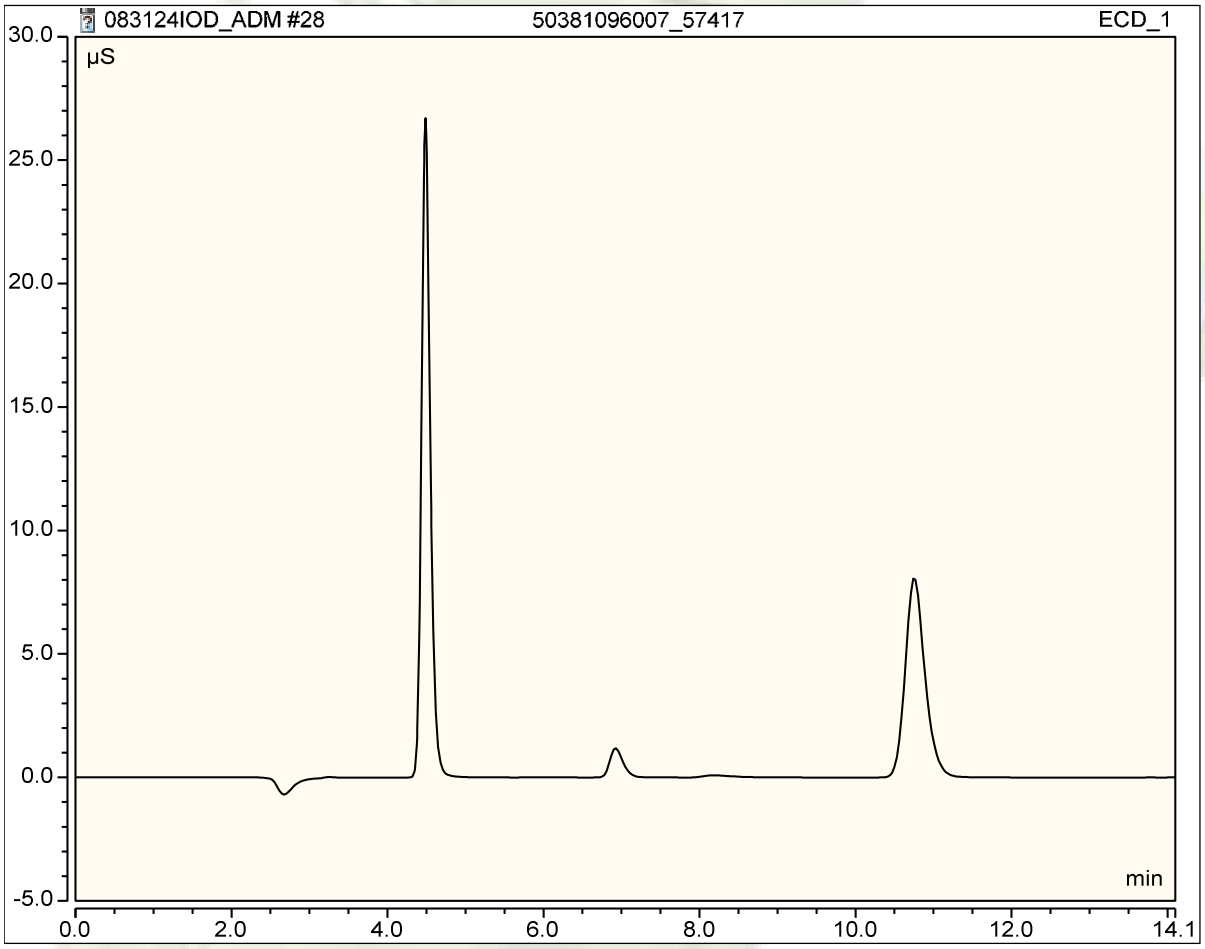
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



50381096007_57417

Sample Name:	**50381096007_57417**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RC2*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**09/01/2024 00:18**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

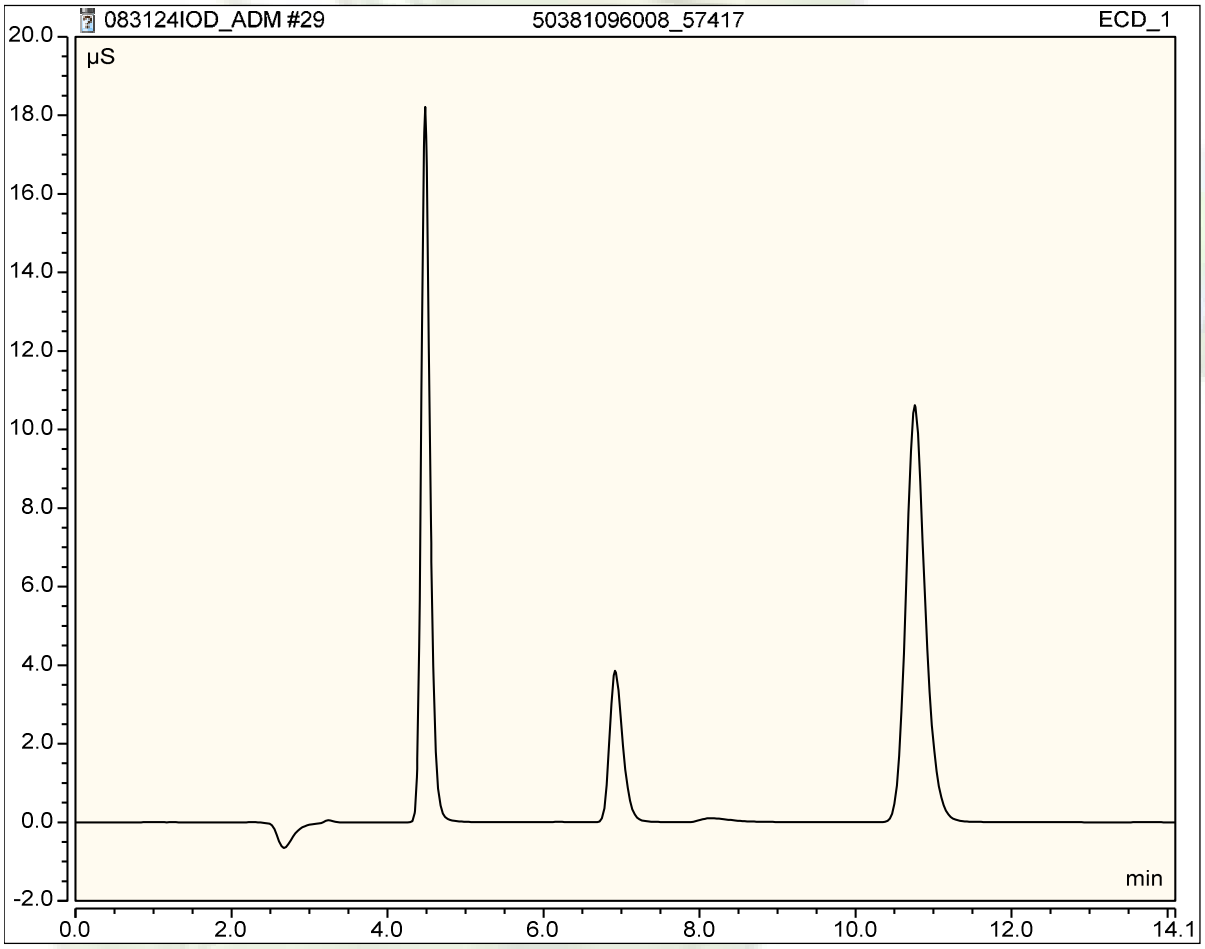
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



50381096008_57417

Sample Name:	**50381096008_57417**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RC3*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**09/01/2024 00:35**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

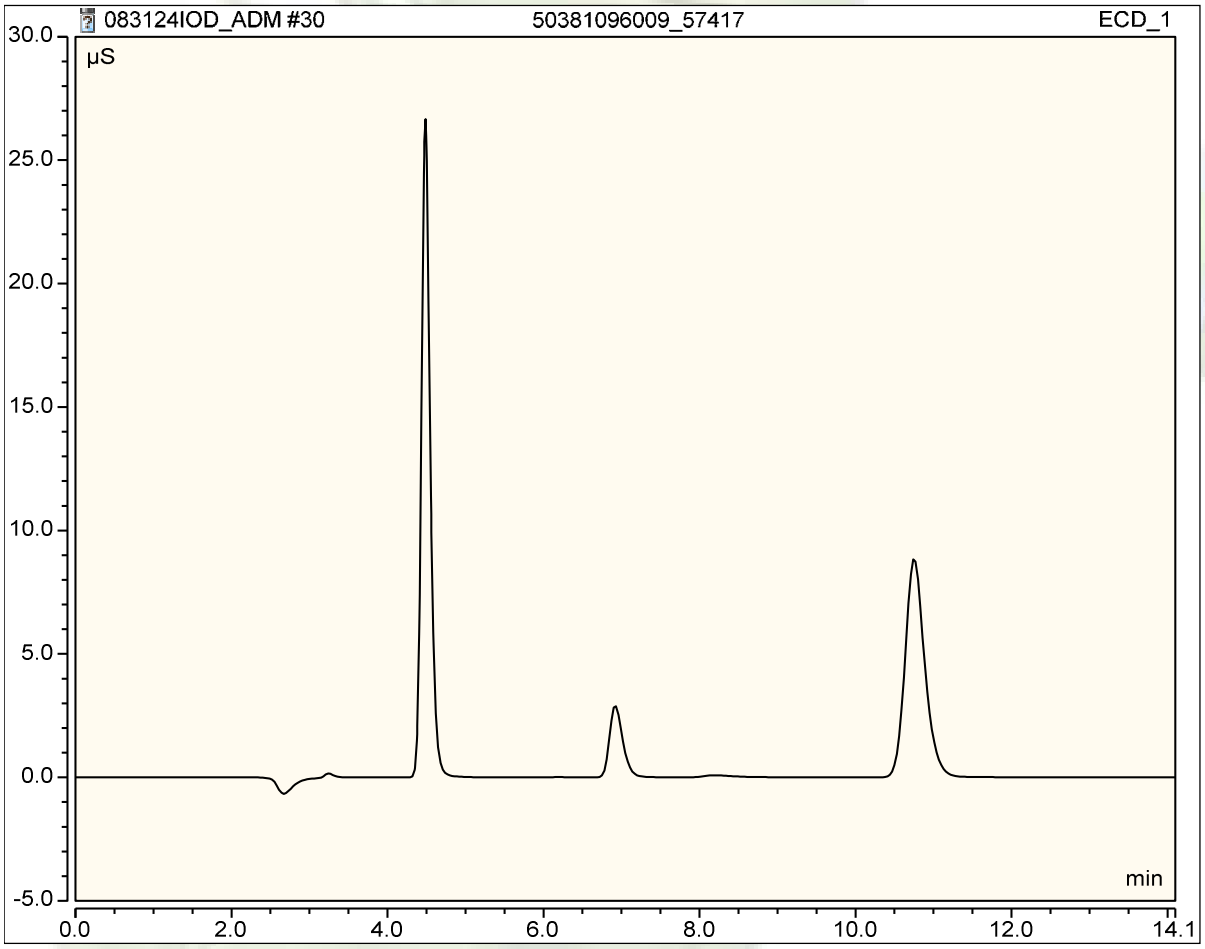
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



50381096009_57417

Sample Name:	**50381096009_57417**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RC4*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**09/01/2024 00:52**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

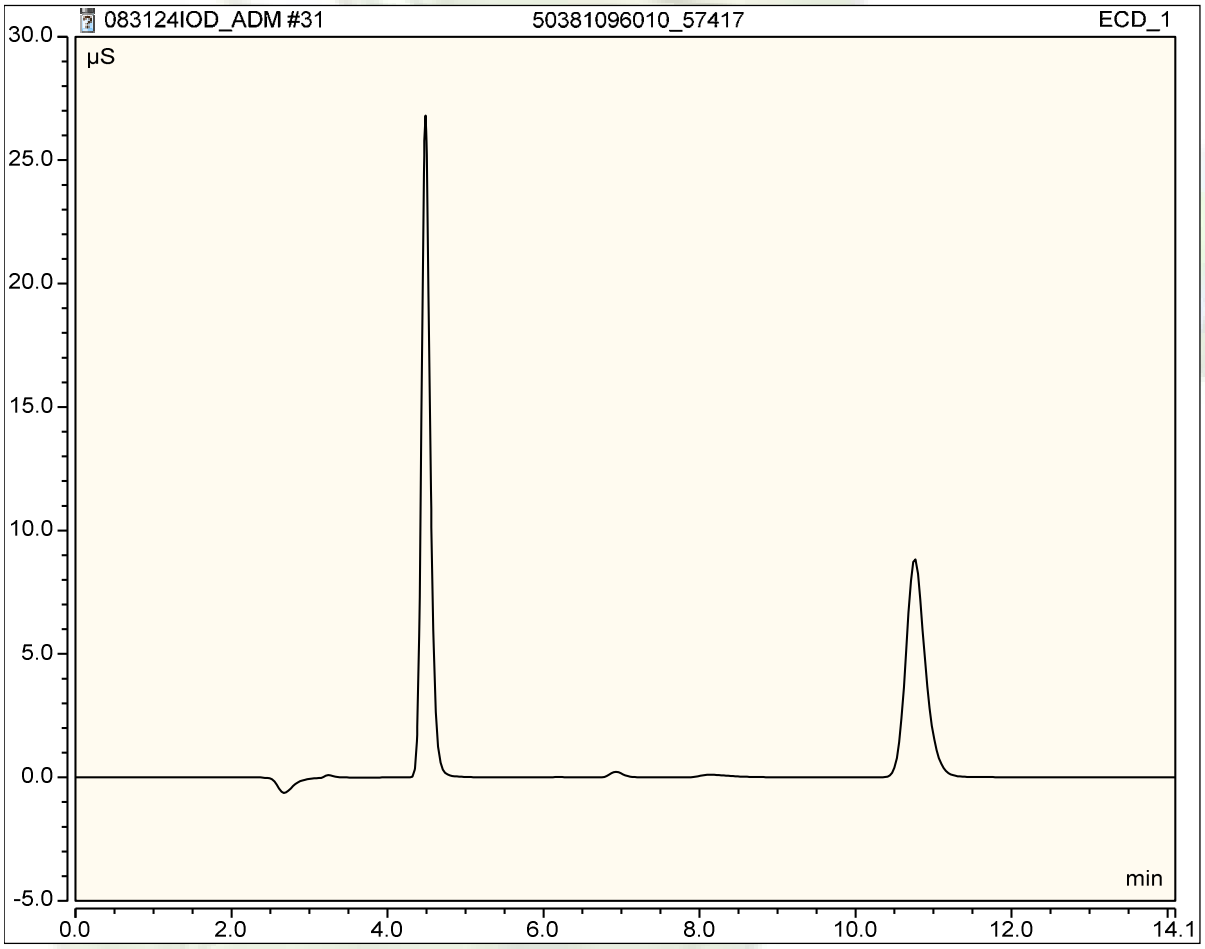
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



50381096010_57417

Sample Name:	**50381096010_57417**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RC5*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**09/01/2024 01:10**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

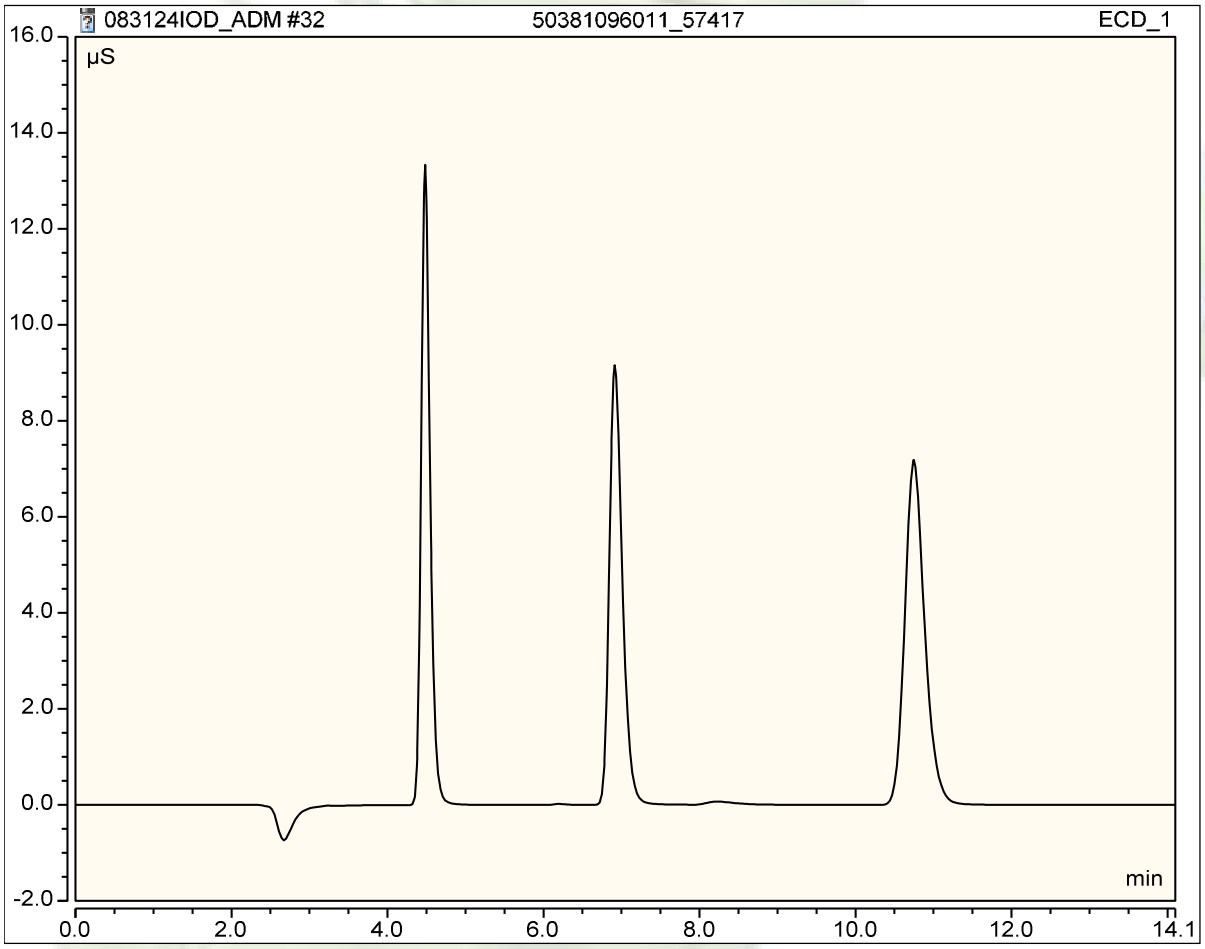
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



50381096011_57417

Sample Name:	**50381096011_57417**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RC6*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**09/01/2024 01:27**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

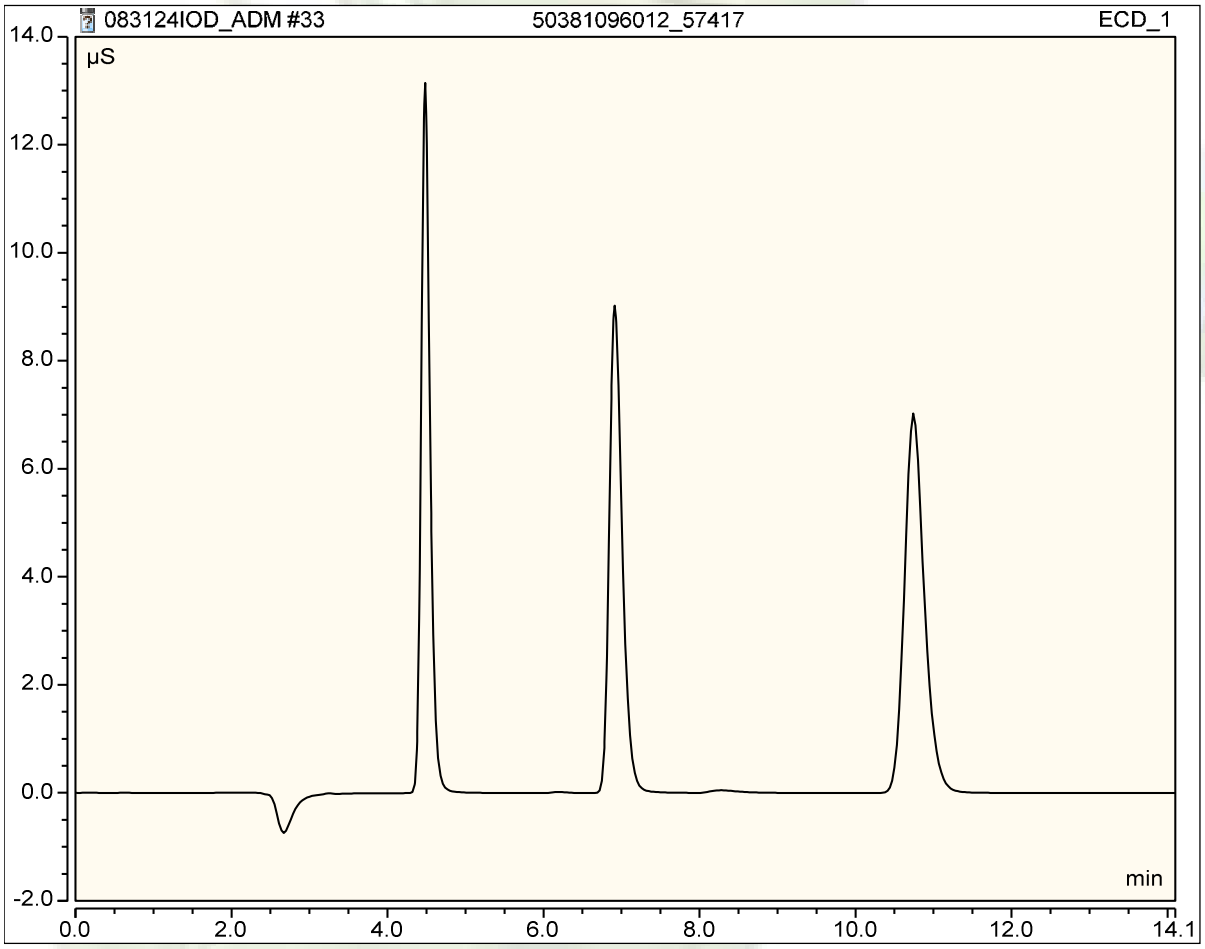
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



50381096012_57417

Sample Name:	**50381096012_57417**	*Injection Volume (uL):*	**25.00**
Vial Number:	*RC7*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**09/01/2024 01:44**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

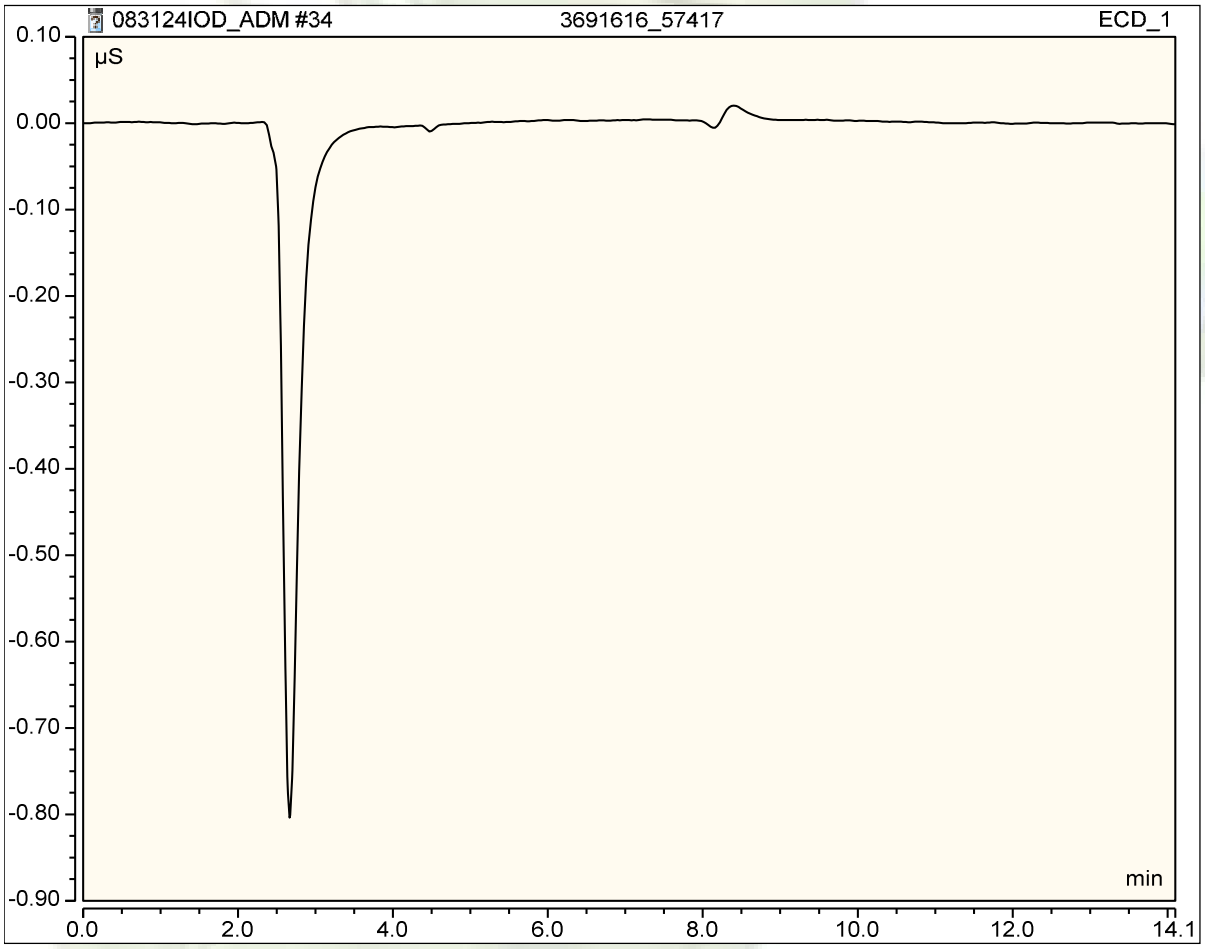
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



3691616_57417
340111

Sample Name:	**3691616_57417**	*Injection Volume (uL):*	**25.00**
Vial Number:	*B1*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**09/01/2024 02:02**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

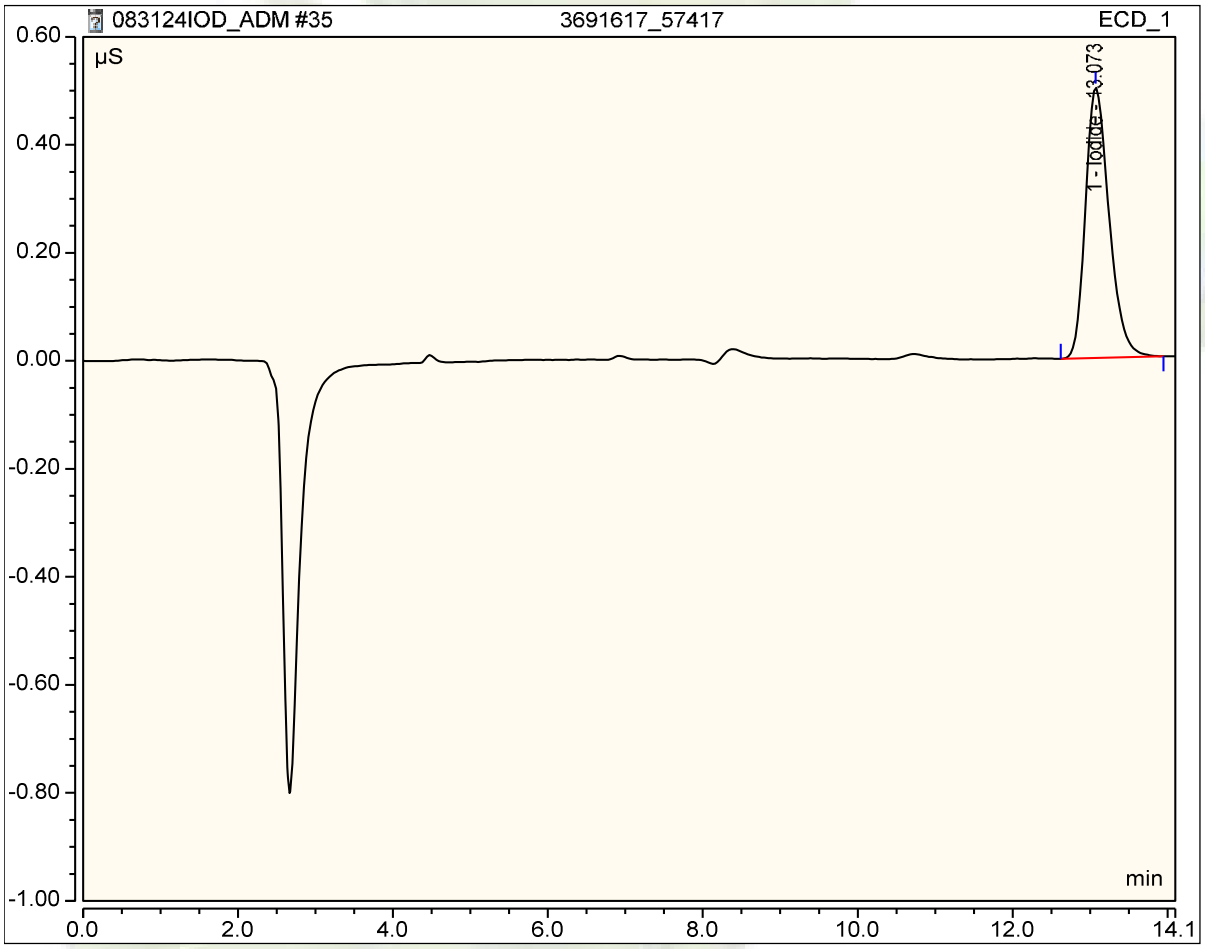
No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



3691617_57417
377680

Sample Name:	**3691617_57417**	*Injection Volume (uL):*	**25.00**
Vial Number:	*B3*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**09/01/2024 02:19**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

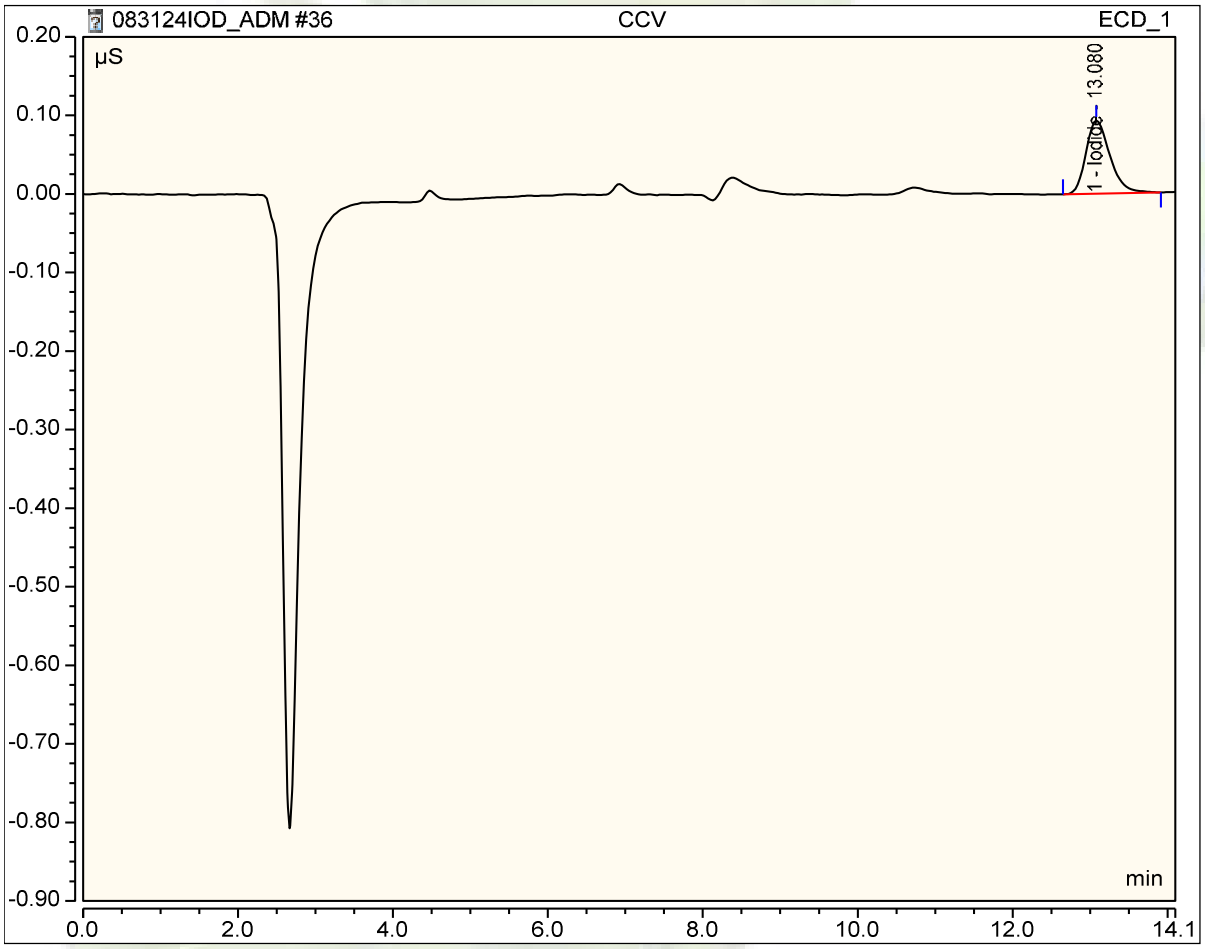
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.07	**Iodide**	5.1798	0.178	0.501	BMB



CCV
392572

Sample Name:	**CCV**	*Injection Volume (uL):*	**25.00**
Vial Number:	*B2*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**09/01/2024 02:36**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

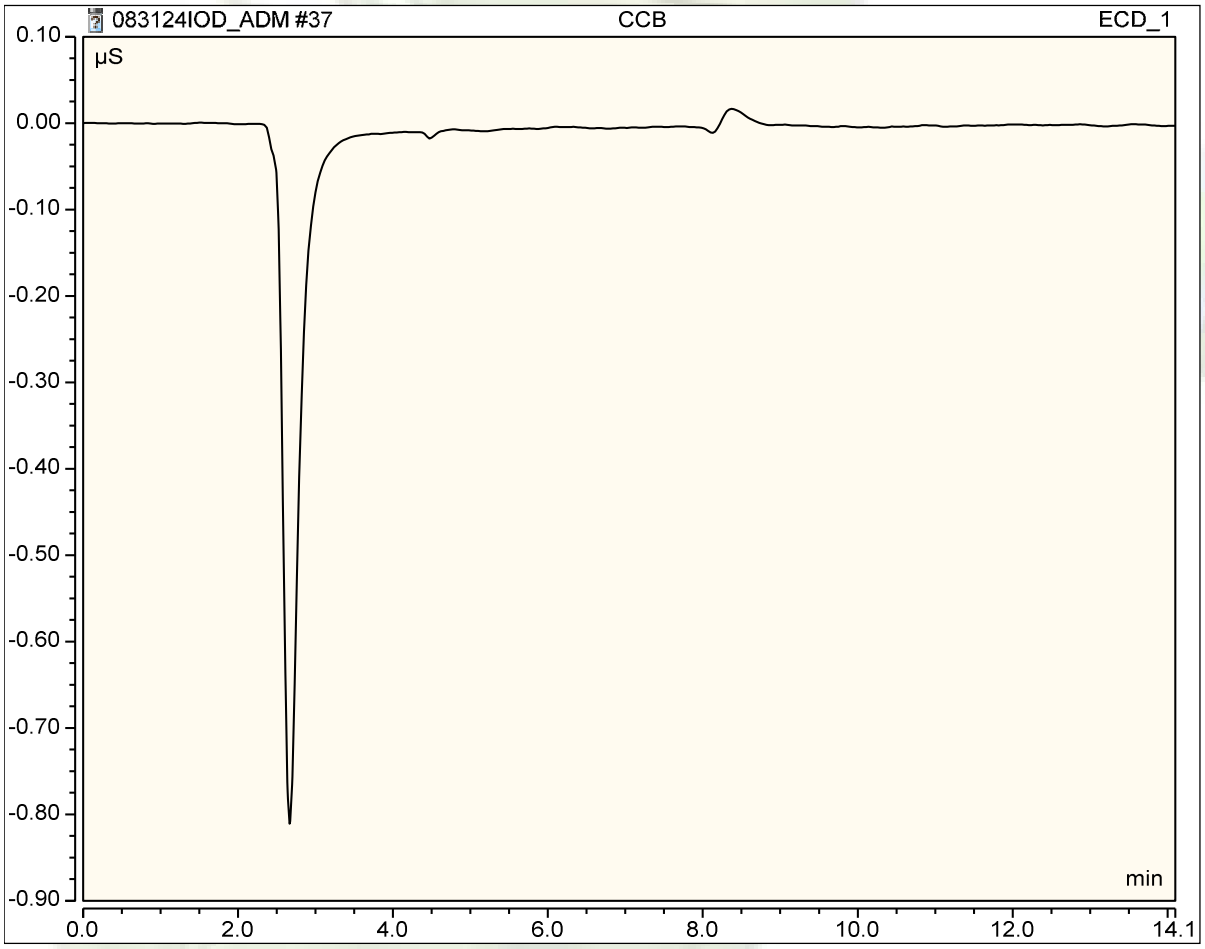
No.	Retention Time min	Name	Amount mg/L	Area µS*min	Height µS	Type
1	13.08	**Iodide**	0.9685	0.033	0.093	BMB



CCB
340111

Sample Name:	**CCB**	*Injection Volume (uL):*	**25.00**
Vial Number:	*B1*	*Channel:*	**ECD_1**
Sample Type:	*Unknown*	*Calibration:*	**08/28/24 09:32**
Control Program:	*50IC05IOD-AS22*	*Eluent Stock:*	**388568**
Quantif. Method:	*CAL_IODIDE05*	*Dilution Factor*	**1.0000**
Recording Time:	**09/01/2024 02:53**	*Sample Weight:*	**1.0000**
Run Time (min):	*14.10*	*System Name:*	**50IC05**

No.	Retention Time min	Name	Amount n.a.	Area µS*min	Height µS	Type



Data Package



ANALYTICAL. LIFE. SERVICE.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

August 30, 2024

Melissa Deyo
Alpha Analytical Laboratory
8 Walkup Drive
Westborough, MA 01581

Project Location: L2447890
Client Job Number:
Project Number: L2447890
Laboratory Work Order Number: 24H3575

Enclosed are results of analyses for samples as received by the laboratory on August 26, 2024. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Rebecca Faust
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Alpha Analytical Laboratory
8 Walkup Drive
Westborough, MA 01581
ATTN: Melissa Deyo

REPORT DATE: 8/30/2024

PURCHASE ORDER NUMBER:

PROJECT NUMBER: L2447890

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 24H3575

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: L2447890

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-3A	24H3575-01	Water		SM21-23 4500S-F	
MW-6A	24H3575-02	Water		SM21-23 4500S-F	
MW-6B	24H3575-03	Water		SM21-23 4500S-F	
MW-6C	24H3575-04	Water		SM21-23 4500S-F	
MW-7A	24H3575-05	Water		SM21-23 4500S-F	
MW-7B	24H3575-06	Water		SM21-23 4500S-F	
MW-7C	24H3575-07	Water		SM21-23 4500S-F	
MW-8A	24H3575-08	Water		SM21-23 4500S-F	
MW-8B	24H3575-09	Water		SM21-23 4500S-F	
MW-8C2	24H3575-10	Water		SM21-23 4500S-F	
MW-9B	24H3575-11	Water		SM21-23 4500S-F	
DUP	24H3575-12	Water		SM21-23 4500S-F	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SM21-23 4500S-F

Qualifications:

H-01

Recommended sample holding time was exceeded, but analysis was performed before 2X the allowable holding time.

Analyte & Samples(s) Qualified:

Sulfide

24H3575-02[MW-6A], 24H3575-03[MW-6B], 24H3575-04[MW-6C], 24H3575-05[MW-7A], 24H3575-11[MW-9B], 24H3575-12[DUP]

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-3A Sampled: 8/21/2024 11:10

Sample ID: 24H3575-01

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-6A Sampled: 8/20/2024 16:40

Sample ID: 24H3575-02

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	H-01	SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-6B Sampled: 8/20/2024 14:55

Sample ID: 24H3575-03

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	H-01	SM21-23 4500S-F	8/27/24	8/29/24 9:30	DET

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-6C Sampled: 8/20/2024 17:55

Sample ID: 24H3575-04

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	H-01	SM21-23 4500S-F	8/27/24	8/29/24 9:30	DET

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-7A Sampled: 8/20/2024 16:30

Sample ID: 24H3575-05

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	H-01	SM21-23 4500S-F	8/27/24	8/29/24 9:30	DET

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-7B Sampled: 8/21/2024 09:20

Sample ID: 24H3575-06

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

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Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-7C Sampled: 8/21/2024 10:50

Sample ID: 24H3575-07

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-8A Sampled: 8/21/2024 13:05

Sample ID: 24H3575-08

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

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Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-8B Sampled: 8/21/2024 14:35

Sample ID: 24H3575-09

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-8C2 Sampled: 8/21/2024 13:40

Sample ID: 24H3575-10

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

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Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-9B Sampled: 8/21/2024 09:00

Sample ID: 24H3575-11

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	H-01	SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890 Sample Description: Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: DUP Sampled: 8/21/2024 00:00

Sample ID: 24H3575-12

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	H-01	SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

SM21-23 4500S-F

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
24H3575-01 [MW-3A]	B384278	200	200	08/28/24
24H3575-02 [MW-6A]	B384278	200	200	08/28/24
24H3575-06 [MW-7B]	B384278	200	200	08/28/24
24H3575-07 [MW-7C]	B384278	200	200	08/28/24
24H3575-08 [MW-8A]	B384278	200	200	08/28/24
24H3575-09 [MW-8B]	B384278	200	200	08/28/24
24H3575-10 [MW-8C2]	B384278	200	200	08/28/24
24H3575-11 [MW-9B]	B384278	200	200	08/28/24
24H3575-12 [DUP]	B384278	200	200	08/28/24

SM21-23 4500S-F

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
24H3575-03 [MW-6B]	B384282	200	200	08/27/24
24H3575-04 [MW-6C]	B384282	200	200	08/27/24
24H3575-05 [MW-7A]	B384282	200	200	08/27/24

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B384278 - SM21-23 4500S-F										
Blank (B384278-BLK1)				Prepared & Analyzed: 08/28/24						
Sulfide	ND	2.0	mg/L							
LCS (B384278-BS1)				Prepared & Analyzed: 08/28/24						
Sulfide	9.2	2.0	mg/L	10.0		92.0	79.7-122			
Batch B384282 - SM21-23 4500S-F										
Blank (B384282-BLK1)				Prepared: 08/27/24 Analyzed: 08/29/24						
Sulfide	ND	2.0	mg/L							
LCS (B384282-BS1)				Prepared: 08/27/24 Analyzed: 08/29/24						
Sulfide	8.0	2.0	mg/L	10.0		80.0	79.7-122			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-01	Recommended sample holding time was exceeded, but analysis was performed before 2X the allowable holding time.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SM21-23 4500S-F in Water	
Sulfide	NY,NH,RI,NC,ME,CT

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Department of Public Health	PH-0821	12/31/2024
NY	New York State Department of Health	10899 NELAP	04/1/2025
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2025
RI	Rhode Island Department of Health	LAO00373	12/30/2024
NC	North Carolina Div. of Water Quality	652	12/31/2024
ME	State of Maine	MA00100	06/9/2025

24H3575 RF

Subcontract Chain of Custody

Pace New England
39 Spruce St
East Longmeadow, MA 01028

1 OF 2

Alpha Job Number
L2447890

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 716.427.5229
Email: Melissa.Deyo@pacelabs.com

Project Information

Project Location: NY
Project Manager: Melissa Deyo

Turnaround & Deliverables Information

Due Date:
Deliverables:

Regulatory Requirements/Report Limits

State/Federal Program:

Regulatory Criteria: NY-TOGS-GA

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2447890

Report to include Method Blank, LCS/LCSD:

Additional Comments: Invoices to: invoices@pacelabs.coupahost.com Reports to: west.subreports@pacelabs.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
24H3575-01	MW-3A	08-21-24 11:10	WATER	Sulfide	
-02	MW-6A	08-20-24 16:40	WATER	Sulfide	
-03	MW-6B	08-20-24 14:55	WATER	Sulfide	
-04	MW-6C	08-20-24 17:55	WATER	Sulfide	
-05	MW-7A	08-20-24 16:30	WATER	Sulfide	
-06	MW-7B	08-21-24 09:20	WATER	Sulfide	
-07	MW-7C	08-21-24 10:50	WATER	Sulfide	
-08	MW-8A	08-21-24 13:05	WATER	Sulfide	
-09	MW-8B	08-21-24 14:35	WATER	Sulfide	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	PAS	8/26/24 1010	PAL	8/26/24 0710
	PAS	8/26/24 08:37	36	8/26/24 0837
Form No: AL_subcoc				

24H3575 RF

Subcontract Chain of Custody

Pace New England
39 Spruce St
East Longmeadow, MA 01028

2 of 2

Alpha Job Number
L2447890

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 716.427.5229
Email: Melissa.Deyo@pacelabs.com

Project Information

Project Location: NY
Project Manager: Melissa Deyo

Turnaround & Deliverables Information

Due Date:
Deliverables:

Regulatory Requirements/Report Limits

State/Federal Program:
Regulatory Criteria: NY-TOGS-GA

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2447890

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
9 1 2	MW-8C2	08-21-24 13:40	WATER	Sulfide	
	MW-9B	08-21-24 09:00	WATER	Sulfide	
	DUP	08-21-24 00:00	WATER	Sulfide	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	PPS	8/26/24 7:01	PAS	8/26/24 07:01
	MAS	8/26/24 09:37	SG	8/26/24 857
Form No: AL_subcoc				

DC#_Title: ENV-FRM-ELON-0001 v08_Sample Receiving Checklist

Effective Date: 06/11/2024

Log In Back-Sheet

Client Alpha

Project # 12447890

MCP/RCP Required no

Deliverable Package Requirement none

Location NY

PWSID# (When Applicable) no

Arrival Method:

Courier ☑ Fed Ex ☐ Walk In ☐ Other ☐

Received By / Date / Time ER 8/26/24 0837

Back-Sheet By / Date / Time MM 8/26/24 1733

Temperature Method Gun # 4

WV samples: Yes (see note*) / No (follow normal procedure)

Temp < 6° C Actual Temperature 3.6

Rush Samples: Yes / No Notify No

Short Hold: Yes / No Notify No

Notes regarding Samples/COC outside of SOP:

Login Sample Receipt Checklist – (Rejection Criteria Listing – Using Acceptance Policy) Any False statement will be brought to the attention of the Client – True or False

	True	False
Received on Ice	☑	☐
Received in Cooler	☑	☐
Custody Seal: DATE TIME	☐	☑
COC Relinquished	☑	☐
COC/Samples Labels Agree	☑	☐
All Samples in Good Condition	☑	☐
Samples Received within Holding Time	☑	☐
Is there enough Volume	☑	☐
Proper Media/Container Used	☑	☐
Splitting Samples Required	☐	☑
MS/MSD	☐	☑
Trip Blanks	☐	☑
Lab to Filters	☐	☑
COC Legible	☑	☐

COC Included: (Check all included)

Client ☑ Analysis ☑ Sampler Name ☐

Project ☑ IDs ☑ Collection Date/Time ☑

All Samples Proper pH: N/A ☑ ☐

Additional Container Notes

**Note: West Virginia requires all samples to have their temperature taken. Note any outliers.*

Qualtrax ID: 120836

Page 2 of 2

Quaitrax ID: 120836

Sample		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Soils Jars (Circle Amb/Clear)	16oz Amb/Clear																				
	8oz Amb/Clear																				
	4oz Amb/Clear																				
	2oz Amb/Clear																				
Ambers 1 Liter	Unpreserved																				
	HCL																				
	Sulfuric																				
Ambers 250mL	Sulfuric																				
	Phosphoric																				
	HCl																				
Ambers 100mL	Unpreserved																				
Plastics 1 Liter	Unpreserved																				
	Sulfuric																				
Plastics 500mL	Unpreserved																				
	Sulfuric																				
Plastics 250mL	Unpreserved																				
	Trizma																				
	Sulfuric																				
	Nitric																				
	NaOH																				
	Ammonium Acetate																				
	NaOH/Zinc	2	→																		
VOA Vials	Unpreserved																				
	HCl																				
	MeOH																				
	D.I. Water																				
	Bisulfate																				
Other / Fill in	Col/Bact																				

Page	DC#_Title: ENV-FRM-ELON-0001 v08_Sample Receiving Checklist
	Effective Date: 06/11/2024

WET

SAMPLE DATA

1 - FORM I
ANALYSIS DATA SHEET
MW-3A

Laboratory:	Pace New England	SDG:	24H3575
Client:	Alpha Analytical Laboratory	Project:	WC Analysis_MD (DP required)
Matrix:	Water	Laboratory ID:	24H3575-01
Sampled:	08/21/24 11:10		
% Solids:	0.00		

CAS NO.	Analyte	Concentration (mg/L)	MDL	RL	DF	Q	Batch	Analyzed	Method
184-96-258	Sulfide		1.8	2.0	1		B384278	08/28/24 09:15	SM21-23

1 - FORM I
ANALYSIS DATA SHEET
MW-6A

Laboratory:	Pace New England	SDG:	24H3575
Client:	Alpha Analytical Laboratory	Project:	WC Analysis_MD (DP required)
Matrix:	Water	Laboratory ID:	24H3575-02
Sampled:	08/20/24 16:40		
% Solids:	0.00		

CAS NO.	Analyte	Concentration (mg/L)	MDL	RL	DF	Q	Batch	Analyzed	Method
184-96-258	Sulfide		1.8	2.0	1	H-01	B384278	08/28/24 09:15	SM21-23

1 - FORM I
ANALYSIS DATA SHEET
MW-6B

Laboratory:	Pace New England	SDG:	24H3575
Client:	Alpha Analytical Laboratory	Project:	WC Analysis_MD (DP required)
Matrix:	Water	Laboratory ID:	24H3575-03
Sampled:	08/20/24 14:55		
% Solids:	0.00		

CAS NO.	Analyte	Concentration (mg/L)	MDL	RL	DF	Q	Batch	Analyzed	Method
184-96-258	Sulfide		1.8	2.0	1	H-01	B384282	08/29/24 09:30	SM21-23

1 - FORM I
ANALYSIS DATA SHEET
MW-6C

Laboratory:	Pace New England	SDG:	24H3575
Client:	Alpha Analytical Laboratory	Project:	WC Analysis_MD (DP required)
Matrix:	Water	Laboratory ID:	24H3575-04
Sampled:	08/20/24 17:55		
% Solids:	0.00		

CAS NO.	Analyte	Concentration (mg/L)	MDL	RL	DF	Q	Batch	Analyzed	Method
184-96-258	Sulfide		1.8	2.0	1	H-01	B384282	08/29/24 09:30	SM21-23

1 - FORM I
ANALYSIS DATA SHEET
MW-7A

Laboratory:	Pace New England	SDG:	24H3575
Client:	Alpha Analytical Laboratory	Project:	WC Analysis_MD (DP required)
Matrix:	Water	Laboratory ID:	24H3575-05
Sampled:	08/20/24 16:30		
% Solids:	0.00		

CAS NO.	Analyte	Concentration (mg/L)	MDL	RL	DF	Q	Batch	Analyzed	Method
184-96-258	Sulfide		1.8	2.0	1	H-01	B384282	08/29/24 09:30	SM21-23

1 - FORM I
ANALYSIS DATA SHEET
MW-7B

Laboratory:	Pace New England	SDG:	24H3575
Client:	Alpha Analytical Laboratory	Project:	WC Analysis_MD (DP required)
Matrix:	Water	Laboratory ID:	24H3575-06
Sampled:	08/21/24 09:20		
% Solids:	0.00		

CAS NO.	Analyte	Concentration (mg/L)	MDL	RL	DF	Q	Batch	Analyzed	Method
184-96-258	Sulfide		1.8	2.0	1		B384278	08/28/24 09:15	SM21-23

1 - FORM I
ANALYSIS DATA SHEET
MW-7C

Laboratory:	Pace New England	SDG:	24H3575
Client:	Alpha Analytical Laboratory	Project:	WC Analysis_MD (DP required)
Matrix:	Water	Laboratory ID:	24H3575-07
Sampled:	08/21/24 10:50		
% Solids:	0.00		

CAS NO.	Analyte	Concentration (mg/L)	MDL	RL	DF	Q	Batch	Analyzed	Method
184-96-258	Sulfide		1.8	2.0	1		B384278	08/28/24 09:15	SM21-23

1 - FORM I
ANALYSIS DATA SHEET

MW-8A

Laboratory:	Pace New England	SDG:	24H3575
Client:	Alpha Analytical Laboratory	Project:	WC Analysis_MD (DP required)
Matrix:	Water	Laboratory ID:	24H3575-08
Sampled:	08/21/24 13:05		
% Solids:	0.00		

CAS NO.	Analyte	Concentration (mg/L)	MDL	RL	DF	Q	Batch	Analyzed	Method
184-96-258	Sulfide		1.8	2.0	1		B384278	08/28/24 09:15	SM21-23

1 - FORM I
ANALYSIS DATA SHEET
MW-8B

Laboratory:	Pace New England	SDG:	24H3575
Client:	Alpha Analytical Laboratory	Project:	WC Analysis_MD (DP required)
Matrix:	Water	Laboratory ID:	24H3575-09
Sampled:	08/21/24 14:35		
% Solids:	0.00		

CAS NO.	Analyte	Concentration (mg/L)	MDL	RL	DF	Q	Batch	Analyzed	Method
184-96-258	Sulfide		1.8	2.0	1		B384278	08/28/24 09:15	SM21-23

1 - FORM I
ANALYSIS DATA SHEET
MW-8C2

Laboratory:	Pace New England	SDG:	24H3575
Client:	Alpha Analytical Laboratory	Project:	WC Analysis_MD (DP required)
Matrix:	Water	Laboratory ID:	24H3575-10
Sampled:	08/21/24 13:40		
% Solids:	0.00		

CAS NO.	Analyte	Concentration (mg/L)	MDL	RL	DF	Q	Batch	Analyzed	Method
184-96-258	Sulfide		1.8	2.0	1		B384278	08/28/24 09:15	SM21-23

1 - FORM I
ANALYSIS DATA SHEET
MW-9B

Laboratory:	Pace New England	SDG:	24H3575
Client:	Alpha Analytical Laboratory	Project:	WC Analysis_MD (DP required)
Matrix:	Water	Laboratory ID:	24H3575-11
Sampled:	08/21/24 09:00		
% Solids:	0.00		

CAS NO.	Analyte	Concentration (mg/L)	MDL	RL	DF	Q	Batch	Analyzed	Method
184-96-258	Sulfide		1.8	2.0	1	H-01	B384278	08/28/24 09:15	SM21-23

1 - FORM I
ANALYSIS DATA SHEET
DUP

Laboratory:	Pace New England	SDG:	24H3575
Client:	Alpha Analytical Laboratory	Project:	WC Analysis_MD (DP required)
Matrix:	Water	Laboratory ID:	24H3575-12
Sampled:	08/21/24 00:00		
% Solids:	0.00		

CAS NO.	Analyte	Concentration (mg/L)	MDL	RL	DF	Q	Batch	Analyzed	Method
184-96-258	Sulfide		1.8	2.0	1	H-01	B384278	08/28/24 09:15	SM21-23

FORM 3 - Blank Summary

SM21-23 4500S-F

Laboratory:	Pace New England	Work Order:	24H3575
Client:	Alpha Analytical Laboratory	Project:	WC Analysis_MD (DP required)

Lab Sample ID	Analyte	Found	Units	RL	C
B384278-BLK1	Sulfide		mg/L	2.0	U

FORM 3 - Blank Summary

SM21-23 4500S-F

Laboratory:	Pace New England	Work Order:	24H3575
Client:	Alpha Analytical Laboratory	Project:	WC Analysis_MD (DP required)

Lab Sample ID	Analyte	Found	Units	RL	C
B384282-BLK1	Sulfide		mg/L	2.0	U

3 - FORM III

LCS / LCS DUPLICATE RECOVERY

SM21-23 4500S-F

Laboratory:	Pace New England	Work Order:	24H3575
Client:	Alpha Analytical Laboratory	Project:	WC Analysis_MD (DP required)
Matrix:	Water	Preparation:	NO PREP
Batch:	B384278	Laboratory ID:	B384278-BS1
Column:		Initial/Final:	200 mL / 200 mL

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Sulfide	10.0	9.2	92.0	79.7 - 122

3 - FORM III

LCS / LCS DUPLICATE RECOVERY

SM21-23 4500S-F

Laboratory:	Pace New England	Work Order:	24H3575
Client:	Alpha Analytical Laboratory	Project:	WC Analysis_MD (DP required)
Matrix:	Water	Preparation:	NO PREP
Batch:	B384282	Laboratory ID:	B384282-BS1
Column:		Initial/Final:	200 mL / 200 mL

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Sulfide	10.0	8.0	80.0	79.7 - 122

METHOD DETECTION AND REPORTING LIMITS

Laboratory: Pace New England
Work Order: 24H3575
Client: Alpha Analytical Laboratory
Matrix: Water
Instrument: Inst

Analyte	MDL	MRL	Units	Method
Sulfide	1.8	2.0	mg/L	SM21-23 4500S-F

PREPARATION BATCH SUMMARY

SM21-23 4500S-F

Laboratory:	Pace New England	Work Order:	24H3575
Client:	Alpha Analytical Laboratory	Project:	WC Analysis_MD (DP required)
Batch:	B384278 Batch Matrix: Water	Preparation:	NO PREP

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
MW-3A	24H3575-01	08/28/24 09:15	200.00	200.00
MW-6A	24H3575-02	08/28/24 09:15	200.00	200.00
MW-7B	24H3575-06	08/28/24 09:15	200.00	200.00
MW-7C	24H3575-07	08/28/24 09:15	200.00	200.00
MW-8A	24H3575-08	08/28/24 09:15	200.00	200.00
MW-8B	24H3575-09	08/28/24 09:15	200.00	200.00
MW-8C2	24H3575-10	08/28/24 09:15	200.00	200.00
MW-9B	24H3575-11	08/28/24 09:15	200.00	200.00
DUP	24H3575-12	08/28/24 09:15	200.00	200.00
Blank	B384278-BLK1	08/28/24 09:15	200.00	200.00
LCS	B384278-BS1	08/28/24 09:15	200.00	200.00

PREPARATION BATCH SUMMARY

SM21-23 4500S-F

Laboratory:	Pace New England			Work Order:	24H3575
Client:	Alpha Analytical Laboratory			Project:	WC Analysis_MD (DP required)
Batch:	B384282	Batch Matrix:	Water	Preparation:	NO PREP

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
MW-6B	24H3575-03	08/27/24 15:12	200.00	200.00
MW-6C	24H3575-04	08/27/24 15:12	200.00	200.00
MW-7A	24H3575-05	08/27/24 15:12	200.00	200.00
Blank	B384282-BLK1	08/27/24 15:12	200.00	200.00
LCS	B384282-BS1	08/27/24 15:12	200.00	200.00

PREPARATION BENCH SHEET

B384278

Pace New England

rinted: 8/29/2024 8:13:57AM

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Matrix: Water

Prepared using: WET CHEMISTRY - NO PREP

(No Surrogate)

Lab Number	Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Code 128	Extraction Comments
24H3621-03	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
24H3575-06	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
24H3575-07	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
24H3575-08	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
24H3575-09	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
24H3575-10	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
24H3621-05	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
24H3621-06	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
24H3613-03	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
24H3613-04	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
24H3575-02	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
24H3621-02	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
B384278-MSD1	QC	08/28/24 09:15	200	200	24H0953	24H3621-03	2000			
24H3621-04	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
24H3575-11	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
24H3575-12	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
24H3588-01	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
24H3575-01	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
24H3613-01	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
24H3613-02	Sulfide by SM4500S-F	08/28/24 09:15	200	200						
B384278-BLK1	QC	08/28/24 09:15	200	200						
B384278-BS1	QC	08/28/24 09:15	200	200	24H0953		2000			
B384278-MS1	QC	08/28/24 09:15	200	200	24H0953	24H3621-03	2000			

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

PREPARATION BENCH SHEET

B384278

Pace New England

rinted: 8/29/2024 8:13:57AM

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Matrix: Water **Prepared using: WET CHEMISTRY - NO PREP** **(No Surrogate)**

Lab Number	Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Code 128	Extraction Comments
24H3621-01	Sulfide by SM4500S-F	08/28/24 09:15	200	200						

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Method Summary Worksheet

Analysis: S2 EC 8/28/24 Method #: SM 4500S-F Date/Analyst: 8/28/24 EC

QC Reference sample: ~~24H0702~~ True Value: 10.0 Range: (79.7 → 122.0) Titrant Normality/Date*: 0.025 8/28/24

Sample Id#	24H0953 buret mls final - initial - Blk =	mls used	[Calculation / Final Concentrations]	Clients / Comments
Blank	5.2-0	5.2	(.1250 - .1300) (16000) / 200 = -5	
Standard				
QC Reference	0.4-0	0.4	(.1250 - .0100) (16000) / 200 = 9.2 = 92%	✓
24H3575-01	5.0-0	5.0	(.1250 - .1250) = 0	✓
1-02	5.0-0	5.0	(.1250 - .1250) = 0	✓
1-06	5.0-0	5.0	(.1250 - .1250) = 0	✓
1-07	4.9-0	4.9	(.1250 - .1225) = 0.2	✓
1-08	5.0-0	5.0	(.1250 - .1250) = 0	✓
1-09	5.0-0	5.0	(.1250 - .1250) = 0	✓
1-10	5.0-0	5.0	(.1250 - .1250) = 0	✓
1-11	5.0-0	5.0	(.1250 - .1250) = 0	✓
1-12	5.0-0	5.0	(.1250 - .1250) = 0	✓
24H3588-01	5.0-0	5.0	(.1250 - .1250) = 0	✓ @ 10X
~~Dup~~ 24H3613-01	1.5-0	1.5	(.1250 - .0375) = 7.0 @ 10X	
~~MS~~ 1-02	4.7-0	4.7	(.1250 - .1175) = 0.6 @ 10X	✓
~~Cal.ck (std.)~~ 1-03	4.5-0	4.5	(.1250 - .1125) = ~~True Value:~~ 1.0 @ 10X	
1-04	5.0-0	5.0	(.1250 - .1250) = 0 @ 10X	✓
24H3621-01	5.0-0	5.0	(.1250 - .1250) = 0	✓
1-02	5.0-0	5.0	(.1250 - .1250) = 0	✓
1-03	5.0-0	5.0	(.1250 - .1250) = 0	✓
1-MS	1.0-0	1.0	(.1250 - .0250) = 8.0 = 80%	
1-MSD	0.8-0	0.8	(.1250 - .0200) = 8.4 = 84%	
1-04	4.3-0	4.3	(.1250 - .1075) = 1.4	✓
1-05	5.0-0	5.0	(.1250 - .1250) = 0	✓
1-06	5.0-0	5.0	(.1250 - .1250) = 0	✓
LCSDP	0.3-0	0.3	(.1250 - .0075) (16000) / 200 = 9.4 = 94%	✓
Dup.			Analysis Started @ 9:15AM - 12:25PM	
MS	Checked by: Maria Hill AUG 28 2024		6N HCl - 24H0699	
Cal.ck (std.)			IODINE SOL - 24H0926 STD: 0.025 8/28/24 True Value:	

Sample Id#	1st Result	2nd Result	RPD	Sample Id#	Spiked Sample	Spike Added	% Recovery
				Sodium Thiosulfate - 24G0470 STD		0.025 8/21/24	
				Starch Ind. 24G0112			
				EDTA: TA 06334			

PREPARATION BENCH SHEET

B384282

Pace New England

Printed: 9/3/2024 10:34:32AM

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Matrix: Water **Prepared using: WET CHEMISTRY - NO PREP** **(No Surrogate)**

Lab Number	Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Code 128	Extraction Comments
24H3575-03	Sulfide by SM4500S-F	08/27/24 15:12	200	200						
24H3575-04	Sulfide by SM4500S-F	08/27/24 15:12	200	200						
24H3575-05	Sulfide by SM4500S-F	08/27/24 15:12	200	200						
24H3588-02	Sulfide by SM4500S-F	08/27/24 15:12	200	200						
24H3588-03	Sulfide by SM4500S-F	08/27/24 15:12	200	200						
24H3611-01	Sulfide by SM4500S-F	08/27/24 15:12	200	200						
24H3611-02	Sulfide by SM4500S-F	08/27/24 15:12	200	200						
24H3611-03	Sulfide by SM4500S-F	08/27/24 15:12	200	200						
24H3611-04	Sulfide by SM4500S-F	08/27/24 15:12	200	200						
24H3611-05	Sulfide by SM4500S-F	08/27/24 15:12	200	200						
24H3611-06	Sulfide by SM4500S-F	08/27/24 15:12	200	200						
24H3611-07	Sulfide by SM4500S-F	08/27/24 15:12	200	200						
24H3611-08	Sulfide by SM4500S-F	08/27/24 15:12	200	200						
24H3611-09	Sulfide by SM4500S-F	08/27/24 15:12	200	200						
B384282-BLK1	QC	08/27/24 15:12	200	200						
B384282-BS1	QC	08/27/24 15:12	200	200	24H0953		2000			

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Titrimetric Determinations
Method Summary Worksheet

*Date Standardized

043

Analysis: 52 Method #: SM4500 S-F Date/Analyst: 8/29/24 DET

QC Reference sample: 24H0953 True Value: 10.0 Range: (79.7 – 122 %) Titrant Normality/Date*: 0.025 8/28/24

Sample Id#	buret mls final - initial - Blk =	mls used	[Calculation / Final Concentrations]	Clients / Comments
Blank	5.1 – 0	5.1	(.1250-.1275)(16000)/200 =	Ø ✓
Standard				
QC Reference	1.0 – 0	1.0	(.1250-.0250)(16000)/200 =	8.0 – 80% ✓
24H3575-03	5.0 – 0	5.0	(.1250-.1250)(16000)/200 =	Ø ✓
-04	5.0 – 0	5.0	(.1250-.1250)(16000)/200 =	Ø ✓
-05	5.0 – 0	5.0	(.1250-.1250)(16000)/200 =	Ø ✓
24H3588-02	3.7 – 0	3.7	(.1250-.0975)(16000)/200 =	2.6 ✓ 10X = 26.0 ✓
-03	4.6 – 0	4.6	(.1250-.1150)(16000)/200 =	0.8 ✓ 10X = 8.0 ✓
24H3611-01	4.9 – 0	4.9	(.1250-.1225)(16000)/200 =	0.2 ✓
-02	5.0 – 0	5.0	(.1250-.1250)(16000)/200 =	Ø ✓
-03	5.0 – 0	5.0	(.1250-.1250)(16000)/200 =	Ø ✓
-04	4.9 – 0	4.9	(.1250-.1225)(16000)/200 =	0.2 ✓
-05	4.7 – 0	4.7	(.1250-.1175)(16000)/200 =	0.6 ✓
Dup. -06	4.6 – 0	4.6	(.1250-.1150)(16000)/200 =	0.8 ✓
MS -07	4.9 – 0	4.9	(.1250-.1225)(16000)/200 =	0.2 ✓
Cal.ck (std.) -08	4.8 – 0	4.8	(.1250-.1200)(16000)/200 =	True Value: 0 ✗ ✓
-09	4.6 – 0	4.6	(.1250-.1150)(16000)/200 =	0.8 ✓
[CIOD	0.8 – 0	0.8	(.1250-.0200)(16000)/200 =	8.4 – 84% ✓
			Analyzed @ 9:30 am	
			6 HCl – 24H0699	
	*not enough volume for MS/MSD on any sample		Iodine solution – 24H0426 STD 0.025 8/28/24	
			Sodium Thiosulfate – 24G0470 STD 0.025 8/28/24	
			Starch Indicator – 24G0112	
			EDTA – TV0632V	
Dup.				
MS			DET 8/29/24	
Cal.ck (std.)				True Value:

Sample Id#	1st Result	2nd Result	RPD	Sample Id#	Spiked Sample	Spike Added	% Recovery

ANALYTICAL REPORT

September 13, 2024

Pace Analytical (Alpha) - Westborough,MA

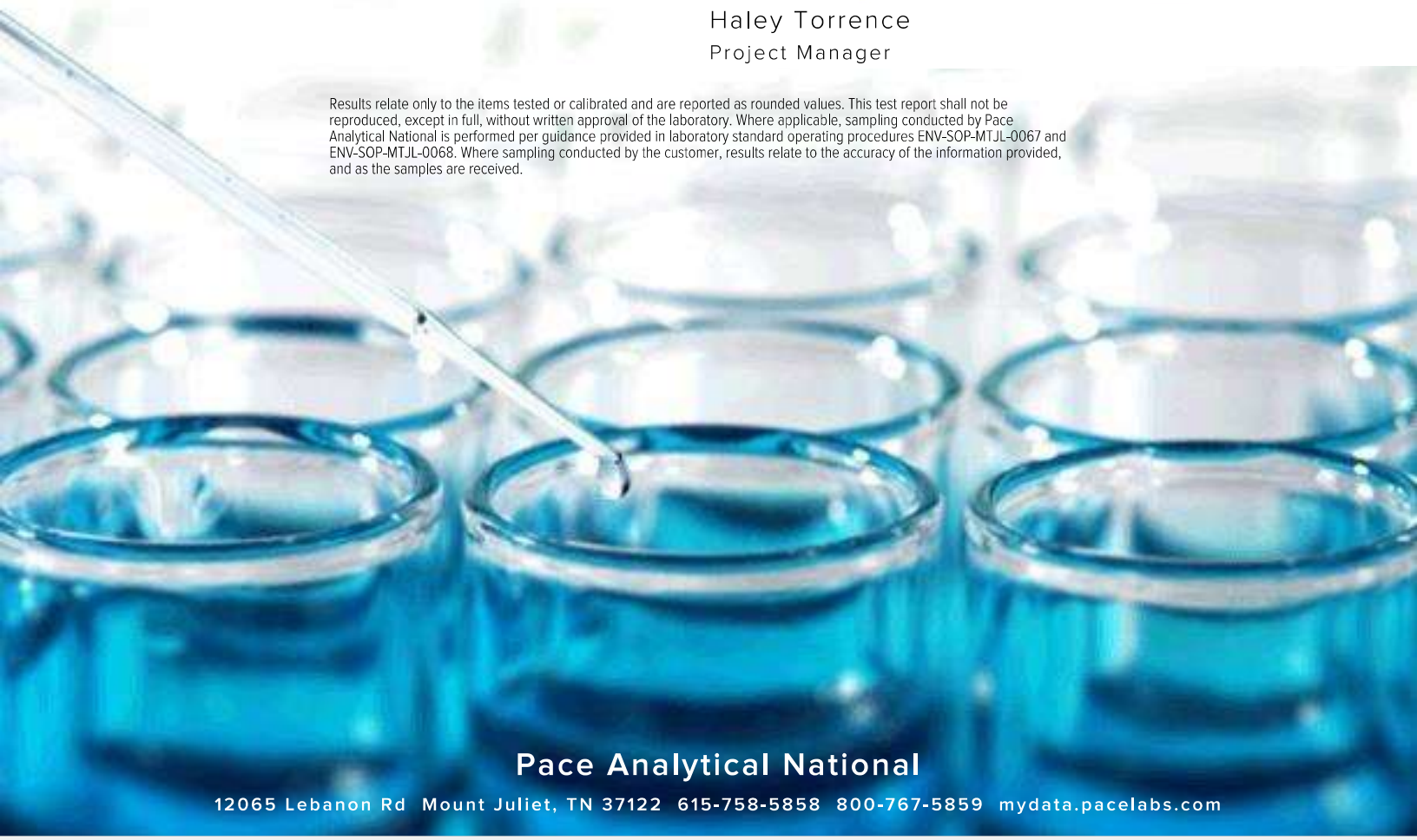
Sample Delivery Group:	L1771851
Samples Received:	08/27/2024
Project Number:	L2447890
Description:	

Report To: Melissa Deyo
8 Walkup Drive
Westborough, MA 01581

Entire Report Reviewed By:

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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MW-3A L1771851-01 WW

Collected by	Collected date/time	Received date/time
	08/21/24 11:10	08/27/24 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 200.8	WG2356031	1	09/12/24 07:05	09/12/24 18:07	LD	Mt. Juliet, TN

MW-6A L1771851-02 WW

Collected by	Collected date/time	Received date/time
	08/20/24 16:40	08/27/24 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 200.8	WG2356031	1	09/12/24 07:05	09/12/24 18:10	LD	Mt. Juliet, TN

MW-6B L1771851-03 WW

Collected by	Collected date/time	Received date/time
	08/20/24 14:55	08/27/24 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 200.8	WG2356031	1	09/12/24 07:05	09/12/24 17:29	LD	Mt. Juliet, TN

MW-9B L1771851-04 WW

Collected by	Collected date/time	Received date/time
	08/21/24 09:00	08/27/24 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 200.8	WG2356031	1	09/12/24 07:05	09/12/24 18:13	LD	Mt. Juliet, TN

DUP L1771851-05 WW

Collected by	Collected date/time	Received date/time
	08/21/24 00:00	08/27/24 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 200.8	WG2356031	1	09/12/24 07:05	09/12/24 18:17	LD	Mt. Juliet, TN

FIELD BLANK L1771851-06 WW

Collected by	Collected date/time	Received date/time
	08/21/24 09:30	08/27/24 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 200.8	WG2356031	1	09/12/24 07:05	09/12/24 18:20	LD	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Haley Torrence
Project Manager

Report Revision History

Level II Report - Version 1: 09/13/24 10:18

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Uranium	U		0.0854	1.00	1	09/12/2024 18:07	WG2356031

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Uranium	U		0.0854	1.00	1	09/12/2024 18:10	WG2356031

Metals (ICPMS) by Method 200.8

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Uranium	0.382	J	0.0854	1.00	1	09/12/2024 17:29	WG2356031

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Uranium	U		0.0854	1.00	1	09/12/2024 18:13	WG2356031

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Uranium	U		0.0854	1.00	1	09/12/2024 18:17	WG2356031

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Uranium	U		0.0854	1.00	1	09/12/2024 18:20	WG2356031

Method Blank (MB)

(MB) R4119250-1 09/12/24 17:23

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Uranium	U		0.0854	1.00

Laboratory Control Sample (LCS)

(LCS) R4119250-2 09/12/24 17:26

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Uranium	50.0	48.6	97.2	85.0-115	

L1771851-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1771851-03 09/12/24 17:29 • (MS) R4119250-4 09/12/24 17:36 • (MSD) R4119250-5 09/12/24 17:39

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Uranium	50.0	0.382	47.7	50.0	94.7	99.2	1	70.0-130			4.61	20

L1771853-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1771853-03 09/12/24 17:42 • (MS) R4119250-6 09/12/24 17:46 • (MSD) R4119250-7 09/12/24 17:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Uranium	50.0	0.570	49.3	49.2	97.5	97.2	1	70.0-130			0.228	20

200.8 Metals (ICPMS)

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1771851-01	**SDG:**	L1771851
Client Sample ID:	MW-3A	**Collected Date/Time:**	08/21/24 11:10
Lab File ID:	20240912180714	**Received Date/Time:**	08/27/24 08:30
Instrument ID:	ICPMS8	**Preparation Date/Time:**	09/12/24 07:05
Analytical Batch:	WG2356031	**Analysis Date/Time:**	09/12/24 18:07
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):		**Final Wt/Vol:**	25 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		ug/l		*ug/l*	*ug/l*
Uranium	7440-61-1	U		0.0854	1.00

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1771851-02	**SDG:**	L1771851
Client Sample ID:	MW-6A	**Collected Date/Time:**	08/20/24 16:40
Lab File ID:	20240912181033	**Received Date/Time:**	08/27/24 08:30
Instrument ID:	ICPMS8	**Preparation Date/Time:**	09/12/24 07:05
Analytical Batch:	WG2356031	**Analysis Date/Time:**	09/12/24 18:10
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):		**Final Wt/Vol:**	25 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		ug/l		*ug/l*	*ug/l*
Uranium	7440-61-1	U		0.0854	1.00

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1771851-03	**SDG:**	L1771851
Client Sample ID:	MW-6B	**Collected Date/Time:**	08/20/24 14:55
Lab File ID:	20240912172942	**Received Date/Time:**	08/27/24 08:30
Instrument ID:	ICPMS8	**Preparation Date/Time:**	09/12/24 07:05
Analytical Batch:	WG2356031	**Analysis Date/Time:**	09/12/24 17:29
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):		**Final Wt/Vol:**	25 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		ug/l		*ug/l*	*ug/l*
Uranium	7440-61-1	0.382	J	0.0854	1.00

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1771851-04	**SDG:**	L1771851
Client Sample ID:	MW-9B	**Collected Date/Time:**	08/21/24 09:00
Lab File ID:	20240912181351	**Received Date/Time:**	08/27/24 08:30
Instrument ID:	ICPMS8	**Preparation Date/Time:**	09/12/24 07:05
Analytical Batch:	WG2356031	**Analysis Date/Time:**	09/12/24 18:13
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):		**Final Wt/Vol:**	25 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		ug/l		*ug/l*	*ug/l*
Uranium	7440-61-1	U		0.0854	1.00

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1771851-05	**SDG:**	L1771851
Client Sample ID:	DUP	**Collected Date/Time:**	08/21/24 00:00
Lab File ID:	20240912181710	**Received Date/Time:**	08/27/24 08:30
Instrument ID:	ICPMS8	**Preparation Date/Time:**	09/12/24 07:05
Analytical Batch:	WG2356031	**Analysis Date/Time:**	09/12/24 18:17
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):		**Final Wt/Vol:**	25 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		ug/l		*ug/l*	*ug/l*
Uranium	7440-61-1	U		0.0854	1.00

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
FIELD BLANK

Lab Sample ID:	L1771851-06	**SDG:**	L1771851
Client Sample ID:	FIELD BLANK	**Collected Date/Time:**	08/21/24 09:30
Lab File ID:	20240912182029	**Received Date/Time:**	08/27/24 08:30
Instrument ID:	ICPMS8	**Preparation Date/Time:**	09/12/24 07:05
Analytical Batch:	WG2356031	**Analysis Date/Time:**	09/12/24 18:20
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):		**Final Wt/Vol:**	25 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		ug/l		*ug/l*	*ug/l*
Uranium	7440-61-1	U		0.0854	1.00

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R4119250-1	**SDG:**	L1771851
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	20240912172303	**Received Date/Time:**	
Instrument ID:	ICPMS8	**Preparation Date/Time:**	09/12/24 07:04
Analytical Batch:	WG2356031	**Analysis Date/Time:**	09/12/24 17:23
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):		**Final Wt/Vol:**	25 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		ug/l		*ug/l*	*ug/l*
Uranium	7440-61-1	U		0.0854	1.00

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R4119250-2	**SDG:**	L1771851
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	20240912172623	**Received Date/Time:**	
Instrument ID:	ICPMS8	**Preparation Date/Time:**	09/12/24 07:04
Analytical Batch:	WG2356031	**Analysis Date/Time:**	09/12/24 17:26
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):		**Final Wt/Vol:**	25 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		ug/l		*ug/l*	*ug/l*
Uranium	7440-61-1	48.6		0.0854	1.00

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R4119250-4	**SDG:**	L1771851
Client Sample ID:	MS	**Collected Date/Time:**	08/20/24 14:55
Lab File ID:	20240912173621	**Received Date/Time:**	08/27/24 08:30
Instrument ID:	ICPMS8	**Preparation Date/Time:**	09/12/24 07:05
Analytical Batch:	WG2356031	**Analysis Date/Time:**	09/12/24 17:36
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):		**Final Wt/Vol:**	25 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		ug/l		*ug/l*	*ug/l*
Uranium	7440-61-1	47.7		0.0854	1.00

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R4119250-6	**SDG:**	L1771851
Client Sample ID:	MS	**Collected Date/Time:**	08/19/24 15:55
Lab File ID:	20240912174613	**Received Date/Time:**	08/27/24 08:30
Instrument ID:	ICPMS8	**Preparation Date/Time:**	09/12/24 07:05
Analytical Batch:	WG2356031	**Analysis Date/Time:**	09/12/24 17:46
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):		**Final Wt/Vol:**	25 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		ug/l		*ug/l*	*ug/l*
Uranium	7440-61-1	49.3		0.0854	1.00

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R4119250-5	**SDG:**	L1771851
Client Sample ID:	MSD	**Collected Date/Time:**	08/20/24 14:55
Lab File ID:	20240912173938	**Received Date/Time:**	08/27/24 08:30
Instrument ID:	ICPMS8	**Preparation Date/Time:**	09/12/24 07:05
Analytical Batch:	WG2356031	**Analysis Date/Time:**	09/12/24 17:39
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):		**Final Wt/Vol:**	25 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		ug/l		*ug/l*	*ug/l*
Uranium	7440-61-1	50.0		0.0854	1.00

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R4119250-7	**SDG:**	L1771851
Client Sample ID:	MSD	**Collected Date/Time:**	08/19/24 15:55
Lab File ID:	20240912174931	**Received Date/Time:**	08/27/24 08:30
Instrument ID:	ICPMS8	**Preparation Date/Time:**	09/12/24 07:05
Analytical Batch:	WG2356031	**Analysis Date/Time:**	09/12/24 17:49
Dilution Factor:	1	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):		**Final Wt/Vol:**	25 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		ug/l		*ug/l*	*ug/l*
Uranium	7440-61-1	49.2		0.0854	1.00

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R4119250-3	**SDG:**	L1771851
Client Sample ID:	SD	**Collected Date/Time:**	08/20/24 14:55
Lab File ID:	20240912173301	**Received Date/Time:**	08/27/24 08:30
Instrument ID:	ICPMS8	**Preparation Date/Time:**	09/12/24 07:05
Analytical Batch:	WG2356031	**Analysis Date/Time:**	09/12/24 17:33
Dilution Factor:	5	**Prep Method:**	200.8
Analytical Method:	200.8	**Sample Vol Used:**	
Matrix:	WW	**Initial Wt/Vol:**	25 mL
Total Solids (%):		**Final Wt/Vol:**	25 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		ug/l		*ug/l*	*ug/l*
Uranium	7440-61-1	U		0.427	5.00

2-IN

CALIBRATION VERIFICATION

SDG:	L1771851	**Calibration (begin) date/time:**	09/12/24 15:13
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	09/12/24 15:34
Analytical Method:	200.8	**Analytical Run:**	091224ICPMS8A
Concentration Units:	mg/l		

		ICV				ICVLL				CCV			
Sample ID:		ICPMS80912241541				ICPMS80912241614				ICPMS80912241715			
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	True	Found	%R	%RSD
URANIUM	0.10	0.09649267	96.50	0.370000	0.0010	0.000972189	97.20	4.840000	0.10	0.09482959	94.80	1.250000

ICV Limits: 90 - 110 ICVLL Limits: 50 - 150 CCV Limits: 90 - 110

CALIBRATION VERIFICATION

SDG:	L1771851	**Calibration (begin) date/time:**	09/12/24 15:13
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	09/12/24 15:34
Analytical Method:	200.8	**Analytical Run:**	091224ICPMS8A
Concentration Units:	mg/l		

		CCV				CCV		
Sample ID:	ICPMS80912241753				ICPMS80912241833			
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD
URANIUM	0.10	0.09616968	96.20	0.670000	0.10	0.09609163	96.10	1.380000

ICV Limits: 90 - 110 ICVLL Limits: 50 - 150 CCV Limits: 90 - 110

3-IN

BLANKS

SDG:	L1771851	**Calibration (begin) date/time:**	09/12/24 15:13
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	09/12/24 15:34
Analytical Method:	200.8	**Analytical Run:**	091224ICPMS8A

	Sample ID:	**ICB Result**	**ICB Qual**	**CCB Result**	**CCB Qual**	**BLANK Result**	**BLANK Qual**	**CCB Result**	**CCB Qual**
	File ID:	20240912155409		20240912171908		20240912172303		20240912175650	
Analyte		mg/l		mg/l		mg/l		mg/l	
URANIUM		-0.000010844	U	0.000015527	U	U		0.000015488	U

3-IN

BLANKS

SDG:	L1771851	**Calibration (begin) date/time:**	09/12/24 15:13
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	09/12/24 15:34
Analytical Method:	200.8	**Analytical Run:**	091224ICPMS8A

	Sample ID:	**CCB Result**	**CCB Qual**
	File ID:	20240912183702	
Analyte		mg/l	
URANIUM		0.000006782	U

4-IN

INTERFERENCE CHECK SAMPLE

SDG:	L1771851	**Analytical Method:**	200.8
Instrument ID:	ICPMS8	**Date:**	09/12/24 16:17
Instrument Run:	091224ICPMS8A		

Analyte	True	Found		True	Found	
	ICSA	*ICSA*	*ICSA*	*ICSAB*	*ICSAB*	*ICSAB*
	mg/l	*mg/l*	*% Rec.*	*mg/l*	*mg/l*	*% Rec.*
ALUMINUM	100	101.8369	102	100	101.9311	102
ANTIMONY	0	0.000234164		0.02	0.02143507	107
ARSENIC	0	0.000093639		0.02	0.01933616	96.70
BARIUM	0	0.000640707		0.02	0.02033691	102
BERYLLIUM	0	0.000024748		0.02	0.01977667	98.90
BISMUTH (NO HE)		1002772	97.20		998634	96.80
BORON	0	-0.001536667		0.02	0.01721146	86.10
CADMIUM	0	0.000103352		0.02	0.02056083	103
CALCIUM	100	98.94967	98.90	100	99.05116	99.10
CHROMIUM	0	0.001142949		0.02	0.02064321	103
COBALT	0	0.000129038		0.02	0.0200763	100
COPPER	0	0.00088354		0.02	0.02075568	104
GERMANIUM		142378.7	99.10		143344.8	99.80
GERMANIUM (HIGH HE)		292036	99.60		295672.8	101
GERMANIUM (NO HE)		3131795	99.60		3148255	100
IRON	100	103.0919	103	100	102.4304	102
LEAD	0	-0.000009386		0.02	0.02007699	100
LITHIUM	0	0.000350192		0	0.00029789	
MAGNESIUM	100	101.6195	102	100	101.1804	101
MANGANESE	0	0.001397434		0.02	0.01983603	99.20
MOLYBDENUM	2	2.055826	103	2	2.040577	102
NICKEL	0	0.000350179		0.02	0.02049337	102
POTASSIUM	100	101.5283	102	100	101.3648	101
RHODIUM		203125.2	96.50		204195.5	97
SCANDIUM		72436.97	99.50		72895.95	100
SCANDIUM (NO HE)		5786925	97		5822578	97.60
SELENIUM	0	-0.000066884		0.02	0.02123457	106
SILVER	0	0.00010147		0.02	0.02131344	107
SODIUM	100	104.0482	104	100	102.0863	102
STRONTIUM	0	0.00080483		0.02	0.0217521	109
TELLURIUM		54247.15	97.10		54005.4	96.60
TELLURIUM (HIGH HE)		319208	97		318320.3	96.80
TELLURIUM (NO HE)		1398191	97.60		1381016	96.40
THALLIUM	0	0.000007248		0.02	0.01980138	99
THORIUM	0	0.000071017		0.02	0.01949966	97.50
TIN	0	0.00009227		0.02	0.01917447	95.90
TITANIUM	2	2.070744	104	2	2.061432	103
URANIUM	0	0.000019343		0.02	0.01955971	97.80
VANADIUM	0	0.000016441		0.02	0.01962717	98.10
ZINC	0	0.000798619		0.02	0.01999006	100

ICSA Limits: 80 - 120 ICSAB Limits: 80 - 120

5A-IN

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1771851-01,02,03,04,05,06

SAMPLE NO.:
R4119250-4
R4119250-5

MS Sample / File ID:	R4119250-4 / 20240912173621	**SDG:**	L1771851
MSD Sample / File ID:	R4119250-5 / 20240912173938	**Analytical Batch:**	WG2356031
OS Sample / File ID:	L1771851-03 / 20240912172942	**Matrix:**	WW
Instrument ID:	ICPMS8		
Analytical Method:	200.8		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	ug/l	*ug/l*	*ug/l*	*ug/l*	*%*	*%*		*%*	*%*	*%*
Uranium	50.0	0.382	47.7	50.0	94.7	99.2	1	70.0 - 130	4.61	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

5A-IN

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1771851-01,02,03,04,05,06

SAMPLE NO.:
R4119250-6
R4119250-7

MS Sample / File ID:	R4119250-6 / 20240912174613	**SDG:**	L1771851
MSD Sample / File ID:	R4119250-7 / 20240912174931	**Analytical Batch:**	WG2356031
OS Sample / File ID:	L1771853-03 / 20240912174255	**Matrix:**	WW
Instrument ID:	ICPMS8		
Analytical Method:	200.8		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	ug/l	*ug/l*	*ug/l*	*ug/l*	*%*	*%*		*%*	*%*	*%*
Uranium	50.0	0.570	49.3	49.2	97.5	97.2	1	70.0 - 130	0.228	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

L1771851-01,02,03,04,05,06

SAMPLE NO.:
R4119250-2

LCS Sample / File ID:	R4119250-2 / 20240912172623	**SDG:**	L1771851
LCSD Sample / File ID:		**Analytical Batch:**	WG2356031
Instrument ID:	ICPMS8	**Dilution Factor:**	1
Analytical Method:	200.8	**Matrix:**	WW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	ug/l	*ug/l*		*%*	*%*	*%*	*%*	*%*
Uranium	50.0	48.6		97.2		85.0 - 115		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

SD Sample / File ID:	R4119250-3 / 20240912173301	**SDG:**	L1771851
OS Sample / File ID:	L1771851-03 / 20240912172942	**Analytical Batch:**	WG2356031
Lab File ID:	20240912173301	**Dilution Factor:**	5
Instrument ID:	ICPMS8	**Matrix:**	WW
Analytical Method:	200.8		

Analyte	OS Result	SD Result	RPD	RPD Limits
	ug/l	*ug/l*	*%*	*%*
Uranium	0.382	U	0.000	10

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

DETECTION LIMIT SUMMARY

Lab Sample IDs: L1771851-01,02,03,04,05,06 **Analytical Method:** 200.8

Matrix: WW **Prep Method:** 200.8

Analyte	CAS	Wavelength	Mass	MDL	RDL
				mg/l	*mg/l*
Uranium	7440-61-1		238	0.00008540	0.0010

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LINEAR DYNAMIC RANGE

SDG:	L1771851	**Analytical Method:**	200.8
Instrument ID:	ICPMS8	**Date:**	01/31/24 12:50

Analyte	LDR
	ppm
ALUMINUM	100
ANTIMONY	10
ARSENIC	10
BARIUM	2
BERYLLIUM	10
BORON	10
CADMIUM	10
CALCIUM	1000
CHROMIUM	10
COBALT	10
COPPER	0.40
IRON	100
LEAD	10
LITHIUM	10
MAGNESIUM	1000
MANGANESE	10
MOLYBDENUM	10
NICKEL	10
POTASSIUM	1000
SELENIUM	5
SILVER	0.20
SODIUM	1000
STRONTIUM	5
THALLIUM	10
THORIUM	10
TIN	5
TITANIUM	10
URANIUM	10
VANADIUM	10
ZINC	10

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INTERNAL STANDARD ASSOCIATION

SDG:	L1771851	**Analytical Method:**	200.8
Instrument ID:	ICPMS8	**Analysis Date:**	09/12/24 08:21
Instrument Run:	091224ICPMS8A		

Analyte	Assoc. Internal Standard 1
URANIUM - 238	BISMUTH (NO HE) - 209

ANALYSIS LOG

SDG:	L1771851	**Analytical Method:**	200.8
Instrument ID:	ICPMS8	**Calibration Start Date:**	09/12/24 15:13
Analytical Run:	091224ICPMS8A	**Calibration End Date:**	09/12/24 15:34

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
CALBLK	ICPMS80912241506	20240912150626	09/12/24 15:06		
CAL	STD3	20240912151333	09/12/24 15:13		
CAL	STD4	20240912151705	09/12/24 15:17		
CAL	STD5	20240912152038	09/12/24 15:20		
CAL	STD6	20240912152411	09/12/24 15:24		
CAL	STD7	20240912152744	09/12/24 15:27		
CAL	STD8	20240912153118	09/12/24 15:31		
CAL	STD9	20240912153450	09/12/24 15:34		
ICV	ICPMS80912241541	20240912154140	09/12/24 15:41		
ICB	ICPMS80912241554	20240912155409	09/12/24 15:54		
ICVLL	ICPMS80912241614	20240912161405	09/12/24 16:14		
ICSA	ICPMS80912241617	20240912161726	09/12/24 16:17		
ICSAB	ICPMS80912241620	20240912162043	09/12/24 16:20		
CCV	ICPMS80912241715	20240912171549	09/12/24 17:15		
CCB	ICPMS80912241719	20240912171908	09/12/24 17:19		
BLANK	R4119250-1	20240912172303	09/12/24 17:23	1	WG2356031
LCS	R4119250-2	20240912172623	09/12/24 17:26	1	WG2356031
MW-6B	L1771851-03	20240912172942	09/12/24 17:29	1	WG2356031
SD	R4119250-3	20240912173301	09/12/24 17:33	5	WG2356031
MS	R4119250-4	20240912173621	09/12/24 17:36	1	WG2356031
MSD	R4119250-5	20240912173938	09/12/24 17:39	1	WG2356031
OS	L1771853-03	20240912174255	09/12/24 17:42		
L1771853-03	L1771853-03	20240912174255	09/12/24 17:42	1	WG2356031
MS	R4119250-6	20240912174613	09/12/24 17:46	1	WG2356031
MSD	R4119250-7	20240912174931	09/12/24 17:49	1	WG2356031
CCV	ICPMS80912241753	20240912175331	09/12/24 17:53		
CCB	ICPMS80912241756	20240912175650	09/12/24 17:56		
L1770381-01	L1770381-01	20240912180039	09/12/24 18:00	1	WG2356031
L1770768-01	L1770768-01	20240912180357	09/12/24 18:03	1	WG2356031
MW-3A	L1771851-01	20240912180714	09/12/24 18:07	1	WG2356031
MW-6A	L1771851-02	20240912181033	09/12/24 18:10	1	WG2356031
MW-9B	L1771851-04	20240912181351	09/12/24 18:13	1	WG2356031
DUP	L1771851-05	20240912181710	09/12/24 18:17	1	WG2356031
FIELD BLANK	L1771851-06	20240912182029	09/12/24 18:20	1	WG2356031
L1771853-01	L1771853-01	20240912182348	09/12/24 18:23	1	WG2356031
L1771853-02	L1771853-02	20240912182705	09/12/24 18:27	1	WG2356031
L1771853-04	L1771853-04	20240912183024	09/12/24 18:30	1	WG2356031
CCV	ICPMS80912241833	20240912183343	09/12/24 18:33		
CCB	ICPMS80912241837	20240912183702	09/12/24 18:37		

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ICP/MS TUNE

Lab File ID:	20240912082124-2	**SDG:**	L1771851
Instrument ID:	ICPMS8	**Analysis Date/Time**	09/12/24 08:21
Analytical Method:	200.8		

Element - Mass	Avg. Measured Mass	Avg. Peak Width	Height	RSD
	u	u	%	%
IN - 115	115	0.46874430	5	0.78116730
PB - 206	206	0.49401570	5	0.637384
PB - 207	207	0.476927	5	0.986959
PB - 208	208	0.484039	5	0.80486310
MG - 24	23.95	0.48572930	5	0.66105810
MG - 25	24.95	0.478888	5	0.73627110
MG - 26	25.95	0.48593120	5	0.85894040
CO - 59	58.95	0.505615	5	0.50621310
BE - 9	9	0.47218280	5	1.5471

ICP/MS INTERNAL STANDARDS
RELATIVE INTENSITY

SDG:	L1771851	**Analytical Method:**	200.8
Instrument ID:	ICPMS8	**Start Date:**	09/12/24 15:41
Instrument Run:	091224ICPMS8A	**End Date:**	09/12/24 17:49

Client Sample ID	Lab Sample ID	Analysis Date Time	Dilution	BISMUTH (NO HE)		GERMANIUM		GERMANIUM (HIGH HE)	
				% Rec.	Q	% Rec.	Q	% Rec.	Q
ICV	ICPMS80912241541	09/12/24 15:41	1	99.80		103		104	
ICB	ICPMS80912241554	09/12/24 15:54	1	106		104		104	
ICVLL	ICPMS80912241614	09/12/24 16:14	1	101		102		102	
ICSA	ICPMS80912241617	09/12/24 16:17	1	97.20		99.10		99.60	
ICSAB	ICPMS80912241620	09/12/24 16:20	1	96.80		99.80		101	
CCV	ICPMS80912241715	09/12/24 17:15	1	99		101		101	
CCB	ICPMS80912241719	09/12/24 17:19	1	96.60		98.10		96.90	
CCV	ICPMS80912241753	09/12/24 17:53	1	93.70		97.60		98.40	
CCB	ICPMS80912241756	09/12/24 17:56	1	95.70		98.80		98.20	
CCV	ICPMS80912241833	09/12/24 18:33	1	92.40		97		95.80	
CCB	ICPMS80912241837	09/12/24 18:37	1	93.90		95.90		98	
MW-3A	L1771851-01	09/12/24 18:07	1	93.30		94.80		96.20	
MW-6A	L1771851-02	09/12/24 18:10	1	93.60		96.50		93.90	
MW-6B	L1771851-03	09/12/24 17:29	1	94.40		96.30		96.50	
MW-9B	L1771851-04	09/12/24 18:13	1	93.50		95.20		96.40	
DUP	L1771851-05	09/12/24 18:17	1	94		95.30		98	
FIELD BLANK	L1771851-06	09/12/24 18:20	1	93.80		94		97.80	
OS	L1771853-03	09/12/24 17:42	1	93.80		96.20		98.60	
BLANK	R4119250-1	09/12/24 17:23	1	95.80		96.40		97.20	
LCS	R4119250-2	09/12/24 17:26	1	93.80		96		97.10	
SD	R4119250-3	09/12/24 17:33	5	96.60		99		97.20	
MS	R4119250-4	09/12/24 17:36	1	93.30		95.70		98	
MSD	R4119250-5	09/12/24 17:39	1	93.10		96.70		96.90	
MS	R4119250-6	09/12/24 17:46	1	92.30		95.60		98.30	
MSD	R4119250-7	09/12/24 17:49	1	92.20		95.40		96.50	

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ICP/MS INTERNAL STANDARDS
RELATIVE INTENSITY

SDG:	L1771851	**Analytical Method:**	200.8
Instrument ID:	ICPMS8	**Start Date:**	09/12/24 15:41
Instrument Run:	091224ICPMS8A	**End Date:**	09/12/24 17:49

Client Sample ID	Lab Sample ID	Analysis Date Time	Dilution	GERMANIUM (NO HE)		RHODIUM		SCANDIUM	
				% Rec.	Q	% Rec.	Q	% Rec.	Q
ICV	ICPMS80912241541	09/12/24 15:41	1	100		102		104	
ICB	ICPMS80912241554	09/12/24 15:54	1	104		104		103	
ICVLL	ICPMS80912241614	09/12/24 16:14	1	100		102		101	
ICSA	ICPMS80912241617	09/12/24 16:17	1	99.60		96.50		99.50	
ICSAB	ICPMS80912241620	09/12/24 16:20	1	100		97		100	
CCV	ICPMS80912241715	09/12/24 17:15	1	101		99.90		102	
CCB	ICPMS80912241719	09/12/24 17:19	1	95.90		97.50		98.50	
CCV	ICPMS80912241753	09/12/24 17:53	1	97.80		96.80		100	
CCB	ICPMS80912241756	09/12/24 17:56	1	98.50		98.50		100	
CCV	ICPMS80912241833	09/12/24 18:33	1	94.80		95.50		96.40	
CCB	ICPMS80912241837	09/12/24 18:37	1	96.90		96.50		98.10	
MW-3A	L1771851-01	09/12/24 18:07	1	93.90		92.80		93.80	
MW-6A	L1771851-02	09/12/24 18:10	1	94.80		95.70		95.50	
MW-6B	L1771851-03	09/12/24 17:29	1	96.10		95.20		95.60	
MW-9B	L1771851-04	09/12/24 18:13	1	97		94.20		94	
DUP	L1771851-05	09/12/24 18:17	1	97		94.20		93.60	
FIELD BLANK	L1771851-06	09/12/24 18:20	1	94		94.60		94.70	
OS	L1771853-03	09/12/24 17:42	1	98.10		94		95.50	
BLANK	R4119250-1	09/12/24 17:23	1	96.60		96.80		97.50	
LCS	R4119250-2	09/12/24 17:26	1	95.60		95.60		95.80	
SD	R4119250-3	09/12/24 17:33	5	97.70		97.10		97.80	
MS	R4119250-4	09/12/24 17:36	1	96.50		93.80		95.20	
MSD	R4119250-5	09/12/24 17:39	1	95.80		94.20		94.20	
MS	R4119250-6	09/12/24 17:46	1	96.50		93.40		94.30	
MSD	R4119250-7	09/12/24 17:49	1	94.60		92.70		95	

ICP/MS INTERNAL STANDARDS
RELATIVE INTENSITY

SDG:	L1771851	**Analytical Method:**	200.8
Instrument ID:	ICPMS8	**Start Date:**	09/12/24 15:41
Instrument Run:	091224ICPMS8A	**End Date:**	09/12/24 17:49

Client Sample ID	Lab Sample ID	Analysis Date Time	Dilution	SCANDIUM (NO HE)		TELLURIUM		TELLURIUM (HIGH HE)	
				% Rec.	Q	% Rec.	Q	% Rec.	Q
ICV	ICPMS80912241541	09/12/24 15:41	1	99.80		104		104	
ICB	ICPMS80912241554	09/12/24 15:54	1	98.50		105		104	
ICVLL	ICPMS80912241614	09/12/24 16:14	1	98.50		103		102	
ICSA	ICPMS80912241617	09/12/24 16:17	1	97		97.10		97	
ICSAB	ICPMS80912241620	09/12/24 16:20	1	97.60		96.60		96.80	
CCV	ICPMS80912241715	09/12/24 17:15	1	98.60		101		99.90	
CCB	ICPMS80912241719	09/12/24 17:19	1	93.60		97.70		96.10	
CCV	ICPMS80912241753	09/12/24 17:53	1	95.50		99.20		97.80	
CCB	ICPMS80912241756	09/12/24 17:56	1	94.60		97.90		96.30	
CCV	ICPMS80912241833	09/12/24 18:33	1	92.90		95.80		96.40	
CCB	ICPMS80912241837	09/12/24 18:37	1	92.60		95.50		95.80	
MW-3A	L1771851-01	09/12/24 18:07	1	89.50		94.20		95.20	
MW-6A	L1771851-02	09/12/24 18:10	1	90.80		95.50		96	
MW-6B	L1771851-03	09/12/24 17:29	1	93.70		95.90		96.80	
MW-9B	L1771851-04	09/12/24 18:13	1	90.50		94		94.60	
DUP	L1771851-05	09/12/24 18:17	1	90.60		93.90		94.70	
FIELD BLANK	L1771851-06	09/12/24 18:20	1	90.40		93.10		94.50	
OS	L1771853-03	09/12/24 17:42	1	92.40		95.20		96.50	
BLANK	R4119250-1	09/12/24 17:23	1	92		96.20		96.30	
LCS	R4119250-2	09/12/24 17:26	1	91.40		96.70		96.90	
SD	R4119250-3	09/12/24 17:33	5	94.50		98.70		97.90	
MS	R4119250-4	09/12/24 17:36	1	92.10		95.80		96.60	
MSD	R4119250-5	09/12/24 17:39	1	92.40		95.90		96.60	
MS	R4119250-6	09/12/24 17:46	1	91		94.20		94.90	
MSD	R4119250-7	09/12/24 17:49	1	91.90		95.10		95.80	

ICP/MS INTERNAL STANDARDS
RELATIVE INTENSITY

SDG:	L1771851	**Analytical Method:**	200.8
Instrument ID:	ICPMS8	**Start Date:**	09/12/24 15:41
Instrument Run:	091224ICPMS8A	**End Date:**	09/12/24 17:49

Client Sample ID	Lab Sample ID	Analysis Date Time	Dilution	TELLURIUM (NO HE)	
				% Rec.	Q
ICV	ICPMS80912241541	09/12/24 15:41	1	104	
ICB	ICPMS80912241554	09/12/24 15:54	1	105	
ICVLL	ICPMS80912241614	09/12/24 16:14	1	103	
ICSA	ICPMS80912241617	09/12/24 16:17	1	97.60	
ICSAB	ICPMS80912241620	09/12/24 16:20	1	96.40	
CCV	ICPMS80912241715	09/12/24 17:15	1	101	
CCB	ICPMS80912241719	09/12/24 17:19	1	96.50	
CCV	ICPMS80912241753	09/12/24 17:53	1	97.60	
CCB	ICPMS80912241756	09/12/24 17:56	1	95.90	
CCV	ICPMS80912241833	09/12/24 18:33	1	95.40	
CCB	ICPMS80912241837	09/12/24 18:37	1	94.10	
MW-3A	L1771851-01	09/12/24 18:07	1	93.80	
MW-6A	L1771851-02	09/12/24 18:10	1	95.40	
MW-6B	L1771851-03	09/12/24 17:29	1	96.50	
MW-9B	L1771851-04	09/12/24 18:13	1	93.90	
DUP	L1771851-05	09/12/24 18:17	1	94.10	
FIELD BLANK	L1771851-06	09/12/24 18:20	1	92.30	
OS	L1771853-03	09/12/24 17:42	1	95.80	
BLANK	R4119250-1	09/12/24 17:23	1	95	
LCS	R4119250-2	09/12/24 17:26	1	96.80	
SD	R4119250-3	09/12/24 17:33	5	98.60	
MS	R4119250-4	09/12/24 17:36	1	96	
MSD	R4119250-5	09/12/24 17:39	1	96	
MS	R4119250-6	09/12/24 17:46	1	94.70	
MSD	R4119250-7	09/12/24 17:49	1	94.40	

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INITIAL CALIBRATION RECOVERY

SDG:	L1771851	**Calibration (begin) date/time:**	09/12/24 15:13
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	09/12/24 15:34
Analytical Method:	200.8	**Analytical Run:**	091224ICPMS8A

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
URANIUM	0.0010	.000979524	98	0.0020	.001883066	94.20
File ID:		20240912151333			20240912151705	

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INITIAL CALIBRATION RECOVERY

SDG:	L1771851	**Calibration (begin) date/time:**	09/12/24 15:13
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	09/12/24 15:34
Analytical Method:	200.8	**Analytical Run:**	091224ICPMS8A

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
URANIUM	0.01	.00996942	99.70	0.05	.04861032	97.20
File ID:		20240912152038			20240912152411	

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INITIAL CALIBRATION RECOVERY

SDG:	L1771851	**Calibration (begin) date/time:**	09/12/24 15:13
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	09/12/24 15:34
Analytical Method:	200.8	**Analytical Run:**	091224ICPMS8A

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
URANIUM	0.10	.09502539	95	0.20	.1997125	99.90
File ID:		20240912152744			20240912153118	

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INITIAL CALIBRATION RECOVERY

SDG:	L1771851	**Calibration (begin) date/time:**	09/12/24 15:13
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	09/12/24 15:34
Analytical Method:	200.8	**Analytical Run:**	091224ICPMS8A

Analyte	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%
URANIUM	0.40	.4015625	100
File ID:		20240912153450	

16B-IN

ICP/MS INITIAL CALIBRATION

SDG:	L1771851	**Calibration (begin) date/time:**	09/12/24 15:13
Instrument ID:	ICPMS8	**Calibration (end) date/time:**	09/12/24 15:34
Analytical Method:	200.8	**Analytical Run:**	091224ICPMS8A

Analyte	Mass	Cal. Type	Weightage	Corr.	Slope	Incpt
URANIUM	238	0	5	0.999915	4.99951	0.001114

Calibration Type

0 = Linear Regression

Weightage

5 = None

Sample ID: CALBLK Units: mg/l
Analyzed: 09/12/24 15:06 Sequence: 90 Standard ID: 24F18636

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1432078	1418975	1436158	1441100
TELLURIUM (HIGH HE)	125	High He	328994.2	330716.5	328130.1	328136.1
TELLURIUM	125	He	55879.66	56211.99	55973.02	55453.98
SCANDIUM (NO HE)	45	No He	5963584	5907989	5972228	6010535
SCANDIUM	45	He	72816.24	72429.72	72887.84	73131.16
RHODIUM	103	He	210434.4	210680.8	209363.4	211258.9
GERMANIUM (NO HE)	72	No He	3144770	3110146	3178452	3145711
GERMANIUM (HIGH HE)	72	High He	293094.1	294077.8	294528.8	290675.8
GERMANIUM	72	He	143600.0	143678.2	143468.5	143653.5
BISMUTH (NO HE)	209	No He	1031845	1011523	1034229	1049784

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
ALUMINUM	27	He	18.66667	14.00000	16.00000	26.00000
ANTIMONY	121	He	6.670000	6.670000	6.670000	6.670000
ARSENIC	75	He	2.833333	3.500000	2.500000	2.500000
BARIUM	137	He	2.220000	0.000000000	3.330000	3.330000
BERYLLIUM	9	No He	60.66667	62.00000	56.00000	64.00000
BORON	11	No He	1621.200	1570.080	1673.430	1620.090
CADMIUM	111	He	0.000000000	0.000000000	0.000000000	0.000000000
CALCIUM	44	No He	5855.150	5783.120	5857.150	5925.180
CALCIUM	43	He	1.333333	2.000000	1.000000	1.000000
CALCIUM	44	He	11.33333	6.000000	12.00000	16.00000
CHROMIUM	52	He	195.3333	198.0000	208.0000	180.0000
COBALT	59	He	29.33333	36.00000	32.00000	20.00000
COPPER	63	No He	204.0000	236.0000	196.0000	180.0000
COPPER	63	He	30.00000	28.00000	30.00000	32.00000
IRON	56	He	884.4733	930.0300	880.0300	843.3600
LEAD	208	No He	225.5567	226.6700	260.0000	190.0000
LITHIUM	7	No He	400.0100	394.0100	420.0100	386.0100
MAGNESIUM	24	He	268.3367	225.0000	325.0100	255.0000
MANGANESE	55	He	36.66667	44.00000	36.00000	30.00000
MOLYBDENUM	95	He	2.000000	2.000000	0.000000000	4.000000
NICKEL	60	He	32.66667	18.00000	38.00000	42.00000
POTASSIUM	39	He	7418.553	7441.890	7361.860	7451.910
SELENIUM	78	High He	0.8333333	1.000000	0.5000000	1.000000
SILVER	107	He	8.666667	8.000000	10.00000	8.000000
SODIUM	23	He	3160.337	3255.360	3225.350	3000.300
STRONTIUM	88	He	12.22333	20.00000	10.00000	6.670000
THALLIUM	205	No He	29.99667	43.33000	13.33000	33.33000
THORIUM	232	No He	3192.613	3263.740	3083.700	3230.400
TIN	118	He	4.443333	3.330000	3.330000	6.670000
TITANIUM	47	He	0.000000000	0.000000000	0.000000000	0.000000000
URANIUM	238	No He	1150.053	1126.720	1110.050	1213.390
VANADIUM	51	He	19.33333	22.00000	18.00000	18.00000
ZINC	66	He	18.00000	10.00000	28.00000	16.00000

Sample ID: STD3 Units: mg/l
Analyzed: 09/12/24 15:13 Sequence: 92 Standard ID: 24H28491

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1427346	1404653	1434302	1443084
TELLURIUM (HIGH HE)	125	High He	329636.9	329305.8	329725.4	329879.5
TELLURIUM	125	He	55783.78	55728.07	55790.31	55832.97
SCANDIUM (NO HE)	45	No He	5801274	5774705	5759501	5869616
SCANDIUM	45	He	72495.96	72172.45	72126.20	73189.23
RHODIUM	103	He	211107.7	210687.0	212640.7	209995.6
GERMANIUM (NO HE)	72	No He	3148331	3176009	3061684	3207300
GERMANIUM (HIGH HE)	72	High He	290270.1	290378.1	288478.2	291954.1
GERMANIUM	72	He	142857.9	144247.3	142274.8	142051.6
BISMUTH (NO HE)	209	No He	1027938	1005972	1026765	1051078

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
ALUMINUM	27	He	36.66667	46.00000	38.00000	26.00000
ANTIMONY	121	He	173.3367	183.3400	150.0000	186.6700
ARSENIC	75	He	25.16667	30.50000	23.00000	22.00000
BARIUM	137	He	35.55667	30.00000	36.67000	40.00000
BERYLLIUM	9	No He	465.3433	466.0100	432.0100	498.0100
BORON	11	No He	1595.643	1683.430	1546.750	1556.750
CADMIUM	111	He	51.00000	67.00000	45.00000	41.00000
CALCIUM	44	No He	11590.51	11558.49	11606.53	11606.52
CALCIUM	43	He	2.333333	1.000000	4.000000	2.000000
CALCIUM	44	He	50.66667	50.00000	52.00000	50.00000
CHROMIUM	52	He	373.3400	402.0100	376.0100	342.0000
COBALT	59	He	425.3433	420.0100	418.0100	438.0100
COPPER	63	No He	1578.750	1556.080	1530.080	1650.090
COPPER	63	He	393.3400	430.0100	410.0100	340.0000
IRON	56	He	2744.700	2776.930	2686.910	2770.260
LEAD	208	No He	2230.190	2240.190	2220.190	2230.190
LITHIUM	7	No He	1555.413	1634.090	1576.080	1456.070
MAGNESIUM	24	He	1335.063	1380.070	1350.060	1275.060
MANGANESE	55	He	94.66667	124.0000	80.00000	80.00000
MOLYBDENUM	95	He	127.3333	130.0000	126.0000	126.0000
NICKEL	60	He	137.3333	140.0000	140.0000	132.0000
POTASSIUM	39	He	8182.280	8007.160	8372.400	8167.280
SELENIUM	78	High He	4.833333	6.000000	3.500000	5.000000
SILVER	107	He	512.0100	554.0100	476.0100	506.0100
SODIUM	23	He	5137.557	5035.860	5350.960	5025.850
STRONTIUM	88	He	80.00000	80.00000	80.00000	80.00000
THALLIUM	205	No He	2576.920	2543.580	2573.580	2613.600
THORIUM	232	No He	7672.247	7548.850	7778.970	7688.920
TIN	118	He	78.89000	73.33000	66.67000	96.67000
TITANIUM	47	He	3.000000	3.000000	3.000000	3.000000
URANIUM	238	No He	6182.583	5814.630	6214.830	6518.290
VANADIUM	51	He	146.6667	176.0000	154.0000	110.0000
ZINC	66	He	134.6667	134.0000	114.0000	156.0000

Sample ID: STD4 Units: mg/l
Analyzed: 09/12/24 15:17 Sequence: 93 Standard ID: 24H28491

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1438218	1417006	1448097	1449550
TELLURIUM (HIGH HE)	125	High He	331396.2	330068.8	332141.5	331978.3
TELLURIUM	125	He	55993.93	56480.05	56023.69	55478.06
SCANDIUM (NO HE)	45	No He	5841511	5761409	5997042	5766083
SCANDIUM	45	He	73352.19	73205.30	74045.56	72805.72
RHODIUM	103	He	212662.9	212006.2	213012.3	212970.1
GERMANIUM (NO HE)	72	No He	3191884	3099080	3242788	3233783
GERMANIUM (HIGH HE)	72	High He	292692.5	292705.9	291343.5	294028.2
GERMANIUM	72	He	142691.6	143693.0	143476.2	140905.6
BISMUTH (NO HE)	209	No He	1038152	1021295	1039099	1054061

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
ALUMINUM	27	He	76.00000	88.00000	78.00000	62.00000
ANTIMONY	121	He	261.1167	263.3400	263.3400	256.6700
ARSENIC	75	He	56.83333	54.50000	60.00000	56.00000
BARIUM	137	He	75.55667	90.00000	66.67000	70.00000
BERYLLIUM	9	No He	873.3600	896.0300	866.0300	858.0200
BORON	11	No He	1616.753	1613.420	1676.760	1560.080
CADMIUM	111	He	107.0000	95.00000	131.0000	95.00000
CALCIUM	44	No He	16862.87	16381.00	16805.46	17402.15
CALCIUM	43	He	4.666667	5.000000	7.000000	2.000000
CALCIUM	44	He	80.66667	84.00000	76.00000	82.00000
CHROMIUM	52	He	545.3433	544.0100	566.0100	526.0100
COBALT	59	He	804.6867	798.0200	820.0200	796.0200
COPPER	63	No He	2844.277	2800.270	2802.270	2930.290
COPPER	63	He	656.0167	620.0100	684.0200	664.0200
IRON	56	He	3459.303	3563.780	3477.080	3337.050
LEAD	208	No He	4417.407	4103.970	4644.150	4504.100
LITHIUM	7	No He	2554.883	2560.220	2588.220	2516.210
MAGNESIUM	24	He	2341.853	2390.190	2295.180	2340.190
MANGANESE	55	He	160.6667	170.0000	146.0000	166.0000
MOLYBDENUM	95	He	266.0000	268.0000	274.0000	256.0000
NICKEL	60	He	233.3333	240.0000	220.0000	240.0000
POTASSIUM	39	He	8941.047	8682.550	9122.830	9017.760
SELENIUM	78	High He	10.16667	9.000000	11.50000	10.00000
SILVER	107	He	1024.703	1040.040	982.0300	1052.040
SODIUM	23	He	7286.773	7061.670	7321.790	7476.860
STRONTIUM	88	He	138.8900	126.6700	166.6700	123.3300
THALLIUM	205	No He	5145.450	4900.930	5284.390	5251.030
THORIUM	232	No He	12341.34	12102.23	12489.27	12432.53
TIN	118	He	196.6700	213.3400	163.3300	213.3400
TITANIUM	47	He	6.000000	6.000000	9.000000	3.000000
URANIUM	238	No He	10929.01	10761.07	11221.49	10804.48
VANADIUM	51	He	295.3333	288.0000	286.0000	312.0000
ZINC	66	He	100.0000	100.0000	90.00000	110.0000

Sample ID: STD5 Units: mg/l
Analyzed: 09/12/24 15:20 Sequence: 94 Standard ID: 24H28491

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1437337	1423356	1440976	1447678
TELLURIUM (HIGH HE)	125	High He	330982.8	330775.1	331304.0	330869.3
TELLURIUM	125	He	56074.61	56466.49	56120.64	55636.71
SCANDIUM (NO HE)	45	No He	5935896	5840458	5995791	5971439
SCANDIUM	45	He	73342.10	73528.98	73617.50	72879.82
RHODIUM	103	He	213721.5	214340.9	214915.3	211908.3
GERMANIUM (NO HE)	72	No He	3162450	3217145	3091830	3178375
GERMANIUM (HIGH HE)	72	High He	293356.6	291334.3	291493.8	297241.7
GERMANIUM	72	He	144619.3	144069.5	145053.3	144735.1
BISMUTH (NO HE)	209	No He	1029213	1012502	1027070	1048068

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
ALUMINUM	27	He	272.6667	290.0000	252.0000	276.0000
ANTIMONY	121	He	1174.497	1190.050	1230.060	1103.380
ARSENIC	75	He	262.5000	250.5000	261.0000	276.0000
BARIUM	137	He	354.4500	350.0100	366.6700	346.6700
BERYLLIUM	9	No He	4205.917	4104.560	4306.610	4206.580
BORON	11	No He	3160.340	3220.350	3110.330	3150.340
CADMIUM	111	He	507.0100	541.0100	499.0100	481.0100
CALCIUM	44	No He	63385.66	62653.23	63916.59	63587.16
CALCIUM	43	He	21.66667	20.00000	25.00000	20.00000
CALCIUM	44	He	314.0000	306.0000	314.0000	322.0000
CHROMIUM	52	He	1930.800	1914.130	1970.140	1908.130
COBALT	59	He	3841.170	3856.510	3904.520	3762.480
COPPER	63	No He	13502.87	13520.22	13418.14	13570.26
COPPER	63	He	3213.687	3238.360	3252.360	3150.340
IRON	56	He	13803.13	13526.20	13886.53	13996.65
LEAD	208	No He	21527.31	20719.36	21597.42	22265.15
LITHIUM	7	No He	12139.51	12302.97	12212.91	11902.66
MAGNESIUM	24	He	10815.56	11209.18	10498.66	10738.84
MANGANESE	55	He	594.6767	590.0100	618.0100	576.0100
MOLYBDENUM	95	He	1261.390	1290.060	1206.050	1288.060
NICKEL	60	He	1115.377	1198.050	1092.040	1056.040
POTASSIUM	39	He	13074.09	12945.66	13095.76	13180.84
SELENIUM	78	High He	45.00000	39.50000	44.50000	51.00000
SILVER	107	He	4887.507	4922.850	4866.840	4872.830
SODIUM	23	He	24666.81	24289.50	24945.59	24765.33
STRONTIUM	88	He	712.2400	723.3500	683.3500	730.0200
THALLIUM	205	No He	26162.16	25975.13	26536.20	25975.15
THORIUM	232	No He	50410.54	48843.53	51634.10	50753.98
TIN	118	He	934.4767	953.3700	976.7000	873.3600
TITANIUM	47	He	27.00000	21.00000	38.00000	22.00000
URANIUM	238	No He	52443.27	51845.35	52183.32	53301.14
VANADIUM	51	He	1336.730	1376.070	1330.060	1304.060
ZINC	66	He	394.6733	436.0100	366.0000	382.0100

Sample ID: STD6 Units: mg/l
Analyzed: 09/12/24 15:24 Sequence: 95 Standard ID: 24H28491

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1445968	1430282	1446166	1461455
TELLURIUM (HIGH HE)	125	High He	332561.7	331392.8	333142.4	333149.8
TELLURIUM	125	He	56456.43	56750.61	56574.40	56044.28
SCANDIUM (NO HE)	45	No He	5876681	5761344	5920034	5948665
SCANDIUM	45	He	72952.15	72538.19	72773.14	73545.13
RHODIUM	103	He	211191.2	212181.4	209618.8	211773.5
GERMANIUM (NO HE)	72	No He	3164358	3113275	3200508	3179291
GERMANIUM (HIGH HE)	72	High He	295122.6	293044.1	298935.8	293387.8
GERMANIUM	72	He	144559.5	144847.9	144645.4	144185.2
BISMUTH (NO HE)	209	No He	1011962	994512.5	1015377	1025996

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
ALUMINUM	27	He	1310.727	1336.060	1282.060	1314.060
ANTIMONY	121	He	6051.307	6138.010	5901.250	6114.660
ARSENIC	75	He	1273.053	1257.550	1252.550	1309.060
BARIUM	137	He	1682.330	1663.440	1640.100	1743.450
BERYLLIUM	9	No He	20188.70	20017.13	20175.34	20373.64
BORON	11	No He	10595.95	10353.57	10336.86	11097.41
CADMIUM	111	He	2544.897	2582.240	2517.220	2535.230
CALCIUM	44	No He	287579.6	283571.3	287867.9	291299.6
CALCIUM	43	He	84.66667	82.00000	96.00000	76.00000
CALCIUM	44	He	1540.750	1588.090	1586.090	1448.070
CHROMIUM	52	He	8776.607	8744.590	8672.540	8912.690
COBALT	59	He	18557.01	18595.72	18489.60	18585.70
COPPER	63	No He	64249.20	63731.58	63665.38	65350.64
COPPER	63	He	15531.54	15540.21	15486.16	15568.25
IRON	56	He	64777.22	64041.68	65488.20	64801.79
LEAD	208	No He	104045.7	102618.0	104646.9	104872.2
LITHIUM	7	No He	55659.68	53821.12	56518.89	56639.04
MAGNESIUM	24	He	50771.77	50965.78	50885.47	50464.06
MANGANESE	55	He	3298.373	3300.370	3326.380	3268.370
MOLYBDENUM	95	He	6083.960	6149.320	5959.240	6143.320
NICKEL	60	He	5437.677	5453.010	5294.960	5565.060
POTASSIUM	39	He	33559.37	33597.76	33693.01	33387.35
SELENIUM	78	High He	238.8333	232.0000	232.0000	252.5000
SILVER	107	He	24498.32	24673.30	24280.62	24541.05
SODIUM	23	He	106640.9	106679.6	106282.0	106961.3
STRONTIUM	88	He	3319.280	3237.040	3250.370	3470.430
THALLIUM	205	No He	127455.1	127068.1	127175.7	128121.7
THORIUM	232	No He	233105.5	230942.2	231733.9	236640.4
TIN	118	He	4364.017	4527.400	4210.640	4354.010
TITANIUM	47	He	125.3333	129.0000	114.0000	133.0000
URANIUM	238	No He	247040.6	245106.2	247213.5	248802.0
VANADIUM	51	He	6648.833	6591.470	6727.530	6627.500
ZINC	66	He	1790.777	1776.110	1798.110	1798.110

Sample ID: STD7 Units: mg/l
Analyzed: 09/12/24 15:27 Sequence: 96 Standard ID: 24H28491

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1442696	1425225	1443174	1459689
TELLURIUM (HIGH HE)	125	High He	333980.6	333714.3	333732.8	334494.6
TELLURIUM	125	He	56086.29	55951.40	55921.32	56386.16
SCANDIUM (NO HE)	45	No He	5852547	5857900	5684533	6015208
SCANDIUM	45	He	73061.33	73239.41	72833.40	73111.18
RHODIUM	103	He	212273.1	212275.9	213244.0	211299.5
GERMANIUM (NO HE)	72	No He	3196285	3162272	3226533	3200050
GERMANIUM (HIGH HE)	72	High He	295984.2	296777.2	297499.4	293676.0
GERMANIUM	72	He	144313.2	143183.3	144611.6	145144.9
BISMUTH (NO HE)	209	No He	1009717	985323.6	1024563	1019265

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
ALUMINUM	27	He	2518.877	2558.220	2474.200	2524.210
ANTIMONY	121	He	11938.39	11841.65	12038.47	11935.06
ARSENIC	75	He	2441.203	2431.200	2471.710	2420.700
BARIUM	137	He	3588.243	3650.480	3603.800	3510.450
BERYLLIUM	9	No He	38852.15	38165.69	39300.66	39090.10
BORON	11	No He	20308.06	19949.81	20069.97	20904.40
CADMIUM	111	He	4814.483	4731.790	4933.860	4777.800
CALCIUM	44	No He	547532.5	541080.7	549744.9	551771.8
CALCIUM	43	He	154.0000	158.0000	148.0000	156.0000
CALCIUM	44	He	2926.290	2928.290	2784.260	3066.320
CHROMIUM	52	He	16698.74	16677.39	16715.42	16703.41
COBALT	59	He	35601.59	35113.75	35793.37	35897.66
COPPER	63	No He	123203.7	121196.6	123610.2	124804.5
COPPER	63	He	30039.99	30529.64	29728.04	29862.28
IRON	56	He	124485.1	124065.1	125134.0	124256.2
LEAD	208	No He	200854.4	198880.3	201611.4	202071.4
LITHIUM	7	No He	108219.9	107308.1	109214.6	108136.9
MAGNESIUM	24	He	98722.92	99813.31	97860.81	98494.64
MANGANESE	55	He	5892.513	5839.160	5821.150	6017.230
MOLYBDENUM	95	He	11755.47	11808.85	11380.50	12077.06
NICKEL	60	He	10217.55	10331.62	10049.43	10271.59
POTASSIUM	39	He	57366.51	57264.37	56672.25	58162.91
SELENIUM	78	High He	453.8433	457.0100	448.0100	456.5100
SILVER	107	He	44652.34	44471.11	45195.34	44290.57
SODIUM	23	He	202032.3	201471.1	201132.2	203493.6
STRONTIUM	88	He	6165.770	5987.910	6144.660	6364.740
THALLIUM	205	No He	247958.3	244197.8	249584.0	250093.2
THORIUM	232	No He	450689.7	446575.6	448125.0	457368.6
TIN	118	He	8333.577	8555.920	8259.090	8185.720
TITANIUM	47	He	250.3333	259.0000	251.0000	241.0000
URANIUM	238	No He	480797.7	470381.3	481566.5	490445.4
VANADIUM	51	He	12959.00	12807.54	13201.87	12867.60
ZINC	66	He	3488.420	3408.400	3474.410	3582.450

Sample ID: STD8 Units: mg/l
Analyzed: 09/12/24 15:31 Sequence: 97 Standard ID: 24H28491

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1451477	1437705	1452536	1464191
TELLURIUM (HIGH HE)	125	High He	330790.5	330803.3	331114.6	330453.7
TELLURIUM	125	He	55951.29	55629.70	56288.28	55935.89
SCANDIUM (NO HE)	45	No He	5957046	5966502	5992303	5912333
SCANDIUM	45	He	73827.82	73330.00	74292.74	73860.72
RHODIUM	103	He	208596.5	207731.7	209693.5	208364.3
GERMANIUM (NO HE)	72	No He	3165910	3166851	3095646	3235233
GERMANIUM (HIGH HE)	72	High He	296155.8	297493.8	295314.5	295658.9
GERMANIUM	72	He	144113.8	144098.1	144150.9	144092.5
BISMUTH (NO HE)	209	No He	1008253	1002617	1011767	1010376

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
ALUMINUM	27	He	5148.883	5110.870	5180.900	5154.880
ANTIMONY	121	He	24384.37	24370.98	24287.54	24494.58
ARSENIC	75	He	5106.560	5057.880	5180.420	5081.380
BARIUM	137	He	7070.687	7335.260	7058.460	6818.340
BERYLLIUM	9	No He	82266.51	80502.43	83614.98	82682.11
BORON	11	No He	41378.52	41479.98	40908.44	41747.15
CADMIUM	111	He	9970.487	9974.490	9983.490	9953.480
CALCIUM	44	No He	1147589	1140045	1144644	1158077
CALCIUM	43	He	355.6667	362.0000	367.0000	338.0000
CALCIUM	44	He	5845.817	5785.130	5885.170	5867.150
CHROMIUM	52	He	34154.65	34107.25	34016.98	34339.71
COBALT	59	He	72617.58	73785.89	71717.93	72348.93
COPPER	63	No He	254802.4	253472.0	255612.4	255322.9
COPPER	63	He	61715.08	61196.97	61472.01	62476.26
IRON	56	He	256212.8	256333.3	257178.7	255126.3
LEAD	208	No He	417038.4	408040.0	421409.9	421665.3
LITHIUM	7	No He	225542.1	222327.4	228086.8	226212.2
MAGNESIUM	24	He	201467.2	202262.7	200180.3	201958.8
MANGANESE	55	He	12261.10	12142.99	12215.06	12425.24
MOLYBDENUM	95	He	24296.47	24392.64	24446.73	24050.05
NICKEL	60	He	20877.45	20766.63	20966.90	20898.83
POTASSIUM	39	He	110980.5	111897.8	109182.4	111861.5
SELENIUM	78	High He	962.5300	965.0300	965.5300	957.0300
SILVER	107	He	80695.20	80169.40	78856.12	83060.09
SODIUM	23	He	417023.6	414801.4	416768.1	419501.2
STRONTIUM	88	He	12982.52	13109.28	12672.26	13166.02
THALLIUM	205	No He	515087.1	508100.0	514121.0	523040.3
THORIUM	232	No He	944951.1	936085.8	950510.7	948256.9
TIN	118	He	17761.15	17464.09	17821.25	17998.12
TITANIUM	47	He	524.0100	519.0100	510.0100	543.0100
URANIUM	238	No He	1007840	997227.7	1007970	1018323
VANADIUM	51	He	26796.20	26762.13	26838.26	26788.21
ZINC	66	He	7026.353	6899.620	7125.730	7053.710

Sample ID: STD9 Units: mg/l
Analyzed: 09/12/24 15:34 Sequence: 98 Standard ID: 24H28491

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1440398	1414765	1448631	1457798
TELLURIUM (HIGH HE)	125	High He	330039.1	327824.0	332941.3	329351.9
TELLURIUM	125	He	55936.72	55941.89	56244.59	55623.67
SCANDIUM (NO HE)	45	No He	6073853	5949718	6085371	6186469
SCANDIUM	45	He	74534.03	75062.57	74411.49	74128.02
RHODIUM	103	He	210586.8	211956.9	211560.1	208243.3
GERMANIUM (NO HE)	72	No He	3166927	3112512	3180360	3207911
GERMANIUM (HIGH HE)	72	High He	298899.4	297799.8	300630.8	298267.7
GERMANIUM	72	He	144412.2	146160.6	144966.9	142109.0
BISMUTH (NO HE)	209	No He	1000316	985425.7	995519.7	1020004

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
ALUMINUM	27	He	10424.94	10527.68	10255.49	10491.65
ANTIMONY	121	He	49605.72	49704.04	48787.20	50325.92
ARSENIC	75	He	10230.75	10264.61	10197.06	10230.58
BARIUM	137	He	14499.75	14841.23	14280.63	14377.40
BERYLLIUM	9	No He	165971.8	161172.3	169007.3	167735.7
BORON	11	No He	82550.29	79936.06	83062.65	84652.17
CADMIUM	111	He	19956.95	19840.80	20140.21	19889.85
CALCIUM	44	No He	2246605	2228032	2208493	2303291
CALCIUM	43	He	662.3500	688.0200	627.0100	672.0200
CALCIUM	44	He	12020.86	12074.90	12201.01	11786.67
CHROMIUM	52	He	68329.76	68222.56	68011.63	68755.09
COBALT	59	He	145348.8	146594.5	144850.9	144601.0
COPPER	63	No He	506826.3	493316.4	511505.0	515657.6
COPPER	63	He	121189.5	122271.6	122126.6	119170.2
IRON	56	He	513938.7	512489.4	516617.2	512709.5
LEAD	208	No He	830617.0	818655.9	827655.4	845539.7
LITHIUM	7	No He	437854.7	448129.1	432335.2	433099.8
MAGNESIUM	24	He	406023.7	407323.3	407260.5	403487.4
MANGANESE	55	He	25061.89	24850.88	25439.85	24894.95
MOLYBDENUM	95	He	50124.39	50590.73	49962.43	49820.02
NICKEL	60	He	42194.28	42308.59	42290.55	41983.69
POTASSIUM	39	He	216920.2	218158.8	219018.4	213583.3
SELENIUM	78	High He	1905.123	1897.620	1880.120	1937.630
SILVER	107	He	119976.9	116094.5	126384.4	117451.8
SODIUM	23	He	829742.5	838717.1	822827.3	827683.1
STRONTIUM	88	He	26042.36	26163.71	25749.57	26213.79
THALLIUM	205	No He	1022589	1003870	1032715	1031180
THORIUM	232	No He	1967249	1912864	1951276	2037607
TIN	118	He	35552.41	35604.73	35658.27	35394.22
TITANIUM	47	He	1031.370	1018.040	1003.030	1073.040
URANIUM	238	No He	2009479	1987574	1974295	2066569
VANADIUM	51	He	53919.10	53656.79	53971.97	54128.54
ZINC	66	He	14391.73	14276.95	14487.15	14411.09

Sample ID: ICV Units: mg/l
Analyzed: 09/12/24 15:41 Sequence: 100 Standard ID: 24H02538

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1484896	1461997	1489731	1502959
TELLURIUM (HIGH HE)	125	High He	341454.1	340825.5	341939.0	341597.7
TELLURIUM	125	He	58335.21	58476.63	58669.91	57859.09
SCANDIUM (NO HE)	45	No He	5949455	5796228	5966502	6085634
SCANDIUM	45	He	75480.69	76280.75	75358.03	74803.29
RHODIUM	103	He	214685.2	214999.0	215162.4	213894.1
GERMANIUM (NO HE)	72	No He	3158023	3147237	3186541	3140292
GERMANIUM (HIGH HE)	72	High He	304752.4	306977.6	302101.8	305177.8
GERMANIUM	72	He	147715.2	147063.0	147820.9	148261.6
BISMUTH (NO HE)	209	No He	1030119	1015951	1027333	1047073

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ALUMINUM	27	He	2642.900	0.9974530	1.000960	0.9874074	1.003992
ANTIMONY	121	He	13605.45	0.1079871	0.1091884	0.1073340	0.1074391
ARSENIC	75	He	2630.737	0.1006888	0.1020185	0.09963751	0.1004103
BARIUM	137	He	3737.173	0.1015607	0.1009579	0.1011527	0.1025716
BERYLLIUM	9	No He	39975.06	0.09820250	0.1001761	0.09662959	0.09780184
BORON	11	No He	21761.19	0.1019555	0.1034396	0.1000515	0.1023754
CADMIUM	111	He	5152.270	0.09920867	0.09974473	0.09763513	0.1002462
CALCIUM	44	No He	577332.2	10.33421	10.48903	10.31488	10.19871
CALCIUM	43	He	176.3333	10.32180	9.956133	9.783672	11.22560
CALCIUM	44	He	3110.997	10.23110	10.10027	10.02598	10.56704
CHROMIUM	52	He	17826.05	0.1013080	0.1026062	0.1016602	0.09965750
COBALT	59	He	37537.67	0.1009798	0.1017886	0.1013744	0.09977654
COPPER	63	No He	127728.7	0.1010282	0.09973609	0.1014420	0.1019065
COPPER	63	He	31377.43	0.1008051	0.1031242	0.1002957	0.09899549
IRON	56	He	133489.1	1.012755	1.035476	1.008970	0.9938191
LEAD	208	No He	213032.8	0.09983375	0.1000175	0.1001059	0.09937789
LITHIUM	7	No He	111409.4	0.1024821	0.1041004	0.1014420	0.1019039
MAGNESIUM	24	He	103222.6	10.02151	9.961687	10.04673	10.05612
MANGANESE	55	He	6306.020	0.09858580	0.09841292	0.1007353	0.09660919
MOLYBDENUM	95	He	12207.18	0.09627707	0.09564943	0.09770374	0.09547804
NICKEL	60	He	10748.60	0.09967795	0.1013442	0.1003206	0.09736900
POTASSIUM	39	He	62567.53	10.36965	10.26540	10.39747	10.44607
SELENIUM	78	High He	508.8433	0.1032833	0.1038119	0.09941263	0.1066253
SILVER	107	He	50541.14	0.1096053	0.1090860	0.1108492	0.1088807
SODIUM	23	He	215108.9	10.10949	9.862504	10.22855	10.23741
STRONTIUM	88	He	6727.133	0.1013620	0.1049029	0.09964915	0.09953398
THALLIUM	205	No He	270630.8	0.1030047	0.1034214	0.1027927	0.1027998
THORIUM	232	No He	481306.4	0.09596906	0.09636233	0.09605819	0.09548666
TIN	118	He	8968.403	0.09913011	0.09844363	0.09892077	0.1000259
TITANIUM	47	He	277.0000	0.1056003	0.1041258	0.1138023	0.09887280
URANIUM	238	No He	498080.6	0.09649267	0.09653799	0.09682720	0.09611283
VANADIUM	51	He	13486.14	0.09797047	0.09869676	0.09737502	0.09783962
ZINC	66	He	3610.447	0.09829552	0.09588162	0.09730234	0.1017026

Sample ID: ICB Units: mg/l
Analyzed: 09/12/24 15:54 Sequence: 101

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1510706	1478014	1519714	1534390
TELLURIUM (HIGH HE)	125	High He	342740.2	342156.9	342176.7	343887.2
TELLURIUM	125	He	58731.51	58842.13	58839.13	58513.26
SCANDIUM (NO HE)	45	No He	5875781	5903776	5879621	5843947
SCANDIUM	45	He	74674.63	74103.94	74903.62	75016.34
RHODIUM	103	He	218801.7	218274.5	219742.5	218388.1
GERMANIUM (NO HE)	72	No He	3259095	3165172	3312620	3299493
GERMANIUM (HIGH HE)	72	High He	303739.5	300690.4	306681.3	303846.8
GERMANIUM	72	He	149146.8	148131.8	150454.8	148853.9
BISMUTH (NO HE)	209	No He	1092728	1076865	1091886	1109434

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ALUMINUM	27	He	20.00000	0.0003447670	0.002718973	-0.001985933	0.0003012600
ANTIMONY	121	He	22.22000	0.0001189000	0.00002406700	0.0002045470	0.0001280860
ARSENIC	75	He	4.500000	0.00005920600	0.00007937400	0.00003880700	0.00005943600
BARIUM	137	He	7.780000	0.0001460070	0.0001167640	0.0001155730	0.0002056850
BERYLLIUM	9	No He	96.66667	0.00009166800	0.0001535400	0.00009504600	0.00002641800
BORON	11	No He	1482.297	-0.0005886080	-0.0006702930	-0.0006223690	-0.0004731630
CADMIUM	111	He	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000
CALCIUM	44	No He	5743.777	-0.0004534110	-0.0006778650	-0.002662266	0.001979898
CALCIUM	43	He	1.000000	-0.02200798	-0.02155065	-0.02219200	-0.02228130
CALCIUM	44	He	20.00000	0.02806516	0.04196728	0.03445359	0.007774597
CHROMIUM	52	He	204.0000	0.000007036000	0.0001060150	-0.0001391760	0.00005426800
COBALT	59	He	39.33333	0.00002359000	0.00005299500	0.00005092200	-0.00003314700
COPPER	63	No He	180.0000	-0.00002433100	-0.00002963400	-0.00001741800	-0.00002594100
COPPER	63	He	37.33333	0.00001963400	0.000003377000	0.00002073500	0.00003479000
IRON	56	He	828.9133	-0.0006774840	-0.0001702500	-0.0007999490	-0.001062252
LEAD	208	No He	167.7767	-0.00003163200	-0.00004142600	-0.00002903300	-0.00002443600
LITHIUM	7	No He	422.6767	0.00002665400	0.00003161000	0.00002204500	0.00002630800
MAGNESIUM	24	He	205.0000	-0.006907081	-0.008726393	-0.008922231	-0.003072619
MANGANESE	55	He	24.66667	-0.0002093040	-0.0003108890	-0.0001608370	-0.0001561870
MOLYBDENUM	95	He	6.000000	0.00003035600	-0.0000005300000	0.00004560700	0.00004599000
NICKEL	60	He	28.00000	-0.00005448800	0.00003987900	-0.00005689100	-0.0001464510
POTASSIUM	39	He	8719.233	0.2121462	0.1929566	0.2030114	0.2404707
SELENIUM	78	High He	0.5000000	-0.00007447900	0.00002714200	-0.0001757590	-0.00007481900
SILVER	107	He	226.0000	0.0004616870	0.0004202900	0.0005105950	0.0004541770
SODIUM	23	He	2786.930	-0.02190152	-0.01634952	-0.02626049	-0.02309456
STRONTIUM	88	He	20.00000	0.0001080260	0.0003562080	0.0001067120	-0.0001388430
THALLIUM	205	No He	20.00000	-0.000004298000	-0.000006579000	-0.000007842000	0.000001527000
THORIUM	232	No He	3310.427	-0.00001384400	-0.00004531300	-0.000006773000	0.00001055200
TIN	118	He	11.11000	0.00007033100	-0.00001386200	0.0001300240	0.00009483100
TITANIUM	47	He	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000
URANIUM	238	No He	1157.830	-0.00001084400	-0.000006182000	0.000001218000	-0.00002756900
VANADIUM	51	He	20.00000	-0.0000005940000	0.00001492500	0.00001246100	-0.00002916600
ZINC	66	He	21.33333	0.00007060600	-0.00001563700	0.0002454730	-0.00001802000

Sample ID: LLICV Units: mg/l
Analyzed: 09/12/24 16:14 Sequence: 107 Standard ID: 24I10357

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1468596	1444959	1476633	1484195
TELLURIUM (HIGH HE)	125	High He	334363.3	336044.5	332496.7	334548.9
TELLURIUM	125	He	57381.49	57725.53	56941.91	57477.04
SCANDIUM (NO HE)	45	No He	5872512	5822753	5917861	5876922
SCANDIUM	45	He	73362.88	75928.80	71480.96	72678.87
RHODIUM	103	He	214742.0	219432.4	210049.3	214744.2
GERMANIUM (NO HE)	72	No He	3157438	3163035	3093280	3216001
GERMANIUM (HIGH HE)	72	High He	297849.8	296709.8	302247.0	294592.5
GERMANIUM	72	He	147065.5	147449.1	143433.9	150313.6
BISMUTH (NO HE)	209	No He	1040236	1022722	1041103	1056885

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ALUMINUM	27	He	293.3333	0.1076045	0.09167200	0.1034540	0.1276875
ANTIMONY	121	He	133.3333	0.001004041	0.0009818400	0.0009199230	0.001110360
ARSENIC	75	He	32.00000	0.001119578	0.001097451	0.001111568	0.001149714
BARIUM	137	He	74.44333	0.001960760	0.002066661	0.001883814	0.001931805
BERYLLIUM	9	No He	484.0100	0.001057424	0.001092722	0.001043093	0.001036456
BORON	11	No He	4871.903	0.01678698	0.01562242	0.01831050	0.01642804
CADMIUM	111	He	47.33333	0.0009265690	0.0009339670	0.0009468200	0.0008989210
CALCIUM	44	No He	62457.13	1.038311	1.023839	1.030984	1.060109
CALCIUM	43	He	16.66667	0.9260108	1.149597	0.8525420	0.7758936
CALCIUM	44	He	348.6700	1.146386	1.122830	1.271820	1.044509
CHROMIUM	52	He	349.3367	0.0008623210	0.0006646300	0.0009760130	0.0009463190
COBALT	59	He	410.6767	0.001030857	0.001029974	0.001133167	0.0009294280
COPPER	63	No He	1610.753	0.001114350	0.001077897	0.001164110	0.001101043
COPPER	63	He	379.3433	0.001127028	0.001066961	0.001218825	0.001095298
IRON	56	He	13730.85	0.09841553	0.1009727	0.09861350	0.09566044
LEAD	208	No He	2372.437	0.0009964660	0.001009463	0.0009882280	0.0009917090
LITHIUM	7	No He	1466.073	0.001002438	0.0009822050	0.001027320	0.0009977880
MAGNESIUM	24	He	10723.84	1.048171	0.9879285	1.103032	1.053551
MANGANESE	55	He	132.6667	0.001503771	0.001518089	0.001577191	0.001416032
MOLYBDENUM	95	He	250.6667	0.001963347	0.001728158	0.002080198	0.002081685
NICKEL	60	He	143.3333	0.001028472	0.001271616	0.001047728	0.0007660730
POTASSIUM	39	He	13934.90	1.256702	1.182573	1.193807	1.393726
SELENIUM	78	High He	5.333333	0.0009330530	0.0004440160	0.001285813	0.001069332
SILVER	107	He	548.6767	0.001171173	0.001135268	0.001213442	0.001164809
SODIUM	23	He	24171.00	1.031286	0.9794642	1.065029	1.049366
STRONTIUM	88	He	693.3533	0.01027962	0.01024915	0.01076678	0.009822935
THALLIUM	205	No He	2789.187	0.001039180	0.0009394730	0.001108526	0.001069539
THORIUM	232	No He	50318.02	0.009360461	0.009306210	0.009309998	0.009465173
TIN	118	He	112.2233	0.001188119	0.001500667	0.001155582	0.0009081100
TITANIUM	47	He	27.66667	0.01088014	0.009475407	0.01207801	0.01108701
URANIUM	238	No He	6212.590	0.0009721890	0.001014751	0.0009800850	0.0009217300
VANADIUM	51	He	306.6667	0.002095476	0.001998077	0.002088029	0.002200321
ZINC	66	He	398.6767	0.01047217	0.009857093	0.01200740	0.009552006

Sample ID: ICSA Units: mg/l
Analyzed: 09/12/24 16:17 Sequence: 108 Standard ID: 24H28495

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1398191	1382360	1406149	1406065
TELLURIUM (HIGH HE)	125	High He	319208.0	319219.9	319579.4	318824.6
TELLURIUM	125	He	54247.15	54392.90	54030.47	54318.08
SCANDIUM (NO HE)	45	No He	5786925	5782406	5822095	5756276
SCANDIUM	45	He	72436.97	71589.55	72624.54	73096.83
RHODIUM	103	He	203125.2	202381.2	205642.1	201352.3
GERMANIUM (NO HE)	72	No He	3131795	3124342	3116023	3155022
GERMANIUM (HIGH HE)	72	High He	292036.0	297041.7	290977.5	288088.8
GERMANIUM	72	He	142378.7	141826.9	142468.8	142840.4
BISMUTH (NO HE)	209	No He	1002772	999204.4	1004133	1004979

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ALUMINUM	27	He	257067.5	101.8369	102.3773	101.6560	101.4773
ANTIMONY	121	He	34.44333	0.0002341640	0.0001144400	0.0003880830	0.0001999700
ARSENIC	75	He	5.166667	0.00009363900	0.00004796000	0.0001266940	0.0001062630
BARIUM	137	He	24.44333	0.0006407070	0.0008997800	0.0006006600	0.0004216800
BERYLLIUM	9	No He	68.66667	0.00002474800	-0.000002086000	0.00004215800	0.00003417300
BORON	11	No He	1277.833	-0.001536667	-0.002022754	-0.001202774	-0.001384473
CADMIUM	111	He	5.000000	0.0001033520	0.0001651980	0.00002078800	0.0001240690
CALCIUM	44	No He	5492211	101.9787	100.0074	101.8443	104.0844
CALCIUM	43	He	1638.090	100.5862	100.5987	99.47035	101.6895
CALCIUM	44	He	28781.13	98.94967	98.86273	98.71116	99.27511
CHROMIUM	52	He	385.3433	0.001142949	0.001179808	0.001062021	0.001187019
COBALT	59	He	75.33333	0.0001290380	0.00005335400	0.0001755660	0.0001581940
COPPER	63	No He	1309.390	0.0008835400	0.0008305780	0.0009087110	0.0009113310
COPPER	63	He	48.00000	0.00006086000	0.00004812800	0.00004746400	0.00008698700
IRON	56	He	13009990	103.0919	101.9535	104.2310	103.0911
LEAD	208	No He	200.0000	-0.000009386000	-0.00002191800	-0.000001472000	-0.000004767000
LITHIUM	7	No He	757.3533	0.0003501920	0.0003761970	0.0003711210	0.0003032580
MAGNESIUM	24	He	1002027	101.6195	102.4699	101.2881	101.1004
MANGANESE	55	He	122.0000	0.001397434	0.001405218	0.001330988	0.001456096
MOLYBDENUM	95	He	246548.7	2.055826	2.072424	2.010836	2.084218
NICKEL	60	He	68.66667	0.0003501790	0.0003655770	0.0004203900	0.0002645690
POTASSIUM	39	He	523035.4	101.5283	101.6322	101.9266	101.0260
SELENIUM	78	High He	0.5000000	-0.00006688400	-0.0001757590	-0.0001757590	0.0001508650
SILVER	107	He	52.66667	0.0001014700	0.00008665600	0.0001166800	0.0001010730
SODIUM	23	He	2095695	104.0482	104.5265	102.8788	104.7394
STRONTIUM	88	He	62.22333	0.0008048300	0.001039518	0.0007048520	0.0006701200
THALLIUM	205	No He	47.78000	0.000007248000	0.000006881000	0.000002886000	0.00001197700
THORIUM	232	No He	3448.237	0.00007101700	0.00005954500	0.00008563300	0.00006787400
TIN	118	He	12.22333	0.00009227000	0.00002816400	0.0001808180	0.00006782800
TITANIUM	47	He	5211.580	2.070744	2.119667	2.030789	2.061778
URANIUM	238	No He	1214.503	0.00001934300	0.000009326000	0.00002146900	0.00002723400
VANADIUM	51	He	21.33333	0.00001644100	0.00006748300	-0.000008903000	-0.000009256000
ZINC	66	He	46.00000	0.0007986190	0.0005192730	0.0008551570	0.001021425

Sample ID: ICSAB Units: mg/l
Analyzed: 09/12/24 16:20 Sequence: 109 Standard ID: 24H28496

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1381016	1360717	1387969	1394361
TELLURIUM (HIGH HE)	125	High He	318320.3	319247.7	318355.0	317358.2
TELLURIUM	125	He	54005.40	53985.32	54264.89	53766.00
SCANDIUM (NO HE)	45	No He	5822578	5759106	5772006	5936620
SCANDIUM	45	He	72895.95	72466.13	73313.84	72907.87
RHODIUM	103	He	204195.5	204345.8	205286.1	202954.6
GERMANIUM (NO HE)	72	No He	3148255	3147848	3138995	3157922
GERMANIUM (HIGH HE)	72	High He	295672.8	294030.0	296942.4	296045.9
GERMANIUM	72	He	143344.8	143851.9	144251.7	141930.9
BISMUTH (NO HE)	209	No He	998634.0	979061.2	997885.1	1018956

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ALUMINUM	27	He	258945.0	101.9311	102.0124	102.1936	101.5873
ANTIMONY	121	He	2573.573	0.02143507	0.02177852	0.02062648	0.02190020
ARSENIC	75	He	492.6767	0.01933616	0.02019047	0.01952605	0.01829195
BARIUM	137	He	713.3500	0.02033691	0.01841251	0.02022377	0.02237446
BERYLLIUM	9	No He	7928.073	0.01977667	0.02015461	0.01929243	0.01988296
BORON	11	No He	4909.697	0.01721146	0.01750679	0.01771030	0.01641729
CADMIUM	111	He	988.7000	0.02056083	0.02063989	0.02121681	0.01982578
CALCIUM	44	No He	5522099	101.9015	101.8179	101.9052	101.9812
CALCIUM	43	He	1616.090	98.61312	99.62654	98.65580	97.55701
CALCIUM	44	He	28992.19	99.05116	99.82951	98.67472	98.64924
CHROMIUM	52	He	3679.793	0.02064321	0.02005973	0.02058962	0.02128029
COBALT	59	He	7266.463	0.02007630	0.02015989	0.02030236	0.01976663
COPPER	63	No He	26322.20	0.02075568	0.02035187	0.02093032	0.02098487
COPPER	63	He	5861.173	0.01932273	0.01921474	0.01943131	0.01932213
IRON	56	He	13013920	102.4304	100.7294	103.6856	102.8763
LEAD	208	No He	41705.90	0.02007699	0.02019317	0.02003045	0.02000733
LITHIUM	7	No He	706.6867	0.0002978900	0.0003067420	0.0002633730	0.0003235560
MAGNESIUM	24	He	1004080	101.1804	101.2342	101.7119	100.5952
MANGANESE	55	He	1260.720	0.01983603	0.01930415	0.02085966	0.01934429
MOLYBDENUM	95	He	246043.2	2.040577	2.046840	2.035357	2.039533
NICKEL	60	He	2170.830	0.02049337	0.02076073	0.02085473	0.01986464
POTASSIUM	39	He	525512.1	101.3648	102.5368	101.5705	99.98716
SELENIUM	78	High He	98.16667	0.02123457	0.02015686	0.02261266	0.02093418
SILVER	107	He	9354.403	0.02131344	0.02157728	0.02110610	0.02125696
SODIUM	23	He	2069108	102.0863	103.8875	99.43493	102.9363
STRONTIUM	88	He	1382.293	0.02175210	0.02127645	0.02170448	0.02227535
THALLIUM	205	No He	50453.53	0.01980138	0.02000899	0.01978248	0.01961268
THORIUM	232	No He	97273.59	0.01949966	0.01944065	0.01960662	0.01945171
TIN	118	He	1653.433	0.01917447	0.01900494	0.01914896	0.01936952
TITANIUM	47	He	5221.250	2.061432	2.102366	2.020335	2.061595
URANIUM	238	No He	98770.43	0.01955971	0.01951558	0.01958016	0.01958338
VANADIUM	51	He	2637.570	0.01962717	0.01954945	0.02004622	0.01928583
ZINC	66	He	726.6867	0.01999006	0.01961528	0.01978370	0.02057121

Sample ID: CCV Units: mg/l
Analyzed: 09/12/24 17:15 Sequence: 122 Standard ID: 24H28494

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1452753	1433163	1454880	1470217
TELLURIUM (HIGH HE)	125	High He	328697.6	328906.4	329085.4	328101.1
TELLURIUM	125	He	56567.71	56854.53	56582.43	56266.18
SCANDIUM (NO HE)	45	No He	5882890	5886334	5913978	5848356
SCANDIUM	45	He	74579.42	74811.22	75018.25	73908.80
RHODIUM	103	He	210236.3	213537.9	209065.4	208105.6
GERMANIUM (NO HE)	72	No He	3184430	3215237	3133500	3204553
GERMANIUM (HIGH HE)	72	High He	294838.8	294370.2	298522.3	291624.0
GERMANIUM	72	He	145121.8	146088.1	141692.8	147584.7
BISMUTH (NO HE)	209	No He	1021210	1003522	1025329	1034780

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ALUMINUM	27	He	2497.543	0.9537060	0.9563115	0.9429412	0.9618653
ANTIMONY	121	He	12059.60	0.09773857	0.09752302	0.09903909	0.09665360
ARSENIC	75	He	2562.723	0.09986152	0.1002202	0.1017343	0.09763002
BARIUM	137	He	3460.437	0.09604890	0.09308109	0.09721508	0.09785054
BERYLLIUM	9	No He	37643.81	0.09349707	0.09176644	0.09376761	0.09495717
BORON	11	No He	20666.30	0.09758693	0.09775232	0.09739317	0.09761529
CADMIUM	111	He	4933.190	0.09794909	0.09845999	0.09905278	0.09633450
CALCIUM	44	No He	553971.1	10.02326	9.877216	9.985735	10.20683
CALCIUM	43	He	168.0000	9.944167	10.62935	9.828355	9.374795
CALCIUM	44	He	3024.980	10.06936	10.25947	9.334165	10.61446
CHROMIUM	52	He	17074.50	0.09876116	0.09758490	0.1007557	0.09794285
COBALT	59	He	36269.16	0.09934698	0.09883343	0.1024251	0.09678239
COPPER	63	No He	124336.4	0.09754708	0.09475904	0.1000983	0.09778385
COPPER	63	He	30381.34	0.09939944	0.09939470	0.1036365	0.09516708
IRON	56	He	126388.8	0.9760578	0.9776701	1.001038	0.9494656
LEAD	208	No He	205241.6	0.09700773	0.09634169	0.09680669	0.09787482
LITHIUM	7	No He	103333.4	0.09608891	0.09480872	0.09653324	0.09692477
MAGNESIUM	24	He	101137.3	9.937270	9.928611	9.922696	9.960502
MANGANESE	55	He	6176.630	0.09828404	0.09961450	0.09786763	0.09737000
MOLYBDENUM	95	He	12233.21	0.09852393	0.09914575	0.09650001	0.09992602
NICKEL	60	He	10503.75	0.09915202	0.09934936	0.09989837	0.09820834
POTASSIUM	39	He	60534.19	10.12444	10.15774	9.820227	10.39535
SELENIUM	78	High He	467.0100	0.09846193	0.09934829	0.09686812	0.09916940
SILVER	107	He	48157.68	0.1066502	0.1060822	0.1080209	0.1058475
SODIUM	23	He	209134.3	9.943666	9.943587	9.944480	9.942931
STRONTIUM	88	He	6426.997	0.09892032	0.09438576	0.1026641	0.09971109
THALLIUM	205	No He	257898.1	0.09901181	0.09893743	0.09933421	0.09876379
THORIUM	232	No He	460041.0	0.09249761	0.09181535	0.09339668	0.09228081
TIN	118	He	8723.817	0.09848130	0.09585417	0.1027921	0.09679764
TITANIUM	47	He	247.3333	0.09544145	0.09155343	0.09820587	0.09656504
URANIUM	238	No He	485239.6	0.09482959	0.09617293	0.09392581	0.09439004
VANADIUM	51	He	13242.59	0.09796853	0.09767764	0.1017141	0.09451389
ZINC	66	He	3543.097	0.09820518	0.1011196	0.09839329	0.09510261

Sample ID: CCB Units: mg/l
Analyzed: 09/12/24 17:19 Sequence: 123

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1381752	1372847	1387702	1384707
TELLURIUM (HIGH HE)	125	High He	316219.6	316376.3	314730.6	317551.8
TELLURIUM	125	He	54587.12	54244.29	54768.30	54748.76
SCANDIUM (NO HE)	45	No He	5584312	5759764	5530450	5462722
SCANDIUM	45	He	71736.87	70403.80	73249.49	71557.32
RHODIUM	103	He	205215.6	202307.0	205387.3	207952.4
GERMANIUM (NO HE)	72	No He	3016605	3038407	3028561	2982846
GERMANIUM (HIGH HE)	72	High He	284010.5	290739.7	282736.0	278555.9
GERMANIUM	72	He	140935.8	140676.6	141014.7	141116.1
BISMUTH (NO HE)	209	No He	996876.9	989717.9	998675.0	1002238

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ALUMINUM	27	He	11.33333	-0.002811715	-0.004088746	-0.004215427	-0.0001309730
ANTIMONY	121	He	41.11000	0.0002876860	0.0003392480	0.0002226200	0.0003011900
ARSENIC	75	He	3.666667	0.00003553800	-0.00001108300	0.00004888000	0.00006881800
BARIUM	137	He	2.220000	0.000001087000	-0.00006162300	0.00003302500	0.00003185800
BERYLLIUM	9	No He	86.00000	0.00007658700	0.00007471400	0.00006281600	0.00009223000
BORON	11	No He	2355.743	0.004524340	0.004066051	0.004682895	0.004824074
CADMIUM	111	He	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000
CALCIUM	44	No He	5486.347	0.0001197340	-0.002836713	0.0009962200	0.002199693
CALCIUM	43	He	0.000000000	-0.08162400	-0.08162400	-0.08162400	-0.08162400
CALCIUM	44	He	16.00000	0.01686078	0.01789822	0.01569860	0.01698551
CHROMIUM	52	He	200.6667	0.00005382000	-0.00005650200	0.00007332300	0.0001446380
COBALT	59	He	30.00000	0.000003436000	0.00003183900	-0.00003047400	0.000008943000
COPPER	63	No He	235.3333	0.00003288700	0.000005550000	0.00003914000	0.00005397200
COPPER	63	He	38.66667	0.00003109000	0.00002907400	0.00006245100	0.000001746000
IRON	56	He	843.3567	-0.0001978800	-0.0003992100	0.0001985530	-0.0003929820
LEAD	208	No He	91.11000	-0.00006157400	-0.00006017500	-0.00006219500	-0.00006235000
LITHIUM	7	No He	710.0200	0.0003298430	0.0003200130	0.0003723860	0.0002971290
MAGNESIUM	24	He	195.0000	-0.007067860	-0.006718682	-0.01051863	-0.003966267
MANGANESE	55	He	21.33333	-0.0002414950	-0.0001968430	-0.0002966410	-0.0002310030
MOLYBDENUM	95	He	2.666667	0.000005957000	0.0000006950000	0.00001693500	0.0000002400000
NICKEL	60	He	32.00000	-0.0000006810000	-0.00005865200	-0.0000007950000	0.00005740400
POTASSIUM	39	He	8405.737	0.2184327	0.2500784	0.1975542	0.2076655
SELENIUM	78	High He	0.1666667	-0.0001393220	-0.0001757590	-0.0001757590	-0.00006644800
SILVER	107	He	9.333333	0.000002061000	0.00001303900	-0.000005582000	-0.000001272000
SODIUM	23	He	4984.170	0.09379098	0.09284095	0.1072616	0.08127041
STRONTIUM	88	He	7.776667	-0.00006491400	0.00002528200	-0.0001357150	-0.00008430900
THALLIUM	205	No He	38.89000	0.000003863000	0.000001772000	0.00001081700	-0.0000009990000
THORIUM	232	No He	3168.163	0.00001720600	0.00002236700	0.00004473000	-0.00001548100
TIN	118	He	5.556667	0.00001422400	0.00002819300	-0.00001158900	0.00002606800
TITANIUM	47	He	0.3333333	0.0001309600	0.000000000	0.0003928800	0.000000000
URANIUM	238	No He	1187.833	0.00001552700	0.00003311200	0.00002480700	-0.00001133600
VANADIUM	51	He	16.66667	-0.00001764500	-0.00008356500	0.00005346400	-0.00002283200
ZINC	66	He	21.33333	0.0001050900	0.0001828190	-0.0001055160	0.0002379670

Sample ID: BLANK DF: 1x Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 17:23 Sequence: 124

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1361111	1338823	1364241	1380270
TELLURIUM (HIGH HE)	125	High He	316923.1	316622.9	316406.8	317739.7
TELLURIUM	125	He	53768.84	53935.64	53973.28	53397.61
SCANDIUM (NO HE)	45	No He	5484070	5389992	5443503	5618714
SCANDIUM	45	He	70971.31	70846.13	70709.22	71358.59
RHODIUM	103	He	203645.2	204765.5	202085.3	204084.8
GERMANIUM (NO HE)	72	No He	3037262	2998492	3002537	3110757
GERMANIUM (HIGH HE)	72	High He	284774.8	281970.8	286265.0	286088.4
GERMANIUM	72	He	138439.2	138690.1	138896.4	137731.2
BISMUTH (NO HE)	209	No He	988452.8	959567.7	998335.0	1007456

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ARSENIC	75	He	4.166667	0.00005874800	0.0001127840	-0.000009794000	0.00007325400
BORON	11	No He	1889.010	0.002186654	0.002187520	0.002196238	0.002176205
CADMIUM	111	He	0.3333333	0.000007012000	0.000000000	0.000000000	0.00002103500
CHROMIUM	52	He	225.3333	0.0002268340	0.00009391000	0.0003976870	0.0001889050
COPPER	63	No He	410.0100	0.0001753120	0.0001780100	0.0001725520	0.0001753750
COPPER	63	He	96.00000	0.0002302380	0.0002775040	0.0001606710	0.0002525370
LEAD	208	No He	184.4467	-0.00001553000	-0.00001173700	-0.00002184500	-0.00001300600
MANGANESE	55	He	36.66667	0.00002183000	0.00004334600	0.0001093050	-0.00008716200
MOLYBDENUM	95	He	8.000000	0.00005050100	0.00003357600	0.00005099400	0.00006693400
NICKEL	60	He	47.33333	0.0001572040	0.0001233210	0.0001820300	0.0001662620
SELENIUM	78	High He	0.000000000	-0.0001757590	-0.0001757590	-0.0001757590	-0.0001757590
SILVER	107	He	15.33333	0.00001590500	0.00002174800	0.00002690000	-0.0000009320000
URANIUM	238	No He	1190.053	0.00001812900	0.00003212100	0.00001153200	0.00001073400
ZINC	66	He	288.0000	0.007903292	0.007246686	0.008399384	0.008063806
ALUMINUM	27	He	18.66667	0.0002028140	-0.001678747	0.003202360	-0.0009151710
ANTIMONY	121	He	20.00000	0.0001137370	-0.00002631300	0.0001709560	0.0001965690
BARIUM	137	He	32.22333	0.0008614530	0.0009838060	0.0007087990	0.0008917550
BERYLLIUM	9	No He	59.33333	0.000009995000	0.00003032100	0.00003393700	-0.00003427400
CALCIUM	44	No He	6714.187	0.02608155	0.02577367	0.02626134	0.02620964
CALCIUM	43	He	0.3333333	-0.06067874	-0.01878822	-0.08162400	-0.08162400
CALCIUM	44	He	25.33333	0.05016712	0.07381065	0.01765366	0.05903704
COBALT	59	He	20.66667	-0.00002190600	0.00001052000	-0.00003542600	-0.00004081300
IRON	56	He	1472.300	0.005050607	0.006284932	0.003828007	0.005038882
LITHIUM	7	No He	706.6867	0.0003389710	0.0003325980	0.0003196550	0.0003646590
MAGNESIUM	24	He	231.6667	-0.003071444	-0.001141503	-0.00005215600	-0.008020672
POTASSIUM	39	He	8602.503	0.2755164	0.2777159	0.2245549	0.3242783
SODIUM	23	He	4995.837	0.09714776	0.09306402	0.08539486	0.1129844
STRONTIUM	88	He	18.89000	0.0001118870	0.0001282870	-0.00002788700	0.0002352630
THALLIUM	205	No He	31.11000	0.0000009260000	0.000002186000	0.0000003500000	0.0000002430000
THORIUM	232	No He	3182.617	0.00002637700	0.00007263400	-0.00002063400	0.00002713100
TIN	118	He	17.78000	0.0001575630	0.0001431970	0.0002632420	0.00006624900
TITANIUM	47	He	0.3333333	0.0001354030	0.0004062080	0.000000000	0.000000000
VANADIUM	51	He	34.00000	0.0001191880	0.00007228200	0.0001802790	0.0001050020

ACCOUNT: PROJECT: SDG: DATE/TIME: PAGE:

Rows shaded in gray for analytes that were not ordered.

Sample ID: LCS DF: 1x Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 17:26 Sequence: 125

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1385836	1362147	1388052	1407309
TELLURIUM (HIGH HE)	125	High He	318671.5	320976.7	316689.0	318348.8
TELLURIUM	125	He	54016.26	54148.94	54052.05	53847.80
SCANDIUM (NO HE)	45	No He	5451687	5226695	5625888	5502477
SCANDIUM	45	He	69782.27	70082.38	69953.69	69310.74
RHODIUM	103	He	201202.7	204994.2	200074.1	198540.0
GERMANIUM (NO HE)	72	No He	3006302	2970864	3078627	2969414
GERMANIUM (HIGH HE)	72	High He	284644.3	283742.5	284790.3	285400.3
GERMANIUM	72	He	137861.6	138118.4	137890.3	137576.0
BISMUTH (NO HE)	209	No He	967783.9	947765.9	971895.6	983690.2

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ARSENIC	75	He	1245.887	0.05103695	0.05199393	0.04947333	0.05164358
BORON	11	No He	9978.853	0.04700421	0.05028605	0.04413773	0.04658886
CADMIUM	111	He	2412.537	0.05016831	0.04993216	0.04850452	0.05206826
CHROMIUM	52	He	8250.970	0.04965961	0.04921596	0.04953332	0.05022954
COPPER	63	No He	60568.29	0.05025474	0.05076557	0.04934852	0.05065014
COPPER	63	He	15163.81	0.05214576	0.05339282	0.05212270	0.05092176
LEAD	208	No He	101081.9	0.05037251	0.05093363	0.05000890	0.05017501
MANGANESE	55	He	3070.323	0.05114479	0.05148763	0.05268593	0.04926081
MOLYBDENUM	95	He	5850.527	0.04923576	0.04860343	0.04871509	0.05038878
NICKEL	60	He	5095.553	0.05047449	0.05184678	0.04884293	0.05073375
SELENIUM	78	High He	224.3333	0.04870531	0.04762429	0.05221738	0.04627426
SILVER	107	He	23357.08	0.05404187	0.05339787	0.05531297	0.05341478
URANIUM	238	No He	236131.2	0.04858668	0.04928875	0.04803698	0.04843431
ZINC	66	He	1854.790	0.05388734	0.05083479	0.05314817	0.05767906
ALUMINUM	27	He	2527.550	1.032122	0.9918488	1.062617	1.041900
ANTIMONY	121	He	6086.877	0.05152701	0.05090948	0.05187857	0.05179298
BARIUM	137	He	1671.220	0.04846646	0.04503017	0.04740360	0.05296560
BERYLLIUM	9	No He	17678.29	0.04733653	0.04868192	0.04632639	0.04700130
CALCIUM	44	No He	266213.6	5.150208	5.296502	5.003382	5.150739
CALCIUM	43	He	82.00000	5.147347	5.889309	4.945732	4.607001
CALCIUM	44	He	1408.067	4.989104	4.774887	5.018836	5.173587
COBALT	59	He	17605.85	0.05070486	0.05051427	0.05098488	0.05061544
IRON	56	He	124083.8	1.008584	1.015010	1.018357	0.9923845
LITHIUM	7	No He	48310.61	0.04834158	0.05027276	0.04633082	0.04842115
MAGNESIUM	24	He	48521.19	5.082077	5.060764	5.066968	5.118499
POTASSIUM	39	He	33160.10	5.324640	5.260813	5.249674	5.463432
SODIUM	23	He	104781.4	5.251971	5.228201	5.251576	5.276135
STRONTIUM	88	He	3143.683	0.05046275	0.04866903	0.05257078	0.05014843
THALLIUM	205	No He	124975.4	0.05062790	0.05091497	0.05085709	0.05011165
THORIUM	232	No He	224979.4	0.04742632	0.04748672	0.04759451	0.04719772
TIN	118	He	4198.410	0.04951593	0.04697748	0.04995400	0.05161630
TITANIUM	47	He	119.6667	0.04935844	0.04516981	0.05183515	0.05107037
VANADIUM	51	He	6381.377	0.04959938	0.05003591	0.04843474	0.05032749

Rows shaded in gray for analytes that were not ordered.

Sample ID: L1771851-03 DF: 1x Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 17:29 Sequence: 126

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1381955	1354406	1383349	1408110
TELLURIUM (HIGH HE)	125	High He	318535.9	317414.1	319147.3	319046.3
TELLURIUM	125	He	53603.88	53963.72	53403.14	53444.77
SCANDIUM (NO HE)	45	No He	5587603	5514851	5515641	5732318
SCANDIUM	45	He	69615.62	70389.92	68599.48	69857.45
RHODIUM	103	He	200409.6	201434.2	200864.4	198930.1
GERMANIUM (NO HE)	72	No He	3022863	2952319	3062218	3054052
GERMANIUM (HIGH HE)	72	High He	282832.4	278414.3	284958.8	285124.0
GERMANIUM	72	He	138315.4	139605.5	137547.3	137793.6
BISMUTH (NO HE)	209	No He	973917.6	951156.4	971139.3	999457.0

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ARSENIC	75	He	4.666667	0.00007936300	0.00007077100	0.0001352230	0.00003209600
BORON	11	No He	4816.333	0.01777890	0.01809861	0.01827678	0.01696131
CADMIUM	111	He	0.3333333	0.000007011000	0.000000000	0.00002103300	0.000000000
CHROMIUM	52	He	262.0000	0.0004531660	0.0004749430	0.0003635340	0.0005210210
COPPER	63	No He	1036.707	0.0006956210	0.0006986030	0.0007248930	0.0006633670
COPPER	63	He	231.3333	0.0006951510	0.0007037420	0.0006674100	0.0007143000
LEAD	208	No He	278.8900	0.00003288300	0.00004159100	0.00004353600	0.00001352100
MANGANESE	55	He	5373.650	0.08967214	0.08768671	0.08910903	0.09222069
MOLYBDENUM	95	He	18.00000	0.0001358280	0.0001520990	0.0001863000	0.00006908400
NICKEL	60	He	74.66667	0.0004293460	0.0003960540	0.0005065560	0.0003854290
SELENIUM	78	High He	1.166667	0.00007884000	0.0002616750	-0.00006699400	0.00004183900
SILVER	107	He	9.333333	0.000002460000	0.000003931000	0.00001327000	-0.000009823000
URANIUM	238	No He	2942.560	0.0003817940	0.0003849170	0.0004129270	0.0003475380
ZINC	66	He	42.00000	0.0007183200	0.001230584	0.0004924190	0.0004319560
ALUMINUM	27	He	35.33333	0.007222333	0.005696335	0.007710134	0.008260529
ANTIMONY	121	He	21.11000	0.0001254050	0.0001434150	0.0001439750	0.00008882400
BARIUM	137	He	1468.970	0.04272373	0.04273545	0.04392258	0.04151315
BERYLLIUM	9	No He	58.00000	0.000003149000	0.00001034200	0.000005013000	-0.000005910000
CALCIUM	44	No He	2078352	39.88689	37.99954	40.64200	41.01912
CALCIUM	43	He	635.0133	40.53496	38.11780	41.12651	42.36056
CALCIUM	44	He	11044.78	39.48438	39.68142	38.94453	39.82718
COBALT	59	He	65.33333	0.0001066510	0.00009537600	0.00009801900	0.0001265580
IRON	56	He	2758.037	0.01554739	0.01592510	0.01528285	0.01543423
LITHIUM	7	No He	848.6933	0.0004653940	0.0004242680	0.0004819090	0.0004900040
MAGNESIUM	24	He	90134.38	9.487307	9.459214	9.639439	9.363267
POTASSIUM	39	He	27036.15	4.085932	4.038733	4.088358	4.130706
SODIUM	23	He	237905.6	12.15254	12.13333	12.16908	12.15522
STRONTIUM	88	He	8359.103	0.1350051	0.1350531	0.1301632	0.1397989
THALLIUM	205	No He	64.44333	0.00001458400	0.00002154600	0.00001009900	0.00001210600
THORIUM	232	No He	3318.203	0.00006404400	0.00002385300	0.00008614900	0.00008213100
TIN	118	He	22.22333	0.0002130420	0.0001463940	0.0003438650	0.0001488670
TITANIUM	47	He	1.666667	0.0006920720	0.0008176810	0.001258534	0.000000000
VANADIUM	51	He	55.33333	0.0002844690	0.0004403520	0.0001365880	0.0002764670

Rows shaded in gray for analytes that were not ordered.

Sample ID: SD DF: 5x Ref Sample ID: L1771851-03 Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 17:33 Sequence: 127

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1412106	1388444	1422255	1425620
TELLURIUM (HIGH HE)	125	High He	321952.6	323359.9	322084.2	320413.5
TELLURIUM	125	He	55140.28	55204.55	54996.22	55220.07
SCANDIUM (NO HE)	45	No He	5637055	5420269	5691707	5799190
SCANDIUM	45	He	71214.50	70912.38	70912.35	71818.77
RHODIUM	103	He	204283.5	206404.2	200891.2	205555.0
GERMANIUM (NO HE)	72	No He	3071122	3005971	3082519	3124876
GERMANIUM (HIGH HE)	72	High He	284829.8	285095.3	285967.8	283426.4
GERMANIUM	72	He	142193.0	142547.0	142358.9	141673.2
BISMUTH (NO HE)	209	No He	996617.1	979340.4	998911.7	1011599

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ARSENIC	75	He	4.500000	0.00006735340	0.0007320780	0.0001374270	0.0001407950
BORON	11	No He	2083.477	0.002951888	0.01675911	0.01409632	0.01342289
CADMIUM	111	He	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000
CHROMIUM	52	He	192.6667	-0.000004507400	-0.0002354520	0.0001893440	-0.00002150200
COPPER	63	No He	374.0067	0.0001424318	0.0008109050	0.0006244630	0.0007011080
COPPER	63	He	79.33333	0.0001658634	0.0008033980	0.0006049170	0.001079636
LEAD	208	No He	177.7800	-0.00001941020	-0.00004350500	-0.00007720000	-0.0001704490
MANGANESE	55	He	1120.710	0.01771807	0.08553338	0.08973091	0.09050674
MOLYBDENUM	95	He	4.000000	0.00001699000	0.00008386100	0.000004064000	0.0001669260
NICKEL	60	He	34.66667	0.00002231380	0.0001720530	0.0002708670	-0.0001082120
SELENIUM	78	High He	0.6666667	-0.00003215800	0.0001946820	-0.0003399310	-0.0003371220
SILVER	107	He	8.666667	0.0000005278000	-0.000005687000	-0.00002639000	0.00003999400
URANIUM	238	No He	1451.197	0.00006821200	0.0002574270	0.0003774020	0.0003883500
ZINC	66	He	38.00000	0.0005737084	0.002570449	0.002577193	0.003457984
ALUMINUM	27	He	16.00000	-0.0008985158	-0.0003266010	-0.004373400	-0.008777736
ANTIMONY	121	He	4.443333	-0.00001679540	-0.0001326650	0.00001283100	-0.0001320970
BARIUM	137	He	322.2267	0.009154638	0.03976006	0.05006115	0.04749836
BERYLLIUM	9	No He	53.33333	-0.00001032740	0.00001160500	-0.0002044300	0.00003791500
CALCIUM	44	No He	429231.0	8.087604	41.29807	39.93242	40.08356
CALCIUM	43	He	111.0000	6.86128	37.88590	35.68872	29.34459
CALCIUM	44	He	2246.840	7.822576	40.07238	39.19389	38.07236
COBALT	59	He	36.66667	0.00002126120	0.0002354730	0.00009664600	-0.00001320000
IRON	56	He	1211.163	0.002660722	0.01380190	0.01386604	0.01224291
LITHIUM	7	No He	466.0100	0.00008513300	0.0002959190	0.0005123540	0.0004687220
MAGNESIUM	24	He	18456.31	1.877233	9.343545	9.470666	9.344288
POTASSIUM	39	He	11974.85	0.9454770	4.761701	5.093799	4.326656
SODIUM	23	He	50469.06	2.396216	12.02516	11.96020	11.95788
STRONTIUM	88	He	1663.430	0.02620230	0.1330545	0.1318911	0.1280890
THALLIUM	205	No He	40.00333	0.000004288800	0.00001624400	0.00001480500	0.00003328300
THORIUM	232	No He	3212.620	0.00002653120	0.00007302400	0.0002676940	0.00005725100
TIN	118	He	10.00000	0.00006580220	0.0005162240	0.0001437230	0.0003270860
TITANIUM	47	He	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000
VANADIUM	51	He	34.00000	0.0001123092	0.0005582250	0.0004844300	0.0006419840

Rows shaded in gray for analytes that were not ordered.

Sample ID: MS DF: 1x Ref Sample ID: L1771851-03 Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 17:36 Sequence: 128

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1374878	1346356	1379360	1398919
TELLURIUM (HIGH HE)	125	High He	317762.2	314844.8	318119.0	320322.9
TELLURIUM	125	He	53514.04	54058.61	53165.71	53317.79
SCANDIUM (NO HE)	45	No He	5493745	5351817	5617661	5511758
SCANDIUM	45	He	69340.93	69501.70	69606.02	68915.06
RHODIUM	103	He	197346.2	198246.3	196146.5	197645.6
GERMANIUM (NO HE)	72	No He	3036066	2973612	3026196	3108391
GERMANIUM (HIGH HE)	72	High He	287366.2	283035.9	289179.3	289883.2
GERMANIUM	72	He	137474.8	138516.9	137299.1	136608.5
BISMUTH (NO HE)	209	No He	963211.4	940080.3	970838.6	978715.2

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ARSENIC	75	He	1218.550	0.05005577	0.05014795	0.04962501	0.05039435
BORON	11	No He	12621.93	0.06099903	0.06085478	0.05951863	0.06262369
CADMIUM	111	He	2275.183	0.04774508	0.04949616	0.04720029	0.04653880
CHROMIUM	52	He	8204.953	0.04951637	0.05001554	0.04892258	0.04961100
COPPER	63	No He	58003.31	0.04764505	0.04811166	0.04788532	0.04693817
COPPER	63	He	14308.30	0.04934256	0.04824797	0.04988183	0.04989788
LEAD	208	No He	95964.44	0.04804842	0.04884303	0.04750950	0.04779273
MANGANESE	55	He	7960.817	0.1339414	0.1332484	0.1326749	0.1359008
MOLYBDENUM	95	He	5671.120	0.04864985	0.04919854	0.04863717	0.04811383
NICKEL	60	He	4885.483	0.04852303	0.04737027	0.04885443	0.04934441
SELENIUM	78	High He	213.1667	0.04640672	0.04679121	0.04990865	0.04252030
SILVER	107	He	22569.81	0.05323665	0.05356450	0.05323934	0.05290611
URANIUM	238	No He	230887.1	0.04772744	0.04812244	0.04744752	0.04761236
ZINC	66	He	1649.430	0.04798556	0.05033688	0.04825535	0.04536445
ALUMINUM	27	He	2285.510	0.9385407	0.9233861	0.9434337	0.9488024
ANTIMONY	121	He	6049.080	0.05220520	0.05149707	0.05291836	0.05220018
BARIUM	137	He	3078.123	0.09101013	0.08760060	0.09677503	0.08865475
BERYLLIUM	9	No He	16923.43	0.04494334	0.04511473	0.04345264	0.04626264
CALCIUM	44	No He	2286471	44.66116	44.41328	44.06865	45.50153
CALCIUM	43	He	733.6867	47.02423	45.20391	47.56634	48.30245
CALCIUM	44	He	12073.57	43.34185	42.62849	43.72516	43.67189
COBALT	59	He	16994.45	0.04908237	0.04814395	0.04970838	0.04939478
IRON	56	He	120538.1	0.9823949	0.9735801	0.9831911	0.9904135
LITHIUM	7	No He	47056.13	0.04668678	0.04790506	0.04550506	0.04665022
MAGNESIUM	24	He	134712.3	14.24780	14.47230	14.02610	14.24500
POTASSIUM	39	He	50134.13	8.859120	8.826405	8.707191	9.043763
SODIUM	23	He	329655.7	16.96712	17.22728	16.68749	16.98660
STRONTIUM	88	He	10950.83	0.1796415	0.1839054	0.1778292	0.1771900
THALLIUM	205	No He	119247.1	0.04853230	0.04867565	0.04798464	0.04893661
THORIUM	232	No He	218143.3	0.04619077	0.04665869	0.04577018	0.04614344
TIN	118	He	4181.737	0.05025990	0.04845844	0.05051129	0.05180997
TITANIUM	47	He	113.6667	0.04718747	0.04803159	0.04258482	0.05094600
VANADIUM	51	He	6167.290	0.04806609	0.04799768	0.04789228	0.04830829

Rows shaded in gray for analytes that were not ordered.

Sample ID: MSD DF: 1x Ref Sample ID: L1771851-03 Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 17:39 Sequence: 129

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1375008	1354094	1380683	1390246
TELLURIUM (HIGH HE)	125	High He	317686.4	317979.3	316727.7	318352.3
TELLURIUM	125	He	53561.88	53795.59	53768.00	53122.06
SCANDIUM (NO HE)	45	No He	5512175	5381370	5506031	5649122
SCANDIUM	45	He	68589.59	68611.86	68561.45	68595.46
RHODIUM	103	He	198274.3	199356.8	198785.5	196680.6
GERMANIUM (NO HE)	72	No He	3011771	2989410	2977351	3068552
GERMANIUM (HIGH HE)	72	High He	284144.8	283108.0	285865.4	283460.9
GERMANIUM	72	He	138909.9	138003.4	139438.9	139287.5
BISMUTH (NO HE)	209	No He	960963.2	943216.5	971984.9	967688.3

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ARSENIC	75	He	1265.387	0.05144467	0.05109369	0.05076947	0.05247086
BORON	11	No He	13638.38	0.06630703	0.06611274	0.06612725	0.06668111
CADMIUM	111	He	2344.530	0.04916820	0.04911179	0.04848919	0.04990362
CHROMIUM	52	He	8509.120	0.05085501	0.05140009	0.05066405	0.05050090
COPPER	63	No He	60283.18	0.04991413	0.04883801	0.05071542	0.05018895
COPPER	63	He	14802.11	0.05051525	0.05017112	0.05032193	0.05105272
LEAD	208	No He	100418.2	0.05038582	0.04965226	0.05005910	0.05144611
MANGANESE	55	He	8403.733	0.1399501	0.1391699	0.1431991	0.1374813
MOLYBDENUM	95	He	5685.127	0.04854641	0.04821059	0.04780378	0.04962486
NICKEL	60	He	5152.240	0.05065379	0.05117318	0.05147117	0.04931702
SELENIUM	78	High He	228.8333	0.04982962	0.04840236	0.04925189	0.05183460
SILVER	107	He	23258.91	0.05460788	0.05477746	0.05388841	0.05515776
URANIUM	238	No He	241180.5	0.04998097	0.05031116	0.04959328	0.05003847
ZINC	66	He	1796.780	0.05178757	0.05304563	0.05278421	0.04953287
ALUMINUM	27	He	2602.227	1.081388	1.075173	1.096064	1.072926
ANTIMONY	121	He	6104.663	0.05243814	0.05240767	0.05187200	0.05303474
BARIUM	137	He	3103.683	0.09133390	0.08662417	0.09294370	0.09443383
BERYLLIUM	9	No He	17779.71	0.04706459	0.04737077	0.04763076	0.04619223
CALCIUM	44	No He	2323553	45.22928	45.12471	44.92055	45.64259
CALCIUM	43	He	705.0200	45.67564	48.19186	42.83819	45.99688
CALCIUM	44	He	12403.17	45.01367	44.37381	45.67212	44.99508
COBALT	59	He	17471.68	0.04994005	0.05071223	0.04927558	0.04983234
IRON	56	He	123579.8	0.9968453	0.9981184	0.9980729	0.9943445
LITHIUM	7	No He	48705.96	0.04816043	0.04832790	0.04862414	0.04752924
MAGNESIUM	24	He	136195.1	14.56292	14.45118	14.59755	14.64004
POTASSIUM	39	He	51649.16	9.286490	9.320540	9.243958	9.294973
SODIUM	23	He	333265.3	17.34406	17.22915	17.39583	17.40721
STRONTIUM	88	He	11264.40	0.1839236	0.1849953	0.1855270	0.1812485
THALLIUM	205	No He	123862.0	0.05052276	0.04980418	0.05027152	0.05149259
THORIUM	232	No He	225428.2	0.04786140	0.04763658	0.04738286	0.04856476
TIN	118	He	4179.517	0.04999289	0.05116632	0.04920291	0.04960943
TITANIUM	47	He	138.3333	0.05804045	0.06165702	0.05792466	0.05453966
VANADIUM	51	He	6510.767	0.05022549	0.05043611	0.04971483	0.05052553

Rows shaded in gray for analytes that were not ordered.

Sample ID: L1771853-03 DF: 1x Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 17:42 Sequence: 130

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1372065	1339629	1375222	1401344
TELLURIUM (HIGH HE)	125	High He	317479.9	318319.1	316819.8	317300.7
TELLURIUM	125	He	53187.98	53223.91	53352.98	52987.05
SCANDIUM (NO HE)	45	No He	5510024	5358136	5537756	5634181
SCANDIUM	45	He	69562.03	70420.11	69360.88	68905.09
RHODIUM	103	He	197872.0	198816.7	197338.5	197460.9
GERMANIUM (NO HE)	72	No He	3083613	3040238	3131210	3079390
GERMANIUM (HIGH HE)	72	High He	288944.1	291833.4	284387.8	290611.2
GERMANIUM	72	He	138170.6	138097.0	137050.0	139364.7
BISMUTH (NO HE)	209	No He	967631.0	947080.5	969618.0	986194.5

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ARSENIC	75	He	9.666667	0.0002846360	0.0004006360	0.0002806580	0.0001726140
BORON	11	No He	22273.02	0.1135709	0.1157922	0.1152741	0.1096464
CADMIUM	111	He	1.333333	0.00002818400	0.00002110300	0.00002105200	0.00004239500
CHROMIUM	52	He	262.0000	0.0004546100	0.0003697860	0.0004309940	0.0005630480
COPPER	63	No He	2202.833	0.001625334	0.001669558	0.001573178	0.001633267
COPPER	63	He	499.3433	0.001617908	0.001579328	0.001730786	0.001543609
LEAD	208	No He	233.3367	0.00001072000	0.00001161100	-0.000002744000	0.00002329300
MANGANESE	55	He	20358.67	0.3417099	0.3425591	0.3404955	0.3420750
MOLYBDENUM	95	He	18.66667	0.0001437240	0.0001372760	0.0001212610	0.0001726350
NICKEL	60	He	83.33333	0.0005160530	0.0007619970	0.0003691640	0.0004169970
SELENIUM	78	High He	1.666667	0.0001885440	0.0002604320	0.00004336800	0.0002618320
SILVER	107	He	8.000000	-0.0000003590000	-0.0000004490000	-0.0000003080000	-0.0000003200000
URANIUM	238	No He	3838.343	0.0005704580	0.0005544200	0.0005948160	0.0005621380
ZINC	66	He	67.33333	0.001463271	0.001425206	0.001498961	0.001465646
ALUMINUM	27	He	24.66667	0.002843544	0.0008006200	0.001752551	0.005977461
ANTIMONY	121	He	12.22000	0.00005122300	0.00006026600	0.00003235400	0.00006105000
BARIUM	137	He	2960.320	0.08726956	0.08960061	0.08849702	0.08371105
BERYLLIUM	9	No He	69.33333	0.00003503200	0.00002592400	0.00002025400	0.00005891900
CALCIUM	44	No He	6303744	122.9781	125.1139	122.2432	121.5772
CALCIUM	43	He	1922.460	122.9159	128.2556	119.6884	120.8037
CALCIUM	44	He	33475.60	119.8730	117.2030	120.6784	121.7377
COBALT	59	He	140.0000	0.0003220120	0.0002470490	0.0004178550	0.0003011330
IRON	56	He	1914.570	0.008691422	0.009092837	0.009627030	0.007354401
LITHIUM	7	No He	586.6767	0.0002158870	0.0001871250	0.0002226550	0.0002378810
MAGNESIUM	24	He	133812.5	14.10874	13.87471	14.21949	14.23201
POTASSIUM	39	He	73177.41	13.55108	13.47249	13.41637	13.76438
SODIUM	23	He	442339.7	22.74695	22.72784	22.84778	22.66522
STRONTIUM	88	He	31091.20	0.5090597	0.5042672	0.5214321	0.5014798
THALLIUM	205	No He	1265.617	0.0005013380	0.0005061110	0.0004752080	0.0005226960
THORIUM	232	No He	3381.557	0.00008283600	0.0001111460	0.00005600700	0.00008135600
TIN	118	He	10.00000	0.00006999400	0.00002956700	0.00007022600	0.0001101890
TITANIUM	47	He	1.000000	0.0004137410	0.0004086650	0.0004149060	0.0004176510
VANADIUM	51	He	72.66667	0.0004205480	0.0003222330	0.0004826260	0.0004567850

Rows shaded in gray for analytes that were not ordered.

Sample ID: MS DF: 1x Ref Sample ID: L1771853-03 Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 17:46 Sequence: 131

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1356294	1328662	1367551	1372669
TELLURIUM (HIGH HE)	125	High He	312189.3	311527.7	311244.1	313796.2
TELLURIUM	125	He	52657.15	52980.52	52745.64	52245.30
SCANDIUM (NO HE)	45	No He	5428365	5303638	5426983	5554474
SCANDIUM	45	He	68698.76	69761.15	68762.16	67572.96
RHODIUM	103	He	196536.3	197643.2	196251.2	195714.4
GERMANIUM (NO HE)	72	No He	3034718	2944992	3114496	3044665
GERMANIUM (HIGH HE)	72	High He	288237.1	291435.5	284411.1	288864.8
GERMANIUM	72	He	137289.7	137355.6	137013.1	137500.5
BISMUTH (NO HE)	209	No He	952227.8	933350.5	959876.1	963456.9

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ARSENIC	75	He	1208.550	0.04971260	0.05154121	0.05063761	0.04695897
BORON	11	No He	31039.52	0.1639750	0.1642477	0.1629417	0.1647356
CADMIUM	111	He	2312.523	0.04932694	0.04988854	0.04859835	0.04949395
CHROMIUM	52	He	8206.947	0.04959874	0.04970599	0.04990748	0.04918274
COPPER	63	No He	60047.53	0.04935601	0.04991139	0.04839274	0.04976388
COPPER	63	He	14780.10	0.05103817	0.05105907	0.05167967	0.05037577
LEAD	208	No He	96983.15	0.04910743	0.04869213	0.04929566	0.04933450
MANGANESE	55	He	23596.16	0.3986939	0.3962095	0.3993081	0.4005642
MOLYBDENUM	95	He	5882.543	0.05067265	0.05061747	0.05101112	0.05038936
NICKEL	60	He	4828.800	0.04801702	0.04847398	0.04809418	0.04748290
SELENIUM	78	High He	217.1667	0.04811384	0.04807128	0.04688846	0.04938179
SILVER	107	He	22306.08	0.05282933	0.05387906	0.05151414	0.05309478
URANIUM	238	No He	235751.8	0.04929854	0.04941712	0.04890395	0.04957456
ZINC	66	He	1633.423	0.04759159	0.04741093	0.04817981	0.04718402
ALUMINUM	27	He	2360.857	0.9790186	0.9610688	0.9793115	0.9966755
ANTIMONY	121	He	6099.103	0.05285461	0.05197077	0.05309294	0.05350012
BARIUM	137	He	4535.190	0.1346369	0.1369119	0.1366936	0.1303053
BERYLLIUM	9	No He	17546.81	0.04716568	0.04773587	0.04732789	0.04643329
CALCIUM	44	No He	6571251	130.1292	132.9059	128.6181	128.8635
CALCIUM	43	He	1990.803	128.9669	123.1497	131.9326	131.8183
CALCIUM	44	He	35012.46	126.9756	121.9544	129.2613	129.7111
COBALT	59	He	17093.91	0.04943324	0.04994887	0.04910916	0.04924170
IRON	56	He	117889.4	0.9619399	0.9674327	0.9761528	0.9422342
LITHIUM	7	No He	47678.19	0.04786139	0.04785560	0.04764850	0.04808006
MAGNESIUM	24	He	179678.4	19.19385	18.97362	19.01898	19.58894
POTASSIUM	39	He	96807.54	18.64561	18.59862	18.52458	18.81363
SODIUM	23	He	539962.2	28.15452	28.07071	28.04945	28.34341
STRONTIUM	88	He	34689.39	0.5718552	0.5703713	0.5621150	0.5830793
THALLIUM	205	No He	121196.9	0.04989018	0.04946050	0.04990551	0.05030453
THORIUM	232	No He	220338.1	0.04720065	0.04703517	0.04726066	0.04730611
TIN	118	He	4100.607	0.04948688	0.04884683	0.04939531	0.05021849
TITANIUM	47	He	133.6667	0.05594832	0.06105377	0.05440743	0.05238375
VANADIUM	51	He	6251.993	0.04879413	0.04937535	0.04915385	0.04785320

Rows shaded in gray for analytes that were not ordered.

Sample ID: MSD DF: 1x Ref Sample ID: L1771853-03 Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 17:49 Sequence: 132

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1351335	1323487	1359119	1371400
TELLURIUM (HIGH HE)	125	High He	315137.9	314477.6	315379.5	315556.5
TELLURIUM	125	He	53134.11	52792.30	52918.81	53691.22
SCANDIUM (NO HE)	45	No He	5478146	5201947	5654585	5577906
SCANDIUM	45	He	69190.98	69994.03	67725.47	69853.43
RHODIUM	103	He	194977.4	197291.2	193139.8	194501.3
GERMANIUM (NO HE)	72	No He	2974858	2970330	2974986	2979259
GERMANIUM (HIGH HE)	72	High He	282741.6	283339.4	280459.2	284426.2
GERMANIUM	72	He	137059.0	136940.3	137210.5	137026.3
BISMUTH (NO HE)	209	No He	951489.4	937061.5	958124.0	959282.7

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ARSENIC	75	He	1214.553	0.05004320	0.04901138	0.04825467	0.05286356
BORON	11	No He	31580.62	0.1654621	0.1679666	0.1619405	0.1664793
CADMIUM	111	He	2276.513	0.04811959	0.04823626	0.04722928	0.04889325
CHROMIUM	52	He	8117.560	0.04912968	0.04847056	0.04962351	0.04929496
COPPER	63	No He	59896.22	0.05021052	0.04923227	0.05040286	0.05099644
COPPER	63	He	14864.19	0.05141506	0.05196422	0.05131414	0.05096682
LEAD	208	No He	95603.02	0.04845587	0.04939719	0.04775024	0.04822017
MANGANESE	55	He	23218.89	0.3929721	0.3959855	0.3925592	0.3903716
MOLYBDENUM	95	He	5840.527	0.05072128	0.04962583	0.05199109	0.05054694
NICKEL	60	He	4967.510	0.04948859	0.04914380	0.04964747	0.04967451
SELENIUM	78	High He	220.1667	0.04832455	0.04662530	0.04913300	0.04921535
SILVER	107	He	22405.57	0.05348942	0.05363010	0.05278867	0.05404949
URANIUM	238	No He	235043.0	0.04918629	0.04907885	0.04893792	0.04954210
ZINC	66	He	1653.430	0.04826172	0.04667060	0.04816899	0.04994557
ALUMINUM	27	He	2342.850	0.9644645	0.9217593	0.9732241	0.9984102
ANTIMONY	121	He	6166.913	0.05386956	0.05439777	0.05568592	0.05152497
BARIUM	137	He	4555.193	0.1363103	0.1384393	0.1355704	0.1349211
BERYLLIUM	9	No He	17334.55	0.04622874	0.04896478	0.04463954	0.04508190
CALCIUM	44	No He	6401523	125.6511	128.3023	123.9674	124.6836
CALCIUM	43	He	1983.133	127.5690	125.7289	133.0989	123.8791
CALCIUM	44	He	34698.32	124.9503	122.8324	129.6178	122.4008
COBALT	59	He	17194.69	0.04980900	0.04990287	0.05029774	0.04922639
IRON	56	He	119926.1	0.9803283	0.9947570	0.9647448	0.9814832
LITHIUM	7	No He	47912.07	0.04769866	0.04908397	0.04605480	0.04795721
MAGNESIUM	24	He	181375.8	19.23862	18.93339	19.66569	19.11678
POTASSIUM	39	He	96747.30	18.49095	18.46728	18.67682	18.32874
SODIUM	23	He	535178.5	27.70754	27.44701	28.17022	27.50539
STRONTIUM	88	He	34728.41	0.5771465	0.5638159	0.5854737	0.5821500
THALLIUM	205	No He	120237.2	0.04953095	0.04862579	0.04966085	0.05030622
THORIUM	232	No He	219864.2	0.04713422	0.04684831	0.04705369	0.04750065
TIN	118	He	4218.410	0.05130360	0.05314694	0.05010976	0.05065409
TITANIUM	47	He	123.3333	0.05133472	0.04892720	0.05481534	0.05026162
VANADIUM	51	He	6301.343	0.04926284	0.04974524	0.04941204	0.04863124

Rows shaded in gray for analytes that were not ordered.

Sample ID: CCV Units: mg/l
Analyzed: 09/12/24 17:53 Sequence: 133 Standard ID: 24H28494

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1398104	1367232	1408763	1418317
TELLURIUM (HIGH HE)	125	High He	321741.2	319669.3	324010.7	321543.6
TELLURIUM	125	He	55455.49	55685.38	55856.55	54824.55
SCANDIUM (NO HE)	45	No He	5696402	5627402	5693550	5768255
SCANDIUM	45	He	72953.49	72990.33	72238.70	73631.44
RHODIUM	103	He	203805.7	203389.0	205977.5	202050.6
GERMANIUM (NO HE)	72	No He	3074276	3061607	3121136	3040086
GERMANIUM (HIGH HE)	72	High He	288451.5	281912.0	293358.7	290083.8
GERMANIUM	72	He	140169.4	141803.9	139828.3	138876.1
BISMUTH (NO HE)	209	No He	966930.4	944943.4	968214.7	987633.2

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ALUMINUM	27	He	2510.880	0.9804687	0.9772067	1.004139	0.9600599
ANTIMONY	121	He	11859.43	0.09914813	0.1007700	0.09886787	0.09780653
ARSENIC	75	He	2482.380	0.1001245	0.09977858	0.1001169	0.1004781
BARIUM	137	He	3439.317	0.09845107	0.1006952	0.09782258	0.09683546
BERYLLIUM	9	No He	36311.95	0.09313447	0.09276344	0.09293604	0.09370394
BORON	11	No He	19372.39	0.09419536	0.09146581	0.09595554	0.09516472
CADMIUM	111	He	4815.483	0.09752757	0.09685498	0.09903234	0.09669539
CALCIUM	44	No He	537526.5	10.04337	9.939085	10.12266	10.06837
CALCIUM	43	He	170.6667	10.33701	11.32349	10.57941	9.108122
CALCIUM	44	He	2878.943	9.794467	10.03837	9.915567	9.429458
CHROMIUM	52	He	16665.38	0.09980009	0.09827820	0.09979263	0.1013294
COBALT	59	He	35744.56	0.1013394	0.1001463	0.1009866	0.1028852
COPPER	63	No He	121260.2	0.09854529	0.09705901	0.09625044	0.1023264
COPPER	63	He	29909.71	0.1012635	0.1005544	0.1006900	0.1025462
IRON	56	He	124616.3	0.9961940	0.9939390	0.9903383	1.004305
LEAD	208	No He	196451.3	0.09808914	0.09922909	0.09783119	0.09720713
LITHIUM	7	No He	98806.38	0.09487770	0.09429095	0.09511100	0.09523117
MAGNESIUM	24	He	98254.63	9.869570	9.875905	9.971758	9.761045
MANGANESE	55	He	5942.533	0.09791897	0.09434868	0.09994509	0.09946314
MOLYBDENUM	95	He	11659.40	0.09687920	0.09811032	0.09462266	0.09790461
NICKEL	60	He	10180.86	0.09948122	0.09993617	0.1018836	0.09662387
POTASSIUM	39	He	58196.66	9.925842	10.16680	10.09048	9.520243
SELENIUM	78	High He	468.1767	0.1008306	0.09560032	0.1026733	0.1042181
SILVER	107	He	47407.84	0.1083068	0.1081881	0.1072497	0.1094826
SODIUM	23	He	201833.3	9.808859	9.718223	9.935619	9.772734
STRONTIUM	88	He	6309.170	0.1001549	0.09751098	0.09864412	0.1043095
THALLIUM	205	No He	243498.7	0.09874055	0.09956178	0.09833280	0.09832706
THORIUM	232	No He	439045.2	0.09325424	0.09419401	0.09318025	0.09238846
TIN	118	He	8778.287	0.1022094	0.1016130	0.1022193	0.1027959
TITANIUM	47	He	252.6667	0.09969202	0.08910612	0.1079602	0.1020097
URANIUM	238	No He	465942.0	0.09616968	0.09650666	0.09657083	0.09543155
VANADIUM	51	He	12999.04	0.09953029	0.09700733	0.1011339	0.1004497
ZINC	66	He	3518.423	0.1009934	0.09746019	0.1007531	0.1047668

Sample ID: CCB Units: mg/l
Analyzed: 09/12/24 17:56 Sequence: 134

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1373346	1352607	1383456	1383976
TELLURIUM (HIGH HE)	125	High He	316899.3	316106.8	319697.9	314893.2
TELLURIUM	125	He	54693.70	55100.08	55115.65	53865.36
SCANDIUM (NO HE)	45	No He	5639008	5642211	5634905	5639907
SCANDIUM	45	He	73161.10	73173.10	73748.05	72562.16
RHODIUM	103	He	207271.8	212319.4	209620.1	199876.0
GERMANIUM (NO HE)	72	No He	3098062	3116328	3085037	3092822
GERMANIUM (HIGH HE)	72	High He	287911.4	288937.1	283457.0	291340.1
GERMANIUM	72	He	141808.9	147011.9	143806.6	134608.1
BISMUTH (NO HE)	209	No He	987980.7	971529.0	994990.0	997423.1

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ALUMINUM	27	He	15.33333	-0.001328435	-0.002643442	-0.001901890	0.0005600250
ANTIMONY	121	He	32.22333	0.0002108690	0.0001065540	0.0003526100	0.0001734430
ARSENIC	75	He	4.166667	0.00005639500	0.000003832000	0.00004576300	0.0001195900
BARIUM	137	He	2.223333	-0.0000004920000	0.0001217680	-0.00006162300	-0.00006162300
BERYLLIUM	9	No He	91.33333	0.00008814700	0.0001053100	0.00007447500	0.00008465600
BORON	11	No He	1996.800	0.002477193	0.002542249	0.002769889	0.002119440
CADMIUM	111	He	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000
CALCIUM	44	No He	5471.680	-0.001233879	-0.001115060	-0.001247013	-0.001339565
CALCIUM	43	He	1.666667	0.01978456	0.1008887	-0.02126075	-0.02027423
CALCIUM	44	He	14.66667	0.01126241	0.01575541	0.001817724	0.01621408
CHROMIUM	52	He	202.6667	0.00006232900	-0.00003453500	0.00001405300	0.0002074690
COBALT	59	He	28.66667	-0.0000004400000	-0.00004877500	0.00004597000	0.000001485000
COPPER	63	No He	233.3333	0.00002597700	0.00002704000	-0.000003477000	0.00005436700
COPPER	63	He	30.00000	0.000001839000	-0.00002169000	0.000006463000	0.00002074400
IRON	56	He	782.2433	-0.0007019760	-0.001397872	-0.0008556220	0.0001475660
LEAD	208	No He	91.11000	-0.00006125800	-0.00007092600	-0.00005232100	-0.00006052700
LITHIUM	7	No He	482.0100	0.0001010300	0.0001260670	0.0001189110	0.00005811200
MAGNESIUM	24	He	143.3333	-0.01267629	-0.01702835	-0.01013236	-0.01086816
MANGANESE	55	He	14.66667	-0.0003512680	-0.0003719490	-0.0003993280	-0.0002825270
MOLYBDENUM	95	He	4.666667	0.00002230500	0.00001585800	0.00001626900	0.00003479000
NICKEL	60	He	44.00000	0.0001144710	0.00007995100	0.0001269210	0.0001365410
POTASSIUM	39	He	8315.687	0.1674661	0.1729453	0.2657255	0.06372750
SELENIUM	78	High He	0.5000000	-0.00006552500	-0.0001757590	-0.0001757590	0.0001549430
SILVER	107	He	15.33333	0.00001515900	0.00001590600	0.00002080000	0.000008771000
SODIUM	23	He	3390.393	0.01060030	-0.001275601	0.01070488	0.02237161
STRONTIUM	88	He	8.890000	-0.00004895600	-0.00003561800	-0.00008513600	-0.00002611500
THALLIUM	205	No He	50.00000	0.000008393000	0.000006055000	0.00001221200	0.000006914000
THORIUM	232	No He	3175.947	0.00002479100	0.00003618900	0.00001886000	0.00001932600
TIN	118	He	6.666667	0.00002694500	0.00002450200	-0.00001236600	0.00006869900
TITANIUM	47	He	0.3333333	0.0001310970	0.0003932900	0.000000000	0.000000000
URANIUM	238	No He	1176.723	0.00001548800	0.00003378700	0.000001599000	0.00001107800
VANADIUM	51	He	20.66667	0.00001322400	0.00003076100	-0.00006994900	0.00007886100
ZINC	66	He	18.00000	0.000004017000	0.00004310300	0.00005536100	-0.00008641400

Sample ID: L1770381-01 DF: 1x Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 18:00 Sequence: 135

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1335711	1307949	1348587	1350597
TELLURIUM (HIGH HE)	125	High He	310239.2	310000.9	313063.6	307653.3
TELLURIUM	125	He	52549.78	52350.22	52839.52	52459.60
SCANDIUM (NO HE)	45	No He	5484157	5517221	5495434	5439817
SCANDIUM	45	He	69578.15	70066.34	68995.33	69672.77
RHODIUM	103	He	197837.0	197461.6	199538.6	196510.9
GERMANIUM (NO HE)	72	No He	2973459	2964759	2889127	3066492
GERMANIUM (HIGH HE)	72	High He	279817.5	275057.8	275767.7	288627.1
GERMANIUM	72	He	138992.5	136101.8	143077.7	137798.0
BISMUTH (NO HE)	209	No He	943754.2	929527.8	940647.4	961087.6

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
CADMIUM	111	He	1.000000	0.00002137400	0.00002145600	0.00002125700	0.00002141100
CHROMIUM	52	He	308.6667	0.0007308730	0.0008163330	0.0007320900	0.0006441950
COPPER	63	No He	12171.71	0.01008063	0.009728451	0.01036352	0.01014992
COPPER	63	He	2956.303	0.01000623	0.01040687	0.009941080	0.009670728
LEAD	208	No He	240.0033	0.00001698700	0.000003430000	0.00001584000	0.00003169200
NICKEL	60	He	1691.430	0.01642236	0.01705340	0.01555355	0.01666015
SILVER	107	He	12.66667	0.00001072700	-0.0000003200000	-0.000005184000	0.00003768600
ZINC	66	He	1580.090	0.04551737	0.04904077	0.04136906	0.04614227
ALUMINUM	27	He	42.66667	0.01025672	0.008213990	0.01178299	0.01077319
ANTIMONY	121	He	16.66667	0.00008943800	0.000003549000	0.0001452910	0.0001194720
ARSENIC	75	He	7.333333	0.0001858470	0.0001586370	0.0002641310	0.0001347740
BARIUM	137	He	2905.863	0.08568213	0.08794897	0.08517953	0.08391788
BERYLLIUM	9	No He	78.00000	0.00005935200	0.00002618900	0.00008014300	0.00007172400
BORON	11	No He	5337.613	0.02111879	0.02072579	0.02195481	0.02067577
CALCIUM	44	No He	8930722	175.0562	173.2007	175.5076	176.4602
CALCIUM	43	He	2599.563	166.2385	168.6193	166.9145	163.1816
CALCIUM	44	He	48890.02	175.0418	171.9829	179.3268	173.8157
COBALT	59	He	612.6767	0.001673049	0.001747909	0.001592020	0.001679219
IRON	56	He	39496.03	0.3139232	0.3277683	0.2984541	0.3155471
LITHIUM	7	No He	1520.077	0.001153897	0.001148575	0.001106615	0.001206501
MAGNESIUM	24	He	86183.30	9.073983	9.094787	9.021120	9.106042
MANGANESE	55	He	18097.74	0.3019269	0.3029467	0.3001125	0.3027214
MOLYBDENUM	95	He	592.6767	0.005057025	0.004666776	0.005246084	0.005258215
POTASSIUM	39	He	29479.12	4.590460	4.430164	4.782443	4.558773
SELENIUM	78	High He	0.3333333	-0.0001011900	-0.0001757590	-0.00006488100	-0.00006293100
SODIUM	23	He	225068.6	11.49381	11.63307	11.35833	11.49003
STRONTIUM	88	He	10780.70	0.1764435	0.1802569	0.1700891	0.1789844
THALLIUM	205	No He	83.33333	0.00002332400	0.00003356400	0.00002608300	0.00001032500
THORIUM	232	No He	3141.490	0.00004843100	0.00006896400	0.00003566500	0.00004066400
TIN	118	He	16.66667	0.0001504800	0.0001903840	0.00002927900	0.0002317780
TITANIUM	47	He	1.666667	0.0006909230	0.0008214570	0.001251313	0.000000000
URANIUM	238	No He	1182.280	0.00002760900	0.00002816800	0.00001669500	0.00003796400
VANADIUM	51	He	29.33333	0.00008224400	0.0001079920	0.00008065100	0.00005808900

ACCOUNT: PROJECT: SDG: DATE/TIME: PAGE:

Rows shaded in gray for analytes that were not ordered.

Sample ID: L1770768-01 DF: 1x Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 18:03 Sequence: 136

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1338903	1307905	1345957	1362847
TELLURIUM (HIGH HE)	125	High He	312331.4	312656.8	313054.9	311282.6
TELLURIUM	125	He	52566.33	52043.56	52817.93	52837.49
SCANDIUM (NO HE)	45	No He	5459761	5390519	5492736	5496027
SCANDIUM	45	He	67870.84	69644.23	66098.18	67870.10
RHODIUM	103	He	194899.5	197913.8	192706.2	194078.6
GERMANIUM (NO HE)	72	No He	2959366	2977886	2939726	2960485
GERMANIUM (HIGH HE)	72	High He	288233.1	291967.9	277751.5	294980.0
GERMANIUM	72	He	138958.6	137920.6	142376.5	136578.7
BISMUTH (NO HE)	209	No He	949907.2	929882.7	951950.4	967888.5

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ARSENIC	75	He	13.66667	0.0004445600	0.0004012920	0.0004846180	0.0004477710
CADMIUM	111	He	0.6666667	0.00001428000	0.00002158200	0.000000000	0.00002125800
CHROMIUM	52	He	220.6667	0.0001949460	0.0003717360	0.00003772100	0.0001753790
COPPER	63	No He	2794.267	0.002199778	0.002215469	0.002159501	0.002224366
COPPER	63	He	600.0100	0.001953434	0.002001643	0.001822461	0.002036196
LEAD	208	No He	586.6833	0.0001929570	0.0002164660	0.0001802290	0.0001821760
MOLYBDENUM	95	He	1944.800	0.01689400	0.01562690	0.01817660	0.01687851
NICKEL	60	He	192.6667	0.001590425	0.001799502	0.001694796	0.001276977
SELENIUM	78	High He	1.500000	0.0001575640	-0.00006473700	0.0003786480	0.0001587790
SILVER	107	He	9.333333	0.000003195000	-0.000005069000	0.00001464400	0.000000009000000
ZINC	66	He	2003.473	0.05781618	0.05507094	0.05577399	0.06260362
ALUMINUM	27	He	41.33333	0.01013491	0.009956520	0.01088496	0.009563261
ANTIMONY	121	He	83.33000	0.0006743950	0.0007499080	0.0006831650	0.0005901100
BARIUM	137	He	332.2267	0.009892147	0.009475639	0.009935120	0.01026568
BERYLLIUM	9	No He	54.00000	-0.000003847000	0.00004116300	-0.00002098800	-0.00003171600
BORON	11	No He	29127.94	0.1524497	0.1528688	0.1520868	0.1523936
CALCIUM	44	No He	2305461	45.30734	44.48613	45.90810	45.52779
CALCIUM	43	He	677.6867	44.39334	42.68226	45.58261	44.91516
CALCIUM	44	He	12417.85	45.57892	43.88728	47.84330	45.00618
COBALT	59	He	132.0000	0.0002956870	0.0002301690	0.0003712520	0.0002856390
IRON	56	He	4947.500	0.03323718	0.03431644	0.03196793	0.03342717
LITHIUM	7	No He	1914.790	0.001557376	0.001536744	0.001543280	0.001592103
MAGNESIUM	24	He	63688.93	6.871262	6.699769	7.086280	6.827738
MANGANESE	55	He	1690.763	0.02769251	0.02804382	0.02626628	0.02876743
POTASSIUM	39	He	75743.28	14.47070	14.32512	15.18143	13.90553
SODIUM	23	He	1023571	54.17510	53.47440	54.92173	54.12917
STRONTIUM	88	He	8234.580	0.1367452	0.1363665	0.1375886	0.1362804
THALLIUM	205	No He	35.55667	0.000003209000	-0.0000001870000	0.000005043000	0.000004771000
THORIUM	232	No He	3107.040	0.00003650500	0.00005609100	0.00001967900	0.00003374600
TIN	118	He	44.44667	0.0004918920	0.0003898040	0.0004427170	0.0006431540
TITANIUM	47	He	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000
URANIUM	238	No He	1130.053	0.00001515100	0.00003094200	-0.000006464000	0.00002097500
VANADIUM	51	He	86.00000	0.0005211090	0.0005721680	0.0004591580	0.0005320010

Rows shaded in gray for analytes that were not ordered.

Sample ID: L1771851-01 DF: 1x Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 18:07 Sequence: 137

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1343626	1324534	1346351	1359993
TELLURIUM (HIGH HE)	125	High He	313170.3	311434.2	313981.1	314095.6
TELLURIUM	125	He	52622.87	52440.02	53080.41	52348.18
SCANDIUM (NO HE)	45	No He	5339663	5201355	5401181	5416451
SCANDIUM	45	He	68288.77	68914.94	68390.65	67560.73
RHODIUM	103	He	195198.0	197609.2	195835.0	192149.9
GERMANIUM (NO HE)	72	No He	2951861	2849136	3027646	2978802
GERMANIUM (HIGH HE)	72	High He	282032.6	291764.8	275054.9	279278.2
GERMANIUM	72	He	136076.2	135757.2	136621.3	135850.1
BISMUTH (NO HE)	209	No He	963221.9	944178.0	973923.5	971564.2

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
URANIUM	238	No He	1103.383	0.000006241000	0.000007325000	0.000009193000	0.000002207000
ALUMINUM	27	He	56.66667	0.01649105	0.01097248	0.01866579	0.01983488
ANTIMONY	121	He	13.33333	0.00006251600	0.00003223500	0.00009108200	0.00006423100
ARSENIC	75	He	2.000000	-0.00002852700	-0.00006997400	-0.000008098000	-0.000007510000
BARIUM	137	He	673.3500	0.02008550	0.01923934	0.01981156	0.02120559
BERYLLIUM	9	No He	62.00000	0.00002072800	-0.000002570000	0.00001369300	0.00005106100
BORON	11	No He	3549.307	0.01183372	0.01213600	0.01253651	0.01082863
CADMIUM	111	He	1.333333	0.00002839900	0.00002141900	0.00004232100	0.00002145600
CALCIUM	44	No He	234363.1	4.615715	4.652021	4.591944	4.603179
CALCIUM	43	He	67.33333	4.304368	4.633929	4.604988	3.674187
CALCIUM	44	He	1243.387	4.497765	4.574448	4.318346	4.600502
CHROMIUM	52	He	281.3333	0.0006002740	0.0005086370	0.0006596900	0.0006324940
COBALT	59	He	32.66667	0.00001415400	-0.000005074000	0.00005266100	-0.000005126000
COPPER	63	No He	360.0000	0.0001428540	0.0001519410	0.0001383640	0.0001382560
COPPER	63	He	72.00000	0.0001520860	0.0001596840	0.0001580460	0.0001385280
IRON	56	He	1333.397	0.004106757	0.003744774	0.004007478	0.004568020
LEAD	208	No He	100.0000	-0.00005572600	-0.00007162200	-0.00005612700	-0.00003942800
LITHIUM	7	No He	514.6767	0.0001607340	0.0001447470	0.0001725310	0.0001649230
MAGNESIUM	24	He	12633.64	1.332144	1.346248	1.342261	1.307923
MANGANESE	55	He	814.6900	0.01331675	0.01398737	0.01284070	0.01312218
MOLYBDENUM	95	He	8.000000	0.00005336900	0.00005251300	0.00005313400	0.00005446100
NICKEL	60	He	50.66667	0.0001991520	0.0002339540	0.0001299220	0.0002335810
POTASSIUM	39	He	15773.37	1.840468	1.939716	1.859253	1.722434
SELENIUM	78	High He	0.3333333	-0.0001020830	-0.0001757590	-0.0001757590	0.00004526900
SILVER	107	He	6.000000	-0.000004854000	-0.0000003340000	-0.00001443000	0.0000002020000
SODIUM	23	He	122202.7	6.288885	6.295177	6.311171	6.260306
STRONTIUM	88	He	1584.533	0.02611134	0.02698346	0.02618141	0.02516915
THALLIUM	205	No He	40.00000	0.000004788000	-0.000001744000	0.000004671000	0.00001143800
THORIUM	232	No He	3132.603	0.00003249800	0.00003460100	0.00003098700	0.00003190600
TIN	118	He	12.22333	0.00009827400	0.0001501970	0.00007115000	0.00007347500
TITANIUM	47	He	0.6666667	0.0002805280	0.000000000	0.0008415840	0.000000000
VANADIUM	51	He	49.33333	0.0002449190	0.0002352890	0.0002486170	0.0002508500
ZINC	66	He	37.33333	0.0006020710	0.0009224940	0.0007359120	0.0001478070

Rows shaded in gray for analytes that were not ordered.

Sample ID: L1771851-02 DF: 1x Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 18:10 Sequence: 138

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1365915	1349342	1369139	1379265
TELLURIUM (HIGH HE)	125	High He	315701.4	315514.9	315880.3	315709.1
TELLURIUM	125	He	53387.39	53589.30	53373.02	53199.85
SCANDIUM (NO HE)	45	No He	5415728	5380054	5586528	5280601
SCANDIUM	45	He	69526.50	69696.56	69584.06	69298.87
RHODIUM	103	He	201381.5	201360.8	199974.9	202808.9
GERMANIUM (NO HE)	72	No He	2980251	2903017	2994447	3043291
GERMANIUM (HIGH HE)	72	High He	275335.1	278151.8	272592.2	275261.1
GERMANIUM	72	He	138612.8	137484.7	137923.4	140430.4
BISMUTH (NO HE)	209	No He	965731.8	957157.2	971945.3	968093.1

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
URANIUM	238	No He	1272.287	0.00004059500	0.00003624700	0.00004739700	0.00003814200
ALUMINUM	27	He	68.00000	0.02071925	0.02147227	0.01821961	0.02246587
ANTIMONY	121	He	13.33667	0.00005926500	0.000002434000	0.0001733300	0.000002031000
ARSENIC	75	He	7.000000	0.0001745350	0.0002794180	0.0001140320	0.0001301540
BARIUM	137	He	742.2433	0.02144224	0.02216560	0.01842717	0.02373394
BERYLLIUM	9	No He	59.33333	0.00001126100	0.00001977200	0.00001877800	-0.000004765000
BORON	11	No He	5826.677	0.02422008	0.02381420	0.02376379	0.02508226
CADMIUM	111	He	3.666667	0.00007704400	0.0001047970	0.0001052220	0.00002111300
CALCIUM	44	No He	1182507	23.38889	23.31425	22.91185	23.94058
CALCIUM	43	He	341.3333	21.77433	20.35748	23.07749	21.88803
CALCIUM	44	He	6330.023	22.64271	23.34450	22.66590	21.91772
CHROMIUM	52	He	630.0133	0.002704001	0.002624489	0.002797202	0.002690312
COBALT	59	He	298.0000	0.0007738540	0.0007402400	0.0008356590	0.0007456630
COPPER	63	No He	988.7000	0.0006679780	0.0006804670	0.0007048700	0.0006185970
COPPER	63	He	207.3333	0.0006109170	0.0005986610	0.0005688890	0.0006652000
IRON	56	He	9049.460	0.06672166	0.06657869	0.06828208	0.06530422
LEAD	208	No He	204.4500	-0.000003437000	-0.000003084000	-0.000004646000	-0.000002582000
LITHIUM	7	No He	440.0100	0.00007835500	0.00007871100	0.00004842600	0.0001079290
MAGNESIUM	24	He	46606.79	4.898434	4.912850	4.875284	4.907167
MANGANESE	55	He	278123.9	4.660977	4.695544	4.647194	4.640192
MOLYBDENUM	95	He	114.0000	0.0009433020	0.001043659	0.001034066	0.0007521820
NICKEL	60	He	363.3367	0.003289958	0.003365321	0.003333797	0.003170755
POTASSIUM	39	He	22560.39	3.174757	3.152561	3.222613	3.149097
SELENIUM	78	High He	0.3333333	-0.0001024800	-0.0001757590	-0.00006587000	-0.00006581000
SILVER	107	He	9.333333	0.000002343000	0.00001319000	-0.00001452900	0.000008367000
SODIUM	23	He	252260.3	12.91197	12.95837	12.72961	13.04792
STRONTIUM	88	He	4696.327	0.07540106	0.07933450	0.07550841	0.07136026
THALLIUM	205	No He	235.5600	0.00008421100	0.00008142400	0.00007463300	0.00009657600
THORIUM	232	No He	3081.480	0.00001977800	0.00002113400	0.00002809600	0.00001010400
TIN	118	He	14.44333	0.0001199230	0.0001070850	0.00006864000	0.0001840440
TITANIUM	47	He	4.000000	0.001654001	0.003716170	0.000000000	0.001245832
VANADIUM	51	He	78.00000	0.0004597320	0.0002930460	0.0006033200	0.0004828310
ZINC	66	He	51.33333	0.0009899240	0.0006693000	0.001310395	0.0009900780

Rows shaded in gray for analytes that were not ordered.

Sample ID: L1771851-04 DF: 1x Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 18:13 Sequence: 139

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1344912	1324725	1352543	1357468
TELLURIUM (HIGH HE)	125	High He	311238.5	311686.2	312216.5	309812.8
TELLURIUM	125	He	52553.45	52398.90	52917.79	52343.66
SCANDIUM (NO HE)	45	No He	5398264	5381173	5451401	5362217
SCANDIUM	45	He	68480.36	69222.51	67837.91	68380.66
RHODIUM	103	He	198187.1	201788.6	196092.5	196680.3
GERMANIUM (NO HE)	72	No He	3049091	3059013	3049931	3038330
GERMANIUM (HIGH HE)	72	High He	282673.9	274509.8	288167.7	285344.1
GERMANIUM	72	He	136658.0	137290.9	136702.3	135981.0
BISMUTH (NO HE)	209	No He	964372.5	962393.2	962230.2	968494.1

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
URANIUM	238	No He	1307.847	0.00004838700	0.00008541600	0.00002102200	0.00003872200
ALUMINUM	27	He	89.33333	0.03010047	0.02747349	0.03156842	0.03125952
ANTIMONY	121	He	12.22000	0.00005190200	-0.00002590400	0.0002067830	-0.00002517300
ARSENIC	75	He	8.000000	0.0002195840	0.0003005830	0.0001160480	0.0002421210
BARIUM	137	He	1646.767	0.04843687	0.04921836	0.04747396	0.04861828
BERYLLIUM	9	No He	56.00000	0.000003141000	0.00001429800	-0.00003612600	0.00003124900
BORON	11	No He	5139.773	0.02048752	0.02130754	0.01941730	0.02073772
CADMIUM	111	He	2.333333	0.00004995400	0.0001071780	0.00002122500	0.00002145800
CALCIUM	44	No He	817499.9	16.18289	15.87265	16.23268	16.44333
CALCIUM	43	He	213.0000	13.76776	13.03754	13.76466	14.50108
CALCIUM	44	He	4252.613	15.42982	15.99410	15.19720	15.09817
CHROMIUM	52	He	424.6767	0.001483518	0.001430103	0.001565448	0.001455004
COBALT	59	He	44.00000	0.00004675700	0.00005200800	0.00006421800	0.00002404600
COPPER	63	No He	577.3433	0.0003112380	0.0003315790	0.0003281280	0.0002740070
COPPER	63	He	106.6667	0.0002715620	0.0002675050	0.0002551850	0.0002919960
IRON	56	He	12927.89	0.09979239	0.09933370	0.09874483	0.1012986
LEAD	208	No He	371.1200	0.00008023500	0.00007000300	0.00009681600	0.00007388600
LITHIUM	7	No He	1024.037	0.0006733660	0.0006480640	0.0006732580	0.0006987750
MAGNESIUM	24	He	22568.55	2.394749	2.358747	2.449749	2.375751
MANGANESE	55	He	344.0000	0.005255976	0.004923243	0.005184917	0.005659766
MOLYBDENUM	95	He	11.33333	0.00008089800	0.00006787800	0.00007031600	0.0001045000
NICKEL	60	He	98.66667	0.0006795430	0.0007482900	0.0005116200	0.0007787190
POTASSIUM	39	He	18701.74	2.442076	2.387722	2.439807	2.498699
SELENIUM	78	High He	0.3333333	-0.0001012890	-0.00006439100	-0.0001757590	-0.00006371700
SILVER	107	He	6.000000	-0.000005076000	-0.000005340000	0.000004561000	-0.00001445100
SODIUM	23	He	143104.7	7.371077	7.236509	7.441786	7.434937
STRONTIUM	88	He	3783.837	0.06168755	0.06165430	0.06130164	0.06210672
THALLIUM	205	No He	36.66667	0.000003467000	0.000004864000	-0.000001926000	0.000007462000
THORIUM	232	No He	3205.953	0.00004732600	0.00004332200	0.00001693100	0.00008172600
TIN	118	He	64.44333	0.0007234690	0.0005773700	0.001039567	0.0005534700
TITANIUM	47	He	2.000000	0.0008450740	0.000000000	0.001272662	0.001262561
VANADIUM	51	He	71.33333	0.0004161270	0.0004502150	0.0004370540	0.0003611100
ZINC	66	He	57.33333	0.001189602	0.001142092	0.001030902	0.001395812

Rows shaded in gray for analytes that were not ordered.

Sample ID: L1771851-05 DF: 1x Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 18:17 Sequence: 140

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1347494	1329433	1349029	1364019
TELLURIUM (HIGH HE)	125	High He	311685.3	308978.9	312505.7	313571.4
TELLURIUM	125	He	52457.58	52708.52	52253.32	52410.91
SCANDIUM (NO HE)	45	No He	5401884	5346552	5487931	5371168
SCANDIUM	45	He	68136.81	69473.49	67323.68	67613.25
RHODIUM	103	He	198278.4	198965.2	200222.5	195647.4
GERMANIUM (NO HE)	72	No He	3050210	3084350	3045962	3020319
GERMANIUM (HIGH HE)	72	High He	287352.7	290031.5	289494.2	282532.3
GERMANIUM	72	He	136889.4	138141.0	136041.9	136485.3
BISMUTH (NO HE)	209	No He	969677.1	962397.2	970662.8	975971.5

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
URANIUM	238	No He	1201.167	0.00002486600	0.00002860100	0.000008598000	0.00003740000
ALUMINUM	27	He	46.00000	0.01196111	0.01826031	0.007995520	0.009627510
ANTIMONY	121	He	14.44667	0.00007043600	0.0001173320	0.000002755000	0.00009122100
ARSENIC	75	He	3.166667	0.00001931200	0.00001124900	0.00003394700	0.00001274000
BARIUM	137	He	1591.207	0.04679665	0.04913516	0.04377203	0.04748276
BERYLLIUM	9	No He	62.00000	0.00001914200	0.00001535400	0.00001112300	0.00003094900
BORON	11	No He	4798.543	0.01857068	0.01903858	0.01738592	0.01928754
CADMIUM	111	He	2.333333	0.00004982500	0.0001065490	0.00002149500	0.00002143100
CALCIUM	44	No He	782859.8	15.48284	15.39728	15.37003	15.68119
CALCIUM	43	He	224.3333	14.57941	14.14353	14.86227	14.73243
CALCIUM	44	He	4115.243	15.01109	14.75244	15.20252	15.07832
CHROMIUM	52	He	350.6667	0.001020376	0.0009470320	0.001091800	0.001022295
COBALT	59	He	36.00000	0.00002339400	0.00001664200	0.00004153800	0.00001200200
COPPER	63	No He	498.6767	0.0002468050	0.0002236920	0.0002334870	0.0002832360
COPPER	63	He	88.00000	0.0002061700	0.0001964780	0.0002150070	0.0002070250
IRON	56	He	3041.430	0.01811731	0.01831893	0.01688383	0.01914916
LEAD	208	No He	202.2233	-0.000004918000	0.000004722000	-0.000002855000	-0.00001662000
LITHIUM	7	No He	931.3633	0.0005788560	0.0005724790	0.0005182230	0.0006458680
MAGNESIUM	24	He	21710.60	2.314139	2.316765	2.325480	2.300171
MANGANESE	55	He	192.6667	0.002678441	0.002232143	0.002719736	0.003083445
MOLYBDENUM	95	He	10.66667	0.00007487900	0.00006906900	0.0001023670	0.00005320000
NICKEL	60	He	64.66667	0.0003361430	0.0004035670	0.0002530110	0.0003518490
POTASSIUM	39	He	18072.61	2.331244	2.182696	2.387874	2.423162
SELENIUM	78	High He	0.5000000	-0.00006480900	-0.0001757590	0.00004639300	-0.00006506000
SILVER	107	He	5.333333	-0.000006663000	-0.00001450500	-0.0000005800000	-0.000004905000
SODIUM	23	He	138300.6	7.155032	7.085544	7.195597	7.183954
STRONTIUM	88	He	3797.173	0.06188408	0.05932756	0.06283969	0.06348499
THALLIUM	205	No He	26.66667	-0.0000006640000	-0.000004641000	0.000002031000	0.0000006200000
THORIUM	232	No He	3170.390	0.00003592900	-0.000006104000	0.00007301200	0.00004087900
TIN	118	He	24.44667	0.0002426760	0.0001488320	0.0003056430	0.0002735520
TITANIUM	47	He	0.6666667	0.0002805650	0.0004142340	0.0004274610	0.000000000
VANADIUM	51	He	46.66667	0.0002218750	0.0001976140	0.0003134870	0.0001545240
ZINC	66	He	50.00000	0.0009697790	0.0008978290	0.0007412060	0.001270304

Rows shaded in gray for analytes that were not ordered.

Sample ID: L1771851-06 DF: 1x Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 18:20 Sequence: 141

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1322031	1295543	1329958	1340594
TELLURIUM (HIGH HE)	125	High He	310928.2	308855.7	311301.1	312627.8
TELLURIUM	125	He	52001.41	52364.76	51708.83	51930.65
SCANDIUM (NO HE)	45	No He	5393393	5293501	5445017	5441660
SCANDIUM	45	He	68985.97	68691.84	69121.95	69144.13
RHODIUM	103	He	198973.2	197544.6	199680.4	199694.5
GERMANIUM (NO HE)	72	No He	2955066	2904009	2955982	3005208
GERMANIUM (HIGH HE)	72	High He	286597.8	285628.4	286979.3	287185.7
GERMANIUM	72	He	134921.2	133914.0	134215.1	136634.6
BISMUTH (NO HE)	209	No He	968153.2	955837.2	967767.0	980855.5

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
URANIUM	238	No He	1065.600	-0.000002709000	-0.000001066000	0.000001023000	-0.000008082000
ALUMINUM	27	He	15.33333	-0.0009741430	-0.002336426	-0.0007069670	0.0001209630
ANTIMONY	121	He	9.996667	0.00003141200	-0.00002529900	0.00005977100	0.00005976300
ARSENIC	75	He	3.500000	0.00003560500	0.0001207890	0.00001484400	-0.00002881900
BARIUM	137	He	6.666667	0.0001343270	0.0002338890	0.00003573000	0.0001333620
BERYLLIUM	9	No He	39.33333	-0.00004226700	-0.00005487900	-0.00003061800	-0.00004130200
BORON	11	No He	2324.627	0.004790795	0.004576210	0.004792608	0.005003566
CADMIUM	111	He	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000
CALCIUM	44	No He	9657.807	0.08704341	0.09159873	0.08575500	0.08377650
CALCIUM	43	He	3.666667	0.1551793	0.2424081	0.1759887	0.04714101
CALCIUM	44	He	36.66667	0.09377547	0.1281166	0.1126610	0.04054882
CHROMIUM	52	He	227.3333	0.0002759330	0.0002779320	0.0003253230	0.0002245450
COBALT	59	He	30.00000	0.000007410000	0.00006130700	-0.00001605000	-0.00002302600
COPPER	63	No He	254.6667	0.00005301400	0.00005640100	0.00001531200	0.00008732800
COPPER	63	He	50.00000	0.00007659400	0.00007102400	0.00004940800	0.0001093510
IRON	56	He	1291.167	0.003845502	0.003807634	0.003447226	0.004281646
LEAD	208	No He	313.3367	0.00005055700	0.00003581400	0.00005737300	0.00005848300
LITHIUM	7	No He	382.6700	0.00002114600	0.000009244000	0.00004513800	0.000009055000
MAGNESIUM	24	He	248.3333	-0.0006194010	-0.0003283460	-0.002089253	0.0005593950
MANGANESE	55	He	46.00000	0.0001998620	0.0003436210	0.0002030440	0.00005292200
MOLYBDENUM	95	He	6.666667	0.00004067500	0.00003539000	0.00003484000	0.00005179700
NICKEL	60	He	41.33333	0.0001084600	0.0001183470	0.0001173800	0.00008965300
POTASSIUM	39	He	8050.523	0.2112334	0.1772269	0.2672089	0.1892644
SELENIUM	78	High He	0.1666667	-0.0001382960	-0.00006337000	-0.0001757590	-0.0001757590
SILVER	107	He	3.333333	-0.00001136200	-0.000005042000	-0.00001452200	-0.00001452200
SODIUM	23	He	3482.080	0.02545716	0.02614737	0.01771522	0.03250889
STRONTIUM	88	He	23.33333	0.0001912190	0.00003043000	0.0002986520	0.0002445740
THALLIUM	205	No He	25.55667	-0.000001104000	-0.000004595000	0.0000007220000	0.0000005600000
THORIUM	232	No He	2999.233	0.0000004950000	-0.00002339100	0.00002955500	-0.000004680000
TIN	118	He	12.22333	0.00009596100	0.0001502620	0.00006881500	0.00006880700
TITANIUM	47	He	1.000000	0.0004180340	0.0008378940	0.000000000	0.0004162070
VANADIUM	51	He	34.66667	0.0001317760	0.0001281690	0.0001916130	0.00007554600
ZINC	66	He	38.66667	0.0006515370	0.0006402850	0.0006377110	0.0006766170

Rows shaded in gray for analytes that were not ordered.

Sample ID: L1771853-01 DF: 1x Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 18:23 Sequence: 142

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1329827	1302302	1334593	1352585
TELLURIUM (HIGH HE)	125	High He	308157.2	311985.4	304925.3	307560.9
TELLURIUM	125	He	51717.87	51634.59	51977.81	51541.22
SCANDIUM (NO HE)	45	No He	5344468	5269478	5357807	5406118
SCANDIUM	45	He	68708.13	68981.36	69075.95	68067.09
RHODIUM	103	He	194949.2	193706.0	194846.2	196295.5
GERMANIUM (NO HE)	72	No He	2966387	2969414	2968422	2961324
GERMANIUM (HIGH HE)	72	High He	280898.4	276953.7	288686.7	277054.8
GERMANIUM	72	He	136639.9	137416.1	136611.2	135892.4
BISMUTH (NO HE)	209	No He	959583.4	932467.7	959017.1	987265.5

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
URANIUM	238	No He	1595.657	0.0001100540	0.0001260600	0.0001136190	0.00009048100
ALUMINUM	27	He	1687.433	0.6974318	0.6624633	0.7288557	0.7009762
ANTIMONY	121	He	81.11000	0.0006550810	0.0005033380	0.0008500610	0.0006118430
ARSENIC	75	He	116.3333	0.004705321	0.005139693	0.004735621	0.004240648
BARIUM	137	He	261.1167	0.007760458	0.008577693	0.007528556	0.007175126
BERYLLIUM	9	No He	46.00000	-0.00002271500	0.000001093000	-0.00002323000	-0.00004600900
BORON	11	No He	9866.547	0.04740501	0.04828654	0.04651204	0.04741644
CADMIUM	111	He	0.3333333	0.000007264000	0.000000000	0.000000000	0.00002179200
CALCIUM	44	No He	3251219	65.32229	65.41597	63.87487	66.67603
CALCIUM	43	He	960.0300	62.12465	62.45417	60.82183	63.09794
CALCIUM	44	He	17771.27	64.40021	64.51192	64.40903	64.27966
CHROMIUM	52	He	254.0000	0.0004231530	0.0005750530	0.0001999220	0.0004944860
COBALT	59	He	187.3333	0.0004639590	0.0004628290	0.0004776790	0.0004513710
COPPER	63	No He	1902.123	0.001441907	0.001349217	0.001487965	0.001488541
COPPER	63	He	325.3333	0.001032034	0.0009654130	0.0009925480	0.001138139
IRON	56	He	43566.39	0.3528202	0.3500383	0.3484964	0.3599260
LEAD	208	No He	188.8900	-0.00001098500	-0.00003146600	-0.000008322000	0.000006834000
LITHIUM	7	No He	788.6867	0.0004422040	0.0004632610	0.0004495510	0.0004138000
MAGNESIUM	24	He	5119.213	0.5205252	0.4992124	0.5107276	0.5516357
MANGANESE	55	He	47177.05	0.8015482	0.7974628	0.7937045	0.8134773
MOLYBDENUM	95	He	4221.290	0.03665946	0.03754829	0.03720687	0.03522323
NICKEL	60	He	444.6767	0.004159755	0.004147206	0.003831501	0.004500556
POTASSIUM	39	He	125372.6	24.57253	24.65171	24.19349	24.87240
SELENIUM	78	High He	3.833333	0.0006889170	0.0004918100	0.0007349420	0.0008400000
SILVER	107	He	6.000000	-0.000004908000	-0.00001437800	-0.000009626000	0.000009281000
SODIUM	23	He	1246620	65.19244	64.55589	65.89505	65.12636
STRONTIUM	88	He	37196.68	0.6182174	0.6244042	0.6221942	0.6080539
THALLIUM	205	No He	33.33667	0.000002196000	-0.0000002180000	0.000007648000	-0.0000008410000
THORIUM	232	No He	2971.450	0.0000003300000	-0.000004981000	0.00001338000	-0.000007408000
TIN	118	He	5.556667	0.00001732500	-0.00005008100	0.00003119000	0.00007086500
TITANIUM	47	He	0.3333333	0.0001409310	0.000000000	0.000000000	0.0004227920
VANADIUM	51	He	1694.100	0.01318184	0.01249381	0.01310328	0.01394842
ZINC	66	He	32.66667	0.0004584970	0.0009052380	0.0001441590	0.0003260950

ACCOUNT: PROJECT: SDG: DATE/TIME: PAGE:

Rows shaded in gray for analytes that were not ordered.

Sample ID: L1771853-02 DF: 1x Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 18:27 Sequence: 143

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1333013	1311514	1340316	1347210
TELLURIUM (HIGH HE)	125	High He	312413.8	312581.6	313609.3	311050.5
TELLURIUM	125	He	52426.82	52936.39	52100.29	52243.78
SCANDIUM (NO HE)	45	No He	5337315	5318644	5292778	5400524
SCANDIUM	45	He	68298.87	69093.93	68842.70	66959.98
RHODIUM	103	He	198967.6	197740.9	199728.6	199433.2
GERMANIUM (NO HE)	72	No He	2884166	2834559	2912633	2905306
GERMANIUM (HIGH HE)	72	High He	282648.1	276191.6	285350.5	286402.2
GERMANIUM	72	He	136314.0	135407.0	135411.5	138123.5
BISMUTH (NO HE)	209	No He	963852.5	946338.3	966371.6	978847.7

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
URANIUM	238	No He	1258.950	0.00003839900	0.00004061900	0.00003998600	0.00003459200
ALUMINUM	27	He	31.33333	0.005861581	0.004279709	0.002654758	0.01065028
ANTIMONY	121	He	5.556667	-0.000006484000	-0.00002532800	0.000002896000	0.000002980000
ARSENIC	75	He	5.166667	0.0001026470	0.00009732700	0.00007642100	0.0001341930
BARIUM	137	He	164.4467	0.004764109	0.005154005	0.005199429	0.003938893
BERYLLIUM	9	No He	48.00000	-0.00001722600	0.00001071300	-0.00003274700	-0.00002964400
BORON	11	No He	2634.680	0.006680592	0.007422363	0.006474504	0.006144909
CADMIUM	111	He	1.666667	0.00003573800	0.00002121800	0.000000000	0.00008599700
CALCIUM	44	No He	303391.9	6.008417	5.950182	6.054195	6.020873
CALCIUM	43	He	103.3333	6.666095	6.168016	5.867501	7.962768
CALCIUM	44	He	1627.423	5.899837	5.651558	5.954602	6.093352
CHROMIUM	52	He	255.3333	0.0004356820	0.0006007210	0.0003122450	0.0003940810
COBALT	59	He	39.33333	0.00003358800	0.00005386100	0.00002448900	0.00002241300
COPPER	63	No He	1650.763	0.001269711	0.001290493	0.001279035	0.001239604
COPPER	63	He	382.6733	0.001235234	0.001416229	0.001205710	0.001083763
IRON	56	He	1979.023	0.009436232	0.009217043	0.01038322	0.008708429
LEAD	208	No He	302.2267	0.00004569200	0.00003383400	0.00005594300	0.00004729700
LITHIUM	7	No He	510.6767	0.0001570740	0.0001478860	0.0001670090	0.0001563280
MAGNESIUM	24	He	10498.68	1.102541	1.081948	1.110029	1.115646
MANGANESE	55	He	298.6667	0.004494759	0.004039200	0.004622366	0.004822710
MOLYBDENUM	95	He	5.333333	0.00002931300	0.00001821000	0.00003482700	0.00003490300
NICKEL	60	He	68.66667	0.0003792720	0.0004789130	0.0002353500	0.0004235540
POTASSIUM	39	He	12328.45	1.122124	1.075546	1.090991	1.199836
SELENIUM	78	High He	1.333333	0.0001208590	0.00004633900	0.00004561200	0.0002706250
SILVER	107	He	4.000000	-0.000009809000	-0.000005056000	-0.00001452300	-0.000009846000
SODIUM	23	He	95295.64	4.869725	4.904566	4.763252	4.941357
STRONTIUM	88	He	2121.270	0.03436597	0.03516131	0.03524227	0.03269433
THALLIUM	205	No He	30.00000	0.0000008210000	0.000003761000	0.000004797000	-0.000006093000
THORIUM	232	No He	2941.443	-0.000008923000	-0.00001064600	0.000006268000	-0.00002239100
TIN	118	He	17.77667	0.0001624800	0.0003101070	0.0001083700	0.00006896300
TITANIUM	47	He	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000
VANADIUM	51	He	45.33333	0.0002131260	0.0002362710	0.0002521310	0.0001509750
ZINC	66	He	72.66667	0.001647336	0.001642721	0.001523232	0.001776054

Rows shaded in gray for analytes that were not ordered.

Sample ID: L1771853-04 DF: 1x Batch: WG2356031 Units: mg/l
Analyzed: 09/12/24 18:30 Sequence: 144

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1324575	1300685	1330799	1342241
TELLURIUM (HIGH HE)	125	High He	310169.9	309431.5	309425.2	311653.0
TELLURIUM	125	He	51896.69	51873.96	52028.98	51787.12
SCANDIUM (NO HE)	45	No He	5369391	5195036	5513206	5399931
SCANDIUM	45	He	67912.51	67052.67	68121.41	68563.46
RHODIUM	103	He	194031.6	195774.3	193942.3	192378.4
GERMANIUM (NO HE)	72	No He	2975876	2952166	2983686	2991776
GERMANIUM (HIGH HE)	72	High He	280567.3	278235.8	285339.4	278126.5
GERMANIUM	72	He	134929.7	136669.0	134608.3	133511.7
BISMUTH (NO HE)	209	No He	943460.9	926533.9	951041.6	952807.2

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
URANIUM	238	No He	1346.740	0.00006272600	0.00007431800	0.00005053400	0.00006332500
ALUMINUM	27	He	35.33333	0.007553338	0.003777784	0.007815822	0.01106641
ANTIMONY	121	He	24.44333	0.0001603920	0.0002362050	0.0001217700	0.0001232000
ARSENIC	75	He	6.833333	0.0001748630	0.0001782220	0.0002036820	0.0001426850
BARIUM	137	He	1242.280	0.03731581	0.03761067	0.03595976	0.03837701
BERYLLIUM	9	No He	38.00000	-0.00004564200	-0.00005873200	-0.00002146300	-0.00005673200
BORON	11	No He	6402.470	0.02774012	0.02885775	0.02651981	0.02784280
CADMIUM	111	He	0.6666667	0.00001441400	0.00002165300	0.00002158800	0.000000000
CALCIUM	44	No He	1558364	31.13200	32.01398	29.77170	31.61032
CALCIUM	43	He	452.0100	29.55140	29.92763	29.97961	28.74695
CALCIUM	44	He	8240.953	30.20022	31.15859	30.04708	29.39500
CHROMIUM	52	He	324.0000	0.0008838140	0.0007833020	0.001166187	0.0007019540
COBALT	59	He	92.66667	0.0001915940	0.0002039230	0.0002614660	0.0001093940
COPPER	63	No He	2844.943	0.002229345	0.002220922	0.002207484	0.002259631
COPPER	63	He	668.6833	0.002253777	0.002361520	0.002307444	0.002092366
IRON	56	He	1806.780	0.008166024	0.007553978	0.007384813	0.009559280
LEAD	208	No He	168.8900	-0.00001926700	-0.00002229600	-0.00001936500	-0.00001614200
LITHIUM	7	No He	353.3333	-0.000006413000	0.00002697200	-0.00002970900	-0.00001650300
MAGNESIUM	24	He	30196.87	3.241019	3.388263	3.189310	3.145484
MANGANESE	55	He	188.6667	0.002657234	0.002364563	0.002755018	0.002852122
MOLYBDENUM	95	He	679.3500	0.005911600	0.006143183	0.006061651	0.005529966
NICKEL	60	He	106.0000	0.0007680100	0.0006123610	0.0007898480	0.0009018210
POTASSIUM	39	He	96736.86	18.86525	19.14198	19.30459	18.14918
SELENIUM	78	High He	1.500000	0.0001605160	0.0003851400	0.0001607870	-0.00006437900
SILVER	107	He	7.333333	-0.000001502000	-0.00001442900	-0.000004780000	0.00001470200
SODIUM	23	He	437237.7	23.03355	23.11652	23.12824	22.85591
STRONTIUM	88	He	7858.813	0.1310875	0.1289146	0.1318061	0.1325419
THALLIUM	205	No He	406.6767	0.0001576340	0.0001620820	0.0001727290	0.0001380910
THORIUM	232	No He	3081.477	0.00003558100	0.00006307000	-0.00001375800	0.00005743100
TIN	118	He	10.00000	0.00007204500	0.0001115700	0.00007233300	0.00003223300
TITANIUM	47	He	0.6666667	0.0002829730	0.0004291890	0.000000000	0.0004197320
VANADIUM	51	He	66.66667	0.0003864830	0.0003742900	0.0003503010	0.0004348580
ZINC	66	He	48.66667	0.0009511150	0.0009721170	0.0009346930	0.0009465340

Rows shaded in gray for analytes that were not ordered.

Sample ID: CCV Units: mg/l
Analyzed: 09/12/24 18:33 Sequence: 145 Standard ID: 24H28494

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1366175	1347892	1372457	1378175
TELLURIUM (HIGH HE)	125	High He	317257.4	318849.3	315751.4	317171.6
TELLURIUM	125	He	53518.38	53676.65	53378.02	53500.48
SCANDIUM (NO HE)	45	No He	5539643	5501885	5440739	5676306
SCANDIUM	45	He	70183.55	69318.91	69985.94	71245.80
RHODIUM	103	He	201011.9	202876.8	198987.7	201171.2
GERMANIUM (NO HE)	72	No He	2981244	2966362	3001773	2975596
GERMANIUM (HIGH HE)	72	High He	280640.9	282201.6	286990.4	272730.8
GERMANIUM	72	He	139315.4	140333.9	138691.8	138920.6
BISMUTH (NO HE)	209	No He	953007.8	925569.1	958264.7	975189.5

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ALUMINUM	27	He	2404.193	0.9757088	0.9597912	1.003891	0.9634445
ANTIMONY	121	He	11489.14	0.09739191	0.09754827	0.09854159	0.09608586
ARSENIC	75	He	2390.527	0.09700814	0.09588322	0.09593838	0.09920283
BARIUM	137	He	3330.403	0.09665767	0.09720828	0.09695720	0.09580754
BERYLLIUM	9	No He	35455.90	0.09354797	0.09246212	0.09655491	0.09162687
BORON	11	No He	18182.02	0.09066747	0.08946535	0.09364704	0.08889001
CADMIUM	111	He	4633.090	0.09723186	0.09901437	0.09470583	0.09797536
CALCIUM	44	No He	526644.2	10.12190	10.01051	10.35275	10.00245
CALCIUM	43	He	166.0000	10.45021	11.09269	9.904847	10.35309
CALCIUM	44	He	2814.270	9.954877	10.54338	9.630703	9.690546
CHROMIUM	52	He	16203.54	0.09759063	0.09858089	0.09818071	0.09601030
COBALT	59	He	34803.00	0.09926892	0.09799791	0.09996961	0.09983923
COPPER	63	No He	117871.0	0.09875759	0.09778971	0.09819361	0.1002895
COPPER	63	He	29303.16	0.09981407	0.09888892	0.1004931	0.1000602
IRON	56	He	120239.0	0.9668849	0.9611294	0.9719331	0.9675923
LEAD	208	No He	196258.5	0.09943313	0.1008393	0.09911087	0.09834925
LITHIUM	7	No He	96685.20	0.09547879	0.09440634	0.09659854	0.09543150
MAGNESIUM	24	He	95665.04	9.990900	10.17745	10.13092	9.664332
MANGANESE	55	He	5899.850	0.09778599	0.09855614	0.09399900	0.1008028
MOLYBDENUM	95	He	11650.05	0.09813457	0.09882585	0.09849202	0.09708584
NICKEL	60	He	9946.023	0.09779014	0.09653784	0.09869579	0.09813678
POTASSIUM	39	He	57599.22	10.25207	10.18117	10.42112	10.15391
SELENIUM	78	High He	453.8433	0.09912952	0.1007456	0.09623905	0.1004039
SILVER	107	He	45659.49	0.1057540	0.1069089	0.1063738	0.1039793
SODIUM	23	He	197639.7	9.987758	10.06590	10.09874	9.798626
STRONTIUM	88	He	6025.713	0.09698327	0.09626592	0.1018443	0.09283963
THALLIUM	205	No He	240908.8	0.09913675	0.1011131	0.09817247	0.09812469
THORIUM	232	No He	430140.4	0.09269015	0.09300905	0.09338224	0.09167915
TIN	118	He	8296.890	0.09794334	0.09820084	0.09805176	0.09757741
TITANIUM	47	He	230.6667	0.09463380	0.09590134	0.1011553	0.08684476
URANIUM	238	No He	458820.8	0.09609163	0.09745859	0.09480356	0.09601275
VANADIUM	51	He	12481.27	0.09614090	0.09403959	0.09710913	0.09727400
ZINC	66	He	3365.057	0.09713790	0.09756459	0.09616011	0.09768900

Sample ID: CCB Units: mg/l
Analyzed: 09/12/24 18:37 Sequence: 146

Internal Standards

Analyte	Mass	Mode	Mean Intensity	Intensity Rep1	Intensity Rep2	Intensity Rep3
TELLURIUM (NO HE)	125	No He	1347741	1324296	1353670	1365257
TELLURIUM (HIGH HE)	125	High He	315031.7	313802.8	315800.6	315491.7
TELLURIUM	125	He	53368.66	53372.99	52884.20	53848.79
SCANDIUM (NO HE)	45	No He	5522969	5597915	5433038	5537954
SCANDIUM	45	He	71435.51	71728.31	71450.88	71127.34
RHODIUM	103	He	203070.3	204457.2	203487.4	201266.2
GERMANIUM (NO HE)	72	No He	3048099	3077634	2983839	3082824
GERMANIUM (HIGH HE)	72	High He	287138.6	290070.9	275416.7	295928.1
GERMANIUM	72	He	137671.3	138012.1	135888.0	139113.9
BISMUTH (NO HE)	209	No He	969130.3	949047.4	971426.0	986917.5

Target Analytes

Analyte	Mass	Mode	Mean Intensity	Mean Conc. (uncorrected)	Conc. Rep1	Conc. Rep2	Conc. Rep3
ALUMINUM	27	He	12.66667	-0.002264266	-0.0001481810	-0.004136532	-0.002508084
ANTIMONY	121	He	32.22333	0.0002167670	0.0001961120	0.0001694050	0.0002847840
ARSENIC	75	He	4.166667	0.00006000400	0.00003186800	0.0001174120	0.00003073100
BARIUM	137	He	4.443333	0.00006574600	0.0002238980	-0.00006162300	0.00003496300
BERYLLIUM	9	No He	58.66667	0.000006492000	0.000002751000	-0.000008809000	0.00002553400
BORON	11	No He	1412.293	-0.0004842760	-0.0007797250	-0.0004810810	-0.0001920220
CADMIUM	111	He	1.000000	0.00002110900	0.00004208900	0.00002123900	0.000000000
CALCIUM	44	No He	5209.580	-0.004105953	-0.008284377	-0.0002612680	-0.003772213
CALCIUM	43	He	2.000000	0.04282325	0.04250195	0.1675918	-0.08162400
CALCIUM	44	He	14.66667	0.01246956	-0.003987513	0.01706849	0.02432770
CHROMIUM	52	He	188.6667	0.000008948000	0.00007543700	0.00003218900	-0.00008078200
COBALT	59	He	24.00000	-0.00001194800	0.000005208000	-0.00002270600	-0.00001834600
COPPER	63	No He	210.0000	0.000009870000	0.000005035000	0.000003591000	0.00002098400
COPPER	63	He	22.00000	-0.00002326700	-0.000002866000	-0.00002233300	-0.00004460300
IRON	56	He	726.6867	-0.0009914470	-0.001281109	-0.0005835410	-0.001109690
LEAD	208	No He	103.3333	-0.00005409300	-0.00004633800	-0.00004936800	-0.00006657300
LITHIUM	7	No He	358.6700	-0.00001170700	0.000008339000	0.000005611000	-0.00004907000
MAGNESIUM	24	He	200.0000	-0.006510043	-0.0009482040	-0.009073634	-0.009508291
MANGANESE	55	He	24.66667	-0.0001765820	-0.0003238560	-0.00008029800	-0.0001255910
MOLYBDENUM	95	He	5.333333	0.00002858400	-0.00001604700	0.00005053200	0.00005126700
NICKEL	60	He	31.33333	0.00000001400000	-0.00001392400	-0.000009255000	0.00002322000
POTASSIUM	39	He	8003.843	0.1448848	0.1848055	0.08831401	0.1615349
SELENIUM	78	High He	0.3333333	-0.0001022480	-0.00006514200	-0.00006584200	-0.0001757590
SILVER	107	He	12.66667	0.000009892000	0.000008145000	0.000003698000	0.00001783300
SODIUM	23	He	3026.977	-0.003705235	-0.01171294	-0.001067555	0.001664794
STRONTIUM	88	He	23.33333	0.0001828590	0.0004985730	0.00007723900	-0.00002723500
THALLIUM	205	No He	35.55667	0.000002958000	0.000003717000	0.000002020000	0.000003136000
THORIUM	232	No He	3194.840	0.00004187900	0.00004566700	0.00007458000	0.000005390000
TIN	118	He	6.663333	0.00002755800	0.0001047050	-0.00001123000	-0.00001080100
TITANIUM	47	He	0.3333333	0.0001348670	0.000000000	0.000000000	0.0004046020
URANIUM	238	No He	1113.383	0.000006782000	-0.0000001810000	0.000001553000	0.00001897400
VANADIUM	51	He	18.66667	0.0000009910000	-0.000004519000	-0.000002328000	0.000009821000
ZINC	66	He	20.66667	0.00009784800	-0.0001553680	-0.00009037400	0.0005392850

200.8 WW Metals Prep Benchsheet

Workgroup : WG2356031

Prep Start Date/Time: 09/12/24 07:04-07:05 **Analyst:** DGQ4245 **Analyst Verified pH:** DGQ4245 **Vessel ESC Lot ID:** LV24042003 **Pipette ID:** F13412591
Hotblock ID: MPD **Thermometer ID#:** 718470 **Thermometer Location:** E4 **Thermometer Correction Factor:** 0.0 **Uncorr. Temp On:** 96 **Corrected Temp Off:** 96
Uncorr. Temp Off: 96 **Corrected Temp On:** 96 **Pipette Tip Lot#:** 24240066 **Filter Lot#:** NA **Dig. Start Date/Time:** 09/12/24 08:32:53 **pH Lot #:** 234722V
Reflux Cap Lot#: LV23120109-4065 **Prep End Date/Time:** 09/12/24 14:13 **Method:** 200.8 **SOP:** ENV-SOP-MTJL-0208

1:1 Nitric Acid: 24I10353 Amt. Used: 1 mL Exp. Date:02/05/25 **Hydrochloric Acid:** 24I11476 Amt. Used: 0.50 mL Exp. Date:03/11/25
LCS/MS Spike: 24G24158 Amt. Used: 0.1250 mL Exp. Date:01/24/25 **LCS/MS Spike 2:** 24G24159 Amt. Used: 0.1250 mL Exp. Date:01/24/25

Sample Number	ListType	Initial Sample Vol (mL)	Final Volume (mL)	Sample Description	Initial pH	Review Analyst	Review Date
BLANK		25	25	REAGENT WATER	7	DGQ4245	09/12/24 14:14:00
LCS		25	25	REAGENT WATER	7	DGQ4245	09/12/24 14:14:00
MS(L1771851-03)		25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
MS(L1771853-03)		25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
MSD(L1771851-03)		25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
MSD(L1771853-03)		25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
1. L1770381-01	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
2. L1770768-01	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
3. L1771174-02	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
4. L1771175-01	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
5. L1771176-01	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
6. L1771177-02	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
7. L1771178-01	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
8. L1771851-01	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
9. L1771851-02	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
10. L1771851-03	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
11. L1771851-04	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
12. L1771851-05	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
13. L1771851-06	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
14. L1771853-01	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
15. L1771853-02	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
16. L1771853-03	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
17. L1771853-04	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
18. L1771853-05	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
19. L1771853-06	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00
20. L1771853-07	GFAA METALS	25	25	COLORLESS	<2	DGQ4245	09/12/24 14:14:00

Comments:

Reviewed By:DGQ4245 on 09/12/24 14:14:00

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

Corr.	Correlation Coefficient.
Incpt	Intercept.
Mass	Mass of parameter.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
RSD	Relative Standard Deviation.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Slope	Slope of calibration curve.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Wavelength	Wavelength of parameter.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
NI	Manual Integration Code to indicate that the peak was not integrated at all by the computer software.
LT	Manual Integration Code to indicate that the peak in question was inappropriately integrated to an area less than what it should be (i.e., peak area was cut).
GT	Manual Integration Code to indicate that the peak in question was inappropriately integrated to an area greater than it should be (i.e., peak tailing).
BA	Manual Integration Code to indicate that the baseline had to be adjusted correctly by the analyst.
WP	Manual Integration Code to indicate that the wrong peak was chosen.
CO	Manual Integration Code to indicate that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
RT	Manual Integration Code to indicate that the retention time for the peak in question has shifted from the expected retention time.
INT	Manual Integration Code to indicate that there was electronic interference (i.e., noise).

GLOSSARY OF TERMS

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

G179

Subcontract Chain of Custody

Pace Analytical National
12065 Lebanon Road
Mt. Juliet, TN 37122

Alpha Job Number
L2447890

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 716.427.5229
Email: Melissa.Deyo@pacelabs.com

Project Information

Project Location: NY
Project Manager: Melissa Deyo

Turnaround & Deliverables Information

Due Date:
Deliverables:

Regulatory Requirements/Report Limits

State/Federal Program:

Regulatory Criteria: NY-TOGS-GA

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2447890

Report to include Method Blank, LCS/LCSD:

Additional Comments: Invoices to: invoices@pacelabs.coupahost.com Reports to: west.subreports@pacelabs.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
UM 1851	MW-3A -01	08-21-24 11:10	WATER	Uranium by EPA 200.8	
	MW-6A -02	08-20-24 16:40	WATER	Uranium by EPA 200.8	
	MW-6B -03	08-20-24 14:55	WATER	Uranium by EPA 200.8	MS;MSD
	MW-9B -04	08-21-24 09:00	WATER	Uranium by EPA 200.8	
	DUP -05	08-21-24 00:00	WATER	Uranium by EPA 200.8	
	FIELD BLANK -06	08-21-24 09:30	WATER	Uranium by EPA 200.8	

TLA9 3.1+0.3=3.4 7781 8524 0990

Sample Receipt Checklist

COC Seal Present/Intact:	X Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres. Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RA Screen <0.5 mR/hr:	X Y N		

Container: 1 8 AB 08/27/2024

Relinquished By:	Date/Time:	Received By:	Date/Time:
	8/26/24		08/27/2024 0830

Form No: AL_subcoc

Tracking Numbers	Temperature
7781 8527 0990	11A9 3.140.3=3.4
7781 8527 1004	11A9 2.340.3=2.6