PREP BATCH REPORT

Prep Code: **PRP-3010** Technician: **Amanda E. McDaniels** Prep Start Date: **1/17/2022 1:21:13 PM**

Prep Batch **162992** Prep Temp: **93 °C** Batch Units: **ML** Prep End Date: **1/18/2022 9:48:00 AM**

Sample ID	Matrix	pH	Initial Samp Amt	Sol Added	Sol Recovered	Final Vol (mL)	Factor	Balance	Prep Start Date	Prep End Date
MB-162992 Temp cell D4			50	0	0	50	1		1/17/2022	1/18/2022
LCS4-162992			50	0	0	50	1		1/17/2022	1/18/2022
B22010971-001B	Ground Water		50	0	0	50	1		1/17/2022	1/18/2022
B22010971-001BMS4			50	0	0	50	1		1/17/2022	1/18/2022
B22010971-001BMSD4			50	0	0	50	1		1/17/2022	1/18/2022
B22010972-001B	Ground Water		50	0	0	50	1		1/17/2022	1/18/2022
B22010973-001B	Ground Water		50	0	0	50	1		1/17/2022	1/18/2022
B22010974-001B	Ground Water		50	0	0	50	1		1/17/2022	1/18/2022
B22010975-001B	Ground Water		50	0	0	50	1		1/17/2022	1/18/2022
B22010976-001B	Ground Water		50	0	0	50	1		1/17/2022	1/18/2022
B22010977-001B	Ground Water		50	0	0	50	1		1/17/2022	1/18/2022
B22010978-001B	Ground Water		50	0	0	50	1		1/17/2022	1/18/2022
B22010979-001B	Ground Water		50	0	0	50	1		1/17/2022	1/18/2022
B22010980-001B	Ground Water		50	0	0	50	1		1/17/2022	1/18/2022

Number	Reagent Name	Exp Date	A
14614	50mL DigiTubes J526127-2104	12/10/2022	
14626	Nitric Acid 69.0- 70.0% D0521	12/14/2026	6 mL
14721	Hydrochloric Acid E1421	1/4/2027	1 mL

Spk ID	Spike Name	SampType	AmtAdd	Exp Date
ME211124 EL-M	EL-MSICV-2	LCS4/MS4	0.05 ml	11/24/2022
ME211202 EL200	EL-200.2MS	LCS4/MS4	0.05 mL	12/2/2022
ME220106 AUDI	AUDIGSPK	LCS4/MS4	0.05 ml	10/25/2022

Energy Laboratories Inc

ANALYTICAL RUN Summary

22-Jan-22

Run ID ICPMS206-B_220118A

Run Start Date: 1/18/2022 6:18:16 P
Analyst: Cindy Rohrer
Ical: 0
Column ID:
Comments:

Instrument ID	Description
04F07114	Metals 5-50 uL Adjustable Pipette
340760037	Metals 100-1000 uL Adjustable Pipette
340760040	Metals 100-1000 uL Adjustable Pipette
440780018	Metals 1-5 mL Adjustable Pipette
440780025	Metals 1-5 mL Adjustable Pipette
841980007	1000-5000uL Pipette
841980009	1000-5000uL Pipette

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
ME210901 ICSA	ICSA					ICSA	9/1/2022
ME210901 ICSAB	ICSAB					ICSAB	9/1/2022
ME211206 ICV STANDARD	ICV for ICPMS Standards					ICV	4/30/2022
ME211207 2008TS	200.8 Tune Solution						12/7/2022
ME220112 0.025 PPB STAND	0.025 ppb Standard						11/18/2022
ME220112 0.05 PPB STANDA	0.5 ppb Standard						11/18/2022
ME220112 0.1 PPB STANDAR	0.1 ppb Standard						11/18/2022
ME220112 0.5 PPB STANDAR	0.5 ppb Standard						11/18/2022
ME220112 1 PPB STANDARD	1 ppb Standard						11/18/2022
ME220112 10 PPB STANDAR	10 ppb Standard					CCV	11/18/2022
ME220112 100 PPB STANDAR	100 ppb Standard					CAL8	11/18/2022
ME220112 206 INTERNAL ST	Internal Standards 2 mg/L						2/8/2022
ME220112 50 PPB STANDAR	50 ppb Standard/CCV					CRI	11/18/2022
ME220112 SS1	SS1 ICPMS Spiking Solution					LFB/MS	12/8/2022
ME220112A 1000 PPB STAND	1000 PPB Standard					URL	11/18/2022

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985100	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 6:18:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985101	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 6:23:5	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985102	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 6:29:4	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985103	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 6:35:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985104	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 6:18:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985105	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 6:23:5	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985106	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 6:29:4	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985107	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 6:35:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985108	BLANK	ICPMS-6020-W-	SAMP		1/18/2022 6:41:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0	0		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985108	BLANK	ICPMS-6020-W-	SAMP		1/18/2022 6:41:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Barium	A	mg/L	0	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	
Boron	A	mg/L	0	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	L
Cadmium	A	mg/L	0	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Calcium	A	mg/L	0	0		0	0	0	0.0749796	0.0749796	50	0%	0	0	0%	L
Cerium	A	mg/L	0	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Iron	A	mg/L	0	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lanthanum	A	mg/L	0	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Lithium	A	mg/L	0	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	A	mg/L	0	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Manganese	A	mg/L	0	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	0	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Potassium	A	mg/L	0	0		0	0	0	0.207399	0.207399	50	0%	0	0	0%	L
Selenium	A	mg/L	0	0		0	0	0	0.0001415	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	0	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Strontium	A	mg/L	0	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	0	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Titanium	A	mg/L	0	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	A	mg/L	0	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985109	0.025 PPB STD	ICPMS-6020B-C	Cal1		1/18/2022 6:47:2	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.0001039	-0.0001039		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00003152	0.00003152		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	0.00003273	0.00003273		0.000025	0	0		0.001		131%	80	120	0%	S
Barium	A	mg/L	0.00002354	0.00002354		0.000025	0	0		0.0003		94%	80	120	0%	
Beryllium	A	mg/L	0.00002131	0.00002131		0.000025	0	0		0.001		85%	80	120	0%	
Boron	A	mg/L	0.00002233	0.00002233		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0000364	0.0000364		0.000025	0	0		0.001		146%	80	120	0%	S
Calcium	A	mg/L	0.007952	0.007952		0	0	0		1		0%			0%	
Chromium	A	mg/L	0.00001346	0.00001346		0.000025	0	0		0.001		54%	80	120	0%	S
Cobalt	A	mg/L	0.00003141	0.00003141		0.000025	0	0		0.001		126%	80	120	0%	S
Copper	A	mg/L	0.00004325	0.00004325		0	0	0		0.005		0%			0%	
Iron	A	mg/L	0.0006407	0.0006407		0	0	0		0.01		0%			0%	
Lanthanum	A	mg/L	0.00003013	0.00003013		0.000025	0	0		0.001		121%	80	120	0%	S
Magnesium	A	mg/L	0.007034	0.007034		0	0	0		1		0%			0%	
Manganese	A	mg/L	0.00002021	0.00002021		0	0	0		0.001		0%			0%	
Mercury	A	mg/L	8.795E-07	8.795E-07		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00003368	0.00003368		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	0.00001774	0.00001774		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.008335	0.008335		0.00625	0	0		1		133%	80	120	0%	S
Selenium	A	mg/L	0.00004974	0.00004974		0.000025	0	0		0.005		199%	80	120	0%	S
Silicon	A	mg/L	0.0001411	0.0001411		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.00001559	0.00001559		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	0.01229	0.01229		0.00625	0	0		1		197%	80	120	0%	S
Strontium	A	mg/L	0.00002935	0.00002935		0	0	0		0.001		0%	80	120	0%	
Thallium	A	mg/L	0.00002876	0.00002876		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.00001732	0.00001732		0	0	0		0.05		0%			0%	
Tin	A	mg/L	-0.002421	-0.002421		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.0001535	0.0001535		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.0000268	0.0000268		0.000025	0	0		0.001		107%	80	120	0%	
Vanadium	A	mg/L	0.00003025	0.00003025		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	0.00006768	0.00006768		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.0006407	0.0006407		0.000025	0	0		0.01	5	2563%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00030195	0.00030195		0.0000535	0	0		0.214	0.9	564%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985110	0.05 PPB STD	ICPMS-6020B-C	Cal2		1/18/2022 6:53:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.00032	-0.00032		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00006063	0.00006063		0.00005	0	0		0.001		121%	80	120	0%	S
Arsenic	A	mg/L	0.00006374	0.00006374		0.00005	0	0		0.001		127%	80	120	0%	S
Barium	A	mg/L	0.00006519	0.00006519		0.00005	0	0		0.0003		130%	80	120	0%	S
Beryllium	A	mg/L	0.00007707	0.00007707		0.00005	0	0		0.001		154%	80	120	0%	S
Boron	A	mg/L	0.00006384	0.00006384		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.00007258	0.00007258		0.00005	0	0		0.001		145%	80	120	0%	S
Calcium	A	mg/L	0.01585	0.01585		0.0125	0	0		1		127%	80	120	0%	S
Chromium	A	mg/L	-1.983E-05	-1.983E-05		0.00005	0	0		0.001		-40%	80	120	0%	S
Cobalt	A	mg/L	0.00006452	0.00006452		0	0	0		0.001		0%			0%	
Copper	A	mg/L	0.00007128	0.00007128		0.00005	0	0		0.005		143%	80	120	0%	S
Iron	A	mg/L	0.001484	0.001484		0.00125	0	0		0.01		119%	80	120	0%	
Lanthanum	A	mg/L	0.0000648	0.0000648		0.00005	0	0		0.001		130%	80	120	0%	S
Magnesium	A	mg/L	0.01593	0.01593		0.0125	0	0		1		127%	80	120	0%	S
Manganese	A	mg/L	0.00005871	0.00005871		0.00005	0	0		0.001		117%	80	120	0%	
Mercury	A	mg/L	3.574E-09	3.574E-09		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00006834	0.00006834		0.00005	0	0		0.001		137%	80	120	0%	S
Nickel	A	mg/L	0.0000922	0.0000922		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.01602	0.01602		0.0125	0	0		1		128%	80	120	0%	S
Selenium	A	mg/L	0.00005862	0.00005862		0.00005	0	0		0.005		117%	80	120	0%	
Silicon	A	mg/L	-5.384E-05	-5.384E-05		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.00003231	0.00003231		0.00002	0	0		0.001		162%	80	120	0%	S
Sodium	A	mg/L	0.01656	0.01656		0.0125	0	0		1		132%	80	120	0%	S
Strontium	A	mg/L	0.00006167	0.00006167		0.00005	0	0		0.001		123%	80	120	0%	S
Thallium	A	mg/L	0.00006392	0.00006392		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.00004177	0.00004177		0	0	0		0.05		0%			0%	
Tin	A	mg/L	-0.002426	-0.002426		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.00008878	0.00008878		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.00005896	0.00005896		0.00005	0	0		0.001		118%	80	120	0%	
Vanadium	A	mg/L	0.00004706	0.00004706		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	-8.325E-05	-8.325E-05		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.001484	0.001484		0.00005	0	0		0.01	5	2968%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.0001152	-0.0001152		0.00428	0	0		0.214	0.9	-3%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985111	0.10 PPB STD	ICPMS-6020B-C	Cal3		1/18/2022 6:59:2	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.0002104	-0.0002104		0.0001	0	0		0.01		-210%	80	120	0%	S
Antimony	A	mg/L	0.0001164	0.0001164		0.0001	0	0		0.001		116%	80	120	0%	
Arsenic	A	mg/L	0.0001298	0.0001298		0.0001	0	0		0.001		130%	80	120	0%	S
Barium	A	mg/L	0.000131	0.000131		0.0001	0	0		0.0003		131%	80	120	0%	S
Beryllium	A	mg/L	0.0001396	0.0001396		0.0001	0	0		0.001		140%	80	120	0%	S
Boron	A	mg/L	0.00006582	0.00006582		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0001186	0.0001186		0.0001	0	0		0.001		119%	80	120	0%	
Calcium	A	mg/L	0.02936	0.02936		0.025	0	0		1		117%	80	120	0%	
Chromium	A	mg/L	0.00003344	0.00003344		0.0001	0	0		0.001		33%	80	120	0%	S
Cobalt	A	mg/L	0.0001333	0.0001333		0.0001	0	0		0.001		133%	80	120	0%	S
Copper	A	mg/L	0.0001322	0.0001322		0.0001	0	0		0.005		132%	80	120	0%	S
Iron	A	mg/L	0.002979	0.002979		0.0025	0	0		0.01		119%	80	120	0%	
Lanthanum	A	mg/L	0.0001235	0.0001235		0.0001	0	0		0.001		124%	80	120	0%	S
Lead	A	mg/L	0.0001248	0.0001248		0.0001	0	0		0.001		125%	80	120	0%	S
Magnesium	A	mg/L	0.03021	0.03021		0.025	0	0		1		121%	80	120	0%	S
Manganese	A	mg/L	0.0001327	0.0001327		0.0001	0	0		0.001		133%	80	120	0%	S
Mercury	A	mg/L	0.00000149	0.00000149		0.000002	0	0		0.001		75%	80	120	0%	S
Molybdenum	A	mg/L	0.0001064	0.0001064		0.0001	0	0		0.001		106%	80	120	0%	
Nickel	A	mg/L	0.0001373	0.0001373		0.0001	0	0		0.005		137%	80	120	0%	S
Potassium	A	mg/L	0.0285	0.0285		0.025	0	0		1		114%	80	120	0%	
Selenium	A	mg/L	0.0001245	0.0001245		0.0001	0	0		0.005		125%	80	120	0%	S
Silicon	A	mg/L	-0.0002189	-0.0002189		0.0004	0	0		0.1		-55%	80	120	0%	S
Silver	A	mg/L	0.00005544	0.00005544		0.00004	0	0		0.001		139%	80	120	0%	S
Sodium	A	mg/L	0.03445	0.03445		0.025	0	0		1		138%	80	120	0%	S
Strontium	A	mg/L	0.0001296	0.0001296		0.0001	0	0		0.001		130%	80	120	0%	S
Thallium	A	mg/L	0.0001264	0.0001264		0.0001	0	0		0.001		126%	80	120	0%	S
Thorium	A	mg/L	0.00008705	0.00008705		0.0001	0	0		0.05		87%	80	120	0%	
Tin	A	mg/L	-0.002374	-0.002374		0.0001	0	0		0.001		-2374%	80	120	0%	S
Titanium	A	mg/L	0.0001422	0.0001422		0.0001	0	0		0.001		142%	80	120	0%	S
Uranium	A	mg/L	0.0001186	0.0001186		0.0001	0	0		0.001		119%	80	120	0%	
Vanadium	A	mg/L	0.00008593	0.00008593		0.0001	0	0		0.005		86%	80	120	0%	
Zinc	A	mg/L	-0.0002346	-0.0002346		0.0001	0	0		0.01		-235%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.002979	0.002979		0.0001	0	0		0.01	5	2979%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.0004684	-0.0004684		0.00856	0	0		0.214	0.9	-5%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985112	0.5 PPB STD	ICPMS-6020B-C	Cal4		1/18/2022 7:05:2	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0002768	0.0002768		0.0005	0	0		0.01		55%	80	120	0%	S
Antimony	A	mg/L	0.0005331	0.0005331		0.0005	0	0		0.001		107%	80	120	0%	
Arsenic	A	mg/L	0.0005133	0.0005133		0.0005	0	0		0.001		103%	80	120	0%	
Barium	A	mg/L	0.0005351	0.0005351		0.0005	0	0		0.0003		107%	80	120	0%	
Beryllium	A	mg/L	0.0005452	0.0005452		0.0005	0	0		0.001		109%	80	120	0%	
Boron	A	mg/L	0.0003914	0.0003914		0.0005	0	0		0.1		78%	80	120	0%	S
Cadmium	A	mg/L	0.0005889	0.0005889		0.0005	0	0		0.001		118%	80	120	0%	
Calcium	A	mg/L	0.1386	0.1386		0.125	0	0		1		111%	80	120	0%	
Chromium	A	mg/L	0.0004588	0.0004588		0.0005	0	0		0.001		92%	80	120	0%	
Cobalt	A	mg/L	0.0005725	0.0005725		0.0005	0	0		0.001		115%	80	120	0%	
Copper	A	mg/L	0.0006045	0.0006045		0.0005	0	0		0.005		121%	80	120	0%	S
Iron	A	mg/L	0.0142	0.0142		0.0125	0	0		0.01		114%	80	120	0%	
Lanthanum	A	mg/L	0.0005654	0.0005654		0.0005	0	0		0.001		113%	80	120	0%	
Magnesium	A	mg/L	0.1311	0.1311		0.125	0	0		1		105%	80	120	0%	
Manganese	A	mg/L	0.0005579	0.0005579		0.0005	0	0		0.001		112%	80	120	0%	
Mercury	A	mg/L	9.246E-06	9.246E-06		0.00001	0	0		0.001		92%	80	120	0%	
Molybdenum	A	mg/L	0.000545	0.000545		0.0005	0	0		0.001		109%	80	120	0%	
Nickel	A	mg/L	0.0005327	0.0005327		0.0005	0	0		0.005		107%	80	120	0%	
Potassium	A	mg/L	0.1321	0.1321		0.125	0	0		1		106%	80	120	0%	
Selenium	A	mg/L	0.0005967	0.0005967		0.0005	0	0		0.005		119%	80	120	0%	
Silicon	A	mg/L	0.002215	0.002215		0.002	0	0		0.1		111%	80	120	0%	
Silver	A	mg/L	0.0002498	0.0002498		0.0002	0	0		0.001		125%	80	120	0%	S
Sodium	A	mg/L	0.1452	0.1452		0.125	0	0		1		116%	80	120	0%	
Strontium	A	mg/L	0.0006022	0.0006022		0.0005	0	0		0.001		120%	80	120	0%	
Thallium	A	mg/L	0.0005898	0.0005898		0.0005	0	0		0.001		118%	80	120	0%	
Thorium	A	mg/L	0.0004519	0.0004519		0.0005	0	0		0.05		90%	80	120	0%	
Tin	A	mg/L	-0.001898	-0.001898		0.0005	0	0		0.001		-380%	80	120	0%	S
Titanium	A	mg/L	0.0005751	0.0005751		0.0005	0	0		0.001		115%	80	120	0%	
Uranium	A	mg/L	0.000555	0.000555		0.0005	0	0		0.001		111%	80	120	0%	
Vanadium	A	mg/L	0.000484	0.000484		0.0005	0	0		0.005		97%	80	120	0%	
Zinc	A	mg/L	0.0003661	0.0003661		0.0005	0	0		0.01		73%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.0142	0.0142		0.0005	0	0		0.01	5	2840%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.0047401	0.0047401		0.0428	0	0		0.214	0.9	11%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985113	1 PPB STD	ICPMS-6020B-C	Cal5		1/18/2022 7:11:2	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0007413	0.0007413		0.001	0	0		0.01		74%	80	120	0%	S
Antimony	A	mg/L	0.001059	0.001059		0.001	0	0		0.001		106%	80	120	0%	
Arsenic	A	mg/L	0.001133	0.001133		0.001	0	0		0.001		113%	80	120	0%	
Barium	A	mg/L	0.001101	0.001101		0.001	0	0		0.0003		110%	80	120	0%	
Beryllium	A	mg/L	0.001219	0.001219		0.001	0	0		0.001		122%	80	120	0%	S
Boron	A	mg/L	0.001268	0.001268		0.001	0	0		0.1		127%	80	120	0%	S
Cadmium	A	mg/L	0.001161	0.001161		0.001	0	0		0.001		116%	80	120	0%	
Calcium	A	mg/L	0.2864	0.2864		0.25	0	0		1		115%	80	120	0%	
Chromium	A	mg/L	0.001015	0.001015		0.001	0	0		0.001		101%	80	120	0%	
Cobalt	A	mg/L	0.001196	0.001196		0.001	0	0		0.001		120%	80	120	0%	
Copper	A	mg/L	0.001223	0.001223		0.001	0	0		0.005		122%	80	120	0%	S
Iron	A	mg/L	0.02987	0.02987		0.025	0	0		0.01		119%	80	120	0%	
Lanthanum	A	mg/L	0.001211	0.001211		0.001	0	0		0.001		121%	80	120	0%	S
Magnesium	A	mg/L	0.2743	0.2743		0.25	0	0		1		110%	80	120	0%	
Manganese	A	mg/L	0.00116	0.00116		0.001	0	0		0.001		116%	80	120	0%	
Mercury	A	mg/L	0.00002405	0.00002405		0.00002	0	0		0.001		120%	80	120	0%	
Molybdenum	A	mg/L	0.001105	0.001105		0.001	0	0		0.001		110%	80	120	0%	
Nickel	A	mg/L	0.001177	0.001177		0.001	0	0		0.005		118%	80	120	0%	
Potassium	A	mg/L	0.2814	0.2814		0.25	0	0		1		113%	80	120	0%	
Selenium	A	mg/L	0.001104	0.001104		0.001	0	0		0.005		110%	80	120	0%	
Silicon	A	mg/L	0.003809	0.003809		0.004	0	0		0.1		95%	80	120	0%	
Silver	A	mg/L	0.000501	0.000501		0.0004	0	0		0.001		125%	80	120	0%	S
Sodium	A	mg/L	0.3072	0.3072		0.25	0	0		1		123%	80	120	0%	S
Strontium	A	mg/L	0.001248	0.001248		0.001	0	0		0.001		125%	80	120	0%	S
Thallium	A	mg/L	0.001243	0.001243		0.001	0	0		0.001		124%	80	120	0%	S
Thorium	A	mg/L	0.00102	0.00102		0.001	0	0		0.05		102%	80	120	0%	
Tin	A	mg/L	-0.001285	-0.001285		0.001	0	0		0.001		-128%	80	120	0%	S
Titanium	A	mg/L	0.001096	0.001096		0.001	0	0		0.001		110%	80	120	0%	
Uranium	A	mg/L	0.001158	0.001158		0.001	0	0		0.001		116%	80	120	0%	
Vanadium	A	mg/L	0.001129	0.001129		0.001	0	0		0.005		113%	80	120	0%	
Zinc	A	mg/L	0.00103	0.00103		0.001	0	0		0.01		103%	80	120	0%	
Iron, Ferrous	C	mg/L	0.02987	0.02987		0.001	0	0		0.01	5	2987%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00815126	0.00815126		0.0856	0	0		0.214	0.9	10%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985114	10 PPB STD	ICPMS-6020B-C	Cal6		1/18/2022 7:17:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985115	50 PPB STD	ICPMS-6020B-C	Cal7		1/18/2022 7:23:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04954	0.04954		0.05	0	0		0.01		99%	90	110	0%	
Antimony	A	mg/L	0.0526	0.0526		0.05	0	0		0.001		105%	90	110	0%	
Arsenic	A	mg/L	0.05147	0.05147		0.05	0	0		0.001		103%	90	110	0%	
Barium	A	mg/L	0.04963	0.04963		0.05	0	0		0.0003		99%	90	110	0%	
Beryllium	A	mg/L	0.04946	0.04946		0.05	0	0		0.001		99%	90	110	0%	
Boron	A	mg/L	0.0505	0.0505		0.05	0	0		0.1		101%	90	110	0%	
Cadmium	A	mg/L	0.05144	0.05144		0.05	0	0		0.001		103%	90	110	0%	
Calcium	A	mg/L	13.63	13.63		12.5	0	0		1		109%	90	110	0%	
Chromium	A	mg/L	0.0521	0.0521		0.05	0	0		0.001		104%	90	110	0%	
Cobalt	A	mg/L	0.05027	0.05027		0.05	0	0		0.001		101%	90	110	0%	
Copper	A	mg/L	0.05208	0.05208		0.05	0	0		0.005		104%	90	110	0%	
Iron	A	mg/L	1.286	1.286		1.25	0	0		0.01		103%	90	110	0%	
Lanthanum	A	mg/L	0.04882	0.04882		0.05	0	0		0.001		98%	90	110	0%	
Magnesium	A	mg/L	12.69	12.69		12.5	0	0		1		102%	90	110	0%	
Manganese	A	mg/L	0.05191	0.05191		0.05	0	0		0.001		104%	90	110	0%	
Mercury	A	mg/L	0.0009636	0.0009636		0.001	0	0		0.001		96%	90	110	0%	
Molybdenum	A	mg/L	0.05441	0.05441		0.05	0	0		0.001		109%	90	110	0%	
Nickel	A	mg/L	0.05248	0.05248		0.05	0	0		0.005		105%	90	110	0%	
Potassium	A	mg/L	12.82	12.82		12.5	0	0		1		103%	90	110	0%	
Selenium	A	mg/L	0.05187	0.05187		0.05	0	0		0.005		104%	90	110	0%	
Silicon	A	mg/L	0.2159	0.2159		0.2	0	0		0.1		108%	90	110	0%	
Silver	A	mg/L	0.02039	0.02039		0.02	0	0		0.001		102%	90	110	0%	
Sodium	A	mg/L	13.06	13.06		12.5	0	0		1		104%	90	110	0%	
Strontium	A	mg/L	0.05138	0.05138		0.05	0	0		0.001		103%	90	110	0%	
Thallium	A	mg/L	0.05293	0.05293		0.05	0	0		0.001		106%	90	110	0%	
Thorium	A	mg/L	0.05243	0.05243		0.05	0	0		0.05		105%	90	110	0%	
Tin	A	mg/L	0.05038	0.05038		0.05	0	0		0.001		101%	90	110	0%	
Titanium	A	mg/L	0.05178	0.05178		0.05	0	0		0.001		104%	90	110	0%	
Uranium	A	mg/L	0.04866	0.04866		0.05	0	0		0.001		97%	90	110	0%	
Vanadium	A	mg/L	0.05193	0.05193		0.05	0	0		0.005		104%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985115	50 PPB STD	ICPMS-6020B-C	Cal7		1/18/2022 7:23:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Zinc	A	mg/L	0.05273	0.05273		0.05	0	0		0.01		105%	90	110	0%	
Iron, Ferrous	C	mg/L	1.286	1.286		0.05	0	0		0.01	5	2572%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.462026	0.462026		4.28	0	0		0.214	0.9	11%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985116	100 PPB STD	ICPMS-6020B-C	Cal8		1/18/2022 7:29:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.1002	0.1002		0.1	0	0		0.01		100%	90	110	0%	
Antimony	A	mg/L	0.0987	0.0987		0.1	0	0		0.001		99%	90	110	0%	
Arsenic	A	mg/L	0.09926	0.09926		0.1	0	0		0.001		99%	90	110	0%	
Barium	A	mg/L	0.1002	0.1002		0.1	0	0		0.0003		100%	90	110	0%	
Beryllium	A	mg/L	0.1003	0.1003		0.1	0	0		0.001		100%	90	110	0%	
Boron	A	mg/L	0.09975	0.09975		0.1	0	0		0.1		100%	90	110	0%	
Cadmium	A	mg/L	0.09928	0.09928		0.1	0	0		0.001		99%	90	110	0%	
Calcium	A	mg/L	27.28	27.28		25	0	0		1		109%	90	110	0%	
Chromium	A	mg/L	0.09895	0.09895		0.1	0	0		0.001		99%	90	110	0%	
Cobalt	A	mg/L	0.09986	0.09986		0.1	0	0		0.001		100%	90	110	0%	
Copper	A	mg/L	0.09896	0.09896		0.1	0	0		0.005		99%	90	110	0%	
Iron	A	mg/L	2.569	2.569		2.5	0	0		0.01		103%	90	110	0%	
Lanthanum	A	mg/L	0.1006	0.1006		0.1	0	0		0.001		101%	90	110	0%	
Magnesium	A	mg/L	25.98	25.98		25	0	0		1		104%	90	110	0%	
Manganese	A	mg/L	0.09904	0.09904		0.1	0	0		0.001		99%	90	110	0%	
Mercury	A	mg/L	0.002018	0.002018		0.002	0	0		0.001		101%	90	110	0%	
Molybdenum	A	mg/L	0.0978	0.0978		0.1	0	0		0.001		98%	90	110	0%	
Nickel	A	mg/L	0.09876	0.09876		0.1	0	0		0.005		99%	90	110	0%	
Potassium	A	mg/L	25.3	25.3		25	0	0		1		101%	90	110	0%	
Selenium	A	mg/L	0.09906	0.09906		0.1	0	0		0.005		99%	90	110	0%	
Silicon	A	mg/L	0.392	0.392		0.4	0	0		0.1		98%	90	110	0%	
Silver	A	mg/L	0.0398	0.0398		0.04	0	0		0.001		99%	90	110	0%	
Sodium	A	mg/L	25.78	25.78		25	0	0		1		103%	90	110	0%	
Strontium	A	mg/L	0.09931	0.09931		0.1	0	0		0.001		99%	90	110	0%	
Thallium	A	mg/L	0.09853	0.09853		0.1	0	0		0.001		99%	90	110	0%	
Thorium	A	mg/L	0.09878	0.09878		0.1	0	0		0.05		99%	90	110	0%	
Tin	A	mg/L	0.09985	0.09985		0.1	0	0		0.001		100%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985116	100 PPB STD	ICPMS-6020B-C	Cal8		1/18/2022 7:29:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Titanium	A	mg/L	0.09911	0.09911		0.1	0	0		0.001		99%	90	110	0%	
Uranium	A	mg/L	0.1007	0.1007		0.1	0	0		0.001		101%	90	110	0%	
Vanadium	A	mg/L	0.09903	0.09903		0.1	0	0		0.005		99%	90	110	0%	
Zinc	A	mg/L	0.09864	0.09864		0.1	0	0		0.01		99%	90	110	0%	
Iron, Ferrous	C	mg/L	2.569	2.569		0.1	0	0		0.01	5	2569%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.83888	0.83888		8.56	0	0		0.214	0.9	10%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985117	1000 PPB STD	ICPMS-6020B-C	Cal10		1/18/2022 7:35:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.9928	0.9928		1	0	0		0.01		99%	90	110	0%	
Antimony	A	mg/L	0.00009293	0.00009293		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	0.9569	0.9569		1	0	0		0.001		96%	90	110	0%	
Barium	A	mg/L	0.9185	0.9185		1	0	0		0.0003		92%	90	110	0%	
Beryllium	A	mg/L	0.973	0.973		1	0	0		0.001		97%	90	110	0%	
Boron	A	mg/L	0.9675	0.9675		1	0	0		0.1		97%	90	110	0%	
Cadmium	A	mg/L	0.9158	0.9158		1	0	0		0.001		92%	90	110	0%	
Calcium	A	mg/L	48.58	48.58		50	0	0		1		97%	90	110	0%	
Chromium	A	mg/L	0.9483	0.9483		1	0	0		0.001		95%	90	110	0%	
Cobalt	A	mg/L	1.028	1.028		1	0	0		0.001		103%	90	110	0%	
Copper	A	mg/L	0.9682	0.9682		1	0	0		0.005		97%	90	110	0%	
Iron	A	mg/L	6.016	6.016		6	0	0		0.01		100%	90	110	0%	
Lanthanum	A	mg/L	0.00001124	0.00001124		0	0	0		0.001		0%			0%	
Magnesium	A	mg/L	49.46	49.46		50	0	0		1		99%	90	110	0%	
Manganese	A	mg/L	0.9626	0.9626		1	0	0		0.001		96%	90		0%	
Mercury	A	mg/L	0.00001182	0.00001182		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.0000609	0.0000609		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	1.012	1.012		1	0	0		0.005		101%	90	110	0%	
Potassium	A	mg/L	49.77	49.77		50	0	0		1		100%	90	110	0%	
Selenium	A	mg/L	0.9115	0.9115		1	0	0		0.005		91%	90	110	0%	
Silicon	A	mg/L	0.001486	0.001486		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.4008	0.4008		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	49.47	49.47		50	0	0		1		99%	90	110	0%	
Strontium	A	mg/L	1.017	1.017		1	0	0		0.001		102%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985117	1000 PPB STD	ICPMS-6020B-C	Cal10		1/18/2022 7:35:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Thallium	A	mg/L	0.9403	0.9403		1	0	0		0.001		94%	90	110	0%	
Thorium	A	mg/L	0.9556	0.9556		1	0	0		0.05		96%	90	110	0%	
Tin	A	mg/L	-0.002451	-0.002451		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.00587	0.00587		1	0	0		0.001		1%	90	110	0%	S
Uranium	A	mg/L	0.9837	0.9837		1	0	0		0.001		98%	90	110	0%	
Vanadium	A	mg/L	0.9506	0.9506		1	0	0		0.005		95%	90	110	0%	
Zinc	A	mg/L	0.9716	0.9716		1	0	0		0.01		97%	90	110	0%	
Iron, Ferrous	C	mg/L	6.016	6.016		0	0	0		0.01	5	0%			0%	
Silicon as SiO2	C	mg/L	0.00318004	0.00318004		0	0	0		0.214	0.9	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985118	100 ppb Bromine	ICPMS-6020-W-	SAMP		1/18/2022 7:40:5	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.007645	0.007645		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00002427	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.0001667	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.000111	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.0001474	0.0001474		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	J
Cadmium	A	mg/L	0.00008901	0.00008901		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	J
Cerium	A	mg/L	2.298E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	7.081E-07	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00008155	0.00008155		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	J
Copper	A	mg/L	0.000157	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lanthanum	A	mg/L	1.581E-06	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Manganese	A	mg/L	0.0001208	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	4.617E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001241	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.0001677	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	0.0002045	0.0002045		0	0	0	0.0001415	0.001	1	0%	0	0	0%	J
Silicon	A	mg/L	-0.0003608	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.0002236	0.0002236		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.0001013	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001354	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.00005373	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985118	100 ppb Bromine	ICPMS-6020-W-	SAMP		1/18/2022 7:40:5	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Uranium	A	mg/L	0.0001489	0.0001489		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Boron	B	mg/L	0.006119	0.006119		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	D
Calcium	B	mg/L	0.008743	0		0	0	0	0.0749796	0.0749796	50	0%	0	0	0%	L
Iron	B	mg/L	0.0008477	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	0.0008477	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lithium	B	mg/L	0.004708	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	B	mg/L	0.003977	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Potassium	B	mg/L	0.538	0.538		0	0	0	0.207399	0.207399	50	0%	0	0	0%	D
Sodium	B	mg/L	0.05681	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Thorium	B	mg/L	0.0003504	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	B	mg/L	-0.002525	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Vanadium	B	mg/L	0.00008902	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	0.0002141	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985119	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 7:46:4	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.0002359	0		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	6.567E-06	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00003347	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00001262	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.00002906	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	4.728E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	1.836E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-8.399E-05	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00001118	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	6.719E-06	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lanthanum	A	mg/L	2.191E-06	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Manganese	A	mg/L	6.065E-06	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	1.916E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00000844	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.00005159	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	0.00005657	0		0	0	0	0.0001415	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-7.11E-06	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985119	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 7:46:4	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silver	A	mg/L	0.00001731	0.00001731		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	6.844E-06	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0000255	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.00004538	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001816	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Boron	B	mg/L	0.001759	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	L
Calcium	B	mg/L	0.001085	0		0	0	0	0.0749796	0.0749796	50	0%	0	0	0%	L
Iron	B	mg/L	-7.234E-05	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	-7.234E-05	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lithium	B	mg/L	0.001675	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	B	mg/L	-0.0003099	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Potassium	B	mg/L	0.003341	0		0	0	0	0.207399	0.207399	50	0%	0	0	0%	L
Sodium	B	mg/L	0.001751	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Thorium	B	mg/L	0.00006792	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	B	mg/L	-0.002669	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Vanadium	B	mg/L	-1.398E-05	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	-0.0003736	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985120	QCS	ICPMS-6020-W-	ICV		1/18/2022 7:52:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.2504	0.2504		0.25	0	0	0.0006548	0.001	1	100%	90	110	0%	
Antimony	A	mg/L	0.04764	0.04764		0.05	0	0	0.0002987	0.001	0.1	95%	90	110	0%	
Arsenic	A	mg/L	0.04929	0.04929		0.05	0	0	0.0001814	0.001	1	99%	90	110	0%	
Barium	A	mg/L	0.05078	0.05078		0.05	0	0	0.0001321	0.001	1	102%	90	110	0%	
Beryllium	A	mg/L	0.0247	0.0247		0.025	0	0	7.465E-05	0.001	1	99%	90	110	0%	
Boron	A	mg/L	0.05173	0.05173		0.05	0	0	0.0030032	0.0030032	1	103%	90	110	0%	
Cadmium	A	mg/L	0.02527	0.02527		0.025	0	0	5.139E-05	0.001	1	101%	90	110	0%	
Calcium	A	mg/L	2.592	2.592		2.5	0	0	0.0749796	0.0749796	50	104%	90	110	0%	
Cerium	A	mg/L	0.05333	0.05333		0.05	0	0	1.462E-05	0.001	0.1	107%	90	110	0%	
Chromium	A	mg/L	0.05122	0.05122		0.05	0	0	0.0005481	0.001	1	102%	90	110	0%	
Cobalt	A	mg/L	0.05153	0.05153		0.05	0	0	4.756E-05	0.001	1	103%	90	110	0%	
Copper	A	mg/L	0.05315	0.05315		0.05	0	0	0.0003828	0.001	1	106%	90	110	0%	
Iron	A	mg/L	0.2584	0.2584		0.25	0	0	0.0046291	0.0046291	5	103%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985120	QCS	ICPMS-6020-W-	ICV		1/18/2022 7:52:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lanthanum	A	mg/L	0.05212	0.05212		0.05	0	0	1.683E-05	0.001	0.1	104%	90	110	0%	
Lithium	A	mg/L	0.04996	0.04996		0.05	0	0	0.0052105	0.0052105	2.5	100%	90	110	0%	
Magnesium	A	mg/L	2.485	2.485		2.5	0	0	0.0118993	0.0118993	50	99%	90	110	0%	
Manganese	A	mg/L	0.2557	0.2557		0.25	0	0	0.0001444	0.001	1	102%	90	110	0%	
Mercury	A	mg/L	0.001008	0.001008		0.001	0	0	0.000066	0.001	0.02	101%	90	110	0%	
Molybdenum	A	mg/L	0.05103	0.05103		0.05	0	0	8.338E-05	0.001	0.1	102%	90	110	0%	
Nickel	A	mg/L	0.05147	0.05147		0.05	0	0	0.0002531	0.001	1	103%	90	110	0%	
Potassium	A	mg/L	2.504	2.504		2.5	0	0	0.207399	0.207399	50	100%	90	110	0%	
Selenium	A	mg/L	0.05004	0.05004		0.05	0	0	0.0001415	0.001	1	100%	90	110	0%	
Silicon	A	mg/L	0.4749	0.4749		0.5	0	0	0.0146174	0.1	0.4	95%	90	110	0%	
Silver	A	mg/L	0.02694	0.02694		0.025	0	0	1.123E-05	0.001	0.04	108%	90	110	0%	
Sodium	A	mg/L	2.529	2.529		2.5	0	0	0.0809273	0.0809273	50	101%	90	110	0%	
Strontium	A	mg/L	0.05146	0.05146		0.05	0	0	0.0001825	0.001	1	103%	90	110	0%	
Thallium	A	mg/L	0.05308	0.05308		0.05	0	0	0.0002991	0.001	1	106%	90	110	0%	
Thorium	A	mg/L	0.05318	0.05318		0.05	0	0	0.0010473	0.0010473	1	106%	90	110	0%	
Tin	A	mg/L	0.04998	0.04998		0.05	0	0	0.0022388	0.0022388	0.1	100%	90	110	0%	
Titanium	A	mg/L	0.0473	0.0473		0.05	0	0	0.0002974	0.001	1	95%	90	110	0%	
Uranium	A	mg/L	0.05353	0.05353		0.05	0	0	3.139E-05	0.0003	1	107%	90	110	0%	
Vanadium	A	mg/L	0.04967	0.04967		0.05	0	0	0.0043468	0.0043468	1	99%	90	110	0%	
Zinc	A	mg/L	0.05148	0.05148		0.05	0	0	0.0011598	0.0011598	1	103%	90	110	0%	
Iron, Ferrous	C	mg/L	0.2584	0.2584		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985121	CCV	ICPMS-6020-W-	CCV		1/18/2022 7:58:0	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04926	0.04926		0.05	0	0	0.0006548	0.001	1	99%	90	110	0%	
Antimony	A	mg/L	0.05211	0.05211		0.05	0	0	0.0002987	0.001	0.1	104%	90	110	0%	
Arsenic	A	mg/L	0.05095	0.05095		0.05	0	0	0.0001814	0.001	1	102%	90	110	0%	
Barium	A	mg/L	0.05143	0.05143		0.05	0	0	0.0001321	0.001	1	103%	90	110	0%	
Beryllium	A	mg/L	0.04955	0.04955		0.05	0	0	7.465E-05	0.001	1	99%	90	110	0%	
Boron	A	mg/L	0.05128	0.05128		0.05	0	0	0.0030032	0.0030032	1	103%	90	110	0%	
Cadmium	A	mg/L	0.04896	0.04896		0.05	0	0	5.139E-05	0.001	1	98%	90	110	0%	
Calcium	A	mg/L	13.18	13.18		12.5	0	0	0.0749796	0.0749796	50	105%	90	110	0%	
Cerium	A	mg/L	0.05157	0.05157		0.05	0	0	1.462E-05	0.001	0.1	103%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985121	CCV	ICPMS-6020-W-	CCV		1/18/2022 7:58:0	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Chromium	A	mg/L	0.05253	0.05253		0.05	0	0	0.0005481	0.001	1	105%	90	110	0%	
Cobalt	A	mg/L	0.04983	0.04983		0.05	0	0	4.756E-05	0.001	1	100%	90	110	0%	
Copper	A	mg/L	0.05158	0.05158		0.05	0	0	0.0003828	0.001	1	103%	90	110	0%	
Iron	A	mg/L	1.296	1.296		1.3	0	0	0.0046291	0.0046291	5	100%	90	110	0%	
Lanthanum	A	mg/L	0.05071	0.05071		0.05	0	0	1.683E-05	0.001	0.1	101%	90	110	0%	
Lithium	A	mg/L	0.5879	0.5879		0.625	0	0	0.0052105	0.0052105	2.5	94%	90	110	0%	
Magnesium	A	mg/L	12.2	12.2		12.5	0	0	0.0118993	0.0118993	50	98%	90	110	0%	
Manganese	A	mg/L	0.05036	0.05036		0.05	0	0	0.0001444	0.001	1	101%	90	110	0%	
Mercury	A	mg/L	0.0009809	0.0009809		0.001	0	0	0.000066	0.001	0.02	98%	90	110	0%	
Molybdenum	A	mg/L	0.05362	0.05362		0.05	0	0	8.338E-05	0.001	0.1	107%	90	110	0%	
Nickel	A	mg/L	0.05159	0.05159		0.05	0	0	0.0002531	0.001	1	103%	90	110	0%	
Potassium	A	mg/L	12.53	12.53		12.5	0	0	0.207399	0.207399	50	100%	90	110	0%	
Selenium	A	mg/L	0.04919	0.04919		0.05	0	0	0.0001415	0.001	1	98%	90	110	0%	
Silicon	A	mg/L	0.2143	0.2143		0.2	0	0	0.0146174	0.1	0.4	107%	90	110	0%	
Silver	A	mg/L	0.02053	0.02053		0.02	0	0	1.123E-05	0.001	0.04	103%	90	110	0%	
Sodium	A	mg/L	12.55	12.55		12.5	0	0	0.0809273	0.0809273	50	100%	90	110	0%	
Strontium	A	mg/L	0.05121	0.05121		0.05	0	0	0.0001825	0.001	1	102%	90	110	0%	
Thallium	A	mg/L	0.05148	0.05148		0.05	0	0	0.0002991	0.001	1	103%	90	110	0%	
Thorium	A	mg/L	0.05129	0.05129		0.05	0	0	0.0010473	0.0010473	1	103%	90	110	0%	
Tin	A	mg/L	0.05277	0.05277		0.05	0	0	0.0022388	0.0022388	0.1	106%	90	110	0%	
Titanium	A	mg/L	0.05028	0.05028		0.05	0	0	0.0002974	0.001	1	101%	90	110	0%	
Uranium	A	mg/L	0.04903	0.04903		0.05	0	0	3.139E-05	0.0003	1	98%	90	110	0%	
Vanadium	A	mg/L	0.05052	0.05052		0.05	0	0	0.0043468	0.0043468	1	101%	90	110	0%	
Zinc	A	mg/L	0.05082	0.05082		0.05	0	0	0.0011598	0.0011598	1	102%	90	110	0%	
Iron, Ferrous	C	mg/L	1.296	1.296		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985122	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 8:03:4	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.0003318	0		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00001256	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00001893	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	9.313E-06	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.00001173	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985122	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 8:03:4	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Cadmium	A	mg/L	9.314E-07	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	3.057E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-0.0001293	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	9.123E-06	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.00001805	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lanthanum	A	mg/L	1.322E-06	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	7.346E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	0.00001096	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	5.245E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001446	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-1.269E-05	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	0.0000252	0		0	0	0	0.0001415	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-0.000511	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.000015	0.000015		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	5.691E-06	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00009264	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	-7.005E-06	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001166	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Boron	B	mg/L	0.000782	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	L
Calcium	B	mg/L	0.001052	0		0	0	0	0.0749796	0.0749796	50	0%	0	0	0%	L
Iron	B	mg/L	-0.0001782	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	-0.0001782	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lithium	B	mg/L	0.001747	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	B	mg/L	0.0004809	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Potassium	B	mg/L	0.005133	0		0	0	0	0.207399	0.207399	50	0%	0	0	0%	L
Sodium	B	mg/L	0.00831	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Thorium	B	mg/L	0.00008572	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	B	mg/L	-0.002689	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Vanadium	B	mg/L	0.00000878	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	-0.0003367	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985123	10 PPB STD	ICPMS-6020B-C	Cal6		1/18/2022 8:09:3	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985123	10 PPB STD	ICPMS-6020B-C	Cal6		1/18/2022 8:09:3	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.01016	0.01016		0.01	0	0		0.01		102%	90	110	0%	
Antimony	A	mg/L	0.0108	0.0108		0.01	0	0		0.001		108%	90	110	0%	
Arsenic	A	mg/L	0.01062	0.01062		0.01	0	0		0.001		106%	90	110	0%	
Barium	A	mg/L	0.01046	0.01046		0.01	0	0		0.0003		105%	90	110	0%	
Beryllium	A	mg/L	0.01099	0.01099		0.01	0	0		0.001		110%	90	110	0%	
Boron	A	mg/L	0.01166	0.01166		0.01	0	0		0.1		117%	90	110	0%	S
Cadmium	A	mg/L	0.01123	0.01123		0.01	0	0		0.001		112%	90	110	0%	S
Calcium	A	mg/L	3.124	3.124		2.5	0	0		1		125%	90	110	0%	S
Chromium	A	mg/L	0.01102	0.01102		0.01	0	0		0.001		110%	90	110	0%	
Cobalt	A	mg/L	0.01143	0.01143		0.01	0	0		0.001		114%	90	110	0%	S
Copper	A	mg/L	0.01158	0.01158		0.01	0	0		0.005		116%	90	110	0%	S
Iron	A	mg/L	0.2839	0.2839		0.25	0	0		0.01		114%	90	110	0%	S
Lanthanum	A	mg/L	0.01084	0.01084		0.01	0	0		0.001		108%	90	110	0%	
Lead	A	mg/L	0.01117	0.01117		0.01	0	0		0.001		112%	90	110	0%	S
Magnesium	A	mg/L	2.858	2.858		2.5	0	0		1		114%	90	110	0%	S
Manganese	A	mg/L	0.01099	0.01099		0.01	0	0		0.001		110%	90	110	0%	
Mercury	A	mg/L	0.000215	0.000215		0.0002	0	0		0.001		107%	90	110	0%	
Molybdenum	A	mg/L	0.01118	0.01118		0.01	0	0		0.001		112%	90	110	0%	S
Nickel	A	mg/L	0.01168	0.01168		0.01	0	0		0.005		117%	90	110	0%	S
Potassium	A	mg/L	2.782	2.782		2.5	0	0		1		111%	90	110	0%	S
Selenium	A	mg/L	0.01212	0.01212		0.01	0	0		0.005		121%	90	110	0%	S
Silicon	A	mg/L	0.05002	0.05002		0.04	0	0		0.1		125%	90	110	0%	S
Silver	A	mg/L	0.004645	0.004645		0.004	0	0		0.001		116%	90	110	0%	S
Sodium	A	mg/L	2.828	2.828		2.5	0	0		1		113%	90	110	0%	S
Strontium	A	mg/L	0.0119	0.0119		0.01	0	0		0.001		119%	90	110	0%	S
Thallium	A	mg/L	0.01187	0.01187		0.01	0	0		0.001		119%	90	110	0%	S
Thorium	A	mg/L	0.01105	0.01105		0.01	0	0		0.05		110%	90	110	0%	
Tin	A	mg/L	0.00914	0.00914		0.01	0	0		0.001		91%	90	110	0%	
Titanium	A	mg/L	0.01028	0.01028		0.01	0	0		0.001		103%	90	110	0%	
Uranium	A	mg/L	0.01095	0.01095		0.01	0	0		0.001		109%	90	110	0%	
Vanadium	A	mg/L	0.01084	0.01084		0.01	0	0		0.005		108%	90	110	0%	
Zinc	A	mg/L	0.01065	0.01065		0.01	0	0		0.01		106%	90	110	0%	
Iron, Ferrous	C	mg/L	0.2839	0.2839		0.01	0	0		0.01	5	2839%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.1070428	0.1070428		0.856	0	0		0.214	0.9	13%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985124	QCS	ICPMS-6020-W- ICV			1/18/2022 8:15:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.2529	0.2529		0.25	0	0	0.0006548	0.001	1	101%	90	110	0%	
Antimony	A	mg/L	0.04478	0.04478		0.05	0	0	0.0002987	0.001	0.1	90%	90	110	0%	
Arsenic	A	mg/L	0.0487	0.0487		0.05	0	0	0.0001814	0.001	1	97%	90	110	0%	
Barium	A	mg/L	0.04766	0.04766		0.05	0	0	0.0001321	0.001	1	95%	90	110	0%	
Beryllium	A	mg/L	0.02482	0.02482		0.025	0	0	7.465E-05	0.001	1	99%	90	110	0%	
Boron	A	mg/L	0.05242	0.05242		0.05	0	0	0.0030032	0.0030032	1	105%	90	110	0%	
Cadmium	A	mg/L	0.02426	0.02426		0.025	0	0	5.139E-05	0.001	1	97%	90	110	0%	
Calcium	A	mg/L	2.586	2.586		2.5	0	0	0.0749796	0.0749796	50	103%	90	110	0%	
Cerium	A	mg/L	0.05251	0.05251		0.05	0	0	1.462E-05	0.001	0.1	105%	90	110	0%	
Chromium	A	mg/L	0.04972	0.04972		0.05	0	0	0.0005481	0.001	1	99%	90	110	0%	
Cobalt	A	mg/L	0.04943	0.04943		0.05	0	0	4.756E-05	0.001	1	99%	90	110	0%	
Copper	A	mg/L	0.05197	0.05197		0.05	0	0	0.0003828	0.001	1	104%	90	110	0%	
Iron	A	mg/L	0.265	0.265		0.25	0	0	0.0046291	0.0046291	5	106%	90	110	0%	
Lanthanum	A	mg/L	0.05131	0.05131		0.05	0	0	1.683E-05	0.001	0.1	103%	90	110	0%	
Lithium	A	mg/L	0.05037	0.05037		0.05	0	0	0.0052105	0.0052105	2.5	101%	90	110	0%	
Magnesium	A	mg/L	2.482	2.482		2.5	0	0	0.0118993	0.0118993	50	99%	90	110	0%	
Manganese	A	mg/L	0.2511	0.2511		0.25	0	0	0.0001444	0.001	1	100%	90	110	0%	
Mercury	A	mg/L	0.0009524	0.0009524		0.001	0	0	0.000066	0.001	0.02	95%	90	110	0%	
Molybdenum	A	mg/L	0.05007	0.05007		0.05	0	0	8.338E-05	0.001	0.1	100%	90	110	0%	
Nickel	A	mg/L	0.05073	0.05073		0.05	0	0	0.0002531	0.001	1	101%	90	110	0%	
Potassium	A	mg/L	2.438	2.438		2.5	0	0	0.207399	0.207399	50	98%	90	110	0%	
Selenium	A	mg/L	0.04913	0.04913		0.05	0	0	0.0001415	0.001	1	98%	90	110	0%	
Silicon	A	mg/L	0.4613	0.4613		0.5	0	0	0.0146174	0.1	0.4	92%	90	110	0%	
Silver	A	mg/L	0.02645	0.02645		0.025	0	0	1.123E-05	0.001	0.04	106%	90	110	0%	
Sodium	A	mg/L	2.493	2.493		2.5	0	0	0.0809273	0.0809273	50	100%	90	110	0%	
Strontium	A	mg/L	0.05193	0.05193		0.05	0	0	0.0001825	0.001	1	104%	90	110	0%	
Thallium	A	mg/L	0.05208	0.05208		0.05	0	0	0.0002991	0.001	1	104%	90	110	0%	
Thorium	A	mg/L	0.05205	0.05205		0.05	0	0	0.0010473	0.0010473	1	104%	90	110	0%	
Tin	A	mg/L	0.04655	0.04655		0.05	0	0	0.0022388	0.0022388	0.1	93%	90	110	0%	
Titanium	A	mg/L	0.0449	0.0449		0.05	0	0	0.0002974	0.001	1	90%	90	110	0%	
Uranium	A	mg/L	0.05091	0.05091		0.05	0	0	3.139E-05	0.0003	1	102%	90	110	0%	
Vanadium	A	mg/L	0.04963	0.04963		0.05	0	0	0.0043468	0.0043468	1	99%	90	110	0%	
Zinc	A	mg/L	0.05255	0.05255		0.05	0	0	0.0011598	0.0011598	1	105%	90	110	0%	
Iron, Ferrous	C	mg/L	0.265	0.265		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985125	CCV	ICPMS-6020-W-	CCV		1/18/2022 8:21:0	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04934	0.04934		0.05	0	0	0.0006548	0.001	1	99%	90	110	0%	
Antimony	A	mg/L	0.05213	0.05213		0.05	0	0	0.0002987	0.001	0.1	104%	90	110	0%	
Arsenic	A	mg/L	0.05032	0.05032		0.05	0	0	0.0001814	0.001	1	101%	90	110	0%	
Barium	A	mg/L	0.05008	0.05008		0.05	0	0	0.0001321	0.001	1	100%	90	110	0%	
Beryllium	A	mg/L	0.05032	0.05032		0.05	0	0	7.465E-05	0.001	1	101%	90	110	0%	
Boron	A	mg/L	0.05294	0.05294		0.05	0	0	0.0030032	0.0030032	1	106%	90	110	0%	
Cadmium	A	mg/L	0.04892	0.04892		0.05	0	0	5.139E-05	0.001	1	98%	90	110	0%	
Calcium	A	mg/L	13.95	13.95		12.5	0	0	0.0749796	0.0749796	50	112%	90	110	0%	S
Cerium	A	mg/L	0.05094	0.05094		0.05	0	0	1.462E-05	0.001	0.1	102%	90	110	0%	
Chromium	A	mg/L	0.05157	0.05157		0.05	0	0	0.0005481	0.001	1	103%	90	110	0%	
Cobalt	A	mg/L	0.05257	0.05257		0.05	0	0	4.756E-05	0.001	1	105%	90	110	0%	
Copper	A	mg/L	0.05166	0.05166		0.05	0	0	0.0003828	0.001	1	103%	90	110	0%	
Iron	A	mg/L	1.29	1.29		1.3	0	0	0.0046291	0.0046291	5	99%	90	110	0%	
Lanthanum	A	mg/L	0.04995	0.04995		0.05	0	0	1.683E-05	0.001	0.1	100%	90	110	0%	
Lithium	A	mg/L	0.589	0.589		0.625	0	0	0.0052105	0.0052105	2.5	94%	90	110	0%	
Magnesium	A	mg/L	12.74	12.74		12.5	0	0	0.0118993	0.0118993	50	102%	90	110	0%	
Manganese	A	mg/L	0.05208	0.05208		0.05	0	0	0.0001444	0.001	1	104%	90	110	0%	
Mercury	A	mg/L	0.0009815	0.0009815		0.001	0	0	0.000066	0.001	0.02	98%	90	110	0%	
Molybdenum	A	mg/L	0.05328	0.05328		0.05	0	0	8.338E-05	0.001	0.1	107%	90	110	0%	
Nickel	A	mg/L	0.05161	0.05161		0.05	0	0	0.0002531	0.001	1	103%	90	110	0%	
Potassium	A	mg/L	12.96	12.96		12.5	0	0	0.207399	0.207399	50	104%	90	110	0%	
Selenium	A	mg/L	0.04917	0.04917		0.05	0	0	0.0001415	0.001	1	98%	90	110	0%	
Silicon	A	mg/L	0.2079	0.2079		0.2	0	0	0.0146174	0.1	0.4	104%	90	110	0%	
Silver	A	mg/L	0.02091	0.02091		0.02	0	0	1.123E-05	0.001	0.04	105%	90	110	0%	
Sodium	A	mg/L	12.89	12.89		12.5	0	0	0.0809273	0.0809273	50	103%	90	110	0%	
Strontium	A	mg/L	0.05172	0.05172		0.05	0	0	0.0001825	0.001	1	103%	90	110	0%	
Thallium	A	mg/L	0.05063	0.05063		0.05	0	0	0.0002991	0.001	1	101%	90	110	0%	
Thorium	A	mg/L	0.05166	0.05166		0.05	0	0	0.0010473	0.0010473	1	103%	90	110	0%	
Tin	A	mg/L	0.05207	0.05207		0.05	0	0	0.0022388	0.0022388	0.1	104%	90	110	0%	
Titanium	A	mg/L	0.05233	0.05233		0.05	0	0	0.0002974	0.001	1	105%	90	110	0%	
Uranium	A	mg/L	0.04957	0.04957		0.05	0	0	3.139E-05	0.0003	1	99%	90	110	0%	
Vanadium	A	mg/L	0.05113	0.05113		0.05	0	0	0.0043468	0.0043468	1	102%	90	110	0%	
Zinc	A	mg/L	0.05047	0.05047		0.05	0	0	0.0011598	0.0011598	1	101%	90	110	0%	
Iron, Ferrous	C	mg/L	1.29	1.29		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist			
14985126	CCB	ICPMS-6020-W-	CCB		1/18/2022 8:26:5	1	R373351		0	0				

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.0004617	-0.0004617		0	0	0	0.0006548	0.001	1	0%			0%	
Antimony	A	mg/L	5.763E-06	5.763E-06		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.00001569	0.00001569		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	-1.693E-06	-1.693E-06		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	-2.651E-06	-2.651E-06		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	0.0006225	0.0006225		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	1.141E-06	1.141E-06		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	0.0003579	0.0003579		0	0	0	0.0749796	0.0749796	50	0%			0%	
Cerium	A	mg/L	6.11E-07	6.11E-07		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-0.0001279	-0.0001279		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	-7.006E-07	-7.006E-07		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	0.00003699	0.00003699		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	-0.0005201	-0.0005201		0	0	0	0.0046291	0.0046291	5	0%			0%	
Lanthanum	A	mg/L	8.318E-07	8.318E-07		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lithium	A	mg/L	0.000697	0.000697		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	-0.0007442	-0.0007442		0	0	0	0.0118993	0.0118993	50	0%			0%	
Manganese	A	mg/L	-4.06E-06	-4.06E-06		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	7.584E-06	7.584E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.00000476	0.00000476		0	0	0	8.338E-05	0.001	0.1	0%			0%	
Nickel	A	mg/L	-0.0000258	-0.0000258		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	-0.007135	-0.007135		0	0	0	0.207399	0.207399	50	0%			0%	
Selenium	A	mg/L	0.00004721	0.00004721		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	-0.0006428	-0.0006428		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.00001143	0.00001143		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	-0.01252	-0.01252		0	0	0	0.0809273	0.0809273	50	0%			0%	
Strontium	A	mg/L	-6.647E-09	-6.647E-09		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00009974	0.00009974		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00008608	0.00008608		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	-0.0004011	-0.0004011		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00003809	0.00003809		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	5.482E-06	5.482E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	3.183E-06	3.183E-06		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	-0.0001983	-0.0001983		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	-0.0005201	-0.0005201		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985127	0.10 PPB STD	ICPMS-6020B-C	Cal3		1/18/2022 8:32:3	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.0002796	-0.0002796		0.0001	0	0		0.01		-280%	80	120	0%	S
Antimony	A	mg/L	0.0001295	0.0001295		0.0001	0	0		0.001		130%	80	120	0%	S
Arsenic	A	mg/L	0.0001182	0.0001182		0.0001	0	0		0.001		118%	80	120	0%	
Barium	A	mg/L	0.0001175	0.0001175		0.0001	0	0		0.0003		118%	80	120	0%	
Beryllium	A	mg/L	0.0001346	0.0001346		0.0001	0	0		0.001		135%	80	120	0%	S
Boron	A	mg/L	0.0005309	0.0005309		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0001343	0.0001343		0.0001	0	0		0.001		134%	80	120	0%	S
Calcium	A	mg/L	0.03151	0.03151		0.025	0	0		1		126%	80	120	0%	S
Chromium	A	mg/L	0.00001058	0.00001058		0.0001	0	0		0.001		11%	80	120	0%	S
Cobalt	A	mg/L	0.0001113	0.0001113		0.0001	0	0		0.001		111%	80	120	0%	
Copper	A	mg/L	0.0001408	0.0001408		0.0001	0	0		0.005		141%	80	120	0%	S
Iron	A	mg/L	0.002619	0.002619		0.0025	0	0		0.01		105%	80	120	0%	
Lanthanum	A	mg/L	0.0001204	0.0001204		0.0001	0	0		0.001		120%	80	120	0%	
Magnesium	A	mg/L	0.02866	0.02866		0.025	0	0		1		115%	80	120	0%	
Manganese	A	mg/L	0.0001018	0.0001018		0.0001	0	0		0.001		102%	80	120	0%	
Mercury	A	mg/L	4.278E-06	4.278E-06		0.000002	0	0		0.001		214%	80	120	0%	S
Molybdenum	A	mg/L	0.0001103	0.0001103		0.0001	0	0		0.001		110%	80	120	0%	
Nickel	A	mg/L	0.0001207	0.0001207		0.0001	0	0		0.005		121%	80	120	0%	S
Potassium	A	mg/L	0.02973	0.02973		0.025	0	0		1		119%	80	120	0%	
Selenium	A	mg/L	0.0001086	0.0001086		0.0001	0	0		0.005		109%	80	120	0%	
Silicon	A	mg/L	0.0003267	0.0003267		0.0004	0	0		0.1		82%	80	120	0%	
Silver	A	mg/L	0.00005472	0.00005472		0.00004	0	0		0.001		137%	80	120	0%	S
Sodium	A	mg/L	0.02923	0.02923		0.025	0	0		1		117%	80	120	0%	
Strontium	A	mg/L	0.0001227	0.0001227		0.0001	0	0		0.001		123%	80	120	0%	S
Thallium	A	mg/L	0.0001577	0.0001577		0.0001	0	0		0.001		158%	80	120	0%	S
Thorium	A	mg/L	0.0001369	0.0001369		0.0001	0	0		0.05		137%	80	120	0%	S
Tin	A	mg/L	-0.002362	-0.002362		0.0001	0	0		0.001		-2362%	80	120	0%	S
Titanium	A	mg/L	0.0001599	0.0001599		0.0001	0	0		0.001		160%	80	120	0%	S
Uranium	A	mg/L	0.0001161	0.0001161		0.0001	0	0		0.001		116%	80	120	0%	
Vanadium	A	mg/L	0.0001136	0.0001136		0.0001	0	0		0.005		114%	80	120	0%	
Zinc	A	mg/L	-0.0002457	-0.0002457		0.0001	0	0		0.01		-246%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.002619	0.002619		0.0001	0	0		0.01	5	2619%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00069914	0.00069914		0.00856	0	0		0.214	0.9	8%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985128	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 9:19:0	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.0004589	0		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	-2.113E-06	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00001007	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	-2.148E-06	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	8.083E-06	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	-9.183E-07	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	6.263E-07	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-0.0001538	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-7.424E-07	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.00001992	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lanthanum	A	mg/L	5.819E-07	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	2.756E-07	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	-5.785E-06	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	-3.613E-07	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	-5.867E-06	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-0.0000191	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	0.00001813	0		0	0	0	0.0001415	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-0.0002711	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	3.409E-06	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	3.345E-07	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	3.753E-06	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	2.901E-06	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	-6.543E-08	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Boron	B	mg/L	0.0001322	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	L
Iron	B	mg/L	-0.0005261	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	-0.0005261	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lithium	B	mg/L	0.0003008	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	B	mg/L	-0.0006257	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Potassium	B	mg/L	-0.000314	0		0	0	0	0.207399	0.207399	50	0%	0	0	0%	L
Sodium	B	mg/L	-0.01731	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Thorium	B	mg/L	4.148E-06	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	B	mg/L	-0.0002899	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Vanadium	B	mg/L	-1.245E-05	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	-0.0004357	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985129	BLANK	ICPMS-6020-W-	SAMP		1/18/2022 9:24:4	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0	0		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	
Boron	A	mg/L	0	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	L
Cadmium	A	mg/L	0	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Calcium	A	mg/L	0	0		0	0	0	0.0749796	0.0749796	50	0%	0	0	0%	L
Cerium	A	mg/L	0	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Iron	A	mg/L	0	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lanthanum	A	mg/L	0	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Lithium	A	mg/L	0	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	A	mg/L	0	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Manganese	A	mg/L	0	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	0	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Potassium	A	mg/L	0	0		0	0	0	0.207399	0.207399	50	0%	0	0	0%	L
Selenium	A	mg/L	0	0		0	0	0	0.0001415	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	0	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Strontium	A	mg/L	0	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	0	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Titanium	A	mg/L	0	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	A	mg/L	0	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985130	0.025 PPB STD	ICPMS-6020B-C	Cal1		1/18/2022 9:30:4	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-6.287E-06	-6.287E-06		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00002083	0.00002083		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	0.00002624	0.00002624		0.000025	0	0		0.001		105%	80	120	0%	
Barium	A	mg/L	0.00002	0.00002		0.000025	0	0		0.0003		80%	80	120	0%	
Beryllium	A	mg/L	0.00001173	0.00001173		0.000025	0	0		0.001		47%	80	120	0%	S
Boron	A	mg/L	-3.706E-05	-3.706E-05		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.00003387	0.00003387		0.000025	0	0		0.001		135%	80	120	0%	S
Calcium	A	mg/L	0.007203	0.007203		0	0	0		1		0%			0%	
Chromium	A	mg/L	4.089E-06	4.089E-06		0.000025	0	0		0.001		16%	80	120	0%	S
Cobalt	A	mg/L	0.00001787	0.00001787		0.000025	0	0		0.001		71%	80	120	0%	S
Copper	A	mg/L	-5.913E-06	-5.913E-06		0	0	0		0.005		0%			0%	
Iron	A	mg/L	0.0006327	0.0006327		0	0	0		0.01		0%			0%	
Lanthanum	A	mg/L	0.00002306	0.00002306		0.000025	0	0		0.001		92%	80	120	0%	
Lead	A	mg/L	0.000024	0.000024		0.000025	0	0		0.001		96%	80	120	0%	
Magnesium	A	mg/L	0.006598	0.006598		0	0	0		1		0%			0%	
Manganese	A	mg/L	0.00002693	0.00002693		0	0	0		0.001		0%			0%	
Mercury	A	mg/L	2.086E-06	2.086E-06		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00002467	0.00002467		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	0.00002176	0.00002176		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.003803	0.003803		0.00625	0	0		1		61%	80	120	0%	S
Selenium	A	mg/L	8.848E-07	8.848E-07		0.000025	0	0		0.005		4%	80	120	0%	S
Silicon	A	mg/L	0.0001578	0.0001578		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.00001249	0.00001249		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	0.002419	0.002419		0.00625	0	0		1		39%	80	120	0%	S
Strontium	A	mg/L	0.00002844	0.00002844		0	0	0		0.001		0%	80	120	0%	
Thallium	A	mg/L	0.00002567	0.00002567		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.00001788	0.00001788		0	0	0		0.05		0%			0%	
Tin	A	mg/L	-0.002311	-0.002311		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.00004033	0.00004033		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.00002299	0.00002299		0.000025	0	0		0.001		92%	80	120	0%	
Vanadium	A	mg/L	0.00005786	0.00005786		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	-2.536E-05	-2.536E-05		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.0006327	0.0006327		0.000025	0	0		0.01	5	2531%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00033769	0.00033769		0.0000535	0	0		0.214	0.9	631%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985131	0.05 PPB STD	ICPMS-6020B-C	Cal2		1/18/2022 9:36:3	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.00003068	0.00003068		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00005555	0.00005555		0.00005	0	0		0.001		111%	80	120	0%	
Arsenic	A	mg/L	0.00005802	0.00005802		0.00005	0	0		0.001		116%	80	120	0%	
Barium	A	mg/L	0.00005321	0.00005321		0.00005	0	0		0.0003		106%	80	120	0%	
Beryllium	A	mg/L	0.00007359	0.00007359		0.00005	0	0		0.001		147%	80	120	0%	S
Boron	A	mg/L	-4.566E-05	-4.566E-05		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.00006027	0.00006027		0.00005	0	0		0.001		121%	80	120	0%	S
Calcium	A	mg/L	0.01359	0.01359		0.0125	0	0		1		109%	80	120	0%	
Chromium	A	mg/L	0.00006624	0.00006624		0.00005	0	0		0.001		132%	80	120	0%	S
Cobalt	A	mg/L	0.00005089	0.00005089		0	0	0		0.001		0%			0%	
Copper	A	mg/L	0.0000271	0.0000271		0.00005	0	0		0.005		54%	80	120	0%	S
Iron	A	mg/L	0.001406	0.001406		0.00125	0	0		0.01		112%	80	120	0%	
Lanthanum	A	mg/L	0.00005213	0.00005213		0.00005	0	0		0.001		104%	80	120	0%	
Lead	A	mg/L	0.00005408	0.00005408		0.00005	0	0		0.001		108%	80	120	0%	
Magnesium	A	mg/L	0.01281	0.01281		0.0125	0	0		1		102%	80	120	0%	
Manganese	A	mg/L	0.00005306	0.00005306		0.00005	0	0		0.001		106%	80	120	0%	
Mercury	A	mg/L	2.042E-06	2.042E-06		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00005706	0.00005706		0.00005	0	0		0.001		114%	80	120	0%	
Nickel	A	mg/L	0.00004372	0.00004372		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.0121	0.0121		0.0125	0	0		1		97%	80	120	0%	
Selenium	A	mg/L	0.00004163	0.00004163		0.00005	0	0		0.005		83%	80	120	0%	
Silicon	A	mg/L	0.0007726	0.0007726		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.00002665	0.00002665		0.00002	0	0		0.001		133%	80	120	0%	S
Sodium	A	mg/L	0.01198	0.01198		0.0125	0	0		1		96%	80	120	0%	
Strontium	A	mg/L	0.00006168	0.00006168		0.00005	0	0		0.001		123%	80	120	0%	S
Thallium	A	mg/L	0.00005241	0.00005241		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.00003696	0.00003696		0	0	0		0.05		0%			0%	
Tin	A	mg/L	-0.002277	-0.002277		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.00007257	0.00007257		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.00005101	0.00005101		0.00005	0	0		0.001		102%	80	120	0%	
Vanadium	A	mg/L	0.00008363	0.00008363		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	0.00002572	0.00002572		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.001406	0.001406		0.00005	0	0		0.01	5	2812%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00165336	0.00165336		0.00428	0	0		0.214	0.9	39%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985132	0.10 PPB STD	ICPMS-6020B-C	Cal3		1/18/2022 9:42:2	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.000178	0.000178		0.0001	0	0		0.01		178%	80	120	0%	S
Antimony	A	mg/L	0.0001136	0.0001136		0.0001	0	0		0.001		114%	80	120	0%	
Arsenic	A	mg/L	0.0001343	0.0001343		0.0001	0	0		0.001		134%	80	120	0%	S
Barium	A	mg/L	0.0001075	0.0001075		0.0001	0	0		0.0003		107%	80	120	0%	
Beryllium	A	mg/L	0.000115	0.000115		0.0001	0	0		0.001		115%	80	120	0%	
Boron	A	mg/L	-7.461E-05	-7.461E-05		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0001298	0.0001298		0.0001	0	0		0.001		130%	80	120	0%	S
Calcium	A	mg/L	0.03187	0.03187		0.025	0	0		1		127%	80	120	0%	S
Chromium	A	mg/L	0.0001293	0.0001293		0.0001	0	0		0.001		129%	80	120	0%	S
Cobalt	A	mg/L	0.0001302	0.0001302		0.0001	0	0		0.001		130%	80	120	0%	S
Copper	A	mg/L	0.0001043	0.0001043		0.0001	0	0		0.005		104%	80	120	0%	
Iron	A	mg/L	0.003303	0.003303		0.0025	0	0		0.01		132%	80	120	0%	S
Lanthanum	A	mg/L	0.0001248	0.0001248		0.0001	0	0		0.001		125%	80	120	0%	S
Magnesium	A	mg/L	0.03019	0.03019		0.025	0	0		1		121%	80	120	0%	S
Manganese	A	mg/L	0.0001071	0.0001071		0.0001	0	0		0.001		107%	80	120	0%	
Mercury	A	mg/L	3.896E-06	3.896E-06		0.000002	0	0		0.001		195%	80	120	0%	S
Molybdenum	A	mg/L	0.0001146	0.0001146		0.0001	0	0		0.001		115%	80	120	0%	
Nickel	A	mg/L	0.0001389	0.0001389		0.0001	0	0		0.005		139%	80	120	0%	S
Potassium	A	mg/L	0.0288	0.0288		0.025	0	0		1		115%	80	120	0%	
Selenium	A	mg/L	0.0001326	0.0001326		0.0001	0	0		0.005		133%	80	120	0%	S
Silicon	A	mg/L	0.001112	0.001112		0.0004	0	0		0.1		278%	80	120	0%	S
Silver	A	mg/L	0.00005328	0.00005328		0.00004	0	0		0.001		133%	80	120	0%	S
Sodium	A	mg/L	0.03068	0.03068		0.025	0	0		1		123%	80	120	0%	S
Strontium	A	mg/L	0.0001334	0.0001334		0.0001	0	0		0.001		133%	80	120	0%	S
Thallium	A	mg/L	0.0001241	0.0001241		0.0001	0	0		0.001		124%	80	120	0%	S
Thorium	A	mg/L	0.00008861	0.00008861		0.0001	0	0		0.05		89%	80	120	0%	
Tin	A	mg/L	-0.002208	-0.002208		0.0001	0	0		0.001		-2208%	80	120	0%	S
Titanium	A	mg/L	0.0001161	0.0001161		0.0001	0	0		0.001		116%	80	120	0%	
Uranium	A	mg/L	0.0001162	0.0001162		0.0001	0	0		0.001		116%	80	120	0%	
Vanadium	A	mg/L	0.0001409	0.0001409		0.0001	0	0		0.005		141%	80	120	0%	S
Zinc	A	mg/L	0.0001151	0.0001151		0.0001	0	0		0.01		115%	80	120	0%	
Iron, Ferrous	C	mg/L	0.003303	0.003303		0.0001	0	0		0.01	5	3303%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00237968	0.00237968		0.00856	0	0		0.214	0.9	28%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985133	0.5 PPB STD	ICPMS-6020B-C	Cal4		1/18/2022 9:48:1	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0004749	0.0004749		0.0005	0	0		0.01		95%	80	120	0%	
Antimony	A	mg/L	0.0004813	0.0004813		0.0005	0	0		0.001		96%	80	120	0%	
Arsenic	A	mg/L	0.0004708	0.0004708		0.0005	0	0		0.001		94%	80	120	0%	
Barium	A	mg/L	0.0004974	0.0004974		0.0005	0	0		0.0003		99%	80	120	0%	
Beryllium	A	mg/L	0.0004473	0.0004473		0.0005	0	0		0.001		89%	80	120	0%	
Boron	A	mg/L	0.000188	0.000188		0.0005	0	0		0.1		38%	80	120	0%	S
Cadmium	A	mg/L	0.0005189	0.0005189		0.0005	0	0		0.001		104%	80	120	0%	
Calcium	A	mg/L	0.1258	0.1258		0.125	0	0		1		101%	80	120	0%	
Chromium	A	mg/L	0.0004836	0.0004836		0.0005	0	0		0.001		97%	80	120	0%	
Cobalt	A	mg/L	0.0005235	0.0005235		0.0005	0	0		0.001		105%	80	120	0%	
Copper	A	mg/L	0.0004751	0.0004751		0.0005	0	0		0.005		95%	80	120	0%	
Iron	A	mg/L	0.01257	0.01257		0.0125	0	0		0.01		101%	80	120	0%	
Lanthanum	A	mg/L	0.0005006	0.0005006		0.0005	0	0		0.001		100%	80	120	0%	
Lead	A	mg/L	0.000508	0.000508		0.0005	0	0		0.001		102%	80	120	0%	
Magnesium	A	mg/L	0.1189	0.1189		0.125	0	0		1		95%	80	120	0%	
Manganese	A	mg/L	0.0004781	0.0004781		0.0005	0	0		0.001		96%	80	120	0%	
Mercury	A	mg/L	9.802E-06	9.802E-06		0.00001	0	0		0.001		98%	80	120	0%	
Molybdenum	A	mg/L	0.0004837	0.0004837		0.0005	0	0		0.001		97%	80	120	0%	
Nickel	A	mg/L	0.0005082	0.0005082		0.0005	0	0		0.005		102%	80	120	0%	
Potassium	A	mg/L	0.1192	0.1192		0.125	0	0		1		95%	80	120	0%	
Selenium	A	mg/L	0.0004198	0.0004198		0.0005	0	0		0.005		84%	80	120	0%	
Silicon	A	mg/L	0.001896	0.001896		0.002	0	0		0.1		95%	80	120	0%	
Silver	A	mg/L	0.000208	0.000208		0.0002	0	0		0.001		104%	80	120	0%	
Sodium	A	mg/L	0.1234	0.1234		0.125	0	0		1		99%	80	120	0%	
Strontium	A	mg/L	0.0005285	0.0005285		0.0005	0	0		0.001		106%	80	120	0%	
Thallium	A	mg/L	0.0004952	0.0004952		0.0005	0	0		0.001		99%	80	120	0%	
Thorium	A	mg/L	0.0003879	0.0003879		0.0005	0	0		0.05		78%	80	120	0%	S
Tin	A	mg/L	-0.001878	-0.001878		0.0005	0	0		0.001		-376%	80	120	0%	S
Titanium	A	mg/L	0.0005172	0.0005172		0.0005	0	0		0.001		103%	80	120	0%	
Uranium	A	mg/L	0.0004879	0.0004879		0.0005	0	0		0.001		98%	80	120	0%	
Vanadium	A	mg/L	0.000488	0.000488		0.0005	0	0		0.005		98%	80	120	0%	
Zinc	A	mg/L	0.0004604	0.0004604		0.0005	0	0		0.01		92%	80	120	0%	
Iron, Ferrous	C	mg/L	0.01257	0.01257		0.0005	0	0		0.01	5	2514%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00405744	0.00405744		0.0428	0	0		0.214	0.9	9%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985134	1 PPB STD	ICPMS-6020B-C	Cal5		1/18/2022 9:54:0	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001057	0.001057		0.001	0	0		0.01		106%	80	120	0%	
Antimony	A	mg/L	0.0009836	0.0009836		0.001	0	0		0.001		98%	80	120	0%	
Arsenic	A	mg/L	0.001102	0.001102		0.001	0	0		0.001		110%	80	120	0%	
Barium	A	mg/L	0.001087	0.001087		0.001	0	0		0.0003		109%	80	120	0%	
Beryllium	A	mg/L	0.001142	0.001142		0.001	0	0		0.001		114%	80	120	0%	
Boron	A	mg/L	0.0007415	0.0007415		0.001	0	0		0.1		74%	80	120	0%	S
Cadmium	A	mg/L	0.001096	0.001096		0.001	0	0		0.001		110%	80	120	0%	
Calcium	A	mg/L	0.2776	0.2776		0.25	0	0		1		111%	80	120	0%	
Chromium	A	mg/L	0.001188	0.001188		0.001	0	0		0.001		119%	80	120	0%	
Cobalt	A	mg/L	0.001151	0.001151		0.001	0	0		0.001		115%	80	120	0%	
Copper	A	mg/L	0.001159	0.001159		0.001	0	0		0.005		116%	80	120	0%	
Iron	A	mg/L	0.0258	0.0258		0.025	0	0		0.01		103%	80	120	0%	
Lanthanum	A	mg/L	0.001084	0.001084		0.001	0	0		0.001		108%	80	120	0%	
Lead	A	mg/L	0.001113	0.001113		0.001	0	0		0.001		111%	80	120	0%	
Magnesium	A	mg/L	0.2835	0.2835		0.25	0	0		1		113%	80	120	0%	
Manganese	A	mg/L	0.001111	0.001111		0.001	0	0		0.001		111%	80	120	0%	
Mercury	A	mg/L	0.00002101	0.00002101		0.00002	0	0		0.001		105%	80	120	0%	
Molybdenum	A	mg/L	0.00109	0.00109		0.001	0	0		0.001		109%	80	120	0%	
Nickel	A	mg/L	0.00113	0.00113		0.001	0	0		0.005		113%	80	120	0%	
Potassium	A	mg/L	0.2453	0.2453		0.25	0	0		1		98%	80	120	0%	
Selenium	A	mg/L	0.001042	0.001042		0.001	0	0		0.005		104%	80	120	0%	
Silicon	A	mg/L	0.004531	0.004531		0.004	0	0		0.1		113%	80	120	0%	
Silver	A	mg/L	0.0004636	0.0004636		0.0004	0	0		0.001		116%	80	120	0%	
Sodium	A	mg/L	0.2766	0.2766		0.25	0	0		1		111%	80	120	0%	
Strontium	A	mg/L	0.001159	0.001159		0.001	0	0		0.001		116%	80	120	0%	
Thallium	A	mg/L	0.001182	0.001182		0.001	0	0		0.001		118%	80	120	0%	
Thorium	A	mg/L	0.0009486	0.0009486		0.001	0	0		0.05		95%	80	120	0%	
Tin	A	mg/L	-0.001236	-0.001236		0.001	0	0		0.001		-124%	80	120	0%	S
Titanium	A	mg/L	0.001073	0.001073		0.001	0	0		0.001		107%	80	120	0%	
Uranium	A	mg/L	0.001061	0.001061		0.001	0	0		0.001		106%	80	120	0%	
Vanadium	A	mg/L	0.001109	0.001109		0.001	0	0		0.005		111%	80	120	0%	
Zinc	A	mg/L	0.001137	0.001137		0.001	0	0		0.01		114%	80	120	0%	
Iron, Ferrous	C	mg/L	0.0258	0.0258		0.001	0	0		0.01	5	2580%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00969634	0.00969634		0.0856	0	0		0.214	0.9	11%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985135	10 PPB STD	ICPMS-6020B-C	Cal6		1/18/2022 9:59:5	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.009772	0.009772		0.01	0	0		0.01		98%	90	110	0%	
Antimony	A	mg/L	0.009319	0.009319		0.01	0	0		0.001		93%	90	110	0%	
Arsenic	A	mg/L	0.01033	0.01033		0.01	0	0		0.001		103%	90	110	0%	
Barium	A	mg/L	0.009926	0.009926		0.01	0	0		0.0003		99%	90	110	0%	
Beryllium	A	mg/L	0.009589	0.009589		0.01	0	0		0.001		96%	90	110	0%	
Boron	A	mg/L	0.008856	0.008856		0.01	0	0		0.1		89%	90	110	0%	S
Cadmium	A	mg/L	0.009917	0.009917		0.01	0	0		0.001		99%	90	110	0%	
Calcium	A	mg/L	2.466	2.466		2.5	0	0		1		99%	90	110	0%	
Chromium	A	mg/L	0.009712	0.009712		0.01	0	0		0.001		97%	90	110	0%	
Cobalt	A	mg/L	0.01047	0.01047		0.01	0	0		0.001		105%	90	110	0%	
Copper	A	mg/L	0.01064	0.01064		0.01	0	0		0.005		106%	90	110	0%	
Iron	A	mg/L	0.2458	0.2458		0.25	0	0		0.01		98%	90	110	0%	
Lanthanum	A	mg/L	0.009855	0.009855		0.01	0	0		0.001		99%	90	110	0%	
Lead	A	mg/L	0.01013	0.01013		0.01	0	0		0.001		101%	90	110	0%	
Magnesium	A	mg/L	2.341	2.341		2.5	0	0		1		94%	90	110	0%	
Manganese	A	mg/L	0.01046	0.01046		0.01	0	0		0.001		105%	90	110	0%	
Mercury	A	mg/L	0.0001905	0.0001905		0.0002	0	0		0.001		95%	90	110	0%	
Molybdenum	A	mg/L	0.0105	0.0105		0.01	0	0		0.001		105%	90	110	0%	
Nickel	A	mg/L	0.01054	0.01054		0.01	0	0		0.005		105%	90	110	0%	
Potassium	A	mg/L	2.347	2.347		2.5	0	0		1		94%	90	110	0%	
Selenium	A	mg/L	0.01035	0.01035		0.01	0	0		0.005		103%	90	110	0%	
Silicon	A	mg/L	0.03749	0.03749		0.04	0	0		0.1		94%	90	110	0%	
Silver	A	mg/L	0.004224	0.004224		0.004	0	0		0.001		106%	90	110	0%	
Sodium	A	mg/L	2.436	2.436		2.5	0	0		1		97%	90	110	0%	
Strontium	A	mg/L	0.01029	0.01029		0.01	0	0		0.001		103%	90	110	0%	
Thallium	A	mg/L	0.01099	0.01099		0.01	0	0		0.001		110%	90	110	0%	
Thorium	A	mg/L	0.009923	0.009923		0.01	0	0		0.05		99%	90	110	0%	
Tin	A	mg/L	0.007789	0.007789		0.01	0	0		0.001		78%	90	110	0%	S
Titanium	A	mg/L	0.01007	0.01007		0.01	0	0		0.001		101%	90	110	0%	
Uranium	A	mg/L	0.0098	0.0098		0.01	0	0		0.001		98%	90	110	0%	
Vanadium	A	mg/L	0.01034	0.01034		0.01	0	0		0.005		103%	90	110	0%	
Zinc	A	mg/L	0.01056	0.01056		0.01	0	0		0.01		106%	90	110	0%	
Iron, Ferrous	C	mg/L	0.2458	0.2458		0.01	0	0		0.01	5	2458%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.0802286	0.0802286		0.856	0	0		0.214	0.9	9%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985136	50 PPB STD	ICPMS-6020B-C	Cal7		1/18/2022 10:05:	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04757	0.04757		0.05	0	0		0.01		95%	90	110	0%	
Antimony	A	mg/L	0.04959	0.04959		0.05	0	0		0.001		99%	90	110	0%	
Arsenic	A	mg/L	0.04939	0.04939		0.05	0	0		0.001		99%	90	110	0%	
Barium	A	mg/L	0.04835	0.04835		0.05	0	0		0.0003		97%	90	110	0%	
Beryllium	A	mg/L	0.04926	0.04926		0.05	0	0		0.001		99%	90	110	0%	
Boron	A	mg/L	0.04798	0.04798		0.05	0	0		0.1		96%	90	110	0%	
Cadmium	A	mg/L	0.04952	0.04952		0.05	0	0		0.001		99%	90	110	0%	
Calcium	A	mg/L	12.38	12.38		12.5	0	0		1		99%	90	110	0%	
Chromium	A	mg/L	0.04876	0.04876		0.05	0	0		0.001		98%	90	110	0%	
Cobalt	A	mg/L	0.05045	0.05045		0.05	0	0		0.001		101%	90	110	0%	
Copper	A	mg/L	0.05002	0.05002		0.05	0	0		0.005		100%	90	110	0%	
Iron	A	mg/L	1.229	1.229		1.25	0	0		0.01		98%	90	110	0%	
Lanthanum	A	mg/L	0.04682	0.04682		0.05	0	0		0.001		94%	90	110	0%	
Lead	A	mg/L	0.04863	0.04863		0.05	0	0		0.001		97%	90	110	0%	
Magnesium	A	mg/L	11.89	11.89		12.5	0	0		1		95%	90	110	0%	
Manganese	A	mg/L	0.04973	0.04973		0.05	0	0		0.001		99%	90	110	0%	
Mercury	A	mg/L	0.0009595	0.0009595		0.001	0	0		0.001		96%	90	110	0%	
Molybdenum	A	mg/L	0.04917	0.04917		0.05	0	0		0.001		98%	90	110	0%	
Nickel	A	mg/L	0.04973	0.04973		0.05	0	0		0.005		99%	90	110	0%	
Potassium	A	mg/L	11.82	11.82		12.5	0	0		1		95%	90	110	0%	
Selenium	A	mg/L	0.04715	0.04715		0.05	0	0		0.005		94%	90	110	0%	
Silicon	A	mg/L	0.1937	0.1937		0.2	0	0		0.1		97%	90	110	0%	
Silver	A	mg/L	0.02016	0.02016		0.02	0	0		0.001		101%	90	110	0%	
Sodium	A	mg/L	12.03	12.03		12.5	0	0		1		96%	90	110	0%	
Strontium	A	mg/L	0.05079	0.05079		0.05	0	0		0.001		102%	90	110	0%	
Thallium	A	mg/L	0.05004	0.05004		0.05	0	0		0.001		100%	90	110	0%	
Thorium	A	mg/L	0.04967	0.04967		0.05	0	0		0.05		99%	90	110	0%	
Tin	A	mg/L	0.04802	0.04802		0.05	0	0		0.001		96%	90	110	0%	
Titanium	A	mg/L	0.04828	0.04828		0.05	0	0		0.001		97%	90	110	0%	
Uranium	A	mg/L	0.04981	0.04981		0.05	0	0		0.001		100%	90	110	0%	
Vanadium	A	mg/L	0.04948	0.04948		0.05	0	0		0.005		99%	90	110	0%	
Zinc	A	mg/L	0.05009	0.05009		0.05	0	0		0.01		100%	90	110	0%	
Iron, Ferrous	C	mg/L	1.229	1.229		0.05	0	0		0.01	5	2458%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.414518	0.414518		4.28	0	0		0.214	0.9	10%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985137	100 PPB STD	ICPMS-6020B-C	Cal8		1/18/2022 10:11:	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.1012	0.1012		0.1	0	0		0.01		101%	90	110	0%	
Antimony	A	mg/L	0.1003	0.1003		0.1	0	0		0.001		100%	90	110	0%	
Arsenic	A	mg/L	0.1003	0.1003		0.1	0	0		0.001		100%	90	110	0%	
Barium	A	mg/L	0.1008	0.1008		0.1	0	0		0.0003		101%	90	110	0%	
Beryllium	A	mg/L	0.1004	0.1004		0.1	0	0		0.001		100%	90	110	0%	
Boron	A	mg/L	0.1011	0.1011		0.1	0	0		0.1		101%	90	110	0%	
Cadmium	A	mg/L	0.1002	0.1002		0.1	0	0		0.001		100%	90	110	0%	
Calcium	A	mg/L	26.66	26.66		25	0	0		1		107%	90	110	0%	
Chromium	A	mg/L	0.1006	0.1006		0.1	0	0		0.001		101%	90	110	0%	
Cobalt	A	mg/L	0.09973	0.09973		0.1	0	0		0.001		100%	90	110	0%	
Copper	A	mg/L	0.09992	0.09992		0.1	0	0		0.005		100%	90	110	0%	
Iron	A	mg/L	2.44	2.44		2.5	0	0		0.01		98%	90	110	0%	
Lanthanum	A	mg/L	0.1016	0.1016		0.1	0	0		0.001		102%	90	110	0%	
Lead	A	mg/L	0.1007	0.1007		0.1	0	0		0.001		101%	90	110	0%	
Magnesium	A	mg/L	25.41	25.41		25	0	0		1		102%	90	110	0%	
Manganese	A	mg/L	0.1001	0.1001		0.1	0	0		0.001		100%	90	110	0%	
Mercury	A	mg/L	0.002021	0.002021		0.002	0	0		0.001		101%	90	110	0%	
Molybdenum	A	mg/L	0.1004	0.1004		0.1	0	0		0.001		100%	90	110	0%	
Nickel	A	mg/L	0.1001	0.1001		0.1	0	0		0.005		100%	90	110	0%	
Potassium	A	mg/L	24.66	24.66		25	0	0		1		99%	90	110	0%	
Selenium	A	mg/L	0.1014	0.1014		0.1	0	0		0.005		101%	90	110	0%	
Silicon	A	mg/L	0.4034	0.4034		0.4	0	0		0.1		101%	90	110	0%	
Silver	A	mg/L	0.0399	0.0399		0.04	0	0		0.001		100%	90	110	0%	
Sodium	A	mg/L	25.11	25.11		25	0	0		1		100%	90	110	0%	
Strontium	A	mg/L	0.09957	0.09957		0.1	0	0		0.001		100%	90	110	0%	
Thallium	A	mg/L	0.09988	0.09988		0.1	0	0		0.001		100%	90	110	0%	
Thorium	A	mg/L	0.1002	0.1002		0.1	0	0		0.05		100%	90	110	0%	
Tin	A	mg/L	0.1012	0.1012		0.1	0	0		0.001		101%	90	110	0%	
Titanium	A	mg/L	0.1009	0.1009		0.1	0	0		0.001		101%	90	110	0%	
Uranium	A	mg/L	0.1001	0.1001		0.1	0	0		0.001		100%	90	110	0%	
Vanadium	A	mg/L	0.1002	0.1002		0.1	0	0		0.005		100%	90	110	0%	
Zinc	A	mg/L	0.0999	0.0999		0.1	0	0		0.01		100%	90	110	0%	
Iron, Ferrous	C	mg/L	2.44	2.44		0.1	0	0		0.01	5	2440%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.863276	0.863276		8.56	0	0		0.214	0.9	10%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985138	1000 PPB STD	ICPMS-6020B-C	Cal10		1/18/2022 10:17:	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.9396	0.9396		1	0	0		0.01		94%	90	110	0%	
Antimony	A	mg/L	0.0001022	0.0001022		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	1.053	1.053		1	0	0		0.001		105%	90	110	0%	
Barium	A	mg/L	0.9523	0.9523		1	0	0		0.0003		95%	90	110	0%	
Beryllium	A	mg/L	0.972	0.972		1	0	0		0.001		97%	90	110	0%	
Boron	A	mg/L	0.9453	0.9453		1	0	0		0.1		95%	90	110	0%	
Cadmium	A	mg/L	1.019	1.019		1	0	0		0.001		102%	90	110	0%	
Calcium	A	mg/L	49.2	49.2		50	0	0		1		98%	90	110	0%	
Chromium	A	mg/L	1.056	1.056		1	0	0		0.001		106%	90	110	0%	
Cobalt	A	mg/L	1.027	1.027		1	0	0		0.001		103%	90	110	0%	
Copper	A	mg/L	1.007	1.007		1	0	0		0.005		101%	90	110	0%	
Iron	A	mg/L	6.085	6.085		6	0	0		0.01		101%	90	110	0%	
Lanthanum	A	mg/L	0.00001168	0.00001168		0	0	0		0.001		0%			0%	
Lead	A	mg/L	0.948	0.948		1	0	0		0.001		95%	90	110	0%	
Magnesium	A	mg/L	49.96	49.96		50	0	0		1		100%	90	110	0%	
Manganese	A	mg/L	1.053	1.053		1	0	0		0.001		105%	90		0%	
Mercury	A	mg/L	0.00001097	0.00001097		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.0000465	0.0000465		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	1.039	1.039		1	0	0		0.005		104%	90	110	0%	
Potassium	A	mg/L	50.35	50.35		50	0	0		1		101%	90	110	0%	
Selenium	A	mg/L	0.9645	0.9645		1	0	0		0.005		96%	90	110	0%	
Silicon	A	mg/L	0.002293	0.002293		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.3603	0.3603		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	50.06	50.06		50	0	0		1		100%	90	110	0%	
Strontium	A	mg/L	1.022	1.022		1	0	0		0.001		102%	90	110	0%	
Thallium	A	mg/L	1.057	1.057		1	0	0		0.001		106%	90	110	0%	
Thorium	A	mg/L	1.073	1.073		1	0	0		0.05		107%	90	110	0%	
Tin	A	mg/L	-0.002227	-0.002227		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.005898	0.005898		1	0	0		0.001		1%	90	110	0%	S
Uranium	A	mg/L	0.9859	0.9859		1	0	0		0.001		99%	90	110	0%	
Vanadium	A	mg/L	1.078	1.078		1	0	0		0.005		108%	90	110	0%	
Zinc	A	mg/L	1.019	1.019		1	0	0		0.01		102%	90	110	0%	
Iron, Ferrous	C	mg/L	6.085	6.085		0	0	0		0.01	5	0%			0%	
Silicon as SiO2	C	mg/L	0.00490702	0.00490702		0	0	0		0.214	0.9	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985139	100 ppb Bromine	ICPMS-6020-W-	SAMP		1/18/2022 10:22:	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.008329	0.008329		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00002701	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.0001619	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.0001189	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.0001375	0.0001375		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	J
Cadmium	A	mg/L	0.00009428	0.00009428		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	J
Cerium	A	mg/L	5.794E-07	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.0001493	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.0000947	0.0000947		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	J
Copper	A	mg/L	0.0001493	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lanthanum	A	mg/L	2.782E-06	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.000107	0.000107		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	J
Manganese	A	mg/L	0.0001167	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	3.978E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00002011	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.0001667	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	0.0002539	0.0002539		0	0	0	0.0001415	0.001	1	0%	0	0	0%	J
Silicon	A	mg/L	0.0003702	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.0002965	0.0002965		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.0001001	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001281	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.0000584	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0001313	0.0001313		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Boron	B	mg/L	0.005425	0.005425		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	D
Iron	B	mg/L	0.001135	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	0.001135	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lithium	B	mg/L	0.004394	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	B	mg/L	0.00437	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Potassium	B	mg/L	0.5057	0.5057		0	0	0	0.207399	0.207399	50	0%	0	0	0%	D
Sodium	B	mg/L	0.05657	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Thorium	B	mg/L	0.0003205	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	B	mg/L	-0.00237	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Vanadium	B	mg/L	0.0001249	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	0.0006069	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985141	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 10:29:	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0001488	0		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.0000162	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00004572	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.0000198	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.00003266	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00001648	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	3.641E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-9.608E-06	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00001903	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	-7.383E-06	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lanthanum	A	mg/L	4.425E-06	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00001788	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	0.00002604	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	3.038E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	9.217E-06	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	2.523E-06	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	0.00008222	0		0	0	0	0.0001415	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-6.575E-05	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.00002018	0.00002018		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.00001443	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00002812	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.00001326	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00002166	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Boron	B	mg/L	0.001853	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	L
Iron	B	mg/L	0.0003545	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	0.0003545	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lithium	B	mg/L	0.001809	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	B	mg/L	0.0017	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Potassium	B	mg/L	0.00206	0		0	0	0	0.207399	0.207399	50	0%	0	0	0%	L
Sodium	B	mg/L	0.01492	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Thorium	B	mg/L	0.00006317	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	B	mg/L	-0.002526	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Vanadium	B	mg/L	0.00003016	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	-5.201E-05	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985142	0.10 PPB STD	ICPMS-6020B-C	Cal3		1/18/2022 10:34:	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0002425	0.0002425		0.0001	0	0		0.01		242%	80	120	0%	S
Antimony	A	mg/L	0.0001231	0.0001231		0.0001	0	0		0.001		123%	80	120	0%	S
Arsenic	A	mg/L	0.0001639	0.0001639		0.0001	0	0		0.001		164%	80	120	0%	S
Barium	A	mg/L	0.0001243	0.0001243		0.0001	0	0		0.0003		124%	80	120	0%	S
Beryllium	A	mg/L	0.0001256	0.0001256		0.0001	0	0		0.001		126%	80	120	0%	S
Boron	A	mg/L	0.0008848	0.0008848		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0001376	0.0001376		0.0001	0	0		0.001		138%	80	120	0%	S
Calcium	A	mg/L	0.03147	0.03147		0.025	0	0		1		126%	80	120	0%	S
Chromium	A	mg/L	0.0001391	0.0001391		0.0001	0	0		0.001		139%	80	120	0%	S
Cobalt	A	mg/L	0.0001176	0.0001176		0.0001	0	0		0.001		118%	80	120	0%	
Copper	A	mg/L	0.0001236	0.0001236		0.0001	0	0		0.005		124%	80	120	0%	S
Iron	A	mg/L	0.003135	0.003135		0.0025	0	0		0.01		125%	80	120	0%	S
Lanthanum	A	mg/L	0.0001178	0.0001178		0.0001	0	0		0.001		118%	80	120	0%	
Magnesium	A	mg/L	0.02505	0.02505		0.025	0	0		1		100%	80	120	0%	
Manganese	A	mg/L	0.0001227	0.0001227		0.0001	0	0		0.001		123%	80	120	0%	S
Mercury	A	mg/L	4.266E-06	4.266E-06		0.000002	0	0		0.001		213%	80	120	0%	S
Molybdenum	A	mg/L	0.0001221	0.0001221		0.0001	0	0		0.001		122%	80	120	0%	S
Nickel	A	mg/L	0.0001078	0.0001078		0.0001	0	0		0.005		108%	80	120	0%	
Potassium	A	mg/L	0.03071	0.03071		0.025	0	0		1		123%	80	120	0%	S
Selenium	A	mg/L	0.0001444	0.0001444		0.0001	0	0		0.005		144%	80	120	0%	S
Silicon	A	mg/L	0.0008207	0.0008207		0.0004	0	0		0.1		205%	80	120	0%	S
Silver	A	mg/L	0.00005558	0.00005558		0.00004	0	0		0.001		139%	80	120	0%	S
Sodium	A	mg/L	0.03514	0.03514		0.025	0	0		1		141%	80	120	0%	S
Strontium	A	mg/L	0.0001235	0.0001235		0.0001	0	0		0.001		124%	80	120	0%	S
Thallium	A	mg/L	0.0001298	0.0001298		0.0001	0	0		0.001		130%	80	120	0%	S
Thorium	A	mg/L	0.0001282	0.0001282		0.0001	0	0		0.05		128%	80	120	0%	S
Tin	A	mg/L	-0.002203	-0.002203		0.0001	0	0		0.001		-2203%	80	120	0%	S
Titanium	A	mg/L	0.0001421	0.0001421		0.0001	0	0		0.001		142%	80	120	0%	S
Uranium	A	mg/L	0.000117	0.000117		0.0001	0	0		0.001		117%	80	120	0%	
Vanadium	A	mg/L	0.0001497	0.0001497		0.0001	0	0		0.005		150%	80	120	0%	S
Zinc	A	mg/L	0.000134	0.000134		0.0001	0	0		0.01		134%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.003135	0.003135		0.0001	0	0		0.01	5	3135%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.0017563	0.0017563		0.00856	0	0		0.214	0.9	21%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985143	0.10 PPB STD	ICPMS-6020B-C	Cal3		1/18/2022 10:40:	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.000285	0.000285		0.0001	0	0		0.01		285%	80	120	0%	S
Antimony	A	mg/L	0.0001197	0.0001197		0.0001	0	0		0.001		120%	80	120	0%	
Arsenic	A	mg/L	0.0001158	0.0001158		0.0001	0	0		0.001		116%	80	120	0%	
Barium	A	mg/L	0.0001157	0.0001157		0.0001	0	0		0.0003		116%	80	120	0%	
Beryllium	A	mg/L	0.0001044	0.0001044		0.0001	0	0		0.001		104%	80	120	0%	
Boron	A	mg/L	0.0009167	0.0009167		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0001434	0.0001434		0.0001	0	0		0.001		143%	80	120	0%	S
Calcium	A	mg/L	0.03187	0.03187		0.025	0	0		1		127%	80	120	0%	S
Chromium	A	mg/L	0.0001364	0.0001364		0.0001	0	0		0.001		136%	80	120	0%	S
Cobalt	A	mg/L	0.0001141	0.0001141		0.0001	0	0		0.001		114%	80	120	0%	
Copper	A	mg/L	0.0001226	0.0001226		0.0001	0	0		0.005		123%	80	120	0%	S
Iron	A	mg/L	0.003146	0.003146		0.0025	0	0		0.01		126%	80	120	0%	S
Lanthanum	A	mg/L	0.0001137	0.0001137		0.0001	0	0		0.001		114%	80	120	0%	
Lead	A	mg/L	0.0001128	0.0001128		0.0001	0	0		0.001		113%	80	120	0%	
Magnesium	A	mg/L	0.03016	0.03016		0.025	0	0		1		121%	80	120	0%	S
Manganese	A	mg/L	0.0001207	0.0001207		0.0001	0	0		0.001		121%	80	120	0%	S
Mercury	A	mg/L	3.792E-06	3.792E-06		0.000002	0	0		0.001		190%	80	120	0%	S
Molybdenum	A	mg/L	0.0001158	0.0001158		0.0001	0	0		0.001		116%	80	120	0%	
Nickel	A	mg/L	0.0000909	0.0000909		0.0001	0	0		0.005		91%	80	120	0%	
Potassium	A	mg/L	0.0307	0.0307		0.025	0	0		1		123%	80	120	0%	S
Selenium	A	mg/L	0.0001104	0.0001104		0.0001	0	0		0.005		110%	80	120	0%	
Silicon	A	mg/L	0.0009301	0.0009301		0.0004	0	0		0.1		233%	80	120	0%	S
Silver	A	mg/L	0.00004719	0.00004719		0.00004	0	0		0.001		118%	80	120	0%	
Sodium	A	mg/L	0.02808	0.02808		0.025	0	0		1		112%	80	120	0%	
Strontium	A	mg/L	0.00012	0.00012		0.0001	0	0		0.001		120%	80	120	0%	
Thallium	A	mg/L	0.0001184	0.0001184		0.0001	0	0		0.001		118%	80	120	0%	
Thorium	A	mg/L	0.0001106	0.0001106		0.0001	0	0		0.05		111%	80	120	0%	
Tin	A	mg/L	-0.00221	-0.00221		0.0001	0	0		0.001		-2210%	80	120	0%	S
Titanium	A	mg/L	0.0001552	0.0001552		0.0001	0	0		0.001		155%	80	120	0%	S
Uranium	A	mg/L	0.0001087	0.0001087		0.0001	0	0		0.001		109%	80	120	0%	
Vanadium	A	mg/L	0.0001138	0.0001138		0.0001	0	0		0.005		114%	80	120	0%	
Zinc	A	mg/L	0.0001469	0.0001469		0.0001	0	0		0.01		147%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.003146	0.003146		0.0001	0	0		0.01	5	3146%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00199041	0.00199041		0.00856	0	0		0.214	0.9	23%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist		
14985144	QCS	ICPMS-6020-W- ICV			1/18/2022 10:46:	1	R373351		0	0			

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.2469	0.2469		0.25	0	0	0.0006548	0.001	1	99%	90	110	0%	
Antimony	A	mg/L	0.05273	0.05273		0.05	0	0	0.0002987	0.001	0.1	105%	90	110	0%	
Arsenic	A	mg/L	0.05041	0.05041		0.05	0	0	0.0001814	0.001	1	101%	90	110	0%	
Barium	A	mg/L	0.05204	0.05204		0.05	0	0	0.0001321	0.001	1	104%	90	110	0%	
Beryllium	A	mg/L	0.02498	0.02498		0.025	0	0	7.465E-05	0.001	1	100%	90	110	0%	
Boron	A	mg/L	0.04852	0.04852		0.05	0	0	0.0030032	0.0030032	1	97%	90	110	0%	
Cadmium	A	mg/L	0.02555	0.02555		0.025	0	0	5.139E-05	0.001	1	102%	90	110	0%	
Calcium	A	mg/L	2.453	2.453		2.5	0	0	0.0749796	0.0749796	50	98%	90	110	0%	
Cerium	A	mg/L	0.05034	0.05034		0.05	0	0	1.462E-05	0.001	0.1	101%	90	110	0%	
Chromium	A	mg/L	0.0495	0.0495		0.05	0	0	0.0005481	0.001	1	99%	90	110	0%	
Cobalt	A	mg/L	0.05097	0.05097		0.05	0	0	4.756E-05	0.001	1	102%	90	110	0%	
Copper	A	mg/L	0.05256	0.05256		0.05	0	0	0.0003828	0.001	1	105%	90	110	0%	
Iron	A	mg/L	0.2403	0.2403		0.25	0	0	0.0046291	0.0046291	5	96%	90	110	0%	
Lanthanum	A	mg/L	0.04915	0.04915		0.05	0	0	1.683E-05	0.001	0.1	98%	90	110	0%	
Lead	A	mg/L	0.05241	0.05241		0.05	0	0	6.264E-05	0.001	1	105%	90	110	0%	
Lithium	A	mg/L	0.0472	0.0472		0.05	0	0	0.0052105	0.0052105	2.5	94%	90	110	0%	
Magnesium	A	mg/L	2.295	2.295		2.5	0	0	0.0118993	0.0118993	50	92%	90	110	0%	
Manganese	A	mg/L	0.245	0.245		0.25	0	0	0.0001444	0.001	1	98%	90	110	0%	
Mercury	A	mg/L	0.001026	0.001026		0.001	0	0	0.000066	0.001	0.02	103%	90	110	0%	
Molybdenum	A	mg/L	0.04905	0.04905		0.05	0	0	8.338E-05	0.001	0.1	98%	90	110	0%	
Nickel	A	mg/L	0.05067	0.05067		0.05	0	0	0.0002531	0.001	1	101%	90	110	0%	
Potassium	A	mg/L	2.316	2.316		2.5	0	0	0.207399	0.207399	50	93%	90	110	0%	
Selenium	A	mg/L	0.05025	0.05025		0.05	0	0	0.0001415	0.001	1	100%	90	110	0%	
Silicon	A	mg/L	0.5026	0.5026		0.5	0	0	0.0146174	0.1	0.4	101%	90	110	0%	
Silver	A	mg/L	0.02615	0.02615		0.025	0	0	1.123E-05	0.001	0.04	105%	90	110	0%	
Sodium	A	mg/L	2.414	2.414		2.5	0	0	0.0809273	0.0809273	50	97%	90	110	0%	
Strontium	A	mg/L	0.04893	0.04893		0.05	0	0	0.0001825	0.001	1	98%	90	110	0%	
Thallium	A	mg/L	0.05014	0.05014		0.05	0	0	0.0002991	0.001	1	100%	90	110	0%	
Thorium	A	mg/L	0.05087	0.05087		0.05	0	0	0.0010473	0.0010473	1	102%	90	110	0%	
Tin	A	mg/L	0.05142	0.05142		0.05	0	0	0.0022388	0.0022388	0.1	103%	90	110	0%	
Titanium	A	mg/L	0.04724	0.04724		0.05	0	0	0.0002974	0.001	1	94%	90	110	0%	
Uranium	A	mg/L	0.0535	0.0535		0.05	0	0	3.139E-05	0.0003	1	107%	90	110	0%	
Vanadium	A	mg/L	0.04952	0.04952		0.05	0	0	0.0043468	0.0043468	1	99%	90	110	0%	
Zinc	A	mg/L	0.05183	0.05183		0.05	0	0	0.0011598	0.0011598	1	104%	90	110	0%	
Iron, Ferrous	C	mg/L	0.2403	0.2403		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist		
14985145	CCV	ICPMS-6020-W-	CCV		1/18/2022 10:52:	1	R373351		0	0			

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04818	0.04818		0.05	0	0	0.0006548	0.001	1	96%	90	110	0%	
Antimony	A	mg/L	0.05198	0.05198		0.05	0	0	0.0002987	0.001	0.1	104%	90	110	0%	
Arsenic	A	mg/L	0.04982	0.04982		0.05	0	0	0.0001814	0.001	1	100%	90	110	0%	
Barium	A	mg/L	0.05002	0.05002		0.05	0	0	0.0001321	0.001	1	100%	90	110	0%	
Beryllium	A	mg/L	0.04964	0.04964		0.05	0	0	7.465E-05	0.001	1	99%	90	110	0%	
Boron	A	mg/L	0.04765	0.04765		0.05	0	0	0.0030032	0.0030032	1	95%	90	110	0%	
Cadmium	A	mg/L	0.051	0.051		0.05	0	0	5.139E-05	0.001	1	102%	90	110	0%	
Calcium	A	mg/L	12.61	12.61		12.5	0	0	0.0749796	0.0749796	50	101%	90	110	0%	
Cerium	A	mg/L	0.04884	0.04884		0.05	0	0	1.462E-05	0.001	0.1	98%	90	110	0%	
Chromium	A	mg/L	0.04938	0.04938		0.05	0	0	0.0005481	0.001	1	99%	90	110	0%	
Cobalt	A	mg/L	0.05128	0.05128		0.05	0	0	4.756E-05	0.001	1	103%	90	110	0%	
Copper	A	mg/L	0.05054	0.05054		0.05	0	0	0.0003828	0.001	1	101%	90	110	0%	
Iron	A	mg/L	1.252	1.252		1.3	0	0	0.0046291	0.0046291	5	96%	90	110	0%	
Lanthanum	A	mg/L	0.04943	0.04943		0.05	0	0	1.683E-05	0.001	0.1	99%	90	110	0%	
Lead	A	mg/L	0.05022	0.05022		0.05	0	0	6.264E-05	0.001	1	100%	90	110	0%	
Lithium	A	mg/L	0.5553	0.5553		0.625	0	0	0.0052105	0.0052105	2.5	89%	90	110	0%	S
Magnesium	A	mg/L	11.74	11.74		12.5	0	0	0.0118993	0.0118993	50	94%	90	110	0%	
Manganese	A	mg/L	0.05019	0.05019		0.05	0	0	0.0001444	0.001	1	100%	90	110	0%	
Mercury	A	mg/L	0.0009623	0.0009623		0.001	0	0	0.000066	0.001	0.02	96%	90	110	0%	
Molybdenum	A	mg/L	0.0508	0.0508		0.05	0	0	8.338E-05	0.001	0.1	102%	90	110	0%	
Nickel	A	mg/L	0.04945	0.04945		0.05	0	0	0.0002531	0.001	1	99%	90	110	0%	
Potassium	A	mg/L	12.07	12.07		12.5	0	0	0.207399	0.207399	50	97%	90	110	0%	
Selenium	A	mg/L	0.05211	0.05211		0.05	0	0	0.0001415	0.001	1	104%	90	110	0%	
Silicon	A	mg/L	0.1986	0.1986		0.2	0	0	0.0146174	0.1	0.4	99%	90	110	0%	
Silver	A	mg/L	0.02045	0.02045		0.02	0	0	1.123E-05	0.001	0.04	102%	90	110	0%	
Sodium	A	mg/L	11.95	11.95		12.5	0	0	0.0809273	0.0809273	50	96%	90	110	0%	
Strontium	A	mg/L	0.05	0.05		0.05	0	0	0.0001825	0.001	1	100%	90	110	0%	
Thallium	A	mg/L	0.04931	0.04931		0.05	0	0	0.0002991	0.001	1	99%	90	110	0%	
Thorium	A	mg/L	0.0492	0.0492		0.05	0	0	0.0010473	0.0010473	1	98%	90	110	0%	
Tin	A	mg/L	0.05107	0.05107		0.05	0	0	0.0022388	0.0022388	0.1	102%	90	110	0%	
Titanium	A	mg/L	0.05006	0.05006		0.05	0	0	0.0002974	0.001	1	100%	90	110	0%	
Uranium	A	mg/L	0.04876	0.04876		0.05	0	0	3.139E-05	0.0003	1	98%	90	110	0%	
Vanadium	A	mg/L	0.05013	0.05013		0.05	0	0	0.0043468	0.0043468	1	100%	90	110	0%	
Zinc	A	mg/L	0.04963	0.04963		0.05	0	0	0.0011598	0.0011598	1	99%	90	110	0%	
Iron, Ferrous	C	mg/L	1.252	1.252		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist			
14985146	CCB	ICPMS-6020-W-	CCB		1/18/2022 10:57:	1	R373351		0	0				

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-1.751E-05	-1.751E-05		0	0	0	0.0006548	0.001	1	0%			0%	
Antimony	A	mg/L	0.00005459	0.00005459		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.00001192	0.00001192		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	4.018E-06	4.018E-06		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	2.479E-06	2.479E-06		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	0.0006072	0.0006072		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	1.648E-06	1.648E-06		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	0.0000133	0.0000133		0	0	0	0.0749796	0.0749796	50	0%			0%	
Cerium	A	mg/L	-2.039E-07	-2.039E-07		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-2.332E-06	-2.332E-06		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	-8.235E-07	-8.235E-07		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	-0.00001	-0.00001		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	-2.424E-05	-2.424E-05		0	0	0	0.0046291	0.0046291	5	0%			0%	
Lanthanum	A	mg/L	8.788E-07	8.788E-07		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	1.801E-06	1.801E-06		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	0.0005897	0.0005897		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	0.00008591	0.00008591		0	0	0	0.0118993	0.0118993	50	0%			0%	
Manganese	A	mg/L	0.00001182	0.00001182		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	7.109E-06	7.109E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	8.642E-06	8.642E-06		0	0	0	8.338E-05	0.001	0.1	0%			0%	
Nickel	A	mg/L	-5.757E-06	-5.757E-06		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	-0.001826	-0.001826		0	0	0	0.207399	0.207399	50	0%			0%	
Selenium	A	mg/L	0.00001913	0.00001913		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	0.0005637	0.0005637		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.00001183	0.00001183		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	-0.003526	-0.003526		0	0	0	0.0809273	0.0809273	50	0%			0%	
Strontium	A	mg/L	-1.17E-07	-1.17E-07		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	9.383E-06	9.383E-06		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00006654	0.00006654		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	-1.308E-05	-1.308E-05		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00003612	0.00003612		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	3.465E-06	3.465E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.00001366	0.00001366		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	-7.178E-05	-7.178E-05		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	-2.424E-05	-2.424E-05		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985147	LRB	ICPMS-6020-W-	MBLK		1/18/2022 11:03:	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0003414	0		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	9.973E-06	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	-4.131E-06	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00001042	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-3.416E-06	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	
Boron	A	mg/L	0.0002762	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	
Cadmium	A	mg/L	3.978E-07	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Calcium	A	mg/L	0.006779	0		0	0	0	0.0749796	0.0749796	50	0%	0	0	0%	
Cerium	A	mg/L	1.025E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.0001317	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	2.815E-07	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	-0.0000258	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Iron	A	mg/L	0.0007955	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	
Lanthanum	A	mg/L	1.209E-06	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	1.899E-06	0		0	0	0	6.264E-05	0.0005	1	0%	0	0	0%	
Lithium	A	mg/L	-3.381E-06	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	
Magnesium	A	mg/L	0.0008985	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	
Manganese	A	mg/L	0.00001457	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	4.148E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001429	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.00006474	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Potassium	A	mg/L	-0.002897	0		0	0	0	0.207399	0.207399	50	0%	0	0	0%	
Selenium	A	mg/L	0.00001326	0		0	0	0	0.0001415	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.004461	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	-6.676E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	0.03202	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	
Strontium	A	mg/L	8.309E-06	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	2.374E-06	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00003177	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	-0.002543	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00001883	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	9.022E-07	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.00003632	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	0.0006421	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.0007955	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985148	LFB	ICPMS-6020-W-	LFB		1/18/2022 11:09:	1.03	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04524	0.0465972		0.05	0	0	0.0006745	0.001	1	93%	85	115	0%	
Antimony	A	mg/L	0.04753	0.0489559		0.05	0	0	0.0003076	0.001	0.1	98%	85	115	0%	
Arsenic	A	mg/L	0.04748	0.0489044		0.05	0	0	0.0001869	0.001	1	98%	85	115	0%	
Barium	A	mg/L	0.04561	0.0469783		0.05	0	0	0.0001360	0.001	1	94%	85	115	0%	
Beryllium	A	mg/L	0.04535	0.0467105		0.05	0	0	7.689E-05	0.001	1	93%	85	115	0%	
Boron	A	mg/L	0.0458	0.047174		0.05	0	0	0.0030933	0.0030933	1	94%	85	115	0%	
Cadmium	A	mg/L	0.04681	0.0482143		0.05	0	0	5.293E-05	0.001	1	96%	85	115	0%	
Calcium	A	mg/L	58.7	60.461		50	0	0	0.0772290	0.0772290	50	121%	85	115	0%	S
Cerium	A	mg/L	0.04724	0.0486572		0.05	0	0	1.506E-05	0.001	0.1	97%	85	115	0%	
Chromium	A	mg/L	0.04572	0.0470916		0.05	0	0	0.0005646	0.001	1	94%	85	115	0%	
Cobalt	A	mg/L	0.04795	0.0493885		0.05	0	0	4.899E-05	0.001	1	99%	85	115	0%	
Copper	A	mg/L	0.04773	0.0491619		0.05	0	0	0.0003943	0.001	1	98%	85	115	0%	
Iron	A	mg/L	5.383	5.54449		5.05	0	0	0.0047679	0.0047679	5	110%	85	115	0%	
Lanthanum	A	mg/L	5.515E-06	0		0.05	0	0	1.733E-05	0.001	0.1	0%	85	115	0%	S
Lead	A	mg/L	0.04388	0.0451964		0.05	0	0	6.452E-05	0.001	1	90%	88	115	0%	
Lithium	A	mg/L	2.076	2.13828		2.5	0	0	0.0053668	0.0053668	2.5	86%	85	115	0%	
Magnesium	A	mg/L	47.81	49.2443		50	0	0	0.0122563	0.0122563	50	98%	85	115	0%	
Manganese	A	mg/L	0.04733	0.0487499		0.05	0	0	0.0001487	0.001	1	97%	85	115	0%	
Mercury	A	mg/L	0.0009098	0.00093709		0.001	0	0	6.798E-05	0.001	0.02	94%	85	115	0%	
Molybdenum	A	mg/L	0.04702	0.0484306		0.05	0	0	8.588E-05	0.001	0.1	97%	85	115	0%	
Nickel	A	mg/L	0.04749	0.0489147		0.05	0	0	0.0002607	0.001	1	98%	85	115	0%	
Potassium	A	mg/L	46.33	47.7199		50	0	0	0.2136209	0.2136209	50	95%	85	115	0%	
Selenium	A	mg/L	0.04768	0.0491104		0.05	0	0	0.0009152	0.001	1	98%	85	115	0%	
Silicon	A	mg/L	0.2278	0.234634		0.2	0	0	0.0150559	0.1	0.4	117%	85	115	0%	S
Silver	A	mg/L	0.01892	0.0194876		0.02	0	0	1.157E-05	0.001	0.04	97%	85	115	0%	
Sodium	A	mg/L	49.06	50.5318		50	0	0	0.0833551	0.0833551	50	101%	85	115	0%	
Strontium	A	mg/L	0.04728	0.0486984		0.05	0	0	0.000188	0.001	1	97%	85	115	0%	
Thallium	A	mg/L	0.04558	0.0469474		0.05	0	0	0.0003081	0.001	1	94%	85	115	0%	
Thorium	A	mg/L	0.0478	0.049234		0.05	0	0	0.0010787	0.0010787	1	98%	85	115	0%	
Tin	A	mg/L	0.04529	0.0466487		0.05	0	0	0.002306	0.002306	0.1	93%	85	115	0%	
Titanium	A	mg/L	0.05268	0.0542604		0.05	0	0	0.0003063	0.001	1	109%	85	115	0%	
Uranium	A	mg/L	0.04373	0.0450419		0.05	0	0	3.233E-05	0.0003	1	90%	85	115	0%	
Vanadium	A	mg/L	0.04792	0.0493576		0.05	0	0	0.0044772	0.0044772	1	99%	85	115	0%	
Zinc	A	mg/L	0.04687	0.0482761		0.05	0	0	0.0011946	0.0011946	1	97%	85	115	0%	
Iron, Ferrous	C	mg/L	5.383	5.54449		0	0	0	0.0047679	0.0047679	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985149	ICSA	ICPMS-6020-W-	ICSA		1/18/2022 11:15:	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	35	35		40	0	0	0.0006548	0.001	1	88%	80	120	0%	
Antimony	A	mg/L	0.00004723	0.00004723		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.0000672	0.0000672		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	0.00006922	0.00006922		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	-7.049E-06	-7.049E-06		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	0.0004629	0.0004629		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	0.0002035	0.0002035		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	103.4	103.4		120	0	0	0.0749796	0.0749796	50	86%	80	120	0%	
Cerium	A	mg/L	2.108E-06	2.108E-06		0	0	0	1.462E-05	0.001	0.1	0%			0%	
Chromium	A	mg/L	0.0008054	0.0008054		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	0.0003553	0.0003553		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	0.00001757	0.00001757		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	91.37	91.37		100	0	0	0.0046291	0.0046291	5	91%	80	120	0%	
Lanthanum	A	mg/L	8.014E-06	8.014E-06		0	0	0	1.683E-05	0.001	0.1	0%			0%	
Lead	A	mg/L	0.00001789	0.00001789		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	0.001196	0.001196		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	37.62	37.62		50	0	0	0.0118993	0.0118993	50	75%			0%	
Manganese	A	mg/L	0.0002076	0.0002076		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	6.353E-06	6.353E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.7737	0.7737		0.8	0	0	8.338E-05	0.001	0.1	97%	80	120	0%	
Nickel	A	mg/L	0.0001753	0.0001753		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	35.68	35.68		50	0	0	0.207399	0.207399	50	71%			0%	
Selenium	A	mg/L	0.0001243	0.0001243		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	0.0006468	0.0006468		0	0	0	0.0146174	0.1	0.4	0%			0%	
Silver	A	mg/L	1.245E-06	1.245E-06		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	91.39	91.39		100	0	0	0.0809273	0.0809273	50	91%			0%	
Strontium	A	mg/L	0.001221	0.001221		0	0	0	0.0001825	0.001	1	0%			0%	
Thallium	A	mg/L	0.00005934	0.00005934		0	0	0	0.0002991	0.001	1	0%			0%	
Thorium	A	mg/L	0.0001787	0.0001787		0	0	0	0.0010473	0.0010473	1	0%			0%	
Tin	A	mg/L	-0.002292	-0.002292		0	0	0	0.0022388	0.0022388	0.1	0%			0%	
Titanium	A	mg/L	0.7694	0.7694		0.8	0	0	0.0002974	0.001	1	96%			0%	
Uranium	A	mg/L	2.639E-06	2.639E-06		0	0	0	3.139E-05	0.0003	1	0%			0%	
Vanadium	A	mg/L	-1.102E-06	-1.102E-06		0	0	0	0.0043468	0.0043468	1	0%			0%	
Zinc	A	mg/L	0.000327	0.000327		0	0	0	0.0011598	0.0011598	1	0%			0%	
Iron, Ferrous	C	mg/L	91.37	91.37		0	0	0	0.0046291	0.0046291	5	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985150	ICSAB	ICPMS-6020-W-	ICSAB		1/18/2022 11:20:	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	32.31	32.31		40	0	0	0.0006548	0.001	1	81%	80	120	0%	
Antimony	A	mg/L	0.0000256	0.0000256		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.009932	0.009932		0.01	0	0	0.0001814	0.001	1	99%	80	120	0%	
Barium	A	mg/L	0.00005794	0.00005794		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	-9.32E-06	-9.32E-06		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	0.00004334	0.00004334		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	0.009772	0.009772		0.01	0	0	5.139E-05	0.001	1	98%	80	120	0%	
Calcium	A	mg/L	91.66	91.66		120	0	0	0.0749796	0.0749796	50	76%	80	120	0%	S
Cerium	A	mg/L	3.443E-06	3.443E-06		0	0	0	1.462E-05	0.001	0.1	0%			0%	
Chromium	A	mg/L	0.01884	0.01884		0.02	0	0	0.0005481	0.001	1	94%	80	120	0%	
Cobalt	A	mg/L	0.01929	0.01929		0.02	0	0	4.756E-05	0.001	1	96%	80	120	0%	
Copper	A	mg/L	0.01869	0.01869		0.02	0	0	0.0003828	0.001	1	93%	80	120	0%	
Iron	A	mg/L	82.29	82.29		100	0	0	0.0046291	0.0046291	5	82%	80	120	0%	
Lanthanum	A	mg/L	0.00001052	0.00001052		0	0	0	1.683E-05	0.001	0.1	0%			0%	
Lead	A	mg/L	0.00001701	0.00001701		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	0.0002865	0.0002865		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	32.85	32.85		40	0	0	0.0118993	0.0118993	50	82%	80	120	0%	
Manganese	A	mg/L	0.01903	0.01903		0.02	0	0	0.0001444	0.001	1	95%	80	120	0%	
Mercury	A	mg/L	1.227E-06	1.227E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.76	0.76		0.8	0	0	8.338E-05	0.001	0.1	95%	80	120	0%	
Nickel	A	mg/L	0.01904	0.01904		0.02	0	0	0.0002531	0.001	1	95%	80	120	0%	
Potassium	A	mg/L	33.57	33.57		40	0	0	0.207399	0.207399	50	84%	80	120	0%	
Selenium	A	mg/L	0.01042	0.01042		0.01	0	0	0.0001415	0.001	1	104%	80	120	0%	
Silicon	A	mg/L	0.000719	0.000719		0	0	0	0.0146174	0.1	0.4	0%			0%	
Silver	A	mg/L	0.004793	0.004793		0.005	0	0	1.123E-05	0.001	0.04	96%	80	120	0%	
Sodium	A	mg/L	85.1	85.1		100	0	0	0.0809273	0.0809273	50	85%	80	120	0%	
Strontium	A	mg/L	0.001186	0.001186		0	0	0	0.0001825	0.001	1	0%			0%	
Thallium	A	mg/L	0.0000225	0.0000225		0	0	0	0.0002991	0.001	1	0%			0%	
Thorium	A	mg/L	0.0001098	0.0001098		0	0	0	0.0010473	0.0010473	1	0%			0%	
Tin	A	mg/L	-0.00229	-0.00229		0	0	0	0.0022388	0.0022388	0.1	0%			0%	
Titanium	A	mg/L	0.7395	0.7395		0.8	0	0	0.0002974	0.001	1	92%	80	120	0%	
Uranium	A	mg/L	8.966E-07	8.966E-07		0	0	0	3.139E-05	0.0003	1	0%			0%	
Vanadium	A	mg/L	0.01863	0.01863		0.02	0	0	0.0043468	0.0043468	1	93%	80	120	0%	
Zinc	A	mg/L	0.009528	0.009528		0.01	0	0	0.0011598	0.0011598	1	95%	80	120	0%	
Iron, Ferrous	C	mg/L	82.29	82.29		0	0	0	0.0046291	0.0046291	5	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985151	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 11:26:	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	9.984E-06	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.0000353	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00003494	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00003028	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	7.129E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.00003102	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00002502	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.00000995	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00003208	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	0.00003486	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	6.218E-07	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00008336	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.00001998	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.0001864	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.00001542	0.00001542		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.0000292	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00004192	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00002857	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Thorium	B	mg/L	0.00003052	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Vanadium	B	mg/L	0.00001954	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	-2.998E-05	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985152	CCV	ICPMS-6020-W-	CCV		1/18/2022 11:32:	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04152	0.04152		0.05	0	0	0.0006548	0.001	1	83%	90	110	0%	S
Antimony	A	mg/L	0.04622	0.04622		0.05	0	0	0.0002987	0.001	0.1	92%	90	110	0%	
Arsenic	A	mg/L	0.05001	0.05001		0.05	0	0	0.0001814	0.001	1	100%	90	110	0%	
Barium	A	mg/L	0.04526	0.04526		0.05	0	0	0.0001321	0.001	1	91%	90	110	0%	
Beryllium	A	mg/L	0.03994	0.03994		0.05	0	0	7.465E-05	0.001	1	80%	90	110	0%	S
Boron	A	mg/L	0.03854	0.03854		0.05	0	0	0.0030032	0.0030032	1	77%	90	110	0%	S
Cadmium	A	mg/L	0.04838	0.04838		0.05	0	0	5.139E-05	0.001	1	97%	90	110	0%	
Calcium	A	mg/L	10.47	10.47		12.5	0	0	0.0749796	0.0749796	50	84%	90	110	0%	S
Cerium	A	mg/L	0.04888	0.04888		0.05	0	0	1.462E-05	0.001	0.1	98%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985152	CCV	ICPMS-6020-W-	CCV		1/18/2022 11:32:	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Chromium	A	mg/L	0.04628	0.04628		0.05	0	0	0.0005481	0.001	1	93%	90	110	0%	
Cobalt	A	mg/L	0.04661	0.04661		0.05	0	0	4.756E-05	0.001	1	93%	90	110	0%	
Copper	A	mg/L	0.05019	0.05019		0.05	0	0	0.0003828	0.001	1	100%	90	110	0%	
Iron	A	mg/L	1.127	1.127		1.3	0	0	0.0046291	0.0046291	5	87%	90	110	0%	S
Lanthanum	A	mg/L	0.04914	0.04914		0.05	0	0	1.683E-05	0.001	0.1	98%	90	110	0%	
Lead	A	mg/L	0.04572	0.04572		0.05	0	0	6.264E-05	0.001	1	91%	90	110	0%	
Lithium	A	mg/L	0.3866	0.3866		0.625	0	0	0.0052105	0.0052105	2.5	62%	90	110	0%	S
Magnesium	A	mg/L	10.38	10.38		12.5	0	0	0.0118993	0.0118993	50	83%	90	110	0%	S
Manganese	A	mg/L	0.04601	0.04601		0.05	0	0	0.0001444	0.001	1	92%	90	110	0%	
Mercury	A	mg/L	0.0009002	0.0009002		0.001	0	0	0.000066	0.001	0.02	90%	90	110	0%	
Molybdenum	A	mg/L	0.04842	0.04842		0.05	0	0	8.338E-05	0.001	0.1	97%	90	110	0%	
Nickel	A	mg/L	0.04856	0.04856		0.05	0	0	0.0002531	0.001	1	97%	90	110	0%	
Potassium	A	mg/L	10.57	10.57		12.5	0	0	0.207399	0.207399	50	85%	90	110	0%	S
Selenium	A	mg/L	0.05139	0.05139		0.05	0	0	0.0001415	0.001	1	103%	90	110	0%	
Silicon	A	mg/L	0.1799	0.1799		0.2	0	0	0.0146174	0.1	0.4	90%	90	110	0%	
Silver	A	mg/L	0.01954	0.01954		0.02	0	0	1.123E-05	0.001	0.04	98%	90	110	0%	
Sodium	A	mg/L	10.96	10.96		12.5	0	0	0.0809273	0.0809273	50	88%	90	110	0%	S
Strontium	A	mg/L	0.04888	0.04888		0.05	0	0	0.0001825	0.001	1	98%	90	110	0%	
Thallium	A	mg/L	0.04896	0.04896		0.05	0	0	0.0002991	0.001	1	98%	90	110	0%	
Thorium	A	mg/L	0.04958	0.04958		0.05	0	0	0.0010473	0.0010473	1	99%	90	110	0%	
Tin	A	mg/L	0.04498	0.04498		0.05	0	0	0.0022388	0.0022388	0.1	90%	90	110	0%	
Titanium	A	mg/L	0.04299	0.04299		0.05	0	0	0.0002974	0.001	1	86%	90	110	0%	S
Uranium	A	mg/L	0.04513	0.04513		0.05	0	0	3.139E-05	0.0003	1	90%	90	110	0%	
Vanadium	A	mg/L	0.04877	0.04877		0.05	0	0	0.0043468	0.0043468	1	98%	90	110	0%	
Zinc	A	mg/L	0.04963	0.04963		0.05	0	0	0.0011598	0.0011598	1	99%	90	110	0%	
Iron, Ferrous	C	mg/L	1.127	1.127		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985153	CCB	ICPMS-6020-W-	CCB		1/18/2022 11:38:	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-2.724E-05	-2.724E-05		0	0	0	0.0006548	0.001	1	0%			0%	
Antimony	A	mg/L	0.0000424	0.0000424		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	5.812E-06	5.812E-06		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	2.646E-06	2.646E-06		0	0	0	0.0001321	0.001	1	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist			
14985153	CCB	ICPMS-6020-W-	CCB		1/18/2022 11:38:	1	R373351		0	0				

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Beryllium	A	mg/L	8.244E-07	8.244E-07		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	0.0001344	0.0001344		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	2.715E-06	2.715E-06		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	-0.0001496	-0.0001496		0	0	0	0.0749796	0.0749796	50	0%			0%	
Cerium	A	mg/L	-4.724E-07	-4.724E-07		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-1.253E-05	-1.253E-05		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	-2.116E-06	-2.116E-06		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	-1.419E-07	-1.419E-07		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	0.0001707	0.0001707		0	0	0	0.0046291	0.0046291	5	0%			0%	
Lanthanum	A	mg/L	1.266E-06	1.266E-06		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	1.013E-06	1.013E-06		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	0.0007954	0.0007954		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	-0.0001394	-0.0001394		0	0	0	0.0118993	0.0118993	50	0%			0%	
Manganese	A	mg/L	0.00000222	0.00000222		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	6.972E-06	6.972E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.00001747	0.00001747		0	0	0	8.338E-05	0.001	0.1	0%			0%	
Nickel	A	mg/L	-0.0000109	-0.0000109		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	-0.007152	-0.007152		0	0	0	0.207399	0.207399	50	0%			0%	
Selenium	A	mg/L	0.00001925	0.00001925		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	0.0003317	0.0003317		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.00001058	0.00001058		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	0.01226	0.01226		0	0	0	0.0809273	0.0809273	50	0%			0%	
Strontium	A	mg/L	-4.391E-07	-4.391E-07		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	5.357E-06	5.357E-06		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00004591	0.00004591		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	5.988E-06	5.988E-06		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	6.132E-06	6.132E-06		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	1.417E-06	1.417E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.00004501	0.00004501		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	-7.498E-05	-7.498E-05		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.0001707	0.0001707		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985154	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 11:43:	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00001098	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00001279	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00001622	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	2.825E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	1.461E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	2.631E-06	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	3.441E-06	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	-1.919E-05	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	4.325E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	4.579E-06	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	3.364E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001004	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-1.508E-06	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.0001765	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	7.016E-06	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.00000688	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	5.997E-06	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00000326	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Thorium	B	mg/L	0.00002326	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Vanadium	B	mg/L	0.00004988	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	-5.328E-05	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985155	MB-162360	ICPMS-6020-W-	MBLK		1/18/2022 11:49:	1	162360	12/20/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0018	0		0	0	0	0.0031975	0.0031975	1	0%	0	0	0%	
Antimony	A	mg/L	0.00003785	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00002225	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00008732	0		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-3.666E-06	0		0	0	0	0.0001563	0.01	1	0%	0	0	0%	
Boron	A	mg/L	0.0004547	0		0	0	0	0.01467	0.01467	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00001777	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Calcium	A	mg/L	0.008141	0		0	0	0	0.1103481	0.1103481	150	0%	0	0	0%	
Cerium	A	mg/L	1.576E-06	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985155	MB-162360	ICPMS-6020-W-	MBLK		1/18/2022 11:49:	1	162360	12/20/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Chromium	A	mg/L	0.000676	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	
Cobalt	A	mg/L	4.654E-06	0		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.0001632	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	
Iron	A	mg/L	0.003345	0		0	0	0	0.00513	0.00513	5	0%	0	0	0%	
Lanthanum	A	mg/L	1.956E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00002803	0		0	0	0	7.716E-05	0.0005	1	0%	0	0	0%	
Magnesium	A	mg/L	0.001317	0		0	0	0	0.0081522	0.0081522	50	0%	0	0	0%	
Manganese	A	mg/L	0.00005451	0		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.00005617	0		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.0002035	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	
Potassium	A	mg/L	-0.01061	0		0	0	0	0.0261205	0.0261205	50	0%	0	0	0%	
Selenium	A	mg/L	0.00002558	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.009822	0.009822		0	0	0	0.0053212	0.0053212	0.4	0%	0	0	0%	
Silver	A	mg/L	-5.298E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	-0.004526	0		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	
Strontium	A	mg/L	0.00002152	0		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	2.717E-06	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.0001205	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	
Tin	A	mg/L	-0.002358	0		0	0	0	0.0011175	0.0011175	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.0002967	0.0002967		0	0	0	0.0001634	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	2.491E-06	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.00008229	0		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	
Zinc	A	mg/L	0.002962	0		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	
Silica	C	mg/L	0.02101122	0.02101122		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	0.02101122	0.02101122		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985156	MB-162497	ICPMS-6020-W-	MBLK		1/18/2022 11:55:	1	162497	12/27/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001929	0		0	0	0	0.0031975	0.0031975	1	0%	0	0	0%	
Antimony	A	mg/L	0.00001772	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	
Arsenic	A	mg/L	3.253E-06	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00003707	0		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	4.483E-07	0		0	0	0	0.0001563	0.01	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985156	MB-162497	ICPMS-6020-W-	MBLK		1/18/2022 11:55:	1	162497	12/27/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Boron	A	mg/L	0.0004885	0		0	0	0	0.01467	0.01467	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00002346	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Calcium	A	mg/L	0.02088	0		0	0	0	0.1103481	0.1103481	150	0%	0	0	0%	
Cerium	A	mg/L	8.546E-07	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.0002287	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	
Cobalt	A	mg/L	1.238E-06	0		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.00009799	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	
Iron	A	mg/L	0.001128	0		0	0	0	0.00513	0.00513	5	0%	0	0	0%	
Lanthanum	A	mg/L	1.238E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00001182	0		0	0	0	7.716E-05	0.0005	1	0%	0	0	0%	
Magnesium	A	mg/L	0.001095	0		0	0	0	0.0081522	0.0081522	50	0%	0	0	0%	
Manganese	A	mg/L	0.00001966	0		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.00003501	0		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	4.127E-06	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	
Potassium	A	mg/L	-0.01123	0		0	0	0	0.0261205	0.0261205	50	0%	0	0	0%	
Selenium	A	mg/L	0.00004939	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.008677	0.008677		0	0	0	0.0053212	0.0053212	0.4	0%	0	0	0%	
Silver	A	mg/L	-6.165E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	-0.007982	0		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	
Strontium	A	mg/L	0.00003052	0		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00000212	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00006674	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	
Tin	A	mg/L	-0.002409	0		0	0	0	0.0011175	0.0011175	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.000252	0.000252		0	0	0	0.0001634	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	-5.589E-08	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.00003228	0		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	
Zinc	A	mg/L	0.0002024	0		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	
Silica	C	mg/L	0.01856184	0.01856184		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	0.01856184	0.01856184		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985157	MB-162992	ICPMS-6020-W-	MBLK		1/19/2022 12:01:	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985157	MB-162992	ICPMS-6020-W-	MBLK		1/19/2022 12:01:	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.003364	0.003364		0	0	0	0.0031975	0.0031975	1	0%	0	0	0%	
Antimony	A	mg/L	0.00004159	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00001939	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00002748	0		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	1.765E-06	0		0	0	0	0.0001563	0.01	1	0%	0	0	0%	
Boron	A	mg/L	0.0002253	0		0	0	0	0.01467	0.01467	1	0%	0	0	0%	
Cadmium	A	mg/L	0.0000129	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Calcium	A	mg/L	0.0325	0		0	0	0	0.1103481	0.1103481	150	0%	0	0	0%	
Cerium	A	mg/L	1.196E-06	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.00005728	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	
Cobalt	A	mg/L	5.189E-06	0		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Copper	A	mg/L	-1.094E-05	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	
Iron	A	mg/L	0.001344	0		0	0	0	0.00513	0.00513	5	0%	0	0	0%	
Lanthanum	A	mg/L	7.207E-07	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00001277	0		0	0	0	7.716E-05	0.0005	1	0%	0	0	0%	
Magnesium	A	mg/L	0.000806	0		0	0	0	0.0081522	0.0081522	50	0%	0	0	0%	
Manganese	A	mg/L	0.00001526	0		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.0001409	0		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-3.491E-06	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	
Potassium	A	mg/L	-0.01039	0		0	0	0	0.0261205	0.0261205	50	0%	0	0	0%	
Selenium	A	mg/L	0.00001406	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.009825	0.009825		0	0	0	0.0053212	0.0053212	0.4	0%	0	0	0%	
Silver	A	mg/L	-6.698E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	-0.006902	0		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	
Strontium	A	mg/L	0.00006311	0		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	1.749E-07	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00005833	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	
Tin	A	mg/L	-0.002148	0		0	0	0	0.0011175	0.0011175	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.000341	0.000341		0	0	0	0.0001634	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	2.344E-07	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.00004559	0		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	
Zinc	A	mg/L	0.006809	0.006809		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	
Silica	C	mg/L	0.02101764	0.02101764		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	0.02101764	0.02101764		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985158	LCS4-162360	ICPMS-6020-W-	LCS4		1/19/2022 12:06:	1	162360	12/20/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.4409	0.4409		0.5	0	0	0.0031975	0.0031975	1	88%	80	120	0%	
Antimony	A	mg/L	0.0953	0.0953		0.1	0	0	0.00098	0.0021372	0.1	95%	80	120	0%	
Arsenic	A	mg/L	0.09367	0.09367		0.1	0	0	0.0002677	0.001	1	94%	80	120	0%	
Barium	A	mg/L	0.08864	0.08864		0.1	0	0	0.0002408	0.001	1	89%	80	120	0%	
Beryllium	A	mg/L	0.04233	0.04233		0.05	0	0	0.0001563	0.01	1	85%	80	120	0%	
Boron	A	mg/L	0.09163	0.09163		0.1	0	0	0.01467	0.01467	1	92%	80	120	0%	
Cadmium	A	mg/L	0.04707	0.04707		0.05	0	0	4.567E-05	0.005	1	94%	80	120	0%	
Calcium	A	mg/L	4.306	4.306		5	0	0	0.1103481	0.1103481	150	86%	80	120	0%	
Cerium	A	mg/L	0.09882	0.09882		0.1	0	0	0.00005	0.001	0.1	99%	80	120	0%	
Chromium	A	mg/L	0.09932	0.09932		0.1	0	0	0.00154	0.00154	1	99%	80	120	0%	
Cobalt	A	mg/L	0.0983	0.0983		0.1	0	0	0.000072	0.001	1	98%	80	120	0%	
Copper	A	mg/L	0.1029	0.1029		0.1	0	0	0.00198	0.0034752	1	103%	80	120	0%	
Iron	A	mg/L	0.4456	0.4456		0.5	0	0	0.00513	0.00513	5	89%	80	120	0%	
Lanthanum	A	mg/L	0.09906	0.09906		0.1	0	0	0.000055	0.001	0.1	99%	80	120	0%	
Lead	A	mg/L	0.1018	0.1018		0.1	0	0	7.716E-05	0.001	1	102%	88	115	0%	
Magnesium	A	mg/L	4.758	4.758		5	0	0	0.0081522	0.0081522	50	95%	80	120	0%	
Manganese	A	mg/L	0.4905	0.4905		0.5	0	0	0.0002139	0.001	1	98%	80	120	0%	
Molybdenum	A	mg/L	0.1033	0.1033		0.1	0	0	0.0001763	0.001	0.1	103%	80	120	0%	
Nickel	A	mg/L	0.102	0.102		0.1	0	0	0.0024200	0.0024200	1	102%	80	120	0%	
Potassium	A	mg/L	4.458	4.458		5	0	0	0.0261205	0.0261205	50	89%	80	120	0%	
Selenium	A	mg/L	0.09472	0.09472		0.1	0	0	0.0005855	0.001	1	95%	80	120	0%	
Silicon	A	mg/L	0.9631	0.9631		1	0	0	0.0053212	0.0053212	0.4	96%	80	120	0%	
Silver	A	mg/L	0.01058	0.01058		0.01	0	0	4.316E-05	0.001	0.04	106%	80	120	0%	
Sodium	A	mg/L	4.8	4.8		5	0	0	0.7330269	0.7330269	50	96%	80	120	0%	
Strontium	A	mg/L	0.1031	0.1031		0.1	0	0	0.0001264	0.001	1	103%	80	120	0%	
Thallium	A	mg/L	0.1063	0.1063		0.1	0	0	0.0001114	0.001	1	106%	80	120	0%	
Thorium	A	mg/L	0.1029	0.1029		0.1	0	0	0.00415	0.00415	1	103%	80	120	0%	
Tin	A	mg/L	0.09951	0.09951		0.1	0	0	0.0011175	0.0011175	0.1	100%	80	120	0%	
Titanium	A	mg/L	0.08925	0.08925		0.1	0	0	0.0001634	0.001	1	89%	80	120	0%	
Uranium	A	mg/L	0.09903	0.09903		0.1	0	0	8.449E-05	0.0003	1	99%	80	120	0%	
Vanadium	A	mg/L	0.09778	0.09778		0.1	0	0	0.0021085	0.0021085	1	98%	80	120	0%	
Zinc	A	mg/L	0.09383	0.09383		0.1	0	0	0.0065544	0.0065544	1	94%	80	120	0%	
Silica	C	mg/L	2.06026352	2.06026352		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	2.06026352	2.06026352		2.14	0	0	0.0113831	0.0113831	5	96%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985159	LCS4-162497	ICPMS-6020-W-	LCS4		1/19/2022 12:12:	1	162497	12/27/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.4533	0.4533		0.5	0	0	0.0031975	0.0031975	1	91%	80	120	0%	
Antimony	A	mg/L	0.09902	0.09902		0.1	0	0	0.00098	0.0021372	0.1	99%	80	120	0%	
Arsenic	A	mg/L	0.09696	0.09696		0.1	0	0	0.0002677	0.001	1	97%	80	120	0%	
Barium	A	mg/L	0.0923	0.0923		0.1	0	0	0.0002408	0.001	1	92%	80	120	0%	
Beryllium	A	mg/L	0.04235	0.04235		0.05	0	0	0.0001563	0.01	1	85%	80	120	0%	
Boron	A	mg/L	0.09027	0.09027		0.1	0	0	0.01467	0.01467	1	90%	80	120	0%	
Cadmium	A	mg/L	0.04819	0.04819		0.05	0	0	4.567E-05	0.005	1	96%	80	120	0%	
Calcium	A	mg/L	4.229	4.229		5	0	0	0.1103481	0.1103481	150	85%	80	120	0%	
Cerium	A	mg/L	0.1015	0.1015		0.1	0	0	0.00005	0.001	0.1	101%	80	120	0%	
Chromium	A	mg/L	0.09992	0.09992		0.1	0	0	0.00154	0.00154	1	100%	80	120	0%	
Cobalt	A	mg/L	0.09688	0.09688		0.1	0	0	0.000072	0.001	1	97%	80	120	0%	
Copper	A	mg/L	0.1067	0.1067		0.1	0	0	0.00198	0.0034752	1	107%	80	120	0%	
Iron	A	mg/L	0.4521	0.4521		0.5	0	0	0.00513	0.00513	5	90%	80	120	0%	
Lanthanum	A	mg/L	0.1014	0.1014		0.1	0	0	0.000055	0.001	0.1	101%	80	120	0%	
Lead	A	mg/L	0.09865	0.09865		0.1	0	0	7.716E-05	0.001	1	99%	88	115	0%	
Magnesium	A	mg/L	4.754	4.754		5	0	0	0.0081522	0.0081522	50	95%	80	120	0%	
Manganese	A	mg/L	0.5075	0.5075		0.5	0	0	0.0002139	0.001	1	102%	80	120	0%	
Molybdenum	A	mg/L	0.104	0.104		0.1	0	0	0.0001763	0.001	0.1	104%	80	120	0%	
Nickel	A	mg/L	0.1028	0.1028		0.1	0	0	0.0024200	0.0024200	1	103%	80	120	0%	
Potassium	A	mg/L	4.674	4.674		5	0	0	0.0261205	0.0261205	50	93%	80	120	0%	
Selenium	A	mg/L	0.09448	0.09448		0.1	0	0	0.0005855	0.001	1	94%	80	120	0%	
Silicon	A	mg/L	0.9763	0.9763		1	0	0	0.0053212	0.0053212	0.4	98%	80	120	0%	
Silver	A	mg/L	0.01065	0.01065		0.01	0	0	4.316E-05	0.001	0.04	106%	80	120	0%	
Sodium	A	mg/L	4.957	4.957		5	0	0	0.7330269	0.7330269	50	99%	80	120	0%	
Strontium	A	mg/L	0.1053	0.1053		0.1	0	0	0.0001264	0.001	1	105%	80	120	0%	
Thallium	A	mg/L	0.1082	0.1082		0.1	0	0	0.0001114	0.001	1	108%	80	120	0%	
Thorium	A	mg/L	0.1064	0.1064		0.1	0	0	0.00415	0.00415	1	106%	80	120	0%	
Tin	A	mg/L	0.09878	0.09878		0.1	0	0	0.0011175	0.0011175	0.1	99%	80	120	0%	
Titanium	A	mg/L	0.08993	0.08993		0.1	0	0	0.0001634	0.001	1	90%	80	120	0%	
Uranium	A	mg/L	0.09703	0.09703		0.1	0	0	8.449E-05	0.0003	1	97%	80	120	0%	
Vanadium	A	mg/L	0.1025	0.1025		0.1	0	0	0.0021085	0.0021085	1	102%	80	120	0%	
Zinc	A	mg/L	0.09443	0.09443		0.1	0	0	0.0065544	0.0065544	1	94%	80	120	0%	
Silica	C	mg/L	2.08850096	2.08850096		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	2.08850096	2.08850096		2.14	0	0	0.0113831	0.0113831	5	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985160	LCS4-162992	ICPMS-6020-W-	LCS4		1/19/2022 12:18:	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.4505	0.4505		0.5	0	0	0.0031975	0.0031975	1	90%	80	120	0%	
Antimony	A	mg/L	0.09953	0.09953		0.1	0	0	0.00098	0.0021372	0.1	100%	80	120	0%	
Arsenic	A	mg/L	0.09471	0.09471		0.1	0	0	0.0002677	0.001	1	95%	80	120	0%	
Barium	A	mg/L	0.09284	0.09284		0.1	0	0	0.0002408	0.001	1	93%	80	120	0%	
Beryllium	A	mg/L	0.04314	0.04314		0.05	0	0	0.0001563	0.01	1	86%	80	120	0%	
Boron	A	mg/L	0.09447	0.09447		0.1	0	0	0.01467	0.01467	1	94%	80	120	0%	
Cadmium	A	mg/L	0.04859	0.04859		0.05	0	0	4.567E-05	0.005	1	97%	80	120	0%	
Calcium	A	mg/L	4.387	4.387		5	0	0	0.1103481	0.1103481	150	88%	80	120	0%	
Cerium	A	mg/L	0.1039	0.1039		0.1	0	0	0.00005	0.001	0.1	104%	80	120	0%	
Chromium	A	mg/L	0.09994	0.09994		0.1	0	0	0.00154	0.00154	1	100%	80	120	0%	
Cobalt	A	mg/L	0.09973	0.09973		0.1	0	0	0.000072	0.001	1	100%	80	120	0%	
Copper	A	mg/L	0.103	0.103		0.1	0	0	0.00198	0.0034752	1	103%	80	120	0%	
Iron	A	mg/L	0.4595	0.4595		0.5	0	0	0.00513	0.00513	5	92%	80	120	0%	
Lanthanum	A	mg/L	0.1021	0.1021		0.1	0	0	0.000055	0.001	0.1	102%	80	120	0%	
Lead	A	mg/L	0.09907	0.09907		0.1	0	0	7.716E-05	0.001	1	99%	88	115	0%	
Magnesium	A	mg/L	4.719	4.719		5	0	0	0.0081522	0.0081522	50	94%	80	120	0%	
Manganese	A	mg/L	0.4886	0.4886		0.5	0	0	0.0002139	0.001	1	98%	80	120	0%	
Molybdenum	A	mg/L	0.1043	0.1043		0.1	0	0	0.0001763	0.001	0.1	104%	80	120	0%	
Nickel	A	mg/L	0.1006	0.1006		0.1	0	0	0.0024200	0.0024200	1	101%	80	120	0%	
Potassium	A	mg/L	4.528	4.528		5	0	0	0.0261205	0.0261205	50	91%	80	120	0%	
Selenium	A	mg/L	0.09802	0.09802		0.1	0	0	0.0005855	0.001	1	98%	80	120	0%	
Silicon	A	mg/L	0.9809	0.9809		1	0	0	0.0053212	0.0053212	0.4	98%	80	120	0%	
Silver	A	mg/L	0.01068	0.01068		0.01	0	0	4.316E-05	0.001	0.04	107%	80	120	0%	
Sodium	A	mg/L	4.843	4.843		5	0	0	0.7330269	0.7330269	50	97%	80	120	0%	
Strontium	A	mg/L	0.1042	0.1042		0.1	0	0	0.0001264	0.001	1	104%	80	120	0%	
Thallium	A	mg/L	0.1059	0.1059		0.1	0	0	0.0001114	0.001	1	106%	80	120	0%	
Thorium	A	mg/L	0.1044	0.1044		0.1	0	0	0.00415	0.00415	1	104%	80	120	0%	
Tin	A	mg/L	0.1007	0.1007		0.1	0	0	0.0011175	0.0011175	0.1	101%	80	120	0%	
Titanium	A	mg/L	0.08743	0.08743		0.1	0	0	0.0001634	0.001	1	87%	80	120	0%	
Uranium	A	mg/L	0.1005	0.1005		0.1	0	0	8.449E-05	0.0003	1	100%	80	120	0%	
Vanadium	A	mg/L	0.09842	0.09842		0.1	0	0	0.0021085	0.0021085	1	98%	80	120	0%	
Zinc	A	mg/L	0.09313	0.09313		0.1	0	0	0.0065544	0.0065544	1	93%	80	120	0%	
Silica	C	mg/L	2.09834128	2.09834128		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	2.09834128	2.09834128		2.14	0	0	0.0113831	0.0113831	5	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985161	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 12:23:	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00002179	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	1.755E-06	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00001718	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	1.753E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	6.778E-07	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-9.565E-06	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	7.209E-07	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	-1.285E-05	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00000441	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	8.407E-07	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	6.599E-07	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001067	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-1.426E-06	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.0001478	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.00000467	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.00000276	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0004223	0.0004223		0	0	0	0.0002991	0.001	1	0%	0	0	0%	J
Uranium	A	mg/L	6.586E-06	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Thorium	B	mg/L	0.00008277	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Vanadium	B	mg/L	4.653E-06	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	0.0001227	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985162	B21121609-001	ICPMS-6020-W-	SAMP		1/19/2022 12:29:	1	162360	12/20/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.01549	0.01549		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	
Antimony	B	mg/L	0.0007783	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.001592	0.001592		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.05864	0.05864		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.0003391	0.0003391		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	J
Cerium	B	mg/L	0.0007825	0.0007825		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Chromium	B	mg/L	0.005229	0.005229		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Cobalt	B	mg/L	0.002727	0.002727		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Copper	B	mg/L	0.01232	0.01232		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985162	B21121609-001	ICPMS-6020-W-	SAMP		1/19/2022 12:29:	1	162360	12/20/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lanthanum	B	mg/L	0.0003431	0.0003431		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	J
Manganese	B	mg/L	0.3867	0.3867		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	B	mg/L	0.0007438	0.0007438		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.01856	0.01856		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	D
Selenium	B	mg/L	0.002536	0.002536		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-2.896E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.3112	0.3112		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.0001627	0.0001627		0	0	0	0.0001114	0.001	1	0%	0	0	0%	J
Thorium	B	mg/L	0.0002486	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.0000974	0.0000974		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	J
Vanadium	B	mg/L	0.01117	0.01117		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D
Zinc	B	mg/L	0.05573	0.05573		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985163	B21121611-001	ICPMS-6020-W-	SAMP		1/19/2022 12:35:	1	162360	12/20/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.0007437	0.0007437		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Antimony	B	mg/L	0.0009694	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.001138	0.001138		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.01492	0.01492		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002223	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.0005363	0.0005363		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Chromium	B	mg/L	0.002259	0.002259		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Cobalt	B	mg/L	0.001908	0.001908		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Copper	B	mg/L	0.00345	0.00345		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	JL
Lanthanum	B	mg/L	0.0002061	0.0002061		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	J
Manganese	B	mg/L	0.1706	0.1706		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	B	mg/L	0.003137	0.003137		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	B	mg/L	0.005309	0.005309		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	D
Selenium	B	mg/L	0.000249	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-2.768E-06	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.1754	0.1754		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.0001129	0.0001129		0	0	0	0.0001114	0.001	1	0%	0	0	0%	J
Thorium	B	mg/L	0.0001298	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985163	B21121611-001	ICPMS-6020-W-	SAMP		1/19/2022 12:35:	1	162360	12/20/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Uranium	B	mg/L	0.000139	0.000139		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	J
Vanadium	B	mg/L	0.01782	0.01782		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D
Zinc	B	mg/L	0.005474	0		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985164	B21121613-001	ICPMS-6020-W-	SAMP		1/19/2022 12:40:	1	162360	12/20/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.0002825	0.0002825		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Antimony	B	mg/L	0.0001466	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.0002728	0.0002728		0	0	0	0.0002677	0.001	1	0%	0	0	0%	J
Barium	B	mg/L	0.006222	0.006222		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002373	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.0007694	0.0007694		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Chromium	B	mg/L	0.006728	0.006728		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Cobalt	B	mg/L	0.0005254	0.0005254		0	0	0	0.000072	0.001	1	0%	0	0	0%	J
Copper	B	mg/L	0.001968	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	0.0002204	0.0002204		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	J
Manganese	B	mg/L	0.01634	0.01634		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	B	mg/L	0.0007119	0.0007119		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.001439	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Selenium	B	mg/L	0.0003382	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-5.794E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.05878	0.05878		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00007152	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.0001519	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.00002998	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Vanadium	B	mg/L	0.04636	0.04636		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D
Zinc	B	mg/L	0.004279	0		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985165	B21121613-001	ICPMS-6020-W-	SD		1/19/2022 12:46:	5	162360	12/20/2021	0	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985165	B21121613-001	ICPMS-6020-W-	SD		1/19/2022 12:46:	5	162360	12/20/2021	0	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.1531	0.7655		0	0	0.7256	0.0159875	0.0159875	1	0%	0	0	5%	
Antimony	A	mg/L	0.00004984	0		0	0	0	0.0049	0.0106858	0.1	0%	0	0		
Arsenic	A	mg/L	0.00004538	0		0	0	0.0002728	0.0013383	0.0013383	1	0%	0	0		
Barium	A	mg/L	0.001417	0.007085		0	0	0.006222	0.0012039	0.0012039	1	0%	0	0		N
Beryllium	A	mg/L	-2.124E-06	0		0	0	0	0.0007817	0.01	1	0%	0	0		
Boron	A	mg/L	0.03583	0.17915		0	0	0.1833	0.07335	0.07335	1	0%	0	0		N
Cadmium	A	mg/L	0.00002957	0		0	0	0	0.0002284	0.005	1	0%	0	0		
Calcium	A	mg/L	0.9429	4.7145		0	0	4.68	0.5517403	0.5517403	150	0%	0	0		N
Cerium	A	mg/L	0.0001427	0.0007135		0	0	0.0007694	0.00025	0.001	0.1	0%	0	0		N
Chromium	A	mg/L	0.001336	0		0	0	0.006728	0.0077	0.0077	1	0%	0	0		
Cobalt	A	mg/L	0.0001174	0.000587		0	0	0.0005254	0.00036	0.001	1	0%	0	0		N
Copper	A	mg/L	0.000529	0		0	0	0	0.0099	0.017376	1	0%	0	0		
Iron	A	mg/L	0.137	0.685		0	0	0.675	0.02565	0.02565	5	0%	0	0	1%	
Lanthanum	A	mg/L	0.00004486	0		0	0	0.0002204	0.000275	0.001	0.1	0%	0	0		
Lead	A	mg/L	0.00007595	0		0	0	0.0002825	0.0003858	0.001	1	0%	0	0		
Magnesium	A	mg/L	1.65	8.25		0	0	8.141	0.0407608	0.0407608	50	0%	0	0	1%	
Manganese	A	mg/L	0.003293	0.016465		0	0	0.01634	0.0010695	0.0010695	1	0%	0	0	1%	
Molybdenum	A	mg/L	0.0001458	0		0	0	0.0007119	0.0008814	0.001	0.1	0%	0	0		
Nickel	A	mg/L	0.0003329	0		0	0	0	0.0121000	0.0121000	1	0%	0	0		
Potassium	A	mg/L	0.5615	2.8075		0	0	2.872	0.1306027	0.1306027	50	0%	0	0	2%	
Selenium	A	mg/L	0.000141	0		0	0	0	0.0029274	0.0029274	1	0%	0	0		
Silicon	A	mg/L	6.756	33.78		0	0	32.28	0.026606	0.026606	0.4	0%	0	0	5%	
Silver	A	mg/L	-6.935E-05	0		0	0	0	0.0002158	0.001	0.04	0%	0	0		
Sodium	A	mg/L	18.66	93.3		0	0	93.05	3.6651346	3.6651346	50	0%	0	0	0%	
Strontium	A	mg/L	0.01137	0.05685		0	0	0.05878	0.0006322	0.001	1	0%	0	0	3%	
Thallium	A	mg/L	0.00004531	0		0	0	0	0.0005569	0.001	1	0%	0	0		
Thorium	A	mg/L	0.00002416	0		0	0	0	0.02075	0.02075	1	0%	0	0		
Tin	A	mg/L	-0.002405	0		0	0	0	0.0055874	0.0055874	0.1	0%	0	0		
Titanium	A	mg/L	0.008213	0.041065		0	0	0.04094	0.0008168	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	6.249E-06	0		0	0	0	0.0004224	0.0004224	1	0%	0	0		
Vanadium	A	mg/L	0.009307	0.046535		0	0	0.04636	0.0105423	0.0105423	1	0%	0	0		N
Zinc	A	mg/L	0.004665	0		0	0	0	0.0327721	0.0327721	1	0%	0	0		
Silica	C	mg/L	14.4524352	72.262176		0	0	0	0.0569155	0.0569155	5	0%	0	0		N
Silicon as SiO2	C	mg/L	14.4524352	72.262176		0	0	0	0.0569155	0.0569155	5	0%	0	0		N

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985166	CCV	ICPMS-6020-W-	CCV		1/19/2022 12:52:	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0423	0.0423		0.05	0	0	0.0006548	0.001	1	85%	90	110	0%	S
Antimony	A	mg/L	0.04757	0.04757		0.05	0	0	0.0002987	0.001	0.1	95%	90	110	0%	
Arsenic	A	mg/L	0.04927	0.04927		0.05	0	0	0.0001814	0.001	1	99%	90	110	0%	
Barium	A	mg/L	0.04705	0.04705		0.05	0	0	0.0001321	0.001	1	94%	90	110	0%	
Beryllium	A	mg/L	0.04257	0.04257		0.05	0	0	7.465E-05	0.001	1	85%	90	110	0%	S
Boron	A	mg/L	0.04156	0.04156		0.05	0	0	0.0030032	0.0030032	1	83%	90	110	0%	S
Cadmium	A	mg/L	0.04688	0.04688		0.05	0	0	5.139E-05	0.001	1	94%	90	110	0%	
Calcium	A	mg/L	10.45	10.45		12.5	0	0	0.0749796	0.0749796	50	84%	90	110	0%	S
Cerium	A	mg/L	0.0481	0.0481		0.05	0	0	1.462E-05	0.001	0.1	96%	90	110	0%	
Chromium	A	mg/L	0.04661	0.04661		0.05	0	0	0.0005481	0.001	1	93%	90	110	0%	
Cobalt	A	mg/L	0.04903	0.04903		0.05	0	0	4.756E-05	0.001	1	98%	90	110	0%	
Copper	A	mg/L	0.04869	0.04869		0.05	0	0	0.0003828	0.001	1	97%	90	110	0%	
Iron	A	mg/L	1.124	1.124		1.3	0	0	0.0046291	0.0046291	5	86%	90	110	0%	S
Lanthanum	A	mg/L	0.04718	0.04718		0.05	0	0	1.683E-05	0.001	0.1	94%	90	110	0%	
Lead	A	mg/L	0.0473	0.0473		0.05	0	0	6.264E-05	0.001	1	95%	90	110	0%	
Lithium	A	mg/L	0.3517	0.3517		0.625	0	0	0.0052105	0.0052105	2.5	56%	90	110	0%	S
Magnesium	A	mg/L	10.53	10.53		12.5	0	0	0.0118993	0.0118993	50	84%	90	110	0%	S
Manganese	A	mg/L	0.0468	0.0468		0.05	0	0	0.0001444	0.001	1	94%	90	110	0%	
Mercury	A	mg/L	0.0009518	0.0009518		0.001	0	0	0.000066	0.001	0.02	95%	90	110	0%	
Molybdenum	A	mg/L	0.05261	0.05261		0.05	0	0	8.338E-05	0.001	0.1	105%	90	110	0%	
Nickel	A	mg/L	0.04719	0.04719		0.05	0	0	0.0002531	0.001	1	94%	90	110	0%	
Potassium	A	mg/L	9.874	9.874		12.5	0	0	0.207399	0.207399	50	79%	90	110	0%	S
Selenium	A	mg/L	0.05233	0.05233		0.05	0	0	0.0001415	0.001	1	105%	90	110	0%	
Silicon	A	mg/L	0.1923	0.1923		0.2	0	0	0.0146174	0.1	0.4	96%	90	110	0%	
Silver	A	mg/L	0.02156	0.02156		0.02	0	0	1.123E-05	0.001	0.04	108%	90	110	0%	
Sodium	A	mg/L	10.67	10.67		12.5	0	0	0.0809273	0.0809273	50	85%	90	110	0%	S
Strontium	A	mg/L	0.05183	0.05183		0.05	0	0	0.0001825	0.001	1	104%	90	110	0%	
Thallium	A	mg/L	0.04981	0.04981		0.05	0	0	0.0002991	0.001	1	100%	90	110	0%	
Thorium	A	mg/L	0.05104	0.05104		0.05	0	0	0.0010473	0.0010473	1	102%	90	110	0%	
Tin	A	mg/L	0.04605	0.04605		0.05	0	0	0.0022388	0.0022388	0.1	92%	90	110	0%	
Titanium	A	mg/L	0.04437	0.04437		0.05	0	0	0.0002974	0.001	1	89%	90	110	0%	S
Uranium	A	mg/L	0.04667	0.04667		0.05	0	0	3.139E-05	0.0003	1	93%	90	110	0%	
Vanadium	A	mg/L	0.04654	0.04654		0.05	0	0	0.0043468	0.0043468	1	93%	90	110	0%	
Zinc	A	mg/L	0.04861	0.04861		0.05	0	0	0.0011598	0.0011598	1	97%	90	110	0%	
Iron, Ferrous	C	mg/L	1.124	1.124		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist			
14985167	CCB	ICPMS-6020-W-	CCB		1/19/2022 12:57:	1	R373351		0	0				

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-2.564E-05	-2.564E-05		0	0	0	0.0006548	0.001	1	0%			0%	
Antimony	A	mg/L	0.00005595	0.00005595		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	3.337E-09	3.337E-09		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	2.137E-06	2.137E-06		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	-2.663E-06	-2.663E-06		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	0.0005824	0.0005824		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	1.792E-06	1.792E-06		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	-0.0003228	-0.0003228		0	0	0	0.0749796	0.0749796	50	0%			0%	
Cerium	A	mg/L	-8.865E-07	-8.865E-07		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-0.0000106	-0.0000106		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	-1.878E-06	-1.878E-06		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	-1.316E-05	-1.316E-05		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	-2.542E-05	-2.542E-05		0	0	0	0.0046291	0.0046291	5	0%			0%	
Lanthanum	A	mg/L	9.255E-07	9.255E-07		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	9.919E-07	9.919E-07		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	-0.0004386	-0.0004386		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	0.0003167	0.0003167		0	0	0	0.0118993	0.0118993	50	0%			0%	
Manganese	A	mg/L	4.206E-06	4.206E-06		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	8.156E-06	8.156E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	7.645E-06	7.645E-06		0	0	0	8.338E-05	0.001	0.1	0%			0%	
Nickel	A	mg/L	-1.023E-05	-1.023E-05		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	-0.01288	-0.01288		0	0	0	0.207399	0.207399	50	0%			0%	
Selenium	A	mg/L	0.00001531	0.00001531		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	0.0004649	0.0004649		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.0000122	0.0000122		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	0.02955	0.02955		0	0	0	0.0809273	0.0809273	50	0%			0%	
Strontium	A	mg/L	-1.015E-06	-1.015E-06		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00003635	0.00003635		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00004573	0.00004573		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	-0.0001833	-0.0001833		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00000747	0.00000747		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	1.996E-06	1.996E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.000124	0.000124		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	-0.0001295	-0.0001295		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	-2.542E-05	-2.542E-05		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985168	B21121613-001	ICPMS-6020-W-	PDS1		1/19/2022 1:03:4	1.03	162360	12/20/2021	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.7425	0.764775		0.0515	0.7256	0	0.0032934	0.0032934	1		75	125	0%	A
Antimony	A	mg/L	0.04482	0.0461646		0.0515	0	0	0.0010094	0.0022013	0.1	90%	75	125	0%	
Arsenic	A	mg/L	0.04471	0.0460513		0.0515	0.0002728	0	0.0002757	0.001	1	89%	75	125	0%	
Barium	A	mg/L	0.05086	0.0523858		0.0515	0.006222	0	0.0002480	0.001	1	90%	75	125	0%	
Beryllium	A	mg/L	0.03675	0.0378525		0.0515	0	0	0.0001610	0.01	1	73%	75	125	0%	S
Boron	A	mg/L	0.2122	0.218566		0.0515	0.1833	0	0.0151101	0.0151101	1	68%	75	125	0%	S
Cadmium	A	mg/L	0.04341	0.0447123		0.0515	0	0	4.704E-05	0.005	1	87%	75	125	0%	
Calcium	A	mg/L	41.55	42.7965		51.5	4.68	0	0.1136585	0.1136585	150	74%	75	125	0%	S
Cerium	A	mg/L	0.04724	0.0486572		0.0515	0.0007694	0	0.0000515	0.001	0.1	93%	75	125	0%	
Chromium	A	mg/L	0.04829	0.0497387		0.0515	0.006728	0	0.0015862	0.0015862	1	84%	75	125	0%	
Cobalt	A	mg/L	0.04416	0.0454848		0.0515	0.0005254	0	7.416E-05	0.001	1	87%	75	125	0%	
Copper	A	mg/L	0.04615	0.0475345		0.0515	0	0	0.0020394	0.0035794	1	92%	75	125	0%	
Iron	A	mg/L	4.697	4.83791		5.15	0.675	0	0.0052839	0.0052839	5	81%	75	125	0%	
Lanthanum	A	mg/L	0.0002148	0.00022124		0.0515	0.0002204	0	5.665E-05	0.001	0.1	0%	75	125	0%	S
Lead	A	mg/L	0.04422	0.0455466		0.0515	0.0002825	0	7.947E-05	0.001	1	88%	82	120	0%	
Magnesium	A	mg/L	53.39	54.9917		51.5	8.141	0	0.0083967	0.0083967	50	91%	75	125	0%	
Manganese	A	mg/L	0.05941	0.0611923		0.0515	0.01634	0	0.0002203	0.001	1	87%	75	125	0%	
Molybdenum	A	mg/L	0.05166	0.0532098		0.0515	0.0007119	0	0.0001816	0.001	0.1	102%	75	125	0%	
Nickel	A	mg/L	0.04525	0.0466075		0.0515	0	0	0.0024926	0.0024926	1	91%	75	125	0%	
Potassium	A	mg/L	43.4	44.702		51.5	2.872	0	0.0269042	0.0269042	50	81%	75	125	0%	
Selenium	A	mg/L	0.0457	0.047071		0.0515	0	0	0.0006030	0.001	1	91%	75	125	0%	
Silicon	A	mg/L	31.45	32.3935		0.206	32.28	0	0.0054808	0.0054808	0.4		0	0	0%	A
Silver	A	mg/L	0.02093	0.0215579		0.0206	0	0	4.446E-05	0.001	0.04	105%	75	125	0%	
Sodium	A	mg/L	133.1	137.093		51.5	93.05	0	0.7550177	0.7550177	50	86%	75	125	0%	
Strontium	A	mg/L	0.1064	0.109592		0.0515	0.05878	0	0.0001302	0.001	1	99%	75	125	0%	
Thallium	A	mg/L	0.0482	0.049646		0.0515	0	0	0.0001147	0.001	1	96%	75	125	0%	
Thorium	A	mg/L	0.05081	0.0523343		0.0515	0	0	0.0042745	0.0042745	1	102%	75	125	0%	
Tin	A	mg/L	0.04519	0.0465457		0.0515	0	0	0.001151	0.001151	0.1	90%	75	125	0%	
Titanium	A	mg/L	0.08286	0.0853458		0.0515	0.04094	0	0.0001683	0.001	1	86%	75	125	0%	
Uranium	A	mg/L	0.04418	0.0455054		0.0515	0	0	8.702E-05	0.0003	1	88%	75	125	0%	
Vanadium	A	mg/L	0.08735	0.0899705		0.0515	0.04636	0	0.0021717	0.0021717	1	85%	75	125	0%	
Zinc	A	mg/L	0.04312	0.0444136		0.0515	0	0	0.0067511	0.0067511	1	86%	75	125	0%	
Silica	C	mg/L	67.27784	69.2961752		0	0	0	0.0117246	0.0117246	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	67.27784	69.2961752		0.0515	0	0	0.0117246	0.0117246	5	134556%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985169	B21121613-001	ICPMS-6020-W-	MS4		1/19/2022 1:09:2	1	162360	12/20/2021	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	1.53	1.53		0.5	0.7256	0	0.0031975	0.0031975	1	161%	75	125	0%	S
Antimony	A	mg/L	0.09734	0.09734		0.1	0	0	0.00098	0.0021372	0.1	97%	75	125	0%	
Arsenic	A	mg/L	0.09507	0.09507		0.1	0.0002728	0	0.0002677	0.001	1	95%	75	125	0%	
Barium	A	mg/L	0.09726	0.09726		0.1	0.006222	0	0.0002408	0.001	1	91%	75	125	0%	
Beryllium	A	mg/L	0.04008	0.04008		0.05	0	0	0.0001563	0.01	1	80%	75	125	0%	
Boron	A	mg/L	0.2785	0.2785		0.1	0.1833	0	0.01467	0.01467	1	95%	75	125	0%	
Cadmium	A	mg/L	0.04623	0.04623		0.05	0	0	4.567E-05	0.005	1	92%	75	125	0%	
Calcium	A	mg/L	8.584	8.584		5	4.68	0	0.1103481	0.1103481	150	78%	75	125	0%	
Cerium	A	mg/L	0.103	0.103		0.1	0.0007694	0	0.00005	0.001	0.1	102%	75	125	0%	
Chromium	A	mg/L	0.1001	0.1001		0.1	0.006728	0	0.00154	0.00154	1	93%	75	125	0%	
Cobalt	A	mg/L	0.09414	0.09414		0.1	0.0005254	0	0.000072	0.001	1	94%	75	125	0%	
Copper	A	mg/L	0.1014	0.1014		0.1	0	0	0.00198	0.0034752	1	101%	75	125	0%	
Iron	A	mg/L	1.124	1.124		0.5	0.675	0	0.00513	0.00513	5	90%	75	125	0%	
Lanthanum	A	mg/L	0.1025	0.1025		0.1	0.0002204	0	0.000055	0.001	0.1	102%	75	125	0%	
Lead	A	mg/L	0.09675	0.09675		0.1	0.0002825	0	7.716E-05	0.001	1	96%	88	115	0%	
Magnesium	A	mg/L	12.69	12.69		5	8.141	0	0.0081522	0.0081522	50	91%	75	125	0%	
Manganese	A	mg/L	0.4914	0.4914		0.5	0.01634	0	0.0002139	0.001	1	95%	75	125	0%	
Molybdenum	A	mg/L	0.1023	0.1023		0.1	0.0007119	0	0.0001763	0.001	0.1	102%	75	125	0%	
Nickel	A	mg/L	0.09915	0.09915		0.1	0	0	0.0024200	0.0024200	1	99%	75	125	0%	
Potassium	A	mg/L	6.962	6.962		5	2.872	0	0.0261205	0.0261205	50	82%	75	125	0%	
Selenium	A	mg/L	0.09291	0.09291		0.1	0	0	0.0005855	0.001	1	93%	75	125	0%	
Silicon	A	mg/L	30.46	30.46		1	32.28	0	0.0053212	0.0053212	0.4		75	125	0%	A
Silver	A	mg/L	0.009911	0.009911		0.01	0	0	4.316E-05	0.001	0.04	99%	75	125	0%	
Sodium	A	mg/L	93.73	93.73		5	93.05	0	0.7330269	0.7330269	50		75	125	0%	A
Strontium	A	mg/L	0.1581	0.1581		0.1	0.05878	0	0.0001264	0.001	1	99%	75	125	0%	
Thallium	A	mg/L	0.1033	0.1033		0.1	0	0	0.0001114	0.001	1	103%	75	125	0%	
Thorium	A	mg/L	0.1057	0.1057		0.1	0	0	0.00415	0.00415	1	106%	75	125	0%	
Tin	A	mg/L	0.09758	0.09758		0.1	0	0	0.0011175	0.0011175	0.1	98%	75	125	0%	
Titanium	A	mg/L	0.1307	0.1307		0.1	0.04094	0	0.0001634	0.001	1	90%	75	125	0%	
Uranium	A	mg/L	0.0988	0.0988		0.1	0	0	8.449E-05	0.0003	1	99%	75	125	0%	
Vanadium	A	mg/L	0.1402	0.1402		0.1	0.04636	0	0.0021085	0.0021085	1	94%	75	125	0%	
Zinc	A	mg/L	0.0957	0.0957		0.1	0	0	0.0065544	0.0065544	1	96%	75	125	0%	
Silica	C	mg/L	65.160032	65.160032		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	65.160032	65.160032		2.14	0	0	0.0113831	0.0113831	5	3045%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985170	B21121613-001	ICPMS-6020-W-	MSD4		1/19/2022 1:14:5	1	162360	12/20/2021	1E+07	1E+07					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	1.482	1.482		0.5	0.7256	1.53	0.0031975	0.0031975	1	151%	75	125	3%	S
Antimony	A	mg/L	0.09632	0.09632		0.1	0	0.09734	0.00098	0.0021372	0.1	96%	75	125	1%	
Arsenic	A	mg/L	0.09479	0.09479		0.1	0.0002728	0.09507	0.0002677	0.001	1	95%	75	125	0%	
Barium	A	mg/L	0.09702	0.09702		0.1	0.006222	0.09726	0.0002408	0.001	1	91%	75	125	0%	
Beryllium	A	mg/L	0.03908	0.03908		0.05	0	0.04008	0.0001563	0.01	1	78%	75	125	3%	
Boron	A	mg/L	0.2627	0.2627		0.1	0.1833	0.2785	0.01467	0.01467	1	79%	75	125	6%	
Cadmium	A	mg/L	0.04626	0.04626		0.05	0	0.04623	4.567E-05	0.005	1	93%	75	125	0%	
Calcium	A	mg/L	8.945	8.945		5	4.68	8.584	0.1103481	0.1103481	150	85%	75	125	4%	
Cerium	A	mg/L	0.102	0.102		0.1	0.0007694	0.103	0.00005	0.001	0.1	101%	75	125	1%	
Chromium	A	mg/L	0.1016	0.1016		0.1	0.006728	0.1001	0.00154	0.00154	1	95%	75	125	1%	
Cobalt	A	mg/L	0.09659	0.09659		0.1	0.0005254	0.09414	0.000072	0.001	1	96%	75	125	3%	
Copper	A	mg/L	0.1017	0.1017		0.1	0	0.1014	0.00198	0.0034752	1	102%	75	125	0%	
Iron	A	mg/L	1.129	1.129		0.5	0.675	1.124	0.00513	0.00513	5	91%	75	125	0%	
Lanthanum	A	mg/L	0.09923	0.09923		0.1	0.0002204	0.1025	0.000055	0.001	0.1	99%	75	125	3%	
Lead	A	mg/L	0.09689	0.09689		0.1	0.0002825	0.09675	7.716E-05	0.001	1	97%	88	115	0%	
Magnesium	A	mg/L	12.16	12.16		5	8.141	12.69	0.0081522	0.0081522	50	80%	75	125	4%	
Manganese	A	mg/L	0.4899	0.4899		0.5	0.01634	0.4914	0.0002139	0.001	1	95%	75	125	0%	
Molybdenum	A	mg/L	0.1053	0.1053		0.1	0.0007119	0.1023	0.0001763	0.001	0.1	105%	75	125	3%	
Nickel	A	mg/L	0.09788	0.09788		0.1	0	0.09915	0.0024200	0.0024200	1	98%	75	125	1%	
Potassium	A	mg/L	7.154	7.154		5	2.872	6.962	0.0261205	0.0261205	50	86%	75	125	3%	
Selenium	A	mg/L	0.09697	0.09697		0.1	0	0.09291	0.0005855	0.001	1	97%	75	125	4%	
Silicon	A	mg/L	33.21	33.21		1	32.28	30.46	0.0053212	0.0053212	0.4		75	125	9%	A
Silver	A	mg/L	0.0102	0.0102		0.01	0	0.009911	4.316E-05	0.001	0.04	102%	75	125	3%	
Sodium	A	mg/L	94.54	94.54		5	93.05	93.73	0.7330269	0.7330269	50		75	125	1%	A
Strontium	A	mg/L	0.1644	0.1644		0.1	0.05878	0.1581	0.0001264	0.001	1	106%	75	125	4%	
Thallium	A	mg/L	0.1036	0.1036		0.1	0	0.1033	0.0001114	0.001	1	104%	75	125	0%	
Thorium	A	mg/L	0.1047	0.1047		0.1	0	0.1057	0.00415	0.00415	1	105%	75	125	1%	
Tin	A	mg/L	0.0988	0.0988		0.1	0	0.09758	0.0011175	0.0011175	0.1	99%	75	125	1%	
Titanium	A	mg/L	0.1261	0.1261		0.1	0.04094	0.1307	0.0001634	0.001	1	85%	75	125	4%	
Uranium	A	mg/L	0.09639	0.09639		0.1	0	0.0988	8.449E-05	0.0003	1	96%	75	125	2%	
Vanadium	A	mg/L	0.1433	0.1433		0.1	0.04636	0.1402	0.0021085	0.0021085	1	97%	75	125	2%	
Zinc	A	mg/L	0.09489	0.09489		0.1	0	0.0957	0.0065544	0.0065544	1	95%	75	125	1%	
Silica	C	mg/L	71.042832	71.042832		0	0	65.160032	0.0113831	0.0113831	5	0%	0	0	9%	
Silicon as SiO2	C	mg/L	71.042832	71.042832		2.14	0	65.160032	0.0113831	0.0113831	5	3320%	75	125	9%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985171	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 1:20:3	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00002394	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.0000347	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00002452	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	6.228E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	8.822E-07	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Copper	A	mg/L	-2.643E-06	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	3.904E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	1.348E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	6.592E-06	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	8.147E-06	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.003185	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	5.278E-06	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	8.298E-06	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0004456	0.0004456		0	0	0	0.0002991	0.001	1	0%	0	0	0%	J
Uranium	A	mg/L	5.739E-06	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Thorium	B	mg/L	0.00007319	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Zinc	B	mg/L	0.00002086	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985172	B21121616-001	ICPMS-6020-W-	SAMP		1/19/2022 1:26:1	1	162360	12/20/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.0001498	0.0001498		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Antimony	B	mg/L	0.0001651	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.0001418	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.0168	0.0168		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002539	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.000152	0.000152		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Copper	B	mg/L	0.001623	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	0.00004098	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Molybdenum	B	mg/L	0.0002318	0.0002318		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.0008616	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Selenium	B	mg/L	0.00006629	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-4.975E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.1019	0.1019		0	0	0	0.0001264	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985172	B21121616-001	ICPMS-6020-W-	SAMP		1/19/2022 1:26:1	1	162360	12/20/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Thallium	B	mg/L	0.000169	0.000169		0	0	0	0.0001114	0.001	1	0%	0	0	0%	J
Thorium	B	mg/L	0.0001742	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	9.845E-06	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Zinc	B	mg/L	0.004965	0		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985173	B21121622-001	ICPMS-6020-W-	SAMP		1/19/2022 1:32:0	1	162360	12/20/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.0002319	0.0002319		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Antimony	B	mg/L	0.0008118	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.001421	0.001421		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.02703	0.02703		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00001635	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.001069	0.001069		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Copper	B	mg/L	0.002546	0.002546		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	JL
Lanthanum	B	mg/L	0.0004916	0.0004916		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	J
Molybdenum	B	mg/L	0.00826	0.00826		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	B	mg/L	0.001951	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Selenium	B	mg/L	0.0001618	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-3.894E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.1509	0.1509		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.000141	0.000141		0	0	0	0.0001114	0.001	1	0%	0	0	0%	J
Thorium	B	mg/L	0.0003238	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.0004435	0.0004435		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Zinc	B	mg/L	0.06934	0.06934		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985174	B21121622-002	ICPMS-6020-W-	SAMP		1/19/2022 1:37:4	1	162360	12/20/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00005462	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.00007404	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.0002417	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985174	B21121622-002	ICPMS-6020-W-	SAMP		1/19/2022 1:37:4	1	162360	12/20/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Barium	B	mg/L	0.007637	0.007637		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00001143	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.0003025	0.0003025		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Copper	B	mg/L	0.001077	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	0.0001132	0.0001132		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	J
Molybdenum	B	mg/L	0.001205	0.001205		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	B	mg/L	0.0008456	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Selenium	B	mg/L	0.0001173	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-6.356E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.1343	0.1343		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00009268	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.00008225	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.00003242	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Zinc	B	mg/L	0.09456	0.09456		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985175	B21121622-003	ICPMS-6020-W-	SAMP		1/19/2022 1:43:2	1	162360	12/20/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00001692	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.00005877	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.00004992	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.003049	0.003049		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002257	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	1.745E-06	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Copper	B	mg/L	0.0001763	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	2.172E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Molybdenum	B	mg/L	0.0002784	0.0002784		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.002836	0.002836		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	D
Selenium	B	mg/L	0.0000937	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-6.761E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.07504	0.07504		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00006516	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.00005214	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.00000782	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985175	B21121622-003	ICPMS-6020-W-	SAMP		1/19/2022 1:43:2	1	162360	12/20/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Zinc	B	mg/L	0.00816	0.00816		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985176	B21121623-001	ICPMS-6020-W-	SAMP		1/19/2022 1:49:1	1	162360	12/20/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00005183	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.000145	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.0009841	0.0009841		0	0	0	0.0002677	0.001	1	0%	0	0	0%	J
Barium	B	mg/L	0.003457	0.003457		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002191	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.00009192	0.00009192		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Copper	B	mg/L	0.001024	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	0.00002541	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Molybdenum	B	mg/L	0.001064	0.001064		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	B	mg/L	0.001255	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Selenium	B	mg/L	0.00004585	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-2.172E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.08631	0.08631		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00005021	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.00004748	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.00001922	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Zinc	B	mg/L	0.001438	0		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985177	B21121957-001	ICPMS-6020-W-	SAMP		1/19/2022 1:54:5	1	162497	12/27/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00008207	0.00008207		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Antimony	B	mg/L	0.00006596	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.00007358	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.002042	0.002042		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00001894	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	2.706E-06	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985177	B21121957-001	ICPMS-6020-W-	SAMP		1/19/2022 1:54:5	1	162497	12/27/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Copper	B	mg/L	0.0003313	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	4.434E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Molybdenum	B	mg/L	0.001054	0.001054		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	B	mg/L	0.0002367	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Selenium	B	mg/L	0.0001721	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-6.882E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.06671	0.06671		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00004048	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.00003527	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	6.631E-06	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Zinc	B	mg/L	0.01215	0.01215		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985178	B21121957-001	ICPMS-6020-W-	SD		1/19/2022 2:00:3	5	162497	12/27/2021	0	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.002488	0		0	0	0.004864	0.0159875	0.0159875	1	0%	0	0		
Antimony	A	mg/L	0.00002524	0		0	0	0	0.0049	0.0106858	0.1	0%	0	0		
Arsenic	A	mg/L	0.00002032	0		0	0	0	0.0013383	0.0013383	1	0%	0	0		
Barium	A	mg/L	0.0005721	0.0028605		0	0	0.002042	0.0012039	0.0012039	1	0%	0	0		N
Beryllium	A	mg/L	-6.933E-06	0		0	0	0	0.0007817	0.01	1	0%	0	0		
Boron	A	mg/L	0.01137	0		0	0	0.05816	0.07335	0.07335	1	0%	0	0		
Cadmium	A	mg/L	0.00002262	0		0	0	0	0.0002284	0.005	1	0%	0	0		
Calcium	A	mg/L	1.199	5.995		0	0	5.876	0.5517403	0.5517403	150	0%	0	0	2%	
Cerium	A	mg/L	3.454E-06	0		0	0	0	0.00025	0.001	0.1	0%	0	0		
Chromium	A	mg/L	0.0006161	0		0	0	0.003264	0.0077	0.0077	1	0%	0	0		
Cobalt	A	mg/L	6.697E-06	0		0	0	0	0.00036	0.001	1	0%	0	0		
Copper	A	mg/L	0.0002387	0		0	0	0	0.0099	0.017376	1	0%	0	0		
Iron	A	mg/L	0.003757	0		0	0	0.01726	0.02565	0.02565	5	0%	0	0		
Lanthanum	A	mg/L	1.759E-06	0		0	0	0	0.000275	0.001	0.1	0%	0	0		
Lead	A	mg/L	0.00004032	0		0	0	8.207E-05	0.0003858	0.001	1	0%	0	0		
Magnesium	A	mg/L	1.48	7.4		0	0	7.536	0.0407608	0.0407608	50	0%	0	0	2%	
Manganese	A	mg/L	0.0002195	0.0010975		0	0	0.0008687	0.0010695	0.0010695	1	0%	0	0		N
Molybdenum	A	mg/L	0.0002146	0.001073		0	0	0.001054	0.0008814	0.001	0.1	0%	0	0		N
Nickel	A	mg/L	0.00006789	0		0	0	0	0.0121000	0.0121000	1	0%	0	0		

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985178	B21121957-001	ICPMS-6020-W-	SD		1/19/2022 2:00:3	5	162497	12/27/2021	0	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Potassium	A	mg/L	0.2774	1.387		0	0	1.433	0.1306027	0.1306027	50	0%	0	0	3%	
Selenium	A	mg/L	0.00002468	0		0	0	0	0.0029274	0.0029274	1	0%	0	0		
Silicon	A	mg/L	4.227	21.135		0	0	21.75	0.026606	0.026606	0.4	0%	0	0	3%	
Silver	A	mg/L	-7.267E-05	0		0	0	0	0.0002158	0.001	0.04	0%	0	0		
Sodium	A	mg/L	6.351	31.755		0	0	34.52	3.6651346	3.6651346	50	0%	0	0		N
Strontium	A	mg/L	0.01275	0.06375		0	0	0.06671	0.0006322	0.001	1	0%	0	0	5%	
Thallium	A	mg/L	0.00003567	0		0	0	0	0.0005569	0.001	1	0%	0	0		
Thorium	A	mg/L	-2.253E-06	0		0	0	0	0.02075	0.02075	1	0%	0	0		
Tin	A	mg/L	-0.002346	0		0	0	0	0.0055874	0.0055874	0.1	0%	0	0		
Titanium	A	mg/L	0.000335	0.001675		0	0	0.001999	0.0008168	0.001	1	0%	0	0		N
Uranium	A	mg/L	9.779E-07	0		0	0	0	0.0004224	0.0004224	1	0%	0	0		
Vanadium	A	mg/L	0.003874	0.01937		0	0	0.01937	0.0105423	0.0105423	1	0%	0	0		N
Zinc	A	mg/L	0.005497	0		0	0	0.01215	0.0327721	0.0327721	1	0%	0	0		
Silica	C	mg/L	9.0423984	45.211992		0	0	0	0.0569155	0.0569155	5	0%	0	0		N
Silicon as SiO2	C	mg/L	9.0423984	45.211992		0	0	0	0.0569155	0.0569155	5	0%	0	0		N

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985179	CCV	ICPMS-6020-W-	CCV		1/19/2022 2:06:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.03756	0.03756		0.05	0	0	0.0006548	0.001	1	75%	90	110	0%	S
Antimony	A	mg/L	0.04524	0.04524		0.05	0	0	0.0002987	0.001	0.1	90%	90	110	0%	
Arsenic	A	mg/L	0.04861	0.04861		0.05	0	0	0.0001814	0.001	1	97%	90	110	0%	
Barium	A	mg/L	0.04541	0.04541		0.05	0	0	0.0001321	0.001	1	91%	90	110	0%	
Beryllium	A	mg/L	0.03682	0.03682		0.05	0	0	7.465E-05	0.001	1	74%	90	110	0%	S
Boron	A	mg/L	0.03565	0.03565		0.05	0	0	0.0030032	0.0030032	1	71%	90	110	0%	S
Cadmium	A	mg/L	0.04678	0.04678		0.05	0	0	5.139E-05	0.001	1	94%	90	110	0%	
Calcium	A	mg/L	10.09	10.09		12.5	0	0	0.0749796	0.0749796	50	81%	90	110	0%	S
Cerium	A	mg/L	0.04899	0.04899		0.05	0	0	1.462E-05	0.001	0.1	98%	90	110	0%	
Chromium	A	mg/L	0.0439	0.0439		0.05	0	0	0.0005481	0.001	1	88%	90	110	0%	S
Cobalt	A	mg/L	0.04433	0.04433		0.05	0	0	4.756E-05	0.001	1	89%	90	110	0%	S
Copper	A	mg/L	0.04732	0.04732		0.05	0	0	0.0003828	0.001	1	95%	90	110	0%	
Iron	A	mg/L	1.079	1.079		1.3	0	0	0.0046291	0.0046291	5	83%	90	110	0%	S
Lanthanum	A	mg/L	0.04896	0.04896		0.05	0	0	1.683E-05	0.001	0.1	98%	90	110	0%	
Lead	A	mg/L	0.04597	0.04597		0.05	0	0	6.264E-05	0.001	1	92%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985179	CCV	ICPMS-6020-W-	CCV		1/19/2022 2:06:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lithium	A	mg/L	0.2878	0.2878		0.625	0	0	0.0052105	0.0052105	2.5	46%	90	110	0%	S
Magnesium	A	mg/L	10.26	10.26		12.5	0	0	0.0118993	0.0118993	50	82%	90	110	0%	S
Manganese	A	mg/L	0.04365	0.04365		0.05	0	0	0.0001444	0.001	1	87%	90	110	0%	S
Mercury	A	mg/L	0.0009007	0.0009007		0.001	0	0	0.000066	0.001	0.02	90%	90	110	0%	
Molybdenum	A	mg/L	0.05084	0.05084		0.05	0	0	8.338E-05	0.001	0.1	102%	90	110	0%	
Nickel	A	mg/L	0.04634	0.04634		0.05	0	0	0.0002531	0.001	1	93%	90	110	0%	
Potassium	A	mg/L	9.529	9.529		12.5	0	0	0.207399	0.207399	50	76%	90	110	0%	S
Selenium	A	mg/L	0.05288	0.05288		0.05	0	0	0.0001415	0.001	1	106%	90	110	0%	
Silicon	A	mg/L	0.2198	0.2198		0.2	0	0	0.0146174	0.1	0.4	110%	90	110	0%	
Silver	A	mg/L	0.02102	0.02102		0.02	0	0	1.123E-05	0.001	0.04	105%	90	110	0%	
Sodium	A	mg/L	10.45	10.45		12.5	0	0	0.0809273	0.0809273	50	84%	90	110	0%	S
Strontium	A	mg/L	0.05126	0.05126		0.05	0	0	0.0001825	0.001	1	103%	90	110	0%	
Thallium	A	mg/L	0.05067	0.05067		0.05	0	0	0.0002991	0.001	1	101%	90	110	0%	
Thorium	A	mg/L	0.05245	0.05245		0.05	0	0	0.0010473	0.0010473	1	105%	90	110	0%	
Tin	A	mg/L	0.04452	0.04452		0.05	0	0	0.0022388	0.0022388	0.1	89%	90	110	0%	S
Titanium	A	mg/L	0.03986	0.03986		0.05	0	0	0.0002974	0.001	1	80%	90	110	0%	S
Uranium	A	mg/L	0.04525	0.04525		0.05	0	0	3.139E-05	0.0003	1	90%	90	110	0%	
Vanadium	A	mg/L	0.04456	0.04456		0.05	0	0	0.0043468	0.0043468	1	89%	90	110	0%	S
Zinc	A	mg/L	0.04732	0.04732		0.05	0	0	0.0011598	0.0011598	1	95%	90	110	0%	
Iron, Ferrous	C	mg/L	1.079	1.079		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985180	CCB	ICPMS-6020-W-	CCB		1/19/2022 2:12:0	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-4.314E-05	-4.314E-05		0	0	0	0.0006548	0.001	1	0%			0%	
Antimony	A	mg/L	0.00006202	0.00006202		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.00001029	0.00001029		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	2.698E-06	2.698E-06		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	3.545E-06	3.545E-06		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	0.0003272	0.0003272		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	1.634E-06	1.634E-06		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	-0.0001894	-0.0001894		0	0	0	0.0749796	0.0749796	50	0%			0%	
Cerium	A	mg/L	-7.381E-07	-7.381E-07		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-1.729E-05	-1.729E-05		0	0	0	0.0005481	0.001	1	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985180	CCB	ICPMS-6020-W-	CCB		1/19/2022 2:12:0	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Cobalt	A	mg/L	-7.859E-07	-7.859E-07		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	-1.534E-05	-1.534E-05		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	-4.669E-05	-4.669E-05		0	0	0	0.0046291	0.0046291	5	0%			0%	
Lanthanum	A	mg/L	4.451E-07	4.451E-07		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	1.127E-06	1.127E-06		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	0.0006693	0.0006693		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	0.0004189	0.0004189		0	0	0	0.0118993	0.0118993	50	0%			0%	
Manganese	A	mg/L	2.445E-06	2.445E-06		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	7.148E-06	7.148E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	8.264E-06	8.264E-06		0	0	0	8.338E-05	0.001	0.1	0%			0%	
Nickel	A	mg/L	-1.633E-05	-1.633E-05		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	-0.007694	-0.007694		0	0	0	0.207399	0.207399	50	0%			0%	
Selenium	A	mg/L	0.00003774	0.00003774		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	0.03156	0.03156		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	8.521E-06	8.521E-06		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	0.06035	0.06035		0	0	0	0.0809273	0.0809273	50	0%			0%	
Strontium	A	mg/L	-4.286E-07	-4.286E-07		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00003278	0.00003278		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00004508	0.00004508		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	-8.168E-05	-8.168E-05		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00003013	0.00003013		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	2.703E-06	2.703E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.0001146	0.0001146		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	-5.009E-05	-5.009E-05		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	-4.669E-05	-4.669E-05		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985181	B21121957-001	ICPMS-6020-W-	PDS1		1/19/2022 2:17:5	1.03	162497	12/27/2021	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0425	0.043775		0.0515	0.004864	0	0.0032934	0.0032934	1	76%	75	125	0%	
Antimony	A	mg/L	0.04531	0.0466693		0.0515	0	0	0.0010094	0.0022013	0.1	91%	75	125	0%	
Arsenic	A	mg/L	0.0452	0.046556		0.0515	0	0	0.0002757	0.001	1	90%	75	125	0%	
Barium	A	mg/L	0.04702	0.0484306		0.0515	0.002042	0	0.0002480	0.001	1	90%	75	125	0%	
Beryllium	A	mg/L	0.03565	0.0367195		0.0515	0	0	0.0001610	0.01	1	71%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985181	B21121957-001	ICPMS-6020-W-	PDS1		1/19/2022 2:17:5	1.03	162497	12/27/2021	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Boron	A	mg/L	0.0923	0.095069		0.0515	0.05816	0	0.0151101	0.0151101	1	72%	75	125	0%	S
Cadmium	A	mg/L	0.04306	0.0443518		0.0515	0	0	4.704E-05	0.005	1	86%	75	125	0%	
Calcium	A	mg/L	42.35	43.6205		51.5	5.876	0	0.1136585	0.1136585	150	73%	75	125	0%	S
Cerium	A	mg/L	0.04659	0.0479877		0.0515	0	0	0.0000515	0.001	0.1	93%	75	125	0%	
Chromium	A	mg/L	0.04531	0.0466693		0.0515	0.003264	0	0.0015862	0.0015862	1	84%	75	125	0%	
Cobalt	A	mg/L	0.04412	0.0454436		0.0515	0	0	7.416E-05	0.001	1	88%	75	125	0%	
Copper	A	mg/L	0.04458	0.0459174		0.0515	0	0	0.0020394	0.0035794	1	89%	75	125	0%	
Iron	A	mg/L	3.966	4.08498		5.15	0.01726	0	0.0052839	0.0052839	5	79%	75	125	0%	
Lanthanum	A	mg/L	4.298E-06	0		0.0515	0	0	5.665E-05	0.001	0.1	0%	75	125	0%	S
Lead	A	mg/L	0.04649	0.0478847		0.0515	8.207E-05	0	7.947E-05	0.001	1	93%	80	120	0%	
Magnesium	A	mg/L	50.66	52.1798		51.5	7.536	0	0.0083967	0.0083967	50	87%	75	125	0%	
Manganese	A	mg/L	0.04429	0.0456187		0.0515	0.0008687	0	0.0002203	0.001	1	87%	75	125	0%	
Molybdenum	A	mg/L	0.05227	0.0538381		0.0515	0.001054	0	0.0001816	0.001	0.1	102%	75	125	0%	
Nickel	A	mg/L	0.044	0.04532		0.0515	0	0	0.0024926	0.0024926	1	88%	75	125	0%	
Potassium	A	mg/L	40.51	41.7253		51.5	1.433	0	0.0269042	0.0269042	50	78%	75	125	0%	
Selenium	A	mg/L	0.0449	0.046247		0.0515	0	0	0.0006030	0.001	1	90%	75	125	0%	
Silicon	A	mg/L	20.21	20.8163		0.206	21.75	0	0.0054808	0.0054808	0.4		0	0	0%	A
Silver	A	mg/L	0.02113	0.0217639		0.0206	0	0	4.446E-05	0.001	0.04	106%	75	125	0%	
Sodium	A	mg/L	73.88	76.0964		51.5	34.52	0	0.7550177	0.7550177	50	81%	75	125	0%	
Strontium	A	mg/L	0.1119	0.115257		0.0515	0.06671	0	0.0001302	0.001	1	94%	75	125	0%	
Thallium	A	mg/L	0.04945	0.0509335		0.0515	0	0	0.0001147	0.001	1	99%	75	125	0%	
Thorium	A	mg/L	0.05078	0.0523034		0.0515	0	0	0.0042745	0.0042745	1	102%	75	125	0%	
Tin	A	mg/L	0.04615	0.0475345		0.0515	0	0	0.001151	0.001151	0.1	92%	75	125	0%	
Titanium	A	mg/L	0.04482	0.0461646		0.0515	0.001999	0	0.0001683	0.001	1	86%	75	125	0%	
Uranium	A	mg/L	0.04647	0.0478641		0.0515	0	0	8.702E-05	0.0003	1	93%	75	125	0%	
Vanadium	A	mg/L	0.06209	0.0639527		0.0515	0.01937	0	0.0021717	0.0021717	1	87%	75	125	0%	
Zinc	A	mg/L	0.0507	0.052221		0.0515	0.01215	0	0.0067511	0.0067511	1	78%	75	125	0%	
Silica	C	mg/L	43.233232	44.530229		0	0	0	0.0117246	0.0117246	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	43.233232	44.530229		0.0515	0	0	0.0117246	0.0117246	5	86466%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985182	B21121957-001	ICPMS-6020-W-	MS4		1/19/2022 2:23:3	1	162497	12/27/2021	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985182	B21121957-001	ICPMS-6020-W-	MS4		1/19/2022 2:23:3	1	162497	12/27/2021	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.4167	0.4167		0.5	0.004864	0	0.0031975	0.0031975	1	82%	75	125	0%	
Antimony	A	mg/L	0.1	0.1		0.1	0	0	0.00098	0.0021372	0.1	100%	75	125	0%	
Arsenic	A	mg/L	0.09195	0.09195		0.1	0	0	0.0002677	0.001	1	92%	75	125	0%	
Barium	A	mg/L	0.09482	0.09482		0.1	0.002042	0	0.0002408	0.001	1	93%	75	125	0%	
Beryllium	A	mg/L	0.04012	0.04012		0.05	0	0	0.0001563	0.01	1	80%	75	125	0%	
Boron	A	mg/L	0.1441	0.1441		0.1	0.05816	0	0.01467	0.01467	1	86%	75	125	0%	
Cadmium	A	mg/L	0.04715	0.04715		0.05	0	0	4.567E-05	0.005	1	94%	75	125	0%	
Calcium	A	mg/L	10.82	10.82		5	5.876	0	0.1103481	0.1103481	150	99%	75	125	0%	
Cerium	A	mg/L	0.09922	0.09922		0.1	0	0	0.00005	0.001	0.1	99%	75	125	0%	
Chromium	A	mg/L	0.09271	0.09271		0.1	0.003264	0	0.00154	0.00154	1	89%	75	125	0%	
Cobalt	A	mg/L	0.09743	0.09743		0.1	0	0	0.000072	0.001	1	97%	75	125	0%	
Copper	A	mg/L	0.0967	0.0967		0.1	0	0	0.00198	0.0034752	1	97%	75	125	0%	
Iron	A	mg/L	0.4902	0.4902		0.5	0.01726	0	0.00513	0.00513	5	95%	75	125	0%	
Lanthanum	A	mg/L	0.0985	0.0985		0.1	0	0	0.000055	0.001	0.1	98%	75	125	0%	
Lead	A	mg/L	0.09951	0.09951		0.1	8.207E-05	0	7.716E-05	0.001	1	99%	88	115	0%	
Magnesium	A	mg/L	12.06	12.06		5	7.536	0	0.0081522	0.0081522	50	90%	75	125	0%	
Manganese	A	mg/L	0.4528	0.4528		0.5	0.0008687	0	0.0002139	0.001	1	90%	75	125	0%	
Molybdenum	A	mg/L	0.1064	0.1064		0.1	0.001054	0	0.0001763	0.001	0.1	105%	75	125	0%	
Nickel	A	mg/L	0.09457	0.09457		0.1	0	0	0.0024200	0.0024200	1	95%	75	125	0%	
Potassium	A	mg/L	5.385	5.385		5	1.433	0	0.0261205	0.0261205	50	79%	75	125	0%	
Selenium	A	mg/L	0.1047	0.1047		0.1	0	0	0.0005855	0.001	1	105%	75	125	0%	
Silicon	A	mg/L	25.29	25.29		1	21.75	0	0.0053212	0.0053212	0.4		75	125	0%	A
Silver	A	mg/L	0.01082	0.01082		0.01	0	0	4.316E-05	0.001	0.04	108%	75	125	0%	
Sodium	A	mg/L	36.73	36.73		5	34.52	0	0.7330269	0.7330269	50		75	125	0%	A
Strontium	A	mg/L	0.1711	0.1711		0.1	0.06671	0	0.0001264	0.001	1	104%	75	125	0%	
Thallium	A	mg/L	0.1033	0.1033		0.1	0	0	0.0001114	0.001	1	103%	75	125	0%	
Thorium	A	mg/L	0.1053	0.1053		0.1	0	0	0.00415	0.00415	1	105%	75	125	0%	
Tin	A	mg/L	0.1023	0.1023		0.1	0	0	0.0011175	0.0011175	0.1	102%	75	125	0%	
Titanium	A	mg/L	0.0884	0.0884		0.1	0.001999	0	0.0001634	0.001	1	86%	75	125	0%	
Uranium	A	mg/L	0.09911	0.09911		0.1	0	0	8.449E-05	0.0003	1	99%	75	125	0%	
Vanadium	A	mg/L	0.1085	0.1085		0.1	0.01937	0	0.0021085	0.0021085	1	89%	75	125	0%	
Zinc	A	mg/L	0.09638	0.09638		0.1	0.01215	0	0.0065544	0.0065544	1	84%	75	125	0%	
Silica	C	mg/L	54.100368	54.100368		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	54.100368	54.100368		2.14	0	0	0.0113831	0.0113831	5	2528%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985183	B21121957-001	ICPMS-6020-W-	MSD4		1/19/2022 2:29:0	1	162497	12/27/2021	1E+07	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.3989	0.3989		0.5	0.004864	0.4167	0.0031975	0.0031975	1	79%	75	125	4%	
Antimony	A	mg/L	0.09694	0.09694		0.1	0	0.1	0.00098	0.0021372	0.1	97%	75	125	3%	
Arsenic	A	mg/L	0.0962	0.0962		0.1	0	0.09195	0.0002677	0.001	1	96%	75	125	5%	
Barium	A	mg/L	0.09262	0.09262		0.1	0.002042	0.09482	0.0002408	0.001	1	91%	75	125	2%	
Beryllium	A	mg/L	0.0384	0.0384		0.05	0	0.04012	0.0001563	0.01	1	77%	75	125	4%	
Boron	A	mg/L	0.1395	0.1395		0.1	0.05816	0.1441	0.01467	0.01467	1	81%	75	125	3%	
Cadmium	A	mg/L	0.04515	0.04515		0.05	0	0.04715	4.567E-05	0.005	1	90%	75	125	4%	
Calcium	A	mg/L	10.43	10.43		5	5.876	10.82	0.1103481	0.1103481	150	91%	75	125	4%	
Cerium	A	mg/L	0.1048	0.1048		0.1	0	0.09922	0.00005	0.001	0.1	105%	75	125	5%	
Chromium	A	mg/L	0.09651	0.09651		0.1	0.003264	0.09271	0.00154	0.00154	1	93%	75	125	4%	
Cobalt	A	mg/L	0.09568	0.09568		0.1	0	0.09743	0.000072	0.001	1	96%	75	125	2%	
Copper	A	mg/L	0.09974	0.09974		0.1	0	0.0967	0.00198	0.0034752	1	100%	75	125	3%	
Iron	A	mg/L	0.456	0.456		0.5	0.01726	0.4902	0.00513	0.00513	5	88%	75	125	7%	
Lanthanum	A	mg/L	0.1029	0.1029		0.1	0	0.0985	0.000055	0.001	0.1	103%	75	125	4%	
Lead	A	mg/L	0.09607	0.09607		0.1	8.207E-05	0.09951	7.716E-05	0.001	1	96%	88	115	4%	
Magnesium	A	mg/L	12.14	12.14		5	7.536	12.06	0.0081522	0.0081522	50	92%	75	125	1%	
Manganese	A	mg/L	0.4679	0.4679		0.5	0.0008687	0.4528	0.0002139	0.001	1	93%	75	125	3%	
Molybdenum	A	mg/L	0.1084	0.1084		0.1	0.001054	0.1064	0.0001763	0.001	0.1	107%	75	125	2%	
Nickel	A	mg/L	0.09719	0.09719		0.1	0	0.09457	0.0024200	0.0024200	1	97%	75	125	3%	
Potassium	A	mg/L	5.413	5.413		5	1.433	5.385	0.0261205	0.0261205	50	80%	75	125	1%	
Selenium	A	mg/L	0.09844	0.09844		0.1	0	0.1047	0.0005855	0.001	1	98%	75	125	6%	
Silicon	A	mg/L	23.3	23.3		1	21.75	25.29	0.0053212	0.0053212	0.4		75	125	8%	A
Silver	A	mg/L	0.01069	0.01069		0.01	0	0.01082	4.316E-05	0.001	0.04	107%	75	125	1%	
Sodium	A	mg/L	37.4	37.4		5	34.52	36.73	0.7330269	0.7330269	50		75	125	2%	A
Strontium	A	mg/L	0.1672	0.1672		0.1	0.06671	0.1711	0.0001264	0.001	1	100%	75	125	2%	
Thallium	A	mg/L	0.1097	0.1097		0.1	0	0.1033	0.0001114	0.001	1	110%	75	125	6%	
Thorium	A	mg/L	0.1095	0.1095		0.1	0	0.1053	0.00415	0.00415	1	109%	75	125	4%	
Tin	A	mg/L	0.09897	0.09897		0.1	0	0.1023	0.0011175	0.0011175	0.1	99%	75	125	3%	
Titanium	A	mg/L	0.08443	0.08443		0.1	0.001999	0.0884	0.0001634	0.001	1	82%	75	125	5%	
Uranium	A	mg/L	0.09803	0.09803		0.1	0	0.09911	8.449E-05	0.0003	1	98%	75	125	1%	
Vanadium	A	mg/L	0.1142	0.1142		0.1	0.01937	0.1085	0.0021085	0.0021085	1	95%	75	125	5%	
Zinc	A	mg/L	0.1056	0.1056		0.1	0.01215	0.09638	0.0065544	0.0065544	1	93%	75	125	9%	
Silica	C	mg/L	49.84336	49.84336		0	0	54.100368	0.0113831	0.0113831	5	0%	0	0	8%	
Silicon as SiO2	C	mg/L	49.84336	49.84336		2.14	0	54.100368	0.0113831	0.0113831	5	2329%	75	125	8%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985184	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 2:34:4	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00002161	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00001496	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.0000176	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00000658	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	1.051E-07	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Copper	A	mg/L	-9.543E-06	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	4.616E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	1.832E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001295	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-1.008E-05	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.02315	0.02315		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	J
Silver	A	mg/L	4.778E-06	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	8.373E-06	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0005687	0.0005687		0	0	0	0.0002991	0.001	1	0%	0	0	0%	J
Uranium	A	mg/L	7.057E-06	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Thorium	B	mg/L	0.00007642	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Zinc	B	mg/L	0.00003928	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985185	B21121957-001I	ICPMS-6020-W-	SAMP		1/19/2022 2:40:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00003965	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.00002724	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	U
Arsenic	B	mg/L	0.0001134	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	U
Barium	B	mg/L	0.002125	0.002125		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00001269	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	B	mg/L	2.552E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Copper	B	mg/L	0.0005441	0.0005441		0	0	0	0.0003828	0.001	1	0%	0	0	0%	J
Mercury	B	mg/L	2.018E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	H
Molybdenum	B	mg/L	0.0008784	0.0008784		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.0001524	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	U
Silver	B	mg/L	-7.455E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	B	mg/L	0.06214	0.06214		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.0002752	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985185	B21121957-001I	ICPMS-6020-W-	SAMP		1/19/2022 2:40:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Thorium	B	mg/L	0.00001497	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Uranium	B	mg/L	6.618E-06	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U
Zinc	B	mg/L	0.008454	0.008454		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985186	B21121957-001I	ICPMS-6020-W-	SD		1/19/2022 2:46:0	5	R373351		0	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001109	0.005545		0	0	0.001899	0.0032741	0.0032741	1	0%				N
Antimony	A	mg/L	0.00001227	0		0	0	0	0.0014934	0.0014934	0.1	0%				
Arsenic	A	mg/L	0.00001735	0		0	0	0	0.0009071	0.001	1	0%				
Barium	A	mg/L	0.0004578	0.002289		0	0	0.002125	0.0006604	0.001	1	0%				N
Beryllium	A	mg/L	-1.587E-05	0		0	0	0	0.0003733	0.001	1	0%				
Boron	A	mg/L	0.01156	0.0578		0	0	0.06528	0.0150159	0.0150159	1	0%				N
Cadmium	A	mg/L	0.00000451	0		0	0	0	0.000257	0.001	1	0%				
Calcium	A	mg/L	1.338	6.69		0	0	7.188	0.3748981	0.3748981	50	0%			7%	
Cerium	A	mg/L	1.291E-06	0		0	0	0	0.0000731	0.001	0.1	0%				
Chromium	A	mg/L	0.0006063	0.0030315		0	0	0.002869	0.0027407	0.0027407	1	0%				N
Cobalt	A	mg/L	1.411E-06	0		0	0	0	0.0002378	0.001	1	0%				
Copper	A	mg/L	0.000333	0		0	0	0.0005441	0.001914	0.001914	1	0%				
Iron	A	mg/L	0.00215	0		0	0	0.007755	0.0231453	0.0231453	5	0%				
Lanthanum	A	mg/L	1.789E-06	0		0	0	0	8.415E-05	0.001	0.1	0%				
Lead	A	mg/L	0.0000181	0		0	0	0	0.0003132	0.001	1	0%				
Lithium	A	mg/L	0.0003263	0		0	0	0	0.0260526	0.0260526	2.5	0%				
Magnesium	A	mg/L	1.387	6.935		0	0	7.629	0.0594967	0.0594967	50	0%			10%	
Manganese	A	mg/L	0.0001571	0.0007855		0	0	0.0007952	0.0007221	0.001	1	0%				N
Mercury	A	mg/L	1.002E-06	0		0	0	0	0.00033	0.001	0.02	0%				
Molybdenum	A	mg/L	0.0001991	0.0009955		0	0	0.0008784	0.0004169	0.001	0.1	0%				N
Nickel	A	mg/L	0.00005759	0		0	0	0	0.0012656	0.0012656	1	0%				
Potassium	A	mg/L	0.2704	1.352		0	0	1.604	1.0369948	1.0369948	50	0%				N
Selenium	A	mg/L	0.00005051	0		0	0	0.0001632	0.0007077	0.001	1	0%				
Silicon	A	mg/L	5.359	26.795		0	0	22.47	0.0730871	0.1	0.4	0%			18%	R
Silver	A	mg/L	-0.0000726	0		0	0	0	5.615E-05	0.001	0.04	0%				
Sodium	A	mg/L	5.975	29.875		0	0	32.82	0.4046363	0.4046363	50	0%			9%	
Strontium	A	mg/L	0.0121	0.0605		0	0	0.06214	0.0009125	0.001	1	0%			3%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985186	B21121957-001I	ICPMS-6020-W-	SD		1/19/2022 2:46:0	5	R373351		0	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Thallium	A	mg/L	0.0001228	0		0	0	0	0.0014956	0.0014956	1	0%				
Thorium	A	mg/L	7.558E-06	0		0	0	0	0.0052364	0.0052364	1	0%				
Tin	A	mg/L	0.005687	0.028435		0	0	0.04075	0.011194	0.011194	0.1	0%				N
Titanium	A	mg/L	0.0003362	0.001681		0	0	0.001768	0.0014871	0.0014871	1	0%				N
Uranium	A	mg/L	1.518E-06	0		0	0	0	0.000157	0.0003	1	0%				
Vanadium	A	mg/L	0.003692	0		0	0	0.01909	0.0217338	0.0217338	1	0%				
Zinc	A	mg/L	0.003064	0.01532		0	0	0.008454	0.0057989	0.0057989	1	0%				N
Iron, Ferrous	C	mg/L	0.00215	0		0	0	0	0.0231453	0.0231453	5	0%				

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985187	B21121957-001I	ICPMS-6020-W-	MS		1/19/2022 2:51:5	1.03	R373351		1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04124	0.0424772		0.05	0.001899	0	0.0006745	0.001	1	81%	75	125	0%	
Antimony	A	mg/L	0.04957	0.0510571		0.05	0	0	0.0003076	0.001	0.1	102%	75	125	0%	
Arsenic	A	mg/L	0.04924	0.0507172		0.05	0	0	0.0001869	0.001	1	101%	75	125	0%	
Barium	A	mg/L	0.04895	0.0504185		0.05	0.002125	0	0.0001360	0.001	1	97%	75	125	0%	
Beryllium	A	mg/L	0.03868	0.0398404		0.05	0	0	7.689E-05	0.001	1	80%	75	125	0%	
Boron	A	mg/L	0.08987	0.0925661		0.05	0.06528	0	0.0030933	0.0030933	1	55%	75	125	0%	S
Cadmium	A	mg/L	0.04498	0.0463294		0.05	0	0	5.293E-05	0.001	1	93%	75	125	0%	
Calcium	A	mg/L	47.18	48.5954		50	7.188	0	0.0772290	0.0772290	50	83%	75	125	0%	
Cerium	A	mg/L	0.04742	0.0488426		0.05	0	0	1.506E-05	0.001	0.1	98%	75	125	0%	
Chromium	A	mg/L	0.04512	0.0464736		0.05	0.002869	0	0.0005646	0.001	1	87%	75	125	0%	
Cobalt	A	mg/L	0.04498	0.0463294		0.05	0	0	4.899E-05	0.001	1	93%	75	125	0%	
Copper	A	mg/L	0.04396	0.0452788		0.05	0.0005441	0	0.0003943	0.001	1	89%	75	125	0%	
Iron	A	mg/L	4.286	4.41458		5.05	0.007755	0	0.0047679	0.0047679	5	87%	75	125	0%	
Lanthanum	A	mg/L	5.222E-06	0		0.05	0	0	1.733E-05	0.001	0.1	0%	75	125	0%	S
Lead	A	mg/L	0.0457	0.047071		0.05	0	0	6.452E-05	0.001	1	94%	88	115	0%	
Lithium	A	mg/L	1.285	1.32355		0.05	0	0	0.0053668	0.0053668	2.5	2647%	75	125	0%	S
Magnesium	A	mg/L	49.42	50.9026		50	7.629	0	0.0122563	0.0122563	50	87%	75	125	0%	
Manganese	A	mg/L	0.04556	0.0469268		0.05	0.0007952	0	0.0001487	0.001	1	92%	75	125	0%	
Mercury	A	mg/L	0.0009503	0.00097881		0.001	0	0	6.798E-05	0.001	0.02	98%	75	125	0%	
Molybdenum	A	mg/L	0.05042	0.0519326		0.05	0.0008784	0	8.588E-05	0.001	0.1	102%	75	125	0%	
Nickel	A	mg/L	0.04489	0.0462367		0.05	0	0	0.0002607	0.001	1	92%	75	125	0%	
Potassium	A	mg/L	41.91	43.1673		50	1.604	0	0.2136209	0.2136209	50	83%	75	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985187	B21121957-001I	ICPMS-6020-W-	MS		1/19/2022 2:51:5	1.03	R373351		1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Selenium	A	mg/L	0.05083	0.0523549		0.05	0.0001632	0	0.0001458	0.001	1	104%	75	125	0%	
Silicon	A	mg/L	21.48	22.1244		0.2	22.47	0	0.0150559	0.1	0.4		75	125	0%	AE
Silver	A	mg/L	0.02093	0.0215579		0.02	0	0	1.157E-05	0.001	0.04	108%	75	125	0%	
Sodium	A	mg/L	70.94	73.0682		50	32.82	0	0.0833551	0.0833551	50	80%	75	125	0%	E
Strontium	A	mg/L	0.1102	0.113506		0.05	0.06214	0	0.000188	0.001	1	103%	75	125	0%	
Thallium	A	mg/L	0.04601	0.0473903		0.05	0	0	0.0003081	0.001	1	95%	75	125	0%	
Thorium	A	mg/L	0.04928	0.0507584		0.05	0	0	0.0010787	0.0010787	1	102%	75	125	0%	
Tin	A	mg/L	0.08382	0.0863346		0.05	0.04075	0	0.002306	0.002306	0.1	91%	75	125	0%	
Titanium	A	mg/L	0.0465	0.047895		0.05	0.001768	0	0.0003063	0.001	1	92%	75	125	0%	
Uranium	A	mg/L	0.04542	0.0467826		0.05	0	0	3.233E-05	0.0003	1	94%	75	125	0%	
Vanadium	A	mg/L	0.06255	0.0644265		0.05	0.01909	0	0.0044772	0.0044772	1	91%	75	125	0%	
Zinc	A	mg/L	0.05356	0.0551668		0.05	0.008454	0	0.0011946	0.0011946	1	93%	75	125	0%	
Iron, Ferrous	C	mg/L	4.286	4.41458		0	0	0	0.0047679	0.0047679	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985188	B21121957-001I	ICPMS-6020-W-	MSD		1/19/2022 2:57:3	1.03	R373351		1E+07	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04195	0.0432085		0.05	0.001899	0.0424772	0.0006745	0.001	1	83%	75	125	2%	
Antimony	A	mg/L	0.05084	0.0523652		0.05	0	0.0510571	0.0003076	0.001	0.1	105%	75	125	3%	
Arsenic	A	mg/L	0.04862	0.0500786		0.05	0	0.0507172	0.0001869	0.001	1	100%	75	125	1%	
Barium	A	mg/L	0.04894	0.0504082		0.05	0.002125	0.0504185	0.0001360	0.001	1	97%	75	125	0%	
Beryllium	A	mg/L	0.03939	0.0405717		0.05	0	0.0398404	7.689E-05	0.001	1	81%	75	125	2%	
Boron	A	mg/L	0.09295	0.0957385		0.05	0.06528	0.0925661	0.0030933	0.0030933	1	61%	75	125	3%	S
Cadmium	A	mg/L	0.04655	0.0479465		0.05	0	0.0463294	5.293E-05	0.001	1	96%	75	125	3%	
Calcium	A	mg/L	46.8	48.204		50	7.188	48.5954	0.0772290	0.0772290	50	82%	75	125	1%	
Cerium	A	mg/L	0.04855	0.0500065		0.05	0	0.0488426	1.506E-05	0.001	0.1	100%	75	125	2%	
Chromium	A	mg/L	0.04635	0.0477405		0.05	0.002869	0.0464736	0.0005646	0.001	1	90%	75	125	3%	
Cobalt	A	mg/L	0.04462	0.0459586		0.05	0	0.0463294	4.899E-05	0.001	1	92%	75	125	1%	
Copper	A	mg/L	0.04496	0.0463088		0.05	0.0005441	0.0452788	0.0003943	0.001	1	92%	75	125	2%	
Iron	A	mg/L	4.13	4.2539		5.05	0.007755	4.41458	0.0047679	0.0047679	5	84%	75	125	4%	
Lanthanum	A	mg/L	5.033E-06	0		0.05	0	0	1.733E-05	0.001	0.1	0%	75	125		S
Lead	A	mg/L	0.04551	0.0468753		0.05	0	0.047071	6.452E-05	0.001	1	94%	88	115	0%	
Lithium	A	mg/L	1.622	1.67066		0.05	0	1.32355	0.0053668	0.0053668	2.5	3341%	75	125	23%	SR
Magnesium	A	mg/L	50.67	52.1901		50	7.629	50.9026	0.0122563	0.0122563	50	89%	75	125	2%	E

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985188	B21121957-001I	ICPMS-6020-W-	MSD		1/19/2022 2:57:3	1.03	R373351		1E+07	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Manganese	A	mg/L	0.04623	0.0476169		0.05	0.0007952	0.0469268	0.0001487	0.001	1	94%	75	125	1%	
Mercury	A	mg/L	0.0009139	0.00094132		0.001	0	0.0009788	6.798E-05	0.001	0.02	94%	75	125		
Molybdenum	A	mg/L	0.04895	0.0504185		0.05	0.0008784	0.0519326	8.588E-05	0.001	0.1	99%	75	125	3%	
Nickel	A	mg/L	0.04498	0.0463294		0.05	0	0.0462367	0.0002607	0.001	1	93%	75	125	0%	
Potassium	A	mg/L	43.08	44.3724		50	1.604	43.1673	0.2136209	0.2136209	50	86%	75	125	3%	
Selenium	A	mg/L	0.04988	0.0513764		0.05	0.0001632	0.0523549	0.0001458	0.001	1	102%	75	125	2%	
Silicon	A	mg/L	21.07	21.7021		0.2	22.47	22.1244	0.0150559	0.1	0.4		75	125	2%	AE
Silver	A	mg/L	0.01986	0.0204558		0.02	0	0.0215579	1.157E-05	0.001	0.04	102%	75	125	5%	
Sodium	A	mg/L	72.73	74.9119		50	32.82	73.0682	0.0833551	0.0833551	50	84%	75	125	2%	E
Strontium	A	mg/L	0.1063	0.109489		0.05	0.06214	0.113506	0.000188	0.001	1	95%	75	125	4%	
Thallium	A	mg/L	0.04665	0.0480495		0.05	0	0.0473903	0.0003081	0.001	1	96%	75	125	1%	
Thorium	A	mg/L	0.04924	0.0507172		0.05	0	0.0507584	0.0010787	0.0010787	1	101%	75	125	0%	
Tin	A	mg/L	0.08824	0.0908872		0.05	0.04075	0.0863346	0.002306	0.002306	0.1	100%	75	125	5%	
Titanium	A	mg/L	0.04909	0.0505627		0.05	0.001768	0.047895	0.0003063	0.001	1	98%	75	125	5%	
Uranium	A	mg/L	0.04537	0.0467311		0.05	0	0.0467826	3.233E-05	0.0003	1	93%	75	125	0%	
Vanadium	A	mg/L	0.06374	0.0656522		0.05	0.01909	0.0644265	0.0044772	0.0044772	1	93%	75	125	2%	
Zinc	A	mg/L	0.05284	0.0544252		0.05	0.008454	0.0551668	0.0011946	0.0011946	1	92%	75	125	1%	
Iron, Ferrous	C	mg/L	4.13	4.2539		0	0	4.41458	0.0047679	0.0047679	5	0%	0	0	4%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985189	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 3:03:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00001673	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	6.135E-06	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00001748	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	4.918E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	2.522E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Copper	A	mg/L	-9.06E-06	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	6.415E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	5.025E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00003033	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-6.69E-06	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.008082	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	7.039E-06	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985189	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 3:03:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Strontium	A	mg/L	8.502E-06	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0002418	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00000516	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Thorium	B	mg/L	0.00006198	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Zinc	B	mg/L	-5.184E-05	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985190	B21121959-001	ICPMS-6020-W-	SAMP		1/19/2022 3:08:5	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00003395	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.000339	0.000339		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	J
Arsenic	B	mg/L	0.000356	0.000356		0	0	0	0.0001814	0.001	1	0%	0	0	0%	J
Barium	B	mg/L	0.01718	0.01718		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	4.575E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	B	mg/L	0.00006938	0.00006938		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	J
Copper	B	mg/L	0.0004991	0.0004991		0	0	0	0.0003828	0.001	1	0%	0	0	0%	J
Mercury	B	mg/L	5.463E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	H
Molybdenum	B	mg/L	0.0002202	0.0002202		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.002106	0.002106		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-7.359E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	B	mg/L	0.09094	0.09094		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.0001669	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Thorium	B	mg/L	0.00006185	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Uranium	B	mg/L	4.861E-06	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U
Zinc	B	mg/L	0.004768	0.004768		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985191	B21121959-001	ICPMS-6020-W-	SAMP		1/19/2022 3:14:4	1	162497	12/27/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.0005666	0.0005666		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Antimony	B	mg/L	0.0005342	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.0005552	0.0005552		0	0	0	0.0002677	0.001	1	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985191	B21121959-001	ICPMS-6020-W-	SAMP		1/19/2022 3:14:4	1	162497	12/27/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Barium	B	mg/L	0.01884	0.01884		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.0000262	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.0005996	0.0005996		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Copper	B	mg/L	0.00538	0.00538		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	D
Lanthanum	B	mg/L	0.0001739	0.0001739		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	J
Molybdenum	B	mg/L	0.0004003	0.0004003		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.004049	0.004049		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	D
Selenium	B	mg/L	0.00007171	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	0.00002615	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.1061	0.1061		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.0000855	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.000127	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.00001859	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Zinc	B	mg/L	0.007762	0.007762		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985192	B21121961-001	ICPMS-6020-W-	SAMP		1/19/2022 3:20:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	6.927E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.0001421	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	U
Arsenic	B	mg/L	0.00106	0.00106		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.003179	0.003179		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	1.814E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	B	mg/L	0.00001639	0.00001639		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	J
Copper	B	mg/L	0.00008461	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	U
Mercury	B	mg/L	0.000035	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	H
Molybdenum	B	mg/L	0.0006096	0.0006096		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.0009743	0.0009743		0	0	0	0.0002531	0.001	1	0%	0	0	0%	J
Silver	B	mg/L	-7.357E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	B	mg/L	0.07238	0.07238		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.0001094	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Thorium	B	mg/L	8.174E-06	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Uranium	B	mg/L	0.00001663	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U
Zinc	B	mg/L	0.002469	0.002469		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985192	B21121961-001	ICPMS-6020-W-	SAMP		1/19/2022 3:20:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985193	CCV	ICPMS-6020-W-	CCV		1/19/2022 3:26:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04274	0.04274		0.05	0	0	0.0006548	0.001	1	85%	90	110	0%	S
Antimony	A	mg/L	0.05002	0.05002		0.05	0	0	0.0002987	0.001	0.1	100%	90	110	0%	
Arsenic	A	mg/L	0.04861	0.04861		0.05	0	0	0.0001814	0.001	1	97%	90	110	0%	
Barium	A	mg/L	0.04987	0.04987		0.05	0	0	0.0001321	0.001	1	100%	90	110	0%	
Beryllium	A	mg/L	0.0412	0.0412		0.05	0	0	7.465E-05	0.001	1	82%	90	110	0%	S
Boron	A	mg/L	0.04035	0.04035		0.05	0	0	0.0030032	0.0030032	1	81%	90	110	0%	S
Cadmium	A	mg/L	0.04664	0.04664		0.05	0	0	5.139E-05	0.001	1	93%	90	110	0%	
Calcium	A	mg/L	11	11		12.5	0	0	0.0749796	0.0749796	50	88%	90	110	0%	S
Cerium	A	mg/L	0.04934	0.04934		0.05	0	0	1.462E-05	0.001	0.1	99%	90	110	0%	
Chromium	A	mg/L	0.04526	0.04526		0.05	0	0	0.0005481	0.001	1	91%	90	110	0%	
Cobalt	A	mg/L	0.04786	0.04786		0.05	0	0	4.756E-05	0.001	1	96%	90	110	0%	
Copper	A	mg/L	0.04753	0.04753		0.05	0	0	0.0003828	0.001	1	95%	90	110	0%	
Iron	A	mg/L	1.118	1.118		1.3	0	0	0.0046291	0.0046291	5	86%	90	110	0%	S
Lanthanum	A	mg/L	0.04947	0.04947		0.05	0	0	1.683E-05	0.001	0.1	99%	90	110	0%	
Lead	A	mg/L	0.04865	0.04865		0.05	0	0	6.264E-05	0.001	1	97%	90	110	0%	
Lithium	A	mg/L	0.3635	0.3635		0.625	0	0	0.0052105	0.0052105	2.5	58%	90	110	0%	S
Magnesium	A	mg/L	10.4	10.4		12.5	0	0	0.0118993	0.0118993	50	83%	90	110	0%	S
Manganese	A	mg/L	0.04701	0.04701		0.05	0	0	0.0001444	0.001	1	94%	90	110	0%	
Mercury	A	mg/L	0.0009494	0.0009494		0.001	0	0	0.000066	0.001	0.02	95%	90	110	0%	
Molybdenum	A	mg/L	0.05093	0.05093		0.05	0	0	8.338E-05	0.001	0.1	102%	90	110	0%	
Nickel	A	mg/L	0.0468	0.0468		0.05	0	0	0.0002531	0.001	1	94%	90	110	0%	
Potassium	A	mg/L	10.16	10.16		12.5	0	0	0.207399	0.207399	50	81%	90	110	0%	S
Selenium	A	mg/L	0.05217	0.05217		0.05	0	0	0.0001415	0.001	1	104%	90	110	0%	
Silicon	A	mg/L	0.2036	0.2036		0.2	0	0	0.0146174	0.1	0.4	102%	90	110	0%	
Silver	A	mg/L	0.02104	0.02104		0.02	0	0	1.123E-05	0.001	0.04	105%	90	110	0%	
Sodium	A	mg/L	10.6	10.6		12.5	0	0	0.0809273	0.0809273	50	85%	90	110	0%	S
Strontium	A	mg/L	0.05264	0.05264		0.05	0	0	0.0001825	0.001	1	105%	90	110	0%	
Thallium	A	mg/L	0.05038	0.05038		0.05	0	0	0.0002991	0.001	1	101%	90	110	0%	
Thorium	A	mg/L	0.05042	0.05042		0.05	0	0	0.0010473	0.0010473	1	101%	90	110	0%	
Tin	A	mg/L	0.04847	0.04847		0.05	0	0	0.0022388	0.0022388	0.1	97%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985193	CCV	ICPMS-6020-W-	CCV		1/19/2022 3:26:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Titanium	A	mg/L	0.04337	0.04337		0.05	0	0	0.0002974	0.001	1	87%	90	110	0%	S
Uranium	A	mg/L	0.04752	0.04752		0.05	0	0	3.139E-05	0.0003	1	95%	90	110	0%	
Vanadium	A	mg/L	0.04633	0.04633		0.05	0	0	0.0043468	0.0043468	1	93%	90	110	0%	
Zinc	A	mg/L	0.04726	0.04726		0.05	0	0	0.0011598	0.0011598	1	95%	90	110	0%	
Iron, Ferrous	C	mg/L	1.118	1.118		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985194	CCB	ICPMS-6020-W-	CCB		1/19/2022 3:31:5	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-6.036E-05	-6.036E-05		0	0	0	0.0006548	0.001	1	0%			0%	
Antimony	A	mg/L	0.00005372	0.00005372		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	5.451E-06	5.451E-06		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	-1.627E-06	-1.627E-06		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	-9.666E-06	-9.666E-06		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	0.000407	0.000407		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	4.283E-07	4.283E-07		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	-0.0006494	-0.0006494		0	0	0	0.0749796	0.0749796	50	0%			0%	
Cerium	A	mg/L	-1.371E-07	-1.371E-07		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-2.435E-06	-2.435E-06		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	-1.201E-06	-1.201E-06		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	-8.531E-06	-8.531E-06		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	-6.424E-05	-6.424E-05		0	0	0	0.0046291	0.0046291	5	0%			0%	
Lanthanum	A	mg/L	9.524E-07	9.524E-07		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	7.104E-07	7.104E-07		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	0.002188	0.002188		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	0.001076	0.001076		0	0	0	0.0118993	0.0118993	50	0%			0%	
Manganese	A	mg/L	4.415E-06	4.415E-06		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	3.797E-06	3.797E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.00000988	0.00000988		0	0	0	8.338E-05	0.001	0.1	0%			0%	
Nickel	A	mg/L	-2.248E-06	-2.248E-06		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	-0.009519	-0.009519		0	0	0	0.207399	0.207399	50	0%			0%	
Selenium	A	mg/L	0.00004496	0.00004496		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	0.02851	0.02851		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.00000654	0.00000654		0	0	0	1.123E-05	0.001	0.04	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985194	CCB	ICPMS-6020-W-	CCB		1/19/2022 3:31:5	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Sodium	A	mg/L	0.03202	0.03202		0	0	0	0.0809273	0.0809273	50	0%			0%	
Strontium	A	mg/L	1.636E-06	1.636E-06		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00005303	0.00005303		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00003702	0.00003702		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	0.0000121	0.0000121		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00002495	0.00002495		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	1.852E-06	1.852E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.0001102	0.0001102		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	-0.000023	-0.000023		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	-6.424E-05	-6.424E-05		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985195	B21121961-001	ICPMS-6020-W-	SAMP		1/19/2022 3:37:3	1	162497	12/27/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0009578	0.0009578		0	0	0	0.0002677	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.00006244	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.000176	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Barium	B	mg/L	0.003599	0.003599		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002125	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.0001111	0.0001111		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Chromium	B	mg/L	0.00046	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	L
Cobalt	B	mg/L	0.000543	0.000543		0	0	0	0.000072	0.001	1	0%	0	0	0%	J
Copper	B	mg/L	0.0008815	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	0.0000293	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Manganese	B	mg/L	0.4757	0.4757		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	B	mg/L	0.000735	0.000735		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.001159	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Selenium	B	mg/L	0.00005671	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-1.329E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.07957	0.07957		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.0000424	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.0001089	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.0000197	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Vanadium	B	mg/L	0.0009671	0		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985195	B21121961-001	ICPMS-6020-W-	SAMP		1/19/2022 3:37:3	1	162497	12/27/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Zinc	B	mg/L	0.002521	0		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985196	B21121965-001	ICPMS-6020-W-	SAMP		1/19/2022 3:43:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00004699	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.0004111	0.0004111		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	J
Barium	B	mg/L	0.01538	0.01538		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cobalt	B	mg/L	0.001491	0.001491		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Manganese	B	mg/L	0.2022	0.2022		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	B	mg/L	0.00004793	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	H
Molybdenum	B	mg/L	0.002919	0.002919		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Silver	B	mg/L	-7.403E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	B	mg/L	0.1566	0.1566		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00006599	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Thorium	B	mg/L	0.00001179	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Uranium	B	mg/L	0.0001359	0.0001359		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985197	B21121965-001	ICPMS-6020-W-	SAMP		1/19/2022 3:49:0	1	162497	12/27/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.0001378	0.0001378		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Antimony	B	mg/L	0.0002411	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.0007481	0.0007481		0	0	0	0.0002677	0.001	1	0%	0	0	0%	J
Barium	B	mg/L	0.01455	0.01455		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002051	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.00008193	0.00008193		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Chromium	B	mg/L	0.001329	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	L
Cobalt	B	mg/L	0.001528	0.001528		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Copper	B	mg/L	0.00137	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	0.00003313	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Manganese	B	mg/L	0.1322	0.1322		0	0	0	0.0002139	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985197	B21121965-001	ICPMS-6020-W-	SAMP		1/19/2022 3:49:0	1	162497	12/27/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Molybdenum	B	mg/L	0.003117	0.003117		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	B	mg/L	0.005108	0.005108		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	D
Selenium	B	mg/L	0.0001912	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-0.0000571	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.1651	0.1651		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00002646	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.00004851	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.0001453	0.0001453		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	J
Vanadium	B	mg/L	0.01919	0.01919		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D
Zinc	B	mg/L	0.002828	0		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985198	B21121967-001	ICPMS-6020-W-	SAMP		1/19/2022 3:54:5	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.0001154	0.0001154		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	J
Antimony	B	mg/L	0.0002757	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	U
Arsenic	B	mg/L	0.0004376	0.0004376		0	0	0	0.0001814	0.001	1	0%	0	0	0%	J
Barium	B	mg/L	0.0539	0.0539		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cerium	B	mg/L	9.369E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Cobalt	B	mg/L	0.002019	0.002019		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Manganese	B	mg/L	0.3441	0.3441		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	B	mg/L	5.192E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	H
Molybdenum	B	mg/L	0.0004638	0.0004638		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Silver	B	mg/L	-7.513E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	B	mg/L	0.2792	0.2792		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00003833	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Thorium	B	mg/L	0.00009567	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Uranium	B	mg/L	0.0000544	0.0000544		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Zinc	B	mg/L	0.01745	0.01745		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985199	B21121967-001	ICPMS-6020-W-	SAMP		1/19/2022 4:00:3	1	162497	12/27/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0007202	0.0007202		0	0	0	0.0002677	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.006248	0.006248		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	
Antimony	B	mg/L	0.0004776	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Barium	B	mg/L	0.05518	0.05518		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.0002641	0.0002641		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	J
Cerium	B	mg/L	0.0003277	0.0003277		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Chromium	B	mg/L	0.002324	0.002324		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Cobalt	B	mg/L	0.002398	0.002398		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Copper	B	mg/L	0.007111	0.007111		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	D
Lanthanum	B	mg/L	0.0001533	0.0001533		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	J
Manganese	B	mg/L	0.3455	0.3455		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	B	mg/L	0.0005134	0.0005134		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.0123	0.0123		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	D
Selenium	B	mg/L	0.00224	0.00224		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-5.674E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.291	0.291		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00002111	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.00004758	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.00006401	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Vanadium	B	mg/L	0.009736	0.009736		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D
Zinc	B	mg/L	0.03718	0.03718		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985200	B21121968-001	ICPMS-6020-W-	SAMP		1/19/2022 4:06:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	5.803E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	6.264E-06	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	U
Barium	B	mg/L	0.003086	0.003086		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	3.334E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	B	mg/L	5.968E-07	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Mercury	B	mg/L	0.00000233	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	H
Thallium	B	mg/L	0.00003344	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Thorium	B	mg/L	-1.012E-05	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Uranium	B	mg/L	7.828E-06	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985200	B21121968-001	ICPMS-6020-W-	SAMP		1/19/2022 4:06:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985201	B21121968-001	ICPMS-6020-W-	SAMP		1/19/2022 4:12:0	1	162497	12/27/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00001009	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.00002372	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.00008562	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.003137	0.003137		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002472	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	1.199E-06	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Chromium	B	mg/L	0.003014	0.003014		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Cobalt	B	mg/L	0.00005439	0		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Copper	B	mg/L	0.0001733	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	2.484E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Manganese	B	mg/L	0.0005496	0.0005496		0	0	0	0.0002139	0.001	1	0%	0	0	0%	J
Molybdenum	B	mg/L	0.0004337	0.0004337		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.003308	0.003308		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	D
Selenium	B	mg/L	0.0001442	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-6.892E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.07273	0.07273		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00001427	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.00001736	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	7.722E-06	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Vanadium	B	mg/L	0.02079	0.02079		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D
Zinc	B	mg/L	0.008699	0.008699		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985202	CCV	ICPMS-6020-W-	CCV		1/19/2022 4:17:4	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.046	0.046		0.05	0	0	0.0006548	0.001	1	92%	90	110	0%	
Antimony	A	mg/L	0.04902	0.04902		0.05	0	0	0.0002987	0.001	0.1	98%	90	110	0%	
Arsenic	A	mg/L	0.04779	0.04779		0.05	0	0	0.0001814	0.001	1	96%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985202	CCV	ICPMS-6020-W-	CCV		1/19/2022 4:17:4	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Barium	A	mg/L	0.04784	0.04784		0.05	0	0	0.0001321	0.001	1	96%	90	110	0%	
Beryllium	A	mg/L	0.04571	0.04571		0.05	0	0	7.465E-05	0.001	1	91%	90	110	0%	
Boron	A	mg/L	0.04567	0.04567		0.05	0	0	0.0030032	0.0030032	1	91%	90	110	0%	
Cadmium	A	mg/L	0.04785	0.04785		0.05	0	0	5.139E-05	0.001	1	96%	90	110	0%	
Calcium	A	mg/L	12.16	12.16		12.5	0	0	0.0749796	0.0749796	50	97%	90	110	0%	
Cerium	A	mg/L	0.04863	0.04863		0.05	0	0	1.462E-05	0.001	0.1	97%	90	110	0%	
Chromium	A	mg/L	0.04615	0.04615		0.05	0	0	0.0005481	0.001	1	92%	90	110	0%	
Cobalt	A	mg/L	0.04915	0.04915		0.05	0	0	4.756E-05	0.001	1	98%	90	110	0%	
Copper	A	mg/L	0.04597	0.04597		0.05	0	0	0.0003828	0.001	1	92%	90	110	0%	
Iron	A	mg/L	1.201	1.201		1.3	0	0	0.0046291	0.0046291	5	92%	90	110	0%	
Lanthanum	A	mg/L	0.04893	0.04893		0.05	0	0	1.683E-05	0.001	0.1	98%	90	110	0%	
Lead	A	mg/L	0.04753	0.04753		0.05	0	0	6.264E-05	0.001	1	95%	90	110	0%	
Lithium	A	mg/L	0.4781	0.4781		0.625	0	0	0.0052105	0.0052105	2.5	76%	90	110	0%	S
Magnesium	A	mg/L	11.12	11.12		12.5	0	0	0.0118993	0.0118993	50	89%	90	110	0%	S
Manganese	A	mg/L	0.04899	0.04899		0.05	0	0	0.0001444	0.001	1	98%	90	110	0%	
Mercury	A	mg/L	0.0009248	0.0009248		0.001	0	0	0.000066	0.001	0.02	92%	90	110	0%	
Molybdenum	A	mg/L	0.04879	0.04879		0.05	0	0	8.338E-05	0.001	0.1	98%	90	110	0%	
Nickel	A	mg/L	0.04684	0.04684		0.05	0	0	0.0002531	0.001	1	94%	90	110	0%	
Potassium	A	mg/L	10.96	10.96		12.5	0	0	0.207399	0.207399	50	88%	90	110	0%	S
Selenium	A	mg/L	0.05064	0.05064		0.05	0	0	0.0001415	0.001	1	101%	90	110	0%	
Silicon	A	mg/L	0.2559	0.2559		0.2	0	0	0.0146174	0.1	0.4	128%	90	110	0%	S
Silver	A	mg/L	0.01972	0.01972		0.02	0	0	1.123E-05	0.001	0.04	99%	90	110	0%	
Sodium	A	mg/L	11.26	11.26		12.5	0	0	0.0809273	0.0809273	50	90%	90	110	0%	
Strontium	A	mg/L	0.05117	0.05117		0.05	0	0	0.0001825	0.001	1	102%	90	110	0%	
Thallium	A	mg/L	0.0481	0.0481		0.05	0	0	0.0002991	0.001	1	96%	90	110	0%	
Thorium	A	mg/L	0.04853	0.04853		0.05	0	0	0.0010473	0.0010473	1	97%	90	110	0%	
Tin	A	mg/L	0.04899	0.04899		0.05	0	0	0.0022388	0.0022388	0.1	98%	90	110	0%	
Titanium	A	mg/L	0.04693	0.04693		0.05	0	0	0.0002974	0.001	1	94%	90	110	0%	
Uranium	A	mg/L	0.04538	0.04538		0.05	0	0	3.139E-05	0.0003	1	91%	90	110	0%	
Vanadium	A	mg/L	0.0478	0.0478		0.05	0	0	0.0043468	0.0043468	1	96%	90	110	0%	
Zinc	A	mg/L	0.04722	0.04722		0.05	0	0	0.0011598	0.0011598	1	94%	90	110	0%	
Iron, Ferrous	C	mg/L	1.201	1.201		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985203	CCB	ICPMS-6020-W-	CCB		1/19/2022 4:23:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-3.132E-05	-3.132E-05		0	0	0	0.0006548	0.001	1	0%			0%	
Antimony	A	mg/L	0.00005319	0.00005319		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	-5.29E-06	-5.29E-06		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	-4.432E-07	-4.432E-07		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	-1.312E-05	-1.312E-05		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	0.0007944	0.0007944		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	1.282E-06	1.282E-06		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	0.0001727	0.0001727		0	0	0	0.0749796	0.0749796	50	0%			0%	
Cerium	A	mg/L	1.391E-06	1.391E-06		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-2.437E-05	-2.437E-05		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	-1.322E-07	-1.322E-07		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	-1.299E-05	-1.299E-05		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	-5.788E-05	-5.788E-05		0	0	0	0.0046291	0.0046291	5	0%			0%	
Lanthanum	A	mg/L	5.346E-07	5.346E-07		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	8.738E-07	8.738E-07		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	0.0009	0.0009		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	0.0008226	0.0008226		0	0	0	0.0118993	0.0118993	50	0%			0%	
Manganese	A	mg/L	0.00001855	0.00001855		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	6.469E-06	6.469E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	6.015E-06	6.015E-06		0	0	0	8.338E-05	0.001	0.1	0%			0%	
Nickel	A	mg/L	-1.605E-05	-1.605E-05		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	-0.006594	-0.006594		0	0	0	0.207399	0.207399	50	0%			0%	
Selenium	A	mg/L	0.00002005	0.00002005		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	0.06429	0.06429		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	-6.451E-07	-6.451E-07		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	0.02797	0.02797		0	0	0	0.0809273	0.0809273	50	0%			0%	
Strontium	A	mg/L	2.017E-06	2.017E-06		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00002786	0.00002786		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00003466	0.00003466		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	0.00007451	0.00007451		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00003498	0.00003498		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	3.173E-06	3.173E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.0001396	0.0001396		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	-0.0001025	-0.0001025		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	-5.788E-05	-5.788E-05		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985204	BLANK	ICPMS-6020-W-	SAMP		1/19/2022 4:29:1	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0	0		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	
Boron	A	mg/L	0	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	L
Cadmium	A	mg/L	0	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Calcium	A	mg/L	0	0		0	0	0	0.0749796	0.0749796	50	0%	0	0	0%	L
Cerium	A	mg/L	0	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Iron	A	mg/L	0	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lanthanum	A	mg/L	0	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Lithium	A	mg/L	0	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	A	mg/L	0	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Manganese	A	mg/L	0	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	0	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Potassium	A	mg/L	0	0		0	0	0	0.207399	0.207399	50	0%	0	0	0%	L
Selenium	A	mg/L	0	0		0	0	0	0.0001415	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	0	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Strontium	A	mg/L	0	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	0	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Titanium	A	mg/L	0	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	A	mg/L	0	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985205	0.025 PPB STD	ICPMS-6020B-C	Cal1		1/19/2022 4:35:0	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.00007578	0.00007578		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00001622	0.00001622		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	0.0000192	0.0000192		0.000025	0	0		0.001		77%	80	120	0%	S
Barium	A	mg/L	0.00002175	0.00002175		0.000025	0	0		0.0003		87%	80	120	0%	
Beryllium	A	mg/L	0.00003446	0.00003446		0.000025	0	0		0.001		138%	80	120	0%	S
Boron	A	mg/L	-0.0002005	-0.0002005		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.00002788	0.00002788		0.000025	0	0		0.001		112%	80	120	0%	
Calcium	A	mg/L	0.00685	0.00685		0	0	0		1		0%			0%	
Chromium	A	mg/L	8.259E-08	8.259E-08		0.000025	0	0		0.001		0%	80	120	0%	S
Cobalt	A	mg/L	0.00002387	0.00002387		0.000025	0	0		0.001		95%	80	120	0%	
Copper	A	mg/L	2.22E-08	2.22E-08		0	0	0		0.005		0%			0%	
Iron	A	mg/L	0.0005772	0.0005772		0	0	0		0.01		0%			0%	
Lanthanum	A	mg/L	0.00002455	0.00002455		0.000025	0	0		0.001		98%	80	120	0%	
Lead	A	mg/L	0.00002401	0.00002401		0.000025	0	0		0.001		96%	80	120	0%	
Magnesium	A	mg/L	0.004452	0.004452		0	0	0		1		0%			0%	
Manganese	A	mg/L	0.00002133	0.00002133		0	0	0		0.001		0%			0%	
Mercury	A	mg/L	-5.818E-07	-5.818E-07		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00003663	0.00003663		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	8.179E-06	8.179E-06		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.004117	0.004117		0.00625	0	0		1		66%	80	120	0%	S
Selenium	A	mg/L	0.00002815	0.00002815		0.000025	0	0		0.005		113%	80	120	0%	
Silicon	A	mg/L	-0.01609	-0.01609		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.0000109	0.0000109		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	-0.001795	-0.001795		0.00625	0	0		1		-29%	80	120	0%	S
Strontium	A	mg/L	0.00002657	0.00002657		0	0	0		0.001		0%	80	120	0%	
Thallium	A	mg/L	0.0000191	0.0000191		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.00001114	0.00001114		0	0	0		0.05		0%			0%	
Tin	A	mg/L	-0.002413	-0.002413		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.00002252	0.00002252		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.00002298	0.00002298		0.000025	0	0		0.001		92%	80	120	0%	
Vanadium	A	mg/L	0.00004879	0.00004879		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	0.00002792	0.00002792		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.0005772	0.0005772		0.000025	0	0		0.01	5	2309%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.0344326	-0.0344326		0.0000535	0	0		0.214	0.9	-64360%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985206	0.05 PPB STD	ICPMS-6020B-C	Cal2		1/19/2022 4:40:5	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.00006563	0.00006563		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00006236	0.00006236		0.00005	0	0		0.001		125%	80	120	0%	S
Arsenic	A	mg/L	0.00004931	0.00004931		0.00005	0	0		0.001		99%	80	120	0%	
Barium	A	mg/L	0.00005927	0.00005927		0.00005	0	0		0.0003		119%	80	120	0%	
Beryllium	A	mg/L	0.00004913	0.00004913		0.00005	0	0		0.001		98%	80	120	0%	
Boron	A	mg/L	-0.0003987	-0.0003987		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0000613	0.0000613		0.00005	0	0		0.001		123%	80	120	0%	S
Calcium	A	mg/L	0.01401	0.01401		0.0125	0	0		1		112%	80	120	0%	
Chromium	A	mg/L	0.00006062	0.00006062		0.00005	0	0		0.001		121%	80	120	0%	S
Cobalt	A	mg/L	0.00005715	0.00005715		0	0	0		0.001		0%			0%	
Copper	A	mg/L	0.00003771	0.00003771		0.00005	0	0		0.005		75%	80	120	0%	S
Iron	A	mg/L	0.001396	0.001396		0.00125	0	0		0.01		112%	80	120	0%	
Lanthanum	A	mg/L	0.00005363	0.00005363		0.00005	0	0		0.001		107%	80	120	0%	
Lead	A	mg/L	0.00005194	0.00005194		0.00005	0	0		0.001		104%	80	120	0%	
Magnesium	A	mg/L	0.01249	0.01249		0.0125	0	0		1		100%	80	120	0%	
Manganese	A	mg/L	0.00004738	0.00004738		0.00005	0	0		0.001		95%	80	120	0%	
Mercury	A	mg/L	-5.592E-07	-5.592E-07		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00004636	0.00004636		0.00005	0	0		0.001		93%	80	120	0%	
Nickel	A	mg/L	0.00005083	0.00005083		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.008203	0.008203		0.0125	0	0		1		66%	80	120	0%	S
Selenium	A	mg/L	0.00005621	0.00005621		0.00005	0	0		0.005		112%	80	120	0%	
Silicon	A	mg/L	-0.02523	-0.02523		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.00001906	0.00001906		0.00002	0	0		0.001		95%	80	120	0%	
Sodium	A	mg/L	-0.0003585	-0.0003585		0.0125	0	0		1		-3%	80	120	0%	S
Strontium	A	mg/L	0.00005241	0.00005241		0.00005	0	0		0.001		105%	80	120	0%	
Thallium	A	mg/L	0.00005005	0.00005005		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.00003159	0.00003159		0	0	0		0.05		0%			0%	
Tin	A	mg/L	-0.002379	-0.002379		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.00007451	0.00007451		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.00005103	0.00005103		0.00005	0	0		0.001		102%	80	120	0%	
Vanadium	A	mg/L	0.00005954	0.00005954		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	0.00001975	0.00001975		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.001396	0.001396		0.00005	0	0		0.01	5	2792%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.0539922	-0.0539922		0.00428	0	0		0.214	0.9	-1262%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985207	0.10 PPB STD	ICPMS-6020B-C	Cal3		1/19/2022 4:46:5	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0005498	0.0005498		0.0001	0	0		0.01		550%	80	120	0%	S
Antimony	A	mg/L	0.0001139	0.0001139		0.0001	0	0		0.001		114%	80	120	0%	
Arsenic	A	mg/L	0.0001016	0.0001016		0.0001	0	0		0.001		102%	80	120	0%	
Barium	A	mg/L	0.0001161	0.0001161		0.0001	0	0		0.0003		116%	80	120	0%	
Beryllium	A	mg/L	0.0001021	0.0001021		0.0001	0	0		0.001		102%	80	120	0%	
Boron	A	mg/L	-0.0003879	-0.0003879		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0001261	0.0001261		0.0001	0	0		0.001		126%	80	120	0%	S
Calcium	A	mg/L	0.0322	0.0322		0.025	0	0		1		129%	80	120	0%	S
Chromium	A	mg/L	0.0001228	0.0001228		0.0001	0	0		0.001		123%	80	120	0%	S
Cobalt	A	mg/L	0.0001219	0.0001219		0.0001	0	0		0.001		122%	80	120	0%	S
Copper	A	mg/L	0.0001264	0.0001264		0.0001	0	0		0.005		126%	80	120	0%	S
Iron	A	mg/L	0.003252	0.003252		0.0025	0	0		0.01		130%	80	120	0%	S
Lanthanum	A	mg/L	0.000117	0.000117		0.0001	0	0		0.001		117%	80	120	0%	
Lead	A	mg/L	0.0001157	0.0001157		0.0001	0	0		0.001		116%	80	120	0%	
Magnesium	A	mg/L	0.02632	0.02632		0.025	0	0		1		105%	80	120	0%	
Manganese	A	mg/L	0.0001246	0.0001246		0.0001	0	0		0.001		125%	80	120	0%	S
Mercury	A	mg/L	1.939E-07	1.939E-07		0.000002	0	0		0.001		10%	80	120	0%	S
Molybdenum	A	mg/L	0.000115	0.000115		0.0001	0	0		0.001		115%	80	120	0%	
Nickel	A	mg/L	0.0001355	0.0001355		0.0001	0	0		0.005		136%	80	120	0%	S
Potassium	A	mg/L	0.02323	0.02323		0.025	0	0		1		93%	80	120	0%	
Selenium	A	mg/L	0.00006625	0.00006625		0.0001	0	0		0.005		66%	80	120	0%	S
Silicon	A	mg/L	-0.0347	-0.0347		0.0004	0	0		0.1		-8675%	80	120	0%	S
Silver	A	mg/L	0.00004745	0.00004745		0.00004	0	0		0.001		119%	80	120	0%	
Sodium	A	mg/L	0.02364	0.02364		0.025	0	0		1		95%	80	120	0%	
Strontium	A	mg/L	0.0001219	0.0001219		0.0001	0	0		0.001		122%	80	120	0%	S
Thallium	A	mg/L	0.0001065	0.0001065		0.0001	0	0		0.001		107%	80	120	0%	
Thorium	A	mg/L	0.00008275	0.00008275		0.0001	0	0		0.05		83%	80	120	0%	
Tin	A	mg/L	-0.002339	-0.002339		0.0001	0	0		0.001		-2339%	80	120	0%	S
Titanium	A	mg/L	0.000142	0.000142		0.0001	0	0		0.001		142%	80	120	0%	S
Uranium	A	mg/L	0.0001109	0.0001109		0.0001	0	0		0.001		111%	80	120	0%	
Vanadium	A	mg/L	0.00009245	0.00009245		0.0001	0	0		0.005		92%	80	120	0%	
Zinc	A	mg/L	0.0002357	0.0002357		0.0001	0	0		0.01		236%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.003252	0.003252		0.0001	0	0		0.01	5	3252%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.074258	-0.074258		0.00856	0	0		0.214	0.9	-868%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985208	0.5 PPB STD	ICPMS-6020B-C	Cal4		1/19/2022 4:52:4	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0005409	0.0005409		0.0005	0	0		0.01		108%	80	120	0%	
Antimony	A	mg/L	0.0004376	0.0004376		0.0005	0	0		0.001		88%	80	120	0%	
Arsenic	A	mg/L	0.0004641	0.0004641		0.0005	0	0		0.001		93%	80	120	0%	
Barium	A	mg/L	0.0004505	0.0004505		0.0005	0	0		0.0003		90%	80	120	0%	
Beryllium	A	mg/L	0.0004772	0.0004772		0.0005	0	0		0.001		95%	80	120	0%	
Boron	A	mg/L	-4.613E-05	-4.613E-05		0.0005	0	0		0.1		-9%	80	120	0%	S
Cadmium	A	mg/L	0.0005062	0.0005062		0.0005	0	0		0.001		101%	80	120	0%	
Calcium	A	mg/L	0.1172	0.1172		0.125	0	0		1		94%	80	120	0%	
Chromium	A	mg/L	0.0004889	0.0004889		0.0005	0	0		0.001		98%	80	120	0%	
Cobalt	A	mg/L	0.0004615	0.0004615		0.0005	0	0		0.001		92%	80	120	0%	
Copper	A	mg/L	0.0005308	0.0005308		0.0005	0	0		0.005		106%	80	120	0%	
Iron	A	mg/L	0.01287	0.01287		0.0125	0	0		0.01		103%	80	120	0%	
Lanthanum	A	mg/L	0.0004984	0.0004984		0.0005	0	0		0.001		100%	80	120	0%	
Lead	A	mg/L	0.0004926	0.0004926		0.0005	0	0		0.001		99%	80	120	0%	
Magnesium	A	mg/L	0.1212	0.1212		0.125	0	0		1		97%	80	120	0%	
Manganese	A	mg/L	0.0005026	0.0005026		0.0005	0	0		0.001		101%	80	120	0%	
Mercury	A	mg/L	6.952E-06	6.952E-06		0.00001	0	0		0.001		70%	80	120	0%	S
Molybdenum	A	mg/L	0.0005041	0.0005041		0.0005	0	0		0.001		101%	80	120	0%	
Nickel	A	mg/L	0.0005091	0.0005091		0.0005	0	0		0.005		102%	80	120	0%	
Potassium	A	mg/L	0.1082	0.1082		0.125	0	0		1		87%	80	120	0%	
Selenium	A	mg/L	0.0006428	0.0006428		0.0005	0	0		0.005		129%	80	120	0%	S
Silicon	A	mg/L	-0.04016	-0.04016		0.002	0	0		0.1		-2008%	80	120	0%	S
Silver	A	mg/L	0.0002072	0.0002072		0.0002	0	0		0.001		104%	80	120	0%	
Sodium	A	mg/L	0.1151	0.1151		0.125	0	0		1		92%	80	120	0%	
Strontium	A	mg/L	0.0005141	0.0005141		0.0005	0	0		0.001		103%	80	120	0%	
Thallium	A	mg/L	0.0004841	0.0004841		0.0005	0	0		0.001		97%	80	120	0%	
Thorium	A	mg/L	0.0004087	0.0004087		0.0005	0	0		0.05		82%	80	120	0%	
Tin	A	mg/L	-0.001964	-0.001964		0.0005	0	0		0.001		-393%	80	120	0%	S
Titanium	A	mg/L	0.0004574	0.0004574		0.0005	0	0		0.001		91%	80	120	0%	
Uranium	A	mg/L	0.0004703	0.0004703		0.0005	0	0		0.001		94%	80	120	0%	
Vanadium	A	mg/L	0.0004522	0.0004522		0.0005	0	0		0.005		90%	80	120	0%	
Zinc	A	mg/L	0.000531	0.000531		0.0005	0	0		0.01		106%	80	120	0%	
Iron, Ferrous	C	mg/L	0.01287	0.01287		0.0005	0	0		0.01	5	2574%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.0859424	-0.0859424		0.0428	0	0		0.214	0.9	-201%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985209	1 PPB STD	ICPMS-6020B-C	Cal5		1/19/2022 4:58:3	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001138	0.001138		0.001	0	0		0.01		114%	80	120	0%	
Antimony	A	mg/L	0.001072	0.001072		0.001	0	0		0.001		107%	80	120	0%	
Arsenic	A	mg/L	0.001102	0.001102		0.001	0	0		0.001		110%	80	120	0%	
Barium	A	mg/L	0.001087	0.001087		0.001	0	0		0.0003		109%	80	120	0%	
Beryllium	A	mg/L	0.001082	0.001082		0.001	0	0		0.001		108%	80	120	0%	
Boron	A	mg/L	0.0005368	0.0005368		0.001	0	0		0.1		54%	80	120	0%	S
Cadmium	A	mg/L	0.001144	0.001144		0.001	0	0		0.001		114%	80	120	0%	
Calcium	A	mg/L	0.2689	0.2689		0.25	0	0		1		108%	80	120	0%	
Chromium	A	mg/L	0.001126	0.001126		0.001	0	0		0.001		113%	80	120	0%	
Cobalt	A	mg/L	0.001082	0.001082		0.001	0	0		0.001		108%	80	120	0%	
Copper	A	mg/L	0.00121	0.00121		0.001	0	0		0.005		121%	80	120	0%	S
Iron	A	mg/L	0.02912	0.02912		0.025	0	0		0.01		116%	80	120	0%	
Lanthanum	A	mg/L	0.001109	0.001109		0.001	0	0		0.001		111%	80	120	0%	
Lead	A	mg/L	0.001126	0.001126		0.001	0	0		0.001		113%	80	120	0%	
Magnesium	A	mg/L	0.2842	0.2842		0.25	0	0		1		114%	80	120	0%	
Manganese	A	mg/L	0.001133	0.001133		0.001	0	0		0.001		113%	80	120	0%	
Mercury	A	mg/L	0.00002074	0.00002074		0.00002	0	0		0.001		104%	80	120	0%	
Molybdenum	A	mg/L	0.001233	0.001233		0.001	0	0		0.001		123%	80	120	0%	S
Nickel	A	mg/L	0.001213	0.001213		0.001	0	0		0.005		121%	80	120	0%	S
Potassium	A	mg/L	0.2453	0.2453		0.25	0	0		1		98%	80	120	0%	
Selenium	A	mg/L	0.001332	0.001332		0.001	0	0		0.005		133%	80	120	0%	S
Silicon	A	mg/L	-0.04743	-0.04743		0.004	0	0		0.1		-1186%	80	120	0%	S
Silver	A	mg/L	0.0004491	0.0004491		0.0004	0	0		0.001		112%	80	120	0%	
Sodium	A	mg/L	0.269	0.269		0.25	0	0		1		108%	80	120	0%	
Strontium	A	mg/L	0.001087	0.001087		0.001	0	0		0.001		109%	80	120	0%	
Thallium	A	mg/L	0.001136	0.001136		0.001	0	0		0.001		114%	80	120	0%	
Thorium	A	mg/L	0.001007	0.001007		0.001	0	0		0.05		101%	80	120	0%	
Tin	A	mg/L	-0.001281	-0.001281		0.001	0	0		0.001		-128%	80	120	0%	S
Titanium	A	mg/L	0.001099	0.001099		0.001	0	0		0.001		110%	80	120	0%	
Uranium	A	mg/L	0.001077	0.001077		0.001	0	0		0.001		108%	80	120	0%	
Vanadium	A	mg/L	0.001083	0.001083		0.001	0	0		0.005		108%	80	120	0%	
Zinc	A	mg/L	0.001159	0.001159		0.001	0	0		0.01		116%	80	120	0%	
Iron, Ferrous	C	mg/L	0.02912	0.02912		0.001	0	0		0.01	5	2912%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.1015002	-0.1015002		0.0856	0	0		0.214	0.9	-119%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985210	10 PPB STD	ICPMS-6020B-C	Cal6		1/19/2022 5:04:2	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.009137	0.009137		0.01	0	0		0.01		91%	90	110	0%	
Antimony	A	mg/L	0.009517	0.009517		0.01	0	0		0.001		95%	90	110	0%	
Arsenic	A	mg/L	0.01016	0.01016		0.01	0	0		0.001		102%	90	110	0%	
Barium	A	mg/L	0.009545	0.009545		0.01	0	0		0.0003		95%	90	110	0%	
Beryllium	A	mg/L	0.008806	0.008806		0.01	0	0		0.001		88%	90	110	0%	S
Boron	A	mg/L	0.008351	0.008351		0.01	0	0		0.1		84%	90	110	0%	S
Cadmium	A	mg/L	0.009646	0.009646		0.01	0	0		0.001		96%	90	110	0%	
Calcium	A	mg/L	2.514	2.514		2.5	0	0		1		101%	90	110	0%	
Chromium	A	mg/L	0.009875	0.009875		0.01	0	0		0.001		99%	90	110	0%	
Cobalt	A	mg/L	0.00941	0.00941		0.01	0	0		0.001		94%	90	110	0%	
Copper	A	mg/L	0.01062	0.01062		0.01	0	0		0.005		106%	90	110	0%	
Iron	A	mg/L	0.2549	0.2549		0.25	0	0		0.01		102%	90	110	0%	
Lanthanum	A	mg/L	0.009559	0.009559		0.01	0	0		0.001		96%	90	110	0%	
Lead	A	mg/L	0.009571	0.009571		0.01	0	0		0.001		96%	90	110	0%	
Magnesium	A	mg/L	2.322	2.322		2.5	0	0		1		93%	90	110	0%	
Manganese	A	mg/L	0.009762	0.009762		0.01	0	0		0.001		98%	90	110	0%	
Mercury	A	mg/L	0.000192	0.000192		0.0002	0	0		0.001		96%	90	110	0%	
Molybdenum	A	mg/L	0.01057	0.01057		0.01	0	0		0.001		106%	90	110	0%	
Nickel	A	mg/L	0.01035	0.01035		0.01	0	0		0.005		103%	90	110	0%	
Potassium	A	mg/L	2.232	2.232		2.5	0	0		1		89%	90	110	0%	S
Selenium	A	mg/L	0.01152	0.01152		0.01	0	0		0.005		115%	90	110	0%	S
Silicon	A	mg/L	-0.0001659	-0.0001659		0.04	0	0		0.1		0%	90	110	0%	S
Silver	A	mg/L	0.004	0.004		0.004	0	0		0.001		100%	90	110	0%	
Sodium	A	mg/L	2.374	2.374		2.5	0	0		1		95%	90	110	0%	
Strontium	A	mg/L	0.01004	0.01004		0.01	0	0		0.001		100%	90	110	0%	
Thallium	A	mg/L	0.0102	0.0102		0.01	0	0		0.001		102%	90	110	0%	
Thorium	A	mg/L	0.0099	0.0099		0.01	0	0		0.05		99%	90	110	0%	
Tin	A	mg/L	0.007551	0.007551		0.01	0	0		0.001		76%	90	110	0%	S
Titanium	A	mg/L	0.009082	0.009082		0.01	0	0		0.001		91%	90	110	0%	
Uranium	A	mg/L	0.009236	0.009236		0.01	0	0		0.001		92%	90	110	0%	
Vanadium	A	mg/L	0.009719	0.009719		0.01	0	0		0.005		97%	90	110	0%	
Zinc	A	mg/L	0.009726	0.009726		0.01	0	0		0.01		97%	90	110	0%	
Iron, Ferrous	C	mg/L	0.2549	0.2549		0.01	0	0		0.01	5	2549%	90	110	0%	S
Silicon as SiO2	C	mg/L	-0.0003550	-0.0003550		0.856	0	0		0.214	0.9	0%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985211	50 PPB STD	ICPMS-6020B-C	Cal7		1/19/2022 5:10:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04903	0.04903		0.05	0	0		0.01		98%	90	110	0%	
Antimony	A	mg/L	0.04857	0.04857		0.05	0	0		0.001		97%	90	110	0%	
Arsenic	A	mg/L	0.05059	0.05059		0.05	0	0		0.001		101%	90	110	0%	
Barium	A	mg/L	0.048	0.048		0.05	0	0		0.0003		96%	90	110	0%	
Beryllium	A	mg/L	0.04942	0.04942		0.05	0	0		0.001		99%	90	110	0%	
Boron	A	mg/L	0.04814	0.04814		0.05	0	0		0.1		96%	90	110	0%	
Cadmium	A	mg/L	0.04991	0.04991		0.05	0	0		0.001		100%	90	110	0%	
Calcium	A	mg/L	12.42	12.42		12.5	0	0		1		99%	90	110	0%	
Chromium	A	mg/L	0.04986	0.04986		0.05	0	0		0.001		100%	90	110	0%	
Cobalt	A	mg/L	0.0472	0.0472		0.05	0	0		0.001		94%	90	110	0%	
Copper	A	mg/L	0.05079	0.05079		0.05	0	0		0.005		102%	90	110	0%	
Iron	A	mg/L	1.283	1.283		1.25	0	0		0.01		103%	90	110	0%	
Lanthanum	A	mg/L	0.0493	0.0493		0.05	0	0		0.001		99%	90	110	0%	
Lead	A	mg/L	0.04947	0.04947		0.05	0	0		0.001		99%	90	110	0%	
Magnesium	A	mg/L	11.84	11.84		12.5	0	0		1		95%	90	110	0%	
Manganese	A	mg/L	0.04967	0.04967		0.05	0	0		0.001		99%	90	110	0%	
Mercury	A	mg/L	0.00101	0.00101		0.001	0	0		0.001		101%	90	110	0%	
Molybdenum	A	mg/L	0.05107	0.05107		0.05	0	0		0.001		102%	90	110	0%	
Nickel	A	mg/L	0.05045	0.05045		0.05	0	0		0.005		101%	90	110	0%	
Potassium	A	mg/L	11.19	11.19		12.5	0	0		1		90%	90	110	0%	
Selenium	A	mg/L	0.05315	0.05315		0.05	0	0		0.005		106%	90	110	0%	
Silicon	A	mg/L	0.1888	0.1888		0.2	0	0		0.1		94%	90	110	0%	
Silver	A	mg/L	0.01992	0.01992		0.02	0	0		0.001		100%	90	110	0%	
Sodium	A	mg/L	12.72	12.72		12.5	0	0		1		102%	90	110	0%	
Strontium	A	mg/L	0.04963	0.04963		0.05	0	0		0.001		99%	90	110	0%	
Thallium	A	mg/L	0.0519	0.0519		0.05	0	0		0.001		104%	90	110	0%	
Thorium	A	mg/L	0.05179	0.05179		0.05	0	0		0.05		104%	90	110	0%	
Tin	A	mg/L	0.04721	0.04721		0.05	0	0		0.001		94%	90	110	0%	
Titanium	A	mg/L	0.0468	0.0468		0.05	0	0		0.001		94%	90	110	0%	
Uranium	A	mg/L	0.04879	0.04879		0.05	0	0		0.001		98%	90	110	0%	
Vanadium	A	mg/L	0.04936	0.04936		0.05	0	0		0.005		99%	90	110	0%	
Zinc	A	mg/L	0.05073	0.05073		0.05	0	0		0.01		101%	90	110	0%	
Iron, Ferrous	C	mg/L	1.283	1.283		0.05	0	0		0.01	5	2566%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.404032	0.404032		4.28	0	0		0.214	0.9	9%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985212	100 PPB STD	ICPMS-6020B-C	Cal8		1/19/2022 5:16:0	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.1006	0.1006		0.1	0	0		0.01		101%	90	110	0%	
Antimony	A	mg/L	0.1008	0.1008		0.1	0	0		0.001		101%	90	110	0%	
Arsenic	A	mg/L	0.09969	0.09969		0.1	0	0		0.001		100%	90	110	0%	
Barium	A	mg/L	0.101	0.101		0.1	0	0		0.0003		101%	90	110	0%	
Beryllium	A	mg/L	0.1004	0.1004		0.1	0	0		0.001		100%	90	110	0%	
Boron	A	mg/L	0.1011	0.1011		0.1	0	0		0.1		101%	90	110	0%	
Cadmium	A	mg/L	0.1001	0.1001		0.1	0	0		0.001		100%	90	110	0%	
Calcium	A	mg/L	23.77	23.77		25	0	0		1		95%	90	110	0%	
Chromium	A	mg/L	0.1001	0.1001		0.1	0	0		0.001		100%	90	110	0%	
Cobalt	A	mg/L	0.1015	0.1015		0.1	0	0		0.001		101%	90	110	0%	
Copper	A	mg/L	0.09954	0.09954		0.1	0	0		0.005		100%	90	110	0%	
Iron	A	mg/L	2.602	2.602		2.5	0	0		0.01		104%	90	110	0%	
Lanthanum	A	mg/L	0.1004	0.1004		0.1	0	0		0.001		100%	90	110	0%	
Lead	A	mg/L	0.1003	0.1003		0.1	0	0		0.001		100%	90	110	0%	
Magnesium	A	mg/L	24.39	24.39		25	0	0		1		98%	90	110	0%	
Manganese	A	mg/L	0.1002	0.1002		0.1	0	0		0.001		100%	90	110	0%	
Mercury	A	mg/L	0.001996	0.001996		0.002	0	0		0.001		100%	90	110	0%	
Molybdenum	A	mg/L	0.09941	0.09941		0.1	0	0		0.001		99%	90	110	0%	
Nickel	A	mg/L	0.09974	0.09974		0.1	0	0		0.005		100%	90	110	0%	
Potassium	A	mg/L	24.09	24.09		25	0	0		1		96%	90	110	0%	
Selenium	A	mg/L	0.09827	0.09827		0.1	0	0		0.005		98%	90	110	0%	
Silicon	A	mg/L	0.4104	0.4104		0.4	0	0		0.1		103%	90	110	0%	
Silver	A	mg/L	0.04004	0.04004		0.04	0	0		0.001		100%	90	110	0%	
Sodium	A	mg/L	24.63	24.63		25	0	0		1		99%	90	110	0%	
Strontium	A	mg/L	0.1002	0.1002		0.1	0	0		0.001		100%	90	110	0%	
Thallium	A	mg/L	0.09903	0.09903		0.1	0	0		0.001		99%	90	110	0%	
Thorium	A	mg/L	0.09912	0.09912		0.1	0	0		0.05		99%	90	110	0%	
Tin	A	mg/L	0.1017	0.1017		0.1	0	0		0.001		102%	90	110	0%	
Titanium	A	mg/L	0.1017	0.1017		0.1	0	0		0.001		102%	90	110	0%	
Uranium	A	mg/L	0.1007	0.1007		0.1	0	0		0.001		101%	90	110	0%	
Vanadium	A	mg/L	0.1003	0.1003		0.1	0	0		0.005		100%	90	110	0%	
Zinc	A	mg/L	0.09966	0.09966		0.1	0	0		0.01		100%	90	110	0%	
Iron, Ferrous	C	mg/L	2.602	2.602		0.1	0	0		0.01	5	2602%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.878256	0.878256		8.56	0	0		0.214	0.9	10%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985213	1000 PPB STD	ICPMS-6020B-C	Cal10		1/19/2022 5:21:5	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	1.017	1.017		1	0	0		0.01		102%	90	110	0%	
Antimony	A	mg/L	0.0001085	0.0001085		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	1.01	1.01		1	0	0		0.001		101%	90	110	0%	
Barium	A	mg/L	0.9526	0.9526		1	0	0		0.0003		95%	90	110	0%	
Beryllium	A	mg/L	0.995	0.995		1	0	0		0.001		100%	90	110	0%	
Boron	A	mg/L	0.9843	0.9843		1	0	0		0.1		98%	90	110	0%	
Cadmium	A	mg/L	0.9848	0.9848		1	0	0		0.001		98%	90	110	0%	
Calcium	A	mg/L	50.63	50.63		50	0	0		1		101%	90	110	0%	
Chromium	A	mg/L	1.068	1.068		1	0	0		0.001		107%	90	110	0%	
Cobalt	A	mg/L	1.043	1.043		1	0	0		0.001		104%	90	110	0%	
Copper	A	mg/L	1.007	1.007		1	0	0		0.005		101%	90	110	0%	
Iron	A	mg/L	6.003	6.003		6	0	0		0.01		100%	90	110	0%	
Lanthanum	A	mg/L	0.00001252	0.00001252		0	0	0		0.001		0%			0%	
Lead	A	mg/L	0.9456	0.9456		1	0	0		0.001		95%	90	110	0%	
Magnesium	A	mg/L	50.48	50.48		50	0	0		1		101%	90	110	0%	
Manganese	A	mg/L	1.027	1.027		1	0	0		0.001		103%	90		0%	
Mercury	A	mg/L	0.00001021	0.00001021		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00004479	0.00004479		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	1.037	1.037		1	0	0		0.005		104%	90	110	0%	
Potassium	A	mg/L	50.79	50.79		50	0	0		1		102%	90	110	0%	
Selenium	A	mg/L	0.9916	0.9916		1	0	0		0.005		99%	90	110	0%	
Silicon	A	mg/L	-0.06033	-0.06033		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.3453	0.3453		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	50.14	50.14		50	0	0		1		100%	90	110	0%	
Strontium	A	mg/L	1.018	1.018		1	0	0		0.001		102%	90	110	0%	
Thallium	A	mg/L	0.9263	0.9263		1	0	0		0.001		93%	90	110	0%	
Thorium	A	mg/L	0.9589	0.9589		1	0	0		0.05		96%	90	110	0%	
Tin	A	mg/L	-0.002332	-0.002332		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.006022	0.006022		1	0	0		0.001		1%	90	110	0%	S
Uranium	A	mg/L	0.9586	0.9586		1	0	0		0.001		96%	90	110	0%	
Vanadium	A	mg/L	1.065	1.065		1	0	0		0.005		106%	90	110	0%	
Zinc	A	mg/L	0.9985	0.9985		1	0	0		0.01		100%	90	110	0%	
Iron, Ferrous	C	mg/L	6.003	6.003		0	0	0		0.01	5	0%			0%	
Silicon as SiO2	C	mg/L	-0.1291062	-0.1291062		0	0	0		0.214	0.9	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985214	100 ppb Bromine	ICPMS-6020-W-	SAMP		1/19/2022 5:27:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.009077	0.009077		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00002214	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.000143	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.0001376	0.0001376		0	0	0	0.0001321	0.001	1	0%	0	0	0%	J
Beryllium	A	mg/L	0.0001928	0.0001928		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	J
Cadmium	A	mg/L	0.0000985	0.0000985		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	J
Cerium	A	mg/L	0.00000391	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.0001453	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.0001107	0.0001107		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	J
Copper	A	mg/L	0.0001956	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.0001171	0.0001171		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	J
Manganese	A	mg/L	0.0001192	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	0.00000398	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001768	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.0002128	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	A	mg/L	0.001581	0.001581		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.0000991	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0003628	0.0003628		0	0	0	0.0002991	0.001	1	0%	0	0	0%	J
Titanium	A	mg/L	0.00008862	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0001259	0.0001259		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Boron	B	mg/L	0.005777	0.005777		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	D
Iron	B	mg/L	0.001235	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	0.001235	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Sodium	B	mg/L	0.03946	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Thorium	B	mg/L	0.0002959	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Vanadium	B	mg/L	0.00001983	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	0.0006131	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985215	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 5:33:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001119	0.001119		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	-1.692E-06	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00001964	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985215	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 5:33:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Barium	A	mg/L	0.00004017	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.00005676	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00001977	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	8.56E-07	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.00001121	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00001346	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.00001657	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00001299	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	7.373E-06	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	1.344E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	7.478E-06	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-1.223E-07	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	A	mg/L	0.0001701	0.0001701		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.00001544	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0002095	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	5.939E-06	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001554	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Boron	B	mg/L	0.001265	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	L
Iron	B	mg/L	0.0003575	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	0.0003575	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Sodium	B	mg/L	0.1272	0.1272		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00005305	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Vanadium	B	mg/L	-0.0000792	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	0.00004756	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985216	QCS	ICPMS-6020-W-	ICV		1/19/2022 5:38:5	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.2541	0.2541		0.25	0	0	0.0006548	0.001	1	102%	90	110	0%	
Antimony	A	mg/L	0.04968	0.04968		0.05	0	0	0.0002987	0.001	0.1	99%	90	110	0%	
Arsenic	A	mg/L	0.0509	0.0509		0.05	0	0	0.0001814	0.001	1	102%	90	110	0%	
Barium	A	mg/L	0.05037	0.05037		0.05	0	0	0.0001321	0.001	1	101%	90	110	0%	
Beryllium	A	mg/L	0.02504	0.02504		0.025	0	0	7.465E-05	0.001	1	100%	90	110	0%	
Boron	A	mg/L	0.05056	0.05056		0.05	0	0	0.0030032	0.0030032	1	101%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985216	QCS	ICPMS-6020-W-	ICV		1/19/2022 5:38:5	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Cadmium	A	mg/L	0.02705	0.02705		0.025	0	0	5.139E-05	0.001	1	108%	90	110	0%	
Calcium	A	mg/L	2.601	2.601		2.5	0	0	0.0749796	0.0749796	50	104%	90	110	0%	
Cerium	A	mg/L	0.05227	0.05227		0.05	0	0	1.462E-05	0.001	0.1	105%	90	110	0%	
Chromium	A	mg/L	0.05148	0.05148		0.05	0	0	0.0005481	0.001	1	103%	90	110	0%	
Cobalt	A	mg/L	0.04982	0.04982		0.05	0	0	4.756E-05	0.001	1	100%	90	110	0%	
Copper	A	mg/L	0.05452	0.05452		0.05	0	0	0.0003828	0.001	1	109%	90	110	0%	
Iron	A	mg/L	0.2453	0.2453		0.25	0	0	0.0046291	0.0046291	5	98%	90	110	0%	
Lanthanum	A	mg/L	0.05103	0.05103		0.05	0	0	1.683E-05	0.001	0.1	102%	90	110	0%	
Lead	A	mg/L	0.05076	0.05076		0.05	0	0	6.264E-05	0.001	1	102%	90	110	0%	
Lithium	A	mg/L	0.04488	0.04488		0.05	0	0	0.0052105	0.0052105	2.5	90%	90	110	0%	
Magnesium	A	mg/L	2.403	2.403		2.5	0	0	0.0118993	0.0118993	50	96%	90	110	0%	
Manganese	A	mg/L	0.2541	0.2541		0.25	0	0	0.0001444	0.001	1	102%	90	110	0%	
Mercury	A	mg/L	0.0009787	0.0009787		0.001	0	0	0.000066	0.001	0.02	98%	90	110	0%	
Molybdenum	A	mg/L	0.04802	0.04802		0.05	0	0	8.338E-05	0.001	0.1	96%	90	110	0%	
Nickel	A	mg/L	0.05286	0.05286		0.05	0	0	0.0002531	0.001	1	106%	90	110	0%	
Potassium	A	mg/L	2.413	2.413		2.5	0	0	0.207399	0.207399	50	97%	90	110	0%	
Selenium	A	mg/L	0.05295	0.05295		0.05	0	0	0.0001415	0.001	1	106%	90	110	0%	
Silicon	A	mg/L	0.565	0.565		0.5	0	0	0.0146174	0.1	0.4	113%	90	110	0%	S
Silver	A	mg/L	0.02492	0.02492		0.025	0	0	1.123E-05	0.001	0.04	100%	90	110	0%	
Sodium	A	mg/L	2.489	2.489		2.5	0	0	0.0809273	0.0809273	50	100%	90	110	0%	
Strontium	A	mg/L	0.04863	0.04863		0.05	0	0	0.0001825	0.001	1	97%	90	110	0%	
Thallium	A	mg/L	0.05363	0.05363		0.05	0	0	0.0002991	0.001	1	107%	90	110	0%	
Thorium	A	mg/L	0.05313	0.05313		0.05	0	0	0.0010473	0.0010473	1	106%	90	110	0%	
Tin	A	mg/L	0.04942	0.04942		0.05	0	0	0.0022388	0.0022388	0.1	99%	90	110	0%	
Titanium	A	mg/L	0.04851	0.04851		0.05	0	0	0.0002974	0.001	1	97%	90	110	0%	
Uranium	A	mg/L	0.05216	0.05216		0.05	0	0	3.139E-05	0.0003	1	104%	90	110	0%	
Vanadium	A	mg/L	0.05067	0.05067		0.05	0	0	0.0043468	0.0043468	1	101%	90	110	0%	
Zinc	A	mg/L	0.05368	0.05368		0.05	0	0	0.0011598	0.0011598	1	107%	90	110	0%	
Iron, Ferrous	C	mg/L	0.2453	0.2453		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985217	ICSA	ICPMS-6020-W-	ICSA		1/19/2022 5:44:4	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985217	ICSA	ICPMS-6020-W-	ICSA		1/19/2022 5:44:4	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	36.35	36.35		40	0	0	0.0006548	0.001	1	91%	80	120	0%	
Antimony	A	mg/L	0.0000504	0.0000504		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.00006899	0.00006899		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	0.0000704	0.0000704		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	0.00001687	0.00001687		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	0.0006054	0.0006054		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	0.0001979	0.0001979		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	106.6	106.6		120	0	0	0.0749796	0.0749796	50	89%	80	120	0%	
Cerium	A	mg/L	4.632E-06	4.632E-06		0	0	0	1.462E-05	0.001	0.1	0%			0%	
Chromium	A	mg/L	0.0008709	0.0008709		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	0.0003529	0.0003529		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	0.00002341	0.00002341		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	90.8	90.8		100	0	0	0.0046291	0.0046291	5	91%	80	120	0%	
Lanthanum	A	mg/L	0.00001013	0.00001013		0	0	0	1.683E-05	0.001	0.1	0%			0%	
Lead	A	mg/L	0.00001918	0.00001918		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	-0.0001796	-0.0001796		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	38.62	38.62		50	0	0	0.0118993	0.0118993	50	77%			0%	
Manganese	A	mg/L	0.0001812	0.0001812		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	5.591E-06	5.591E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.7712	0.7712		0.8	0	0	8.338E-05	0.001	0.1	96%	80	120	0%	
Nickel	A	mg/L	0.0001704	0.0001704		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	35.3	35.3		50	0	0	0.207399	0.207399	50	71%			0%	
Selenium	A	mg/L	0.0001392	0.0001392		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	-0.06645	-0.06645		0	0	0	0.0146174	0.1	0.4	0%			0%	
Silver	A	mg/L	0.00005844	0.00005844		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	96.16	96.16		100	0	0	0.0809273	0.0809273	50	96%			0%	
Strontium	A	mg/L	0.001214	0.001214		0	0	0	0.0001825	0.001	1	0%			0%	
Thallium	A	mg/L	0.0001769	0.0001769		0	0	0	0.0002991	0.001	1	0%			0%	
Thorium	A	mg/L	0.0001569	0.0001569		0	0	0	0.0010473	0.0010473	1	0%			0%	
Tin	A	mg/L	-0.002146	-0.002146		0	0	0	0.0022388	0.0022388	0.1	0%			0%	
Titanium	A	mg/L	0.7884	0.7884		0.8	0	0	0.0002974	0.001	1	99%			0%	
Uranium	A	mg/L	6.311E-06	6.311E-06		0	0	0	3.139E-05	0.0003	1	0%			0%	
Vanadium	A	mg/L	-0.0001624	-0.0001624		0	0	0	0.0043468	0.0043468	1	0%			0%	
Zinc	A	mg/L	0.0004544	0.0004544		0	0	0	0.0011598	0.0011598	1	0%			0%	
Iron, Ferrous	C	mg/L	90.8	90.8		0	0	0	0.0046291	0.0046291	5	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14985218	ICSAB	ICPMS-6020-W-	ICSAB		1/19/2022 5:50:2	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	34.29	34.29		40	0	0	0.0006548	0.001	1	86%	80	120	0%	
Antimony	A	mg/L	0.00001619	0.00001619		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.01042	0.01042		0.01	0	0	0.0001814	0.001	1	104%	80	120	0%	
Barium	A	mg/L	0.00006868	0.00006868		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	0.00002178	0.00002178		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	-0.000295	-0.000295		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	0.009732	0.009732		0.01	0	0	5.139E-05	0.001	1	97%	80	120	0%	
Calcium	A	mg/L	96.84	96.84		120	0	0	0.0749796	0.0749796	50	81%	80	120	0%	
Cerium	A	mg/L	4.297E-06	4.297E-06		0	0	0	1.462E-05	0.001	0.1	0%			0%	
Chromium	A	mg/L	0.02019	0.02019		0.02	0	0	0.0005481	0.001	1	101%	80	120	0%	
Cobalt	A	mg/L	0.01893	0.01893		0.02	0	0	4.756E-05	0.001	1	95%	80	120	0%	
Copper	A	mg/L	0.01951	0.01951		0.02	0	0	0.0003828	0.001	1	98%	80	120	0%	
Iron	A	mg/L	86.81	86.81		100	0	0	0.0046291	0.0046291	5	87%	80	120	0%	
Lanthanum	A	mg/L	8.962E-06	8.962E-06		0	0	0	1.683E-05	0.001	0.1	0%			0%	
Lead	A	mg/L	0.00001885	0.00001885		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	-0.0005909	-0.0005909		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	36	36		40	0	0	0.0118993	0.0118993	50	90%	80	120	0%	
Manganese	A	mg/L	0.01844	0.01844		0.02	0	0	0.0001444	0.001	1	92%	80	120	0%	
Mercury	A	mg/L	1.381E-06	1.381E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.7958	0.7958		0.8	0	0	8.338E-05	0.001	0.1	99%	80	120	0%	
Nickel	A	mg/L	0.01986	0.01986		0.02	0	0	0.0002531	0.001	1	99%	80	120	0%	
Potassium	A	mg/L	32.99	32.99		40	0	0	0.207399	0.207399	50	82%	80	120	0%	
Selenium	A	mg/L	0.01098	0.01098		0.01	0	0	0.0001415	0.001	1	110%	80	120	0%	
Silicon	A	mg/L	-0.06594	-0.06594		0	0	0	0.0146174	0.1	0.4	0%			0%	
Silver	A	mg/L	0.004843	0.004843		0.005	0	0	1.123E-05	0.001	0.04	97%	80	120	0%	
Sodium	A	mg/L	92.37	92.37		100	0	0	0.0809273	0.0809273	50	92%	80	120	0%	
Strontium	A	mg/L	0.001226	0.001226		0	0	0	0.0001825	0.001	1	0%			0%	
Thallium	A	mg/L	0.0001433	0.0001433		0	0	0	0.0002991	0.001	1	0%			0%	
Thorium	A	mg/L	0.0000863	0.0000863		0	0	0	0.0010473	0.0010473	1	0%			0%	
Tin	A	mg/L	-0.002154	-0.002154		0	0	0	0.0022388	0.0022388	0.1	0%			0%	
Titanium	A	mg/L	0.7268	0.7268		0.8	0	0	0.0002974	0.001	1	91%	80	120	0%	
Uranium	A	mg/L	2.057E-06	2.057E-06		0	0	0	3.139E-05	0.0003	1	0%			0%	
Vanadium	A	mg/L	0.01855	0.01855		0.02	0	0	0.0043468	0.0043468	1	93%	80	120	0%	
Zinc	A	mg/L	0.01011	0.01011		0.01	0	0	0.0011598	0.0011598	1	101%	80	120	0%	
Iron, Ferrous	C	mg/L	86.81	86.81		0	0	0	0.0046291	0.0046291	5	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985219	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 5:56:0	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0008047	0.0008047		0	0	0	0.0006548	0.001	1	0%	0	0	0%	J
Antimony	A	mg/L	0.00001088	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00004529	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00007118	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00006788	0.00006788		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	J
Cerium	A	mg/L	0.00001098	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.00006033	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00005198	0.00005198		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	J
Copper	A	mg/L	0.00005872	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00005762	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	0.00006848	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	-8.672E-08	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.0001032	0.0001032		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Nickel	A	mg/L	0.00004375	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	A	mg/L	0.00003135	0.00003135		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.00006096	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001686	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.0000593	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00005118	0.00005118		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Iron	B	mg/L	0.002587	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	0.002587	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Sodium	B	mg/L	0.02861	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Thorium	B	mg/L	0.00004952	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Vanadium	B	mg/L	-9.041E-05	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	0.00008212	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985220	CCV	ICPMS-6020-W-	CCV		1/19/2022 6:01:5	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04523	0.04523		0.05	0	0	0.0006548	0.001	1	90%	90	110	0%	
Antimony	A	mg/L	0.04601	0.04601		0.05	0	0	0.0002987	0.001	0.1	92%	90	110	0%	
Arsenic	A	mg/L	0.05165	0.05165		0.05	0	0	0.0001814	0.001	1	103%	90	110	0%	
Barium	A	mg/L	0.04814	0.04814		0.05	0	0	0.0001321	0.001	1	96%	90	110	0%	
Beryllium	A	mg/L	0.04103	0.04103		0.05	0	0	7.465E-05	0.001	1	82%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985220	CCV	ICPMS-6020-W-	CCV		1/19/2022 6:01:5	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Boron	A	mg/L	0.04033	0.04033		0.05	0	0	0.0030032	0.0030032	1	81%	90	110	0%	S
Cadmium	A	mg/L	0.04959	0.04959		0.05	0	0	5.139E-05	0.001	1	99%	90	110	0%	
Calcium	A	mg/L	11.07	11.07		12.5	0	0	0.0749796	0.0749796	50	89%	90	110	0%	S
Cerium	A	mg/L	0.04877	0.04877		0.05	0	0	1.462E-05	0.001	0.1	98%	90	110	0%	
Chromium	A	mg/L	0.05099	0.05099		0.05	0	0	0.0005481	0.001	1	102%	90	110	0%	
Cobalt	A	mg/L	0.04717	0.04717		0.05	0	0	4.756E-05	0.001	1	94%	90	110	0%	
Copper	A	mg/L	0.05247	0.05247		0.05	0	0	0.0003828	0.001	1	105%	90	110	0%	
Iron	A	mg/L	1.168	1.168		1.3	0	0	0.0046291	0.0046291	5	90%	90	110	0%	
Lanthanum	A	mg/L	0.0493	0.0493		0.05	0	0	1.683E-05	0.001	0.1	99%	90	110	0%	
Lead	A	mg/L	0.04831	0.04831		0.05	0	0	6.264E-05	0.001	1	97%	90	110	0%	
Lithium	A	mg/L	0.3681	0.3681		0.625	0	0	0.0052105	0.0052105	2.5	59%	90	110	0%	S
Magnesium	A	mg/L	10.9	10.9		12.5	0	0	0.0118993	0.0118993	50	87%	90	110	0%	S
Manganese	A	mg/L	0.04665	0.04665		0.05	0	0	0.0001444	0.001	1	93%	90	110	0%	
Mercury	A	mg/L	0.0009892	0.0009892		0.001	0	0	0.000066	0.001	0.02	99%	90	110	0%	
Molybdenum	A	mg/L	0.05025	0.05025		0.05	0	0	8.338E-05	0.001	0.1	100%	90	110	0%	
Nickel	A	mg/L	0.05192	0.05192		0.05	0	0	0.0002531	0.001	1	104%	90	110	0%	
Potassium	A	mg/L	10.64	10.64		12.5	0	0	0.207399	0.207399	50	85%	90	110	0%	S
Selenium	A	mg/L	0.05446	0.05446		0.05	0	0	0.0001415	0.001	1	109%	90	110	0%	
Silicon	A	mg/L	0.1795	0.1795		0.2	0	0	0.0146174	0.1	0.4	90%	90	110	0%	
Silver	A	mg/L	0.02012	0.02012		0.02	0	0	1.123E-05	0.001	0.04	101%	90	110	0%	
Sodium	A	mg/L	11.79	11.79		12.5	0	0	0.0809273	0.0809273	50	94%	90	110	0%	
Strontium	A	mg/L	0.0513	0.0513		0.05	0	0	0.0001825	0.001	1	103%	90	110	0%	
Thallium	A	mg/L	0.0508	0.0508		0.05	0	0	0.0002991	0.001	1	102%	90	110	0%	
Thorium	A	mg/L	0.05132	0.05132		0.05	0	0	0.0010473	0.0010473	1	103%	90	110	0%	
Tin	A	mg/L	0.04699	0.04699		0.05	0	0	0.0022388	0.0022388	0.1	94%	90	110	0%	
Titanium	A	mg/L	0.04643	0.04643		0.05	0	0	0.0002974	0.001	1	93%	90	110	0%	
Uranium	A	mg/L	0.04786	0.04786		0.05	0	0	3.139E-05	0.0003	1	96%	90	110	0%	
Vanadium	A	mg/L	0.0486	0.0486		0.05	0	0	0.0043468	0.0043468	1	97%	90	110	0%	
Zinc	A	mg/L	0.0519	0.0519		0.05	0	0	0.0011598	0.0011598	1	104%	90	110	0%	
Iron, Ferrous	C	mg/L	1.168	1.168		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985221	CCB	ICPMS-6020-W-	CCB		1/19/2022 6:07:3	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist			
14985221	CCB	ICPMS-6020-W-	CCB		1/19/2022 6:07:3	1	R373351		0	0				

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0001734	0.0001734		0	0	0	0.0006548	0.001	1	0%			0%	
Antimony	A	mg/L	0.00003263	0.00003263		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	1.997E-06	1.997E-06		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	3.884E-06	3.884E-06		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	0.00002558	0.00002558		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	-0.0001061	-0.0001061		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	5.024E-07	5.024E-07		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	0.0003661	0.0003661		0	0	0	0.0749796	0.0749796	50	0%			0%	
Cerium	A	mg/L	1.103E-06	1.103E-06		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.00001348	0.00001348		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	2.286E-06	2.286E-06		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	4.363E-07	4.363E-07		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	0.0008886	0.0008886		0	0	0	0.0046291	0.0046291	5	0%			0%	
Lanthanum	A	mg/L	1.779E-07	1.779E-07		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	1.919E-06	1.919E-06		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	-0.0007969	-0.0007969		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	-0.0005714	-0.0005714		0	0	0	0.0118993	0.0118993	50	0%			0%	
Manganese	A	mg/L	-6.216E-06	-6.216E-06		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	4.956E-06	4.956E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.00002203	0.00002203		0	0	0	8.338E-05	0.001	0.1	0%			0%	
Nickel	A	mg/L	-1.837E-05	-1.837E-05		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	0.001241	0.001241		0	0	0	0.207399	0.207399	50	0%			0%	
Selenium	A	mg/L	0.00005299	0.00005299		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	-0.06969	-0.06969		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.00001094	0.00001094		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	-0.01214	-0.01214		0	0	0	0.0809273	0.0809273	50	0%			0%	
Strontium	A	mg/L	1.881E-06	1.881E-06		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00009062	0.00009062		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.0000314	0.0000314		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	0.0002201	0.0002201		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00000503	0.00000503		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	2.046E-06	2.046E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	-0.0001168	-0.0001168		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	-4.588E-06	-4.588E-06		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.0008886	0.0008886		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14985222	B22010751-001	ICPMS-6020-W-	SAMP		1/19/2022 6:13:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Copper	A	mg/L	0.003026	0.003026		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00007415	0.00007415		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	J
Aluminum	B	mg/L	0.007666	0.007666		0	0	0	0.0006548	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.0001937	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	U
Arsenic	B	mg/L	0.0005006	0.0005006		0	0	0	0.0001814	0.001	1	0%	0	0	0%	J
Barium	B	mg/L	0.07784	0.07784		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.0000741	0.0000741		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	J
Cerium	B	mg/L	0.00001642	0.00001642		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	J
Chromium	B	mg/L	0.001328	0.001328		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	B	mg/L	0.0009353	0.0009353		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	J
Iron	B	mg/L	0.007702	0.007702		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	UD
Iron, Ferrous	B	mg/L	0.007702	0.007702		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	UD
Manganese	B	mg/L	0.1321	0.1321		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	B	mg/L	6.791E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	B	mg/L	0.001579	0.001579		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	B	mg/L	0.007172	0.007172		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-7.111E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	B	mg/L	0.3701	0.3701		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00008374	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Thorium	B	mg/L	0.00005992	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Titanium	B	mg/L	0.001696	0.001696		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	B	mg/L	0.0002716	0.0002716		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Vanadium	B	mg/L	0.009638	0.009638		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	UD
Zinc	B	mg/L	0.009536	0.009536		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987728	B22010971-001	ICPMS-6020-W-	SAMP		1/19/2022 6:19:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.0004223	0.0004223		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	J
Arsenic	A	mg/L	0.001495	0.001495		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.02037	0.02037		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	3.754E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	1.856E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	0.002148	0.002148		0	0	0	0.0005481	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987728	B22010971-001	ICPMS-6020-W-	SAMP		1/19/2022 6:19:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Cobalt	A	mg/L	0.00002415	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	U
Copper	A	mg/L	0.0002148	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	U
Lead	A	mg/L	0.0001167	0.0001167		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	J
Mercury	A	mg/L	0.00001857	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.004748	0.004748		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.0003526	0.0003526		0	0	0	0.0002531	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-6.939E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.1131	0.1131		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00005609	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Titanium	A	mg/L	0.001362	0.001362		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0002638	0.0002638		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Sodium	B	mg/L	41.12	41.12		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	-0.0000147	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	0.009093	0.009093		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	UD
Zinc	B	mg/L	0.004286	0.004286		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987729	B22010971-001	ICPMS-6020-W-	SAMP		1/19/2022 6:25:1	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.001501	0.001501		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.02173	0.02173		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00002234	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	0.00005411	0.00005411		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Cobalt	A	mg/L	0.00005673	0		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Lanthanum	A	mg/L	0.00002107	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00004372	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.008162	0.008162		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.00559	0.00559		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.0001159	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-0.0000344	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.1269	0.1269		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00003037	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.003366	0.003366		0	0	0	0.0001634	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0002998	0.0002998		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987729	B22010971-001	ICPMS-6020-W-	SAMP		1/19/2022 6:25:1	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	B	mg/L	0.0004418	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Chromium	B	mg/L	0.00269	0.00269		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Copper	B	mg/L	0.0006115	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.0004916	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Sodium	B	mg/L	49.45	49.45		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00009433	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.0104	0.0104		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987730	B22010971-001	ICPMS-6020-W-	SD		1/19/2022 6:30:5	5	162992	1/17/2022 1:	0	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.007542	0.03771		0	0	0.03352	0.0159875	0.0159875	1	0%	0	0		N
Antimony	A	mg/L	0.00008447	0		0	0	0	0.0049	0.0106858	0.1	0%	0	0		
Arsenic	A	mg/L	0.0003024	0.001512		0	0	0.001501	0.0013383	0.0013383	1	0%	0	0		N
Barium	A	mg/L	0.004657	0.023285		0	0	0.02173	0.0012039	0.0012039	1	0%	0	0	7%	
Beryllium	A	mg/L	3.695E-06	0		0	0	0	0.0007817	0.01	1	0%	0	0		
Boron	A	mg/L	0.007351	0		0	0	0.03606	0.07335	0.07335	1	0%	0	0		
Cadmium	A	mg/L	0.0000259	0		0	0	0	0.0002284	0.005	1	0%	0	0		
Calcium	A	mg/L	2.357	11.785		0	0	11.99	0.5517403	0.5517403	150	0%	0	0	2%	
Cerium	A	mg/L	0.0000134	0		0	0	5.411E-05	0.00025	0.001	0.1	0%	0	0		
Chromium	A	mg/L	0.0004723	0		0	0	0.00269	0.0077	0.0077	1	0%	0	0		
Cobalt	A	mg/L	0.00001001	0		0	0	0	0.00036	0.001	1	0%	0	0		
Copper	A	mg/L	0.0001438	0		0	0	0	0.0099	0.017376	1	0%	0	0		
Iron	A	mg/L	0.006265	0.031325		0	0	0.03101	0.02565	0.02565	5	0%	0	0		N
Lanthanum	A	mg/L	5.415E-06	0		0	0	0	0.000275	0.001	0.1	0%	0	0		
Lead	A	mg/L	0.00001384	0		0	0	0	0.0003858	0.001	1	0%	0	0		
Magnesium	A	mg/L	1.796	8.98		0	0	9.482	0.0407608	0.0407608	50	0%	0	0	5%	
Manganese	A	mg/L	0.001454	0.00727		0	0	0.008162	0.0010695	0.0010695	1	0%	0	0		N
Molybdenum	A	mg/L	0.001152	0.00576		0	0	0.00559	0.0008814	0.001	0.1	0%	0	0		N
Nickel	A	mg/L	0.0001076	0		0	0	0	0.0121000	0.0121000	1	0%	0	0		
Potassium	A	mg/L	0.5349	2.6745		0	0	3.116	0.1306027	0.1306027	50	0%	0	0	15%	R
Selenium	A	mg/L	0.0000302	0		0	0	0	0.0029274	0.0029274	1	0%	0	0		
Silicon	A	mg/L	4.7	23.5		0	0	23.35	0.026606	0.026606	0.4	0%	0	0	1%	
Silver	A	mg/L	-0.0000642	0		0	0	0	0.0002158	0.001	0.04	0%	0	0		

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987730	B22010971-001	ICPMS-6020-W-	SD		1/19/2022 6:30:5	5	162992	1/17/2022 1:	0	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Sodium	A	mg/L	8.799	43.995		0	0	49.45	3.6651346	3.6651346	50	0%	0	0	12%	R
Strontium	A	mg/L	0.02489	0.12445		0	0	0.1269	0.0006322	0.001	1	0%	0	0	2%	
Thallium	A	mg/L	0.00002316	0		0	0	0	0.0005569	0.001	1	0%	0	0		
Thorium	A	mg/L	-9.021E-07	0		0	0	0	0.02075	0.02075	1	0%	0	0		
Tin	A	mg/L	-0.002334	0		0	0	0	0.0055874	0.0055874	0.1	0%	0	0		
Titanium	A	mg/L	0.0006318	0.003159		0	0	0.003366	0.0008168	0.001	1	0%	0	0		N
Uranium	A	mg/L	0.00006062	0		0	0	0.0002998	0.0004224	0.0004224	1	0%	0	0		
Vanadium	A	mg/L	0.001713	0		0	0	0.0104	0.0105423	0.0105423	1	0%	0	0		
Zinc	A	mg/L	0.001992	0		0	0	0.02303	0.0327721	0.0327721	1	0%	0	0		
Silica	C	mg/L	10.05424	50.2712		0	0	0	0.0569155	0.0569155	5	0%	0	0		N
Silicon as SiO2	C	mg/L	10.05424	50.2712		0	0	0	0.0569155	0.0569155	5	0%	0	0		N

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987731	B22010971-001	ICPMS-6020-W-	PDS1		1/19/2022 6:36:3	1.03	162992	1/17/2022 1:	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.07638	0.0786714		0.0515	0.03352	0	0.0032934	0.0032934	1	88%	75	125	0%	
Antimony	A	mg/L	0.04363	0.0449389		0.0515	0	0	0.0010094	0.0022013	0.1	87%	75	125	0%	
Arsenic	A	mg/L	0.04882	0.0502846		0.0515	0.001501	0	0.0002757	0.001	1	95%	75	125	0%	
Barium	A	mg/L	0.06633	0.0683199		0.0515	0.02173	0	0.0002480	0.001	1	90%	75	125	0%	
Beryllium	A	mg/L	0.04028	0.0414884		0.0515	0	0	0.0001610	0.01	1	81%	75	125	0%	
Boron	A	mg/L	0.07992	0.0823176		0.0515	0.03606	0	0.0151101	0.0151101	1	90%	75	125	0%	
Cadmium	A	mg/L	0.04277	0.0440531		0.0515	0	0	4.704E-05	0.005	1	86%	75	125	0%	
Calcium	A	mg/L	53.27	54.8681		51.5	11.99	0	0.1136585	0.1136585	150	83%	75	125	0%	
Cerium	A	mg/L	0.04726	0.0486778		0.0515	5.411E-05	0	0.0000515	0.001	0.1	94%	75	125	0%	
Chromium	A	mg/L	0.0524	0.053972		0.0515	0.00269	0	0.0015862	0.0015862	1	100%	75	125	0%	
Cobalt	A	mg/L	0.04328	0.0445784		0.0515	0	0	7.416E-05	0.001	1	87%	75	125	0%	
Copper	A	mg/L	0.04877	0.0502331		0.0515	0	0	0.0020394	0.0035794	1	98%	75	125	0%	
Iron	A	mg/L	4.426	4.55878		5.15	0.03101	0	0.0052839	0.0052839	5	88%	75	125	0%	
Lanthanum	A	mg/L	0.00002805	0		0.0515	0	0	5.665E-05	0.001	0.1	0%	75	125	0%	S
Lead	A	mg/L	0.04618	0.0475654		0.0515	0	0	7.947E-05	0.001	1	92%	80	120	0%	
Magnesium	A	mg/L	59.06	60.8318		51.5	9.482	0	0.0083967	0.0083967	50	100%	75	125	0%	
Manganese	A	mg/L	0.05494	0.0565882		0.0515	0.008162	0	0.0002203	0.001	1	94%	75	125	0%	
Molybdenum	A	mg/L	0.05399	0.0556097		0.0515	0.00559	0	0.0001816	0.001	0.1	97%	75	125	0%	
Nickel	A	mg/L	0.04955	0.0510365		0.0515	0	0	0.0024926	0.0024926	1	99%	75	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987731	B22010971-001	ICPMS-6020-W-	PDS1		1/19/2022 6:36:3	1.03	162992	1/17/2022 1:	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Potassium	A	mg/L	46.55	47.9465		51.5	3.116	0	0.0269042	0.0269042	50	87%	75	125	0%	
Selenium	A	mg/L	0.04651	0.0479053		0.0515	0	0	0.0006030	0.001	1	93%	75	125	0%	
Silicon	A	mg/L	23.03	23.7209		0.206	23.35	0	0.0054808	0.0054808	0.4		0	0	0%	A
Silver	A	mg/L	0.01972	0.0203116		0.0206	0	0	4.446E-05	0.001	0.04	99%	75	125	0%	
Sodium	A	mg/L	94.03	96.8509		51.5	49.45	0	0.7550177	0.7550177	50	92%	75	125	0%	
Strontium	A	mg/L	0.1668	0.171804		0.0515	0.1269	0	0.0001302	0.001	1	87%	75	125	0%	
Thallium	A	mg/L	0.0486	0.050058		0.0515	0	0	0.0001147	0.001	1	97%	75	125	0%	
Thorium	A	mg/L	0.05176	0.0533128		0.0515	0	0	0.0042745	0.0042745	1	104%	75	125	0%	
Tin	A	mg/L	0.04411	0.0454333		0.0515	0	0	0.001151	0.001151	0.1	88%	75	125	0%	
Titanium	A	mg/L	0.05231	0.0538793		0.0515	0.003366	0	0.0001683	0.001	1	98%	75	125	0%	
Uranium	A	mg/L	0.04688	0.0482864		0.0515	0.0002998	0	8.702E-05	0.0003	1	93%	75	125	0%	
Vanadium	A	mg/L	0.0568	0.058504		0.0515	0.0104	0	0.0021717	0.0021717	1	93%	75	125	0%	
Zinc	A	mg/L	0.04786	0.0492958		0.0515	0.02303	0	0.0067511	0.0067511	1	51%	75	125	0%	S
Silica	C	mg/L	49.265776	50.7437493		0	0	0	0.0117246	0.0117246	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	49.265776	50.7437493		0.0515	0	0	0.0117246	0.0117246	5	98532%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987732	B22010971-001	ICPMS-6020-W-	MS4		1/19/2022 6:42:1	1	162992	1/17/2022 1:	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.5082	0.5082		0.5	0.03352	0	0.0031975	0.0031975	1	95%	75	125	0%	
Antimony	A	mg/L	0.09497	0.09497		0.1	0	0	0.00098	0.0021372	0.1	95%	75	125	0%	
Arsenic	A	mg/L	0.1006	0.1006		0.1	0.001501	0	0.0002677	0.001	1	99%	75	125	0%	
Barium	A	mg/L	0.114	0.114		0.1	0.02173	0	0.0002408	0.001	1	92%	75	125	0%	
Beryllium	A	mg/L	0.04324	0.04324		0.05	0	0	0.0001563	0.01	1	86%	75	125	0%	
Boron	A	mg/L	0.1366	0.1366		0.1	0.03606	0	0.01467	0.01467	1	101%	75	125	0%	
Cadmium	A	mg/L	0.04716	0.04716		0.05	0	0	4.567E-05	0.005	1	94%	75	125	0%	
Calcium	A	mg/L	16.85	16.85		5	11.99	0	0.1103481	0.1103481	150	97%	75	125	0%	
Cerium	A	mg/L	0.1012	0.1012		0.1	5.411E-05	0	0.00005	0.001	0.1	101%	75	125	0%	
Chromium	A	mg/L	0.106	0.106		0.1	0.00269	0	0.00154	0.00154	1	103%	75	125	0%	
Cobalt	A	mg/L	0.09581	0.09581		0.1	0	0	0.000072	0.001	1	96%	75	125	0%	
Copper	A	mg/L	0.1072	0.1072		0.1	0	0	0.00198	0.0034752	1	107%	75	125	0%	
Iron	A	mg/L	0.489	0.489		0.5	0.03101	0	0.00513	0.00513	5	92%	75	125	0%	
Lanthanum	A	mg/L	0.1005	0.1005		0.1	0	0	0.000055	0.001	0.1	100%	75	125	0%	
Lead	A	mg/L	0.09976	0.09976		0.1	0	0	7.716E-05	0.001	1	100%	88	115	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987732	B22010971-001	ICPMS-6020-W-	MS4		1/19/2022 6:42:1	1	162992	1/17/2022 1:	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Magnesium	A	mg/L	13.83	13.83		5	9.482	0	0.0081522	0.0081522	50	87%	75	125	0%	
Manganese	A	mg/L	0.5204	0.5204		0.5	0.008162	0	0.0002139	0.001	1	102%	75	125	0%	
Molybdenum	A	mg/L	0.1048	0.1048		0.1	0.00559	0	0.0001763	0.001	0.1	99%	75	125	0%	
Nickel	A	mg/L	0.1073	0.1073		0.1	0	0	0.0024200	0.0024200	1	107%	75	125	0%	
Potassium	A	mg/L	7.66	7.66		5	3.116	0	0.0261205	0.0261205	50	91%	75	125	0%	
Selenium	A	mg/L	0.09983	0.09983		0.1	0	0	0.0005855	0.001	1	100%	75	125	0%	
Silicon	A	mg/L	23.92	23.92		1	23.35	0	0.0053212	0.0053212	0.4		75	125	0%	A
Silver	A	mg/L	0.009808	0.009808		0.01	0	0	4.316E-05	0.001	0.04	98%	75	125	0%	
Sodium	A	mg/L	49.97	49.97		5	49.45	0	0.7330269	0.7330269	50		75	125	0%	A
Strontium	A	mg/L	0.2204	0.2204		0.1	0.1269	0	0.0001264	0.001	1	93%	75	125	0%	
Thallium	A	mg/L	0.09843	0.09843		0.1	0	0	0.0001114	0.001	1	98%	75	125	0%	
Thorium	A	mg/L	0.105	0.105		0.1	0	0	0.00415	0.00415	1	105%	75	125	0%	
Tin	A	mg/L	0.1006	0.1006		0.1	0	0	0.0011175	0.0011175	0.1	101%	75	125	0%	
Titanium	A	mg/L	0.09638	0.09638		0.1	0.003366	0	0.0001634	0.001	1	93%	75	125	0%	
Uranium	A	mg/L	0.1	0.1		0.1	0.0002998	0	8.449E-05	0.0003	1	100%	75	125	0%	
Vanadium	A	mg/L	0.1125	0.1125		0.1	0.0104	0	0.0021085	0.0021085	1	102%	75	125	0%	
Zinc	A	mg/L	0.1006	0.1006		0.1	0.02303	0	0.0065544	0.0065544	1	78%	75	125	0%	
Silica	C	mg/L	51.169664	51.169664		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	51.169664	51.169664		2.14	0	0	0.0113831	0.0113831	5	2391%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987733	B22010971-001	ICPMS-6020-W-	MSD4		1/19/2022 6:47:5	1	162992	1/17/2022 1:	1E+07	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.5032	0.5032		0.5	0.03352	0.5082	0.0031975	0.0031975	1	94%	75	125	1%	
Antimony	A	mg/L	0.09441	0.09441		0.1	0	0.09497	0.00098	0.0021372	0.1	94%	75	125	1%	
Arsenic	A	mg/L	0.1024	0.1024		0.1	0.001501	0.1006	0.0002677	0.001	1	101%	75	125	2%	
Barium	A	mg/L	0.1095	0.1095		0.1	0.02173	0.114	0.0002408	0.001	1	88%	75	125	4%	
Beryllium	A	mg/L	0.0428	0.0428		0.05	0	0.04324	0.0001563	0.01	1	86%	75	125	1%	
Boron	A	mg/L	0.1277	0.1277		0.1	0.03606	0.1366	0.01467	0.01467	1	92%	75	125	7%	
Cadmium	A	mg/L	0.04575	0.04575		0.05	0	0.04716	4.567E-05	0.005	1	91%	75	125	3%	
Calcium	A	mg/L	16.64	16.64		5	11.99	16.85	0.1103481	0.1103481	150	93%	75	125	1%	
Cerium	A	mg/L	0.1016	0.1016		0.1	5.411E-05	0.1012	0.00005	0.001	0.1	102%	75	125	0%	
Chromium	A	mg/L	0.1076	0.1076		0.1	0.00269	0.106	0.00154	0.00154	1	105%	75	125	1%	
Cobalt	A	mg/L	0.09415	0.09415		0.1	0	0.09581	0.000072	0.001	1	94%	75	125	2%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987733	B22010971-001	ICPMS-6020-W-	MSD4		1/19/2022 6:47:5	1	162992	1/17/2022 1:	1E+07	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Copper	A	mg/L	0.1082	0.1082		0.1	0	0.1072	0.00198	0.0034752	1	108%	75	125	1%	
Iron	A	mg/L	0.4919	0.4919		0.5	0.03101	0.489	0.00513	0.00513	5	92%	75	125	1%	
Lanthanum	A	mg/L	0.1022	0.1022		0.1	0	0.1005	0.000055	0.001	0.1	102%	75	125	2%	
Lead	A	mg/L	0.09603	0.09603		0.1	0	0.09976	7.716E-05	0.001	1	96%	88	115	4%	
Magnesium	A	mg/L	14.37	14.37		5	9.482	13.83	0.0081522	0.0081522	50	98%	75	125	4%	
Manganese	A	mg/L	0.5155	0.5155		0.5	0.008162	0.5204	0.0002139	0.001	1	101%	75	125	1%	
Molybdenum	A	mg/L	0.1047	0.1047		0.1	0.00559	0.1048	0.0001763	0.001	0.1	99%	75	125	0%	
Nickel	A	mg/L	0.1066	0.1066		0.1	0	0.1073	0.0024200	0.0024200	1	107%	75	125	1%	
Potassium	A	mg/L	7.498	7.498		5	3.116	7.66	0.0261205	0.0261205	50	88%	75	125	2%	
Selenium	A	mg/L	0.09929	0.09929		0.1	0	0.09983	0.0005855	0.001	1	99%	75	125	1%	
Silicon	A	mg/L	24.56	24.56		1	23.35	23.92	0.0053212	0.0053212	0.4		75	125	3%	A
Silver	A	mg/L	0.009975	0.009975		0.01	0	0.009808	4.316E-05	0.001	0.04	100%	75	125	2%	
Sodium	A	mg/L	51.73	51.73		5	49.45	49.97	0.7330269	0.7330269	50		75	125	3%	A
Strontium	A	mg/L	0.2223	0.2223		0.1	0.1269	0.2204	0.0001264	0.001	1	95%	75	125	1%	
Thallium	A	mg/L	0.1028	0.1028		0.1	0	0.09843	0.0001114	0.001	1	103%	75	125	4%	
Thorium	A	mg/L	0.1095	0.1095		0.1	0	0.105	0.00415	0.00415	1	109%	75	125	4%	
Tin	A	mg/L	0.1001	0.1001		0.1	0	0.1006	0.0011175	0.0011175	0.1	100%	75	125	0%	
Titanium	A	mg/L	0.09454	0.09454		0.1	0.003366	0.09638	0.0001634	0.001	1	91%	75	125	2%	
Uranium	A	mg/L	0.09582	0.09582		0.1	0.0002998	0.1	8.449E-05	0.0003	1	96%	75	125	4%	
Vanadium	A	mg/L	0.1113	0.1113		0.1	0.0104	0.1125	0.0021085	0.0021085	1	101%	75	125	1%	
Zinc	A	mg/L	0.1022	0.1022		0.1	0.02303	0.1006	0.0065544	0.0065544	1	79%	75	125	2%	
Silica	C	mg/L	52.538752	52.538752		0	0	51.169664	0.0113831	0.0113831	5	0%	0	0	3%	
Silicon as SiO2	C	mg/L	52.538752	52.538752		2.14	0	51.169664	0.0113831	0.0113831	5	2455%	75	125	3%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987734	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 6:54:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00001203	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00001473	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00003987	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	7.042E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	3.653E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-1.179E-05	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	6.979E-06	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987734	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 6:54:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Copper	A	mg/L	0.00001029	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00001118	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	1.164E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00002029	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-2.491E-06	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	A	mg/L	0.00001326	0.00001326		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.00002151	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0003563	0.0003563		0	0	0	0.0002991	0.001	1	0%	0	0	0%	J
Titanium	A	mg/L	0.00001586	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001339	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Sodium	B	mg/L	0.1688	0.1688		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00005949	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Vanadium	B	mg/L	-5.902E-05	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	0.00005399	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987735	B22010972-001	ICPMS-6020-W-	SAMP		1/19/2022 6:59:5	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	5.386E-08	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	U
Arsenic	A	mg/L	0.0004752	0.0004752		0	0	0	0.0001814	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.006174	0.006174		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	4.268E-07	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	2.545E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	0.00195	0.00195		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00002238	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	U
Copper	A	mg/L	0.0006316	0.0006316		0	0	0	0.0003828	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	3.547E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Mercury	A	mg/L	-4.537E-07	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.0007275	0.0007275		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Nickel	A	mg/L	0.0002213	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	U
Silver	A	mg/L	-6.599E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.1201	0.1201		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0002706	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Titanium	A	mg/L	0.001521	0.001521		0	0	0	0.0002974	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987735	B22010972-001	ICPMS-6020-W-	SAMP		1/19/2022 6:59:5	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Uranium	A	mg/L	0.000032	0.000032		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Sodium	B	mg/L	37.15	37.15		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	-4.427E-06	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	0.009589	0.009589		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	UD
Zinc	B	mg/L	0.009863	0.009863		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987736	B22010972-001	ICPMS-6020-W-	SAMP		1/19/2022 7:05:4	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0005148	0.0005148		0	0	0	0.0002677	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.005705	0.005705		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	7.582E-06	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	0.00003357	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Cobalt	A	mg/L	0.0000649	0		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Lanthanum	A	mg/L	0.00001516	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00002195	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.0008469	0.0008469		0	0	0	0.0002139	0.001	1	0%	0	0	0%	J
Molybdenum	A	mg/L	0.001212	0.001212		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.0001091	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	0.0005388	0.0005388		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.1301	0.1301		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.000112	0.000112		0	0	0	0.0001114	0.001	1	0%	0	0	0%	J
Titanium	A	mg/L	0.00799	0.00799		0	0	0	0.0001634	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00003595	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Antimony	B	mg/L	0.00001793	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Chromium	B	mg/L	0.002293	0.002293		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Copper	B	mg/L	0.0002056	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.0004531	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Sodium	B	mg/L	37.71	37.71		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.0001139	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.009729	0.009729		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987737	B22010973-001	ICPMS-6020-W-	SAMP		1/19/2022 7:11:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00003666	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	U
Arsenic	A	mg/L	0.0001602	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	U
Barium	A	mg/L	0.002402	0.002402		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	8.545E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	2.888E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	0.00006629	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	U
Cobalt	A	mg/L	0.00003216	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	U
Copper	A	mg/L	0.0002244	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	U
Lead	A	mg/L	0.00001314	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Mercury	A	mg/L	1.065E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.0169	0.0169		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.0002432	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	U
Silver	A	mg/L	-7.323E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.09147	0.09147		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.000129	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Titanium	A	mg/L	0.0005931	0.0005931		0	0	0	0.0002974	0.001	1	0%	0	0	0%	J
Uranium	A	mg/L	6.999E-06	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U
Sodium	B	mg/L	41.82	41.82		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	-1.393E-05	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	-9.172E-05	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	UL
Zinc	B	mg/L	0.003723	0.003723		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987738	CCV	ICPMS-6020-W-	CCV		1/19/2022 7:17:0	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04441	0.04441		0.05	0	0	0.0006548	0.001	1	89%	90	110	0%	S
Antimony	A	mg/L	0.04537	0.04537		0.05	0	0	0.0002987	0.001	0.1	91%	90	110	0%	
Arsenic	A	mg/L	0.05055	0.05055		0.05	0	0	0.0001814	0.001	1	101%	90	110	0%	
Barium	A	mg/L	0.0472	0.0472		0.05	0	0	0.0001321	0.001	1	94%	90	110	0%	
Beryllium	A	mg/L	0.04339	0.04339		0.05	0	0	7.465E-05	0.001	1	87%	90	110	0%	S
Boron	A	mg/L	0.04388	0.04388		0.05	0	0	0.0030032	0.0030032	1	88%	90	110	0%	S
Cadmium	A	mg/L	0.0492	0.0492		0.05	0	0	5.139E-05	0.001	1	98%	90	110	0%	
Calcium	A	mg/L	11.09	11.09		12.5	0	0	0.0749796	0.0749796	50	89%	90	110	0%	S
Cerium	A	mg/L	0.04726	0.04726		0.05	0	0	1.462E-05	0.001	0.1	95%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987738	CCV	ICPMS-6020-W-	CCV		1/19/2022 7:17:0	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Chromium	A	mg/L	0.0495	0.0495		0.05	0	0	0.0005481	0.001	1	99%	90	110	0%	
Cobalt	A	mg/L	0.04545	0.04545		0.05	0	0	4.756E-05	0.001	1	91%	90	110	0%	
Copper	A	mg/L	0.05161	0.05161		0.05	0	0	0.0003828	0.001	1	103%	90	110	0%	
Iron	A	mg/L	1.124	1.124		1.3	0	0	0.0046291	0.0046291	5	86%	90	110	0%	S
Lanthanum	A	mg/L	0.04731	0.04731		0.05	0	0	1.683E-05	0.001	0.1	95%	90	110	0%	
Lead	A	mg/L	0.04833	0.04833		0.05	0	0	6.264E-05	0.001	1	97%	90	110	0%	
Lithium	A	mg/L	0.3358	0.3358		0.625	0	0	0.0052105	0.0052105	2.5	54%	90	110	0%	S
Magnesium	A	mg/L	11.25	11.25		12.5	0	0	0.0118993	0.0118993	50	90%	90	110	0%	
Manganese	A	mg/L	0.04475	0.04475		0.05	0	0	0.0001444	0.001	1	89%	90	110	0%	S
Mercury	A	mg/L	0.0009825	0.0009825		0.001	0	0	0.000066	0.001	0.02	98%	90	110	0%	
Molybdenum	A	mg/L	0.0507	0.0507		0.05	0	0	8.338E-05	0.001	0.1	101%	90	110	0%	
Nickel	A	mg/L	0.05159	0.05159		0.05	0	0	0.0002531	0.001	1	103%	90	110	0%	
Potassium	A	mg/L	10.46	10.46		12.5	0	0	0.207399	0.207399	50	84%	90	110	0%	S
Selenium	A	mg/L	0.05519	0.05519		0.05	0	0	0.0001415	0.001	1	110%	90	110	0%	
Silicon	A	mg/L	0.1827	0.1827		0.2	0	0	0.0146174	0.1	0.4	91%	90	110	0%	
Silver	A	mg/L	0.02078	0.02078		0.02	0	0	1.123E-05	0.001	0.04	104%	90	110	0%	
Sodium	A	mg/L	11.35	11.35		12.5	0	0	0.0809273	0.0809273	50	91%	90	110	0%	
Strontium	A	mg/L	0.05146	0.05146		0.05	0	0	0.0001825	0.001	1	103%	90	110	0%	
Thallium	A	mg/L	0.05134	0.05134		0.05	0	0	0.0002991	0.001	1	103%	90	110	0%	
Thorium	A	mg/L	0.05302	0.05302		0.05	0	0	0.0010473	0.0010473	1	106%	90	110	0%	
Tin	A	mg/L	0.04571	0.04571		0.05	0	0	0.0022388	0.0022388	0.1	91%	90	110	0%	
Titanium	A	mg/L	0.04504	0.04504		0.05	0	0	0.0002974	0.001	1	90%	90	110	0%	
Uranium	A	mg/L	0.04829	0.04829		0.05	0	0	3.139E-05	0.0003	1	97%	90	110	0%	
Vanadium	A	mg/L	0.04773	0.04773		0.05	0	0	0.0043468	0.0043468	1	95%	90	110	0%	
Zinc	A	mg/L	0.05092	0.05092		0.05	0	0	0.0011598	0.0011598	1	102%	90	110	0%	
Iron, Ferrous	C	mg/L	1.124	1.124		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987739	CCB	ICPMS-6020-W-	CCB		1/19/2022 7:22:4	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	6.281E-06	6.281E-06		0	0	0	0.0006548	0.001	1	0%			0%	
Antimony	A	mg/L	0.00003508	0.00003508		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	-2.457E-06	-2.457E-06		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	6.179E-06	6.179E-06		0	0	0	0.0001321	0.001	1	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist			
14987739	CCB	ICPMS-6020-W-	CCB		1/19/2022 7:22:4	1	R373351		0	0				

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Beryllium	A	mg/L	8.688E-06	8.688E-06		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	-8.952E-05	-8.952E-05		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	-7.987E-07	-7.987E-07		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	-1.213E-05	-1.213E-05		0	0	0	0.0749796	0.0749796	50	0%			0%	
Cerium	A	mg/L	1.066E-06	1.066E-06		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.00001546	0.00001546		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	1.537E-06	1.537E-06		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	-6.68E-06	-6.68E-06		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	0.00001212	0.00001212		0	0	0	0.0046291	0.0046291	5	0%			0%	
Lanthanum	A	mg/L	2.185E-07	2.185E-07		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	1.088E-06	1.088E-06		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	-0.001319	-0.001319		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	-6.097E-05	-6.097E-05		0	0	0	0.0118993	0.0118993	50	0%			0%	
Manganese	A	mg/L	3.659E-06	3.659E-06		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	2.438E-06	2.438E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.00001647	0.00001647		0	0	0	8.338E-05	0.001	0.1	0%			0%	
Nickel	A	mg/L	-1.484E-05	-1.484E-05		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	0.0001462	0.0001462		0	0	0	0.207399	0.207399	50	0%			0%	
Selenium	A	mg/L	0.00000508	0.00000508		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	-0.07078	-0.07078		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	2.414E-06	2.414E-06		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	0.003892	0.003892		0	0	0	0.0809273	0.0809273	50	0%			0%	
Strontium	A	mg/L	2.094E-06	2.094E-06		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00008098	0.00008098		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00003931	0.00003931		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	-6.128E-06	-6.128E-06		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	1.345E-06	1.345E-06		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	3.353E-06	3.353E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	-2.434E-05	-2.434E-05		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	-3.251E-05	-3.251E-05		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.00001212	0.00001212		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14987740	B22010973-001	ICPMS-6020-W- SD			1/19/2022 7:28:3	5	R373351		0	1E+07					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001237	0.006185		0	0	0.001899	0.0032741	0.0032741	1	0%				N
Antimony	A	mg/L	8.824E-06	0		0	0	0	0.0014934	0.0014934	0.1	0%				
Arsenic	A	mg/L	0.00003076	0		0	0	0	0.0009071	0.001	1	0%				
Barium	A	mg/L	0.000506	0.00253		0	0	0.002402	0.0006604	0.001	1	0%				N
Beryllium	A	mg/L	1.027E-06	0		0	0	0	0.0003733	0.001	1	0%				
Boron	A	mg/L	0.0119	0.0595		0	0	0.07135	0.0150159	0.0150159	1	0%				N
Cadmium	A	mg/L	2.035E-06	0		0	0	0	0.000257	0.001	1	0%				
Calcium	A	mg/L	2.377	11.885		0	0	13.36	0.3748981	0.3748981	50	0%			12%	R
Cerium	A	mg/L	2.079E-06	0		0	0	0	0.0000731	0.001	0.1	0%				
Chromium	A	mg/L	0.00003123	0		0	0	0	0.0027407	0.0027407	1	0%				
Cobalt	A	mg/L	9.487E-06	0		0	0	0	0.0002378	0.001	1	0%				
Copper	A	mg/L	0.00007861	0		0	0	0	0.001914	0.001914	1	0%				
Iron	A	mg/L	0.004006	0		0	0	0.02104	0.0231453	0.0231453	5	0%				
Lanthanum	A	mg/L	1.883E-06	0		0	0	0	8.415E-05	0.001	0.1	0%				
Lead	A	mg/L	9.711E-06	0		0	0	0	0.0003132	0.001	1	0%				
Lithium	A	mg/L	-0.001643	0		0	0	0	0.0260526	0.0260526	2.5	0%				
Magnesium	A	mg/L	2.435	12.175		0	0	12.68	0.0594967	0.0594967	50	0%			4%	
Manganese	A	mg/L	0.004683	0.023415		0	0	0.02525	0.0007221	0.001	1	0%			8%	
Mercury	A	mg/L	1.332E-06	0		0	0	0	0.00033	0.001	0.02	0%				
Molybdenum	A	mg/L	0.003363	0.016815		0	0	0.0169	0.0004169	0.001	0.1	0%			1%	
Nickel	A	mg/L	0.00004001	0		0	0	0	0.0012656	0.0012656	1	0%				
Potassium	A	mg/L	0.6455	3.2275		0	0	3.441	1.0369948	1.0369948	50	0%				N
Selenium	A	mg/L	3.048E-06	0		0	0	0	0.0007077	0.001	1	0%				
Silicon	A	mg/L	1.87	9.35		0	0	9.901	0.0730871	0.1	0.4	0%			6%	
Silver	A	mg/L	-7.154E-05	0		0	0	0	5.615E-05	0.001	0.04	0%				
Sodium	A	mg/L	8.047	40.235		0	0	41.82	0.4046363	0.4046363	50	0%			4%	
Strontium	A	mg/L	0.01705	0.08525		0	0	0.09147	0.0009125	0.001	1	0%			7%	
Thallium	A	mg/L	0.00006174	0		0	0	0	0.0014956	0.0014956	1	0%				
Thorium	A	mg/L	2.337E-06	0		0	0	0	0.0052364	0.0052364	1	0%				
Tin	A	mg/L	-0.002389	0		0	0	0	0.011194	0.011194	0.1	0%				
Titanium	A	mg/L	0.0001944	0		0	0	0.0005931	0.0014871	0.0014871	1	0%				
Uranium	A	mg/L	0.00000178	0		0	0	0	0.000157	0.0003	1	0%				
Vanadium	A	mg/L	-3.968E-05	0		0	0	0	0.0217338	0.0217338	1	0%				
Zinc	A	mg/L	0.001765	0.008825		0	0	0.003723	0.0057989	0.0057989	1	0%				N
Iron, Ferrous	C	mg/L	0.004006	0		0	0	0	0.0231453	0.0231453	5	0%				

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987741	B22010973-001	ICPMS-6020-W-	MS		1/19/2022 7:34:1	1.03	R373351		1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04654	0.0479362		0.05	0.001899	0	0.0006745	0.001	1	92%	75	125	0%	
Antimony	A	mg/L	0.04734	0.0487602		0.05	0	0	0.0003076	0.001	0.1	98%	75	125	0%	
Arsenic	A	mg/L	0.05232	0.0538896		0.05	0	0	0.0001869	0.001	1	108%	75	125	0%	
Barium	A	mg/L	0.04955	0.0510365		0.05	0.002402	0	0.0001360	0.001	1	97%	75	125	0%	
Beryllium	A	mg/L	0.04163	0.0428789		0.05	0	0	7.689E-05	0.001	1	86%	75	125	0%	
Boron	A	mg/L	0.0982	0.101146		0.05	0.07135	0	0.0030933	0.0030933	1	60%	75	125	0%	S
Cadmium	A	mg/L	0.04677	0.0481731		0.05	0	0	5.293E-05	0.001	1	96%	75	125	0%	
Calcium	A	mg/L	57.01	58.7203		50	13.36	0	0.0772290	0.0772290	50	91%	75	125	0%	E
Cerium	A	mg/L	0.04656	0.0479568		0.05	0	0	1.506E-05	0.001	0.1	96%	75	125	0%	
Chromium	A	mg/L	0.04885	0.0503155		0.05	0	0	0.0005646	0.001	1	101%	75	125	0%	
Cobalt	A	mg/L	0.04431	0.0456393		0.05	0	0	4.899E-05	0.001	1	91%	75	125	0%	
Copper	A	mg/L	0.04922	0.0506966		0.05	0	0	0.0003943	0.001	1	101%	75	125	0%	
Iron	A	mg/L	4.491	4.62573		5.05	0.02104	0	0.0047679	0.0047679	5	91%	75	125	0%	
Lanthanum	A	mg/L	3.924E-06	0		0.05	0	0	1.733E-05	0.001	0.1	0%	75	125	0%	S
Lead	A	mg/L	0.04621	0.0475963		0.05	0	0	6.452E-05	0.001	1	95%	88	115	0%	
Lithium	A	mg/L	1.55	1.5965		0.05	0	0	0.0053668	0.0053668	2.5	3193%	75	125	0%	S
Magnesium	A	mg/L	59.85	61.6455		50	12.68	0	0.0122563	0.0122563	50	98%	75	125	0%	E
Manganese	A	mg/L	0.06645	0.0684435		0.05	0.02525	0	0.0001487	0.001	1	86%	75	125	0%	
Mercury	A	mg/L	0.0009295	0.00095739		0.001	0	0	6.798E-05	0.001	0.02	96%	75	125	0%	
Molybdenum	A	mg/L	0.06495	0.0668985		0.05	0.0169	0	8.588E-05	0.001	0.1	100%	75	125	0%	
Nickel	A	mg/L	0.05022	0.0517266		0.05	0	0	0.0002607	0.001	1	103%	75	125	0%	
Potassium	A	mg/L	47.91	49.3473		50	3.441	0	0.2136209	0.2136209	50	92%	75	125	0%	
Selenium	A	mg/L	0.05413	0.0557539		0.05	0	0	0.0001458	0.001	1	112%	75	125	0%	
Silicon	A	mg/L	9.718	10.00954		0.2	9.901	0	0.0150559	0.1	0.4		75	125	0%	AE
Silver	A	mg/L	0.02013	0.0207339		0.02	0	0	1.157E-05	0.001	0.04	104%	75	125	0%	
Sodium	A	mg/L	89.69	92.3807		50	41.82	0	0.0833551	0.0833551	50	101%	75	125	0%	E
Strontium	A	mg/L	0.1309	0.134827		0.05	0.09147	0	0.000188	0.001	1	87%	75	125	0%	
Thallium	A	mg/L	0.04678	0.0481834		0.05	0	0	0.0003081	0.001	1	96%	75	125	0%	
Thorium	A	mg/L	0.05148	0.0530244		0.05	0	0	0.0010787	0.0010787	1	106%	75	125	0%	
Tin	A	mg/L	0.04533	0.0466899		0.05	0	0	0.002306	0.002306	0.1	93%	75	125	0%	
Titanium	A	mg/L	0.04958	0.0510674		0.05	0.0005931	0	0.0003063	0.001	1	101%	75	125	0%	
Uranium	A	mg/L	0.04722	0.0486366		0.05	0	0	3.233E-05	0.0003	1	97%	75	125	0%	
Vanadium	A	mg/L	0.04876	0.0502228		0.05	0	0	0.0044772	0.0044772	1	100%	75	125	0%	
Zinc	A	mg/L	0.0527	0.054281		0.05	0.003723	0	0.0011946	0.0011946	1	101%	75	125	0%	
Iron, Ferrous	C	mg/L	4.491	4.62573		0	0	0	0.0047679	0.0047679	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14987742	B22010973-001	ICPMS-6020-W-	MSD		1/19/2022 7:39:5	1.03	R373351		1E+07	1E+07					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0471	0.048513		0.05	0.001899	0.0479362	0.0006745	0.001	1	93%	75	125	1%	
Antimony	A	mg/L	0.04524	0.0465972		0.05	0	0.0487602	0.0003076	0.001	0.1	93%	75	125	5%	
Arsenic	A	mg/L	0.05064	0.0521592		0.05	0	0.0538896	0.0001869	0.001	1	104%	75	125	3%	
Barium	A	mg/L	0.04744	0.0488632		0.05	0.002402	0.0510365	0.0001360	0.001	1	93%	75	125	4%	
Beryllium	A	mg/L	0.04351	0.0448153		0.05	0	0.0428789	7.689E-05	0.001	1	90%	75	125	4%	
Boron	A	mg/L	0.1003	0.103309		0.05	0.07135	0.101146	0.0030933	0.0030933	1	64%	75	125	2%	S
Cadmium	A	mg/L	0.04675	0.0481525		0.05	0	0.0481731	5.293E-05	0.001	1	96%	75	125	0%	
Calcium	A	mg/L	62.63	64.5089		50	13.36	58.7203	0.0772290	0.0772290	50	102%	75	125	9%	E
Cerium	A	mg/L	0.04645	0.0478435		0.05	0	0.0479568	1.506E-05	0.001	0.1	96%	75	125	0%	
Chromium	A	mg/L	0.04751	0.0489353		0.05	0	0.0503155	0.0005646	0.001	1	98%	75	125	3%	
Cobalt	A	mg/L	0.04466	0.0459998		0.05	0	0.0456393	4.899E-05	0.001	1	92%	75	125	1%	
Copper	A	mg/L	0.04844	0.0498932		0.05	0	0.0506966	0.0003943	0.001	1	100%	75	125	2%	
Iron	A	mg/L	4.697	4.83791		5.05	0.02104	4.62573	0.0047679	0.0047679	5	95%	75	125	4%	
Lanthanum	A	mg/L	2.724E-06	0		0.05	0	0	1.733E-05	0.001	0.1	0%	75	125		S
Lead	A	mg/L	0.04472	0.0460616		0.05	0	0.0475963	6.452E-05	0.001	1	92%	88	115	3%	
Lithium	A	mg/L	1.911	1.96833		0.05	0	1.5965	0.0053668	0.0053668	2.5	3937%	75	125	21%	SR
Magnesium	A	mg/L	60.05	61.8515		50	12.68	61.6455	0.0122563	0.0122563	50	98%	75	125	0%	E
Manganese	A	mg/L	0.06918	0.0712554		0.05	0.02525	0.0684435	0.0001487	0.001	1	92%	75	125	4%	
Mercury	A	mg/L	0.0009323	0.00096027		0.001	0	0.0009574	6.798E-05	0.001	0.02	96%	75	125		
Molybdenum	A	mg/L	0.06309	0.0649827		0.05	0.0169	0.0668985	8.588E-05	0.001	0.1	96%	75	125	3%	
Nickel	A	mg/L	0.04923	0.0507069		0.05	0	0.0517266	0.0002607	0.001	1	101%	75	125	2%	
Potassium	A	mg/L	49.57	51.0571		50	3.441	49.3473	0.2136209	0.2136209	50	95%	75	125	3%	
Selenium	A	mg/L	0.05212	0.0536836		0.05	0	0.0557539	0.0001458	0.001	1	107%	75	125	4%	
Silicon	A	mg/L	9.629	9.91787		0.2	9.901	10.00954	0.0150559	0.1	0.4		75	125	1%	AE
Silver	A	mg/L	0.01846	0.0190138		0.02	0	0.0207339	1.157E-05	0.001	0.04	95%	75	125	9%	
Sodium	A	mg/L	88.79	91.4537		50	41.82	92.3807	0.0833551	0.0833551	50	99%	75	125	1%	E
Strontium	A	mg/L	0.1316	0.135548		0.05	0.09147	0.134827	0.000188	0.001	1	88%	75	125	1%	
Thallium	A	mg/L	0.04548	0.0468444		0.05	0	0.0481834	0.0003081	0.001	1	94%	75	125	3%	
Thorium	A	mg/L	0.04986	0.0513558		0.05	0	0.0530244	0.0010787	0.0010787	1	103%	75	125	3%	
Tin	A	mg/L	0.04472	0.0460616		0.05	0	0.0466899	0.002306	0.002306	0.1	92%	75	125	1%	
Titanium	A	mg/L	0.0505	0.052015		0.05	0.0005931	0.0510674	0.0003063	0.001	1	103%	75	125	2%	
Uranium	A	mg/L	0.04561	0.0469783		0.05	0	0.0486366	3.233E-05	0.0003	1	94%	75	125	3%	
Vanadium	A	mg/L	0.04773	0.0491619		0.05	0	0.0502228	0.0044772	0.0044772	1	98%	75	125	2%	
Zinc	A	mg/L	0.04923	0.0507069		0.05	0.003723	0.054281	0.0011946	0.0011946	1	94%	75	125	7%	
Iron, Ferrous	C	mg/L	4.697	4.83791		0	0	4.62573	0.0047679	0.0047679	5	0%	0	0	4%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987743	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 7:45:3	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.00001338	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00004641	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	9.118E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	2.862E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-3.329E-06	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.00001497	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00001366	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	5.313E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00003944	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.00001078	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	A	mg/L	3.692E-06	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.00001891	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0002581	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001009	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Sodium	B	mg/L	0.1877	0.1877		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00004663	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Vanadium	B	mg/L	-3.935E-05	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	0.00004373	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987744	B22010973-001	ICPMS-6020-W-	SAMP		1/19/2022 7:51:2	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0001808	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.002224	0.002224		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.0000164	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	0.00001213	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Lanthanum	A	mg/L	2.326E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.0005464	0.0005464		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Manganese	A	mg/L	0.03634	0.03634		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.01697	0.01697		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.0001054	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-6.115E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.08926	0.08926		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001205	0.0001205		0	0	0	0.0001114	0.001	1	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987744	B22010973-001	ICPMS-6020-W-	SAMP		1/19/2022 7:51:2	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Uranium	A	mg/L	8.269E-06	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Chromium	B	mg/L	0.0003211	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	L
Copper	B	mg/L	0.000245	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.0003549	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Sodium	B	mg/L	44.16	44.16		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.0001256	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.00009366	0		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987745	B22010974-001	ICPMS-6020-W-	SAMP		1/19/2022 7:57:0	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0001835	0.0001835		0	0	0	0.0001814	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.004237	0.004237		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	4.469E-07	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	1.041E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	0.002346	0.002346		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.0009274	0.0009274		0	0	0	0.0003828	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.000013	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Mercury	A	mg/L	3.203E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.0001568	0.0001568		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Nickel	A	mg/L	0.0004575	0.0004575		0	0	0	0.0002531	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-7.221E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.06815	0.06815		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001626	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Uranium	A	mg/L	0.00002085	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U
Sodium	B	mg/L	33.07	33.07		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	-0.0000148	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	0.01638	0.01638		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	D
Zinc	B	mg/L	0.01009	0.01009		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987746	B22010974-001	ICPMS-6020-W-	SAMP		1/19/2022 8:02:5	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0002383	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.005203	0.005203		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00001661	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	0.00002199	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Lanthanum	A	mg/L	0.00001129	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.000045	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.0005501	0.0005501		0	0	0	0.0002139	0.001	1	0%	0	0	0%	J
Molybdenum	A	mg/L	0.0002208	0.0002208		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Selenium	A	mg/L	0.0002097	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-5.752E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.07434	0.07434		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00004377	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00002291	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Chromium	B	mg/L	0.002658	0.002658		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Copper	B	mg/L	0.001114	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.000542	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Sodium	B	mg/L	36.3	36.3		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.0000555	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.01634	0.01634		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987747	B22010975-001	ICPMS-6020-W-	SAMP		1/19/2022 8:08:3	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0001893	0.0001893		0	0	0	0.0001814	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.006483	0.006483		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	3.327E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	1.558E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	0.002314	0.002314		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.003321	0.003321		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.0001017	0.0001017		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	J
Mercury	A	mg/L	3.218E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.0003374	0.0003374		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Nickel	A	mg/L	0.0005084	0.0005084		0	0	0	0.0002531	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-6.808E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987747	B22010975-001	ICPMS-6020-W-	SAMP		1/19/2022 8:08:3	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Strontium	A	mg/L	0.08035	0.08035		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00009329	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Uranium	A	mg/L	0.00001534	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U
Sodium	B	mg/L	37.12	37.12		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	-1.848E-05	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	0.01616	0.01616		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	D
Zinc	B	mg/L	0.06036	0.06036		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987748	B22010975-001	ICPMS-6020-W-	SAMP		1/19/2022 8:14:1	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0001211	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.007012	0.007012		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	9.902E-06	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	0.00002909	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Lanthanum	A	mg/L	0.0000135	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.0002573	0.0002573		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Manganese	A	mg/L	0.001276	0.001276		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.0004291	0.0004291		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Selenium	A	mg/L	0.0002123	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-0.0000355	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.08663	0.08663		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00002491	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001662	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Chromium	B	mg/L	0.002853	0.002853		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Copper	B	mg/L	0.001833	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.0006995	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Sodium	B	mg/L	39.84	39.84		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00003938	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.01683	0.01683		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987749	B22010976-001	ICPMS-6020-W-	SAMP		1/19/2022 8:20:0	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0001833	0.0001833		0	0	0	0.0001814	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.00235	0.00235		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	2.642E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	2.643E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	9.257E-07	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	U
Copper	A	mg/L	0.0001231	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	U
Lead	A	mg/L	6.843E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Mercury	A	mg/L	2.055E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.006435	0.006435		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.0001794	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	U
Silver	A	mg/L	-7.393E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.1518	0.1518		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00005763	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Uranium	A	mg/L	5.533E-06	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U
Sodium	B	mg/L	39.61	39.61		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	-1.811E-05	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	-4.646E-05	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	UL
Zinc	B	mg/L	0.007801	0.007801		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987750	B22010976-001	ICPMS-6020-W-	SAMP		1/19/2022 8:25:4	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0001751	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.002256	0.002256		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00001219	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	0.00000386	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Lanthanum	A	mg/L	1.847E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00006073	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.382	0.382		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.007846	0.007846		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.00003347	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-6.729E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.1675	0.1675		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	8.642E-06	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987750	B22010976-001	ICPMS-6020-W-	SAMP		1/19/2022 8:25:4	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Uranium	A	mg/L	5.908E-06	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Chromium	B	mg/L	0.0001263	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	L
Copper	B	mg/L	0.0003139	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.0002419	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Sodium	B	mg/L	40.9	40.9		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.0000234	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.0002822	0		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987751	CCV	ICPMS-6020-W-	CCV		1/19/2022 8:31:3	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0426	0.0426		0.05	0	0	0.0006548	0.001	1	85%	90	110	0%	S
Antimony	A	mg/L	0.04351	0.04351		0.05	0	0	0.0002987	0.001	0.1	87%	90	110	0%	S
Arsenic	A	mg/L	0.05167	0.05167		0.05	0	0	0.0001814	0.001	1	103%	90	110	0%	
Barium	A	mg/L	0.04601	0.04601		0.05	0	0	0.0001321	0.001	1	92%	90	110	0%	
Beryllium	A	mg/L	0.04097	0.04097		0.05	0	0	7.465E-05	0.001	1	82%	90	110	0%	S
Boron	A	mg/L	0.04096	0.04096		0.05	0	0	0.0030032	0.0030032	1	82%	90	110	0%	S
Cadmium	A	mg/L	0.04933	0.04933		0.05	0	0	5.139E-05	0.001	1	99%	90	110	0%	
Calcium	A	mg/L	11.24	11.24		12.5	0	0	0.0749796	0.0749796	50	90%	90	110	0%	
Cerium	A	mg/L	0.04809	0.04809		0.05	0	0	1.462E-05	0.001	0.1	96%	90	110	0%	
Chromium	A	mg/L	0.04988	0.04988		0.05	0	0	0.0005481	0.001	1	100%	90	110	0%	
Cobalt	A	mg/L	0.04323	0.04323		0.05	0	0	4.756E-05	0.001	1	86%	90	110	0%	S
Copper	A	mg/L	0.05222	0.05222		0.05	0	0	0.0003828	0.001	1	104%	90	110	0%	
Iron	A	mg/L	1.146	1.146		1.3	0	0	0.0046291	0.0046291	5	88%	90	110	0%	S
Lanthanum	A	mg/L	0.04778	0.04778		0.05	0	0	1.683E-05	0.001	0.1	96%	90	110	0%	
Lead	A	mg/L	0.04649	0.04649		0.05	0	0	6.264E-05	0.001	1	93%	90	110	0%	
Lithium	A	mg/L	0.3167	0.3167		0.625	0	0	0.0052105	0.0052105	2.5	51%	90	110	0%	S
Magnesium	A	mg/L	11.08	11.08		12.5	0	0	0.0118993	0.0118993	50	89%	90	110	0%	S
Manganese	A	mg/L	0.04338	0.04338		0.05	0	0	0.0001444	0.001	1	87%	90	110	0%	S
Mercury	A	mg/L	0.0009135	0.0009135		0.001	0	0	0.000066	0.001	0.02	91%	90	110	0%	
Molybdenum	A	mg/L	0.04959	0.04959		0.05	0	0	8.338E-05	0.001	0.1	99%	90	110	0%	
Nickel	A	mg/L	0.05091	0.05091		0.05	0	0	0.0002531	0.001	1	102%	90	110	0%	
Potassium	A	mg/L	10.42	10.42		12.5	0	0	0.207399	0.207399	50	83%	90	110	0%	S
Selenium	A	mg/L	0.05314	0.05314		0.05	0	0	0.0001415	0.001	1	106%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987751	CCV	ICPMS-6020-W-	CCV		1/19/2022 8:31:3	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silicon	A	mg/L	0.1847	0.1847		0.2	0	0	0.0146174	0.1	0.4	92%	90	110	0%	
Silver	A	mg/L	0.02031	0.02031		0.02	0	0	1.123E-05	0.001	0.04	102%	90	110	0%	
Sodium	A	mg/L	11.64	11.64		12.5	0	0	0.0809273	0.0809273	50	93%	90	110	0%	
Strontium	A	mg/L	0.0509	0.0509		0.05	0	0	0.0001825	0.001	1	102%	90	110	0%	
Thallium	A	mg/L	0.05176	0.05176		0.05	0	0	0.0002991	0.001	1	104%	90	110	0%	
Thorium	A	mg/L	0.05314	0.05314		0.05	0	0	0.0010473	0.0010473	1	106%	90	110	0%	
Tin	A	mg/L	0.04355	0.04355		0.05	0	0	0.0022388	0.0022388	0.1	87%	90	110	0%	S
Titanium	A	mg/L	0.04187	0.04187		0.05	0	0	0.0002974	0.001	1	84%	90	110	0%	S
Uranium	A	mg/L	0.04621	0.04621		0.05	0	0	3.139E-05	0.0003	1	92%	90	110	0%	
Vanadium	A	mg/L	0.04936	0.04936		0.05	0	0	0.0043468	0.0043468	1	99%	90	110	0%	
Zinc	A	mg/L	0.04999	0.04999		0.05	0	0	0.0011598	0.0011598	1	100%	90	110	0%	
Iron, Ferrous	C	mg/L	1.146	1.146		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987752	CCB	ICPMS-6020-W-	CCB		1/19/2022 8:37:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	8.433E-06	8.433E-06		0	0	0	0.0006548	0.001	1	0%			0%	
Antimony	A	mg/L	0.00003581	0.00003581		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	-2.095E-08	-2.095E-08		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	0.00000518	0.00000518		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	3.047E-06	3.047E-06		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	-0.0002623	-0.0002623		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	0.00000191	0.00000191		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	0.001245	0.001245		0	0	0	0.0749796	0.0749796	50	0%			0%	
Cerium	A	mg/L	2.702E-06	2.702E-06		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-0.0000118	-0.0000118		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	8.971E-07	8.971E-07		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	0.0001656	0.0001656		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	0.00009195	0.00009195		0	0	0	0.0046291	0.0046291	5	0%			0%	
Lanthanum	A	mg/L	1.291E-06	1.291E-06		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	1.616E-06	1.616E-06		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	-0.001122	-0.001122		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	0.001016	0.001016		0	0	0	0.0118993	0.0118993	50	0%			0%	
Manganese	A	mg/L	3.493E-06	3.493E-06		0	0	0	0.0001444	0.001	1	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987752	CCB	ICPMS-6020-W-	CCB		1/19/2022 8:37:1	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Mercury	A	mg/L	2.706E-06	2.706E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.0000154	0.0000154		0	0	0	8.338E-05	0.001	0.1	0%			0%	
Nickel	A	mg/L	-1.779E-05	-1.779E-05		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	-0.004509	-0.004509		0	0	0	0.207399	0.207399	50	0%			0%	
Selenium	A	mg/L	0.0000396	0.0000396		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	-0.06996	-0.06996		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	5.028E-06	5.028E-06		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	0.008883	0.008883		0	0	0	0.0809273	0.0809273	50	0%			0%	
Strontium	A	mg/L	6.638E-06	6.638E-06		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0000424	0.0000424		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00003349	0.00003349		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	3.383E-06	3.383E-06		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00003369	0.00003369		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	4.589E-06	4.589E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	-0.000019	-0.000019		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	-2.297E-05	-2.297E-05		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.00009195	0.00009195		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987753	B22010977-001	ICPMS-6020-W-	SAMP		1/19/2022 8:43:0	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0006565	0.0006565		0	0	0	0.0001814	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.004028	0.004028		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	5.116E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	2.977E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	0.0003294	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	U
Copper	A	mg/L	0.0002842	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	U
Lead	A	mg/L	4.955E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Mercury	A	mg/L	2.954E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.01069	0.01069		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.002291	0.002291		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-7.365E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.2401	0.2401		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00004416	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987753	B22010977-001	ICPMS-6020-W-	SAMP		1/19/2022 8:43:0	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Uranium	A	mg/L	0.00007029	0.00007029		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Thorium	B	mg/L	-7.618E-06	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	0.007898	0.007898		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	UD
Zinc	B	mg/L	0.003131	0.003131		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987754	B22010977-001	ICPMS-6020-W-	SAMP		1/19/2022 8:48:4	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0006889	0.0006889		0	0	0	0.0002677	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.004263	0.004263		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00002529	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	7.348E-06	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Lanthanum	A	mg/L	5.799E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00001199	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.2234	0.2234		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.01176	0.01176		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.0001951	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-6.385E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.2346	0.2346		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00001355	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00007752	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Calcium	B	mg/L	24.74	24.74		0	0	0	0.1103481	0.1103481	150	0%	0	0	0%	D
Chromium	B	mg/L	0.0005189	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	L
Copper	B	mg/L	0.0002497	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.002444	0.002444		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	D
Thorium	B	mg/L	0.00007654	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.008397	0.008397		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987755	B22010978-001	ICPMS-6020-W-	SAMP		1/19/2022 8:54:3	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987755	B22010978-001	ICPMS-6020-W-	SAMP		1/19/2022 8:54:3	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.003839	0.003839		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.02585	0.02585		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	3.288E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	1.799E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	0.0015	0.0015		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.0007056	0.0007056		0	0	0	0.0003828	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.00001098	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Mercury	A	mg/L	0.00008625	0.00008625		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	J
Molybdenum	A	mg/L	0.01138	0.01138		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.001085	0.001085		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-7.181E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.2907	0.2907		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00003445	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Uranium	A	mg/L	0.0003595	0.0003595		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Thorium	B	mg/L	0.00001569	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	0.01359	0.01359		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	D
Zinc	B	mg/L	0.002307	0.002307		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987756	B22010978-001	ICPMS-6020-W-	SAMP		1/19/2022 9:00:1	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.003468	0.003468		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.02617	0.02617		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00000728	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	7.197E-06	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Lanthanum	A	mg/L	0.00000328	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00003061	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.001179	0.001179		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.01261	0.01261		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.000703	0.000703		0	0	0	0.0005855	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-5.907E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.3023	0.3023		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	1.192E-06	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0003748	0.0003748		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987756	B22010978-001	ICPMS-6020-W-	SAMP		1/19/2022 9:00:1	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Calcium	B	mg/L	22.38	22.38		0	0	0	0.1103481	0.1103481	150	0%	0	0	0%	D
Chromium	B	mg/L	0.001688	0.001688		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Copper	B	mg/L	0.0009747	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.001324	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Thorium	B	mg/L	0.00003897	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.01367	0.01367		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987757	B22010979-001	ICPMS-6020-W-	SAMP		1/19/2022 9:06:0	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0001371	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	U
Barium	A	mg/L	0.006268	0.006268		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	3.018E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	0.0001061	0.0001061		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	J
Chromium	A	mg/L	0.001078	0.001078		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.00118	0.00118		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00003943	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Mercury	A	mg/L	-5.781E-07	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.0005137	0.0005137		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Nickel	A	mg/L	0.001358	0.001358		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-6.609E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.1871	0.1871		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00001591	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Uranium	A	mg/L	0.00001404	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U
Sodium	B	mg/L	39.91	39.91		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	-0.0000195	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	0.008278	0.008278		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	UD
Zinc	B	mg/L	0.002956	0.002956		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987758	B22010979-001	ICPMS-6020-W-	SAMP		1/19/2022 9:11:4	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987758	B22010979-001	ICPMS-6020-W-	SAMP		1/19/2022 9:11:4	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0001473	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.004623	0.004623		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00001648	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	0.00001556	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Lanthanum	A	mg/L	7.163E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00002209	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.009943	0.009943		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.00181	0.00181		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.0002735	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-6.577E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.1871	0.1871		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	-4.722E-06	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0000117	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Calcium	B	mg/L	15.3	15.3		0	0	0	0.1103481	0.1103481	150	0%	0	0	0%	D
Chromium	B	mg/L	0.001181	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	L
Copper	B	mg/L	0.0007731	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.001187	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Sodium	B	mg/L	42.1	42.1		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00001985	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.008106	0.008106		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987759	B22010980-001	ICPMS-6020-W-	SAMP		1/19/2022 9:17:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.002028	0.002028		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.009896	0.009896		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	6.084E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	1.262E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	0.0005989	0.0005989		0	0	0	0.0005481	0.001	1	0%	0	0	0%	J
Copper	A	mg/L	0.0009875	0.0009875		0	0	0	0.0003828	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	4.665E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Mercury	A	mg/L	0.000162	0.000162		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	J
Molybdenum	A	mg/L	0.003798	0.003798		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.0005303	0.0005303		0	0	0	0.0002531	0.001	1	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987759	B22010980-001	ICPMS-6020-W-	SAMP		1/19/2022 9:17:2	1	R373351		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silver	A	mg/L	-6.732E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.3007	0.3007		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00001861	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Uranium	A	mg/L	0.000193	0.000193		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Thorium	B	mg/L	-0.00002	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	0.01451	0.01451		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	D
Zinc	B	mg/L	0.00246	0.00246		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14987760	B22010980-001	ICPMS-6020-W-	SAMP		1/19/2022 9:23:1	1	162992	1/17/2022 1:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.002094	0.002094		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.01035	0.01035		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	6.939E-06	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	0.00005458	0.00005458		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Lanthanum	A	mg/L	0.00002055	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00005154	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.007486	0.007486		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.004412	0.004412		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.0003921	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-4.771E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.3142	0.3142		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	-2.104E-06	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0002051	0.0002051		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	J
Calcium	B	mg/L	38.91	38.91		0	0	0	0.1103481	0.1103481	150	0%	0	0	0%	D
Chromium	B	mg/L	0.001488	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	L
Copper	B	mg/L	0.002473	0.002473		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	JL
Nickel	B	mg/L	0.0006631	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Thorium	B	mg/L	0.00001382	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.01544	0.01544		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14987761	CCV	ICPMS-6020-W-	CCV		1/19/2022 9:28:5	1	R373351		0	0					

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04806	0.04806		0.05	0	0	0.0006548	0.001	1	96%	90	110	0%	
Antimony	A	mg/L	0.04566	0.04566		0.05	0	0	0.0002987	0.001	0.1	91%	90	110	0%	
Arsenic	A	mg/L	0.05083	0.05083		0.05	0	0	0.0001814	0.001	1	102%	90	110	0%	
Barium	A	mg/L	0.04768	0.04768		0.05	0	0	0.0001321	0.001	1	95%	90	110	0%	
Beryllium	A	mg/L	0.04642	0.04642		0.05	0	0	7.465E-05	0.001	1	93%	90	110	0%	
Boron	A	mg/L	0.04771	0.04771		0.05	0	0	0.0030032	0.0030032	1	95%	90	110	0%	
Cadmium	A	mg/L	0.04977	0.04977		0.05	0	0	5.139E-05	0.001	1	100%	90	110	0%	
Calcium	A	mg/L	12.83	12.83		12.5	0	0	0.0749796	0.0749796	50	103%	90	110	0%	
Cerium	A	mg/L	0.0476	0.0476		0.05	0	0	1.462E-05	0.001	0.1	95%	90	110	0%	
Chromium	A	mg/L	0.0507	0.0507		0.05	0	0	0.0005481	0.001	1	101%	90	110	0%	
Cobalt	A	mg/L	0.04775	0.04775		0.05	0	0	4.756E-05	0.001	1	95%	90	110	0%	
Copper	A	mg/L	0.05106	0.05106		0.05	0	0	0.0003828	0.001	1	102%	90	110	0%	
Iron	A	mg/L	1.31	1.31		1.3	0	0	0.0046291	0.0046291	5	101%	90	110	0%	
Lanthanum	A	mg/L	0.04776	0.04776		0.05	0	0	1.683E-05	0.001	0.1	96%	90	110	0%	
Lead	A	mg/L	0.04667	0.04667		0.05	0	0	6.264E-05	0.001	1	93%	90	110	0%	
Lithium	A	mg/L	0.4496	0.4496		0.625	0	0	0.0052105	0.0052105	2.5	72%	90	110	0%	S
Magnesium	A	mg/L	12.29	12.29		12.5	0	0	0.0118993	0.0118993	50	98%	90	110	0%	
Manganese	A	mg/L	0.04748	0.04748		0.05	0	0	0.0001444	0.001	1	95%	90	110	0%	
Mercury	A	mg/L	0.0009722	0.0009722		0.001	0	0	0.000066	0.001	0.02	97%	90	110	0%	
Molybdenum	A	mg/L	0.0488	0.0488		0.05	0	0	8.338E-05	0.001	0.1	98%	90	110	0%	
Nickel	A	mg/L	0.05173	0.05173		0.05	0	0	0.0002531	0.001	1	103%	90	110	0%	
Potassium	A	mg/L	11.46	11.46		12.5	0	0	0.207399	0.207399	50	92%	90	110	0%	
Selenium	A	mg/L	0.05308	0.05308		0.05	0	0	0.0001415	0.001	1	106%	90	110	0%	
Silicon	A	mg/L	0.2617	0.2617		0.2	0	0	0.0146174	0.1	0.4	131%	90	110	0%	S
Silver	A	mg/L	0.01962	0.01962		0.02	0	0	1.123E-05	0.001	0.04	98%	90	110	0%	
Sodium	A	mg/L	13.18	13.18		12.5	0	0	0.0809273	0.0809273	50	105%	90	110	0%	
Strontium	A	mg/L	0.04926	0.04926		0.05	0	0	0.0001825	0.001	1	99%	90	110	0%	
Thallium	A	mg/L	0.04912	0.04912		0.05	0	0	0.0002991	0.001	1	98%	90	110	0%	
Thorium	A	mg/L	0.05042	0.05042		0.05	0	0	0.0010473	0.0010473	1	101%	90	110	0%	
Tin	A	mg/L	0.04663	0.04663		0.05	0	0	0.0022388	0.0022388	0.1	93%	90	110	0%	
Titanium	A	mg/L	0.04764	0.04764		0.05	0	0	0.0002974	0.001	1	95%	90	110	0%	
Uranium	A	mg/L	0.04638	0.04638		0.05	0	0	3.139E-05	0.0003	1	93%	90	110	0%	
Vanadium	A	mg/L	0.04968	0.04968		0.05	0	0	0.0043468	0.0043468	1	99%	90	110	0%	
Zinc	A	mg/L	0.05045	0.05045		0.05	0	0	0.0011598	0.0011598	1	101%	90	110	0%	
Iron, Ferrous	C	mg/L	1.31	1.31		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist			
14987762	CCB	ICPMS-6020-W-	CCB		1/19/2022 9:36:3	1	R373351		0	0				

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.00005606	0.00005606		0	0	0	0.0006548	0.001	1	0%			0%	
Antimony	A	mg/L	0.00001663	0.00001663		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	2.074E-06	2.074E-06		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	0.00001031	0.00001031		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	5.112E-06	5.112E-06		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	-9.162E-05	-9.162E-05		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	5.291E-06	5.291E-06		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	0.004921	0.004921		0	0	0	0.0749796	0.0749796	50	0%			0%	
Cerium	A	mg/L	5.077E-06	5.077E-06		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.00001239	0.00001239		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	0.00000337	0.00000337		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	0.0001997	0.0001997		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	0.0002125	0.0002125		0	0	0	0.0046291	0.0046291	5	0%			0%	
Lanthanum	A	mg/L	2.385E-06	2.385E-06		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	4.461E-06	4.461E-06		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	-0.001346	-0.001346		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	0.003667	0.003667		0	0	0	0.0118993	0.0118993	50	0%			0%	
Manganese	A	mg/L	0.000018	0.000018		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	0.00000137	0.00000137		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.00001018	0.00001018		0	0	0	8.338E-05	0.001	0.1	0%			0%	
Nickel	A	mg/L	-0.0000101	-0.0000101		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	0.006194	0.006194		0	0	0	0.207399	0.207399	50	0%			0%	
Selenium	A	mg/L	0.00000521	0.00000521		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	-0.02893	-0.02893		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.00000255	0.00000255		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	0.01755	0.01755		0	0	0	0.0809273	0.0809273	50	0%			0%	
Strontium	A	mg/L	0.0000422	0.0000422		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00001661	0.00001661		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00001779	0.00001779		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	0.00003747	0.00003747		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00001919	0.00001919		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	5.737E-06	5.737E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.00001672	0.00001672		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	1.553E-06	1.553E-06		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.0002125	0.0002125		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Batch Summary Report

Batch Folder: D:\Data\220118ADoD.b\
Analysis File: 220118ADoD.batch.bin
Tune Step: #1 NO GAS
#2 H2
#3 He

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
1		2022-01-18 18:18:16	001BLKV.d	Rinse	BlkVrfy		1.0000
2		2022-01-18 18:23:59	002BLKV.d	Rinse	BlkVrfy		1.0000
3		2022-01-18 18:29:43	003BLKV.d	Rinse	BlkVrfy		1.0000
4		2022-01-18 18:35:28	004BLKV.d	Rinse	BlkVrfy		1.0000
5		2022-01-18 18:41:14	005CALB.d	BLANK	CalBlk	1	1.0000
6		2022-01-18 18:47:26	006CALS.d	0.025 PPB STD	CalStd	2	1.0000
7		2022-01-18 18:53:25	007CALS.d	0.05 PPB STD	CalStd	3	1.0000
8		2022-01-18 18:59:25	008CALS.d	0.10 PPB STD	CalStd	4	1.0000
9		2022-01-18 19:05:25	009CALS.d	0.5 PPB STD	CalStd	5	1.0000
10		2022-01-18 19:11:25	010CALS.d	1 PPB STD	CalStd	6	1.0000
11	On	2022-01-18 19:17:26	011CALS.d	10 PPB STD	CalStd	7	1.0000
12		2022-01-18 19:23:25	012CALS.d	50 PPB STD	CalStd	8	1.0000
13		2022-01-18 19:29:22	013CALS.d	100 PPB STD	CalStd	9	1.0000
14		2022-01-18 19:35:12	014CALS.d	1000 PPB STD	CalStd	10	1.0000
15		2022-01-18 19:40:51	015CALS.d	100 ppb Bromine	CalStd	11	1.0000
16		2022-01-18 19:46:41	016BLKV.d	Rinse	BlkVrfy		1.0000
17		2022-01-18 19:52:26	017_QCS.d	QCS	QCS		1.0000
18		2022-01-18 19:58:06	018_CCV.d	CCV	CCV		1.0000
19		2022-01-18 20:03:48	019BLKV.d	Rinse	BlkVrfy		1.0000
20		2022-01-18 20:09:33	020CALS.d	10 PPB STD	CalStd	7	1.0000
21		2022-01-18 20:15:24	021_QCS.d	QCS	QCS		1.0000
22		2022-01-18 20:21:07	022_CCV.d	CCV	CCV		1.0000
23		2022-01-18 20:26:51	023_CCB.d	CCB	CCB		1.0000
24		2022-01-18 20:32:37	024CALS.d	0.10 PPB STD	CalStd	4	1.0000
25		2022-01-18 21:19:02	025BLKV.d	Rinse	BlkVrfy		1.0000

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
26		2022-01-18 21:24:49	026CALB.d	BLANK	CalBlk	1	1.0000
27		2022-01-18 21:30:42	027CALS.d	0.025 PPB STD	CalStd	2	1.0000
28		2022-01-18 21:36:33	028CALS.d	0.05 PPB STD	CalStd	3	1.0000
29	On	2022-01-18 21:42:24	029CALS.d	0.10 PPB STD	CalStd	4	1.0000
30		2022-01-18 21:48:15	030CALS.d	0.5 PPB STD	CalStd	5	1.0000
31		2022-01-18 21:54:07	031CALS.d	1 PPB STD	CalStd	6	1.0000
32		2022-01-18 21:59:59	032CALS.d	10 PPB STD	CalStd	7	1.0000
33		2022-01-18 22:05:50	033CALS.d	50 PPB STD	CalStd	8	1.0000
34		2022-01-18 22:11:40	034CALS.d	100 PPB STD	CalStd	9	1.0000
35		2022-01-18 22:17:24	035CALS.d	1000 PPB STD	CalStd	10	1.0000
36		2022-01-18 22:22:59	036CALS.d	100 ppb Bromine	CalStd	11	1.0000
37		2022-01-18 22:29:02	037BLKV.d	Rinse	BlkVrfy		1.0000
38	On	2022-01-18 22:34:49	038CALS.d	0.10 PPB STD	CalStd	4	1.0000
39		2022-01-18 22:40:39	039CALS.d	0.10 PPB STD	CalStd	4	1.0000
40		2022-01-18 22:46:30	040_QCS.d	QCS	QCS		1.0000
41		2022-01-18 22:52:14	041_CCV.d	CCV	CCV		1.0000
42		2022-01-18 22:57:57	042_CCB.d	CCB	CCB		1.0000
43		2022-01-18 23:03:43	043_LRB.d	LRB	LRB		1.0000
44		2022-01-18 23:09:28	044LFB.d	LFB	LFB		1.0300
45		2022-01-18 23:15:10	045ICSA.d	ICSA	ICSA		1.0000
46		2022-01-18 23:20:56	046ICSB.d	ICSAB	ICSB		1.0000
47		2022-01-18 23:26:40	047BLKV.d	Rinse	BlkVrfy		1.0000
48		2022-01-18 23:32:25	048_CCV.d	CCV	CCV		1.0000
49		2022-01-18 23:38:09	049_CCB.d	CCB	CCB		1.0000
50		2022-01-18 23:43:55	050BLKV.d	Rinse	BlkVrfy		1.0000
51		2022-01-18 23:49:40	051_ARF.d	MB-162360	AllRef		1.0000
52		2022-01-18 23:55:24	052_ARF.d	MB-162497	AllRef		1.0000
53		2022-01-19 00:01:08	053_ARF.d	MB-162992	AllRef		1.0000
54		2022-01-19 00:06:52	054LCS4.d	LCS4-162360	LCS4		1.0000
55		2022-01-19 00:12:26	055LCS4.d	LCS4-162497	LCS4		1.0000
56		2022-01-19 00:18:02	056LCS4.d	LCS4-162992	LCS4		1.0000
57		2022-01-19 00:23:38	057BLKV.d	Rinse	BlkVrfy		1.0000

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
58		2022-01-19 00:29:22	058SMPL.d	B21121609-001A	Sample		1.0000
59		2022-01-19 00:35:03	059SMPL.d	B21121611-001H	Sample		1.0000
60		2022-01-19 00:40:47	060SMPL.d	B21121613-001A	Sample		1.0000
61		2022-01-19 00:46:30	061SMPL.d	B21121613-001ADIL	Sample		5.0000
62		2022-01-19 00:52:13	062_CCV.d	CCV	CCV		1.0000
63		2022-01-19 00:57:53	063_CCB.d	CCB	CCB		1.0000
64		2022-01-19 01:03:40	064_ARF.d	B21121613-001APDS1	AllRef		1.0300
65		2022-01-19 01:09:20	065MS4.d	B21121613-001AMS4	MS4		1.0000
66		2022-01-19 01:14:57	066MSD4.d	B21121613-001AMSD4	MSD4		1.0000
67		2022-01-19 01:20:32	067BLKV.d	Rinse	BlkVrfy		1.0000
68		2022-01-19 01:26:18	068SMPL.d	B21121616-001A	Sample		1.0000
69		2022-01-19 01:32:03	069SMPL.d	B21121622-001G	Sample		1.0000
70		2022-01-19 01:37:47	070SMPL.d	B21121622-002G	Sample		1.0000
71		2022-01-19 01:43:29	071SMPL.d	B21121622-003G	Sample		1.0000
72		2022-01-19 01:49:12	072SMPL.d	B21121623-001A	Sample		1.0000
73		2022-01-19 01:54:53	073SMPL.d	B21121957-001H	Sample		1.0000
74		2022-01-19 02:00:38	074SMPL.d	B21121957-001HDIL	Sample		5.0000
75		2022-01-19 02:06:24	075_CCV.d	CCV	CCV		1.0000
76		2022-01-19 02:12:07	076_CCB.d	CCB	CCB		1.0000
77		2022-01-19 02:17:53	077_ARF.d	B21121957-001HPDS1	AllRef		1.0300
78		2022-01-19 02:23:31	078MS4.d	B21121957-001HMS4	MS4		1.0000
79		2022-01-19 02:29:07	079MSD4.d	B21121957-001HMSD4	MSD4		1.0000
80		2022-01-19 02:34:40	080BLKV.d	Rinse	BlkVrfy		1.0000
81		2022-01-19 02:40:23	081SMPL.d	B21121957-001I	Sample		1.0000
82		2022-01-19 02:46:07	082_ARF.d	B21121957-001IDIL	AllRef		5.0000
83		2022-01-19 02:51:52	083MS.d	B21121957-001IMS	MS		1.0300
84		2022-01-19 02:57:36	084MSD.d	B21121957-001IMSD	MSD		1.0300
85		2022-01-19 03:03:14	085BLKV.d	Rinse	BlkVrfy		1.0000
86		2022-01-19 03:08:58	086SMPL.d	B21121959-001A	Sample		1.0000
87		2022-01-19 03:14:42	087SMPL.d	B21121959-001B	Sample		1.0000
88		2022-01-19 03:20:28	088SMPL.d	B21121961-001A	Sample		1.0000
89		2022-01-19 03:26:11	089_CCV.d	CCV	CCV		1.0000

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
90		2022-01-19 03:31:52	090_CCB.d	CCB	CCB		1.0000
91		2022-01-19 03:37:38	091SMPL.d	B21121961-001B	Sample		1.0000
92		2022-01-19 03:43:22	092SMPL.d	B21121965-001A	Sample		1.0000
93		2022-01-19 03:49:06	093SMPL.d	B21121965-001B	Sample		1.0000
94		2022-01-19 03:54:50	094SMPL.d	B21121967-001A	Sample		1.0000
95		2022-01-19 04:00:34	095SMPL.d	B21121967-001B	Sample		1.0000
96		2022-01-19 04:06:18	096SMPL.d	B21121968-001A	Sample		1.0000
97		2022-01-19 04:12:02	097SMPL.d	B21121968-001B	Sample		1.0000
98		2022-01-19 04:17:46	098_CCV.d	CCV	CCV		1.0000
99		2022-01-19 04:23:28	099_CCB.d	CCB	CCB		1.0000
100		2022-01-19 04:29:16	100CALB.d	BLANK	CalBlk	1	1.0000
101		2022-01-19 04:35:07	101CALS.d	0.025 PPB STD	CalStd	2	1.0000
102		2022-01-19 04:40:58	102CALS.d	0.05 PPB STD	CalStd	3	1.0000
103		2022-01-19 04:46:50	103CALS.d	0.10 PPB STD	CalStd	4	1.0000
104		2022-01-19 04:52:42	104CALS.d	0.5 PPB STD	CalStd	5	1.0000
105		2022-01-19 04:58:34	105CALS.d	1 PPB STD	CalStd	6	1.0000
106		2022-01-19 05:04:25	106CALS.d	10 PPB STD	CalStd	7	1.0000
107		2022-01-19 05:10:16	107CALS.d	50 PPB STD	CalStd	8	1.0000
108		2022-01-19 05:16:05	108CALS.d	100 PPB STD	CalStd	9	1.0000
109		2022-01-19 05:21:50	109CALS.d	1000 PPB STD	CalStd	10	1.0000
110		2022-01-19 05:27:26	110CALS.d	100 ppb Bromine	CalStd	11	1.0000
111		2022-01-19 05:33:14	111BLKV.d	Rinse	BlkVrfy		1.0000
112		2022-01-19 05:38:59	112_QCS.d	QCS	QCS		1.0000
113		2022-01-19 05:44:41	113ICSA.d	ICSA	ICSA		1.0000
114		2022-01-19 05:50:25	114ICSB.d	ICSAB	ICSB		1.0000
115		2022-01-19 05:56:09	115BLKV.d	Rinse	BlkVrfy		1.0000
116		2022-01-19 06:01:53	116_CCV.d	CCV	CCV		1.0000
117		2022-01-19 06:07:35	117_CCB.d	CCB	CCB		1.0000
118		2022-01-19 06:13:22	118SMPL.d	B22010751-001A	Sample		1.0000
119		2022-01-19 06:19:26	119SMPL.d	B22010971-001A	Sample		1.0000
120		2022-01-19 06:25:10	120SMPL.d	B22010971-001B	Sample		1.0000
121		2022-01-19 06:30:55	121SMPL.d	B22010971-001BDIL	Sample		5.0000

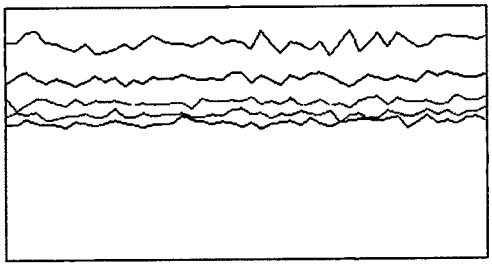
	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
122		2022-01-19 06:36:39	122_ARF.d	B22010971-001BPDS1	AllRef		1.0300
123		2022-01-19 06:42:19	123MS4.d	B22010971-001BMS4	MS4		1.0000
124		2022-01-19 06:47:54	124MSD4.d	B22010971-001BMSD4	MSD4		1.0000
125		2022-01-19 06:54:12	125BLKV.d	Rinse	BlkVrfy		1.0000
126		2022-01-19 06:59:56	126SMPL.d	B22010972-001A	Sample		1.0000
127		2022-01-19 07:05:40	127SMPL.d	B22010972-001B	Sample		1.0000
128		2022-01-19 07:11:23	128SMPL.d	B22010973-001A	Sample		1.0000
129		2022-01-19 07:17:08	129_CCV.d	CCV	CCV		1.0000
130		2022-01-19 07:22:48	130_CCB.d	CCB	CCB		1.0000
131		2022-01-19 07:28:36	131_ARF.d	B22010973-001ADIL	AllRef		5.0000
132		2022-01-19 07:34:19	132MS.d	B22010973-001AMS	MS		1.0300
133		2022-01-19 07:39:58	133MSD.d	B22010973-001AMSD	MSD		1.0300
134		2022-01-19 07:45:36	134BLKV.d	Rinse	BlkVrfy		1.0000
135		2022-01-19 07:51:23	135SMPL.d	B22010973-001B	Sample		1.0000
136		2022-01-19 07:57:08	136SMPL.d	B22010974-001A	Sample		1.0000
137		2022-01-19 08:02:52	137SMPL.d	B22010974-001B	Sample		1.0000
138		2022-01-19 08:08:35	138SMPL.d	B22010975-001A	Sample		1.0000
139		2022-01-19 08:14:19	139SMPL.d	B22010975-001B	Sample		1.0000
140		2022-01-19 08:20:05	140SMPL.d	B22010976-001A	Sample		1.0000
141		2022-01-19 08:25:49	141SMPL.d	B22010976-001B	Sample		1.0000
142		2022-01-19 08:31:32	142_CCV.d	CCV	CCV		1.0000
143		2022-01-19 08:37:14	143_CCB.d	CCB	CCB		1.0000
144		2022-01-19 08:43:02	144SMPL.d	B22010977-001A	Sample		1.0000
145		2022-01-19 08:48:48	145SMPL.d	B22010977-001B	Sample		1.0000
146		2022-01-19 08:54:34	146SMPL.d	B22010978-001A	Sample		1.0000
147		2022-01-19 09:00:19	147SMPL.d	B22010978-001B	Sample		1.0000
148		2022-01-19 09:06:02	148SMPL.d	B22010979-001A	Sample		1.0000
149		2022-01-19 09:11:45	149SMPL.d	B22010979-001B	Sample		1.0000
150		2022-01-19 09:17:28	150SMPL.d	B22010980-001A	Sample		1.0000
151		2022-01-19 09:23:10	151SMPL.d	B22010980-001B	Sample		1.0000
152		2022-01-19 09:28:53	152_CCV.d	CCV	CCV		1.0000
153		2022-01-19 09:36:39	153_CCB.d	CCB	CCB		1.0000

Tune Report

Operator Name	eli
Acq/Data Batch	D:\Data\220118A.b
Acq. Date-Time	2022-01-18 13:35:58
Report Comment	ICPMS206-B JPV
Instrument Name	G3281A JP12091601

[NO GAS]

Sensitivity



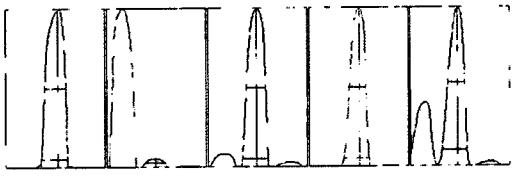
Mass	Range	Count	RSD%	Background
9	200000	172317	2.841	24.900
24	50000	31200	2.020	9.800
59	100000	71693	2.178	9.300
115	50000	28753	2.127	14.500
208	20000	10865	2.177	24.600

Sampling Period [sec]	0.514
Integration Time [sec]	0.1

Oxide/Doubly Charged Ratio

Oxide	156 / 140 0.896 %
Doubly Charged	70 / 140 1.228 %

Resolution/Axis



Mass	Peak Height	Axis	W-50%	W-5%
9	176403.15	9.10	0.65	0.783
24	31101.33	24.00	0.62	0.744
59	71214.14	59.00	0.60	0.780
115	28593.56	115.05	0.52	0.760
208	10864.19	207.95	0.51	0.770

Integration Time [sec]	0.1
Acquisition Time [sec]	37.4
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.80 L/min	Dilution Gas	0.12 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	---
RF Matching	1.70 V	Nebulizer Pump	0.10 rps	Plasma Gas	---
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

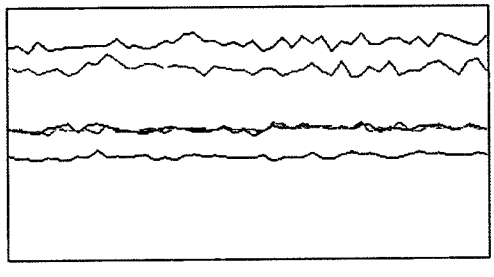
Extract 1	-3.9 V	Omega Lens	11.1 V	Deflect	16.8 V
Extract 2	-200.0 V	Cell Entrance	-50 V	Plate Bias	-60 V

Tune Report

Omega Bias	-105 V	Cell Exit	-50 V		
Cell Parameters					
Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0 0 mL/min	OctP Bias	-8 0 V		
H2 Flow	0.0 mL/min	OctP RF	180 V		
QP Parameters					
Mass Gain	131	Axis Gain	1.0010	QP Bias	-3.0 V
Mass Offset	126	Axis Offset	0 09		
Hardware Settings					
Torch					
Torch H	-0.1 mm	Torch V	-0.4 mm		
EM					
Discriminator	6.1 mV	Analog HV	1610 V	Pulse HV	996 V

[H2]

Sensitivity



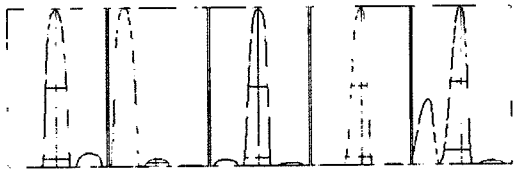
Mass	Range	Count	RSD%	Background
9	50000	20388	2 241	0 500
24	10000	7591	2.790	0 100
59	50000	25945	2 150	0.400
115	50000	25913	1 996	0.800
208	10000	8610	2.290	0.500

Sampling Period [sec]	0.514
Integration Time [sec]	0 1

Oxide/Doubly Charged Ratio

Oxide	---
Doubly Charged	70 / 140 1 116 %

Resolution/Axis



Mass	Peak Height	Axis	W-50%	W-5%
9	20393 34	9 00	0 63	0 784
24	7757 23	23 95	0.63	0 744
59	25893 14	59 00	0 60	0 777
115	26342 09	115.05	0 52	0.758
208	8397 81	208 00	0 50	0 783

Integration Time [sec]	0 1
Acquisition Time [sec]	37 4
Y Axis	Linear

Tune Parameters

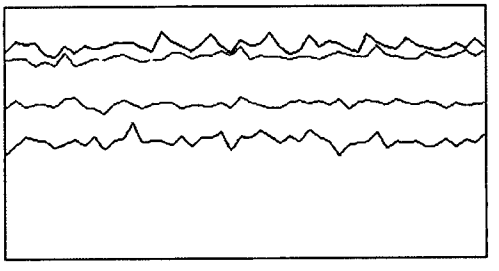
Plasma Parameters

Tune Report

Plasma Mode	—	Nebulizer Gas	0.80 L/min	Dilution Gas	0.12 L/min
RF Power	1600 W	Option Gas	—	Auxiliary Gas	—
RF Matching	1 70 V	Nebulizer Pump	0.10 rps	Plasma Gas	—
Sample Depth	8.0 mm	S/C Temp	2 °C		
Lens Parameters					
Extract 1	-1.8 V	Omega Lens	12.2 V	Deflect	-3.0 V
Extract 2	-200.0 V	Cell Entrance	-40 V	Plate Bias	-48 V
Omega Bias	-100 V	Cell Exit	-60 V		
Cell Parameters					
Use Gas	Yes	3rd Gas Flow	—	Energy Discrimination	2.0 V
He Flow	0.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	3.5 mL/min	OctP RF	190 V		
QP Parameters					
Mass Gain	131	Axis Gain	1.0010	QP Bias	-16.0 V
Mass Offset	126	Axis Offset	0.09		
Hardware Settings					
Torch					
Torch H	-0.1 mm	Torch V	-0.4 mm		
EM					
Discriminator	6.1 mV	Analog HV	1610 V	Pulse HV	996 V

[He]

Sensitivity



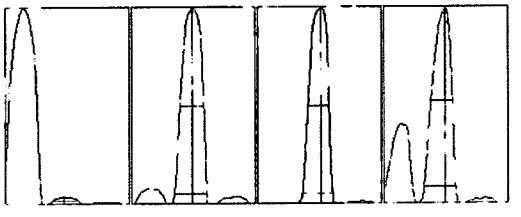
Mass	Range	Count	RSD%	Background
24	1000	468	5.212	0.500
59	20000	16046	2.017	0.200
115	5000	4239	2.686	0.400
208	10000	6141	2.211	0.800

Sampling Period [sec] 0.412
Integration Time [sec] 0.1

Oxide/Doubly Charged Ratio

Oxide —
Doubly Charged 70 / 140 1.535 %

Resolution/Axis



Mass	Peak Height	Axis	W-50%	W-5%
24	467.59	23.95	0.64	0.743
59	16068.62	59.00	0.59	0.772
115	4281.31	115.05	0.52	0.727
208	6156.48	208.00	0.51	0.760

Integration Time [sec] 0.1

Tune Report

Acquisition Time [sec]	29.92
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	—	Nebulizer Gas	0.80 L/min	Dilution Gas	0.12 L/min
RF Power	1600 W	Option Gas	—	Auxiliary Gas	—
RF Matching	1.70 V	Nebulizer Pump	0.10 rps	Plasma Gas	—
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	-1.9 V	Omega Lens	12.3 V	Deflect	0.0 V
Extract 2	-200.0 V	Cell Entrance	-40 V	Plate Bias	-48 V
Omega Bias	-120 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	—	Energy Discrimination	3.0 V
He Flow	4.5 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	131	Axis Gain	1.0010	QP Bias	-15.0 V
Mass Offset	126	Axis Offset	0.09		

Hardware Settings

Torch

Torch H	-0.1 mm	Torch V	-0.4 mm		

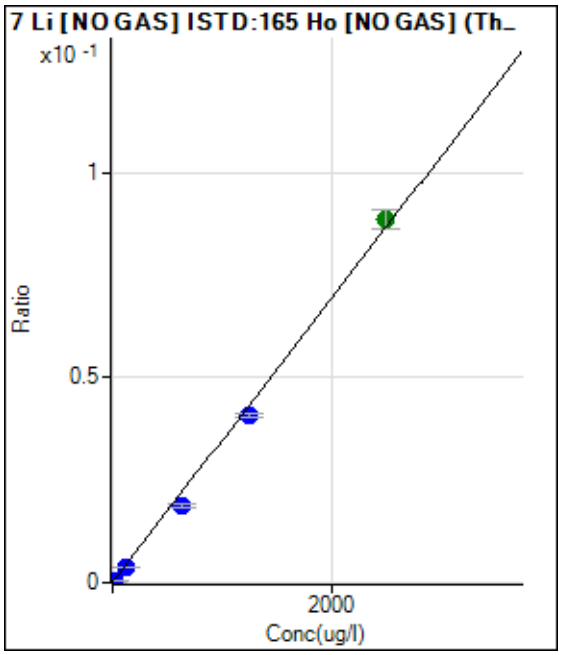
EM

Discriminator	6.1 mV	Analog HV	1610 V	Pulse HV	996 V

Calibration for 039CALS.d

Batch Folder: D:\Data\220118ADoD.b\
Analysis File: 220118ADoD.batch.bin
DA Date-Time: 2022-01-19 06:52:31
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	026CALB.d	BLANK	2022-01-18 21:24:49
2	027CALS.d	0.025 PPB STD	2022-01-18 21:30:42
3	028CALS.d	0.05 PPB STD	2022-01-18 21:36:33
4	039CALS.d	0.10 PPB STD	2022-01-18 22:40:39
5	030CALS.d	0.5 PPB STD	2022-01-18 21:48:15
6	031CALS.d	1 PPB STD	2022-01-18 21:54:07
7	032CALS.d	10 PPB STD	2022-01-18 21:59:59
8	033CALS.d	50 PPB STD	2022-01-18 22:05:50
9	034CALS.d	100 PPB STD	2022-01-18 22:11:40
10	035CALS.d	1000 PPB STD	2022-01-18 22:17:24
11	036CALS.d	100 ppb Bromine	2022-01-18 22:22:59



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1823.07	0.0001	P	2.0
2	☐	0.031	0.090	1875.73	0.0001	P	6.6
3	☐	0.625	0.278	2031.05	0.0001	P	2.5
4	☐	1.250	2.137	3184.33	0.0002	P	10.6
5	☐	6.250	4.966	4754.38	0.0003	P	2.3
6	☐	12.500	11.807	8886.51	0.0005	P	0.8
7	☐	125.000	110.323	65688.12	0.0039	P	1.9
8	☐	625.000	541.283	321802.05	0.0188	P	5.4
9	☐	1250.000	1177.920	695109.84	0.0408	P	1.6
10	☐	2500.000	2557.710	1481995.49	0.0885	A	5.5
11	☐			4381.02	0.0003	P	4.5

y = 3.4577E-005 * x + 1.0744E-004

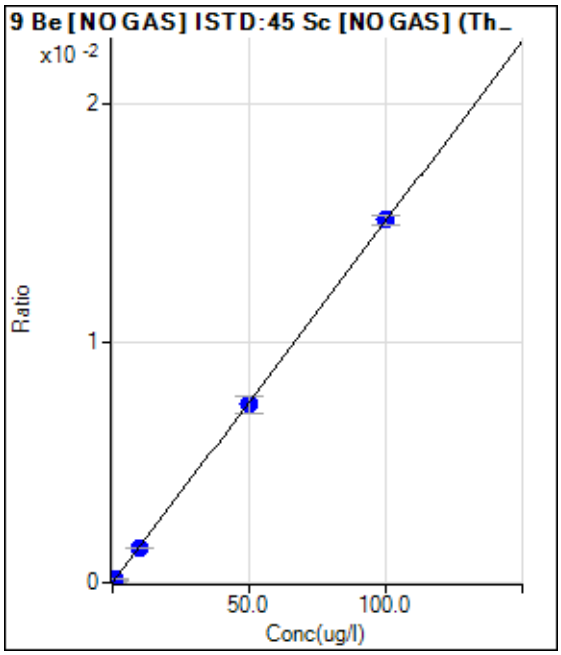
R = 0.9989

DL = 0.1832

BEC = 3.107

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5.67	0.0000	P	72.0
2	☐	0.025	0.012	8.67	0.0000	P	21.5
3	☐	0.050	0.074	26.00	0.0000	P	20.4
4	☐	0.100	0.104	37.99	0.0000	P	32.5
5	☐	0.500	0.447	131.31	0.0001	P	13.1
6	☐	1.000	1.142	328.27	0.0002	P	7.0
7	☐	10.000	9.589	2776.34	0.0014	P	3.2
8	☐	50.000	49.257	14537.12	0.0074	P	9.0
9	☐	100.000	100.412	29851.32	0.0151	P	2.7
10	☐			292077.64	0.1464	P	2.8
11	☐			46.32	0.0000	P	34.0

y = 1.5061E-004 * x + 3.0734E-006

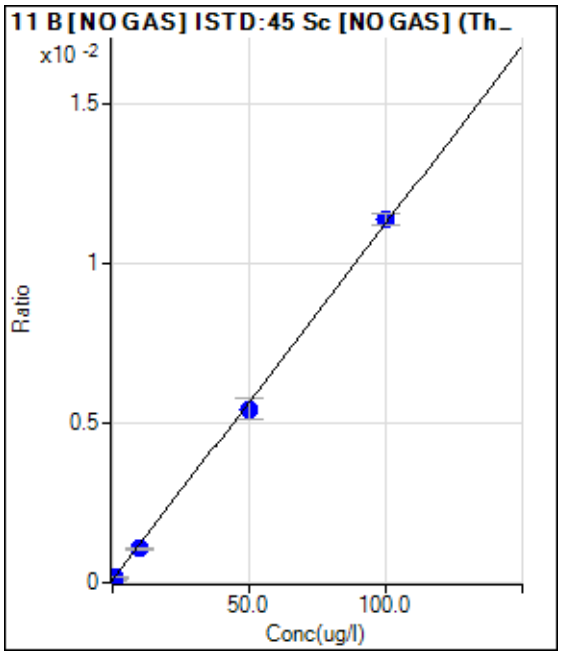
R = 1.0000

DL = 0.04406

BEC = 0.02041

Weight: 1/y

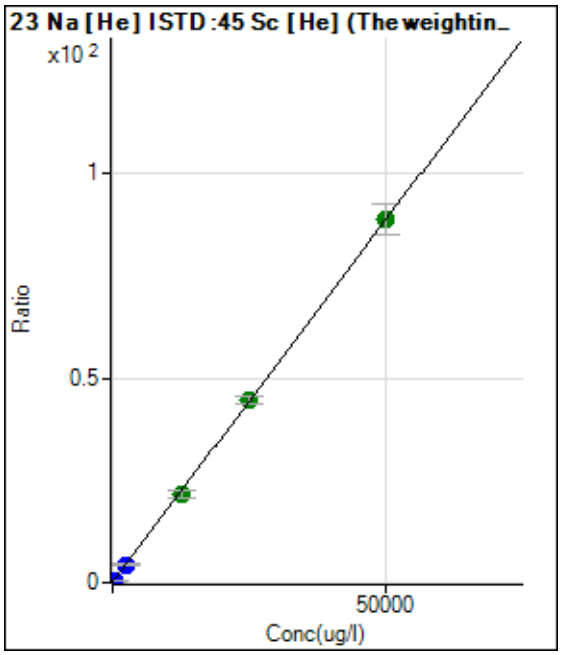
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	163.30	0.0001	P	4.6
2				149.97	0.0001	P	18.1
3		0.050	-0.046	151.30	0.0001	P	8.9
4		0.100	0.917	387.93	0.0002	P	20.3
5		0.500	0.188	201.96	0.0001	P	18.6
6		1.000	0.741	319.27	0.0002	P	5.1
7		10.000	8.856	2060.39	0.0011	P	5.6
8		50.000	47.982	10626.50	0.0054	P	12.3
9		100.000	101.127	22416.00	0.0114	P	3.3
10				210425.69	0.1054	P	2.1
11				1341.79	0.0007	P	2.3

y = 1.1146E-004 * x + 8.7509E-005
R = 0.9996
DL = 0.1077
BEC = 0.7851

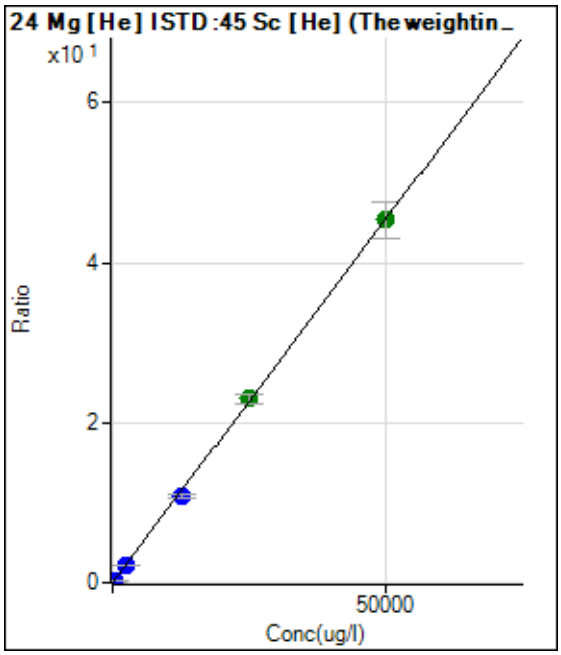
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	6888.07	0.1369	P	2.2
2		6.250	2.419	7191.53	0.1412	P	2.7
3		12.500	11.980	8026.34	0.1581	P	6.6
4		25.000	28.077	10190.84	0.1866	P	4.3
5		125.000	123.450	18202.96	0.3555	P	2.6
6		250.000	276.556	31766.01	0.6266	P	1.5
7		2500.000	2436.365	238218.55	4.4506	P	3.1
8		12500.000	12027.441	1151302.24	21.4322	A	8.7
9		25000.000	25113.130	2451385.92	44.6011	A	4.0
10		50000.000	50064.627	4610801.77	88.7791	A	8.6
11				13090.55	0.2371	P	0.9

y = 0.0018 * x + 0.1369
R = 1.0000
DL = 5.137
BEC = 77.33

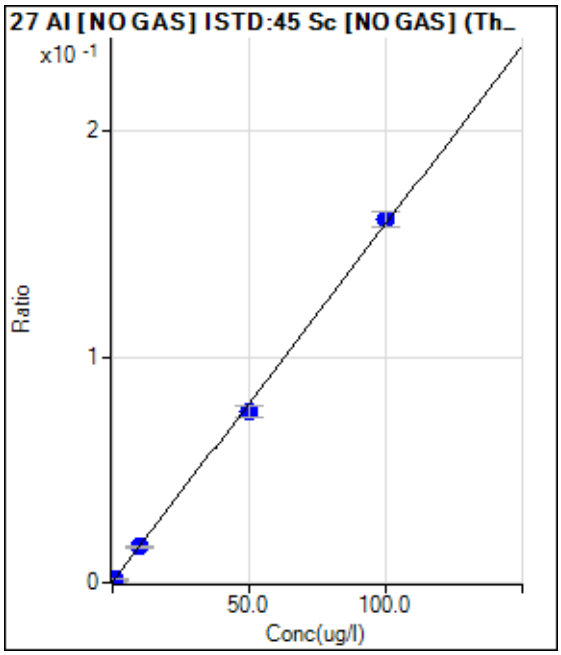
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	13.31	0.0003	P	173.2
2		6.250	6.598	319.37	0.0063	P	21.6
3		12.500	12.814	602.16	0.0119	P	24.1
4		25.000	30.157	1510.42	0.0276	P	7.7
5		125.000	118.910	5536.64	0.1082	P	6.0
6		250.000	283.540	13035.84	0.2576	P	8.5
7		2500.000	2340.894	113664.56	2.1245	P	4.6
8		12500.000	11891.085	579537.13	10.7907	P	4.7
9		25000.000	25406.833	1266941.79	23.0555	A	5.2
10		50000.000	49956.613	2352638.64	45.3331	A	10.1
11				232.87	0.0042	P	31.3

y = 9.0744E-004 * x + 2.6324E-004
R = 0.9999
DL = 1.507
BEC = 0.2901

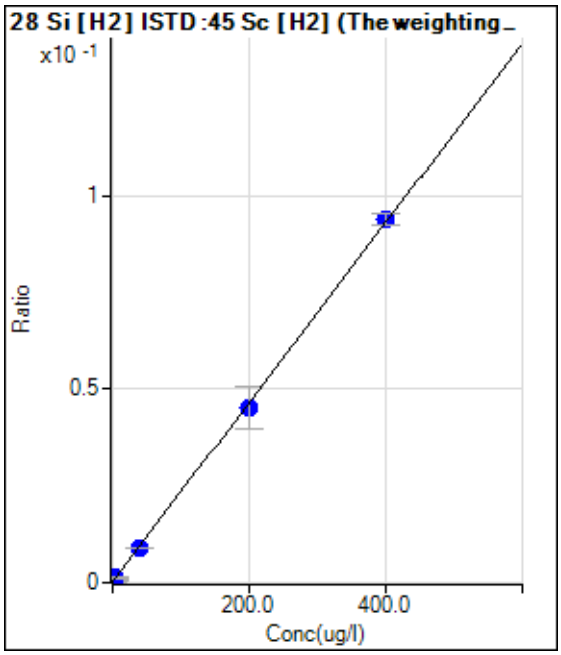
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	636.68	0.0003	P	9.6
2				595.57	0.0003	P	10.9
3		0.050	0.031	716.69	0.0004	P	4.2
4		0.100	0.285	1628.98	0.0008	P	8.8
5		0.500	0.475	2043.47	0.0011	P	1.0
6		1.000	1.057	3787.11	0.0020	P	0.8
7		10.000	9.772	30359.10	0.0158	P	3.3
8		50.000	47.574	148576.62	0.0757	P	6.2
9		100.000	101.235	317171.03	0.1608	P	4.1
10				2971298.01	1.4892	A	3.1
11				26249.07	0.0135	P	2.9

y = 0.0016 * x + 3.4183E-004
R = 0.9996
DL = 0.062
BEC = 0.2157

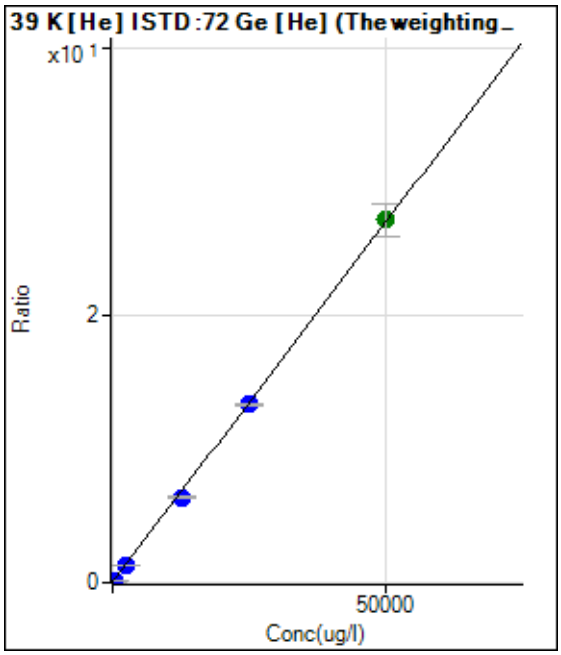
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	18.67	0.0002	P	18.4
2	☐			21.33	0.0003	P	46.4
3	☐	0.200	0.773	33.99	0.0004	P	49.4
4	☐	0.400	0.930	38.66	0.0004	P	6.7
5	☐	2.000	1.896	55.32	0.0007	P	25.4
6	☐	4.000	4.531	105.98	0.0013	P	10.7
7	☐	40.000	37.494	772.53	0.0089	P	1.9
8	☐	200.000	193.666	4075.03	0.0451	P	24.1
9	☐	400.000	403.412	8514.45	0.0936	P	3.2
10	☐			66.66	0.0008	P	6.0
11	☐			27.99	0.0003	P	22.3

y = 2.3156E-004 * x + 2.2663E-004
R = 0.9998
DL = 0.5417
BEC = 0.9787

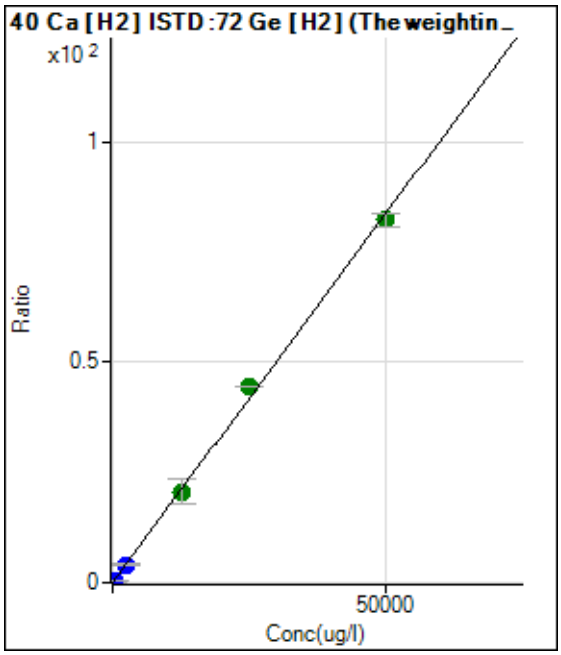
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2671.34	0.0354	P	3.8
2	☐	6.250	3.803	2873.60	0.0374	P	9.0
3	☐	12.500	12.098	3275.33	0.0419	P	4.0
4	☐	25.000	30.697	4180.54	0.0520	P	1.4
5	☐	125.000	119.152	7770.71	0.0997	P	4.7
6	☐	250.000	245.317	13145.16	0.1677	P	3.1
7	☐	2500.000	2347.001	100098.52	1.3011	P	3.6
8	☐	12500.000	11818.011	514585.14	6.4086	P	1.0
9	☐	25000.000	24664.679	1089567.74	13.3365	P	0.6
10	☐	50000.000	50345.843	2093185.14	27.1857	A	8.7
11	☐			25288.89	0.3081	P	2.3

y = 5.3928E-004 * x + 0.0354
R = 0.9999
DL = 7.489
BEC = 65.64

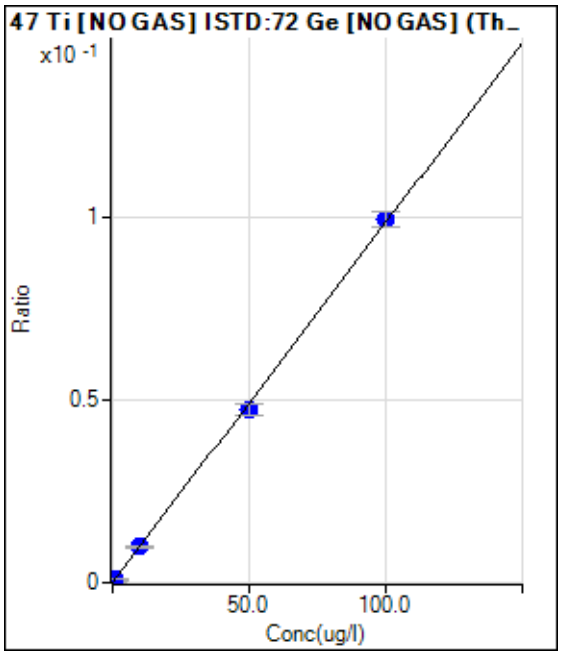
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	564.73	0.0048	P	17.3
2	☐	6.250	7.203	1917.51	0.0168	P	6.2
3	☐	12.500	13.591	3235.39	0.0275	P	7.7
4	☐	25.000	31.871	7044.70	0.0581	P	3.4
5	☐	125.000	125.826	25162.98	0.2153	P	3.0
6	☐	250.000	277.650	54513.35	0.4693	P	2.2
7	☐	2500.000	2465.794	490797.02	4.1300	P	1.3
8	☐	12500.000	12376.854	2558726.63	20.7109	A	25.8
9	☐	25000.000	26655.154	5349149.08	44.5981	A	0.2
10	☐	50000.000	49204.776	9959193.00	82.3230	A	3.6
11	☐			2385.67	0.0190	P	8.5

y = 0.0017 * x + 0.0048
R = 0.9993
DL = 1.481
BEC = 2.853

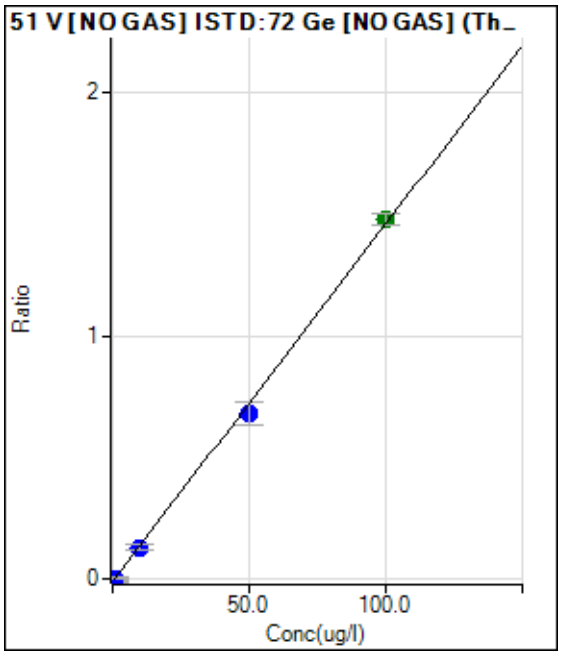
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.32	0.0000	P	24.4
2	☐	0.025	0.040	56.64	0.0001	P	10.9
3	☐	0.050	0.073	83.29	0.0001	P	30.1
4	☐	0.100	0.155	159.92	0.0002	P	8.8
5	☐	0.500	0.517	443.12	0.0005	P	22.2
6	☐	1.000	1.073	912.91	0.0011	P	11.7
7	☐	10.000	10.074	8373.00	0.0100	P	5.9
8	☐	50.000	48.278	41029.44	0.0476	P	6.6
9	☐	100.000	100.853	86388.56	0.0995	P	4.1
10	☐			4926.67	0.0058	P	4.6
11	☐			73.30	0.0001	P	49.8

y = 9.8638E-004 * x + 2.7563E-005
R = 0.9998
DL = 0.02042
BEC = 0.02794

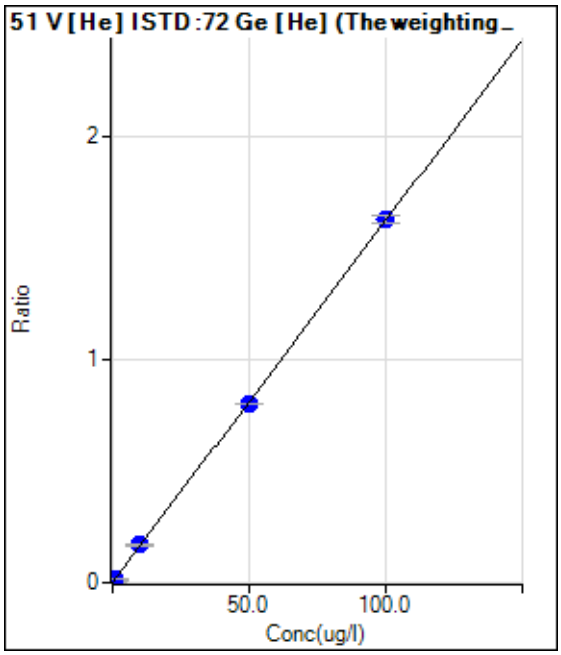
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-7327.59	-0.0086	P	-55.0
2	☐			-10942.60	-0.0130	P	-55.2
3	☐	0.050	-0.308	-11025.42	-0.0131	P	-38.8
4	☐	0.100	-0.050	-8452.23	-0.0093	P	-91.9
5	☐	0.500	0.043	-6583.91	-0.0080	P	-48.8
6	☐	1.000	0.913	3955.09	0.0048	P	195.0
7	☐	10.000	9.465	109251.67	0.1304	P	17.0
8	☐	50.000	47.025	589142.58	0.6820	P	13.7
9	☐	100.000	101.544	1287369.17	1.4827	A	3.3
10	☐			13405754.74	15.9180	A	3.5
11	☐			-10382.31	-0.0121	P	-40.5

y = 0.0147 * x - 0.0086
R = 0.9995
DL = 0.9674
BEC = -0.5859

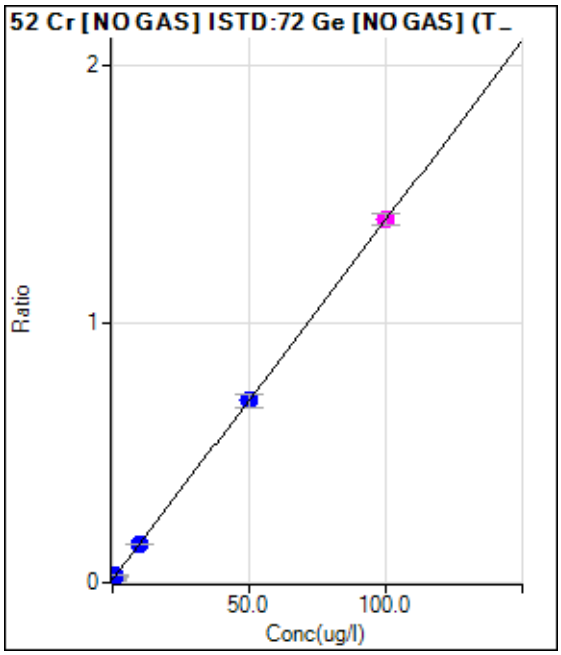
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	83.33	0.0011	P	15.0
2	☐			156.67	0.0020	P	15.7
3	☐	0.050	0.084	192.23	0.0025	P	10.1
4	☐	0.100	0.114	237.78	0.0030	P	24.1
5	☐	0.500	0.488	703.35	0.0090	P	4.6
6	☐	1.000	1.109	1498.97	0.0191	P	11.2
7	☐	10.000	10.339	12985.00	0.1688	P	3.6
8	☐	50.000	49.482	64549.37	0.8038	P	0.5
9	☐	100.000	100.224	132916.55	1.6269	P	2.0
10	☐			1347739.72	17.4941	A	8.0
11	☐			256.67	0.0031	P	19.2

y = 0.0162 * x + 0.0011
R = 1.0000
DL = 0.03074
BEC = 0.0681

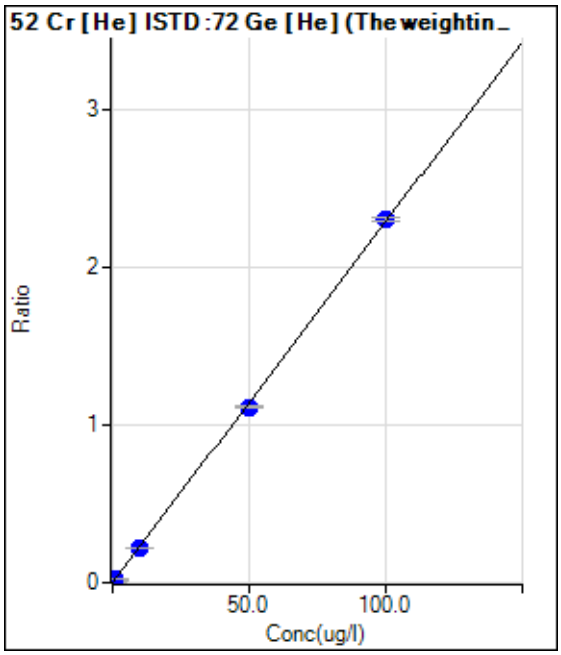
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9637.07	0.0114	P	5.1
2	☐			9710.27	0.0115	P	3.4
3	☐	0.050	0.076	10479.25	0.0125	P	2.5
4	☐	0.100	0.041	10609.05	0.0120	P	4.7
5	☐	0.500	0.561	15802.86	0.0192	P	2.7
6	☐	1.000	1.086	22240.75	0.0265	P	3.6
7	☐	10.000	9.859	124401.91	0.1482	P	3.2
8	☐	50.000	49.762	604239.86	0.7018	P	6.8
9	☐	100.000	100.132	1216072.12	1.4005	M	3.1
10	☐			12421794.02	14.7448	A	2.4
11	☐			11135.02	0.0129	P	5.3

y = 0.0139 * x + 0.0114
R = 1.0000
DL = 0.1251
BEC = 0.8218

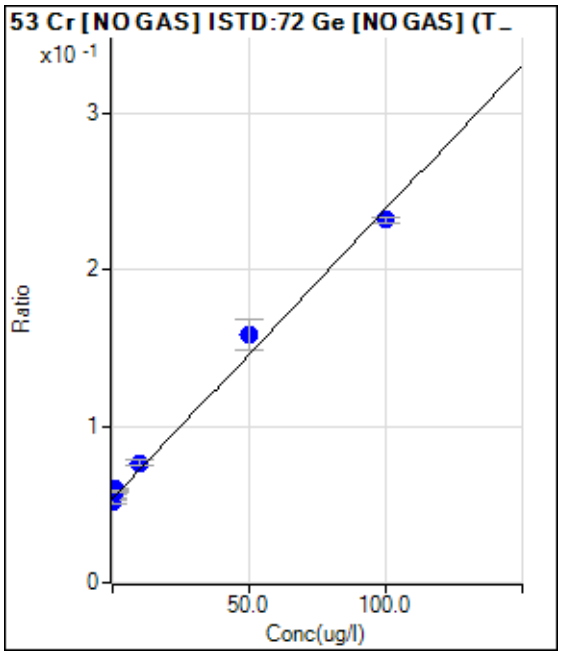
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136.40	0.0018	P	32.5
2	☐			146.38	0.0019	P	33.5
3	☐	0.050	0.066	259.49	0.0033	P	29.6
4	☐	0.100	0.136	395.89	0.0049	P	0.5
5	☐	0.500	0.484	1001.38	0.0128	P	21.0
6	☐	1.000	1.188	2265.69	0.0289	P	10.3
7	☐	10.000	9.712	17214.62	0.2236	P	1.6
8	☐	50.000	48.760	89569.19	1.1155	P	1.9
9	☐	100.000	100.647	187948.29	2.3006	P	1.1
10	☐			1856579.95	24.1222	A	9.7
11	☐			429.16	0.0052	P	22.0

y = 0.0228 * x + 0.0018
R = 0.9999
DL = 0.07704
BEC = 0.07902

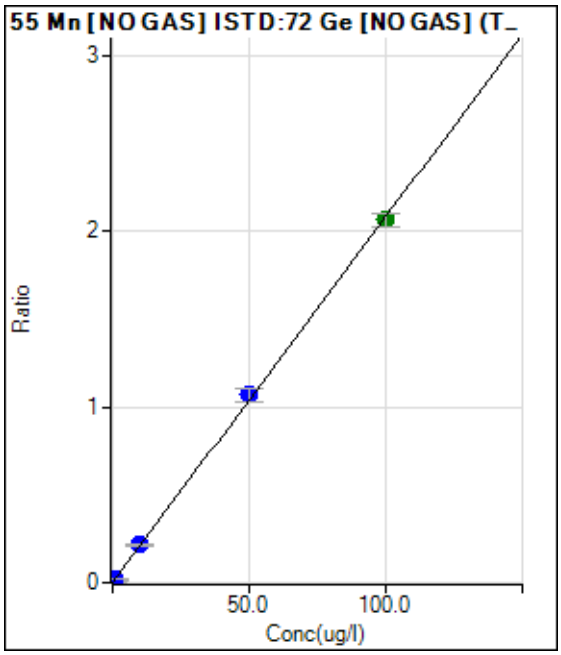
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	45387.42	0.0537	P	1.1
2				48636.72	0.0578	P	1.8
3		0.050	1.974	48211.79	0.0573	P	1.7
4		0.100	-1.117	45772.87	0.0516	P	6.7
5		0.500	3.211	49112.37	0.0596	P	2.3
6		1.000	2.410	48830.37	0.0581	P	1.8
7		10.000	12.450	64441.99	0.0767	P	5.5
8		50.000	56.844	136481.03	0.1588	P	12.1
9		100.000	96.306	201201.99	0.2317	P	1.5
10				1529958.66	1.8162	A	2.7
11				48248.66	0.0560	P	3.8

y = 0.0018 * x + 0.0537
R = 0.9965
DL = 0.9934
BEC = 29.02

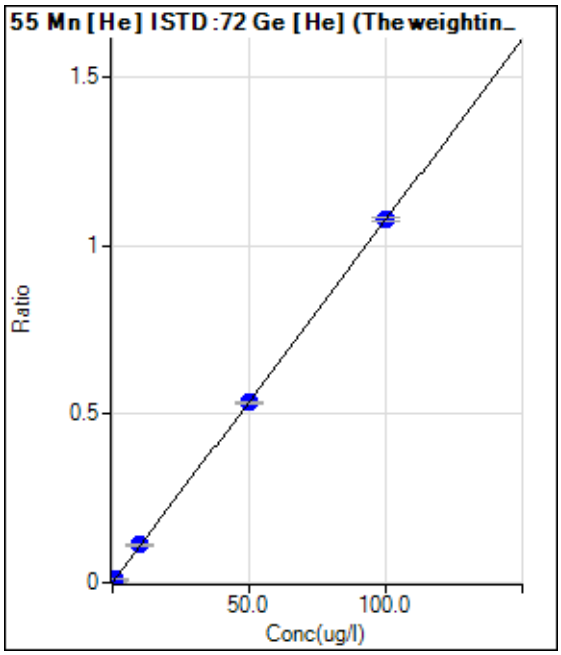
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	718.60	0.0008	P	17.7
2		0.025	0.020	1071.26	0.0013	P	8.7
3		0.050	0.053	1640.17	0.0019	P	3.6
4		0.100	0.123	3027.64	0.0034	P	9.8
5		0.500	0.512	9467.33	0.0115	P	5.4
6		1.000	1.143	20661.89	0.0246	P	3.6
7		10.000	10.226	179050.75	0.2133	P	4.1
8		50.000	51.418	920623.16	1.0692	P	6.7
9		100.000	99.267	1791371.05	2.0634	A	3.6
10				18279414.97	21.7001	A	2.0
11				2818.01	0.0033	P	10.6

y = 0.0208 * x + 8.4802E-004
R = 0.9999
DL = 0.02162
BEC = 0.04081

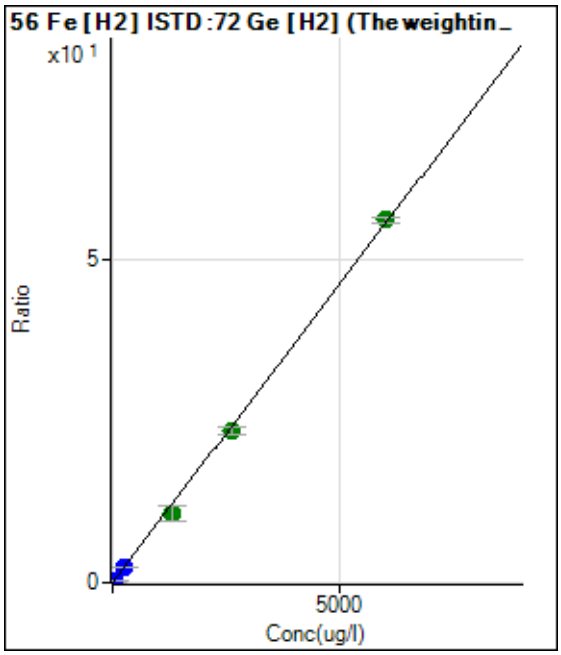
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5.00	0.0001	P	91.4
2	☐	0.025	0.027	27.33	0.0004	P	3.6
3	☐	0.050	0.053	49.67	0.0006	P	23.8
4	☐	0.100	0.121	110.01	0.0014	P	9.5
5	☐	0.500	0.478	406.05	0.0052	P	7.5
6	☐	1.000	1.111	941.45	0.0120	P	1.8
7	☐	10.000	10.463	8654.42	0.1126	P	5.2
8	☐	50.000	49.726	42948.44	0.5348	P	0.8
9	☐	100.000	100.090	87936.16	1.0764	P	1.2
10	☐			871946.80	11.3261	P	8.9
11	☐			89.34	0.0011	P	18.0

y = 0.0108 * x + 6.6330E-005
R = 1.0000
DL = 0.01692
BEC = 0.006168

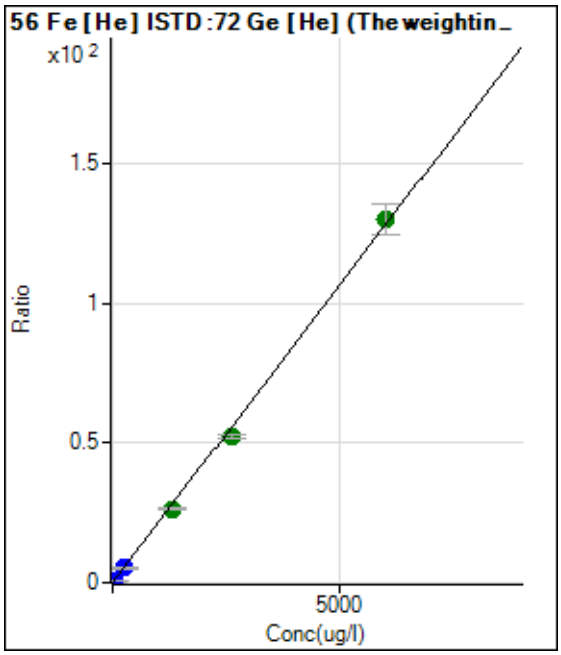
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	346.51	0.0029	P	18.0
2	☐	0.650	0.627	994.54	0.0087	P	11.5
3	☐	1.300	1.241	1697.59	0.0144	P	7.4
4	☐	2.600	3.092	3826.91	0.0315	P	5.5
5	☐	13.000	12.815	14197.38	0.1215	P	2.4
6	☐	26.000	27.311	29688.39	0.2556	P	4.4
7	☐	260.000	244.756	269396.01	2.2672	P	2.6
8	☐	1300.000	1159.729	1329085.85	10.7317	A	23.9
9	☐	2600.000	2528.140	2803486.34	23.3911	A	4.9
10	☐	6000.000	6062.186	6778809.85	56.0850	A	1.3
11	☐			1685.93	0.0134	P	4.1

y = 0.0093 * x + 0.0029
R = 0.9996
DL = 0.1713
BEC = 0.3167

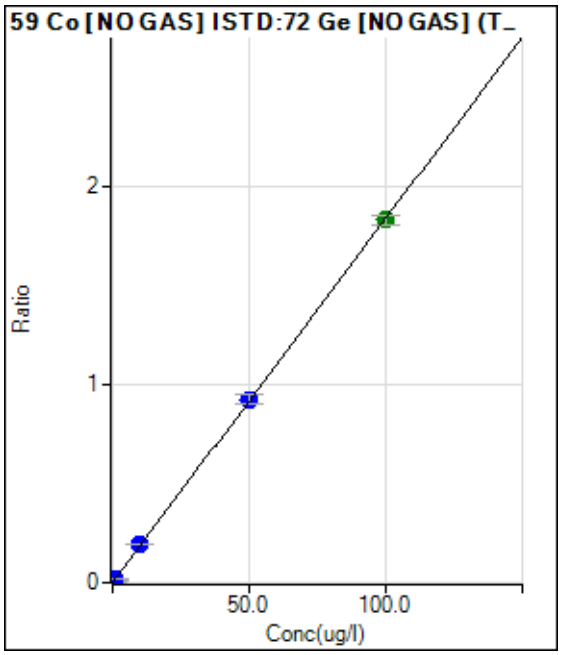
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	586.39	0.0078	P	2.2
2	☐	0.650	0.633	1634.28	0.0213	P	6.1
3	☐	1.300	1.406	2950.49	0.0378	P	2.6
4	☐	2.600	3.146	6026.46	0.0749	P	4.2
5	☐	13.000	12.566	21511.54	0.2759	P	2.2
6	☐	26.000	25.800	43756.62	0.5584	P	3.8
7	☐	260.000	245.817	404031.18	5.2535	P	3.8
8	☐	1300.000	1229.257	2107282.64	26.2403	A	2.6
9	☐	2600.000	2440.470	4255076.90	52.0878	A	2.9
10	☐	6000.000	6085.073	10000970.76	129.8642	A	8.5
11	☐			2538.96	0.0309	P	6.6

y = 0.0213 * x + 0.0078
R = 0.9995
DL = 0.02409
BEC = 0.3641

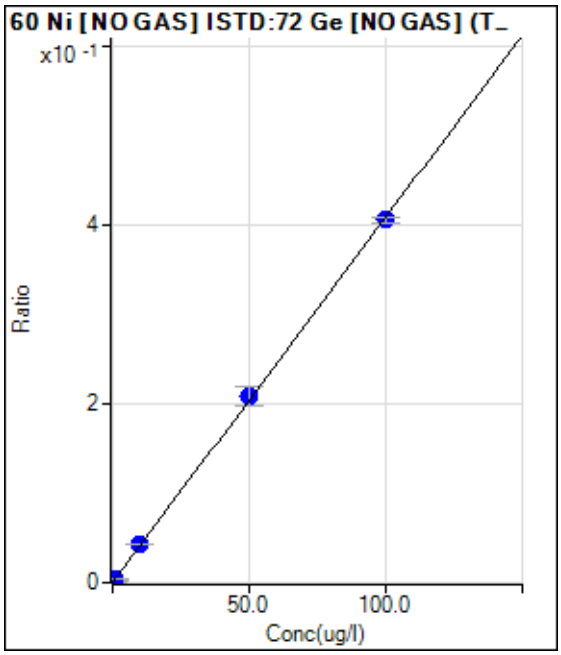
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69.86	0.0001	P	89.2
2	☐	0.025	0.018	345.98	0.0004	P	6.2
3	☐	0.050	0.051	855.00	0.0010	P	13.0
4	☐	0.100	0.114	1922.98	0.0022	P	15.4
5	☐	0.500	0.524	7972.85	0.0097	P	5.6
6	☐	1.000	1.151	17784.26	0.0212	P	2.9
7	☐	10.000	10.470	161177.06	0.1919	P	2.4
8	☐	50.000	50.447	796732.62	0.9245	P	5.0
9	☐	100.000	99.728	1586745.27	1.8276	A	2.4
10	☐			15848731.70	18.8135	A	0.9
11	☐			1566.99	0.0018	P	8.0

y = 0.0183 * x + 8.3706E-005
R = 1.0000
DL = 0.01223
BEC = 0.004568

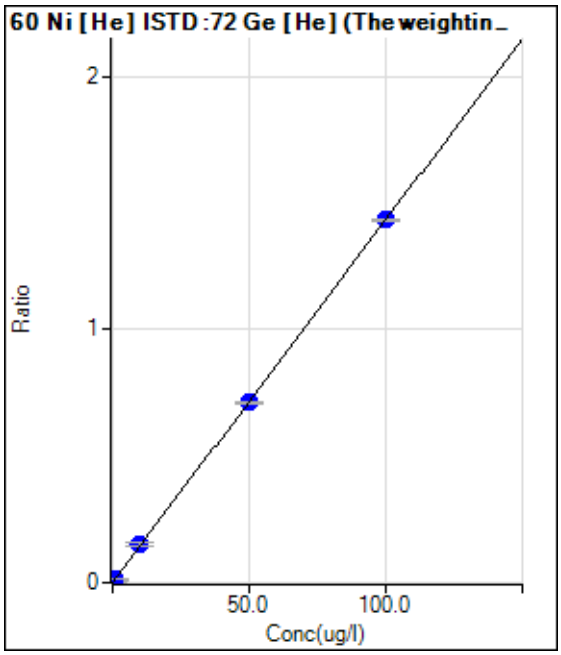
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.21	0.0001	P	23.2
2	☐	0.025	0.032	172.99	0.0002	P	27.7
3	☐	0.050	0.049	229.55	0.0003	P	13.3
4	☐	0.100	0.117	492.37	0.0006	P	8.7
5	☐	0.500	0.559	1939.61	0.0024	P	6.0
6	☐	1.000	1.184	4119.03	0.0049	P	4.4
7	☐	10.000	10.545	36183.84	0.0431	P	4.2
8	☐	50.000	51.103	179533.78	0.2086	P	10.1
9	☐	100.000	99.392	352183.29	0.4056	P	1.7
10	☐			3424739.05	4.0657	A	1.5
11	☐			701.97	0.0008	P	22.0

y = 0.0041 * x + 7.4605E-005
R = 0.9999
DL = 0.01272
BEC = 0.01828

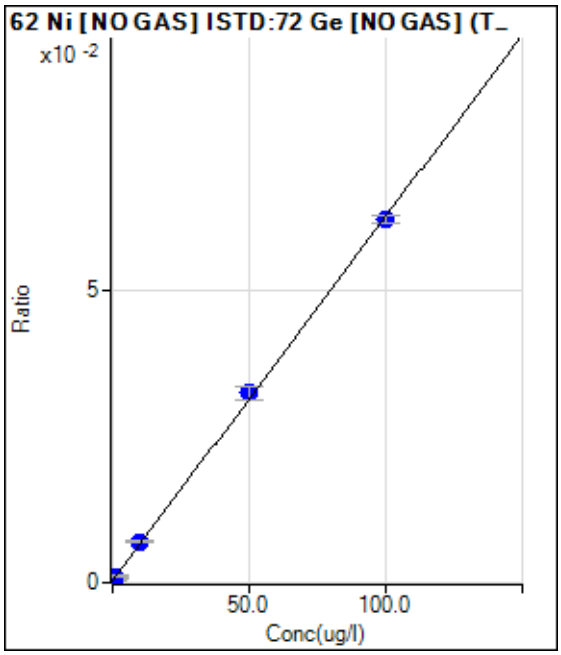
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.78	0.0004	P	72.1
2	☐	0.025	0.022	52.22	0.0007	P	22.5
3	☐	0.050	0.044	77.78	0.0010	P	26.9
4	☐	0.100	0.091	134.45	0.0017	P	12.6
5	☐	0.500	0.508	595.57	0.0076	P	11.4
6	☐	1.000	1.130	1296.73	0.0165	P	5.0
7	☐	10.000	10.544	11618.53	0.1513	P	8.7
8	☐	50.000	49.731	57191.59	0.7122	P	0.6
9	☐	100.000	100.079	117066.10	1.4329	P	0.3
10	☐			1145632.90	14.8676	P	7.5
11	☐			225.56	0.0028	P	22.7

y = 0.0143 * x + 3.6801E-004
R = 1.0000
DL = 0.05558
BEC = 0.02571

Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	279.45	0.0003	P	20.7
2		0.025	0.124	342.66	0.0004	P	2.5
3		0.050	0.220	392.56	0.0005	P	14.6
4		0.100	0.311	465.76	0.0005	P	5.4
5		0.500	0.675	618.79	0.0008	P	18.7
6		1.000	1.321	968.12	0.0012	P	16.9
7		10.000	10.818	5945.99	0.0071	P	6.3
8		50.000	51.518	27971.41	0.0325	P	7.7
9		100.000	99.155	54033.43	0.0622	P	2.1
10				528696.83	0.6276	P	1.6
11				439.14	0.0005	P	13.3

y = 6.2428E-004 * x + 3.2977E-004

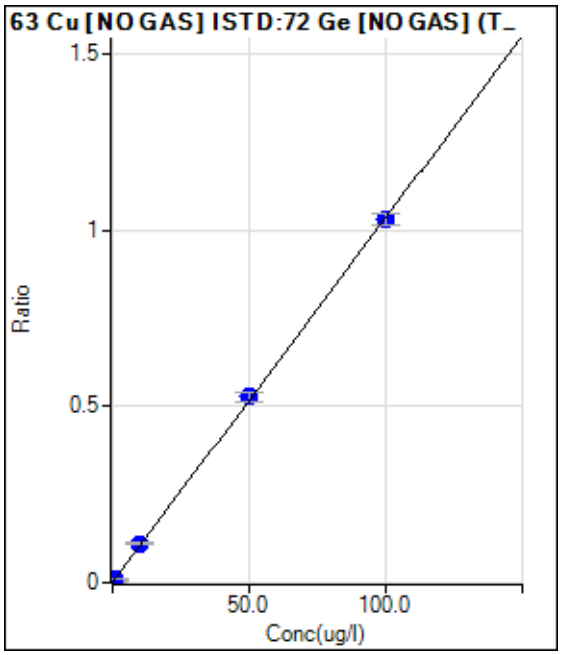
R = 0.9998

DL = 0.3275

BEC = 0.5282

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	469.91	0.0006	P	11.0
2		0.025	0.003	489.24	0.0006	P	2.3
3		0.050	0.026	690.55	0.0008	P	4.4
4		0.100	0.127	1656.43	0.0019	P	7.8
5		0.500	0.522	4905.76	0.0060	P	3.0
6		1.000	1.200	10879.38	0.0130	P	2.9
7		10.000	10.656	92930.05	0.1107	P	2.4
8		50.000	50.867	453206.89	0.5262	P	6.1
9		100.000	99.499	893125.13	1.0287	P	3.3
10				8318686.07	9.8770	A	2.5
11				1967.07	0.0023	P	4.1

y = 0.0103 * x + 5.5546E-004

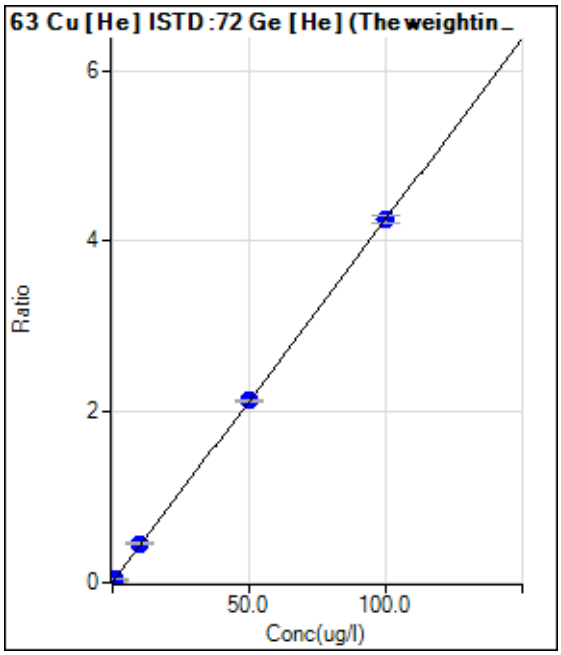
R = 0.9999

DL = 0.01781

BEC = 0.05375

Weight: 1/y

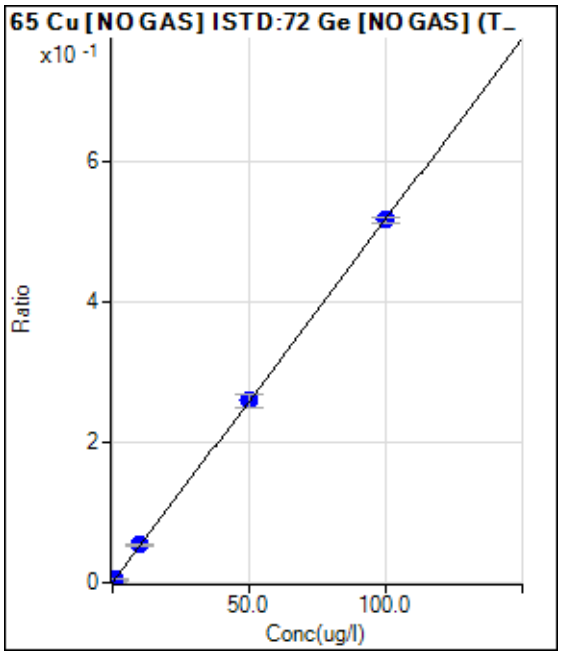
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	198.29	0.0026	P	2.3
2		0.025	-0.006	182.30	0.0024	P	14.0
3		0.050	0.027	295.28	0.0038	P	4.0
4		0.100	0.123	630.22	0.0078	P	2.8
5		0.500	0.475	1778.74	0.0228	P	4.1
6		1.000	1.159	4065.02	0.0519	P	4.4
7		10.000	10.638	34973.86	0.4547	P	3.6
8		50.000	50.022	170910.11	2.1285	P	0.9
9		100.000	99.924	347139.46	4.2493	P	2.1
10				3300231.53	42.8200	A	7.2
11				735.87	0.0090	P	7.5

y = 0.0425 * x + 0.0026
R = 1.0000
DL = 0.004251
BEC = 0.06182

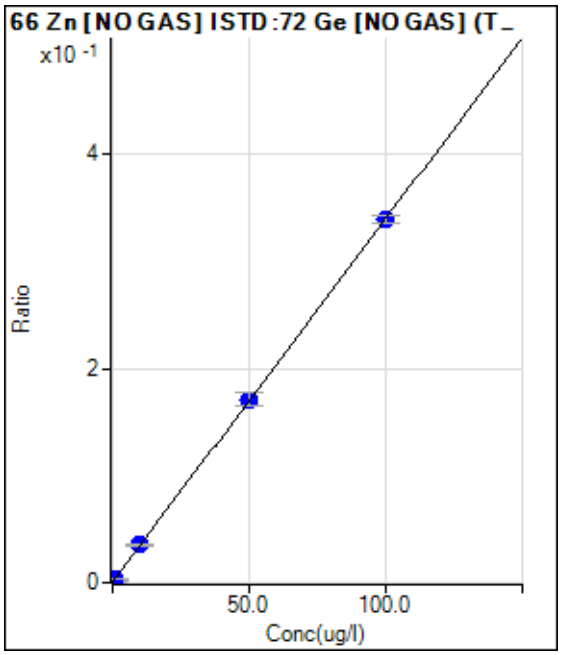
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	238.62	0.0003	P	14.0
2		0.025	0.000	236.62	0.0003	P	5.9
3		0.050	0.025	347.27	0.0004	P	6.2
4		0.100	0.115	779.87	0.0009	P	2.8
5		0.500	0.511	2405.70	0.0029	P	1.3
6		1.000	1.153	5236.46	0.0062	P	4.1
7		10.000	10.453	45545.19	0.0543	P	3.9
8		50.000	50.069	222833.75	0.2588	P	7.3
9		100.000	99.918	448178.65	0.5162	P	1.6
10				4118243.51	4.8900	A	3.0
11				1013.17	0.0012	P	0.7

y = 0.0052 * x + 2.8242E-004
R = 1.0000
DL = 0.02296
BEC = 0.0547

Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	489.00	0.0006	P	32.6
2	☐			469.03	0.0006	P	15.4
3	☐	0.050	0.020	545.49	0.0006	P	17.6
4	☐	0.100	0.164	1007.94	0.0011	P	4.0
5	☐	0.500	0.457	1756.46	0.0021	P	13.8
6	☐	1.000	1.085	3576.23	0.0043	P	4.8
7	☐	10.000	10.181	29477.01	0.0351	P	2.7
8	☐	50.000	50.376	147620.92	0.1714	P	7.0
9	☐	100.000	99.793	294292.96	0.3389	P	2.1
10	☐			2776740.84	3.2975	A	4.1
11	☐			2252.24	0.0026	P	13.4

y = 0.0034 * x + 5.8099E-004

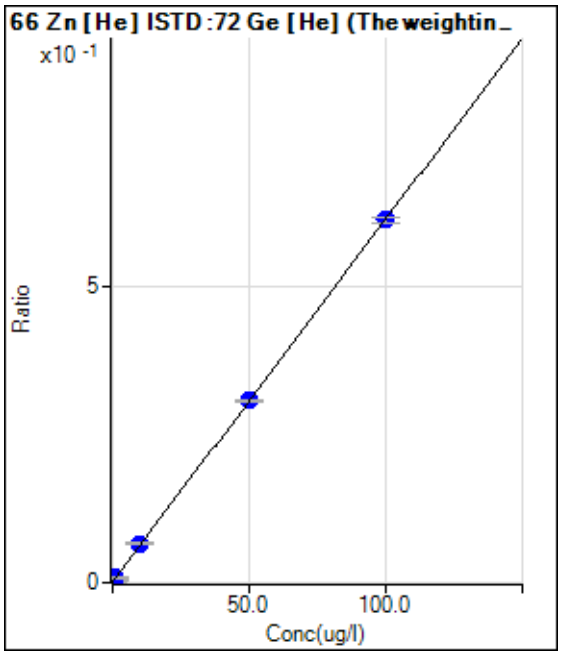
R = 1.0000

DL = 0.1678

BEC = 0.1713

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	91.11	0.0012	P	5.2
2	☐			81.11	0.0011	P	28.8
3	☐	0.050	0.026	106.66	0.0014	P	19.4
4	☐	0.100	0.147	170.00	0.0021	P	12.5
5	☐	0.500	0.460	314.45	0.0040	P	2.0
6	☐	1.000	1.137	641.13	0.0082	P	12.0
7	☐	10.000	10.565	5080.81	0.0661	P	3.4
8	☐	50.000	50.094	24787.34	0.3087	P	0.9
9	☐	100.000	99.896	50191.82	0.6144	P	1.8
10	☐			481525.93	6.2583	P	9.9
11	☐			404.45	0.0049	P	18.0

y = 0.0061 * x + 0.0012

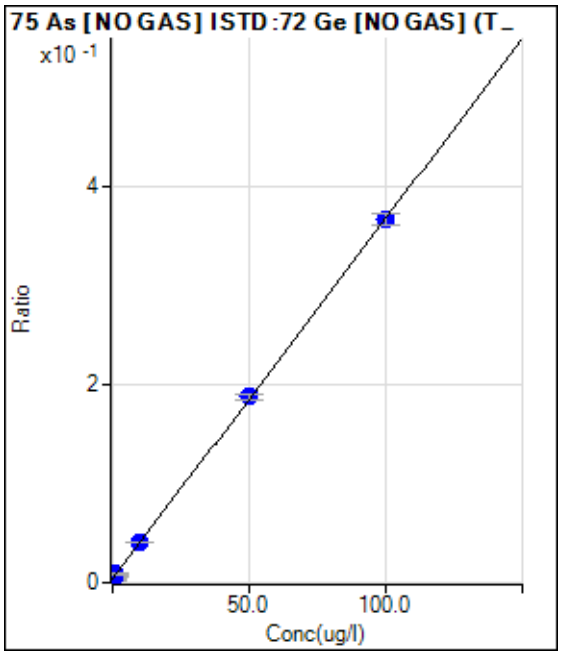
R = 1.0000

DL = 0.03069

BEC = 0.1966

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	3116.31	0.0037	P	51.3
2		0.025	0.324	4104.15	0.0049	P	41.4
3		0.050	0.280	3976.59	0.0047	P	19.9
4		0.100	-0.082	3024.85	0.0034	P	6.0
5		0.500	0.595	4840.07	0.0059	P	28.4
6		1.000	1.417	7450.14	0.0089	P	5.9
7		10.000	10.259	34476.57	0.0411	P	1.6
8		50.000	50.512	161686.78	0.1876	P	2.9
9		100.000	99.714	318347.29	0.3667	P	3.0
10				2975263.89	3.5315	A	0.7
11				6392.04	0.0074	P	30.0

y = 0.0036 * x + 0.0037

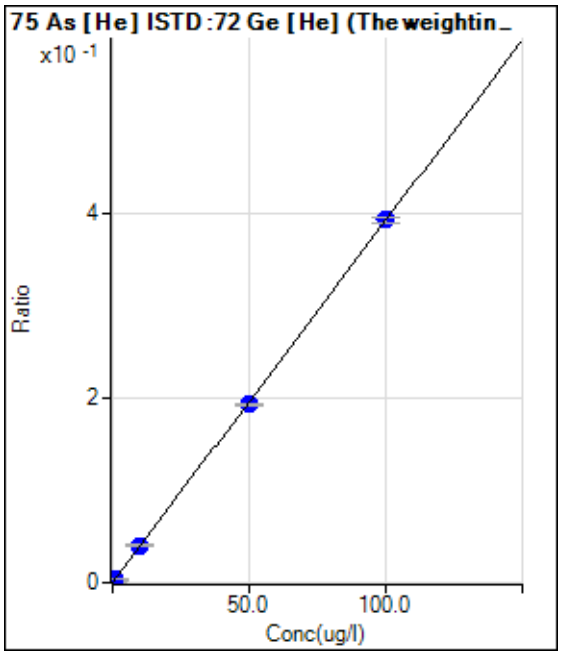
R = 1.0000

DL = 1.566

BEC = 1.018

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	5.00	0.0001	P	20.5
2		0.025	0.026	13.00	0.0002	P	20.1
3		0.050	0.058	23.00	0.0003	P	38.2
4		0.100	0.116	41.99	0.0005	P	22.2
5		0.500	0.471	148.97	0.0019	P	9.1
6		1.000	1.102	343.60	0.0044	P	3.2
7		10.000	10.325	3117.01	0.0405	P	5.2
8		50.000	49.393	15548.46	0.1936	P	1.1
9		100.000	100.270	32106.65	0.3930	P	1.6
10				317869.78	4.1263	P	8.0
11				57.66	0.0007	P	18.2

y = 0.0039 * x + 6.6290E-005

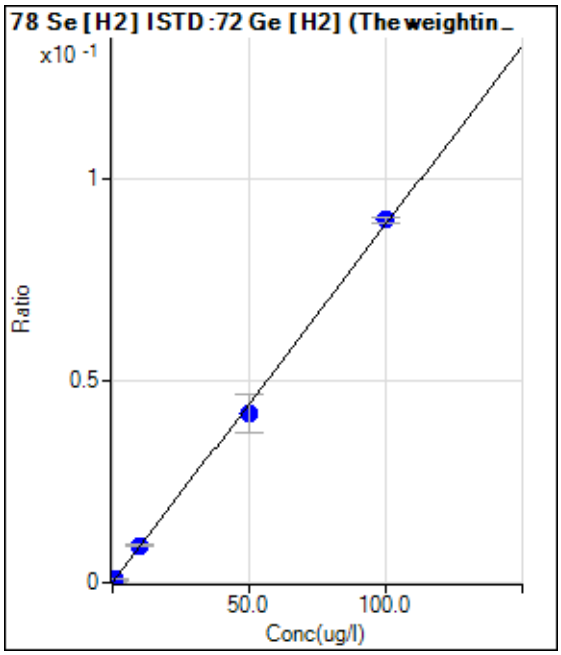
R = 1.0000

DL = 0.01042

BEC = 0.01692

Weight: 1/y

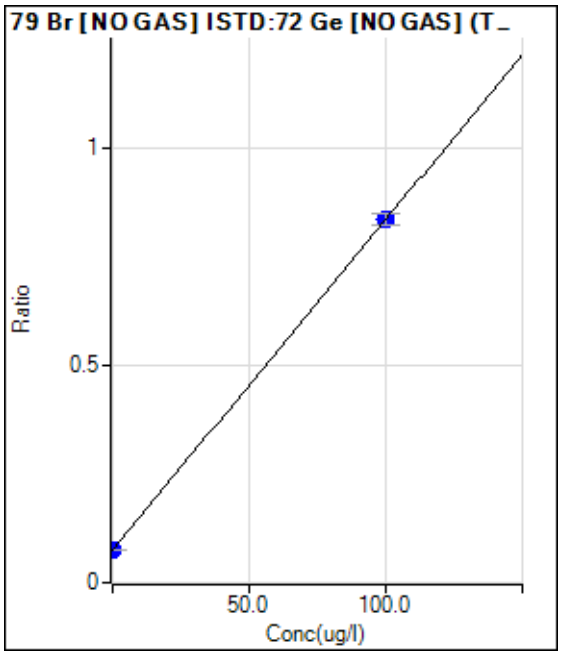
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	2.33	0.0000	P	26.7
2		0.025	0.001	2.33	0.0000	P	66.6
3		0.050	0.042	6.67	0.0001	P	30.4
4		0.100	0.110	14.33	0.0001	P	38.2
5		0.500	0.420	45.66	0.0004	P	11.5
6		1.000	1.042	109.31	0.0009	P	7.8
7		10.000	10.348	1090.49	0.0092	P	3.9
8		50.000	47.153	5178.45	0.0417	P	22.8
9		100.000	101.389	10765.02	0.0897	P	1.6
10				103189.17	0.8536	P	0.7
11				30.66	0.0002	P	22.5

y = 8.8493E-004 * x + 1.9751E-005
R = 0.9995
DL = 0.01788
BEC = 0.02232

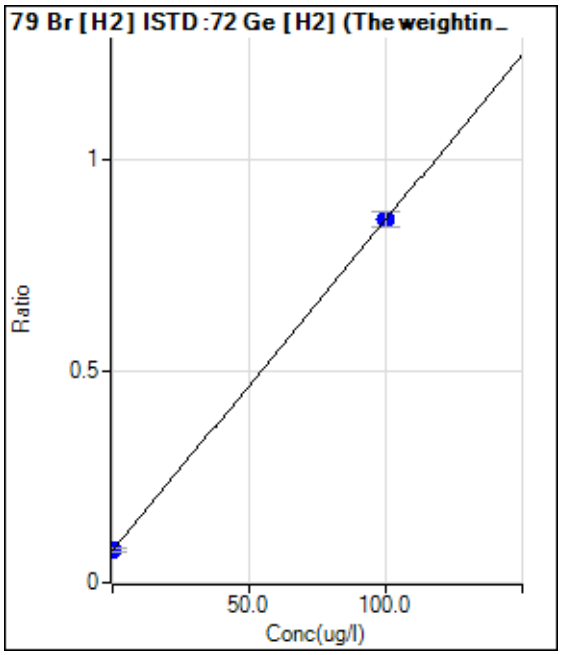
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	63558.85	0.0752	P	2.7
2				66798.64	0.0794	P	0.3
3				65692.81	0.0781	P	0.9
4				66595.51	0.0751	P	3.7
5				65729.21	0.0798	P	0.5
6				64003.05	0.0762	P	3.2
7				65927.21	0.0785	P	1.1
8				66949.26	0.0777	P	7.7
9				68091.97	0.0784	P	3.2
10				70066.07	0.0831	P	1.5
11		100.000	100.000	720236.92	0.8359	P	3.2

y = 0.0076 * x + 0.0752
R = 1.0000
DL = 0.8109
BEC = 9.88

Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8938.12	0.0755	P	11.7
2	☐			9327.51	0.0818	P	3.5
3	☐			9314.22	0.0791	P	5.1
4	☐			9490.69	0.0782	P	5.5
5	☐			8918.14	0.0764	P	3.0
6	☐			8755.02	0.0754	P	8.9
7	☐			9017.98	0.0758	P	6.8
8	☐			9447.42	0.0762	P	23.0
9	☐			9803.56	0.0817	P	6.3
10	☐			11461.37	0.0949	P	10.4
11	☐	100.000	100.000	107446.53	0.8556	P	4.4

y = 0.0078 * x + 0.0755

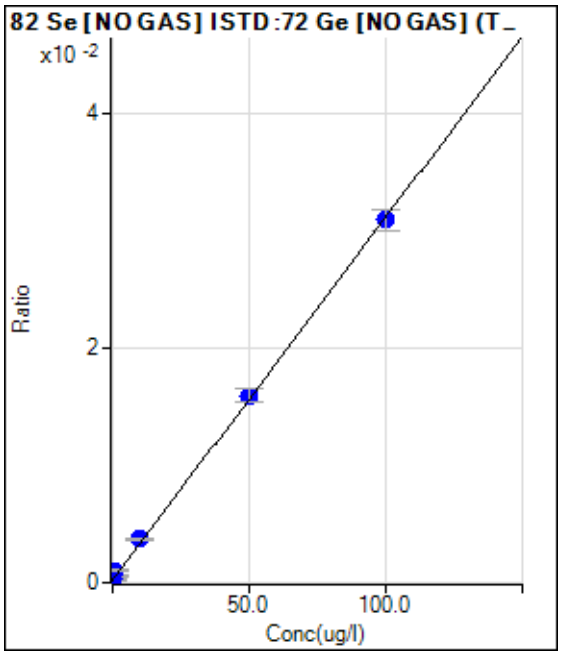
R = 1.0000

DL = 3.4

BEC = 9.678

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	168.34	0.0002	P	92.9
2	☐	0.025	0.677	345.33	0.0004	P	49.0
3	☐	0.050	0.762	368.63	0.0004	P	88.6
4	☐	0.100	0.908	428.51	0.0005	P	42.6
5	☐	0.500	1.375	516.35	0.0006	P	19.1
6	☐	1.000	2.548	832.43	0.0010	P	15.8
7	☐	10.000	11.324	3105.71	0.0037	P	7.1
8	☐	50.000	50.902	13763.58	0.0159	P	6.9
9	☐	100.000	99.395	26845.31	0.0309	P	5.9
10	☐			258289.82	0.3065	P	0.8
11	☐			1479.24	0.0017	P	17.9

y = 3.0908E-004 * x + 2.0209E-004

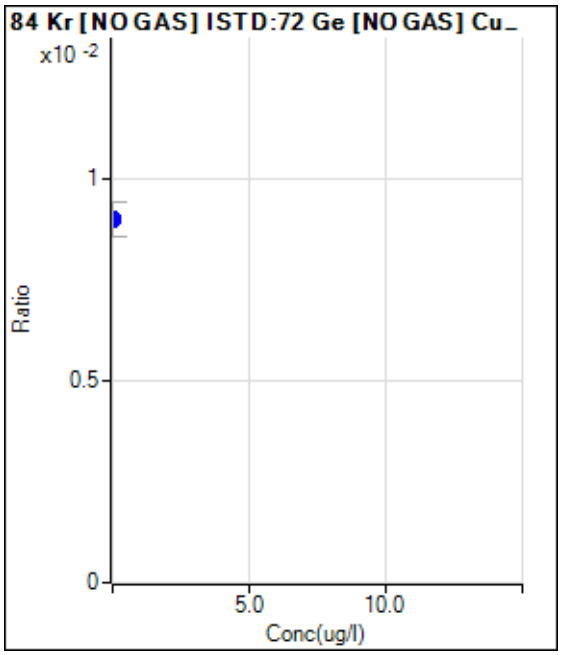
R = 0.9999

DL = 1.823

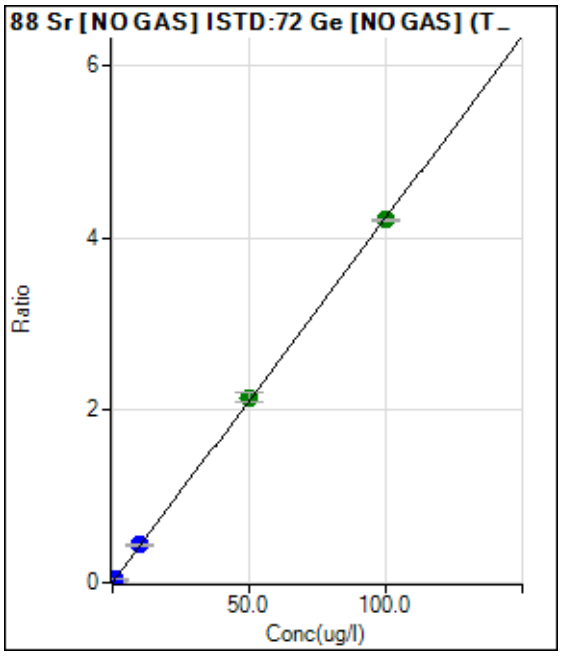
BEC = 0.6538

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000		7593.39	0.0090	P	9.4
2	☐			7892.95	0.0094	P	14.1
3	☐			7829.77	0.0093	P	12.9
4	☐			8089.31	0.0091	P	10.2
5	☐			7819.73	0.0095	P	2.2
6	☐			7726.55	0.0092	P	3.9
7	☐			10136.41	0.0121	P	4.5
8	☐			18140.81	0.0211	P	5.1
9	☐			29431.34	0.0339	P	2.6
10	☐			218875.09	0.2597	P	2.9
11	☐			7929.57	0.0092	P	4.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	345.99	0.0004	P	26.5
2	☐	0.025	0.028	1354.05	0.0016	P	5.0
3	☐	0.050	0.062	2535.18	0.0030	P	4.2
4	☐	0.100	0.120	4854.47	0.0055	P	5.2
5	☐	0.500	0.528	18736.93	0.0227	P	2.6
6	☐	1.000	1.159	41493.50	0.0494	P	2.1
7	☐	10.000	10.295	365540.52	0.4354	P	2.9
8	☐	50.000	50.791	1848846.49	2.1465	A	5.4
9	☐	100.000	99.573	3653296.99	4.2076	A	0.6
10	☐			36391345.75	43.1989	A	3.3
11	☐			3995.95	0.0046	P	3.3

y = 0.0423 * x + 4.0784E-004

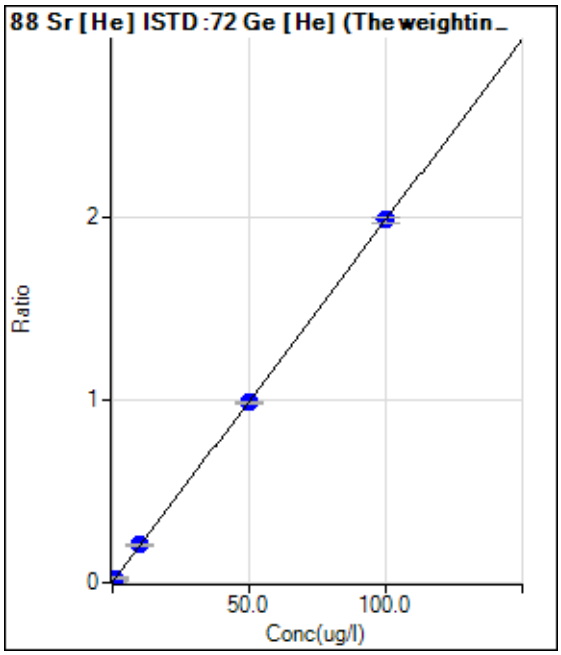
R = 1.0000

DL = 0.007675

BEC = 0.009652

Weight: 1/y

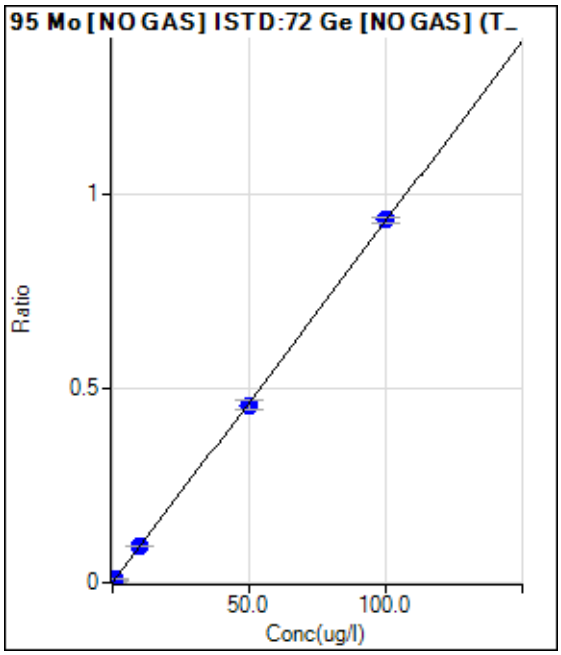
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	240.00	0.0032	P	23.2
2	☐	0.025	0.007	255.56	0.0033	P	11.9
3	☐	0.050	0.054	331.12	0.0042	P	15.5
4	☐	0.100	0.131	464.45	0.0058	P	5.1
5	☐	0.500	0.539	1078.93	0.0138	P	0.9
6	☐	1.000	1.117	1980.14	0.0252	P	8.2
7	☐	10.000	10.427	16082.40	0.2092	P	5.7
8	☐	50.000	49.679	79076.52	0.9848	P	1.2
9	☐	100.000	100.116	161875.83	1.9815	P	1.8
10	☐			1611412.55	20.9601	A	11.3
11	☐			384.45	0.0047	P	5.7

y = 0.0198 * x + 0.0032
R = 1.0000
DL = 0.1121
BEC = 0.161

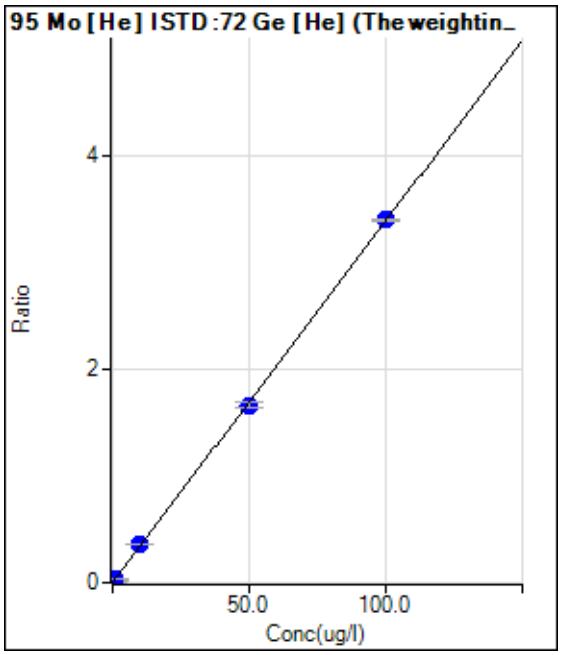
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	75.55	0.0001	P	27.9
2	☐	0.025	0.032	327.78	0.0004	P	4.9
3	☐	0.050	0.057	517.79	0.0006	P	10.9
4	☐	0.100	0.125	1104.49	0.0012	P	15.2
5	☐	0.500	0.510	3972.74	0.0048	P	0.2
6	☐	1.000	1.160	9113.72	0.0108	P	1.7
7	☐	10.000	10.235	79788.94	0.0950	P	2.6
8	☐	50.000	49.012	391709.11	0.4547	P	5.4
9	☐	100.000	100.469	809217.04	0.9320	P	1.9
10	☐			546.68	0.0006	P	2.4
11	☐			237.78	0.0003	P	10.6

y = 0.0093 * x + 8.9557E-005
R = 0.9999
DL = 0.00807
BEC = 0.009655

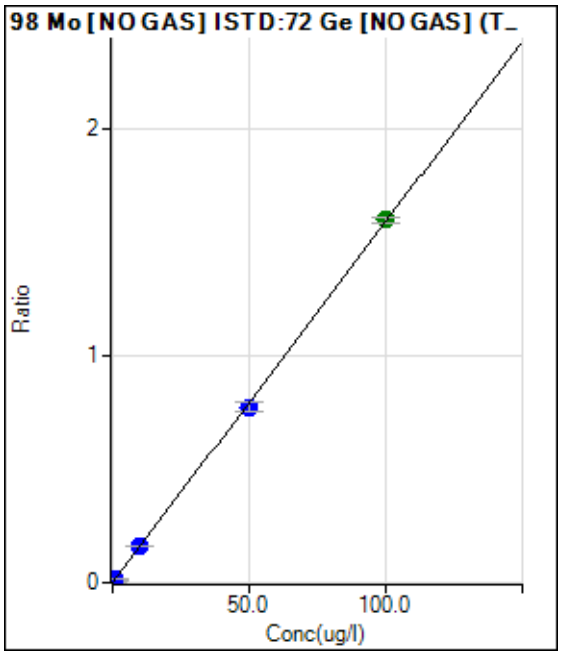
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	35.56	0.0005	P	26.8
2	☐	0.025	0.025	100.00	0.0013	P	25.7
3	☐	0.050	0.057	187.78	0.0024	P	19.4
4	☐	0.100	0.116	353.34	0.0044	P	7.2
5	☐	0.500	0.484	1312.29	0.0168	P	3.7
6	☐	1.000	1.090	2928.06	0.0374	P	3.0
7	☐	10.000	10.503	27374.03	0.3557	P	2.2
8	☐	50.000	49.172	133539.43	1.6635	P	3.1
9	☐	100.000	100.363	277332.08	3.3947	P	0.8
10	☐			156.67	0.0020	P	18.0
11	☐			70.00	0.0009	P	39.5

y = 0.0338 * x + 4.7090E-004
R = 0.9999
DL = 0.0112
BEC = 0.01392

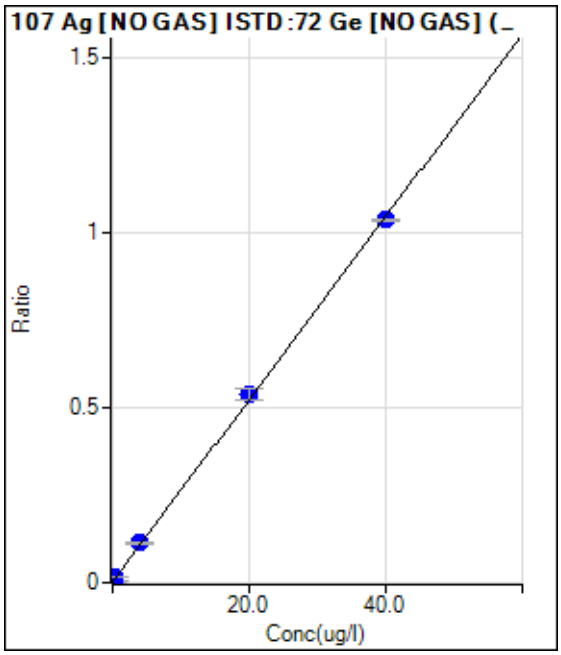
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	154.52	0.0002	P	3.5
2	☐	0.025	0.023	467.59	0.0006	P	2.1
3	☐	0.050	0.052	851.92	0.0010	P	5.8
4	☐	0.100	0.112	1732.89	0.0020	P	8.1
5	☐	0.500	0.496	6641.76	0.0081	P	5.3
6	☐	1.000	1.097	14770.23	0.0176	P	2.7
7	☐	10.000	10.101	134758.07	0.1605	P	3.4
8	☐	50.000	48.766	667004.94	0.7742	P	5.0
9	☐	100.000	100.606	1386610.72	1.5970	A	1.3
10	☐			1100.83	0.0013	P	9.6
11	☐			305.08	0.0004	P	24.5

y = 0.0159 * x + 1.8269E-004
R = 0.9999
DL = 0.001195
BEC = 0.01151

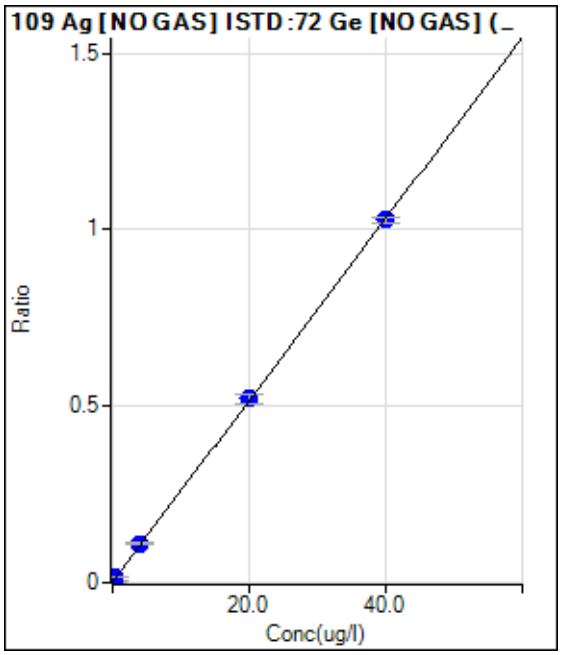
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	1719.09	0.0020	P	9.1
2		0.010	0.014	2023.07	0.0024	P	2.8
3		0.020	0.022	2199.05	0.0026	P	2.9
4		0.040	0.046	2871.02	0.0032	P	7.2
5		0.200	0.215	6310.66	0.0077	P	3.9
6		0.400	0.473	12080.12	0.0144	P	1.2
7		4.000	4.301	95999.06	0.1144	P	3.4
8		20.000	20.579	464508.87	0.5395	P	6.9
9		40.000	39.680	901524.22	1.0383	P	0.7
10				8109684.46	9.6169	A	7.4
11				8445.22	0.0098	P	3.6

y = 0.0261 * x + 0.0020
R = 0.9998
DL = 0.02123
BEC = 0.0779

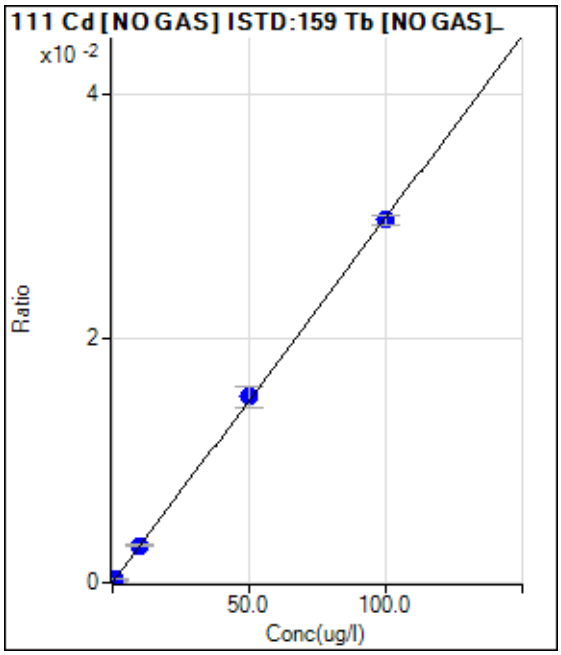
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	1685.09	0.0020	P	3.1
2		0.010	0.012	1947.73	0.0023	P	2.7
3		0.020	0.027	2253.05	0.0027	P	0.9
4		0.040	0.047	2837.70	0.0032	P	8.9
5		0.200	0.208	6049.94	0.0073	P	1.0
6		0.400	0.464	11685.90	0.0139	P	1.1
7		4.000	4.224	92856.67	0.1106	P	3.0
8		20.000	20.159	448326.55	0.5204	P	5.5
9		40.000	39.897	892445.25	1.0279	P	1.8
10				7810660.44	9.2670	A	6.4
11				8287.85	0.0096	P	5.8

y = 0.0257 * x + 0.0020
R = 1.0000
DL = 0.007144
BEC = 0.07751

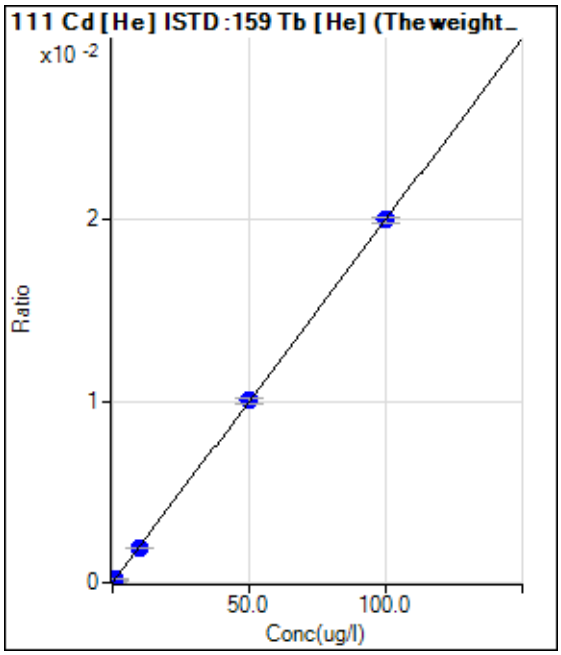
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-40.03	0.0000	P	-185.4
2	☐	0.025	0.024	91.46	0.0000	P	85.8
3	☐	0.050	0.063	302.29	0.0000	P	12.4
4	☐	0.100	0.101	535.94	0.0000	P	6.6
5	☐	0.500	0.483	2583.17	0.0001	P	7.6
6	☐	1.000	1.083	5911.89	0.0003	P	4.3
7	☐	10.000	10.250	55459.81	0.0031	P	2.3
8	☐	50.000	50.963	276233.54	0.0152	P	11.1
9	☐	100.000	99.493	540763.00	0.0298	P	2.3
10	☐			5094140.13	0.2861	A	4.4
11	☐			675.29	0.0000	P	20.9

y = 2.9923E-004 * x - 2.1563E-006
R = 0.9999
DL = 0.04007
BEC = -0.007206

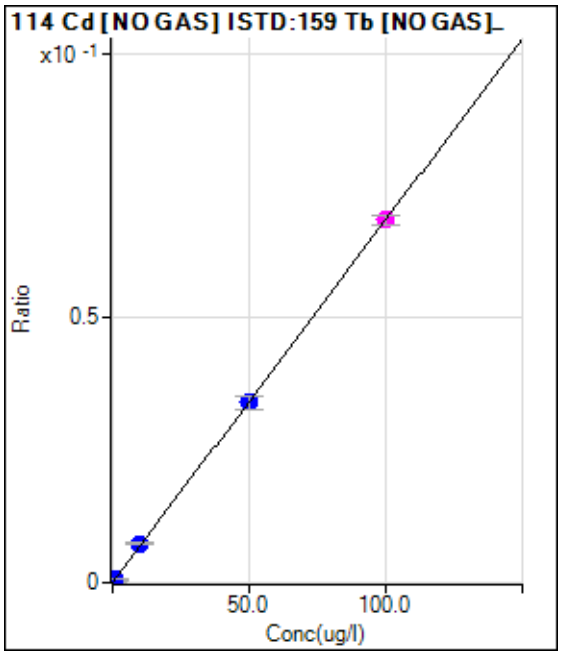
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	0.67	0.0000	P	173.2
2	☐	0.025	0.019	27.33	0.0000	P	28.9
3	☐	0.050	0.051	72.65	0.0000	P	7.9
4	☐	0.100	0.109	150.64	0.0000	P	17.1
5	☐	0.500	0.497	693.22	0.0001	P	6.8
6	☐	1.000	1.075	1519.11	0.0002	P	3.2
7	☐	10.000	9.647	13469.61	0.0019	P	2.1
8	☐	50.000	50.085	68463.05	0.0100	P	2.1
9	☐	100.000	99.992	136778.89	0.0200	P	1.9
10	☐			1314244.87	0.2058	M	5.7
11	☐			133.97	0.0000	P	17.7

y = 1.9973E-004 * x + 9.5666E-008
R = 1.0000
DL = 0.002489
BEC = 0.000479

Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-250.96	0.0000	P	-105.5
2	☐	0.025	0.017	-31.82	0.0000	P	-210.1
3	☐	0.050	0.062	520.24	0.0000	P	12.4
4	☐	0.100	0.106	1128.60	0.0001	P	18.9
5	☐	0.500	0.510	6093.82	0.0003	P	1.7
6	☐	1.000	1.155	14289.17	0.0008	P	2.9
7	☐	10.000	10.659	131903.21	0.0073	P	4.1
8	☐	50.000	49.706	617846.98	0.0340	P	7.7
9	☐	100.000	100.080	1245274.71	0.0686	M	2.9
10	☐			11943790.38	0.6708	A	5.2
11	☐			1178.08	0.0001	P	8.3

y = 6.8521E-004 * x - 1.3616E-005

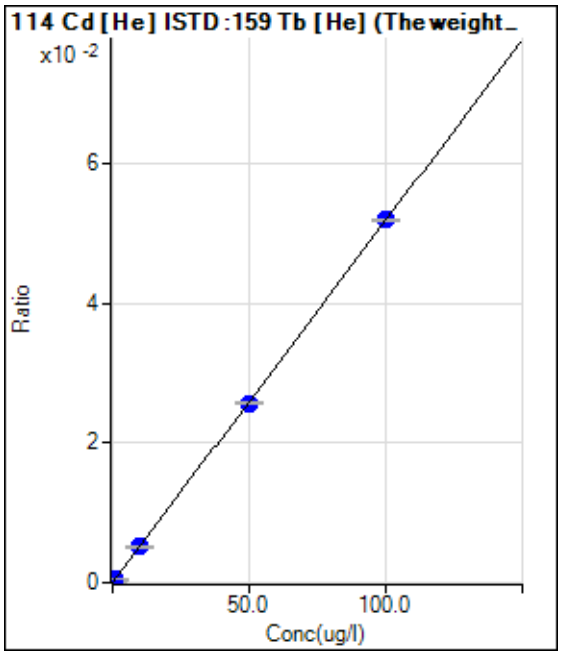
R = 1.0000

DL = 0.06292

BEC = -0.01987

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-33.69	0.0000	P	-33.8
2	☐	0.025	0.034	88.02	0.0000	P	6.4
3	☐	0.050	0.060	186.75	0.0000	P	9.5
4	☐	0.100	0.143	476.68	0.0001	P	25.1
5	☐	0.500	0.519	1842.71	0.0003	P	3.6
6	☐	1.000	1.096	3981.94	0.0006	P	2.9
7	☐	10.000	9.917	35828.84	0.0051	P	5.8
8	☐	50.000	49.519	175549.09	0.0257	P	1.0
9	☐	100.000	100.248	355718.01	0.0519	P	0.5
10	☐			3371579.26	0.5280	A	6.1
11	☐			360.65	0.0001	P	3.0

y = 5.1812E-004 * x - 4.7883E-006

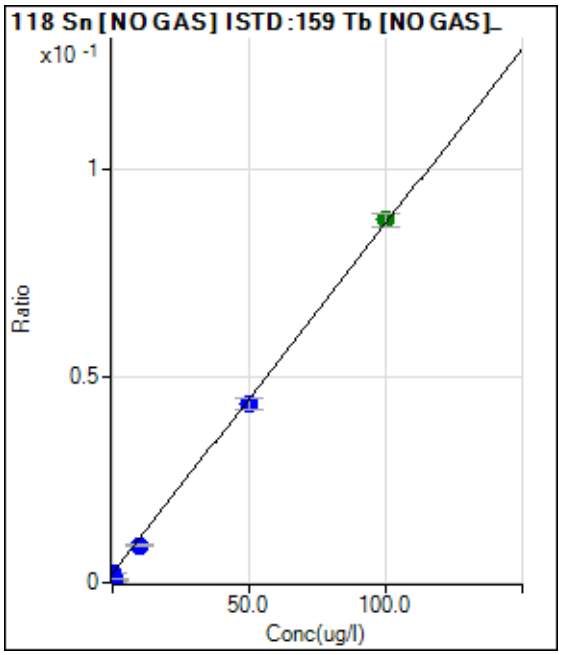
R = 1.0000

DL = 0.009358

BEC = -0.009242

Weight: 1/y

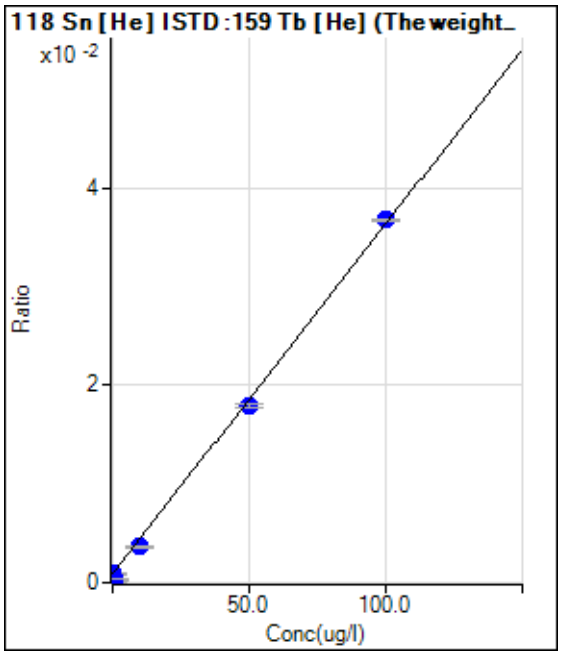
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	41708.59	0.0023	P	4.1
2		0.025	-2.492	3147.43	0.0002	P	6.7
3		0.050	-2.446	3813.02	0.0002	P	7.9
4		0.100	-2.386	4970.97	0.0003	P	4.0
5		0.500	-1.981	10958.83	0.0006	P	4.9
6		1.000	-1.339	21078.92	0.0011	P	1.8
7		10.000	7.975	163535.01	0.0090	P	3.2
8		50.000	48.328	785361.96	0.0432	P	6.0
9		100.000	101.079	1596763.76	0.0879	A	3.6
10				3693.12	0.0002	P	0.7
11				4841.17	0.0003	P	3.3

y = 8.4718E-004 * x + 0.0023
R = 0.9997
DL = 0.3322
BEC = 2.694

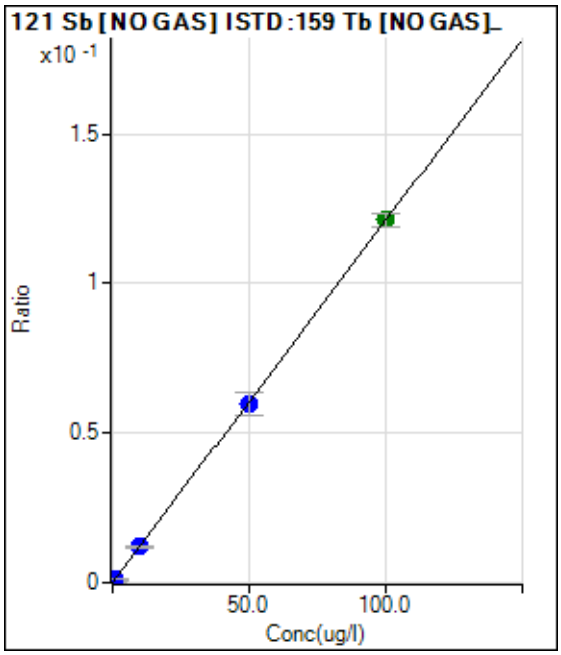
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	6259.04	0.0009	P	2.7
2		0.025	-2.311	467.79	0.0001	P	4.1
3		0.050	-2.277	563.35	0.0001	P	20.3
4		0.100	-2.210	712.24	0.0001	P	2.1
5		0.500	-1.878	1544.53	0.0002	P	7.0
6		1.000	-1.236	3177.01	0.0004	P	2.3
7		10.000	7.789	25495.81	0.0036	P	2.3
8		50.000	48.019	122550.80	0.0179	P	1.7
9		100.000	101.250	251870.37	0.0368	P	0.8
10				625.57	0.0001	P	4.5
11				763.36	0.0001	P	6.3

y = 3.5444E-004 * x + 8.8699E-004
R = 0.9997
DL = 0.2018
BEC = 2.503

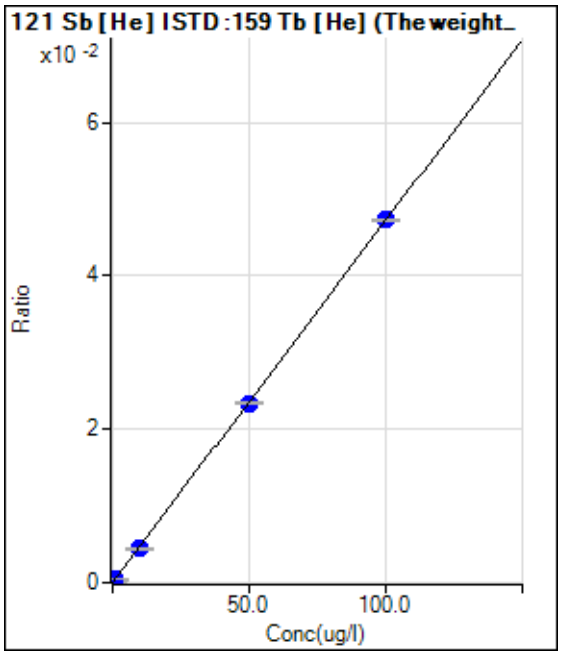
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	165.56	0.0000	P	10.2
2		0.025	0.026	733.36	0.0000	P	7.8
3		0.050	0.052	1312.29	0.0001	P	1.9
4		0.100	0.117	2856.95	0.0002	P	11.3
5		0.500	0.476	10606.91	0.0006	P	1.6
6		1.000	1.074	24012.43	0.0013	P	2.3
7		10.000	9.850	215770.84	0.0119	P	2.1
8		50.000	49.599	1085598.81	0.0600	P	12.7
9		100.000	100.215	2202168.58	0.1212	A	3.5
10				3055.88	0.0002	P	8.1
11				752.25	0.0000	P	8.8

y = 0.0012 * x + 9.0595E-006
R = 1.0000
DL = 0.002302
BEC = 0.007488

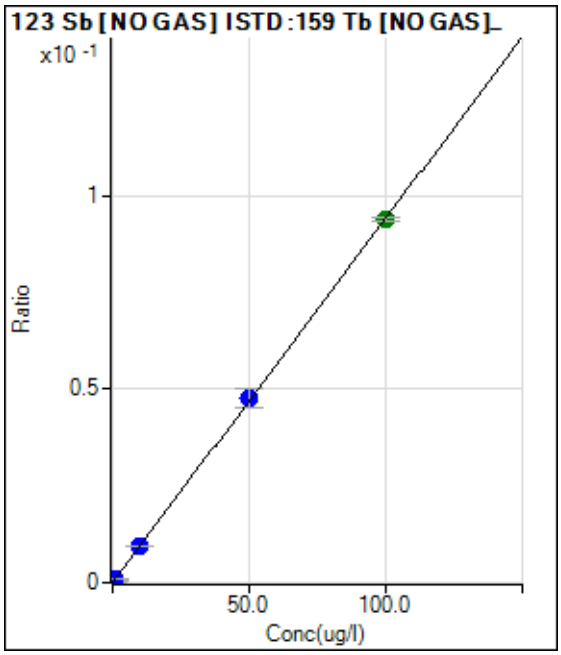
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	34.44	0.0000	P	42.3
2		0.025	0.021	101.11	0.0000	P	16.9
3		0.050	0.056	218.89	0.0000	P	22.4
4		0.100	0.120	421.12	0.0001	P	9.3
5		0.500	0.481	1617.87	0.0002	P	10.3
6		1.000	0.984	3312.59	0.0005	P	8.3
7		10.000	9.319	30711.55	0.0044	P	4.0
8		50.000	49.592	160024.29	0.0234	P	0.8
9		100.000	100.272	323846.52	0.0473	P	0.7
10				335.56	0.0001	P	27.8
11				130.00	0.0000	P	15.9

y = 4.7146E-004 * x + 4.8602E-006
R = 1.0000
DL = 0.01307
BEC = 0.01031

Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	154.45	0.0000	P	25.5
2		0.025	0.024	571.13	0.0000	P	8.4
3		0.050	0.048	973.37	0.0001	P	5.6
4		0.100	0.115	2211.28	0.0001	P	9.3
5		0.500	0.459	7998.72	0.0004	P	1.8
6		1.000	1.062	18495.14	0.0010	P	3.4
7		10.000	9.970	169954.01	0.0094	P	1.5
8		50.000	50.645	863958.81	0.0477	P	10.4
9		100.000	99.680	1704450.01	0.0938	A	1.2
10				2643.57	0.0001	P	6.0
11				597.80	0.0000	P	6.5

y = 9.4133E-004 * x + 8.4529E-006

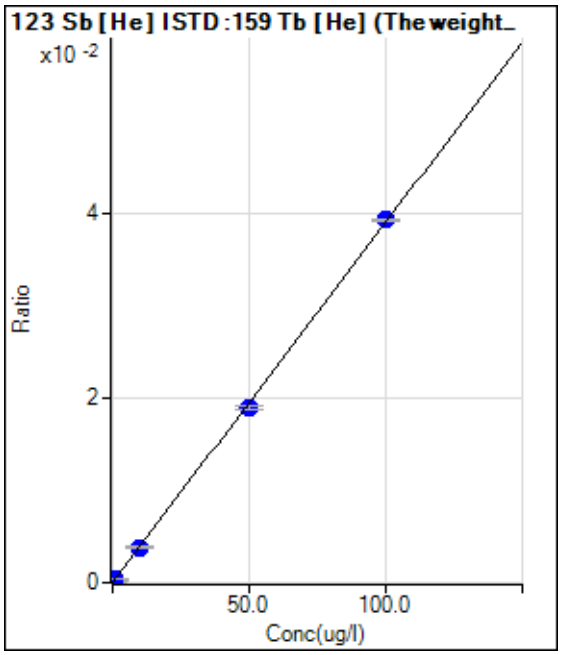
R = 1.0000

DL = 0.006881

BEC = 0.00898

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	23.33	0.0000	P	38.9
2		0.025	0.031	106.67	0.0000	P	37.5
3		0.050	0.058	184.45	0.0000	P	10.3
4		0.100	0.100	291.12	0.0000	P	7.7
5		0.500	0.459	1274.51	0.0002	P	4.1
6		1.000	1.035	2879.17	0.0004	P	8.4
7		10.000	9.832	26813.68	0.0038	P	5.3
8		50.000	48.601	129822.28	0.0190	P	2.0
9		100.000	100.716	269271.97	0.0393	P	0.5
10				295.56	0.0000	P	10.5
11				106.67	0.0000	P	42.0

y = 3.9031E-004 * x + 3.3184E-006

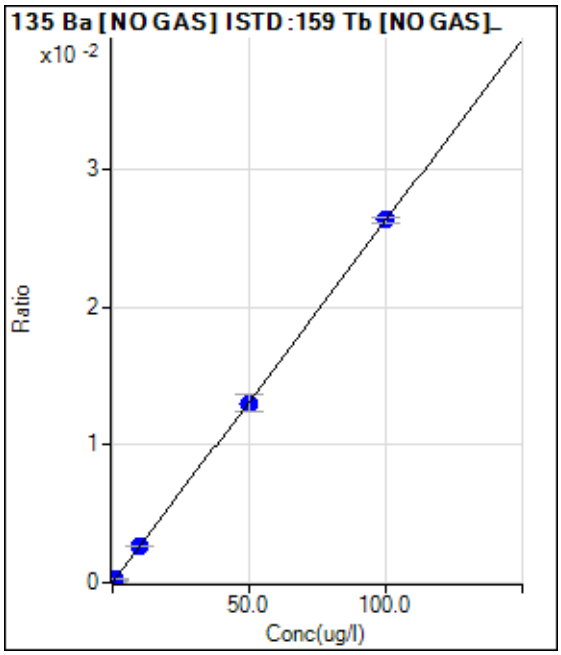
R = 0.9999

DL = 0.009913

BEC = 0.008502

Weight: 1/y

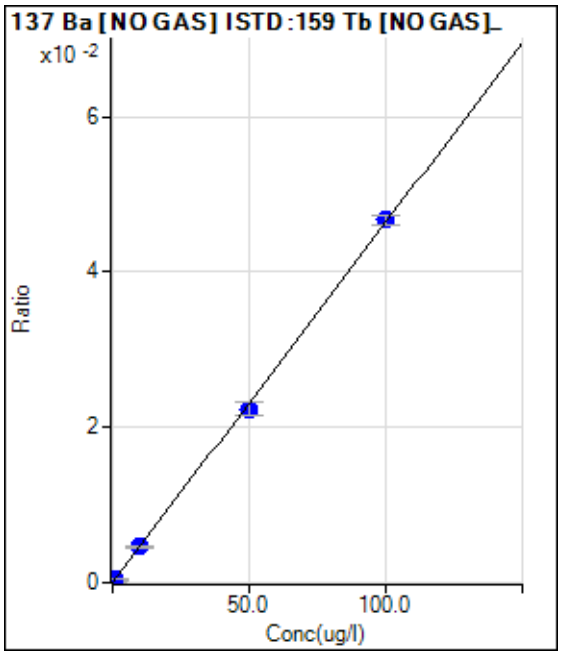
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	13.31	0.0000	P	42.9
2		0.025	0.031	163.01	0.0000	P	67.4
3		0.050	0.066	326.02	0.0000	P	9.9
4		0.100	0.105	535.62	0.0000	P	7.4
5		0.500	0.529	2535.21	0.0001	P	6.2
6		1.000	1.110	5360.32	0.0003	P	6.2
7		10.000	9.870	46893.21	0.0026	P	0.5
8		50.000	49.591	236025.42	0.0130	P	9.4
9		100.000	100.216	477841.72	0.0263	P	1.8
10				4529106.02	0.2543	A	4.4
11				592.17	0.0000	P	5.1

y = 2.6249E-004 * x + 7.2779E-007
R = 1.0000
DL = 0.003567
BEC = 0.002773

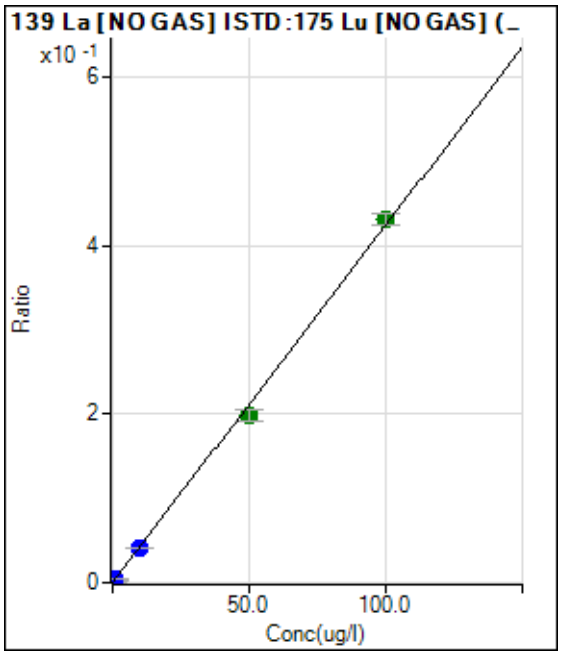
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	46.57	0.0000	P	86.5
2		0.025	0.020	216.24	0.0000	P	22.7
3		0.050	0.053	492.37	0.0000	P	18.0
4		0.100	0.116	1064.61	0.0001	P	15.9
5		0.500	0.497	4222.23	0.0002	P	8.2
6		1.000	1.087	9294.41	0.0005	P	3.5
7		10.000	9.926	83229.02	0.0046	P	1.4
8		50.000	48.354	406525.19	0.0224	P	7.5
9		100.000	100.829	848340.93	0.0467	P	2.9
10				7855709.56	0.4410	A	4.8
11				1014.70	0.0001	P	14.6

y = 4.6316E-004 * x + 2.5378E-006
R = 0.9998
DL = 0.01422
BEC = 0.005479

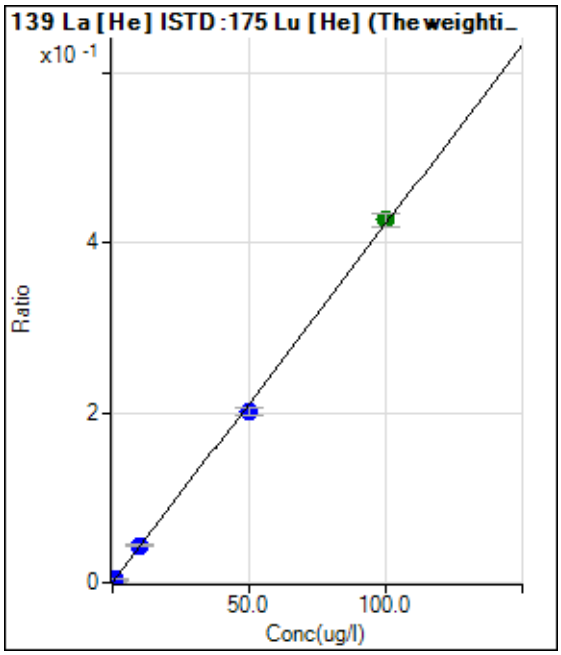
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	73.41	0.0000	P	50.9
2		0.025	0.023	1935.45	0.0001	P	9.4
3		0.050	0.052	4318.36	0.0002	P	8.8
4		0.100	0.114	9385.73	0.0005	P	5.7
5		0.500	0.501	39241.64	0.0021	P	3.3
6		1.000	1.084	87982.57	0.0046	P	2.7
7		10.000	9.855	788882.90	0.0418	P	1.2
8		50.000	46.819	3766364.23	0.1987	A	6.1
9		100.000	101.604	7856290.70	0.4311	A	3.1
10				961.02	0.0001	P	9.0
11				76.74	0.0000	P	60.3

y = 0.0042 * x + 3.8538E-006
R = 0.9994
DL = 0.001388
BEC = 0.0009082

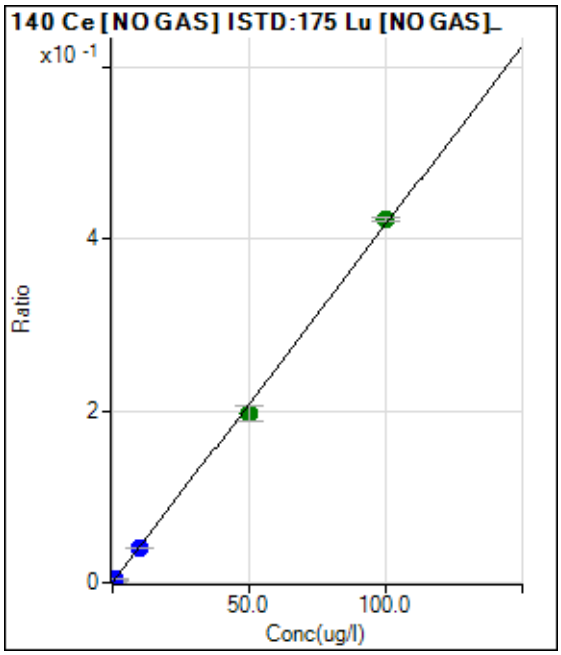
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	0.00	0.0000	P	
2		0.025	0.025	440.46	0.0001	P	21.3
3		0.050	0.047	860.91	0.0002	P	20.9
4		0.100	0.113	2028.88	0.0005	P	5.7
5		0.500	0.480	8644.51	0.0020	P	1.6
6		1.000	1.153	20036.53	0.0049	P	4.5
7		10.000	10.446	179368.18	0.0441	P	2.3
8		50.000	47.503	848884.24	0.2004	P	4.6
9		100.000	101.203	1761922.97	0.4270	A	3.9
10				130.13	0.0000	P	78.3
11				50.05	0.0000	P	36.8

y = 0.0042 * x + 0.0000E+000
R = 0.9996
DL = 0
BEC = 0

Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.40	0.0000	P	25.4
2	☐	0.025	0.023	1872.03	0.0001	P	4.9
3	☐	0.050	0.052	4204.88	0.0002	P	2.7
4	☐	0.100	0.113	9185.46	0.0005	P	2.0
5	☐	0.500	0.498	38258.47	0.0021	P	0.9
6	☐	1.000	1.095	87093.74	0.0046	P	1.7
7	☐	10.000	9.822	770822.66	0.0409	P	1.8
8	☐	50.000	47.257	3726770.83	0.1966	A	9.5
9	☐	100.000	101.388	7687049.23	0.4218	A	1.2
10	☐			1728.54	0.0001	P	2.6
11	☐			273.62	0.0000	P	19.2

y = 0.0042 * x + 3.3497E-006

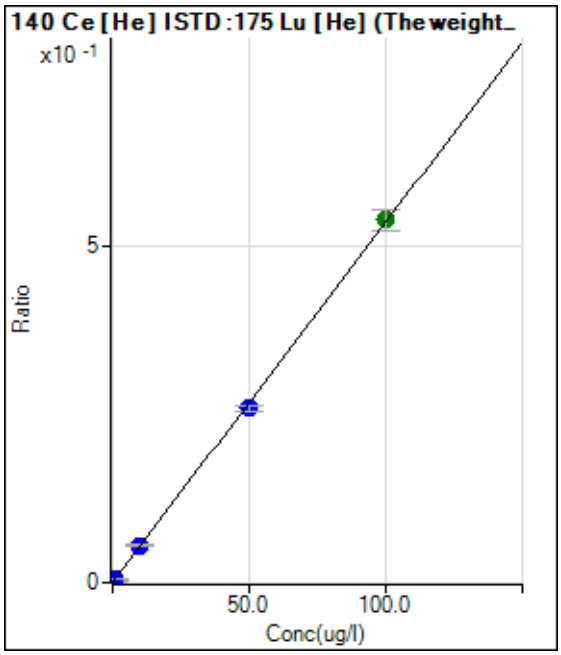
R = 0.9995

DL = 0.0006146

BEC = 0.0008051

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20.02	0.0000	P	46.4
2	☐	0.025	0.026	610.64	0.0001	P	18.1
3	☐	0.050	0.050	1184.60	0.0003	P	10.0
4	☐	0.100	0.112	2562.85	0.0006	P	6.8
5	☐	0.500	0.460	10544.32	0.0025	P	3.9
6	☐	1.000	1.156	25556.69	0.0062	P	3.3
7	☐	10.000	10.364	226154.93	0.0556	P	3.5
8	☐	50.000	48.496	1101728.25	0.2601	P	3.2
9	☐	100.000	100.714	2227787.16	0.5401	A	5.6
10	☐			593.96	0.0002	P	10.3
11	☐			33.37	0.0000	P	63.6

y = 0.0054 * x + 4.7545E-006

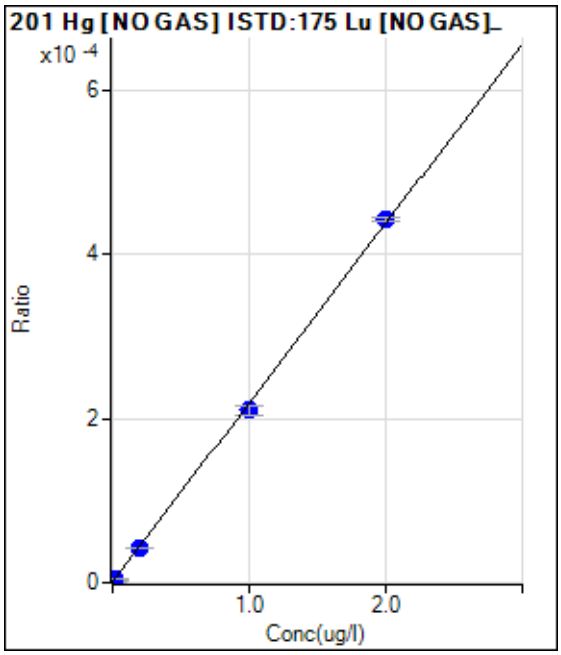
R = 0.9998

DL = 0.001233

BEC = 0.0008865

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	13.33	0.0000	P	52.5
2				22.00	0.0000	P	24.2
3		0.001	0.002	22.00	0.0000	P	28.1
4		0.002	0.004	29.33	0.0000	P	27.7
5		0.010	0.010	52.32	0.0000	P	14.3
6		0.020	0.021	100.98	0.0000	P	11.0
7		0.200	0.191	797.20	0.0000	P	2.7
8		1.000	0.960	3981.73	0.0002	P	5.3
9		2.000	2.021	8049.53	0.0004	P	1.2
10				55.66	0.0000	P	5.0
11				29.32	0.0000	P	9.8

y = 2.1819E-004 * x + 7.0060E-007

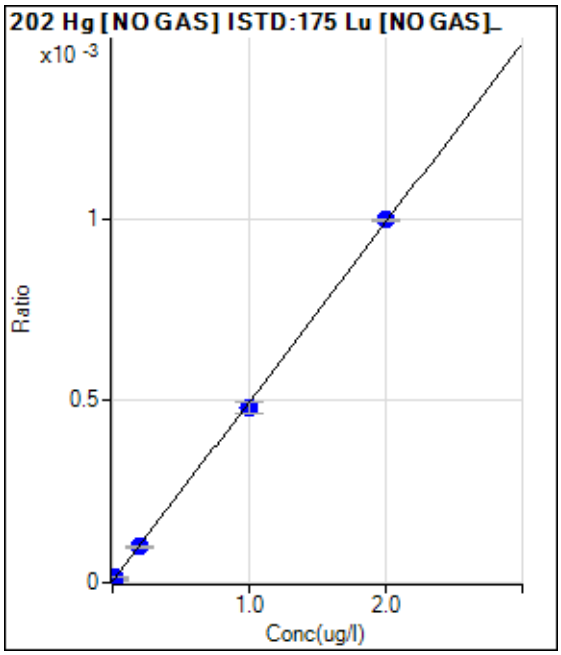
R = 0.9997

DL = 0.005055

BEC = 0.003211

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	70.99	0.0000	P	17.2
2				72.32	0.0000	P	19.0
3		0.001	0.000	73.32	0.0000	P	12.0
4		0.002	0.002	93.98	0.0000	P	23.2
5		0.010	0.009	148.64	0.0000	P	6.6
6		0.020	0.023	287.28	0.0000	P	6.6
7		0.200	0.195	1883.74	0.0001	P	4.1
8		1.000	0.970	9139.59	0.0005	P	6.2
9		2.000	2.015	18185.92	0.0010	P	0.6
10				202.96	0.0000	P	8.2
11				109.65	0.0000	P	7.3

y = 4.9327E-004 * x + 3.7441E-006

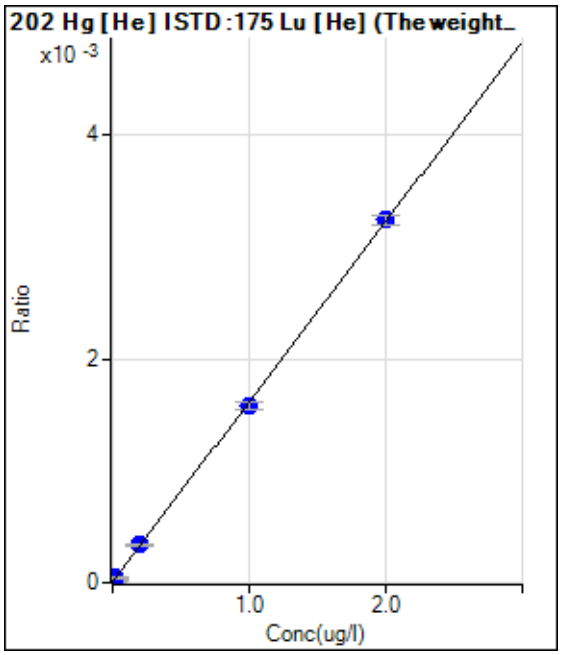
R = 0.9999

DL = 0.003912

BEC = 0.00759

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0000	P	36.0
2	☐			36.66	0.0000	P	20.0
3	☐	0.001	0.001	34.66	0.0000	P	29.1
4	☐	0.002	0.003	44.32	0.0000	P	11.6
5	☐	0.010	0.010	97.65	0.0000	P	11.1
6	☐	0.020	0.023	179.63	0.0000	P	9.4
7	☐	0.200	0.204	1362.46	0.0003	P	3.9
8	☐	1.000	0.978	6686.81	0.0016	P	4.3
9	☐	2.000	2.011	13373.19	0.0032	P	2.7
10	☐			95.31	0.0000	P	20.1
11	☐			58.32	0.0000	P	9.0

y = 0.0016 * x + 6.0600E-006

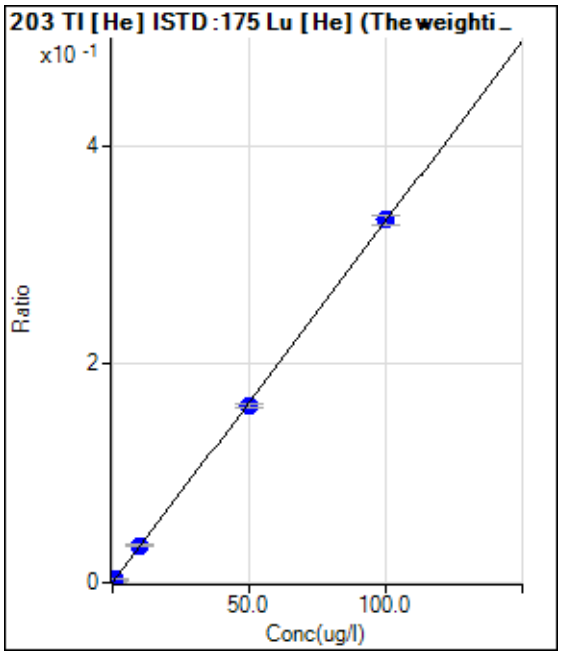
R = 0.9999

DL = 0.004071

BEC = 0.003767

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	90.65	0.0000	P	20.8
2	☐	0.025	0.022	388.60	0.0001	P	13.7
3	☐	0.050	0.053	856.52	0.0002	P	5.6
4	☐	0.100	0.121	1797.76	0.0004	P	2.5
5	☐	0.500	0.496	7074.94	0.0017	P	1.5
6	☐	1.000	1.119	15302.69	0.0037	P	4.7
7	☐	10.000	10.308	138616.96	0.0341	P	4.0
8	☐	50.000	49.110	687375.91	0.1623	P	1.9
9	☐	100.000	100.413	1369146.39	0.3317	P	2.5
10	☐			13293744.48	3.4881	A	7.7
11	☐			1905.75	0.0004	P	1.9

y = 0.0033 * x + 2.1771E-005

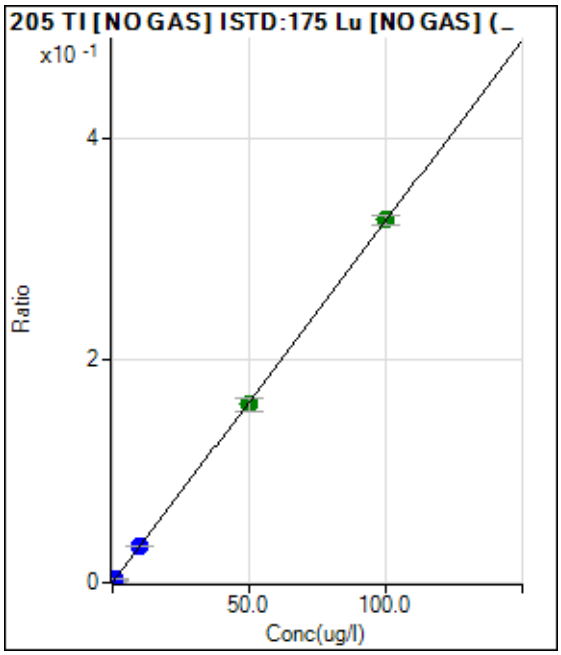
R = 0.9999

DL = 0.004117

BEC = 0.00659

Weight: 1/y

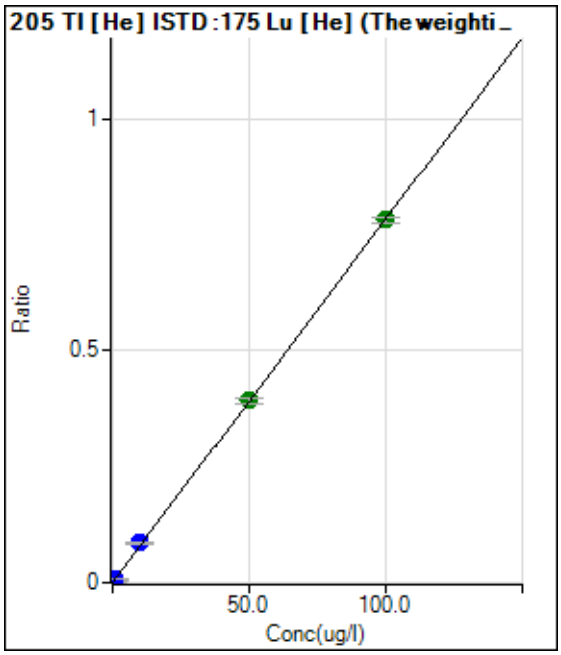
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	304.45	0.0000	P	12.2
2	☐	0.025	0.024	1781.23	0.0001	P	1.1
3	☐	0.050	0.053	3637.14	0.0002	P	1.7
4	☐	0.100	0.115	7504.16	0.0004	P	7.6
5	☐	0.500	0.511	30949.45	0.0017	P	1.2
6	☐	1.000	1.113	69484.56	0.0036	P	0.2
7	☐	10.000	10.180	625052.96	0.0331	P	1.9
8	☐	50.000	49.266	3040418.39	0.1603	A	7.1
9	☐	100.000	100.348	5950839.98	0.3265	A	2.5
10	☐			57622814.70	3.2009	A	2.7
11	☐			8047.76	0.0004	P	1.0

y = 0.0033 * x + 1.6066E-005
R = 1.0000
DL = 0.001811
BEC = 0.004937

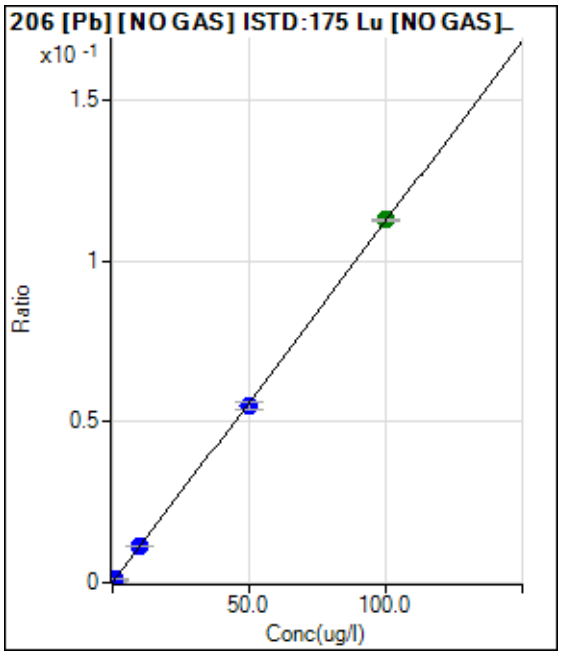
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	220.63	0.0001	P	4.2
2	☐	0.025	0.026	1061.83	0.0003	P	3.3
3	☐	0.050	0.052	2002.41	0.0005	P	4.1
4	☐	0.100	0.118	4171.09	0.0010	P	0.3
5	☐	0.500	0.495	16762.64	0.0039	P	0.5
6	☐	1.000	1.182	38305.30	0.0093	P	6.1
7	☐	10.000	10.995	350452.67	0.0862	P	3.6
8	☐	50.000	50.038	1660066.77	0.3919	A	3.2
9	☐	100.000	99.879	3229377.98	0.7822	A	1.3
10	☐			31536648.62	8.2742	A	7.2
11	☐			4501.13	0.0011	P	1.4

y = 0.0078 * x + 5.2966E-005
R = 1.0000
DL = 0.0008592
BEC = 0.006763

Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	62.22	0.0000	P	26.2
2	☐	0.025	0.023	556.68	0.0000	P	7.2
3	☐	0.050	0.055	1240.06	0.0001	P	0.7
4	☐	0.100	0.113	2516.90	0.0001	P	4.6
5	☐	0.500	0.508	10581.57	0.0006	P	0.7
6	☐	1.000	1.120	24115.99	0.0013	P	1.8
7	☐	10.000	10.152	215330.13	0.0114	P	0.2
8	☐	50.000	49.005	1044691.19	0.0551	P	4.6
9	☐	100.000	100.481	2058486.60	0.1130	A	0.9
10	☐			19235519.99	1.0686	A	1.9
11	☐			2273.53	0.0001	P	9.9

y = 0.0011 * x + 3.2881E-006

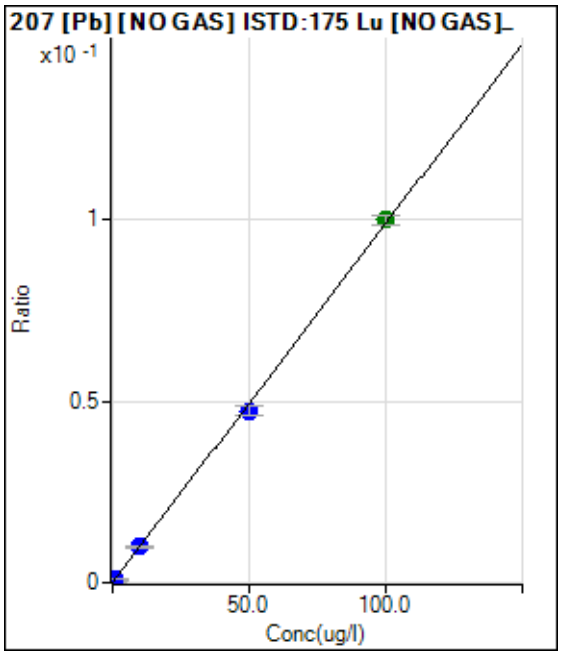
R = 0.9999

DL = 0.002297

BEC = 0.002925

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47.78	0.0000	P	53.5
2	☐	0.025	0.025	510.01	0.0000	P	7.9
3	☐	0.050	0.052	1032.27	0.0001	P	2.0
4	☐	0.100	0.110	2156.84	0.0001	P	6.1
5	☐	0.500	0.500	9166.16	0.0005	P	3.2
6	☐	1.000	1.087	20587.41	0.0011	P	1.2
7	☐	10.000	10.001	186614.73	0.0099	P	2.2
8	☐	50.000	47.810	896386.62	0.0473	P	5.5
9	☐	100.000	101.094	1822185.60	0.1000	A	2.8
10	☐			16674551.97	0.9264	A	2.1
11	☐			1999.04	0.0001	P	6.8

y = 9.8911E-004 * x + 2.5112E-006

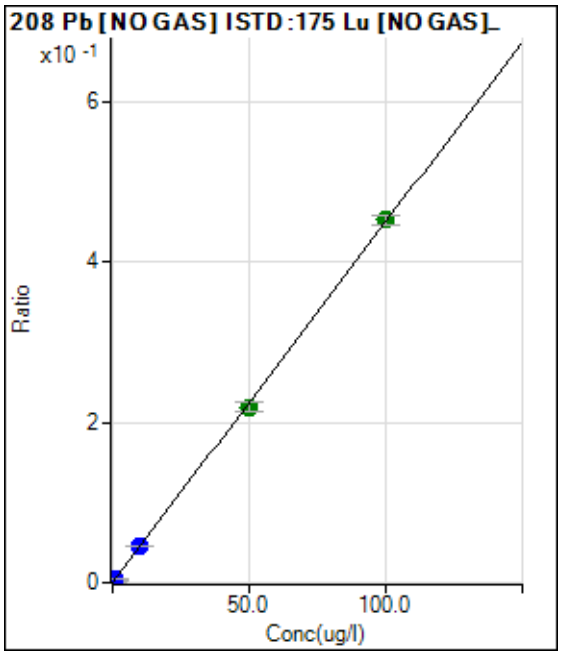
R = 0.9997

DL = 0.004071

BEC = 0.002539

Weight: 1/y

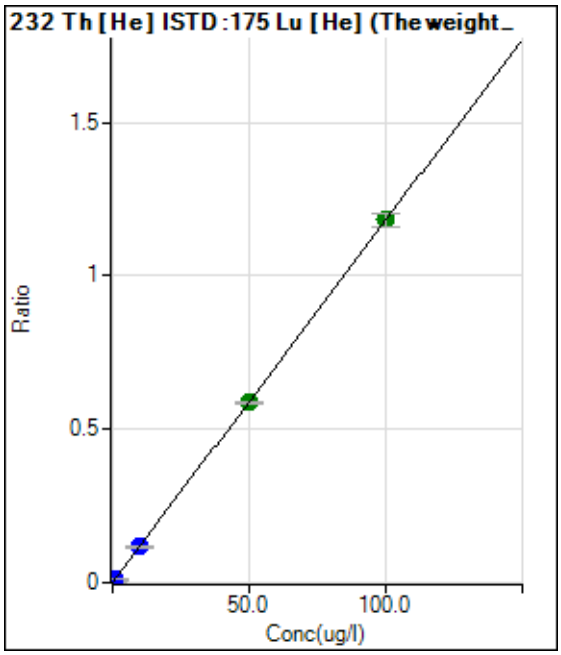
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	217.78	0.0000	P	19.1
2		0.025	0.024	2273.42	0.0001	P	5.1
3		0.050	0.054	4887.03	0.0003	P	1.7
4		0.100	0.113	10022.51	0.0005	P	4.7
5		0.500	0.508	42351.48	0.0023	P	1.0
6		1.000	1.113	95846.85	0.0050	P	1.6
7		10.000	10.135	860138.87	0.0456	P	1.3
8		50.000	48.625	4146515.59	0.2188	A	5.3
9		100.000	100.673	8252555.33	0.4529	A	2.6
10				76760109.13	4.2646	A	1.7
11				9221.20	0.0005	P	5.2

y = 0.0045 * x + 1.1481E-005
R = 0.9999
DL = 0.001461
BEC = 0.002552

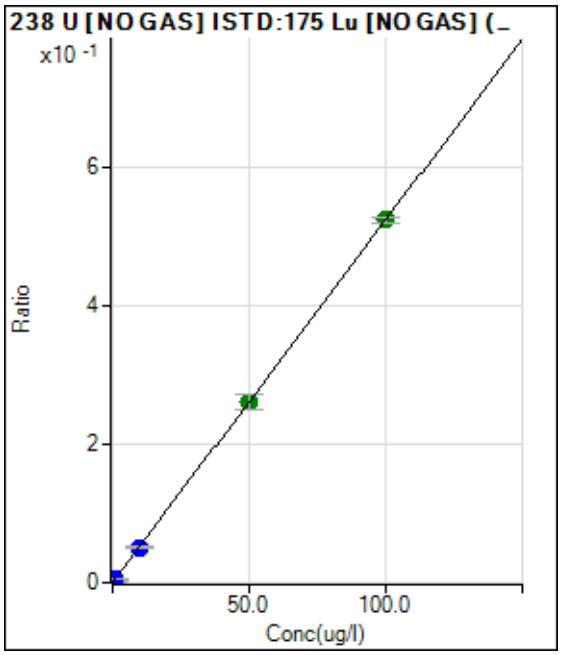
Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	961.85	0.0002	P	0.5
2		0.025	0.018	1848.42	0.0004	P	5.1
3		0.050	0.037	2884.39	0.0007	P	0.8
4		0.100	0.111	6526.82	0.0015	P	3.6
5		0.500	0.388	20499.39	0.0048	P	1.4
6		1.000	0.949	47008.56	0.0114	P	5.1
7		10.000	9.923	477172.57	0.1173	P	2.8
8		50.000	49.667	2483195.76	0.5861	A	0.4
9		100.000	100.175	4875994.14	1.1818	A	3.8
10				48222717.19	12.6549	A	7.7
11				17182.57	0.0040	P	2.4

y = 0.0118 * x + 2.3117E-004
R = 1.0000
DL = 0.0002808
BEC = 0.0196

Weight: 1/y
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	126.31	0.0000	P	9.5
2	☐	0.025	0.023	2416.39	0.0001	P	0.3
3	☐	0.050	0.051	5244.22	0.0003	P	1.7
4	☐	0.100	0.109	11098.64	0.0006	P	6.5
5	☐	0.500	0.488	47167.26	0.0026	P	2.1
6	☐	1.000	1.061	106120.24	0.0056	P	1.2
7	☐	10.000	9.800	966771.58	0.0513	P	1.3
8	☐	50.000	49.805	4935120.43	0.2605	A	8.3
9	☐	100.000	100.117	9540652.06	0.5236	A	1.5
10	☐			92804104.76	5.1559	A	1.4
11	☐			12988.45	0.0007	P	2.8

y = 0.0052 * x + 6.6582E-006

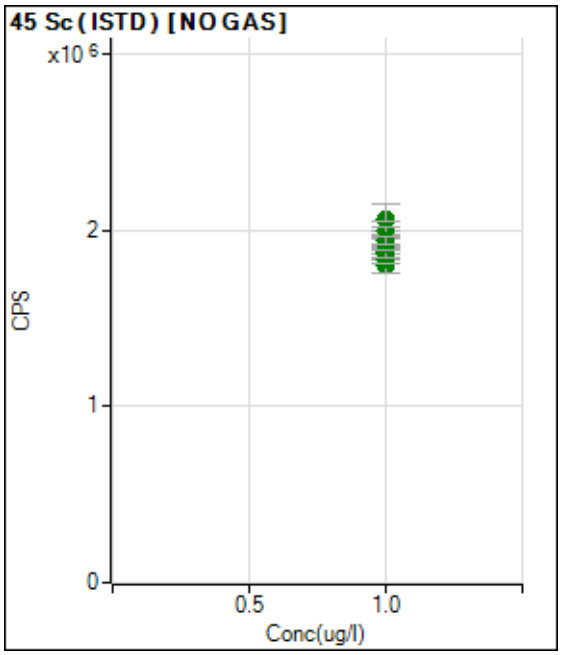
R = 1.0000

DL = 0.0003647

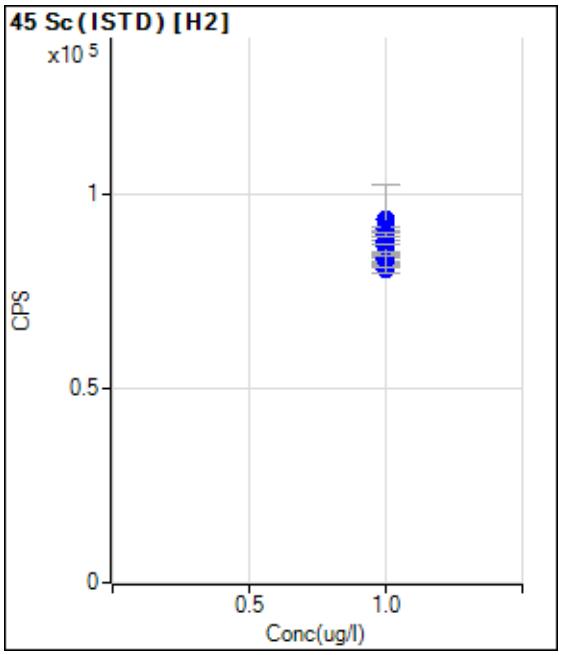
BEC = 0.001273

Weight: 1/y

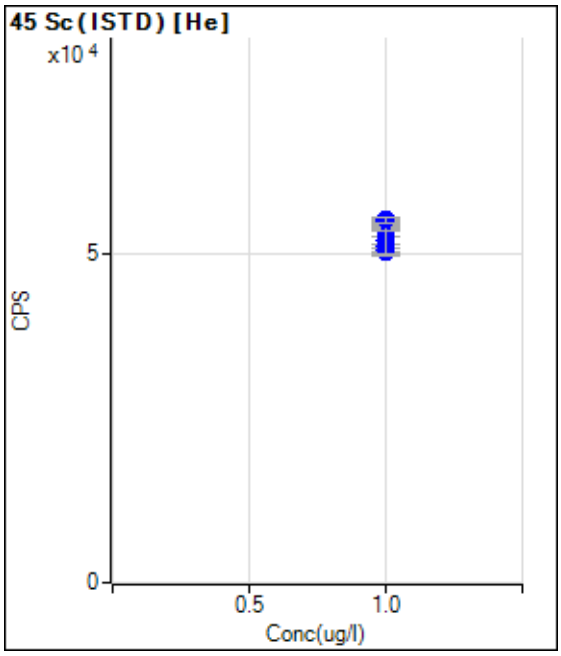
Min Conc: <None>



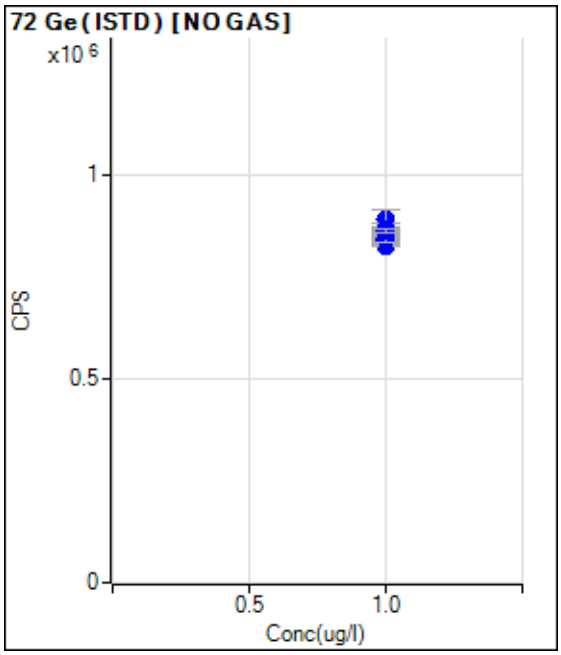
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1866031.52		A	3.2
2	☐	1.000		1800689.84		A	4.9
3	☐	1.000		1836810.46		A	3.2
4	☐	1.000		2057414.54		A	8.8
5	☐	1.000		1867226.56		A	2.4
6	☐	1.000		1877940.98		A	3.6
7	☐	1.000		1919867.00		A	3.9
8	☐	1.000		1968490.27		A	8.4
9	☐	1.000		1974193.67		A	2.1
10	☐	1.000		1996029.05		A	2.5
11	☐	1.000		1938703.53		A	2.3



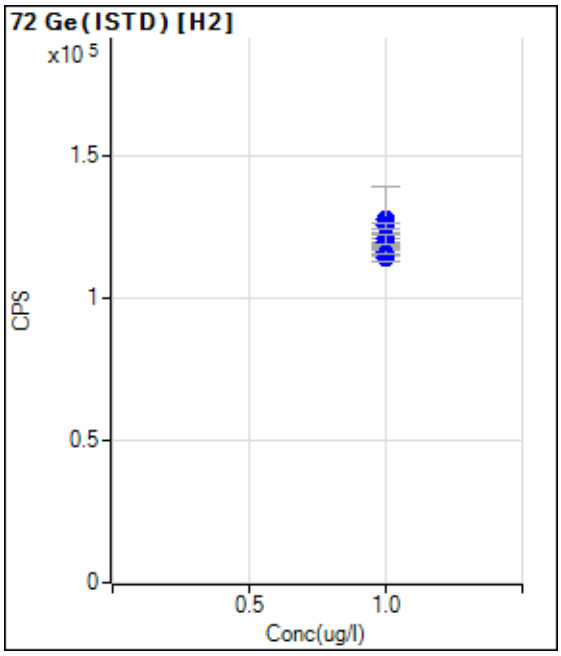
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		82592.20		P	2.6
2	☐	1.000		80555.98		P	2.8
3	☐	1.000		83378.40		P	2.2
4	☐	1.000		87492.60		P	1.4
5	☐	1.000		83423.32		P	2.6
6	☐	1.000		83105.09		P	4.1
7	☐	1.000		86694.52		P	3.3
8	☐	1.000		93349.92		P	19.7
9	☐	1.000		90908.97		P	1.0
10	☐	1.000		88039.72		P	1.9
11	☐	1.000		89738.92		P	1.0



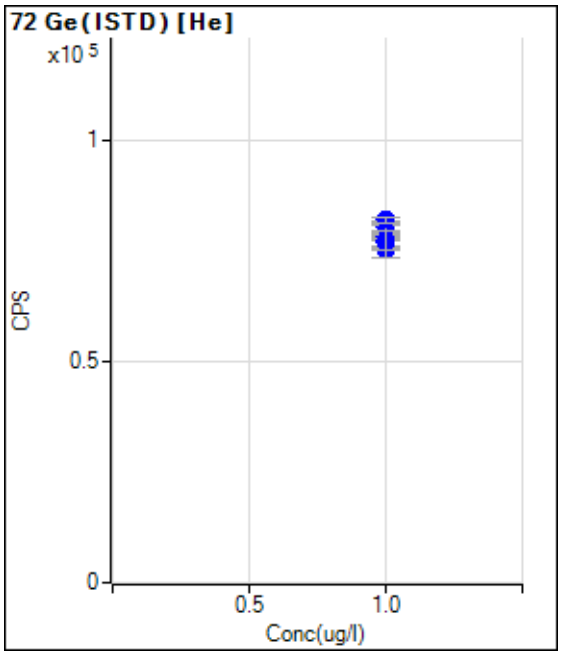
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		50304.07		P	0.5
2	☐	1.000		50945.77		P	2.1
3	☐	1.000		50816.70		P	2.7
4	☐	1.000		54613.84		P	2.0
5	☐	1.000		51212.02		P	1.7
6	☐	1.000		50703.94		P	3.6
7	☐	1.000		53552.13		P	3.0
8	☐	1.000		53705.24		P	0.6
9	☐	1.000		54980.30		P	1.5
10	☐	1.000		52171.66		P	8.1
11	☐	1.000		55220.33		P	1.4



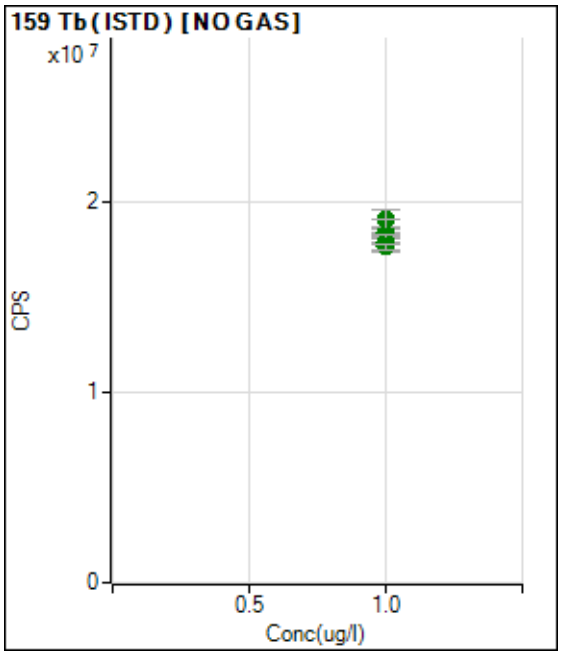
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		845911.32		P	2.5
2	☐	1.000		841528.50		P	0.9
3	☐	1.000		841237.01		P	0.7
4	☐	1.000		888115.24		P	6.0
5	☐	1.000		824017.27		P	0.5
6	☐	1.000		839997.49		P	1.5
7	☐	1.000		840045.76		P	2.9
8	☐	1.000		862743.94		P	4.5
9	☐	1.000		868253.57		P	0.4
10	☐	1.000		842499.67		P	1.9
11	☐	1.000		861709.69		P	0.9



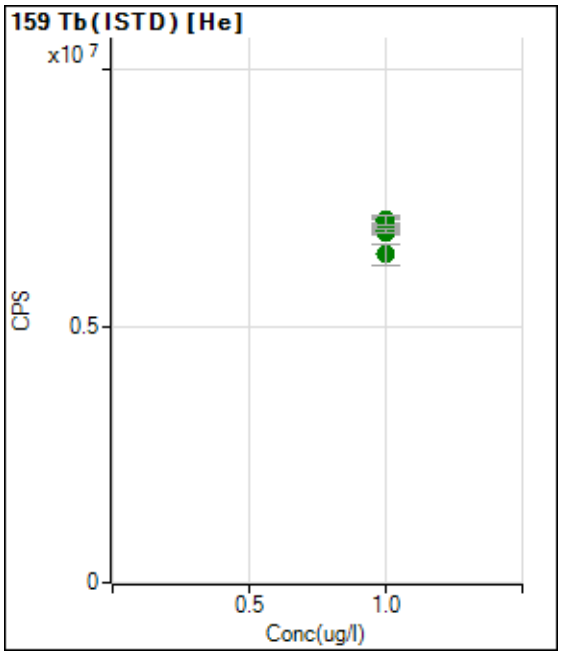
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		118513.05		P	1.8
2	☐	1.000		113965.14		P	1.9
3	☐	1.000		117594.67		P	3.2
4	☐	1.000		121297.02		P	2.4
5	☐	1.000		116843.60		P	1.8
6	☐	1.000		116146.56		P	1.2
7	☐	1.000		118829.35		P	2.0
8	☐	1.000		127568.82		P	18.3
9	☐	1.000		119937.45		P	2.3
10	☐	1.000		120895.42		P	2.8
11	☐	1.000		125615.01		P	1.4



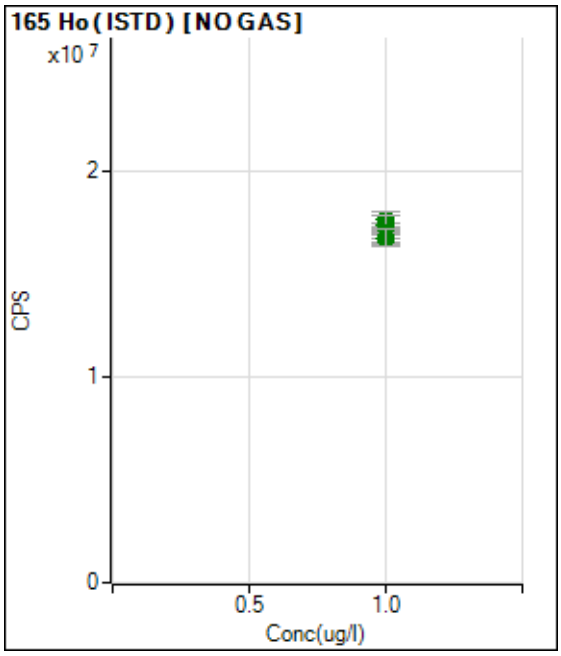
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		75477.75		P	0.6
2	☐	1.000		76836.97		P	2.2
3	☐	1.000		78123.92		P	1.1
4	☐	1.000		80460.34		P	3.4
5	☐	1.000		77970.41		P	0.7
6	☐	1.000		78413.25		P	2.3
7	☐	1.000		76992.30		P	4.4
8	☐	1.000		80304.58		P	1.6
9	☐	1.000		81697.32		P	0.4
10	☐	1.000		77424.33		P	9.5
11	☐	1.000		82100.36		P	1.8



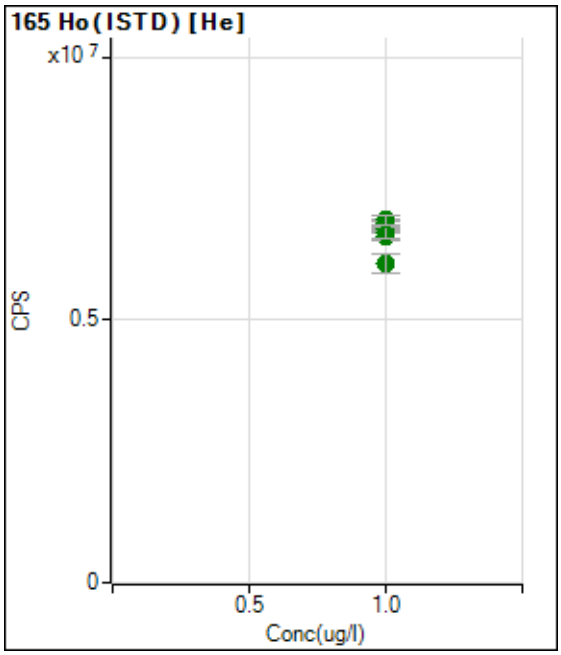
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		18265699.85		A	1.3
2	☐	1.000		18325372.85		A	2.5
3	☐	1.000		18102520.84		A	2.5
4	☐	1.000		19038794.16		A	5.2
5	☐	1.000		18156208.69		A	2.7
6	☐	1.000		18363999.39		A	3.0
7	☐	1.000		18094535.98		A	0.6
8	☐	1.000		18236644.96		A	9.6
9	☐	1.000		18163901.38		A	0.4
10	☐	1.000		17832067.27		A	4.6
11	☐	1.000		17633509.14		A	1.7



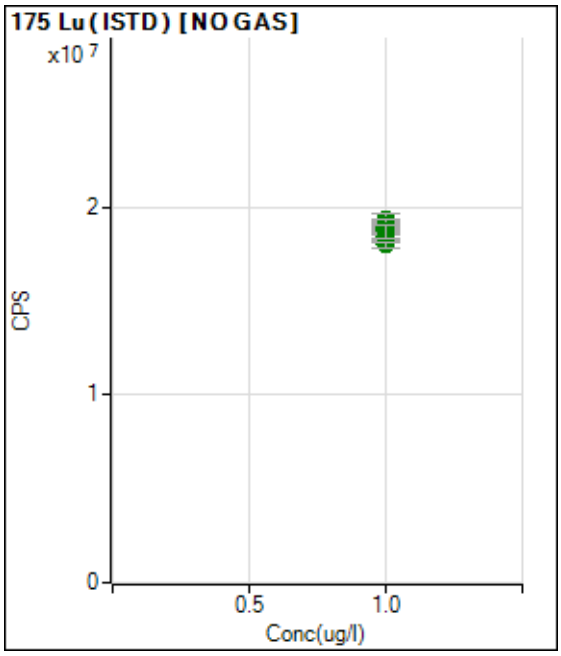
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		7058065.37		A	1.5
2	☐	1.000		6897685.36		A	1.5
3	☐	1.000		7062696.25		A	1.3
4	☐	1.000		6871243.19		A	1.8
5	☐	1.000		6979098.54		A	1.3
6	☐	1.000		7077545.63		A	2.6
7	☐	1.000		6990582.00		A	4.5
8	☐	1.000		6842968.61		A	1.0
9	☐	1.000		6849415.95		A	1.0
10	☐	1.000		6401799.49		A	6.5
11	☐	1.000		7075535.44		A	2.6



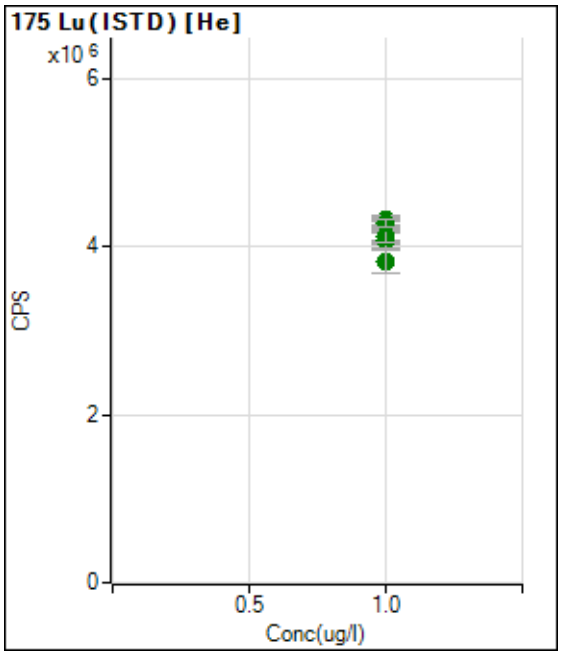
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		16967684.17		A	0.7
2	☐	1.000		16957080.65		A	3.2
3	☐	1.000		17347220.15		A	1.6
4	☐	1.000		17622776.11		A	5.0
5	☐	1.000		17034432.58		A	1.1
6	☐	1.000		17232300.86		A	1.0
7	☐	1.000		16754863.65		A	3.4
8	☐	1.000		17143160.58		A	7.9
9	☐	1.000		17025001.70		A	1.7
10	☐	1.000		16753876.00		A	2.7
11	☐	1.000		16754243.24		A	5.1



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		6666509.81		A	0.5
2		1.000		6805864.84		A	2.8
3		1.000		6750731.85		A	1.3
4		1.000		6828977.12		A	1.4
5		1.000		6750317.89		A	0.4
6		1.000		6686893.53		A	1.2
7		1.000		6738980.93		A	5.6
8		1.000		6601981.02		A	3.2
9		1.000		6655643.95		A	3.1
10		1.000		6056344.05		A	6.0
11		1.000		6900977.30		A	2.6



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		18965751.33		A	1.3
2		1.000		19044263.80		A	2.0
3		1.000		19182462.20		A	0.7
4		1.000		19330347.58		A	3.9
5		1.000		18440651.04		A	1.3
6		1.000		19104992.66		A	0.4
7		1.000		18862227.40		A	0.8
8		1.000		18979730.94		A	3.7
9		1.000		18223875.53		A	0.7
10		1.000		18001607.64		A	1.8
11		1.000		18729936.36		A	3.6



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4161096.47		A	4.2
2	☐	1.000		4180241.14		A	0.4
3	☐	1.000		4323996.14		A	2.5
4	☐	1.000		4255222.99		A	4.3
5	☐	1.000		4264523.80		A	2.1
6	☐	1.000		4121838.91		A	4.1
7	☐	1.000		4071934.94		A	4.4
8	☐	1.000		4237061.65		A	1.6
9	☐	1.000		4129636.89		A	3.7
10	☐	1.000		3824036.77		A	7.4
11	☐	1.000		4284266.51		A	2.3

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	001BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 18:18:16
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	---
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS		ug/l	1853.73
Be	9	45	1	NO GAS		ug/l	5.00
B	11	45	1	NO GAS		ug/l	185.30
Na	23	45	3	He		ug/l	10834.52
Mg	24	45	3	He		ug/l	16.63
Al	27	45	1	NO GAS		ug/l	1055.60
Si	28	45	2	H2		ug/l	37.32
K	39	72	3	He		ug/l	2783.58
Ca	40	72	2	H2		ug/l	787.97
Ti	47	72	1	NO GAS		ug/l	54.97
V	51	72	1	NO GAS		ug/l	-8869.43
V	51	72	3	He		ug/l	135.56
Cr	52	72	1	NO GAS		ug/l	13009.29
Cr	52	72	3	He		ug/l	795.11
Cr	53	72	1	NO GAS		ug/l	46264.68
Mn	55	72	1	NO GAS		ug/l	1021.35
Mn	55	72	3	He		ug/l	8.00
Fe	56	72	2	H2		ug/l	1624.29
Fe	56	72	3	He		ug/l	2402.33
Co	59	72	1	NO GAS		ug/l	73.19
Ni	60	72	1	NO GAS		ug/l	156.36
Ni	60	72	3	He		ug/l	45.55
Ni	62	72	1	NO GAS		ug/l	482.40
Cu	63	72	1	NO GAS		ug/l	267.28
Cu	63	72	3	He		ug/l	104.31
Cu	65	72	1	NO GAS		ug/l	115.98
Zn	66	72	1	NO GAS		ug/l	3656.48
Zn	66	72	3	He		ug/l	816.69
As	75	72	1	NO GAS		ug/l	3308.75
As	75	72	3	He		ug/l	5.00
Se	78	72	2	H2		ug/l	3.00
Br	79	72	1	NO GAS		ug/l	51134.09
Br	79	72	2	H2		ug/l	7347.12
Se	82	72	1	NO GAS		ug/l	355.32
Kr	84	72	1	NO GAS		ug/l	6847.87
Sr	88	72	1	NO GAS		ug/l	459.10
Sr	88	72	3	He		ug/l	217.78

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS		ug/l	170.00
Mo	95	72	3	He		ug/l	63.33
Mo	98	72	1	NO GAS		ug/l	294.18
Ag	107	72	1	NO GAS		ug/l	1775.75
Ag	109	72	1	NO GAS		ug/l	1678.43
Cd	111	159	1	NO GAS		ug/l	-27.81
Cd	111	159	3	He		ug/l	0.00
Cd	114	159	1	NO GAS		ug/l	-204.05
Cd	114	159	3	He		ug/l	2.11
Sn	118	159	1	NO GAS		ug/l	2791.39
Sn	118	159	3	He		ug/l	415.56
Sb	121	159	1	NO GAS		ug/l	254.45
Sb	121	159	3	He		ug/l	65.56
Sb	123	159	1	NO GAS		ug/l	222.23
Sb	123	159	3	He		ug/l	36.66
Ba	135	159	1	NO GAS		ug/l	96.48
Ba	137	159	1	NO GAS		ug/l	169.67
La	139	175	1	NO GAS		ug/l	76.74
La	139	175	3	He		ug/l	13.35
Ce	140	175	1	NO GAS		ug/l	136.80
Ce	140	175	3	He		ug/l	30.03
Hg	201	175	1	NO GAS		ug/l	14.00
Hg	202	175	1	NO GAS		ug/l	63.99
Hg	202	175	3	He		ug/l	25.00
Tl	203	175	3	He		ug/l	26.66
Tl	205	175	1	NO GAS		ug/l	106.67
Tl	205	175	3	He		ug/l	73.32
[Pb]	206	175	1	NO GAS		ug/l	63.33
[Pb]	207	175	1	NO GAS		ug/l	43.34
Pb	208	175	1	NO GAS		ug/l	225.56
Th	232	175	3	He		ug/l	654.55
U	238	175	1	NO GAS		ug/l	121.98

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1933307.74	
Sc	45	2	H2	90947.96	
Sc	45	3	He	52961.96	
Ge	72	1	NO GAS	862667.27	
Ge	72	2	H2	131014.18	
Ge	72	3	He	78321.41	
Tb	159	1	NO GAS	17699480.32	
Tb	159	3	He	6878884.53	
Ho	165	1	NO GAS	16537407.03	
Ho	165	3	He	6539370.55	
Lu	175	1	NO GAS	17948940.60	
Lu	175	3	He	4173567.17	

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	002BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 18:23:59
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	---
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS		ug/l	1795.07
Be	9	45	1	NO GAS		ug/l	2.33
B	11	45	1	NO GAS		ug/l	169.97
Na	23	45	3	He		ug/l	10686.68
Mg	24	45	3	He		ug/l	39.92
Al	27	45	1	NO GAS		ug/l	1047.82
Si	28	45	2	H2		ug/l	27.99
K	39	72	3	He		ug/l	3041.41
Ca	40	72	2	H2		ug/l	721.33
Ti	47	72	1	NO GAS		ug/l	48.31
V	51	72	1	NO GAS		ug/l	-14001.27
V	51	72	3	He		ug/l	80.00
Cr	52	72	1	NO GAS		ug/l	11551.25
Cr	52	72	3	He		ug/l	672.02
Cr	53	72	1	NO GAS		ug/l	48983.53
Mn	55	72	1	NO GAS		ug/l	698.63
Mn	55	72	3	He		ug/l	6.00
Fe	56	72	2	H2		ug/l	1289.42
Fe	56	72	3	He		ug/l	2040.79
Co	59	72	1	NO GAS		ug/l	49.90
Ni	60	72	1	NO GAS		ug/l	109.78
Ni	60	72	3	He		ug/l	37.78
Ni	62	72	1	NO GAS		ug/l	415.85
Cu	63	72	1	NO GAS		ug/l	271.28
Cu	63	72	3	He		ug/l	91.65
Cu	65	72	1	NO GAS		ug/l	123.98
Zn	66	72	1	NO GAS		ug/l	1833.07
Zn	66	72	3	He		ug/l	402.23
As	75	72	1	NO GAS		ug/l	3166.76
As	75	72	3	He		ug/l	2.33
Se	78	72	2	H2		ug/l	3.00
Br	79	72	1	NO GAS		ug/l	49790.07
Br	79	72	2	H2		ug/l	7277.26
Se	82	72	1	NO GAS		ug/l	291.45
Kr	84	72	1	NO GAS		ug/l	6371.98
Sr	88	72	1	NO GAS		ug/l	465.75
Sr	88	72	3	He		ug/l	223.34

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS		ug/l	134.45
Mo	95	72	3	He		ug/l	37.78
Mo	98	72	1	NO GAS		ug/l	249.87
Ag	107	72	1	NO GAS		ug/l	1757.09
Ag	109	72	1	NO GAS		ug/l	1731.09
Cd	111	159	1	NO GAS		ug/l	-42.03
Cd	111	159	3	He		ug/l	4.00
Cd	114	159	1	NO GAS		ug/l	-143.94
Cd	114	159	3	He		ug/l	4.96
Sn	118	159	1	NO GAS		ug/l	2555.16
Sn	118	159	3	He		ug/l	408.90
Sb	121	159	1	NO GAS		ug/l	288.89
Sb	121	159	3	He		ug/l	50.00
Sb	123	159	1	NO GAS		ug/l	256.67
Sb	123	159	3	He		ug/l	34.44
Ba	135	159	1	NO GAS		ug/l	59.88
Ba	137	159	1	NO GAS		ug/l	116.44
La	139	175	1	NO GAS		ug/l	43.38
La	139	175	3	He		ug/l	20.02
Ce	140	175	1	NO GAS		ug/l	110.11
Ce	140	175	3	He		ug/l	26.69
Hg	201	175	1	NO GAS		ug/l	14.67
Hg	202	175	1	NO GAS		ug/l	60.66
Hg	202	175	3	He		ug/l	21.66
Tl	203	175	3	He		ug/l	32.66
Tl	205	175	1	NO GAS		ug/l	108.89
Tl	205	175	3	He		ug/l	68.65
[Pb]	206	175	1	NO GAS		ug/l	54.45
[Pb]	207	175	1	NO GAS		ug/l	55.55
Pb	208	175	1	NO GAS		ug/l	242.22
Th	232	175	3	He		ug/l	709.88
U	238	175	1	NO GAS		ug/l	133.31

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1977948.21	
Sc	45	2	H2	90628.60	
Sc	45	3	He	53205.90	
Ge	72	1	NO GAS	851384.03	
Ge	72	2	H2	134141.09	
Ge	72	3	He	80615.74	
Tb	159	1	NO GAS	18382550.86	
Tb	159	3	He	6990948.04	
Ho	165	1	NO GAS	16917199.73	
Ho	165	3	He	6618253.44	
Lu	175	1	NO GAS	18673809.82	
Lu	175	3	He	4194630.94	

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	003BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 18:29:43
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	---
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS		ug/l	1885.73
Be	9	45	1	NO GAS		ug/l	4.33
B	11	45	1	NO GAS		ug/l	165.97
Na	23	45	3	He		ug/l	10536.59
Mg	24	45	3	He		ug/l	53.23
Al	27	45	1	NO GAS		ug/l	1054.48
Si	28	45	2	H2		ug/l	25.33
K	39	72	3	He		ug/l	2782.47
Ca	40	72	2	H2		ug/l	706.34
Ti	47	72	1	NO GAS		ug/l	38.31
V	51	72	1	NO GAS		ug/l	-15523.13
V	51	72	3	He		ug/l	106.67
Cr	52	72	1	NO GAS		ug/l	11654.37
Cr	52	72	3	He		ug/l	449.12
Cr	53	72	1	NO GAS		ug/l	47785.37
Mn	55	72	1	NO GAS		ug/l	728.58
Mn	55	72	3	He		ug/l	4.67
Fe	56	72	2	H2		ug/l	1007.88
Fe	56	72	3	He		ug/l	1654.28
Co	59	72	1	NO GAS		ug/l	106.46
Ni	60	72	1	NO GAS		ug/l	129.74
Ni	60	72	3	He		ug/l	31.11
Ni	62	72	1	NO GAS		ug/l	349.31
Cu	63	72	1	NO GAS		ug/l	248.62
Cu	63	72	3	He		ug/l	89.98
Cu	65	72	1	NO GAS		ug/l	117.31
Zn	66	72	1	NO GAS		ug/l	1031.32
Zn	66	72	3	He		ug/l	282.23
As	75	72	1	NO GAS		ug/l	3102.20
As	75	72	3	He		ug/l	2.33
Se	78	72	2	H2		ug/l	1.33
Br	79	72	1	NO GAS		ug/l	48621.86
Br	79	72	2	H2		ug/l	7343.84
Se	82	72	1	NO GAS		ug/l	269.47
Kr	84	72	1	NO GAS		ug/l	6478.49
Sr	88	72	1	NO GAS		ug/l	505.68
Sr	88	72	3	He		ug/l	220.01

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS		ug/l	141.11
Mo	95	72	3	He		ug/l	52.22
Mo	98	72	1	NO GAS		ug/l	214.87
Ag	107	72	1	NO GAS		ug/l	1769.75
Ag	109	72	1	NO GAS		ug/l	1690.43
Cd	111	159	1	NO GAS		ug/l	-41.01
Cd	111	159	3	He		ug/l	0.00
Cd	114	159	1	NO GAS		ug/l	-240.37
Cd	114	159	3	He		ug/l	-2.38
Sn	118	159	1	NO GAS		ug/l	2315.60
Sn	118	159	3	He		ug/l	384.45
Sb	121	159	1	NO GAS		ug/l	275.56
Sb	121	159	3	He		ug/l	46.67
Sb	123	159	1	NO GAS		ug/l	232.23
Sb	123	159	3	He		ug/l	24.44
Ba	135	159	1	NO GAS		ug/l	66.53
Ba	137	159	1	NO GAS		ug/l	73.19
La	139	175	1	NO GAS		ug/l	46.71
La	139	175	3	He		ug/l	6.67
Ce	140	175	1	NO GAS		ug/l	73.41
Ce	140	175	3	He		ug/l	33.37
Hg	201	175	1	NO GAS		ug/l	15.67
Hg	202	175	1	NO GAS		ug/l	60.66
Hg	202	175	3	He		ug/l	27.66
Tl	203	175	3	He		ug/l	29.32
Tl	205	175	1	NO GAS		ug/l	98.89
Tl	205	175	3	He		ug/l	65.99
[Pb]	206	175	1	NO GAS		ug/l	53.33
[Pb]	207	175	1	NO GAS		ug/l	64.44
Pb	208	175	1	NO GAS		ug/l	233.33
Th	232	175	3	He		ug/l	610.56
U	238	175	1	NO GAS		ug/l	128.31

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1855344.02	
Sc	45	2	H2	87040.86	
Sc	45	3	He	50060.93	
Ge	72	1	NO GAS	868538.36	
Ge	72	2	H2	127129.95	
Ge	72	3	He	75693.82	
Tb	159	1	NO GAS	18136122.36	
Tb	159	3	He	6918865.18	
Ho	165	1	NO GAS	17035872.15	
Ho	165	3	He	6599043.55	
Lu	175	1	NO GAS	18621451.63	
Lu	175	3	He	4115922.34	

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	004BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 18:35:28
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	---
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS		ug/l	1782.41
Be	9	45	1	NO GAS		ug/l	7.33
B	11	45	1	NO GAS		ug/l	145.97
Na	23	45	3	He		ug/l	7827.37
Mg	24	45	3	He		ug/l	39.92
Al	27	45	1	NO GAS		ug/l	648.91
Si	28	45	2	H2		ug/l	27.32
K	39	72	3	He		ug/l	2709.12
Ca	40	72	2	H2		ug/l	558.07
Ti	47	72	1	NO GAS		ug/l	56.64
V	51	72	1	NO GAS		ug/l	-13194.19
V	51	72	3	He		ug/l	101.11
Cr	52	72	1	NO GAS		ug/l	10176.37
Cr	52	72	3	He		ug/l	435.81
Cr	53	72	1	NO GAS		ug/l	47578.09
Mn	55	72	1	NO GAS		ug/l	668.69
Mn	55	72	3	He		ug/l	5.00
Fe	56	72	2	H2		ug/l	862.93
Fe	56	72	3	He		ug/l	1479.34
Co	59	72	1	NO GAS		ug/l	36.59
Ni	60	72	1	NO GAS		ug/l	66.53
Ni	60	72	3	He		ug/l	43.34
Ni	62	72	1	NO GAS		ug/l	482.39
Cu	63	72	1	NO GAS		ug/l	221.96
Cu	63	72	3	He		ug/l	82.32
Cu	65	72	1	NO GAS		ug/l	103.98
Zn	66	72	1	NO GAS		ug/l	1004.66
Zn	66	72	3	He		ug/l	195.56
As	75	72	1	NO GAS		ug/l	3093.18
As	75	72	3	He		ug/l	4.33
Se	78	72	2	H2		ug/l	2.00
Br	79	72	1	NO GAS		ug/l	61508.80
Br	79	72	2	H2		ug/l	8978.09
Se	82	72	1	NO GAS		ug/l	154.36
Kr	84	72	1	NO GAS		ug/l	6641.56
Sr	88	72	1	NO GAS		ug/l	329.35
Sr	88	72	3	He		ug/l	207.78

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS		ug/l	98.89
Mo	95	72	3	He		ug/l	44.44
Mo	98	72	1	NO GAS		ug/l	162.78
Ag	107	72	1	NO GAS		ug/l	1815.08
Ag	109	72	1	NO GAS		ug/l	1660.43
Cd	111	159	1	NO GAS		ug/l	-47.47
Cd	111	159	3	He		ug/l	0.00
Cd	114	159	1	NO GAS		ug/l	-222.21
Cd	114	159	3	He		ug/l	-27.52
Sn	118	159	1	NO GAS		ug/l	41812.23
Sn	118	159	3	He		ug/l	6573.62
Sb	121	159	1	NO GAS		ug/l	211.11
Sb	121	159	3	He		ug/l	25.55
Sb	123	159	1	NO GAS		ug/l	218.89
Sb	123	159	3	He		ug/l	25.56
Ba	135	159	1	NO GAS		ug/l	59.88
Ba	137	159	1	NO GAS		ug/l	43.25
La	139	175	1	NO GAS		ug/l	56.72
La	139	175	3	He		ug/l	6.67
Ce	140	175	1	NO GAS		ug/l	46.71
Ce	140	175	3	He		ug/l	16.68
Hg	201	175	1	NO GAS		ug/l	13.67
Hg	202	175	1	NO GAS		ug/l	67.65
Hg	202	175	3	He		ug/l	26.66
Tl	203	175	3	He		ug/l	18.67
Tl	205	175	1	NO GAS		ug/l	41.11
Tl	205	175	3	He		ug/l	39.99
[Pb]	206	175	1	NO GAS		ug/l	30.00
[Pb]	207	175	1	NO GAS		ug/l	30.00
Pb	208	175	1	NO GAS		ug/l	146.67
Th	232	175	3	He		ug/l	520.57
U	238	175	1	NO GAS		ug/l	74.32

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1774921.88	
Sc	45	2	H2	83120.05	
Sc	45	3	He	49691.46	
Ge	72	1	NO GAS	824782.21	
Ge	72	2	H2	122449.64	
Ge	72	3	He	76020.18	
Tb	159	1	NO GAS	18356008.28	
Tb	159	3	He	6716528.22	
Ho	165	1	NO GAS	17278019.91	
Ho	165	3	He	6436088.05	
Lu	175	1	NO GAS	19226826.36	
Lu	175	3	He	4093614.15	

ICPMS206-B Analytical Data

Sample Name	BLANK
File Name	005CALB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 18:41:14
Sample Type	CalBlk
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.000	ug/l	1701.08
Be	9	45	1	NO GAS	0.000	ug/l	5.33
B	11	45	1	NO GAS	0.000	ug/l	127.31
Na	23	45	3	He	0.000	ug/l	7958.54
Mg	24	45	3	He	0.000	ug/l	43.25
Al	27	45	1	NO GAS	0.000	ug/l	1916.12
Si	28	45	2	H2	0.000	ug/l	28.66
K	39	72	3	He	0.000	ug/l	2731.35
Ca	40	72	2	H2	0.000	ug/l	514.76
Ti	47	72	1	NO GAS	0.000	ug/l	24.99
V	51	72	1	NO GAS	0.000	ug/l	-6096.98
V	51	72	3	He	0.000	ug/l	121.11
Cr	52	72	1	NO GAS	0.000	ug/l	10465.98
Cr	52	72	3	He	0.000	ug/l	419.18
Cr	53	72	1	NO GAS	0.000	ug/l	44080.74
Mn	55	72	1	NO GAS	0.000	ug/l	695.31
Mn	55	72	3	He	0.000	ug/l	6.00
Fe	56	72	2	H2	0.000	ug/l	894.59
Fe	56	72	3	He	0.000	ug/l	1501.00
Co	59	72	1	NO GAS	0.000	ug/l	59.88
Ni	60	72	1	NO GAS	0.000	ug/l	63.21
Ni	60	72	3	He	0.000	ug/l	46.67
Ni	62	72	1	NO GAS	0.000	ug/l	392.56
Cu	63	72	1	NO GAS	0.000	ug/l	205.29
Cu	63	72	3	He	0.000	ug/l	76.32
Cu	65	72	1	NO GAS	0.000	ug/l	99.98
Zn	66	72	1	NO GAS	0.000	ug/l	1194.31
Zn	66	72	3	He	0.000	ug/l	275.56
As	75	72	1	NO GAS	0.000	ug/l	2890.55
As	75	72	3	He	0.000	ug/l	4.33
Se	78	72	2	H2	0.000	ug/l	0.67
Br	79	72	1	NO GAS	0.000	ug/l	61749.26
Br	79	72	2	H2	0.000	ug/l	8039.44
Se	82	72	1	NO GAS	0.000	ug/l	415.87
Kr	84	72	1	NO GAS		ug/l	6352.01
Sr	88	72	1	NO GAS	0.000	ug/l	319.37
Sr	88	72	3	He	0.000	ug/l	227.78

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.000	ug/l	116.67
Mo	95	72	3	He	0.000	ug/l	28.89
Mo	98	72	1	NO GAS	0.000	ug/l	165.29
Ag	107	72	1	NO GAS	0.000	ug/l	1849.74
Ag	109	72	1	NO GAS	0.000	ug/l	1602.43
Cd	111	159	1	NO GAS	0.000	ug/l	10.85
Cd	111	159	3	He	0.000	ug/l	1.33
Cd	114	159	1	NO GAS	0.000	ug/l	-224.31
Cd	114	159	3	He	0.000	ug/l	-53.09
Sn	118	159	1	NO GAS	0.000	ug/l	43022.18
Sn	118	159	3	He	0.000	ug/l	6780.38
Sb	121	159	1	NO GAS	0.000	ug/l	237.78
Sb	121	159	3	He	0.000	ug/l	36.67
Sb	123	159	1	NO GAS	0.000	ug/l	180.00
Sb	123	159	3	He	0.000	ug/l	26.67
Ba	135	159	1	NO GAS	0.000	ug/l	59.88
Ba	137	159	1	NO GAS	0.000	ug/l	53.23
La	139	175	1	NO GAS	0.000	ug/l	66.73
La	139	175	3	He	0.000	ug/l	0.00
Ce	140	175	1	NO GAS	0.000	ug/l	66.73
Ce	140	175	3	He	0.000	ug/l	10.01
Hg	201	175	1	NO GAS	0.000	ug/l	16.67
Hg	202	175	1	NO GAS	0.000	ug/l	59.99
Hg	202	175	3	He	0.000	ug/l	27.99
Tl	203	175	3	He	0.000	ug/l	10.67
Tl	205	175	1	NO GAS	0.000	ug/l	47.78
Tl	205	175	3	He	0.000	ug/l	49.99
[Pb]	206	175	1	NO GAS	0.000	ug/l	43.33
[Pb]	207	175	1	NO GAS	0.000	ug/l	30.00
Pb	208	175	1	NO GAS	0.000	ug/l	160.00
Th	232	175	3	He	0.000	ug/l	518.57
U	238	175	1	NO GAS	0.000	ug/l	74.98

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1809681.80	100.0
Sc	45	2	H2	82283.77	100.0
Sc	45	3	He	49865.44	100.0
Ge	72	1	NO GAS	828511.88	100.0
Ge	72	2	H2	117192.28	100.0
Ge	72	3	He	77344.28	100.0
Tb	159	1	NO GAS	17069290.78	100.0
Tb	159	3	He	7019508.17	100.0
Ho	165	1	NO GAS	16209993.07	100.0
Ho	165	3	He	6735294.17	100.0
Lu	175	1	NO GAS	17611837.88	100.0
Lu	175	3	He	4282614.24	100.0

ICPMS206-B Analytical Data

Sample Name	0.025 PPB STD
File Name	006CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 18:47:26
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.132	ug/l	1852.40
Be	9	45	1	NO GAS	0.021	ug/l	11.00
B	11	45	1	NO GAS	0.022	ug/l	134.64
Na	23	45	3	He	12.290	ug/l	8812.29
Mg	24	45	3	He	7.034	ug/l	339.33
Al	27	45	1	NO GAS	-0.104	ug/l	1666.76
Si	28	45	2	H2	0.141	ug/l	29.32
K	39	72	3	He	8.335	ug/l	2968.07
Ca	40	72	2	H2	7.952	ug/l	1882.52
Ti	47	72	1	NO GAS	0.154	ug/l	154.93
V	51	72	1	NO GAS	0.151	ug/l	-4061.64
V	51	72	3	He	0.030	ug/l	155.56
Cr	52	72	1	NO GAS	-0.008	ug/l	10254.51
Cr	52	72	3	He	0.013	ug/l	429.16
Cr	53	72	1	NO GAS	0.461	ug/l	44384.67
Mn	55	72	1	NO GAS	0.029	ug/l	1194.35
Mn	55	72	3	He	0.020	ug/l	22.67
Fe	56	72	2	H2	0.719	ug/l	1555.98
Fe	56	72	3	He	0.641	ug/l	2445.65
Co	59	72	1	NO GAS	0.031	ug/l	542.27
Ni	60	72	1	NO GAS	0.052	ug/l	239.53
Ni	60	72	3	He	0.018	ug/l	64.44
Ni	62	72	1	NO GAS	0.014	ug/l	399.22
Cu	63	72	1	NO GAS	0.046	ug/l	595.89
Cu	63	72	3	He	0.043	ug/l	214.63
Cu	65	72	1	NO GAS	0.050	ug/l	311.28
Zn	66	72	1	NO GAS	0.004	ug/l	1184.32
Zn	66	72	3	He	0.068	ug/l	298.89
As	75	72	1	NO GAS	0.060	ug/l	3056.35
As	75	72	3	He	0.033	ug/l	14.33
Se	78	72	2	H2	0.050	ug/l	6.00
Br	79	72	1	NO GAS	-0.336	ug/l	59157.83
Br	79	72	2	H2	0.643	ug/l	8275.77
Se	82	72	1	NO GAS	-0.646	ug/l	236.87
Kr	84	72	1	NO GAS		ug/l	6185.64
Sr	88	72	1	NO GAS	0.029	ug/l	1314.13
Sr	88	72	3	He	0.012	ug/l	238.89

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.037	ug/l	397.79
Mo	95	72	3	He	0.034	ug/l	115.56
Mo	98	72	1	NO GAS	0.032	ug/l	589.05
Ag	107	72	1	NO GAS	0.008	ug/l	2002.40
Ag	109	72	1	NO GAS	0.016	ug/l	1921.74
Cd	111	159	1	NO GAS	0.016	ug/l	103.33
Cd	111	159	3	He	0.027	ug/l	39.99
Cd	114	159	1	NO GAS	0.041	ug/l	286.54
Cd	114	159	3	He	0.036	ug/l	80.19
Sn	118	159	1	NO GAS	-2.626	ug/l	3363.71
Sn	118	159	3	He	-2.421	ug/l	535.57
Sb	121	159	1	NO GAS	0.030	ug/l	928.93
Sb	121	159	3	He	0.032	ug/l	141.11
Sb	123	159	1	NO GAS	0.030	ug/l	734.47
Sb	123	159	3	He	0.027	ug/l	101.11
Ba	135	159	1	NO GAS	0.025	ug/l	186.30
Ba	137	159	1	NO GAS	0.024	ug/l	256.16
La	139	175	1	NO GAS	0.030	ug/l	2449.37
La	139	175	3	He	0.025	ug/l	423.77
Ce	140	175	1	NO GAS	0.030	ug/l	2429.34
Ce	140	175	3	He	0.032	ug/l	700.73
Hg	201	175	1	NO GAS	0.001	ug/l	21.00
Hg	202	175	1	NO GAS	0.000	ug/l	62.99
Hg	202	175	3	He	-0.001	ug/l	24.00
Tl	203	175	3	He	0.029	ug/l	403.92
Tl	205	175	1	NO GAS	0.027	ug/l	1741.23
Tl	205	175	3	He	0.029	ug/l	979.84
[Pb]	206	175	1	NO GAS	0.030	ug/l	698.91
[Pb]	207	175	1	NO GAS	0.034	ug/l	655.58
Pb	208	175	1	NO GAS	0.031	ug/l	2786.80
Th	232	175	3	He	0.017	ug/l	1348.46
U	238	175	1	NO GAS	0.027	ug/l	2715.05

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1820531.42	100.6
Sc	45	2	H2	76915.71	93.5
Sc	45	3	He	48793.37	97.9
Ge	72	1	NO GAS	819802.23	98.9
Ge	72	2	H2	112414.71	95.9
Ge	72	3	He	74979.49	96.9
Tb	159	1	NO GAS	17616122.79	103.2
Tb	159	3	He	6780340.20	96.6
Ho	165	1	NO GAS	16848898.93	103.9
Ho	165	3	He	6521599.86	96.8
Lu	175	1	NO GAS	18594557.03	105.6
Lu	175	3	He	4162221.66	97.2

ICPMS206-B Analytical Data

Sample Name	0.05 PPB STD
File Name	007CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 18:53:25
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.738	ug/l	2156.38
Be	9	45	1	NO GAS	0.077	ug/l	25.00
B	11	45	1	NO GAS	0.064	ug/l	138.64
Na	23	45	3	He	16.555	ug/l	9000.16
Mg	24	45	3	He	15.928	ug/l	701.96
Al	27	45	1	NO GAS	-0.320	ug/l	1007.82
Si	28	45	2	H2	-0.054	ug/l	25.99
K	39	72	3	He	16.017	ug/l	3233.67
Ca	40	72	2	H2	15.854	ug/l	3305.38
Ti	47	72	1	NO GAS	0.089	ug/l	99.95
V	51	72	1	NO GAS	-0.568	ug/l	-13345.90
V	51	72	3	He	0.047	ug/l	175.56
Cr	52	72	1	NO GAS	0.074	ug/l	11184.99
Cr	52	72	3	He	-0.020	ug/l	369.27
Cr	53	72	1	NO GAS	1.457	ug/l	45922.72
Mn	55	72	1	NO GAS	0.071	ug/l	1909.68
Mn	55	72	3	He	0.059	ug/l	54.34
Fe	56	72	2	H2	1.509	ug/l	2350.69
Fe	56	72	3	He	1.484	ug/l	3718.61
Co	59	72	1	NO GAS	0.065	ug/l	1051.29
Ni	60	72	1	NO GAS	0.069	ug/l	296.08
Ni	60	72	3	He	0.092	ug/l	144.46
Ni	62	72	1	NO GAS	-0.006	ug/l	389.24
Cu	63	72	1	NO GAS	0.072	ug/l	817.19
Cu	63	72	3	He	0.071	ug/l	303.27
Cu	65	72	1	NO GAS	0.068	ug/l	387.26
Zn	66	72	1	NO GAS	-0.091	ug/l	921.45
Zn	66	72	3	He	-0.083	ug/l	225.56
As	75	72	1	NO GAS	0.142	ug/l	3309.17
As	75	72	3	He	0.064	ug/l	23.66
Se	78	72	2	H2	0.059	ug/l	7.00
Br	79	72	1	NO GAS	-0.174	ug/l	60122.96
Br	79	72	2	H2	0.974	ug/l	8698.47
Se	82	72	1	NO GAS	-0.408	ug/l	300.09
Kr	84	72	1	NO GAS		ug/l	6551.70
Sr	88	72	1	NO GAS	0.062	ug/l	2412.08
Sr	88	72	3	He	0.055	ug/l	301.12

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.065	ug/l	617.80
Mo	95	72	3	He	0.068	ug/l	203.34
Mo	98	72	1	NO GAS	0.060	ug/l	946.57
Ag	107	72	1	NO GAS	0.020	ug/l	2272.38
Ag	109	72	1	NO GAS	0.032	ug/l	2276.38
Cd	111	159	1	NO GAS	0.044	ug/l	257.87
Cd	111	159	3	He	0.054	ug/l	77.98
Cd	114	159	1	NO GAS	0.069	ug/l	646.20
Cd	114	159	3	He	0.073	ug/l	209.28
Sn	118	159	1	NO GAS	-2.636	ug/l	3213.96
Sn	118	159	3	He	-2.426	ug/l	518.90
Sb	121	159	1	NO GAS	0.059	ug/l	1597.87
Sb	121	159	3	He	0.061	ug/l	236.67
Sb	123	159	1	NO GAS	0.057	ug/l	1233.39
Sb	123	159	3	He	0.059	ug/l	188.89
Ba	135	159	1	NO GAS	0.044	ug/l	279.45
Ba	137	159	1	NO GAS	0.065	ug/l	612.13
La	139	175	1	NO GAS	0.065	ug/l	5179.51
La	139	175	3	He	0.068	ug/l	1157.90
Ce	140	175	1	NO GAS	0.057	ug/l	4495.27
Ce	140	175	3	He	0.066	ug/l	1418.18
Hg	201	175	1	NO GAS	0.000	ug/l	17.33
Hg	202	175	1	NO GAS	0.001	ug/l	73.65
Hg	202	175	3	He	0.001	ug/l	33.66
Tl	203	175	3	He	0.061	ug/l	825.20
Tl	205	175	1	NO GAS	0.059	ug/l	3770.50
Tl	205	175	3	He	0.064	ug/l	2089.07
[Pb]	206	175	1	NO GAS	0.057	ug/l	1284.51
[Pb]	207	175	1	NO GAS	0.058	ug/l	1113.39
Pb	208	175	1	NO GAS	0.060	ug/l	5268.19
Th	232	175	3	He	0.042	ug/l	2505.06
U	238	175	1	NO GAS	0.059	ug/l	5863.00

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1770040.11	97.8
Sc	45	2	H2	77459.46	94.1
Sc	45	3	He	47891.46	96.0
Ge	72	1	NO GAS	819530.10	98.9
Ge	72	2	H2	114109.85	97.4
Ge	72	3	He	74346.69	96.1
Tb	159	1	NO GAS	17657106.28	103.4
Tb	159	3	He	6729152.51	95.9
Ho	165	1	NO GAS	16577168.56	102.3
Ho	165	3	He	6515525.61	96.7
Lu	175	1	NO GAS	18535645.20	105.2
Lu	175	3	He	4106195.79	95.9

ICPMS206-B Analytical Data

Sample Name	0.10 PPB STD
File Name	008CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 18:59:25
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.225	ug/l	2389.70
Be	9	45	1	NO GAS	0.140	ug/l	40.32
B	11	45	1	NO GAS	0.066	ug/l	135.97
Na	23	45	3	He	34.451	ug/l	10251.97
Mg	24	45	3	He	30.214	ug/l	1267.55
Al	27	45	1	NO GAS	-0.210	ug/l	1294.51
Si	28	45	2	H2	-0.219	ug/l	22.66
K	39	72	3	He	28.504	ug/l	3655.97
Ca	40	72	2	H2	29.364	ug/l	5624.87
Ti	47	72	1	NO GAS	0.142	ug/l	143.27
V	51	72	1	NO GAS	0.006	ug/l	-5944.76
V	51	72	3	He	0.086	ug/l	221.11
Cr	52	72	1	NO GAS	0.109	ug/l	11424.65
Cr	52	72	3	He	0.033	ug/l	452.45
Cr	53	72	1	NO GAS	0.921	ug/l	44451.12
Mn	55	72	1	NO GAS	0.123	ug/l	2748.14
Mn	55	72	3	He	0.133	ug/l	113.68
Fe	56	72	2	H2	3.012	ug/l	3781.92
Fe	56	72	3	He	2.979	ug/l	5924.82
Co	59	72	1	NO GAS	0.133	ug/l	2082.69
Ni	60	72	1	NO GAS	0.133	ug/l	505.67
Ni	60	72	3	He	0.137	ug/l	190.00
Ni	62	72	1	NO GAS	0.152	ug/l	465.75
Cu	63	72	1	NO GAS	0.134	ug/l	1325.13
Cu	63	72	3	He	0.132	ug/l	492.24
Cu	65	72	1	NO GAS	0.140	ug/l	680.55
Zn	66	72	1	NO GAS	-0.083	ug/l	928.12
Zn	66	72	3	He	-0.235	ug/l	152.23
As	75	72	1	NO GAS	0.101	ug/l	3139.98
As	75	72	3	He	0.130	ug/l	43.32
Se	78	72	2	H2	0.125	ug/l	14.00
Br	79	72	1	NO GAS	0.192	ug/l	61502.13
Br	79	72	2	H2	0.797	ug/l	8432.20
Se	82	72	1	NO GAS	0.067	ug/l	417.20
Kr	84	72	1	NO GAS		ug/l	6288.78
Sr	88	72	1	NO GAS	0.130	ug/l	4644.81
Sr	88	72	3	He	0.138	ug/l	420.01

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.123	ug/l	1050.04
Mo	95	72	3	He	0.106	ug/l	297.78
Mo	98	72	1	NO GAS	0.121	ug/l	1729.35
Ag	107	72	1	NO GAS	0.044	ug/l	2765.70
Ag	109	72	1	NO GAS	0.055	ug/l	2729.70
Cd	111	159	1	NO GAS	0.119	ug/l	669.21
Cd	111	159	3	He	0.111	ug/l	162.64
Cd	114	159	1	NO GAS	0.119	ug/l	1255.89
Cd	114	159	3	He	0.119	ug/l	384.62
Sn	118	159	1	NO GAS	-2.551	ug/l	4465.14
Sn	118	159	3	He	-2.374	ug/l	665.58
Sb	121	159	1	NO GAS	0.115	ug/l	2826.94
Sb	121	159	3	He	0.116	ug/l	434.45
Sb	123	159	1	NO GAS	0.110	ug/l	2156.83
Sb	123	159	3	He	0.110	ug/l	340.01
Ba	135	159	1	NO GAS	0.108	ug/l	588.85
Ba	137	159	1	NO GAS	0.131	ug/l	1151.11
La	139	175	1	NO GAS	0.123	ug/l	9455.87
La	139	175	3	He	0.125	ug/l	2132.34
Ce	140	175	1	NO GAS	0.117	ug/l	8814.84
Ce	140	175	3	He	0.119	ug/l	2572.87
Hg	201	175	1	NO GAS	0.001	ug/l	22.66
Hg	202	175	1	NO GAS	0.002	ug/l	82.32
Hg	202	175	3	He	0.003	ug/l	50.32
Tl	203	175	3	He	0.123	ug/l	1673.10
Tl	205	175	1	NO GAS	0.118	ug/l	7250.69
Tl	205	175	3	He	0.126	ug/l	4123.09
[Pb]	206	175	1	NO GAS	0.122	ug/l	2584.69
[Pb]	207	175	1	NO GAS	0.126	ug/l	2284.64
Pb	208	175	1	NO GAS	0.125	ug/l	10419.30
Th	232	175	3	He	0.087	ug/l	4719.83
U	238	175	1	NO GAS	0.119	ug/l	11291.06

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1739846.50	96.1
Sc	45	2	H2	76689.22	93.2
Sc	45	3	He	46924.02	94.1
Ge	72	1	NO GAS	807565.78	97.5
Ge	72	2	H2	112625.47	96.1
Ge	72	3	He	73256.32	94.7
Tb	159	1	NO GAS	17337556.74	101.6
Tb	159	3	He	6949491.85	99.0
Ho	165	1	NO GAS	16324488.08	100.7
Ho	165	3	He	6695339.32	99.4
Lu	175	1	NO GAS	17876510.46	101.5
Lu	175	3	He	4150064.27	96.9

ICPMS206-B Analytical Data

Sample Name	0.5 PPB STD
File Name	009CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 19:05:25
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	5.367	ug/l	4706.38
Be	9	45	1	NO GAS	0.545	ug/l	145.97
B	11	45	1	NO GAS	0.391	ug/l	201.30
Na	23	45	3	He	145.226	ug/l	19448.83
Mg	24	45	3	He	131.063	ug/l	5453.45
Al	27	45	1	NO GAS	0.277	ug/l	2704.68
Si	28	45	2	H2	2.215	ug/l	65.99
K	39	72	3	He	132.136	ug/l	7687.34
Ca	40	72	2	H2	138.559	ug/l	24599.22
Ti	47	72	1	NO GAS	0.575	ug/l	509.76
V	51	72	1	NO GAS	0.998	ug/l	6578.97
V	51	72	3	He	0.484	ug/l	722.24
Cr	52	72	1	NO GAS	0.540	ug/l	16445.62
Cr	52	72	3	He	0.459	ug/l	1184.37
Cr	53	72	1	NO GAS	0.323	ug/l	43839.25
Mn	55	72	1	NO GAS	0.559	ug/l	10156.35
Mn	55	72	3	He	0.558	ug/l	468.72
Fe	56	72	2	H2	14.354	ug/l	14717.67
Fe	56	72	3	He	14.200	ug/l	23326.54
Co	59	72	1	NO GAS	0.572	ug/l	8804.93
Ni	60	72	1	NO GAS	0.586	ug/l	2046.10
Ni	60	72	3	He	0.533	ug/l	621.13
Ni	62	72	1	NO GAS	0.653	ug/l	735.23
Cu	63	72	1	NO GAS	0.621	ug/l	5465.82
Cu	63	72	3	He	0.604	ug/l	2030.72
Cu	65	72	1	NO GAS	0.622	ug/l	2711.03
Zn	66	72	1	NO GAS	0.525	ug/l	2621.45
Zn	66	72	3	He	0.366	ug/l	438.90
As	75	72	1	NO GAS	0.424	ug/l	4159.18
As	75	72	3	He	0.513	ug/l	162.30
Se	78	72	2	H2	0.597	ug/l	64.32
Br	79	72	1	NO GAS	0.156	ug/l	61712.34
Br	79	72	2	H2	1.159	ug/l	8701.80
Se	82	72	1	NO GAS	-0.455	ug/l	282.12
Kr	84	72	1	NO GAS		ug/l	6438.57
Sr	88	72	1	NO GAS	0.602	ug/l	20609.08
Sr	88	72	3	He	0.553	ug/l	1054.49

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.570	ug/l	4461.76
Mo	95	72	3	He	0.545	ug/l	1434.52
Mo	98	72	1	NO GAS	0.587	ug/l	7809.43
Ag	107	72	1	NO GAS	0.239	ug/l	6983.47
Ag	109	72	1	NO GAS	0.250	ug/l	6864.12
Cd	111	159	1	NO GAS	0.561	ug/l	3161.23
Cd	111	159	3	He	0.546	ug/l	772.54
Cd	114	159	1	NO GAS	0.560	ug/l	6899.98
Cd	114	159	3	He	0.589	ug/l	2060.53
Sn	118	159	1	NO GAS	-2.101	ug/l	11644.54
Sn	118	159	3	He	-1.898	ug/l	1822.34
Sb	121	159	1	NO GAS	0.532	ug/l	12504.97
Sb	121	159	3	He	0.533	ug/l	1807.90
Sb	123	159	1	NO GAS	0.535	ug/l	9968.73
Sb	123	159	3	He	0.509	ug/l	1426.74
Ba	135	159	1	NO GAS	0.584	ug/l	2974.42
Ba	137	159	1	NO GAS	0.535	ug/l	4621.58
La	139	175	1	NO GAS	0.565	ug/l	43771.72
La	139	175	3	He	0.569	ug/l	9756.41
Ce	140	175	1	NO GAS	0.570	ug/l	43387.37
Ce	140	175	3	He	0.575	ug/l	12454.33
Hg	201	175	1	NO GAS	0.009	ug/l	54.32
Hg	202	175	1	NO GAS	0.012	ug/l	170.97
Hg	202	175	3	He	0.010	ug/l	92.65
Tl	203	175	3	He	0.591	ug/l	8021.22
Tl	205	175	1	NO GAS	0.562	ug/l	34929.42
Tl	205	175	3	He	0.590	ug/l	19040.91
[Pb]	206	175	1	NO GAS	0.565	ug/l	12041.58
[Pb]	207	175	1	NO GAS	0.552	ug/l	10067.89
Pb	208	175	1	NO GAS	0.570	ug/l	47779.31
Th	232	175	3	He	0.452	ug/l	22402.46
U	238	175	1	NO GAS	0.555	ug/l	53440.24

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1777046.98	98.2
Sc	45	2	H2	75423.57	91.7
Sc	45	3	He	47728.86	95.7
Ge	72	1	NO GAS	813512.99	98.2
Ge	72	2	H2	112056.44	95.6
Ge	72	3	He	74631.05	96.5
Tb	159	1	NO GAS	17700640.22	103.7
Tb	159	3	He	6735262.73	96.0
Ho	165	1	NO GAS	16560902.40	102.2
Ho	165	3	He	6537021.74	97.1
Lu	175	1	NO GAS	18163406.93	103.1
Lu	175	3	He	4144414.48	96.8

ICPMS206-B Analytical Data

Sample Name	1 PPB STD
File Name	010CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 19:11:25
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	11.230	ug/l	8134.97
Be	9	45	1	NO GAS	1.219	ug/l	313.61
B	11	45	1	NO GAS	1.268	ug/l	363.27
Na	23	45	3	He	307.200	ug/l	32331.59
Mg	24	45	3	He	274.324	ug/l	11254.81
Al	27	45	1	NO GAS	0.741	ug/l	3943.81
Si	28	45	2	H2	3.809	ug/l	95.98
K	39	72	3	He	281.381	ug/l	13356.46
Ca	40	72	2	H2	286.387	ug/l	50318.20
Ti	47	72	1	NO GAS	1.096	ug/l	944.56
V	51	72	1	NO GAS	1.986	ug/l	19082.00
V	51	72	3	He	1.129	ug/l	1524.53
Cr	52	72	1	NO GAS	1.074	ug/l	22397.48
Cr	52	72	3	He	1.015	ug/l	2129.28
Cr	53	72	1	NO GAS	0.597	ug/l	43968.81
Mn	55	72	1	NO GAS	1.146	ug/l	19969.15
Mn	55	72	3	He	1.160	ug/l	966.79
Fe	56	72	2	H2	31.685	ug/l	31470.86
Fe	56	72	3	He	29.872	ug/l	47373.39
Co	59	72	1	NO GAS	1.196	ug/l	18214.13
Ni	60	72	1	NO GAS	1.216	ug/l	4142.35
Ni	60	72	3	He	1.177	ug/l	1315.62
Ni	62	72	1	NO GAS	1.367	ug/l	1107.85
Cu	63	72	1	NO GAS	1.298	ug/l	11137.50
Cu	63	72	3	He	1.223	ug/l	4024.02
Cu	65	72	1	NO GAS	1.301	ug/l	5521.83
Zn	66	72	1	NO GAS	1.101	ug/l	4195.06
Zn	66	72	3	He	1.030	ug/l	750.02
As	75	72	1	NO GAS	1.106	ug/l	6230.83
As	75	72	3	He	1.133	ug/l	352.27
Se	78	72	2	H2	1.104	ug/l	118.31
Br	79	72	1	NO GAS	0.567	ug/l	63866.66
Br	79	72	2	H2	0.566	ug/l	8189.22
Se	82	72	1	NO GAS	0.828	ug/l	607.51
Kr	84	72	1	NO GAS		ug/l	6461.82
Sr	88	72	1	NO GAS	1.248	ug/l	42087.34
Sr	88	72	3	He	1.181	ug/l	1996.81

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.214	ug/l	9301.66
Mo	95	72	3	He	1.105	ug/l	2873.61
Mo	98	72	1	NO GAS	1.257	ug/l	16427.48
Ag	107	72	1	NO GAS	0.518	ug/l	12920.64
Ag	109	72	1	NO GAS	0.501	ug/l	12097.48
Cd	111	159	1	NO GAS	1.093	ug/l	6381.00
Cd	111	159	3	He	1.118	ug/l	1599.10
Cd	114	159	1	NO GAS	1.187	ug/l	15408.89
Cd	114	159	3	He	1.161	ug/l	4161.25
Sn	118	159	1	NO GAS	-1.453	ug/l	22641.28
Sn	118	159	3	He	-1.285	ug/l	3375.94
Sb	121	159	1	NO GAS	1.070	ug/l	25777.58
Sb	121	159	3	He	1.059	ug/l	3599.32
Sb	123	159	1	NO GAS	1.048	ug/l	20038.17
Sb	123	159	3	He	1.074	ug/l	3018.09
Ba	135	159	1	NO GAS	1.043	ug/l	5450.18
Ba	137	159	1	NO GAS	1.101	ug/l	9790.37
La	139	175	1	NO GAS	1.211	ug/l	95328.64
La	139	175	3	He	1.165	ug/l	19879.50
Ce	140	175	1	NO GAS	1.201	ug/l	93082.94
Ce	140	175	3	He	1.228	ug/l	26492.51
Hg	201	175	1	NO GAS	0.024	ug/l	116.31
Hg	202	175	1	NO GAS	0.020	ug/l	255.95
Hg	202	175	3	He	0.022	ug/l	170.30
Tl	203	175	3	He	1.217	ug/l	16446.99
Tl	205	175	1	NO GAS	1.150	ug/l	72605.71
Tl	205	175	3	He	1.243	ug/l	39944.63
[Pb]	206	175	1	NO GAS	1.190	ug/l	25743.23
[Pb]	207	175	1	NO GAS	1.196	ug/l	22146.40
Pb	208	175	1	NO GAS	1.194	ug/l	101651.07
Th	232	175	3	He	1.020	ug/l	49777.22
U	238	175	1	NO GAS	1.158	ug/l	113361.13

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1740750.41	96.2
Sc	45	2	H2	76328.02	92.8
Sc	45	3	He	47286.89	94.8
Ge	72	1	NO GAS	808284.43	97.6
Ge	72	2	H2	112126.15	95.7
Ge	72	3	He	74476.43	96.3
Tb	159	1	NO GAS	18333608.79	107.4
Tb	159	3	He	6818448.26	97.1
Ho	165	1	NO GAS	16961631.66	104.6
Ho	165	3	He	6550177.13	97.3
Lu	175	1	NO GAS	18496825.13	105.0
Lu	175	3	He	4126245.42	96.3

ICPMS206-B Analytical Data

Sample Name	10 PPB STD
File Name	011CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 19:17:26
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS		ug/l	
Be	9	45	1	NO GAS		ug/l	
B	11	45	1	NO GAS		ug/l	
Na	23	45	3	He		ug/l	
Mg	24	45	3	He		ug/l	
Al	27	45	1	NO GAS		ug/l	
Si	28	45	2	H2		ug/l	
K	39	72	3	He		ug/l	
Ca	40	72	2	H2		ug/l	
Ti	47	72	1	NO GAS		ug/l	
V	51	72	1	NO GAS		ug/l	
V	51	72	3	He		ug/l	
Cr	52	72	1	NO GAS		ug/l	
Cr	52	72	3	He		ug/l	
Cr	53	72	1	NO GAS		ug/l	
Mn	55	72	1	NO GAS		ug/l	
Mn	55	72	3	He		ug/l	
Fe	56	72	2	H2		ug/l	
Fe	56	72	3	He		ug/l	
Co	59	72	1	NO GAS		ug/l	
Ni	60	72	1	NO GAS		ug/l	
Ni	60	72	3	He		ug/l	
Ni	62	72	1	NO GAS		ug/l	
Cu	63	72	1	NO GAS		ug/l	
Cu	63	72	3	He		ug/l	
Cu	65	72	1	NO GAS		ug/l	
Zn	66	72	1	NO GAS		ug/l	
Zn	66	72	3	He		ug/l	
As	75	72	1	NO GAS		ug/l	
As	75	72	3	He		ug/l	
Se	78	72	2	H2		ug/l	
Br	79	72	1	NO GAS		ug/l	
Br	79	72	2	H2		ug/l	
Se	82	72	1	NO GAS		ug/l	
Kr	84	72	1	NO GAS		ug/l	
Sr	88	72	1	NO GAS		ug/l	
Sr	88	72	3	He		ug/l	

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS		ug/l	
Mo	95	72	3	He		ug/l	
Mo	98	72	1	NO GAS		ug/l	
Ag	107	72	1	NO GAS		ug/l	
Ag	109	72	1	NO GAS		ug/l	
Cd	111	159	1	NO GAS		ug/l	
Cd	111	159	3	He		ug/l	
Cd	114	159	1	NO GAS		ug/l	
Cd	114	159	3	He		ug/l	
Sn	118	159	1	NO GAS		ug/l	
Sn	118	159	3	He		ug/l	
Sb	121	159	1	NO GAS		ug/l	
Sb	121	159	3	He		ug/l	
Sb	123	159	1	NO GAS		ug/l	
Sb	123	159	3	He		ug/l	
Ba	135	159	1	NO GAS		ug/l	
Ba	137	159	1	NO GAS		ug/l	
La	139	175	1	NO GAS		ug/l	
La	139	175	3	He		ug/l	
Ce	140	175	1	NO GAS		ug/l	
Ce	140	175	3	He		ug/l	
Hg	201	175	1	NO GAS		ug/l	
Hg	202	175	1	NO GAS		ug/l	
Hg	202	175	3	He		ug/l	
Tl	203	175	3	He		ug/l	
Tl	205	175	1	NO GAS		ug/l	
Tl	205	175	3	He		ug/l	
[Pb]	206	175	1	NO GAS		ug/l	
[Pb]	207	175	1	NO GAS		ug/l	
Pb	208	175	1	NO GAS		ug/l	
Th	232	175	3	He		ug/l	
U	238	175	1	NO GAS		ug/l	

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS		
Sc	45	2	H2		
Sc	45	3	He		
Ge	72	1	NO GAS		
Ge	72	2	H2		
Ge	72	3	He		
Tb	159	1	NO GAS		
Tb	159	3	He		
Ho	165	1	NO GAS		
Ho	165	3	He		
Lu	175	1	NO GAS		
Lu	175	3	He		

ICPMS206-B Analytical Data

Sample Name	50 PPB STD
File Name	012CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 19:23:25
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	560.694	ug/l	323855.60
Be	9	45	1	NO GAS	49.457	ug/l	14154.54
B	11	45	1	NO GAS	50.505	ug/l	10932.60
Na	23	45	3	He	13062.949	ug/l	1166676.20
Mg	24	45	3	He	12686.535	ug/l	570437.21
Al	27	45	1	NO GAS	49.544	ug/l	157843.86
Si	28	45	2	H2	215.915	ug/l	4339.03
K	39	72	3	He	12823.539	ug/l	515887.38
Ca	40	72	2	H2	13627.909	ug/l	2461686.16
Ti	47	72	1	NO GAS	51.776	ug/l	46799.51
V	51	72	1	NO GAS	48.686	ug/l	651750.23
V	51	72	3	He	51.929	ug/l	68074.90
Cr	52	72	1	NO GAS	49.811	ug/l	620155.67
Cr	52	72	3	He	52.102	ug/l	93247.94
Cr	53	72	1	NO GAS	55.092	ug/l	137616.54
Mn	55	72	1	NO GAS	50.072	ug/l	907435.16
Mn	55	72	3	He	51.910	ug/l	45090.41
Fe	56	72	2	H2	1363.378	ug/l	1368639.13
Fe	56	72	3	He	1286.386	ug/l	2076689.98
Co	59	72	1	NO GAS	50.272	ug/l	822273.36
Ni	60	72	1	NO GAS	50.821	ug/l	183939.64
Ni	60	72	3	He	52.479	ug/l	59459.02
Ni	62	72	1	NO GAS	50.027	ug/l	28787.85
Cu	63	72	1	NO GAS	52.044	ug/l	471979.82
Cu	63	72	3	He	52.082	ug/l	176562.07
Cu	65	72	1	NO GAS	51.988	ug/l	233610.41
Zn	66	72	1	NO GAS	51.207	ug/l	153402.25
Zn	66	72	3	He	52.726	ug/l	26367.48
As	75	72	1	NO GAS	49.254	ug/l	166783.21
As	75	72	3	He	51.473	ug/l	16601.25
Se	78	72	2	H2	51.869	ug/l	5745.19
Br	79	72	1	NO GAS	-2.138	ug/l	50960.83
Br	79	72	2	H2	-1.008	ug/l	7067.54
Se	82	72	1	NO GAS	49.706	ug/l	14171.59
Kr	84	72	1	NO GAS		ug/l	16968.51
Sr	88	72	1	NO GAS	51.381	ug/l	1850338.10
Sr	88	72	3	He	52.132	ug/l	82695.21

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	53.703	ug/l	438019.95
Mo	95	72	3	He	54.407	ug/l	146988.75
Mo	98	72	1	NO GAS	53.230	ug/l	741125.26
Ag	107	72	1	NO GAS	20.887	ug/l	484301.27
Ag	109	72	1	NO GAS	20.392	ug/l	462998.02
Cd	111	159	1	NO GAS	47.895	ug/l	278836.36
Cd	111	159	3	He	50.056	ug/l	72724.75
Cd	114	159	1	NO GAS	49.319	ug/l	650257.62
Cd	114	159	3	He	51.439	ug/l	189770.00
Sn	118	159	1	NO GAS	50.108	ug/l	863717.19
Sn	118	159	3	He	50.381	ug/l	134637.09
Sb	121	159	1	NO GAS	50.918	ug/l	1213988.43
Sb	121	159	3	He	52.602	ug/l	180042.90
Sb	123	159	1	NO GAS	50.323	ug/l	952457.92
Sb	123	159	3	He	52.304	ug/l	148244.48
Ba	135	159	1	NO GAS	49.129	ug/l	253539.15
Ba	137	159	1	NO GAS	49.625	ug/l	438635.08
La	139	175	1	NO GAS	48.818	ug/l	3967313.03
La	139	175	3	He	50.544	ug/l	887907.78
Ce	140	175	1	NO GAS	48.839	ug/l	3906090.69
Ce	140	175	3	He	51.248	ug/l	1137923.29
Hg	201	175	1	NO GAS	0.964	ug/l	4116.74
Hg	202	175	1	NO GAS	0.963	ug/l	9558.44
Hg	202	175	3	He	1.032	ug/l	7066.24
Tl	203	175	3	He	52.454	ug/l	728816.58
Tl	205	175	1	NO GAS	49.706	ug/l	3240047.73
Tl	205	175	3	He	52.933	ug/l	1748352.75
[Pb]	206	175	1	NO GAS	50.555	ug/l	1127734.86
[Pb]	207	175	1	NO GAS	50.496	ug/l	965164.41
Pb	208	175	1	NO GAS	50.346	ug/l	4422321.44
Th	232	175	3	He	52.435	ug/l	2606366.64
U	238	175	1	NO GAS	48.661	ug/l	4918836.32

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1967769.73	108.7
Sc	45	2	H2	83934.99	102.0
Sc	45	3	He	51961.09	104.2
Ge	72	1	NO GAS	870598.78	105.1
Ge	72	2	H2	116439.30	99.4
Ge	72	3	He	78120.38	101.0
Tb	159	1	NO GAS	18344296.98	107.5
Tb	159	3	He	6932729.67	98.8
Ho	165	1	NO GAS	17244047.40	106.4
Ho	165	3	He	6760363.77	100.4
Lu	175	1	NO GAS	19103118.90	108.5
Lu	175	3	He	4246511.99	99.2

ICPMS206-B Analytical Data

Sample Name	100 PPB STD
File Name	013CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 19:29:22
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1237.556	ug/l	690838.25
Be	9	45	1	NO GAS	100.269	ug/l	29431.76
B	11	45	1	NO GAS	99.745	ug/l	22014.87
Na	23	45	3	He	25779.593	ug/l	2378231.47
Mg	24	45	3	He	25980.964	ug/l	1210980.79
Al	27	45	1	NO GAS	100.232	ug/l	325254.44
Si	28	45	2	H2	392.044	ug/l	8218.35
K	39	72	3	He	25299.724	ug/l	1063589.55
Ca	40	72	2	H2	27279.847	ug/l	5071960.84
Ti	47	72	1	NO GAS	99.111	ug/l	91414.33
V	51	72	1	NO GAS	100.645	ug/l	1381568.49
V	51	72	3	He	99.034	ug/l	135897.97
Cr	52	72	1	NO GAS	100.094	ug/l	1259092.38
Cr	52	72	3	He	98.949	ug/l	185110.98
Cr	53	72	1	NO GAS	97.457	ug/l	211858.97
Mn	55	72	1	NO GAS	99.962	ug/l	1846462.24
Mn	55	72	3	He	99.043	ug/l	90117.04
Fe	56	72	2	H2	2653.759	ug/l	2738645.97
Fe	56	72	3	He	2569.146	ug/l	4343440.12
Co	59	72	1	NO GAS	99.862	ug/l	1665388.25
Ni	60	72	1	NO GAS	99.587	ug/l	367441.50
Ni	60	72	3	He	98.758	ug/l	117187.92
Ni	62	72	1	NO GAS	99.982	ug/l	58301.78
Cu	63	72	1	NO GAS	98.974	ug/l	915242.15
Cu	63	72	3	He	98.956	ug/l	351366.29
Cu	65	72	1	NO GAS	99.002	ug/l	453694.56
Zn	66	72	1	NO GAS	99.395	ug/l	302261.46
Zn	66	72	3	He	98.638	ug/l	51421.95
As	75	72	1	NO GAS	100.372	ug/l	343299.83
As	75	72	3	He	99.262	ug/l	33532.77
Se	78	72	2	H2	99.064	ug/l	11286.58
Br	79	72	1	NO GAS	0.533	ug/l	69831.41
Br	79	72	2	H2	1.760	ug/l	9870.10
Se	82	72	1	NO GAS	100.154	ug/l	28670.07
Kr	84	72	1	NO GAS		ug/l	27705.12
Sr	88	72	1	NO GAS	99.307	ug/l	3647668.12
Sr	88	72	3	He	98.932	ug/l	164210.43

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	98.146	ug/l	816585.45
Mo	95	72	3	He	97.795	ug/l	276797.13
Mo	98	72	1	NO GAS	98.382	ug/l	1398071.72
Ag	107	72	1	NO GAS	39.555	ug/l	934114.35
Ag	109	72	1	NO GAS	39.803	ug/l	920366.49
Cd	111	159	1	NO GAS	101.051	ug/l	568330.79
Cd	111	159	3	He	99.970	ug/l	144397.39
Cd	114	159	1	NO GAS	100.338	ug/l	1277875.25
Cd	114	159	3	He	99.278	ug/l	364339.87
Sn	118	159	1	NO GAS	99.988	ug/l	1619194.09
Sn	118	159	3	He	99.848	ug/l	258821.25
Sb	121	159	1	NO GAS	99.540	ug/l	2291202.52
Sb	121	159	3	He	98.698	ug/l	335981.56
Sb	123	159	1	NO GAS	99.838	ug/l	1824477.86
Sb	123	159	3	He	98.847	ug/l	278596.77
Ba	135	159	1	NO GAS	100.435	ug/l	500441.52
Ba	137	159	1	NO GAS	100.186	ug/l	855065.89
La	139	175	1	NO GAS	100.588	ug/l	7867600.92
La	139	175	3	He	99.726	ug/l	1802547.15
Ce	140	175	1	NO GAS	100.578	ug/l	7741894.85
Ce	140	175	3	He	99.373	ug/l	2270353.16
Hg	201	175	1	NO GAS	2.018	ug/l	8278.61
Hg	202	175	1	NO GAS	2.019	ug/l	19223.62
Hg	202	175	3	He	1.984	ug/l	13947.26
Tl	203	175	3	He	98.770	ug/l	1411955.72
Tl	205	175	1	NO GAS	100.145	ug/l	6284338.73
Tl	205	175	3	He	98.530	ug/l	3348724.94
[Pb]	206	175	1	NO GAS	99.720	ug/l	2141241.05
[Pb]	207	175	1	NO GAS	99.750	ug/l	1836363.27
Pb	208	175	1	NO GAS	99.825	ug/l	8442902.55
Th	232	175	3	He	98.783	ug/l	5051747.11
U	238	175	1	NO GAS	100.668	ug/l	9796920.79

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2017741.94	111.5
Sc	45	2	H2	87822.27	106.7
Sc	45	3	He	53867.28	108.0
Ge	72	1	NO GAS	887229.50	107.1
Ge	72	2	H2	119850.80	102.3
Ge	72	3	He	81848.38	105.8
Tb	159	1	NO GAS	17700040.25	103.7
Tb	159	3	He	6896905.47	98.3
Ho	165	1	NO GAS	16706796.73	103.1
Ho	165	3	He	6655497.76	98.8
Lu	175	1	NO GAS	18396241.01	104.5
Lu	175	3	He	4369241.74	102.0

ICPMS206-B Analytical Data

Sample Name	1000 PPB STD
File Name	014CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 19:35:12
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2522.307	ug/l	1388842.39
Be	9	45	1	NO GAS	973.004	ug/l	284222.54
B	11	45	1	NO GAS	967.517	ug/l	211374.97
Na	23	45	3	He	49469.123	ug/l	4587837.33
Mg	24	45	3	He	49462.744	ug/l	2322153.20
Al	27	45	1	NO GAS	992.781	ug/l	3195331.13
Si	28	45	2	H2	1.486	ug/l	59.99
K	39	72	3	He	49769.075	ug/l	2094381.90
Ca	40	72	2	H2	48577.880	ug/l	9072103.89
Ti	47	72	1	NO GAS	5.870	ug/l	5206.61
V	51	72	1	NO GAS	1035.586	ug/l	13669312.56
V	51	72	3	He	950.586	ug/l	1306530.42
Cr	52	72	1	NO GAS	1029.214	ug/l	12307875.19
Cr	52	72	3	He	948.337	ug/l	1774907.16
Cr	53	72	1	NO GAS	912.446	ug/l	1522409.66
Mn	55	72	1	NO GAS	1060.731	ug/l	18777735.85
Mn	55	72	3	He	962.584	ug/l	878034.55
Fe	56	72	2	H2	5962.945	ug/l	6181761.15
Fe	56	72	3	He	6016.300	ug/l	10193287.52
Co	59	72	1	NO GAS	1028.285	ug/l	16422713.43
Ni	60	72	1	NO GAS	993.777	ug/l	3509047.57
Ni	60	72	3	He	1011.519	ug/l	1202620.09
Ni	62	72	1	NO GAS	965.200	ug/l	535650.32
Cu	63	72	1	NO GAS	967.569	ug/l	8573920.02
Cu	63	72	3	He	968.234	ug/l	3445981.02
Cu	65	72	1	NO GAS	942.036	ug/l	4136174.63
Zn	66	72	1	NO GAS	962.638	ug/l	2795070.76
Zn	66	72	3	He	971.552	ug/l	505149.21
As	75	72	1	NO GAS	975.464	ug/l	3169571.56
As	75	72	3	He	956.882	ug/l	323998.96
Se	78	72	2	H2	911.501	ug/l	104288.95
Br	79	72	1	NO GAS	0.977	ug/l	69731.60
Br	79	72	2	H2	3.514	ug/l	11554.55
Se	82	72	1	NO GAS	984.179	ug/l	266041.04
Kr	84	72	1	NO GAS		ug/l	220171.89
Sr	88	72	1	NO GAS	1017.415	ug/l	35819550.57
Sr	88	72	3	He	950.741	ug/l	1579869.53

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.069	ug/l	667.80
Mo	95	72	3	He	0.061	ug/l	203.34
Mo	98	72	1	NO GAS	0.081	ug/l	1275.63
Ag	107	72	1	NO GAS	407.784	ug/l	9219897.80
Ag	109	72	1	NO GAS	400.752	ug/l	8867049.46
Cd	111	159	1	NO GAS	990.434	ug/l	5477676.89
Cd	111	159	3	He	919.491	ug/l	1352189.73
Cd	114	159	1	NO GAS	1008.136	ug/l	12635585.41
Cd	114	159	3	He	915.750	ug/l	3420308.12
Sn	118	159	1	NO GAS	-2.643	ug/l	3080.88
Sn	118	159	3	He	-2.451	ug/l	476.68
Sb	121	159	1	NO GAS	0.124	ug/l	3042.54
Sb	121	159	3	He	0.093	ug/l	358.90
Sb	123	159	1	NO GAS	0.134	ug/l	2574.67
Sb	123	159	3	He	0.101	ug/l	315.56
Ba	135	159	1	NO GAS	928.264	ug/l	4553663.78
Ba	137	159	1	NO GAS	918.525	ug/l	7716523.77
La	139	175	1	NO GAS	0.011	ug/l	924.31
La	139	175	3	He	0.008	ug/l	136.81
Ce	140	175	1	NO GAS	0.019	ug/l	1458.24
Ce	140	175	3	He	0.024	ug/l	553.91
Hg	201	175	1	NO GAS	0.012	ug/l	63.65
Hg	202	175	1	NO GAS	0.017	ug/l	218.29
Hg	202	175	3	He	0.010	ug/l	96.31
Tl	203	175	3	He	924.927	ug/l	13099310.70
Tl	205	175	1	NO GAS	984.107	ug/l	60364646.32
Tl	205	175	3	He	940.265	ug/l	31659645.02
[Pb]	206	175	1	NO GAS	957.280	ug/l	20089174.28
[Pb]	207	175	1	NO GAS	965.386	ug/l	17363788.77
Pb	208	175	1	NO GAS	963.375	ug/l	79626606.31
Th	232	175	3	He	955.638	ug/l	48417683.52
U	238	175	1	NO GAS	983.726	ug/l	93547596.71

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2015790.65	111.4
Sc	45	2	H2	85683.62	104.1
Sc	45	3	He	54249.84	108.8
Ge	72	1	NO GAS	849970.83	102.6
Ge	72	2	H2	120272.12	102.6
Ge	72	3	He	82037.18	106.1
Tb	159	1	NO GAS	17460571.63	102.3
Tb	159	3	He	7019733.23	100.0
Ho	165	1	NO GAS	16549048.78	102.1
Ho	165	3	He	6741490.21	100.1
Lu	175	1	NO GAS	17992279.77	102.2
Lu	175	3	He	4328796.04	101.1

ICPMS206-B Analytical Data

Sample Name	100 ppb Bromine
File Name	015CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 19:40:51
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	4.342	ug/l	4307.02
Be	9	45	1	NO GAS	0.147	ug/l	46.99
B	11	45	1	NO GAS	6.119	ug/l	1415.12
Na	23	45	3	He	56.813	ug/l	12869.28
Mg	24	45	3	He	3.977	ug/l	216.24
Al	27	45	1	NO GAS	7.645	ug/l	25609.14
Si	28	45	2	H2	-0.361	ug/l	21.33
K	39	72	3	He	537.983	ug/l	24380.78
Ca	40	72	2	H2	8.743	ug/l	2154.09
Ti	47	72	1	NO GAS	0.054	ug/l	73.30
V	51	72	1	NO GAS	-0.216	ug/l	-9299.58
V	51	72	3	He	0.089	ug/l	240.00
Cr	52	72	1	NO GAS	0.055	ug/l	11511.19
Cr	52	72	3	He	0.001	ug/l	425.83
Cr	53	72	1	NO GAS	1.209	ug/l	47769.87
Mn	55	72	1	NO GAS	0.121	ug/l	2887.89
Mn	55	72	3	He	0.120	ug/l	110.34
Fe	56	72	2	H2	0.848	ug/l	1784.22
Fe	56	72	3	He	0.751	ug/l	2735.56
Co	59	72	1	NO GAS	0.082	ug/l	1380.67
Ni	60	72	1	NO GAS	0.207	ug/l	808.52
Ni	60	72	3	He	0.168	ug/l	237.78
Ni	62	72	1	NO GAS	0.144	ug/l	492.37
Cu	63	72	1	NO GAS	0.170	ug/l	1735.08
Cu	63	72	3	He	0.157	ug/l	611.22
Cu	65	72	1	NO GAS	0.169	ug/l	854.52
Zn	66	72	1	NO GAS	0.343	ug/l	2242.29
Zn	66	72	3	He	0.214	ug/l	385.56
As	75	72	1	NO GAS	0.732	ug/l	5430.68
As	75	72	3	He	0.167	ug/l	58.32
Se	78	72	2	H2	0.204	ug/l	24.00
Br	79	72	1	NO GAS	100.000	ug/l	715262.29
Br	79	72	2	H2	100.000	ug/l	101937.46
Se	82	72	1	NO GAS	2.754	ug/l	1184.44
Kr	84	72	1	NO GAS		ug/l	6644.89
Sr	88	72	1	NO GAS	0.101	ug/l	3936.03
Sr	88	72	3	He	0.084	ug/l	363.34

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.012	ug/l	221.12
Mo	95	72	3	He	0.013	ug/l	63.33
Mo	98	72	1	NO GAS	0.012	ug/l	340.02
Ag	107	72	1	NO GAS	0.219	ug/l	6912.78
Ag	109	72	1	NO GAS	0.224	ug/l	6657.40
Cd	111	159	1	NO GAS	0.082	ug/l	486.10
Cd	111	159	3	He	0.089	ug/l	134.64
Cd	114	159	1	NO GAS	0.096	ug/l	1023.84
Cd	114	159	3	He	0.102	ug/l	333.33
Sn	118	159	1	NO GAS	-2.525	ug/l	5127.39
Sn	118	159	3	He	-2.337	ug/l	787.80
Sb	121	159	1	NO GAS	0.021	ug/l	745.58
Sb	121	159	3	He	0.024	ug/l	121.11
Sb	123	159	1	NO GAS	0.024	ug/l	652.24
Sb	123	159	3	He	0.023	ug/l	93.34
Ba	135	159	1	NO GAS	0.118	ug/l	672.02
Ba	137	159	1	NO GAS	0.111	ug/l	1037.98
La	139	175	1	NO GAS	0.001	ug/l	153.49
La	139	175	3	He	0.002	ug/l	26.69
Ce	140	175	1	NO GAS	0.002	ug/l	250.26
Ce	140	175	3	He	0.002	ug/l	60.06
Hg	201	175	1	NO GAS	0.005	ug/l	36.32
Hg	202	175	1	NO GAS	0.006	ug/l	120.64
Hg	202	175	3	He	0.007	ug/l	75.65
Tl	203	175	3	He	0.135	ug/l	1873.75
Tl	205	175	1	NO GAS	0.129	ug/l	8181.15
Tl	205	175	3	He	0.141	ug/l	4669.81
[Pb]	206	175	1	NO GAS	0.103	ug/l	2267.97
[Pb]	207	175	1	NO GAS	0.104	ug/l	1963.47
Pb	208	175	1	NO GAS	0.104	ug/l	9028.92
Th	232	175	3	He	0.350	ug/l	17749.73
U	238	175	1	NO GAS	0.149	ug/l	14650.98

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1926955.66	106.5
Sc	45	2	H2	82441.58	100.2
Sc	45	3	He	50156.91	100.6
Ge	72	1	NO GAS	859701.74	103.8
Ge	72	2	H2	119867.64	102.3
Ge	72	3	He	78425.74	101.4
Tb	159	1	NO GAS	18281725.25	107.1
Tb	159	3	He	7176495.67	102.2
Ho	165	1	NO GAS	17209695.76	106.2
Ho	165	3	He	6788120.59	100.8
Lu	175	1	NO GAS	18497819.04	105.0
Lu	175	3	He	4206813.85	98.2

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	016BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 19:46:41
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.740	ug/l	2872.67
Be	9	45	1	NO GAS	0.029	ug/l	14.67
B	11	45	1	NO GAS	1.759	ug/l	535.90
Na	23	45	3	He	1.751	ug/l	8939.02
Mg	24	45	3	He	-0.310	ug/l	33.27
Al	27	45	1	NO GAS	-0.236	ug/l	1428.20
Si	28	45	2	H2	-0.007	ug/l	32.66
K	39	72	3	He	3.341	ug/l	2994.73
Ca	40	72	2	H2	1.085	ug/l	784.63
Ti	47	72	1	NO GAS	0.045	ug/l	68.30
V	51	72	1	NO GAS	-0.119	ug/l	-8307.98
V	51	72	3	He	-0.014	ug/l	107.78
Cr	52	72	1	NO GAS	-0.099	ug/l	10019.93
Cr	52	72	3	He	-0.084	ug/l	282.78
Cr	53	72	1	NO GAS	0.746	ug/l	48838.72
Mn	55	72	1	NO GAS	0.006	ug/l	864.98
Mn	55	72	3	He	0.002	ug/l	8.33
Fe	56	72	2	H2	-0.072	ug/l	904.59
Fe	56	72	3	He	0.142	ug/l	1804.78
Co	59	72	1	NO GAS	0.011	ug/l	249.51
Ni	60	72	1	NO GAS	0.010	ug/l	103.13
Ni	60	72	3	He	0.052	ug/l	108.89
Ni	62	72	1	NO GAS	0.057	ug/l	459.10
Cu	63	72	1	NO GAS	0.012	ug/l	328.61
Cu	63	72	3	He	0.007	ug/l	103.31
Cu	65	72	1	NO GAS	0.010	ug/l	153.31
Zn	66	72	1	NO GAS	-0.206	ug/l	652.01
Zn	66	72	3	He	-0.374	ug/l	96.67
As	75	72	1	NO GAS	-0.213	ug/l	2408.43
As	75	72	3	He	0.033	ug/l	15.67
Se	78	72	2	H2	0.057	ug/l	7.67
Br	79	72	1	NO GAS	0.305	ug/l	68705.81
Br	79	72	2	H2	0.686	ug/l	9550.53
Se	82	72	1	NO GAS	0.158	ug/l	487.06
Kr	84	72	1	NO GAS		ug/l	6761.36
Sr	88	72	1	NO GAS	0.007	ug/l	598.83
Sr	88	72	3	He	0.015	ug/l	262.22

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.008	ug/l	196.67
Mo	95	72	3	He	0.003	ug/l	40.00
Mo	98	72	1	NO GAS	0.007	ug/l	276.67
Ag	107	72	1	NO GAS	0.008	ug/l	2193.06
Ag	109	72	1	NO GAS	0.017	ug/l	2132.06
Cd	111	159	1	NO GAS	-0.007	ug/l	-27.94
Cd	111	159	3	He	0.005	ug/l	8.67
Cd	114	159	1	NO GAS	0.007	ug/l	-149.54
Cd	114	159	3	He	0.023	ug/l	35.94
Sn	118	159	1	NO GAS	-2.669	ug/l	2811.53
Sn	118	159	3	He	-2.497	ug/l	372.23
Sb	121	159	1	NO GAS	0.008	ug/l	444.46
Sb	121	159	3	He	0.007	ug/l	62.22
Sb	123	159	1	NO GAS	0.007	ug/l	320.01
Sb	123	159	3	He	0.011	ug/l	61.11
Ba	135	159	1	NO GAS	0.002	ug/l	73.19
Ba	137	159	1	NO GAS	0.013	ug/l	169.67
La	139	175	1	NO GAS	0.002	ug/l	223.57
La	139	175	3	He	0.002	ug/l	40.04
Ce	140	175	1	NO GAS	0.005	ug/l	470.67
Ce	140	175	3	He	0.002	ug/l	53.39
Hg	201	175	1	NO GAS	0.002	ug/l	26.66
Hg	202	175	1	NO GAS	0.002	ug/l	85.31
Hg	202	175	3	He	0.002	ug/l	41.99
Tl	203	175	3	He	0.026	ug/l	381.26
Tl	205	175	1	NO GAS	0.024	ug/l	1689.00
Tl	205	175	3	He	0.027	ug/l	980.51
[Pb]	206	175	1	NO GAS	0.009	ug/l	247.78
[Pb]	207	175	1	NO GAS	0.009	ug/l	214.45
Pb	208	175	1	NO GAS	0.009	ug/l	1033.36
Th	232	175	3	He	0.068	ug/l	4075.09
U	238	175	1	NO GAS	0.018	ug/l	1973.76

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2048412.97	113.2
Sc	45	2	H2	94238.05	114.5
Sc	45	3	He	55008.67	110.3
Ge	72	1	NO GAS	892204.54	107.7
Ge	72	2	H2	129137.26	110.2
Ge	72	3	He	80839.15	104.5
Tb	159	1	NO GAS	18406788.64	107.8
Tb	159	3	He	7303174.53	104.0
Ho	165	1	NO GAS	17593797.97	108.5
Ho	165	3	He	6968551.59	103.5
Lu	175	1	NO GAS	19703261.11	111.9
Lu	175	3	He	4451289.52	103.9

ICPMS206-B Analytical Data

Sample Name	QCS
File Name	017_QCS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 19:52:26
Sample Type	QCS
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	46.755	ug/l	27849.27
Be	9	45	1	NO GAS	24.698	ug/l	6808.30
B	11	45	1	NO GAS	51.725	ug/l	10781.89
Na	23	45	3	He	2528.769	ug/l	228174.62
Mg	24	45	3	He	2484.635	ug/l	109640.64
Al	27	45	1	NO GAS	250.369	ug/l	759960.85
Si	28	45	2	H2	474.886	ug/l	9526.78
K	39	72	3	He	2503.712	ug/l	101853.02
Ca	40	72	2	H2	2592.258	ug/l	488529.94
Ti	47	72	1	NO GAS	47.297	ug/l	42036.23
V	51	72	1	NO GAS	46.421	ug/l	610274.78
V	51	72	3	He	49.674	ug/l	64503.42
Cr	52	72	1	NO GAS	50.632	ug/l	619064.02
Cr	52	72	3	He	51.224	ug/l	90770.87
Cr	53	72	1	NO GAS	49.872	ug/l	126709.08
Mn	55	72	1	NO GAS	255.688	ug/l	4550747.84
Mn	55	72	3	He	251.682	ug/l	216469.66
Fe	56	72	2	H2	258.434	ug/l	271065.68
Fe	56	72	3	He	253.128	ug/l	405753.80
Co	59	72	1	NO GAS	51.529	ug/l	827862.96
Ni	60	72	1	NO GAS	50.239	ug/l	178592.14
Ni	60	72	3	He	51.468	ug/l	57714.25
Ni	62	72	1	NO GAS	52.481	ug/l	29674.23
Cu	63	72	1	NO GAS	52.432	ug/l	467253.76
Cu	63	72	3	He	53.152	ug/l	178401.69
Cu	65	72	1	NO GAS	53.596	ug/l	236676.27
Zn	66	72	1	NO GAS	54.618	ug/l	160599.91
Zn	66	72	3	He	51.478	ug/l	25505.06
As	75	72	1	NO GAS	50.581	ug/l	168241.85
As	75	72	3	He	49.288	ug/l	15739.59
Se	78	72	2	H2	50.039	ug/l	5771.86
Br	79	72	1	NO GAS	1.222	ug/l	71759.78
Br	79	72	2	H2	2.106	ug/l	10312.81
Se	82	72	1	NO GAS	53.090	ug/l	14847.70
Kr	84	72	1	NO GAS		ug/l	17554.64
Sr	88	72	1	NO GAS	51.456	ug/l	1822542.09
Sr	88	72	3	He	52.572	ug/l	82581.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	51.030	ug/l	409137.21
Mo	95	72	3	He	50.676	ug/l	135549.01
Mo	98	72	1	NO GAS	50.202	ug/l	687390.64
Ag	107	72	1	NO GAS	27.352	ug/l	622930.92
Ag	109	72	1	NO GAS	26.938	ug/l	600780.87
Cd	111	159	1	NO GAS	25.793	ug/l	147694.17
Cd	111	159	3	He	25.266	ug/l	35876.43
Cd	114	159	1	NO GAS	26.419	ug/l	342558.23
Cd	114	159	3	He	25.516	ug/l	91998.26
Sn	118	159	1	NO GAS	49.977	ug/l	847743.45
Sn	118	159	3	He	47.885	ug/l	125442.70
Sb	121	159	1	NO GAS	47.957	ug/l	1124780.56
Sb	121	159	3	He	48.035	ug/l	160727.87
Sb	123	159	1	NO GAS	47.643	ug/l	887258.16
Sb	123	159	3	He	47.230	ug/l	130849.03
Ba	135	159	1	NO GAS	50.143	ug/l	254407.47
Ba	137	159	1	NO GAS	50.776	ug/l	441296.53
La	139	175	1	NO GAS	50.807	ug/l	3978789.25
La	139	175	3	He	52.116	ug/l	880588.68
Ce	140	175	1	NO GAS	49.910	ug/l	3845852.18
Ce	140	175	3	He	53.327	ug/l	1138957.67
Hg	201	175	1	NO GAS	1.008	ug/l	4146.08
Hg	202	175	1	NO GAS	0.979	ug/l	9364.02
Hg	202	175	3	He	1.031	ug/l	6791.17
Tl	203	175	3	He	53.078	ug/l	709365.88
Tl	205	175	1	NO GAS	51.708	ug/l	3248423.25
Tl	205	175	3	He	54.826	ug/l	1742163.01
[Pb]	206	175	1	NO GAS	51.590	ug/l	1108955.68
[Pb]	207	175	1	NO GAS	52.233	ug/l	962049.39
Pb	208	175	1	NO GAS	51.882	ug/l	4391550.99
Th	232	175	3	He	53.182	ug/l	2543304.44
U	238	175	1	NO GAS	53.531	ug/l	5214652.27

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1893943.88	104.7
Sc	45	2	H2	84112.60	102.2
Sc	45	3	He	50989.25	102.3
Ge	72	1	NO GAS	854748.81	103.2
Ge	72	2	H2	121316.42	103.5
Ge	72	3	He	77389.90	100.1
Tb	159	1	NO GAS	18030821.85	105.6
Tb	159	3	He	6778740.69	96.6
Ho	165	1	NO GAS	16745334.54	103.3
Ho	165	3	He	6559711.36	97.4
Lu	175	1	NO GAS	18401480.21	104.5
Lu	175	3	He	4084619.32	95.4

ICPMS206-B Analytical Data

Sample Name	CCV
File Name	018_CCV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 19:58:06
Sample Type	CCV
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	552.176	ug/l	313266.41
Be	9	45	1	NO GAS	49.547	ug/l	13893.06
B	11	45	1	NO GAS	51.284	ug/l	10874.59
Na	23	45	3	He	12546.525	ug/l	1140572.45
Mg	24	45	3	He	12204.282	ug/l	558501.45
Al	27	45	1	NO GAS	49.258	ug/l	153534.23
Si	28	45	2	H2	214.263	ug/l	4365.70
K	39	72	3	He	12531.121	ug/l	507987.16
Ca	40	72	2	H2	13176.927	ug/l	2457514.44
Ti	47	72	1	NO GAS	50.276	ug/l	45159.58
V	51	72	1	NO GAS	49.794	ug/l	659781.84
V	51	72	3	He	50.524	ug/l	66732.26
Cr	52	72	1	NO GAS	49.898	ug/l	615988.95
Cr	52	72	3	He	52.533	ug/l	94710.51
Cr	53	72	1	NO GAS	55.182	ug/l	136808.95
Mn	55	72	1	NO GAS	50.361	ug/l	905788.77
Mn	55	72	3	He	49.974	ug/l	43731.49
Fe	56	72	2	H2	1295.675	ug/l	1341618.29
Fe	56	72	3	He	1247.214	ug/l	2027859.86
Co	59	72	1	NO GAS	49.832	ug/l	809480.12
Ni	60	72	1	NO GAS	52.385	ug/l	188143.20
Ni	60	72	3	He	51.589	ug/l	58884.22
Ni	62	72	1	NO GAS	51.199	ug/l	29247.80
Cu	63	72	1	NO GAS	51.974	ug/l	468552.42
Cu	63	72	3	He	51.584	ug/l	176174.24
Cu	65	72	1	NO GAS	52.530	ug/l	234384.12
Zn	66	72	1	NO GAS	51.820	ug/l	154275.21
Zn	66	72	3	He	50.820	ug/l	25615.20
As	75	72	1	NO GAS	49.533	ug/l	166908.86
As	75	72	3	He	50.945	ug/l	16552.89
Se	78	72	2	H2	49.190	ug/l	5617.84
Br	79	72	1	NO GAS	-2.127	ug/l	50653.79
Br	79	72	2	H2	-0.400	ug/l	7863.00
Se	82	72	1	NO GAS	51.162	ug/l	14504.01
Kr	84	72	1	NO GAS		ug/l	16772.09
Sr	88	72	1	NO GAS	51.211	ug/l	1832831.78
Sr	88	72	3	He	50.017	ug/l	79939.88

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	53.620	ug/l	434129.18
Mo	95	72	3	He	53.577	ug/l	145826.12
Mo	98	72	1	NO GAS	52.912	ug/l	731167.46
Ag	107	72	1	NO GAS	20.961	ug/l	482231.91
Ag	109	72	1	NO GAS	20.528	ug/l	462806.78
Cd	111	159	1	NO GAS	49.219	ug/l	275924.77
Cd	111	159	3	He	48.965	ug/l	70183.87
Cd	114	159	1	NO GAS	51.653	ug/l	655258.52
Cd	114	159	3	He	50.339	ug/l	183191.55
Sn	118	159	1	NO GAS	52.775	ug/l	873230.90
Sn	118	159	3	He	50.545	ug/l	133255.16
Sb	121	159	1	NO GAS	53.727	ug/l	1231731.94
Sb	121	159	3	He	51.194	ug/l	172867.78
Sb	123	159	1	NO GAS	52.107	ug/l	950611.90
Sb	123	159	3	He	51.550	ug/l	144121.26
Ba	135	159	1	NO GAS	49.371	ug/l	245443.59
Ba	137	159	1	NO GAS	51.428	ug/l	438046.21
La	139	175	1	NO GAS	48.379	ug/l	3857660.68
La	139	175	3	He	50.709	ug/l	865345.30
Ce	140	175	1	NO GAS	48.457	ug/l	3786715.85
Ce	140	175	3	He	51.566	ug/l	1112279.01
Hg	201	175	1	NO GAS	0.981	ug/l	4093.41
Hg	202	175	1	NO GAS	0.954	ug/l	9276.32
Hg	202	175	3	He	1.020	ug/l	6781.84
Tl	203	175	3	He	51.477	ug/l	694835.65
Tl	205	175	1	NO GAS	47.427	ug/l	3026049.85
Tl	205	175	3	He	52.441	ug/l	1682698.15
[Pb]	206	175	1	NO GAS	49.139	ug/l	1070782.72
[Pb]	207	175	1	NO GAS	49.708	ug/l	929686.27
Pb	208	175	1	NO GAS	49.789	ug/l	4282216.68
Th	232	175	3	He	51.291	ug/l	2476820.43
U	238	175	1	NO GAS	49.034	ug/l	4870650.46

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1962943.03	108.5
Sc	45	2	H2	85104.77	103.4
Sc	45	3	He	52878.73	106.0
Ge	72	1	NO GAS	874036.05	105.5
Ge	72	2	H2	120111.76	102.5
Ge	72	3	He	78697.41	101.7
Tb	159	1	NO GAS	17963949.98	105.2
Tb	159	3	He	6841087.25	97.5
Ho	165	1	NO GAS	17221948.94	106.2
Ho	165	3	He	6524296.05	96.9
Lu	175	1	NO GAS	19133368.11	108.6
Lu	175	3	He	4125183.16	96.3

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	019BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 20:03:48
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.784	ug/l	2728.35
Be	9	45	1	NO GAS	0.012	ug/l	9.00
B	11	45	1	NO GAS	0.782	ug/l	299.28
Na	23	45	3	He	8.310	ug/l	9007.95
Mg	24	45	3	He	0.481	ug/l	66.53
Al	27	45	1	NO GAS	-0.332	ug/l	1054.48
Si	28	45	2	H2	-0.511	ug/l	20.00
K	39	72	3	He	5.133	ug/l	2923.60
Ca	40	72	2	H2	1.052	ug/l	744.65
Ti	47	72	1	NO GAS	-0.007	ug/l	18.32
V	51	72	1	NO GAS	-0.175	ug/l	-8440.78
V	51	72	3	He	0.009	ug/l	132.22
Cr	52	72	1	NO GAS	-0.078	ug/l	9657.05
Cr	52	72	3	He	-0.129	ug/l	189.63
Cr	53	72	1	NO GAS	3.626	ug/l	50423.52
Mn	55	72	1	NO GAS	0.011	ug/l	898.25
Mn	55	72	3	He	0.005	ug/l	10.67
Fe	56	72	2	H2	-0.178	ug/l	752.98
Fe	56	72	3	He	-0.161	ug/l	1237.78
Co	59	72	1	NO GAS	0.009	ug/l	202.94
Ni	60	72	1	NO GAS	0.006	ug/l	83.17
Ni	60	72	3	He	-0.013	ug/l	32.22
Ni	62	72	1	NO GAS	-0.113	ug/l	339.33
Cu	63	72	1	NO GAS	0.018	ug/l	364.60
Cu	63	72	3	He	0.018	ug/l	136.31
Cu	65	72	1	NO GAS	0.012	ug/l	152.64
Zn	66	72	1	NO GAS	-0.275	ug/l	412.47
Zn	66	72	3	He	-0.337	ug/l	110.00
As	75	72	1	NO GAS	-0.192	ug/l	2311.24
As	75	72	3	He	0.019	ug/l	10.33
Se	78	72	2	H2	0.025	ug/l	3.67
Br	79	72	1	NO GAS	-0.712	ug/l	58093.80
Br	79	72	2	H2	0.146	ug/l	8628.55
Se	82	72	1	NO GAS	-0.559	ug/l	264.82
Kr	84	72	1	NO GAS		ug/l	5826.20
Sr	88	72	1	NO GAS	0.006	ug/l	522.31
Sr	88	72	3	He	0.032	ug/l	275.56

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.014	ug/l	232.22
Mo	95	72	3	He	0.019	ug/l	78.89
Mo	98	72	1	NO GAS	0.014	ug/l	359.39
Ag	107	72	1	NO GAS	0.008	ug/l	2049.73
Ag	109	72	1	NO GAS	0.015	ug/l	1951.07
Cd	111	159	1	NO GAS	0.003	ug/l	28.33
Cd	111	159	3	He	0.001	ug/l	2.67
Cd	114	159	1	NO GAS	0.018	ug/l	-11.84
Cd	114	159	3	He	0.018	ug/l	12.33
Sn	118	159	1	NO GAS	-2.689	ug/l	2395.45
Sn	118	159	3	He	-2.466	ug/l	432.23
Sb	121	159	1	NO GAS	0.011	ug/l	492.23
Sb	121	159	3	He	0.013	ug/l	78.89
Sb	123	159	1	NO GAS	0.013	ug/l	418.90
Sb	123	159	3	He	0.015	ug/l	68.89
Ba	135	159	1	NO GAS	0.000	ug/l	63.21
Ba	137	159	1	NO GAS	0.009	ug/l	136.40
La	139	175	1	NO GAS	0.002	ug/l	196.87
La	139	175	3	He	0.001	ug/l	23.36
Ce	140	175	1	NO GAS	0.002	ug/l	236.91
Ce	140	175	3	He	0.003	ug/l	76.74
Hg	201	175	1	NO GAS	0.005	ug/l	38.99
Hg	202	175	1	NO GAS	0.006	ug/l	117.31
Hg	202	175	3	He	0.005	ug/l	62.66
Tl	203	175	3	He	0.093	ug/l	1275.14
Tl	205	175	1	NO GAS	0.088	ug/l	5602.21
Tl	205	175	3	He	0.094	ug/l	3089.05
[Pb]	206	175	1	NO GAS	0.006	ug/l	186.67
[Pb]	207	175	1	NO GAS	0.008	ug/l	177.78
Pb	208	175	1	NO GAS	0.007	ug/l	794.46
Th	232	175	3	He	0.086	ug/l	4702.49
U	238	175	1	NO GAS	0.012	ug/l	1224.47

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1918625.79	106.0
Sc	45	2	H2	88156.88	107.1
Sc	45	3	He	51819.66	103.9
Ge	72	1	NO GAS	838096.52	101.2
Ge	72	2	H2	123707.65	105.6
Ge	72	3	He	77048.03	99.6
Tb	159	1	NO GAS	17770549.09	104.1
Tb	159	3	He	6923291.33	98.6
Ho	165	1	NO GAS	16531901.11	102.0
Ho	165	3	He	6634960.15	98.5
Lu	175	1	NO GAS	18559410.84	105.4
Lu	175	3	He	4183380.73	97.7

ICPMS206-B Analytical Data

Sample Name	10 PPB STD
File Name	020CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 20:09:33
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	120.600	ug/l	71075.39
Be	9	45	1	NO GAS	10.988	ug/l	3042.33
B	11	45	1	NO GAS	11.659	ug/l	2542.36
Na	23	45	3	He	2828.432	ug/l	251976.02
Mg	24	45	3	He	2857.713	ug/l	124990.95
Al	27	45	1	NO GAS	10.159	ug/l	32881.66
Si	28	45	2	H2	50.020	ug/l	863.85
K	39	72	3	He	2781.899	ug/l	114997.75
Ca	40	72	2	H2	3124.234	ug/l	506503.01
Ti	47	72	1	NO GAS	10.276	ug/l	9117.98
V	51	72	1	NO GAS	10.104	ug/l	127525.13
V	51	72	3	He	10.838	ug/l	14435.20
Cr	52	72	1	NO GAS	10.689	ug/l	138998.36
Cr	52	72	3	He	11.016	ug/l	20232.18
Cr	53	72	1	NO GAS	15.159	ug/l	70086.48
Mn	55	72	1	NO GAS	11.587	ug/l	206412.61
Mn	55	72	3	He	10.985	ug/l	9631.37
Fe	56	72	2	H2	334.771	ug/l	302676.19
Fe	56	72	3	He	283.859	ug/l	463275.47
Co	59	72	1	NO GAS	11.429	ug/l	183329.92
Ni	60	72	1	NO GAS	11.382	ug/l	40458.69
Ni	60	72	3	He	11.678	ug/l	13385.44
Ni	62	72	1	NO GAS	11.685	ug/l	6911.11
Cu	63	72	1	NO GAS	12.124	ug/l	108054.93
Cu	63	72	3	He	11.582	ug/l	39685.24
Cu	65	72	1	NO GAS	12.090	ug/l	53400.64
Zn	66	72	1	NO GAS	11.348	ug/l	34248.94
Zn	66	72	3	He	10.648	ug/l	5594.31
As	75	72	1	NO GAS	11.033	ug/l	38928.17
As	75	72	3	He	10.621	ug/l	3457.68
Se	78	72	2	H2	12.124	ug/l	1207.14
Br	79	72	1	NO GAS	0.475	ug/l	66678.08
Br	79	72	2	H2	2.830	ug/l	9520.70
Se	82	72	1	NO GAS	10.911	ug/l	3385.19
Kr	84	72	1	NO GAS		ug/l	9044.63
Sr	88	72	1	NO GAS	11.899	ug/l	420894.85
Sr	88	72	3	He	11.265	ug/l	18213.51

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	11.335	ug/l	90827.80
Mo	95	72	3	He	11.178	ug/l	30484.99
Mo	98	72	1	NO GAS	11.653	ug/l	159286.61
Ag	107	72	1	NO GAS	4.728	ug/l	109046.10
Ag	109	72	1	NO GAS	4.645	ug/l	104778.25
Cd	111	159	1	NO GAS	10.512	ug/l	62346.58
Cd	111	159	3	He	11.089	ug/l	15692.48
Cd	114	159	1	NO GAS	10.478	ug/l	140466.50
Cd	114	159	3	He	11.227	ug/l	40305.63
Sn	118	159	1	NO GAS	8.512	ug/l	188195.87
Sn	118	159	3	He	9.140	ug/l	29091.88
Sb	121	159	1	NO GAS	10.514	ug/l	255614.55
Sb	121	159	3	He	10.804	ug/l	36040.38
Sb	123	159	1	NO GAS	10.472	ug/l	201958.93
Sb	123	159	3	He	10.821	ug/l	29871.17
Ba	135	159	1	NO GAS	10.480	ug/l	55139.75
Ba	137	159	1	NO GAS	10.465	ug/l	94248.17
La	139	175	1	NO GAS	10.844	ug/l	873026.51
La	139	175	3	He	11.495	ug/l	197531.22
Ce	140	175	1	NO GAS	11.302	ug/l	895585.39
Ce	140	175	3	He	11.658	ug/l	253468.24
Hg	201	175	1	NO GAS	0.215	ug/l	923.85
Hg	202	175	1	NO GAS	0.209	ug/l	2108.73
Hg	202	175	3	He	0.230	ug/l	1565.11
Tl	203	175	3	He	11.675	ug/l	158797.98
Tl	205	175	1	NO GAS	11.076	ug/l	715333.18
Tl	205	175	3	He	11.869	ug/l	383959.46
[Pb]	206	175	1	NO GAS	11.092	ug/l	245198.97
[Pb]	207	175	1	NO GAS	10.909	ug/l	206557.02
Pb	208	175	1	NO GAS	11.170	ug/l	972187.62
Th	232	175	3	He	11.045	ug/l	537605.85
U	238	175	1	NO GAS	10.946	ug/l	1096074.25

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1898811.96	104.9
Sc	45	2	H2	70939.94	86.2
Sc	45	3	He	50515.29	101.3
Ge	72	1	NO GAS	852556.19	102.9
Ge	72	2	H2	105282.27	89.8
Ge	72	3	He	78747.39	101.8
Tb	159	1	NO GAS	18662616.12	109.3
Tb	159	3	He	6746220.67	96.1
Ho	165	1	NO GAS	17239422.77	106.4
Ho	165	3	He	6621925.97	98.3
Lu	175	1	NO GAS	18902302.68	107.3
Lu	175	3	He	4152479.89	97.0

ICPMS206-B Analytical Data

Sample Name	QCS
File Name	021_QCS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 20:15:24
Sample Type	QCS
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	42.392	ug/l	26101.52
Be	9	45	1	NO GAS	24.815	ug/l	6367.22
B	11	45	1	NO GAS	52.423	ug/l	10176.30
Na	23	45	3	He	2493.114	ug/l	219879.55
Mg	24	45	3	He	2482.488	ug/l	107121.89
Al	27	45	1	NO GAS	252.852	ug/l	714386.95
Si	28	45	2	H2	461.328	ug/l	8877.90
K	39	72	3	He	2437.855	ug/l	97756.84
Ca	40	72	2	H2	2585.630	ug/l	462949.29
Ti	47	72	1	NO GAS	44.901	ug/l	39329.73
V	51	72	1	NO GAS	47.509	ug/l	615193.23
V	51	72	3	He	49.634	ug/l	63468.72
Cr	52	72	1	NO GAS	49.387	ug/l	595301.04
Cr	52	72	3	He	49.724	ug/l	86801.12
Cr	53	72	1	NO GAS	48.978	ug/l	123710.31
Mn	55	72	1	NO GAS	251.103	ug/l	4407321.77
Mn	55	72	3	He	245.287	ug/l	207763.55
Fe	56	72	2	H2	265.044	ug/l	264143.20
Fe	56	72	3	He	241.036	ug/l	380322.29
Co	59	72	1	NO GAS	49.426	ug/l	783277.38
Ni	60	72	1	NO GAS	51.828	ug/l	181724.22
Ni	60	72	3	He	50.732	ug/l	56086.79
Ni	62	72	1	NO GAS	49.527	ug/l	27641.75
Cu	63	72	1	NO GAS	51.886	ug/l	456291.34
Cu	63	72	3	He	51.974	ug/l	171926.69
Cu	65	72	1	NO GAS	52.396	ug/l	228298.68
Zn	66	72	1	NO GAS	52.038	ug/l	150975.11
Zn	66	72	3	He	52.554	ug/l	25625.26
As	75	72	1	NO GAS	49.363	ug/l	161913.54
As	75	72	3	He	48.703	ug/l	15311.95
Se	78	72	2	H2	49.127	ug/l	5394.14
Br	79	72	1	NO GAS	1.227	ug/l	70719.99
Br	79	72	2	H2	1.728	ug/l	9460.69
Se	82	72	1	NO GAS	52.727	ug/l	14539.17
Kr	84	72	1	NO GAS		ug/l	17098.39
Sr	88	72	1	NO GAS	51.925	ug/l	1813731.96
Sr	88	72	3	He	51.112	ug/l	79108.92

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	50.074	ug/l	395875.14
Mo	95	72	3	He	50.487	ug/l	133042.93
Mo	98	72	1	NO GAS	49.339	ug/l	666269.94
Ag	107	72	1	NO GAS	26.670	ug/l	599167.35
Ag	109	72	1	NO GAS	26.446	ug/l	581747.70
Cd	111	159	1	NO GAS	24.339	ug/l	143160.71
Cd	111	159	3	He	24.256	ug/l	34573.87
Cd	114	159	1	NO GAS	24.592	ug/l	327680.81
Cd	114	159	3	He	24.941	ug/l	90229.27
Sn	118	159	1	NO GAS	46.552	ug/l	812594.24
Sn	118	159	3	He	47.120	ug/l	123737.39
Sb	121	159	1	NO GAS	45.842	ug/l	1104345.87
Sb	121	159	3	He	46.342	ug/l	155488.77
Sb	123	159	1	NO GAS	44.778	ug/l	856209.17
Sb	123	159	3	He	47.545	ug/l	132152.61
Ba	135	159	1	NO GAS	46.114	ug/l	240369.01
Ba	137	159	1	NO GAS	47.657	ug/l	425634.30
La	139	175	1	NO GAS	48.964	ug/l	3931430.85
La	139	175	3	He	51.315	ug/l	862864.44
Ce	140	175	1	NO GAS	49.985	ug/l	3950405.11
Ce	140	175	3	He	52.509	ug/l	1116139.33
Hg	201	175	1	NO GAS	0.952	ug/l	4019.07
Hg	202	175	1	NO GAS	0.949	ug/l	9305.99
Hg	202	175	3	He	1.009	ug/l	6612.80
Tl	203	175	3	He	52.082	ug/l	692810.64
Tl	205	175	1	NO GAS	49.981	ug/l	3220611.20
Tl	205	175	3	He	53.587	ug/l	1694368.01
[Pb]	206	175	1	NO GAS	49.309	ug/l	1087184.31
[Pb]	207	175	1	NO GAS	50.363	ug/l	951011.22
Pb	208	175	1	NO GAS	49.968	ug/l	4337469.32
Th	232	175	3	He	52.050	ug/l	2475423.00
U	238	175	1	NO GAS	50.906	ug/l	5084232.28

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1764413.54	97.5
Sc	45	2	H2	80536.54	97.9
Sc	45	3	He	49818.83	99.9
Ge	72	1	NO GAS	842015.11	101.6
Ge	72	2	H2	115226.65	98.3
Ge	72	3	He	76124.86	98.4
Tb	159	1	NO GAS	18515138.44	108.5
Tb	159	3	He	6796154.09	96.8
Ho	165	1	NO GAS	17194113.71	106.1
Ho	165	3	He	6679617.09	99.2
Lu	175	1	NO GAS	18863066.78	107.1
Lu	175	3	He	4061689.93	94.8

ICPMS206-B Analytical Data

Sample Name	CCV
File Name	022_CCV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 20:21:07
Sample Type	CCV
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	571.526	ug/l	344467.84
Be	9	45	1	NO GAS	50.317	ug/l	15478.71
B	11	45	1	NO GAS	52.941	ug/l	12313.26
Na	23	45	3	He	12892.051	ug/l	1255500.27
Mg	24	45	3	He	12742.335	ug/l	624648.36
Al	27	45	1	NO GAS	49.341	ug/l	168562.76
Si	28	45	2	H2	207.950	ug/l	4759.73
K	39	72	3	He	12960.368	ug/l	554569.05
Ca	40	72	2	H2	13947.444	ug/l	2798327.72
Ti	47	72	1	NO GAS	52.334	ug/l	49809.82
V	51	72	1	NO GAS	50.187	ug/l	708353.75
V	51	72	3	He	51.130	ug/l	71342.40
Cr	52	72	1	NO GAS	51.221	ug/l	671930.83
Cr	52	72	3	He	51.572	ug/l	98256.45
Cr	53	72	1	NO GAS	57.368	ug/l	149240.27
Mn	55	72	1	NO GAS	52.080	ug/l	994518.54
Mn	55	72	3	He	50.461	ug/l	46650.76
Fe	56	72	2	H2	1290.262	ug/l	1438555.52
Fe	56	72	3	He	1275.201	ug/l	2189523.06
Co	59	72	1	NO GAS	52.569	ug/l	905198.05
Ni	60	72	1	NO GAS	53.497	ug/l	203889.51
Ni	60	72	3	He	51.606	ug/l	62271.19
Ni	62	72	1	NO GAS	50.756	ug/l	30827.40
Cu	63	72	1	NO GAS	53.495	ug/l	511500.46
Cu	63	72	3	He	51.664	ug/l	186507.78
Cu	65	72	1	NO GAS	53.491	ug/l	253506.08
Zn	66	72	1	NO GAS	52.292	ug/l	165069.55
Zn	66	72	3	He	50.474	ug/l	26874.88
As	75	72	1	NO GAS	49.894	ug/l	177841.26
As	75	72	3	He	50.317	ug/l	17266.44
Se	78	72	2	H2	49.168	ug/l	6055.57
Br	79	72	1	NO GAS	-2.164	ug/l	53403.43
Br	79	72	2	H2	-1.387	ug/l	7463.63
Se	82	72	1	NO GAS	51.645	ug/l	15518.92
Kr	84	72	1	NO GAS		ug/l	18323.91
Sr	88	72	1	NO GAS	51.718	ug/l	1966166.30
Sr	88	72	3	He	50.876	ug/l	85933.52

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	53.282	ug/l	458431.62
Mo	95	72	3	He	53.593	ug/l	154146.98
Mo	98	72	1	NO GAS	53.095	ug/l	780244.30
Ag	107	72	1	NO GAS	20.904	ug/l	511871.06
Ag	109	72	1	NO GAS	20.907	ug/l	500739.37
Cd	111	159	1	NO GAS	50.539	ug/l	307120.88
Cd	111	159	3	He	48.921	ug/l	74665.05
Cd	114	159	1	NO GAS	50.897	ug/l	700649.15
Cd	114	159	3	He	49.421	ug/l	191556.96
Sn	118	159	1	NO GAS	52.072	ug/l	933999.18
Sn	118	159	3	He	50.018	ug/l	140284.34
Sb	121	159	1	NO GAS	52.375	ug/l	1302985.59
Sb	121	159	3	He	50.692	ug/l	182219.26
Sb	123	159	1	NO GAS	52.133	ug/l	1029094.93
Sb	123	159	3	He	50.269	ug/l	149668.59
Ba	135	159	1	NO GAS	50.017	ug/l	269312.57
Ba	137	159	1	NO GAS	50.080	ug/l	461005.06
La	139	175	1	NO GAS	49.448	ug/l	4140064.87
La	139	175	3	He	49.954	ug/l	917257.41
Ce	140	175	1	NO GAS	51.524	ug/l	4249099.63
Ce	140	175	3	He	50.939	ug/l	1182203.93
Hg	201	175	1	NO GAS	0.982	ug/l	4319.76
Hg	202	175	1	NO GAS	0.977	ug/l	9983.95
Hg	202	175	3	He	0.980	ug/l	7011.22
Tl	203	175	3	He	50.626	ug/l	735358.48
Tl	205	175	1	NO GAS	48.136	ug/l	3237878.04
Tl	205	175	3	He	51.709	ug/l	1785817.40
[Pb]	206	175	1	NO GAS	49.617	ug/l	1143009.41
[Pb]	207	175	1	NO GAS	50.256	ug/l	990629.06
Pb	208	175	1	NO GAS	50.296	ug/l	4556686.10
Th	232	175	3	He	51.659	ug/l	2682925.74
U	238	175	1	NO GAS	49.567	ug/l	5168540.75

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2113990.48	116.8
Sc	45	2	H2	95508.10	116.1
Sc	45	3	He	56636.20	113.6
Ge	72	1	NO GAS	919172.85	110.9
Ge	72	2	H2	129234.81	110.3
Ge	72	3	He	83077.74	107.4
Tb	159	1	NO GAS	19331595.49	113.3
Tb	159	3	He	7283276.87	103.8
Ho	165	1	NO GAS	18121253.22	111.8
Ho	165	3	He	7051506.78	104.7
Lu	175	1	NO GAS	19857092.85	112.7
Lu	175	3	He	4433151.95	103.5

ICPMS206-B Analytical Data

Sample Name	CCB
File Name	023_CCB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 20:26:51
Sample Type	CCB
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.829	ug/l	2634.35
Be	9	45	1	NO GAS	-0.003	ug/l	6.00
B	11	45	1	NO GAS	0.622	ug/l	324.61
Na	23	45	3	He	-12.515	ug/l	8114.17
Mg	24	45	3	He	-0.744	ug/l	13.31
Al	27	45	1	NO GAS	-0.462	ug/l	800.02
Si	28	45	2	H2	-0.643	ug/l	20.00
K	39	72	3	He	-7.135	ug/l	2795.81
Ca	40	72	2	H2	0.358	ug/l	694.68
Ti	47	72	1	NO GAS	0.038	ug/l	71.63
V	51	72	1	NO GAS	-0.473	ug/l	-15320.27
V	51	72	3	He	0.003	ug/l	143.34
Cr	52	72	1	NO GAS	-0.097	ug/l	11584.40
Cr	52	72	3	He	-0.128	ug/l	219.57
Cr	53	72	1	NO GAS	4.102	ug/l	62918.20
Mn	55	72	1	NO GAS	-0.004	ug/l	781.81
Mn	55	72	3	He	-0.004	ug/l	3.00
Fe	56	72	2	H2	-0.520	ug/l	439.79
Fe	56	72	3	He	-0.449	ug/l	892.92
Co	59	72	1	NO GAS	-0.001	ug/l	59.88
Ni	60	72	1	NO GAS	0.007	ug/l	109.78
Ni	60	72	3	He	-0.026	ug/l	20.00
Ni	62	72	1	NO GAS	0.057	ug/l	528.96
Cu	63	72	1	NO GAS	0.029	ug/l	561.23
Cu	63	72	3	He	0.037	ug/l	228.96
Cu	65	72	1	NO GAS	0.029	ug/l	279.28
Zn	66	72	1	NO GAS	-0.302	ug/l	409.16
Zn	66	72	3	He	-0.198	ug/l	203.34
As	75	72	1	NO GAS	-0.092	ug/l	3220.95
As	75	72	3	He	0.016	ug/l	10.67
Se	78	72	2	H2	0.047	ug/l	7.00
Br	79	72	1	NO GAS	-0.792	ug/l	70776.68
Br	79	72	2	H2	0.412	ug/l	10043.18
Se	82	72	1	NO GAS	-0.689	ug/l	278.12
Kr	84	72	1	NO GAS		ug/l	7293.87
Sr	88	72	1	NO GAS	0.000	ug/l	399.21
Sr	88	72	3	He	-0.011	ug/l	240.01

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.005	ug/l	193.34
Mo	95	72	3	He	0.010	ug/l	64.44
Mo	98	72	1	NO GAS	0.007	ug/l	324.18
Ag	107	72	1	NO GAS	0.003	ug/l	2382.38
Ag	109	72	1	NO GAS	0.011	ug/l	2299.72
Cd	111	159	1	NO GAS	-0.011	ug/l	-64.78
Cd	111	159	3	He	0.001	ug/l	3.33
Cd	114	159	1	NO GAS	-0.009	ug/l	-437.40
Cd	114	159	3	He	0.006	ug/l	-35.08
Sn	118	159	1	NO GAS	-0.401	ug/l	48453.74
Sn	118	159	3	He	-0.043	ug/l	7446.21
Sb	121	159	1	NO GAS	0.009	ug/l	576.68
Sb	121	159	3	He	0.004	ug/l	57.78
Sb	123	159	1	NO GAS	0.006	ug/l	371.12
Sb	123	159	3	He	0.017	ug/l	82.22
Ba	135	159	1	NO GAS	-0.005	ug/l	46.57
Ba	137	159	1	NO GAS	-0.002	ug/l	53.23
La	139	175	1	NO GAS	0.000	ug/l	80.08
La	139	175	3	He	0.001	ug/l	16.68
Ce	140	175	1	NO GAS	0.000	ug/l	73.41
Ce	140	175	3	He	0.001	ug/l	26.69
Hg	201	175	1	NO GAS	0.008	ug/l	58.66
Hg	202	175	1	NO GAS	0.008	ug/l	164.30
Hg	202	175	3	He	0.006	ug/l	74.99
Tl	203	175	3	He	0.100	ug/l	1599.77
Tl	205	175	1	NO GAS	0.089	ug/l	6804.94
Tl	205	175	3	He	0.099	ug/l	3811.07
[Pb]	206	175	1	NO GAS	0.002	ug/l	102.22
[Pb]	207	175	1	NO GAS	0.002	ug/l	85.55
Pb	208	175	1	NO GAS	0.002	ug/l	390.00
Th	232	175	3	He	0.086	ug/l	5494.61
U	238	175	1	NO GAS	0.005	ug/l	745.54

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2346679.85	129.7
Sc	45	2	H2	101933.06	123.9
Sc	45	3	He	58670.68	117.7
Ge	72	1	NO GAS	1032209.81	124.6
Ge	72	2	H2	140013.06	119.5
Ge	72	3	He	88317.36	114.2
Tb	159	1	NO GAS	22429169.42	131.4
Tb	159	3	He	7839893.05	111.7
Ho	165	1	NO GAS	19916524.36	122.9
Ho	165	3	He	7540776.55	112.0
Lu	175	1	NO GAS	22422013.93	127.3
Lu	175	3	He	4864259.56	113.6

ICPMS206-B Analytical Data

Sample Name	0.10 PPB STD
File Name	024CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 20:32:37
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.033	ug/l	2985.01
Be	9	45	1	NO GAS	0.135	ug/l	41.99
B	11	45	1	NO GAS	0.531	ug/l	239.29
Na	23	45	3	He	29.227	ug/l	10514.35
Mg	24	45	3	He	28.662	ug/l	1287.50
Al	27	45	1	NO GAS	-0.280	ug/l	1178.94
Si	28	45	2	H2	0.327	ug/l	34.66
K	39	72	3	He	29.728	ug/l	3868.24
Ca	40	72	2	H2	31.510	ug/l	6151.46
Ti	47	72	1	NO GAS	0.160	ug/l	164.92
V	51	72	1	NO GAS	-0.121	ug/l	-7831.13
V	51	72	3	He	0.114	ug/l	265.56
Cr	52	72	1	NO GAS	0.104	ug/l	11890.73
Cr	52	72	3	He	0.011	ug/l	432.49
Cr	53	72	1	NO GAS	3.448	ug/l	50554.18
Mn	55	72	1	NO GAS	0.134	ug/l	3074.21
Mn	55	72	3	He	0.102	ug/l	92.68
Fe	56	72	2	H2	2.772	ug/l	3638.63
Fe	56	72	3	He	2.619	ug/l	5619.87
Co	59	72	1	NO GAS	0.111	ug/l	1829.82
Ni	60	72	1	NO GAS	0.131	ug/l	522.31
Ni	60	72	3	He	0.121	ug/l	180.01
Ni	62	72	1	NO GAS	0.179	ug/l	502.35
Cu	63	72	1	NO GAS	0.149	ug/l	1519.11
Cu	63	72	3	He	0.141	ug/l	543.90
Cu	65	72	1	NO GAS	0.148	ug/l	749.87
Zn	66	72	1	NO GAS	-0.195	ug/l	645.31
Zn	66	72	3	He	-0.246	ug/l	153.34
As	75	72	1	NO GAS	0.082	ug/l	3222.30
As	75	72	3	He	0.118	ug/l	41.66
Se	78	72	2	H2	0.109	ug/l	12.67
Br	79	72	1	NO GAS	0.395	ug/l	65629.79
Br	79	72	2	H2	1.050	ug/l	8871.50
Se	82	72	1	NO GAS	-0.332	ug/l	326.70
Kr	84	72	1	NO GAS		ug/l	7656.66
Sr	88	72	1	NO GAS	0.123	ug/l	4628.19
Sr	88	72	3	He	0.137	ug/l	438.90

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.122	ug/l	1087.82
Mo	95	72	3	He	0.110	ug/l	321.12
Mo	98	72	1	NO GAS	0.123	ug/l	1837.01
Ag	107	72	1	NO GAS	0.051	ug/l	3031.03
Ag	109	72	1	NO GAS	0.055	ug/l	2840.36
Cd	111	159	1	NO GAS	0.102	ug/l	610.64
Cd	111	159	3	He	0.115	ug/l	164.64
Cd	114	159	1	NO GAS	0.119	ug/l	1339.81
Cd	114	159	3	He	0.134	ug/l	432.80
Sn	118	159	1	NO GAS	-2.552	ug/l	4784.61
Sn	118	159	3	He	-2.362	ug/l	683.35
Sb	121	159	1	NO GAS	0.113	ug/l	2961.42
Sb	121	159	3	He	0.129	ug/l	467.79
Sb	123	159	1	NO GAS	0.107	ug/l	2232.39
Sb	123	159	3	He	0.124	ug/l	370.01
Ba	135	159	1	NO GAS	0.092	ug/l	538.94
Ba	137	159	1	NO GAS	0.117	ug/l	1104.53
La	139	175	1	NO GAS	0.120	ug/l	9572.71
La	139	175	3	He	0.111	ug/l	1898.73
Ce	140	175	1	NO GAS	0.123	ug/l	9642.85
Ce	140	175	3	He	0.121	ug/l	2626.27
Hg	201	175	1	NO GAS	0.004	ug/l	34.99
Hg	202	175	1	NO GAS	0.005	ug/l	115.65
Hg	202	175	3	He	0.007	ug/l	72.32
Tl	203	175	3	He	0.160	ug/l	2181.73
Tl	205	175	1	NO GAS	0.145	ug/l	9252.90
Tl	205	175	3	He	0.158	ug/l	5128.54
[Pb]	206	175	1	NO GAS	0.118	ug/l	2598.02
[Pb]	207	175	1	NO GAS	0.115	ug/l	2157.95
Pb	208	175	1	NO GAS	0.118	ug/l	10207.02
Th	232	175	3	He	0.137	ug/l	7132.98
U	238	175	1	NO GAS	0.116	ug/l	11479.49

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1860198.96	102.8
Sc	45	2	H2	81202.24	98.7
Sc	45	3	He	50190.66	100.7
Ge	72	1	NO GAS	844499.83	101.9
Ge	72	2	H2	115530.31	98.6
Ge	72	3	He	76548.37	99.0
Tb	159	1	NO GAS	18435820.17	108.0
Tb	159	3	He	6763079.61	96.3
Ho	165	1	NO GAS	17245720.32	106.4
Ho	165	3	He	6438092.50	95.6
Lu	175	1	NO GAS	18540965.31	105.3
Lu	175	3	He	4135947.68	96.6

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	025BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 21:19:02
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	005CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.025	ug/l	1892.40
Be	9	45	1	NO GAS	0.008	ug/l	7.67
B	11	45	1	NO GAS	0.132	ug/l	157.97
Na	23	45	3	He	-17.308	ug/l	6466.80
Mg	24	45	3	He	-0.626	ug/l	16.63
Al	27	45	1	NO GAS	-0.459	ug/l	638.91
Si	28	45	2	H2	-0.271	ug/l	23.99
K	39	72	3	He	-0.314	ug/l	2642.45
Ca	40	72	2	H2	0.424	ug/l	586.39
Ti	47	72	1	NO GAS	0.003	ug/l	26.65
V	51	72	1	NO GAS	-0.135	ug/l	-7790.97
V	51	72	3	He	-0.012	ug/l	102.22
Cr	52	72	1	NO GAS	-0.103	ug/l	9171.04
Cr	52	72	3	He	-0.154	ug/l	143.05
Cr	53	72	1	NO GAS	1.106	ug/l	45484.35
Mn	55	72	1	NO GAS	-0.006	ug/l	592.18
Mn	55	72	3	He	-0.001	ug/l	4.67
Fe	56	72	2	H2	-0.526	ug/l	358.16
Fe	56	72	3	He	-0.524	ug/l	643.03
Co	59	72	1	NO GAS	-0.001	ug/l	46.57
Ni	60	72	1	NO GAS	0.550	ug/l	1944.03
Ni	60	72	3	He	-0.019	ug/l	24.45
Ni	62	72	1	NO GAS	-0.050	ug/l	365.95
Cu	63	72	1	NO GAS	0.020	ug/l	370.60
Cu	63	72	3	He	0.020	ug/l	139.30
Cu	65	72	1	NO GAS	0.013	ug/l	156.64
Zn	66	72	1	NO GAS	-0.267	ug/l	425.79
Zn	66	72	3	He	-0.436	ug/l	60.00
As	75	72	1	NO GAS	0.279	ug/l	3744.50
As	75	72	3	He	0.010	ug/l	7.33
Se	78	72	2	H2	0.018	ug/l	2.67
Br	79	72	1	NO GAS	-0.182	ug/l	60219.80
Br	79	72	2	H2	0.740	ug/l	8608.57
Se	82	72	1	NO GAS	0.066	ug/l	419.20
Kr	84	72	1	NO GAS		ug/l	7223.97
Sr	88	72	1	NO GAS	0.000	ug/l	329.35
Sr	88	72	3	He	0.007	ug/l	232.22

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	-0.006	ug/l	71.11
Mo	95	72	3	He	0.002	ug/l	32.22
Mo	98	72	1	NO GAS	-0.003	ug/l	121.95
Ag	107	72	1	NO GAS	-0.006	ug/l	1707.76
Ag	109	72	1	NO GAS	0.003	ug/l	1664.43
Cd	111	159	1	NO GAS	-0.012	ug/l	-60.92
Cd	111	159	3	He	-0.001	ug/l	0.00
Cd	114	159	1	NO GAS	-0.011	ug/l	-384.83
Cd	114	159	3	He	0.005	ug/l	-33.63
Sn	118	159	1	NO GAS	-0.290	ug/l	41874.83
Sn	118	159	3	He	-0.094	ug/l	6355.74
Sb	121	159	1	NO GAS	-0.002	ug/l	204.45
Sb	121	159	3	He	-0.004	ug/l	23.33
Sb	123	159	1	NO GAS	-0.002	ug/l	155.56
Sb	123	159	3	He	-0.003	ug/l	18.89
Ba	135	159	1	NO GAS	-0.009	ug/l	19.96
Ba	137	159	1	NO GAS	-0.002	ug/l	39.92
La	139	175	1	NO GAS	0.000	ug/l	50.05
La	139	175	3	He	0.001	ug/l	10.01
Ce	140	175	1	NO GAS	0.071	ug/l	6122.92
Ce	140	175	3	He	0.001	ug/l	23.36
Hg	201	175	1	NO GAS	0.000	ug/l	16.67
Hg	202	175	1	NO GAS	0.000	ug/l	67.99
Hg	202	175	3	He	0.001	ug/l	32.99
Tl	203	175	3	He	0.004	ug/l	61.32
Tl	205	175	1	NO GAS	0.003	ug/l	231.12
Tl	205	175	3	He	0.003	ug/l	151.97
[Pb]	206	175	1	NO GAS	0.000	ug/l	52.22
[Pb]	207	175	1	NO GAS	0.000	ug/l	37.78
Pb	208	175	1	NO GAS	0.000	ug/l	202.22
Th	232	175	3	He	0.004	ug/l	705.21
U	238	175	1	NO GAS	0.000	ug/l	75.98

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1845092.67	102.0
Sc	45	2	H2	84313.12	102.5
Sc	45	3	He	49716.71	99.7
Ge	72	1	NO GAS	821404.91	99.1
Ge	72	2	H2	115864.60	98.9
Ge	72	3	He	75202.77	97.2
Tb	159	1	NO GAS	18449910.09	108.1
Tb	159	3	He	6824951.90	97.2
Ho	165	1	NO GAS	18084298.04	111.6
Ho	165	3	He	6550835.45	97.3
Lu	175	1	NO GAS	19484017.29	110.6
Lu	175	3	He	4153754.65	97.0

ICPMS206-B Analytical Data

Sample Name	BLANK
File Name	026CALB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 21:24:49
Sample Type	CalBlk
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.000	ug/l	1823.07
Be	9	45	1	NO GAS	0.000	ug/l	5.67
B	11	45	1	NO GAS	0.000	ug/l	163.30
Na	23	45	3	He	0.000	ug/l	6888.07
Mg	24	45	3	He	0.000	ug/l	13.31
Al	27	45	1	NO GAS	0.000	ug/l	636.68
Si	28	45	2	H2	0.000	ug/l	18.67
K	39	72	3	He	0.000	ug/l	2671.34
Ca	40	72	2	H2	0.000	ug/l	564.73
Ti	47	72	1	NO GAS	0.000	ug/l	23.32
V	51	72	1	NO GAS	0.000	ug/l	-7327.59
V	51	72	3	He	0.000	ug/l	83.33
Cr	52	72	1	NO GAS	0.000	ug/l	9637.07
Cr	52	72	3	He	0.000	ug/l	136.40
Cr	53	72	1	NO GAS	0.000	ug/l	45387.42
Mn	55	72	1	NO GAS	0.000	ug/l	718.60
Mn	55	72	3	He	0.000	ug/l	5.00
Fe	56	72	2	H2	0.000	ug/l	346.51
Fe	56	72	3	He	0.000	ug/l	586.39
Co	59	72	1	NO GAS	0.000	ug/l	69.86
Ni	60	72	1	NO GAS	0.000	ug/l	63.21
Ni	60	72	3	He	0.000	ug/l	27.78
Ni	62	72	1	NO GAS	0.000	ug/l	279.45
Cu	63	72	1	NO GAS	0.000	ug/l	469.91
Cu	63	72	3	He	0.000	ug/l	198.29
Cu	65	72	1	NO GAS	0.000	ug/l	238.62
Zn	66	72	1	NO GAS	0.000	ug/l	489.00
Zn	66	72	3	He	0.000	ug/l	91.11
As	75	72	1	NO GAS	0.000	ug/l	3116.31
As	75	72	3	He	0.000	ug/l	5.00
Se	78	72	2	H2	0.000	ug/l	2.33
Br	79	72	1	NO GAS	0.000	ug/l	63558.85
Br	79	72	2	H2	0.000	ug/l	8938.12
Se	82	72	1	NO GAS	0.000	ug/l	168.34
Kr	84	72	1	NO GAS		ug/l	7593.39
Sr	88	72	1	NO GAS	0.000	ug/l	345.99
Sr	88	72	3	He	0.000	ug/l	240.00

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.000	ug/l	75.55
Mo	95	72	3	He	0.000	ug/l	35.56
Mo	98	72	1	NO GAS	0.000	ug/l	154.52
Ag	107	72	1	NO GAS	0.000	ug/l	1719.09
Ag	109	72	1	NO GAS	0.000	ug/l	1685.09
Cd	111	159	1	NO GAS	0.000	ug/l	-40.03
Cd	111	159	3	He	0.000	ug/l	0.67
Cd	114	159	1	NO GAS	0.000	ug/l	-250.96
Cd	114	159	3	He	0.000	ug/l	-33.69
Sn	118	159	1	NO GAS	0.000	ug/l	41708.59
Sn	118	159	3	He	0.000	ug/l	6259.04
Sb	121	159	1	NO GAS	0.000	ug/l	165.56
Sb	121	159	3	He	0.000	ug/l	34.44
Sb	123	159	1	NO GAS	0.000	ug/l	154.45
Sb	123	159	3	He	0.000	ug/l	23.33
Ba	135	159	1	NO GAS	0.000	ug/l	13.31
Ba	137	159	1	NO GAS	0.000	ug/l	46.57
La	139	175	1	NO GAS	0.000	ug/l	73.41
La	139	175	3	He	0.000	ug/l	0.00
Ce	140	175	1	NO GAS	0.000	ug/l	63.40
Ce	140	175	3	He	0.000	ug/l	20.02
Hg	201	175	1	NO GAS	0.000	ug/l	13.33
Hg	202	175	1	NO GAS	0.000	ug/l	70.99
Hg	202	175	3	He	0.000	ug/l	25.00
Tl	203	175	3	He	0.000	ug/l	90.65
Tl	205	175	1	NO GAS	0.000	ug/l	304.45
Tl	205	175	3	He	0.000	ug/l	220.63
[Pb]	206	175	1	NO GAS	0.000	ug/l	62.22
[Pb]	207	175	1	NO GAS	0.000	ug/l	47.78
Pb	208	175	1	NO GAS	0.000	ug/l	217.78
Th	232	175	3	He	0.000	ug/l	961.85
U	238	175	1	NO GAS	0.000	ug/l	126.31

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1866031.52	100.0
Sc	45	2	H2	82592.20	100.0
Sc	45	3	He	50304.07	100.0
Ge	72	1	NO GAS	845911.32	100.0
Ge	72	2	H2	118513.05	100.0
Ge	72	3	He	75477.75	100.0
Tb	159	1	NO GAS	18265699.85	100.0
Tb	159	3	He	7058065.37	100.0
Ho	165	1	NO GAS	16967684.17	100.0
Ho	165	3	He	6666509.81	100.0
Lu	175	1	NO GAS	18965751.33	100.0
Lu	175	3	He	4161096.47	100.0

ICPMS206-B Analytical Data

Sample Name	0.025 PPB STD
File Name	027CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 21:30:42
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.090	ug/l	1875.73
Be	9	45	1	NO GAS	0.012	ug/l	8.67
B	11	45	1	NO GAS	-0.037	ug/l	149.97
Na	23	45	3	He	2.419	ug/l	7191.53
Mg	24	45	3	He	6.598	ug/l	319.37
Al	27	45	1	NO GAS	-0.006	ug/l	595.57
Si	28	45	2	H2	0.158	ug/l	21.33
K	39	72	3	He	3.803	ug/l	2873.60
Ca	40	72	2	H2	7.203	ug/l	1917.51
Ti	47	72	1	NO GAS	0.040	ug/l	56.64
V	51	72	1	NO GAS	-0.297	ug/l	-10942.60
V	51	72	3	He	0.058	ug/l	156.67
Cr	52	72	1	NO GAS	0.010	ug/l	9710.27
Cr	52	72	3	He	0.004	ug/l	146.38
Cr	53	72	1	NO GAS	2.231	ug/l	48636.72
Mn	55	72	1	NO GAS	0.020	ug/l	1071.26
Mn	55	72	3	He	0.027	ug/l	27.33
Fe	56	72	2	H2	0.627	ug/l	994.54
Fe	56	72	3	He	0.633	ug/l	1634.28
Co	59	72	1	NO GAS	0.018	ug/l	345.98
Ni	60	72	1	NO GAS	0.032	ug/l	172.99
Ni	60	72	3	He	0.022	ug/l	52.22
Ni	62	72	1	NO GAS	0.124	ug/l	342.66
Cu	63	72	1	NO GAS	0.003	ug/l	489.24
Cu	63	72	3	He	-0.006	ug/l	182.30
Cu	65	72	1	NO GAS	0.000	ug/l	236.62
Zn	66	72	1	NO GAS	-0.007	ug/l	469.03
Zn	66	72	3	He	-0.025	ug/l	81.11
As	75	72	1	NO GAS	0.324	ug/l	4104.15
As	75	72	3	He	0.026	ug/l	13.00
Se	78	72	2	H2	0.001	ug/l	2.33
Br	79	72	1	NO GAS	0.554	ug/l	66798.64
Br	79	72	2	H2	0.813	ug/l	9327.51
Se	82	72	1	NO GAS	0.677	ug/l	345.33
Kr	84	72	1	NO GAS		ug/l	7892.95
Sr	88	72	1	NO GAS	0.028	ug/l	1354.05
Sr	88	72	3	He	0.007	ug/l	255.56

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.032	ug/l	327.78
Mo	95	72	3	He	0.025	ug/l	100.00
Mo	98	72	1	NO GAS	0.023	ug/l	467.59
Ag	107	72	1	NO GAS	0.014	ug/l	2023.07
Ag	109	72	1	NO GAS	0.012	ug/l	1947.73
Cd	111	159	1	NO GAS	0.024	ug/l	91.46
Cd	111	159	3	He	0.019	ug/l	27.33
Cd	114	159	1	NO GAS	0.017	ug/l	-31.82
Cd	114	159	3	He	0.034	ug/l	88.02
Sn	118	159	1	NO GAS	-2.492	ug/l	3147.43
Sn	118	159	3	He	-2.311	ug/l	467.79
Sb	121	159	1	NO GAS	0.026	ug/l	733.36
Sb	121	159	3	He	0.021	ug/l	101.11
Sb	123	159	1	NO GAS	0.024	ug/l	571.13
Sb	123	159	3	He	0.031	ug/l	106.67
Ba	135	159	1	NO GAS	0.031	ug/l	163.01
Ba	137	159	1	NO GAS	0.020	ug/l	216.24
La	139	175	1	NO GAS	0.023	ug/l	1935.45
La	139	175	3	He	0.025	ug/l	440.46
Ce	140	175	1	NO GAS	0.023	ug/l	1872.03
Ce	140	175	3	He	0.026	ug/l	610.64
Hg	201	175	1	NO GAS	0.002	ug/l	22.00
Hg	202	175	1	NO GAS	0.000	ug/l	72.32
Hg	202	175	3	He	0.002	ug/l	36.66
Tl	203	175	3	He	0.022	ug/l	388.60
Tl	205	175	1	NO GAS	0.024	ug/l	1781.23
Tl	205	175	3	He	0.026	ug/l	1061.83
[Pb]	206	175	1	NO GAS	0.023	ug/l	556.68
[Pb]	207	175	1	NO GAS	0.025	ug/l	510.01
Pb	208	175	1	NO GAS	0.024	ug/l	2273.42
Th	232	175	3	He	0.018	ug/l	1848.42
U	238	175	1	NO GAS	0.023	ug/l	2416.39

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1800689.84	96.5
Sc	45	2	H2	80555.98	97.5
Sc	45	3	He	50945.77	101.3
Ge	72	1	NO GAS	841528.50	99.5
Ge	72	2	H2	113965.14	96.2
Ge	72	3	He	76836.97	101.8
Tb	159	1	NO GAS	18325372.85	100.3
Tb	159	3	He	6897685.36	97.7
Ho	165	1	NO GAS	16957080.65	99.9
Ho	165	3	He	6805864.84	102.1
Lu	175	1	NO GAS	19044263.80	100.4
Lu	175	3	He	4180241.14	100.5

ICPMS206-B Analytical Data

Sample Name	0.05 PPB STD
File Name	028CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 21:36:33
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.278	ug/l	2031.05
Be	9	45	1	NO GAS	0.074	ug/l	26.00
B	11	45	1	NO GAS	-0.046	ug/l	151.30
Na	23	45	3	He	11.980	ug/l	8026.34
Mg	24	45	3	He	12.814	ug/l	602.16
Al	27	45	1	NO GAS	0.031	ug/l	716.69
Si	28	45	2	H2	0.773	ug/l	33.99
K	39	72	3	He	12.098	ug/l	3275.33
Ca	40	72	2	H2	13.591	ug/l	3235.39
Ti	47	72	1	NO GAS	0.073	ug/l	83.29
V	51	72	1	NO GAS	-0.308	ug/l	-11025.42
V	51	72	3	He	0.084	ug/l	192.23
Cr	52	72	1	NO GAS	0.076	ug/l	10479.25
Cr	52	72	3	He	0.066	ug/l	259.49
Cr	53	72	1	NO GAS	1.974	ug/l	48211.79
Mn	55	72	1	NO GAS	0.053	ug/l	1640.17
Mn	55	72	3	He	0.053	ug/l	49.67
Fe	56	72	2	H2	1.241	ug/l	1697.59
Fe	56	72	3	He	1.406	ug/l	2950.49
Co	59	72	1	NO GAS	0.051	ug/l	855.00
Ni	60	72	1	NO GAS	0.049	ug/l	229.55
Ni	60	72	3	He	0.044	ug/l	77.78
Ni	62	72	1	NO GAS	0.220	ug/l	392.56
Cu	63	72	1	NO GAS	0.026	ug/l	690.55
Cu	63	72	3	He	0.027	ug/l	295.28
Cu	65	72	1	NO GAS	0.025	ug/l	347.27
Zn	66	72	1	NO GAS	0.020	ug/l	545.49
Zn	66	72	3	He	0.026	ug/l	106.66
As	75	72	1	NO GAS	0.280	ug/l	3976.59
As	75	72	3	He	0.058	ug/l	23.00
Se	78	72	2	H2	0.042	ug/l	6.67
Br	79	72	1	NO GAS	0.385	ug/l	65692.81
Br	79	72	2	H2	0.465	ug/l	9314.22
Se	82	72	1	NO GAS	0.762	ug/l	368.63
Kr	84	72	1	NO GAS		ug/l	7829.77
Sr	88	72	1	NO GAS	0.062	ug/l	2535.18
Sr	88	72	3	He	0.054	ug/l	331.12

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.057	ug/l	517.79
Mo	95	72	3	He	0.057	ug/l	187.78
Mo	98	72	1	NO GAS	0.052	ug/l	851.92
Ag	107	72	1	NO GAS	0.022	ug/l	2199.05
Ag	109	72	1	NO GAS	0.027	ug/l	2253.05
Cd	111	159	1	NO GAS	0.063	ug/l	302.29
Cd	111	159	3	He	0.051	ug/l	72.65
Cd	114	159	1	NO GAS	0.062	ug/l	520.24
Cd	114	159	3	He	0.060	ug/l	186.75
Sn	118	159	1	NO GAS	-2.446	ug/l	3813.02
Sn	118	159	3	He	-2.277	ug/l	563.35
Sb	121	159	1	NO GAS	0.052	ug/l	1312.29
Sb	121	159	3	He	0.056	ug/l	218.89
Sb	123	159	1	NO GAS	0.048	ug/l	973.37
Sb	123	159	3	He	0.058	ug/l	184.45
Ba	135	159	1	NO GAS	0.066	ug/l	326.02
Ba	137	159	1	NO GAS	0.053	ug/l	492.37
La	139	175	1	NO GAS	0.052	ug/l	4318.36
La	139	175	3	He	0.047	ug/l	860.91
Ce	140	175	1	NO GAS	0.052	ug/l	4204.88
Ce	140	175	3	He	0.050	ug/l	1184.60
Hg	201	175	1	NO GAS	0.002	ug/l	22.00
Hg	202	175	1	NO GAS	0.000	ug/l	73.32
Hg	202	175	3	He	0.001	ug/l	34.66
Tl	203	175	3	He	0.053	ug/l	856.52
Tl	205	175	1	NO GAS	0.053	ug/l	3637.14
Tl	205	175	3	He	0.052	ug/l	2002.41
[Pb]	206	175	1	NO GAS	0.055	ug/l	1240.06
[Pb]	207	175	1	NO GAS	0.052	ug/l	1032.27
Pb	208	175	1	NO GAS	0.054	ug/l	4887.03
Th	232	175	3	He	0.037	ug/l	2884.39
U	238	175	1	NO GAS	0.051	ug/l	5244.22

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1836810.46	98.4
Sc	45	2	H2	83378.40	101.0
Sc	45	3	He	50816.70	101.0
Ge	72	1	NO GAS	841237.01	99.4
Ge	72	2	H2	117594.67	99.2
Ge	72	3	He	78123.92	103.5
Tb	159	1	NO GAS	18102520.84	99.1
Tb	159	3	He	7062696.25	100.1
Ho	165	1	NO GAS	17347220.15	102.2
Ho	165	3	He	6750731.85	101.3
Lu	175	1	NO GAS	19182462.20	101.1
Lu	175	3	He	4323996.14	103.9

ICPMS206-B Analytical Data

Sample Name	0.10 PPB STD
File Name	029CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 21:42:24
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS		ug/l	
Be	9	45	1	NO GAS		ug/l	
B	11	45	1	NO GAS		ug/l	
Na	23	45	3	He		ug/l	
Mg	24	45	3	He		ug/l	
Al	27	45	1	NO GAS		ug/l	
Si	28	45	2	H2		ug/l	
K	39	72	3	He		ug/l	
Ca	40	72	2	H2		ug/l	
Ti	47	72	1	NO GAS		ug/l	
V	51	72	1	NO GAS		ug/l	
V	51	72	3	He		ug/l	
Cr	52	72	1	NO GAS		ug/l	
Cr	52	72	3	He		ug/l	
Cr	53	72	1	NO GAS		ug/l	
Mn	55	72	1	NO GAS		ug/l	
Mn	55	72	3	He		ug/l	
Fe	56	72	2	H2		ug/l	
Fe	56	72	3	He		ug/l	
Co	59	72	1	NO GAS		ug/l	
Ni	60	72	1	NO GAS		ug/l	
Ni	60	72	3	He		ug/l	
Ni	62	72	1	NO GAS		ug/l	
Cu	63	72	1	NO GAS		ug/l	
Cu	63	72	3	He		ug/l	
Cu	65	72	1	NO GAS		ug/l	
Zn	66	72	1	NO GAS		ug/l	
Zn	66	72	3	He		ug/l	
As	75	72	1	NO GAS		ug/l	
As	75	72	3	He		ug/l	
Se	78	72	2	H2		ug/l	
Br	79	72	1	NO GAS		ug/l	
Br	79	72	2	H2		ug/l	
Se	82	72	1	NO GAS		ug/l	
Kr	84	72	1	NO GAS		ug/l	
Sr	88	72	1	NO GAS		ug/l	
Sr	88	72	3	He		ug/l	

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS		ug/l	
Mo	95	72	3	He		ug/l	
Mo	98	72	1	NO GAS		ug/l	
Ag	107	72	1	NO GAS		ug/l	
Ag	109	72	1	NO GAS		ug/l	
Cd	111	159	1	NO GAS		ug/l	
Cd	111	159	3	He		ug/l	
Cd	114	159	1	NO GAS		ug/l	
Cd	114	159	3	He		ug/l	
Sn	118	159	1	NO GAS		ug/l	
Sn	118	159	3	He		ug/l	
Sb	121	159	1	NO GAS		ug/l	
Sb	121	159	3	He		ug/l	
Sb	123	159	1	NO GAS		ug/l	
Sb	123	159	3	He		ug/l	
Ba	135	159	1	NO GAS		ug/l	
Ba	137	159	1	NO GAS		ug/l	
La	139	175	1	NO GAS		ug/l	
La	139	175	3	He		ug/l	
Ce	140	175	1	NO GAS		ug/l	
Ce	140	175	3	He		ug/l	
Hg	201	175	1	NO GAS		ug/l	
Hg	202	175	1	NO GAS		ug/l	
Hg	202	175	3	He		ug/l	
Tl	203	175	3	He		ug/l	
Tl	205	175	1	NO GAS		ug/l	
Tl	205	175	3	He		ug/l	
[Pb]	206	175	1	NO GAS		ug/l	
[Pb]	207	175	1	NO GAS		ug/l	
Pb	208	175	1	NO GAS		ug/l	
Th	232	175	3	He		ug/l	
U	238	175	1	NO GAS		ug/l	

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS		
Sc	45	2	H2		
Sc	45	3	He		
Ge	72	1	NO GAS		
Ge	72	2	H2		
Ge	72	3	He		
Tb	159	1	NO GAS		
Tb	159	3	He		
Ho	165	1	NO GAS		
Ho	165	3	He		
Lu	175	1	NO GAS		
Lu	175	3	He		

ICPMS206-B Analytical Data

Sample Name	0.5 PPB STD
File Name	030CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 21:48:15
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	4.966	ug/l	4754.38
Be	9	45	1	NO GAS	0.447	ug/l	131.31
B	11	45	1	NO GAS	0.188	ug/l	201.96
Na	23	45	3	He	123.450	ug/l	18202.96
Mg	24	45	3	He	118.910	ug/l	5536.64
Al	27	45	1	NO GAS	0.475	ug/l	2043.47
Si	28	45	2	H2	1.896	ug/l	55.32
K	39	72	3	He	119.152	ug/l	7770.71
Ca	40	72	2	H2	125.826	ug/l	25162.98
Ti	47	72	1	NO GAS	0.517	ug/l	443.12
V	51	72	1	NO GAS	0.043	ug/l	-6583.91
V	51	72	3	He	0.488	ug/l	703.35
Cr	52	72	1	NO GAS	0.561	ug/l	15802.86
Cr	52	72	3	He	0.484	ug/l	1001.38
Cr	53	72	1	NO GAS	3.211	ug/l	49112.37
Mn	55	72	1	NO GAS	0.512	ug/l	9467.33
Mn	55	72	3	He	0.478	ug/l	406.05
Fe	56	72	2	H2	12.815	ug/l	14197.38
Fe	56	72	3	He	12.566	ug/l	21511.54
Co	59	72	1	NO GAS	0.524	ug/l	7972.85
Ni	60	72	1	NO GAS	0.559	ug/l	1939.61
Ni	60	72	3	He	0.508	ug/l	595.57
Ni	62	72	1	NO GAS	0.675	ug/l	618.79
Cu	63	72	1	NO GAS	0.522	ug/l	4905.76
Cu	63	72	3	He	0.475	ug/l	1778.74
Cu	65	72	1	NO GAS	0.511	ug/l	2405.70
Zn	66	72	1	NO GAS	0.457	ug/l	1756.46
Zn	66	72	3	He	0.460	ug/l	314.45
As	75	72	1	NO GAS	0.595	ug/l	4840.07
As	75	72	3	He	0.471	ug/l	148.97
Se	78	72	2	H2	0.420	ug/l	45.66
Br	79	72	1	NO GAS	0.605	ug/l	65729.21
Br	79	72	2	H2	0.109	ug/l	8918.14
Se	82	72	1	NO GAS	1.375	ug/l	516.35
Kr	84	72	1	NO GAS		ug/l	7819.73
Sr	88	72	1	NO GAS	0.528	ug/l	18736.93
Sr	88	72	3	He	0.539	ug/l	1078.93

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.510	ug/l	3972.74
Mo	95	72	3	He	0.484	ug/l	1312.29
Mo	98	72	1	NO GAS	0.496	ug/l	6641.76
Ag	107	72	1	NO GAS	0.215	ug/l	6310.66
Ag	109	72	1	NO GAS	0.208	ug/l	6049.94
Cd	111	159	1	NO GAS	0.483	ug/l	2583.17
Cd	111	159	3	He	0.497	ug/l	693.22
Cd	114	159	1	NO GAS	0.510	ug/l	6093.82
Cd	114	159	3	He	0.519	ug/l	1842.71
Sn	118	159	1	NO GAS	-1.981	ug/l	10958.83
Sn	118	159	3	He	-1.878	ug/l	1544.53
Sb	121	159	1	NO GAS	0.476	ug/l	10606.91
Sb	121	159	3	He	0.481	ug/l	1617.87
Sb	123	159	1	NO GAS	0.459	ug/l	7998.72
Sb	123	159	3	He	0.459	ug/l	1274.51
Ba	135	159	1	NO GAS	0.529	ug/l	2535.21
Ba	137	159	1	NO GAS	0.497	ug/l	4222.23
La	139	175	1	NO GAS	0.501	ug/l	39241.64
La	139	175	3	He	0.480	ug/l	8644.51
Ce	140	175	1	NO GAS	0.498	ug/l	38258.47
Ce	140	175	3	He	0.460	ug/l	10544.32
Hg	201	175	1	NO GAS	0.010	ug/l	52.32
Hg	202	175	1	NO GAS	0.009	ug/l	148.64
Hg	202	175	3	He	0.010	ug/l	97.65
Tl	203	175	3	He	0.496	ug/l	7074.94
Tl	205	175	1	NO GAS	0.511	ug/l	30949.45
Tl	205	175	3	He	0.495	ug/l	16762.64
[Pb]	206	175	1	NO GAS	0.508	ug/l	10581.57
[Pb]	207	175	1	NO GAS	0.500	ug/l	9166.16
Pb	208	175	1	NO GAS	0.508	ug/l	42351.48
Th	232	175	3	He	0.388	ug/l	20499.39
U	238	175	1	NO GAS	0.488	ug/l	47167.26

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1867226.56	100.1
Sc	45	2	H2	83423.32	101.0
Sc	45	3	He	51212.02	101.8
Ge	72	1	NO GAS	824017.27	97.4
Ge	72	2	H2	116843.60	98.6
Ge	72	3	He	77970.41	103.3
Tb	159	1	NO GAS	18156208.69	99.4
Tb	159	3	He	6979098.54	98.9
Ho	165	1	NO GAS	17034432.58	100.4
Ho	165	3	He	6750317.89	101.3
Lu	175	1	NO GAS	18440651.04	97.2
Lu	175	3	He	4264523.80	102.5

ICPMS206-B Analytical Data

Sample Name	1 PPB STD
File Name	031CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 21:54:07
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	11.807	ug/l	8886.51
Be	9	45	1	NO GAS	1.142	ug/l	328.27
B	11	45	1	NO GAS	0.741	ug/l	319.27
Na	23	45	3	He	276.556	ug/l	31766.01
Mg	24	45	3	He	283.540	ug/l	13035.84
Al	27	45	1	NO GAS	1.057	ug/l	3787.11
Si	28	45	2	H2	4.531	ug/l	105.98
K	39	72	3	He	245.317	ug/l	13145.16
Ca	40	72	2	H2	277.650	ug/l	54513.35
Ti	47	72	1	NO GAS	1.073	ug/l	912.91
V	51	72	1	NO GAS	0.913	ug/l	3955.09
V	51	72	3	He	1.109	ug/l	1498.97
Cr	52	72	1	NO GAS	1.086	ug/l	22240.75
Cr	52	72	3	He	1.188	ug/l	2265.69
Cr	53	72	1	NO GAS	2.410	ug/l	48830.37
Mn	55	72	1	NO GAS	1.143	ug/l	20661.89
Mn	55	72	3	He	1.111	ug/l	941.45
Fe	56	72	2	H2	27.311	ug/l	29688.39
Fe	56	72	3	He	25.800	ug/l	43756.62
Co	59	72	1	NO GAS	1.151	ug/l	17784.26
Ni	60	72	1	NO GAS	1.184	ug/l	4119.03
Ni	60	72	3	He	1.130	ug/l	1296.73
Ni	62	72	1	NO GAS	1.321	ug/l	968.12
Cu	63	72	1	NO GAS	1.200	ug/l	10879.38
Cu	63	72	3	He	1.159	ug/l	4065.02
Cu	65	72	1	NO GAS	1.153	ug/l	5236.46
Zn	66	72	1	NO GAS	1.085	ug/l	3576.23
Zn	66	72	3	He	1.137	ug/l	641.13
As	75	72	1	NO GAS	1.417	ug/l	7450.14
As	75	72	3	He	1.102	ug/l	343.60
Se	78	72	2	H2	1.042	ug/l	109.31
Br	79	72	1	NO GAS	0.137	ug/l	64003.05
Br	79	72	2	H2	-0.015	ug/l	8755.02
Se	82	72	1	NO GAS	2.548	ug/l	832.43
Kr	84	72	1	NO GAS		ug/l	7726.55
Sr	88	72	1	NO GAS	1.159	ug/l	41493.50
Sr	88	72	3	He	1.117	ug/l	1980.14

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.160	ug/l	9113.72
Mo	95	72	3	He	1.090	ug/l	2928.06
Mo	98	72	1	NO GAS	1.097	ug/l	14770.23
Ag	107	72	1	NO GAS	0.473	ug/l	12080.12
Ag	109	72	1	NO GAS	0.464	ug/l	11685.90
Cd	111	159	1	NO GAS	1.083	ug/l	5911.89
Cd	111	159	3	He	1.075	ug/l	1519.11
Cd	114	159	1	NO GAS	1.155	ug/l	14289.17
Cd	114	159	3	He	1.096	ug/l	3981.94
Sn	118	159	1	NO GAS	-1.339	ug/l	21078.92
Sn	118	159	3	He	-1.236	ug/l	3177.01
Sb	121	159	1	NO GAS	1.074	ug/l	24012.43
Sb	121	159	3	He	0.984	ug/l	3312.59
Sb	123	159	1	NO GAS	1.062	ug/l	18495.14
Sb	123	159	3	He	1.035	ug/l	2879.17
Ba	135	159	1	NO GAS	1.110	ug/l	5360.32
Ba	137	159	1	NO GAS	1.087	ug/l	9294.41
La	139	175	1	NO GAS	1.084	ug/l	87982.57
La	139	175	3	He	1.153	ug/l	20036.53
Ce	140	175	1	NO GAS	1.095	ug/l	87093.74
Ce	140	175	3	He	1.156	ug/l	25556.69
Hg	201	175	1	NO GAS	0.021	ug/l	100.98
Hg	202	175	1	NO GAS	0.023	ug/l	287.28
Hg	202	175	3	He	0.023	ug/l	179.63
Tl	203	175	3	He	1.119	ug/l	15302.69
Tl	205	175	1	NO GAS	1.113	ug/l	69484.56
Tl	205	175	3	He	1.182	ug/l	38305.30
[Pb]	206	175	1	NO GAS	1.120	ug/l	24115.99
[Pb]	207	175	1	NO GAS	1.087	ug/l	20587.41
Pb	208	175	1	NO GAS	1.113	ug/l	95846.85
Th	232	175	3	He	0.949	ug/l	47008.56
U	238	175	1	NO GAS	1.061	ug/l	106120.24

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1877940.98	100.6
Sc	45	2	H2	83105.09	100.6
Sc	45	3	He	50703.94	100.8
Ge	72	1	NO GAS	839997.49	99.3
Ge	72	2	H2	116146.56	98.0
Ge	72	3	He	78413.25	103.9
Tb	159	1	NO GAS	18363999.39	100.5
Tb	159	3	He	7077545.63	100.3
Ho	165	1	NO GAS	17232300.86	101.6
Ho	165	3	He	6686893.53	100.3
Lu	175	1	NO GAS	19104992.66	100.7
Lu	175	3	He	4121838.91	99.1

ICPMS206-B Analytical Data

Sample Name	10 PPB STD
File Name	032CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 21:59:59
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	110.323	ug/l	65688.12
Be	9	45	1	NO GAS	9.589	ug/l	2776.34
B	11	45	1	NO GAS	8.856	ug/l	2060.39
Na	23	45	3	He	2436.365	ug/l	238218.55
Mg	24	45	3	He	2340.894	ug/l	113664.56
Al	27	45	1	NO GAS	9.772	ug/l	30359.10
Si	28	45	2	H2	37.494	ug/l	772.53
K	39	72	3	He	2347.001	ug/l	100098.52
Ca	40	72	2	H2	2465.794	ug/l	490797.02
Ti	47	72	1	NO GAS	10.074	ug/l	8373.00
V	51	72	1	NO GAS	9.465	ug/l	109251.67
V	51	72	3	He	10.339	ug/l	12985.00
Cr	52	72	1	NO GAS	9.859	ug/l	124401.91
Cr	52	72	3	He	9.712	ug/l	17214.62
Cr	53	72	1	NO GAS	12.450	ug/l	64441.99
Mn	55	72	1	NO GAS	10.226	ug/l	179050.75
Mn	55	72	3	He	10.463	ug/l	8654.42
Fe	56	72	2	H2	244.756	ug/l	269396.01
Fe	56	72	3	He	245.817	ug/l	404031.18
Co	59	72	1	NO GAS	10.470	ug/l	161177.06
Ni	60	72	1	NO GAS	10.545	ug/l	36183.84
Ni	60	72	3	He	10.544	ug/l	11618.53
Ni	62	72	1	NO GAS	10.818	ug/l	5945.99
Cu	63	72	1	NO GAS	10.656	ug/l	92930.05
Cu	63	72	3	He	10.638	ug/l	34973.86
Cu	65	72	1	NO GAS	10.453	ug/l	45545.19
Zn	66	72	1	NO GAS	10.181	ug/l	29477.01
Zn	66	72	3	He	10.565	ug/l	5080.81
As	75	72	1	NO GAS	10.259	ug/l	34476.57
As	75	72	3	He	10.325	ug/l	3117.01
Se	78	72	2	H2	10.348	ug/l	1090.49
Br	79	72	1	NO GAS	0.438	ug/l	65927.21
Br	79	72	2	H2	0.043	ug/l	9017.98
Se	82	72	1	NO GAS	11.324	ug/l	3105.71
Kr	84	72	1	NO GAS		ug/l	10136.41
Sr	88	72	1	NO GAS	10.295	ug/l	365540.52
Sr	88	72	3	He	10.427	ug/l	16082.40

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	10.235	ug/l	79788.94
Mo	95	72	3	He	10.503	ug/l	27374.03
Mo	98	72	1	NO GAS	10.101	ug/l	134758.07
Ag	107	72	1	NO GAS	4.301	ug/l	95999.06
Ag	109	72	1	NO GAS	4.224	ug/l	92856.67
Cd	111	159	1	NO GAS	10.250	ug/l	55459.81
Cd	111	159	3	He	9.647	ug/l	13469.61
Cd	114	159	1	NO GAS	10.659	ug/l	131903.21
Cd	114	159	3	He	9.917	ug/l	35828.84
Sn	118	159	1	NO GAS	7.975	ug/l	163535.01
Sn	118	159	3	He	7.789	ug/l	25495.81
Sb	121	159	1	NO GAS	9.850	ug/l	215770.84
Sb	121	159	3	He	9.319	ug/l	30711.55
Sb	123	159	1	NO GAS	9.970	ug/l	169954.01
Sb	123	159	3	He	9.832	ug/l	26813.68
Ba	135	159	1	NO GAS	9.870	ug/l	46893.21
Ba	137	159	1	NO GAS	9.926	ug/l	83229.02
La	139	175	1	NO GAS	9.855	ug/l	788882.90
La	139	175	3	He	10.446	ug/l	179368.18
Ce	140	175	1	NO GAS	9.822	ug/l	770822.66
Ce	140	175	3	He	10.364	ug/l	226154.93
Hg	201	175	1	NO GAS	0.191	ug/l	797.20
Hg	202	175	1	NO GAS	0.195	ug/l	1883.74
Hg	202	175	3	He	0.204	ug/l	1362.46
Tl	203	175	3	He	10.308	ug/l	138616.96
Tl	205	175	1	NO GAS	10.180	ug/l	625052.96
Tl	205	175	3	He	10.995	ug/l	350452.67
[Pb]	206	175	1	NO GAS	10.152	ug/l	215330.13
[Pb]	207	175	1	NO GAS	10.001	ug/l	186614.73
Pb	208	175	1	NO GAS	10.135	ug/l	860138.87
Th	232	175	3	He	9.923	ug/l	477172.57
U	238	175	1	NO GAS	9.800	ug/l	966771.58

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1919867.00	102.9
Sc	45	2	H2	86694.52	105.0
Sc	45	3	He	53552.13	106.5
Ge	72	1	NO GAS	840045.76	99.3
Ge	72	2	H2	118829.35	100.3
Ge	72	3	He	76992.30	102.0
Tb	159	1	NO GAS	18094535.98	99.1
Tb	159	3	He	6990582.00	99.0
Ho	165	1	NO GAS	16754863.65	98.7
Ho	165	3	He	6738980.93	101.1
Lu	175	1	NO GAS	18862227.40	99.5
Lu	175	3	He	4071934.94	97.9

ICPMS206-B Analytical Data

Sample Name	50 PPB STD
File Name	033CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 22:05:50
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	541.283	ug/l	321802.05
Be	9	45	1	NO GAS	49.256	ug/l	14537.12
B	11	45	1	NO GAS	47.982	ug/l	10626.50
Na	23	45	3	He	12027.440	ug/l	1151302.24
Mg	24	45	3	He	11891.085	ug/l	579537.13
Al	27	45	1	NO GAS	47.574	ug/l	148576.62
Si	28	45	2	H2	193.666	ug/l	4075.03
K	39	72	3	He	11818.011	ug/l	514585.14
Ca	40	72	2	H2	12376.854	ug/l	2558726.63
Ti	47	72	1	NO GAS	48.278	ug/l	41029.44
V	51	72	1	NO GAS	47.025	ug/l	589142.58
V	51	72	3	He	49.482	ug/l	64549.37
Cr	52	72	1	NO GAS	49.762	ug/l	604239.86
Cr	52	72	3	He	48.760	ug/l	89569.19
Cr	53	72	1	NO GAS	56.842	ug/l	136481.03
Mn	55	72	1	NO GAS	51.418	ug/l	920623.16
Mn	55	72	3	He	49.726	ug/l	42948.44
Fe	56	72	2	H2	1159.729	ug/l	1329085.85
Fe	56	72	3	He	1229.257	ug/l	2107282.64
Co	59	72	1	NO GAS	50.447	ug/l	796732.62
Ni	60	72	1	NO GAS	51.103	ug/l	179533.78
Ni	60	72	3	He	49.731	ug/l	57191.59
Ni	62	72	1	NO GAS	51.518	ug/l	27971.41
Cu	63	72	1	NO GAS	50.867	ug/l	453206.89
Cu	63	72	3	He	50.022	ug/l	170910.11
Cu	65	72	1	NO GAS	50.069	ug/l	222833.75
Zn	66	72	1	NO GAS	50.376	ug/l	147620.92
Zn	66	72	3	He	50.094	ug/l	24787.34
As	75	72	1	NO GAS	50.512	ug/l	161686.78
As	75	72	3	He	49.393	ug/l	15548.46
Se	78	72	2	H2	47.153	ug/l	5178.45
Br	79	72	1	NO GAS	0.338	ug/l	66949.26
Br	79	72	2	H2	0.088	ug/l	9447.42
Se	82	72	1	NO GAS	50.902	ug/l	13763.58
Kr	84	72	1	NO GAS		ug/l	18140.81
Sr	88	72	1	NO GAS	50.791	ug/l	1848846.49
Sr	88	72	3	He	49.679	ug/l	79076.52

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	49.012	ug/l	391709.11
Mo	95	72	3	He	49.172	ug/l	133539.43
Mo	98	72	1	NO GAS	48.766	ug/l	667004.94
Ag	107	72	1	NO GAS	20.579	ug/l	464508.87
Ag	109	72	1	NO GAS	20.159	ug/l	448326.55
Cd	111	159	1	NO GAS	50.963	ug/l	276233.54
Cd	111	159	3	He	50.085	ug/l	68463.05
Cd	114	159	1	NO GAS	49.706	ug/l	617846.98
Cd	114	159	3	He	49.519	ug/l	175549.09
Sn	118	159	1	NO GAS	48.328	ug/l	785361.96
Sn	118	159	3	He	48.019	ug/l	122550.80
Sb	121	159	1	NO GAS	49.599	ug/l	1085598.81
Sb	121	159	3	He	49.592	ug/l	160024.29
Sb	123	159	1	NO GAS	50.645	ug/l	863958.81
Sb	123	159	3	He	48.601	ug/l	129822.28
Ba	135	159	1	NO GAS	49.591	ug/l	236025.42
Ba	137	159	1	NO GAS	48.354	ug/l	406525.19
La	139	175	1	NO GAS	46.819	ug/l	3766364.23
La	139	175	3	He	47.503	ug/l	848884.24
Ce	140	175	1	NO GAS	47.257	ug/l	3726770.83
Ce	140	175	3	He	48.496	ug/l	1101728.25
Hg	201	175	1	NO GAS	0.960	ug/l	3981.73
Hg	202	175	1	NO GAS	0.970	ug/l	9139.59
Hg	202	175	3	He	0.978	ug/l	6686.81
Tl	203	175	3	He	49.110	ug/l	687375.91
Tl	205	175	1	NO GAS	49.266	ug/l	3040418.39
Tl	205	175	3	He	50.038	ug/l	1660066.77
[Pb]	206	175	1	NO GAS	49.005	ug/l	1044691.19
[Pb]	207	175	1	NO GAS	47.810	ug/l	896386.62
Pb	208	175	1	NO GAS	48.625	ug/l	4146515.59
Th	232	175	3	He	49.667	ug/l	2483195.76
U	238	175	1	NO GAS	49.805	ug/l	4935120.43

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1968490.27	105.5
Sc	45	2	H2	93349.92	113.0
Sc	45	3	He	53705.24	106.8
Ge	72	1	NO GAS	862743.94	102.0
Ge	72	2	H2	127568.82	107.6
Ge	72	3	He	80304.58	106.4
Tb	159	1	NO GAS	18236644.96	99.8
Tb	159	3	He	6842968.61	97.0
Ho	165	1	NO GAS	17143160.58	101.0
Ho	165	3	He	6601981.02	99.0
Lu	175	1	NO GAS	18979730.94	100.1
Lu	175	3	He	4237061.65	101.8

ICPMS206-B Analytical Data

Sample Name	100 PPB STD
File Name	034CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 22:11:40
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1177.920	ug/l	695109.84
Be	9	45	1	NO GAS	100.412	ug/l	29851.32
B	11	45	1	NO GAS	101.127	ug/l	22416.00
Na	23	45	3	He	25113.127	ug/l	2451385.92
Mg	24	45	3	He	25406.833	ug/l	1266941.79
Al	27	45	1	NO GAS	101.235	ug/l	317171.03
Si	28	45	2	H2	403.412	ug/l	8514.45
K	39	72	3	He	24664.680	ug/l	1089567.74
Ca	40	72	2	H2	26655.155	ug/l	5349149.08
Ti	47	72	1	NO GAS	100.853	ug/l	86388.56
V	51	72	1	NO GAS	101.544	ug/l	1287369.17
V	51	72	3	He	100.224	ug/l	132916.55
Cr	52	72	1	NO GAS	100.132	ug/l	1216072.12
Cr	52	72	3	He	100.647	ug/l	187948.29
Cr	53	72	1	NO GAS	96.302	ug/l	201201.99
Mn	55	72	1	NO GAS	99.267	ug/l	1791371.05
Mn	55	72	3	He	100.090	ug/l	87936.16
Fe	56	72	2	H2	2528.140	ug/l	2803486.34
Fe	56	72	3	He	2440.470	ug/l	4255076.90
Co	59	72	1	NO GAS	99.728	ug/l	1586745.27
Ni	60	72	1	NO GAS	99.392	ug/l	352183.29
Ni	60	72	3	He	100.079	ug/l	117066.10
Ni	62	72	1	NO GAS	99.155	ug/l	54033.43
Cu	63	72	1	NO GAS	99.499	ug/l	893125.13
Cu	63	72	3	He	99.924	ug/l	347139.46
Cu	65	72	1	NO GAS	99.918	ug/l	448178.65
Zn	66	72	1	NO GAS	99.793	ug/l	294292.96
Zn	66	72	3	He	99.896	ug/l	50191.82
As	75	72	1	NO GAS	99.714	ug/l	318347.29
As	75	72	3	He	100.270	ug/l	32106.65
Se	78	72	2	H2	101.389	ug/l	10765.02
Br	79	72	1	NO GAS	0.429	ug/l	68091.97
Br	79	72	2	H2	0.790	ug/l	9803.56
Se	82	72	1	NO GAS	99.395	ug/l	26845.31
Kr	84	72	1	NO GAS		ug/l	29431.34
Sr	88	72	1	NO GAS	99.573	ug/l	3653296.99
Sr	88	72	3	He	100.116	ug/l	161875.83

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	100.469	ug/l	809217.04
Mo	95	72	3	He	100.363	ug/l	277332.08
Mo	98	72	1	NO GAS	100.606	ug/l	1386610.72
Ag	107	72	1	NO GAS	39.680	ug/l	901524.22
Ag	109	72	1	NO GAS	39.897	ug/l	892445.25
Cd	111	159	1	NO GAS	99.493	ug/l	540763.00
Cd	111	159	3	He	99.992	ug/l	136778.89
Cd	114	159	1	NO GAS	100.080	ug/l	1245274.71
Cd	114	159	3	He	100.248	ug/l	355718.01
Sn	118	159	1	NO GAS	101.079	ug/l	1596763.76
Sn	118	159	3	He	101.250	ug/l	251870.37
Sb	121	159	1	NO GAS	100.215	ug/l	2202168.58
Sb	121	159	3	He	100.272	ug/l	323846.52
Sb	123	159	1	NO GAS	99.680	ug/l	1704450.01
Sb	123	159	3	He	100.716	ug/l	269271.97
Ba	135	159	1	NO GAS	100.216	ug/l	477841.72
Ba	137	159	1	NO GAS	100.829	ug/l	848340.93
La	139	175	1	NO GAS	101.604	ug/l	7856290.70
La	139	175	3	He	101.203	ug/l	1761922.97
Ce	140	175	1	NO GAS	101.388	ug/l	7687049.23
Ce	140	175	3	He	100.714	ug/l	2227787.16
Hg	201	175	1	NO GAS	2.021	ug/l	8049.53
Hg	202	175	1	NO GAS	2.015	ug/l	18185.92
Hg	202	175	3	He	2.011	ug/l	13373.19
Tl	203	175	3	He	100.413	ug/l	1369146.39
Tl	205	175	1	NO GAS	100.348	ug/l	5950839.98
Tl	205	175	3	He	99.879	ug/l	3229377.98
[Pb]	206	175	1	NO GAS	100.481	ug/l	2058486.60
[Pb]	207	175	1	NO GAS	101.094	ug/l	1822185.60
Pb	208	175	1	NO GAS	100.673	ug/l	8252555.33
Th	232	175	3	He	100.175	ug/l	4875994.14
U	238	175	1	NO GAS	100.117	ug/l	9540652.06

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1974193.67	105.8
Sc	45	2	H2	90908.97	110.1
Sc	45	3	He	54980.30	109.3
Ge	72	1	NO GAS	868253.57	102.6
Ge	72	2	H2	119937.45	101.2
Ge	72	3	He	81697.32	108.2
Tb	159	1	NO GAS	18163901.38	99.4
Tb	159	3	He	6849415.95	97.0
Ho	165	1	NO GAS	17025001.70	100.3
Ho	165	3	He	6655643.95	99.8
Lu	175	1	NO GAS	18223875.53	96.1
Lu	175	3	He	4129636.89	99.2

ICPMS206-B Analytical Data

Sample Name	1000 PPB STD
File Name	035CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 22:17:24
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2557.710	ug/l	1481995.49
Be	9	45	1	NO GAS	972.007	ug/l	292077.64
B	11	45	1	NO GAS	945.271	ug/l	210425.69
Na	23	45	3	He	50064.622	ug/l	4610801.77
Mg	24	45	3	He	49956.613	ug/l	2352638.64
Al	27	45	1	NO GAS	939.624	ug/l	2971298.01
Si	28	45	2	H2	2.293	ug/l	66.66
K	39	72	3	He	50345.844	ug/l	2093185.14
Ca	40	72	2	H2	49204.777	ug/l	9959193.00
Ti	47	72	1	NO GAS	5.898	ug/l	4926.67
V	51	72	1	NO GAS	1084.466	ug/l	13405754.74
V	51	72	3	He	1078.354	ug/l	1347739.72
Cr	52	72	1	NO GAS	1062.004	ug/l	12421794.02
Cr	52	72	3	He	1056.052	ug/l	1856579.95
Cr	53	72	1	NO GAS	953.195	ug/l	1529958.66
Mn	55	72	1	NO GAS	1044.358	ug/l	18279414.97
Mn	55	72	3	He	1053.228	ug/l	871946.80
Fe	56	72	2	H2	6062.186	ug/l	6778809.85
Fe	56	72	3	He	6085.073	ug/l	10000970.76
Co	59	72	1	NO GAS	1026.638	ug/l	15848731.70
Ni	60	72	1	NO GAS	996.351	ug/l	3424739.05
Ni	60	72	3	He	1038.632	ug/l	1145632.90
Ni	62	72	1	NO GAS	1004.863	ug/l	528696.83
Cu	63	72	1	NO GAS	955.766	ug/l	8318686.07
Cu	63	72	3	He	1007.497	ug/l	3300231.53
Cu	65	72	1	NO GAS	946.994	ug/l	4118243.51
Zn	66	72	1	NO GAS	972.342	ug/l	2776740.84
Zn	66	72	3	He	1019.360	ug/l	481525.93
As	75	72	1	NO GAS	969.134	ug/l	2975263.89
As	75	72	3	He	1052.935	ug/l	317869.78
Se	78	72	2	H2	964.540	ug/l	103189.17
Br	79	72	1	NO GAS	1.049	ug/l	70066.07
Br	79	72	2	H2	2.493	ug/l	11461.37
Se	82	72	1	NO GAS	991.176	ug/l	258289.82
Kr	84	72	1	NO GAS		ug/l	218875.09
Sr	88	72	1	NO GAS	1022.385	ug/l	36391345.75
Sr	88	72	3	He	1060.586	ug/l	1611412.55

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.060	ug/l	546.68
Mo	95	72	3	He	0.047	ug/l	156.67
Mo	98	72	1	NO GAS	0.071	ug/l	1100.83
Ag	107	72	1	NO GAS	368.150	ug/l	8109684.46
Ag	109	72	1	NO GAS	360.313	ug/l	7810660.44
Cd	111	159	1	NO GAS	955.975	ug/l	5094140.13
Cd	111	159	3	He	1030.265	ug/l	1314244.87
Cd	114	159	1	NO GAS	979.062	ug/l	11943790.38
Cd	114	159	3	He	1019.112	ug/l	3371579.26
Sn	118	159	1	NO GAS	-2.450	ug/l	3693.12
Sn	118	159	3	He	-2.227	ug/l	625.57
Sb	121	159	1	NO GAS	0.134	ug/l	3055.88
Sb	121	159	3	He	0.102	ug/l	335.56
Sb	123	159	1	NO GAS	0.148	ug/l	2643.57
Sb	123	159	3	He	0.110	ug/l	295.56
Ba	135	159	1	NO GAS	968.868	ug/l	4529106.02
Ba	137	159	1	NO GAS	952.262	ug/l	7855709.56
La	139	175	1	NO GAS	0.012	ug/l	961.02
La	139	175	3	He	0.008	ug/l	130.13
Ce	140	175	1	NO GAS	0.022	ug/l	1728.54
Ce	140	175	3	He	0.028	ug/l	593.96
Hg	201	175	1	NO GAS	0.011	ug/l	55.66
Hg	202	175	1	NO GAS	0.015	ug/l	202.96
Hg	202	175	3	He	0.012	ug/l	95.31
Tl	203	175	3	He	1055.843	ug/l	13293744.48
Tl	205	175	1	NO GAS	983.666	ug/l	57622814.70
Tl	205	175	3	He	1056.557	ug/l	31536648.62
[Pb]	206	175	1	NO GAS	950.583	ug/l	19235519.99
[Pb]	207	175	1	NO GAS	936.594	ug/l	16674551.97
Pb	208	175	1	NO GAS	947.991	ug/l	76760109.13
Th	232	175	3	He	1072.841	ug/l	48222717.19
U	238	175	1	NO GAS	985.936	ug/l	92804104.76

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1996029.05	107.0
Sc	45	2	H2	88039.72	106.6
Sc	45	3	He	52171.66	103.7
Ge	72	1	NO GAS	842499.67	99.6
Ge	72	2	H2	120895.42	102.0
Ge	72	3	He	77424.33	102.6
Tb	159	1	NO GAS	17832067.27	97.6
Tb	159	3	He	6401799.49	90.7
Ho	165	1	NO GAS	16753876.00	98.7
Ho	165	3	He	6056344.05	90.8
Lu	175	1	NO GAS	18001607.64	94.9
Lu	175	3	He	3824036.77	91.9

ICPMS206-B Analytical Data

Sample Name	100 ppb Bromine
File Name	036CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 22:22:59
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	4.467	ug/l	4381.02
Be	9	45	1	NO GAS	0.138	ug/l	46.32
B	11	45	1	NO GAS	5.425	ug/l	1341.79
Na	23	45	3	He	56.569	ug/l	13090.55
Mg	24	45	3	He	4.370	ug/l	232.87
Al	27	45	1	NO GAS	8.329	ug/l	26249.07
Si	28	45	2	H2	0.370	ug/l	27.99
K	39	72	3	He	505.702	ug/l	25288.89
Ca	40	72	2	H2	8.508	ug/l	2385.67
Ti	47	72	1	NO GAS	0.058	ug/l	73.30
V	51	72	1	NO GAS	-0.235	ug/l	-10382.31
V	51	72	3	He	0.125	ug/l	256.67
Cr	52	72	1	NO GAS	0.110	ug/l	11135.02
Cr	52	72	3	He	0.149	ug/l	429.16
Cr	53	72	1	NO GAS	1.265	ug/l	48248.66
Mn	55	72	1	NO GAS	0.117	ug/l	2818.01
Mn	55	72	3	He	0.095	ug/l	89.34
Fe	56	72	2	H2	1.135	ug/l	1685.93
Fe	56	72	3	He	1.085	ug/l	2538.96
Co	59	72	1	NO GAS	0.095	ug/l	1566.99
Ni	60	72	1	NO GAS	0.181	ug/l	701.97
Ni	60	72	3	He	0.167	ug/l	225.56
Ni	62	72	1	NO GAS	0.289	ug/l	439.14
Cu	63	72	1	NO GAS	0.167	ug/l	1967.07
Cu	63	72	3	He	0.149	ug/l	735.87
Cu	65	72	1	NO GAS	0.173	ug/l	1013.17
Zn	66	72	1	NO GAS	0.600	ug/l	2252.24
Zn	66	72	3	He	0.607	ug/l	404.45
As	75	72	1	NO GAS	1.021	ug/l	6392.04
As	75	72	3	He	0.162	ug/l	57.66
Se	78	72	2	H2	0.254	ug/l	30.66
Br	79	72	1	NO GAS	100.000	ug/l	720236.92
Br	79	72	2	H2	100.000	ug/l	107446.53
Se	82	72	1	NO GAS	4.903	ug/l	1479.24
Kr	84	72	1	NO GAS		ug/l	7929.57
Sr	88	72	1	NO GAS	0.100	ug/l	3995.95
Sr	88	72	3	He	0.076	ug/l	384.45

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.020	ug/l	237.78
Mo	95	72	3	He	0.011	ug/l	70.00
Mo	98	72	1	NO GAS	0.011	ug/l	305.08
Ag	107	72	1	NO GAS	0.297	ug/l	8445.22
Ag	109	72	1	NO GAS	0.297	ug/l	8287.85
Cd	111	159	1	NO GAS	0.135	ug/l	675.29
Cd	111	159	3	He	0.094	ug/l	133.97
Cd	114	159	1	NO GAS	0.117	ug/l	1178.08
Cd	114	159	3	He	0.108	ug/l	360.65
Sn	118	159	1	NO GAS	-2.370	ug/l	4841.17
Sn	118	159	3	He	-2.198	ug/l	763.36
Sb	121	159	1	NO GAS	0.028	ug/l	752.25
Sb	121	159	3	He	0.029	ug/l	130.00
Sb	123	159	1	NO GAS	0.027	ug/l	597.80
Sb	123	159	3	He	0.030	ug/l	106.67
Ba	135	159	1	NO GAS	0.125	ug/l	592.17
Ba	137	159	1	NO GAS	0.119	ug/l	1014.70
La	139	175	1	NO GAS	0.000	ug/l	76.74
La	139	175	3	He	0.003	ug/l	50.05
Ce	140	175	1	NO GAS	0.003	ug/l	273.62
Ce	140	175	3	He	0.001	ug/l	33.37
Hg	201	175	1	NO GAS	0.004	ug/l	29.32
Hg	202	175	1	NO GAS	0.004	ug/l	109.65
Hg	202	175	3	He	0.005	ug/l	58.32
Tl	203	175	3	He	0.128	ug/l	1905.75
Tl	205	175	1	NO GAS	0.127	ug/l	8047.76
Tl	205	175	3	He	0.127	ug/l	4501.13
[Pb]	206	175	1	NO GAS	0.105	ug/l	2273.53
[Pb]	207	175	1	NO GAS	0.106	ug/l	1999.04
Pb	208	175	1	NO GAS	0.107	ug/l	9221.20
Th	232	175	3	He	0.321	ug/l	17182.57
U	238	175	1	NO GAS	0.131	ug/l	12988.45

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1938703.53	103.9
Sc	45	2	H2	89738.92	108.7
Sc	45	3	He	55220.33	109.8
Ge	72	1	NO GAS	861709.69	101.9
Ge	72	2	H2	125615.01	106.0
Ge	72	3	He	82100.36	108.8
Tb	159	1	NO GAS	17633509.14	96.5
Tb	159	3	He	7075535.44	100.2
Ho	165	1	NO GAS	16754243.24	98.7
Ho	165	3	He	6900977.30	103.5
Lu	175	1	NO GAS	18729936.36	98.8
Lu	175	3	He	4284266.51	103.0

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	037BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 22:29:02
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.809	ug/l	2865.01
Be	9	45	1	NO GAS	0.033	ug/l	15.33
B	11	45	1	NO GAS	1.853	ug/l	566.56
Na	23	45	3	He	14.924	ug/l	9037.97
Mg	24	45	3	He	1.700	ug/l	99.80
Al	27	45	1	NO GAS	0.149	ug/l	1113.38
Si	28	45	2	H2	-0.066	ug/l	19.33
K	39	72	3	He	2.060	ug/l	3009.18
Ca	40	72	2	H2	1.821	ug/l	987.88
Ti	47	72	1	NO GAS	0.013	ug/l	34.98
V	51	72	1	NO GAS	-0.414	ug/l	-12578.53
V	51	72	3	He	0.030	ug/l	131.11
Cr	52	72	1	NO GAS	-0.071	ug/l	8901.42
Cr	52	72	3	He	-0.010	ug/l	129.74
Cr	53	72	1	NO GAS	-2.037	ug/l	42661.49
Mn	55	72	1	NO GAS	0.026	ug/l	1187.70
Mn	55	72	3	He	0.017	ug/l	20.67
Fe	56	72	2	H2	0.354	ug/l	784.64
Fe	56	72	3	He	0.370	ug/l	1291.09
Co	59	72	1	NO GAS	0.019	ug/l	369.27
Ni	60	72	1	NO GAS	0.017	ug/l	123.09
Ni	60	72	3	He	0.003	ug/l	33.33
Ni	62	72	1	NO GAS	0.315	ug/l	449.12
Cu	63	72	1	NO GAS	0.005	ug/l	518.57
Cu	63	72	3	He	-0.007	ug/l	190.63
Cu	65	72	1	NO GAS	0.005	ug/l	263.29
Zn	66	72	1	NO GAS	-0.008	ug/l	472.34
Zn	66	72	3	He	-0.052	ug/l	73.33
As	75	72	1	NO GAS	0.268	ug/l	3998.59
As	75	72	3	He	0.046	ug/l	20.33
Se	78	72	2	H2	0.082	ug/l	11.67
Br	79	72	1	NO GAS	0.532	ug/l	67677.32
Br	79	72	2	H2	0.514	ug/l	10043.29
Se	82	72	1	NO GAS	1.570	ug/l	588.21
Kr	84	72	1	NO GAS		ug/l	8069.40
Sr	88	72	1	NO GAS	0.014	ug/l	868.31
Sr	88	72	3	He	0.007	ug/l	274.45

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.009	ug/l	150.00
Mo	95	72	3	He	0.010	ug/l	67.78
Mo	98	72	1	NO GAS	0.009	ug/l	281.81
Ag	107	72	1	NO GAS	0.021	ug/l	2199.05
Ag	109	72	1	NO GAS	0.020	ug/l	2146.39
Cd	111	159	1	NO GAS	0.011	ug/l	21.00
Cd	111	159	3	He	0.016	ug/l	24.66
Cd	114	159	1	NO GAS	0.019	ug/l	-13.07
Cd	114	159	3	He	0.025	ug/l	57.18
Sn	118	159	1	NO GAS	-2.526	ug/l	2521.89
Sn	118	159	3	He	-2.356	ug/l	375.56
Sb	121	159	1	NO GAS	0.015	ug/l	483.34
Sb	121	159	3	He	0.014	ug/l	83.33
Sb	123	159	1	NO GAS	0.016	ug/l	418.90
Sb	123	159	3	He	0.012	ug/l	57.78
Ba	135	159	1	NO GAS	0.031	ug/l	156.36
Ba	137	159	1	NO GAS	0.020	ug/l	206.26
La	139	175	1	NO GAS	0.004	ug/l	430.45
La	139	175	3	He	0.004	ug/l	80.08
Ce	140	175	1	NO GAS	0.005	ug/l	437.12
Ce	140	175	3	He	0.004	ug/l	103.44
Hg	201	175	1	NO GAS	0.003	ug/l	25.66
Hg	202	175	1	NO GAS	0.002	ug/l	85.65
Hg	202	175	3	He	0.002	ug/l	40.32
Tl	203	175	3	He	0.028	ug/l	489.25
Tl	205	175	1	NO GAS	0.028	ug/l	2042.38
Tl	205	175	3	He	0.028	ug/l	1159.15
[Pb]	206	175	1	NO GAS	0.018	ug/l	432.23
[Pb]	207	175	1	NO GAS	0.019	ug/l	395.56
Pb	208	175	1	NO GAS	0.018	ug/l	1728.94
Th	232	175	3	He	0.063	ug/l	4179.10
U	238	175	1	NO GAS	0.022	ug/l	2256.39

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1929652.04	103.4
Sc	45	2	H2	91315.81	110.6
Sc	45	3	He	55338.83	110.0
Ge	72	1	NO GAS	854660.10	101.0
Ge	72	2	H2	126303.25	106.6
Ge	72	3	He	82496.87	109.3
Tb	159	1	NO GAS	17710519.06	97.0
Tb	159	3	He	7246745.08	102.7
Ho	165	1	NO GAS	16882247.69	99.5
Ho	165	3	He	6773835.84	101.6
Lu	175	1	NO GAS	18817451.37	99.2
Lu	175	3	He	4282865.84	102.9

ICPMS206-B Analytical Data

Sample Name	0.10 PPB STD
File Name	038CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 22:34:49
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS		ug/l	
Be	9	45	1	NO GAS		ug/l	
B	11	45	1	NO GAS		ug/l	
Na	23	45	3	He		ug/l	
Mg	24	45	3	He		ug/l	
Al	27	45	1	NO GAS		ug/l	
Si	28	45	2	H2		ug/l	
K	39	72	3	He		ug/l	
Ca	40	72	2	H2		ug/l	
Ti	47	72	1	NO GAS		ug/l	
V	51	72	1	NO GAS		ug/l	
V	51	72	3	He		ug/l	
Cr	52	72	1	NO GAS		ug/l	
Cr	52	72	3	He		ug/l	
Cr	53	72	1	NO GAS		ug/l	
Mn	55	72	1	NO GAS		ug/l	
Mn	55	72	3	He		ug/l	
Fe	56	72	2	H2		ug/l	
Fe	56	72	3	He		ug/l	
Co	59	72	1	NO GAS		ug/l	
Ni	60	72	1	NO GAS		ug/l	
Ni	60	72	3	He		ug/l	
Ni	62	72	1	NO GAS		ug/l	
Cu	63	72	1	NO GAS		ug/l	
Cu	63	72	3	He		ug/l	
Cu	65	72	1	NO GAS		ug/l	
Zn	66	72	1	NO GAS		ug/l	
Zn	66	72	3	He		ug/l	
As	75	72	1	NO GAS		ug/l	
As	75	72	3	He		ug/l	
Se	78	72	2	H2		ug/l	
Br	79	72	1	NO GAS		ug/l	
Br	79	72	2	H2		ug/l	
Se	82	72	1	NO GAS		ug/l	
Kr	84	72	1	NO GAS		ug/l	
Sr	88	72	1	NO GAS		ug/l	
Sr	88	72	3	He		ug/l	

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS		ug/l	
Mo	95	72	3	He		ug/l	
Mo	98	72	1	NO GAS		ug/l	
Ag	107	72	1	NO GAS		ug/l	
Ag	109	72	1	NO GAS		ug/l	
Cd	111	159	1	NO GAS		ug/l	
Cd	111	159	3	He		ug/l	
Cd	114	159	1	NO GAS		ug/l	
Cd	114	159	3	He		ug/l	
Sn	118	159	1	NO GAS		ug/l	
Sn	118	159	3	He		ug/l	
Sb	121	159	1	NO GAS		ug/l	
Sb	121	159	3	He		ug/l	
Sb	123	159	1	NO GAS		ug/l	
Sb	123	159	3	He		ug/l	
Ba	135	159	1	NO GAS		ug/l	
Ba	137	159	1	NO GAS		ug/l	
La	139	175	1	NO GAS		ug/l	
La	139	175	3	He		ug/l	
Ce	140	175	1	NO GAS		ug/l	
Ce	140	175	3	He		ug/l	
Hg	201	175	1	NO GAS		ug/l	
Hg	202	175	1	NO GAS		ug/l	
Hg	202	175	3	He		ug/l	
Tl	203	175	3	He		ug/l	
Tl	205	175	1	NO GAS		ug/l	
Tl	205	175	3	He		ug/l	
[Pb]	206	175	1	NO GAS		ug/l	
[Pb]	207	175	1	NO GAS		ug/l	
Pb	208	175	1	NO GAS		ug/l	
Th	232	175	3	He		ug/l	
U	238	175	1	NO GAS		ug/l	

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS		
Sc	45	2	H2		
Sc	45	3	He		
Ge	72	1	NO GAS		
Ge	72	2	H2		
Ge	72	3	He		
Tb	159	1	NO GAS		
Tb	159	3	He		
Ho	165	1	NO GAS		
Ho	165	3	He		
Lu	175	1	NO GAS		
Lu	175	3	He		

ICPMS206-B Analytical Data

Sample Name	0.10 PPB STD
File Name	039CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 22:40:39
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.137	ug/l	3184.33
Be	9	45	1	NO GAS	0.104	ug/l	37.99
B	11	45	1	NO GAS	0.917	ug/l	387.93
Na	23	45	3	He	28.077	ug/l	10190.84
Mg	24	45	3	He	30.157	ug/l	1510.42
Al	27	45	1	NO GAS	0.285	ug/l	1628.98
Si	28	45	2	H2	0.930	ug/l	38.66
K	39	72	3	He	30.697	ug/l	4180.54
Ca	40	72	2	H2	31.871	ug/l	7044.70
Ti	47	72	1	NO GAS	0.155	ug/l	159.92
V	51	72	1	NO GAS	-0.050	ug/l	-8452.23
V	51	72	3	He	0.114	ug/l	237.78
Cr	52	72	1	NO GAS	0.041	ug/l	10609.05
Cr	52	72	3	He	0.136	ug/l	395.89
Cr	53	72	1	NO GAS	-1.117	ug/l	45772.87
Mn	55	72	1	NO GAS	0.123	ug/l	3027.64
Mn	55	72	3	He	0.121	ug/l	110.01
Fe	56	72	2	H2	3.092	ug/l	3826.91
Fe	56	72	3	He	3.146	ug/l	6026.46
Co	59	72	1	NO GAS	0.114	ug/l	1922.98
Ni	60	72	1	NO GAS	0.117	ug/l	492.37
Ni	60	72	3	He	0.091	ug/l	134.45
Ni	62	72	1	NO GAS	0.311	ug/l	465.76
Cu	63	72	1	NO GAS	0.127	ug/l	1656.43
Cu	63	72	3	He	0.123	ug/l	630.22
Cu	65	72	1	NO GAS	0.115	ug/l	779.87
Zn	66	72	1	NO GAS	0.164	ug/l	1007.94
Zn	66	72	3	He	0.147	ug/l	170.00
As	75	72	1	NO GAS	-0.082	ug/l	3024.85
As	75	72	3	He	0.116	ug/l	41.99
Se	78	72	2	H2	0.110	ug/l	14.33
Br	79	72	1	NO GAS	-0.009	ug/l	66595.51
Br	79	72	2	H2	0.343	ug/l	9490.69
Se	82	72	1	NO GAS	0.908	ug/l	428.51
Kr	84	72	1	NO GAS		ug/l	8089.31
Sr	88	72	1	NO GAS	0.120	ug/l	4854.47
Sr	88	72	3	He	0.131	ug/l	464.45

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.125	ug/l	1104.49
Mo	95	72	3	He	0.116	ug/l	353.34
Mo	98	72	1	NO GAS	0.112	ug/l	1732.89
Ag	107	72	1	NO GAS	0.046	ug/l	2871.02
Ag	109	72	1	NO GAS	0.047	ug/l	2837.70
Cd	111	159	1	NO GAS	0.101	ug/l	535.94
Cd	111	159	3	He	0.109	ug/l	150.64
Cd	114	159	1	NO GAS	0.106	ug/l	1128.60
Cd	114	159	3	He	0.143	ug/l	476.68
Sn	118	159	1	NO GAS	-2.386	ug/l	4970.97
Sn	118	159	3	He	-2.210	ug/l	712.24
Sb	121	159	1	NO GAS	0.117	ug/l	2856.95
Sb	121	159	3	He	0.120	ug/l	421.12
Sb	123	159	1	NO GAS	0.115	ug/l	2211.28
Sb	123	159	3	He	0.100	ug/l	291.12
Ba	135	159	1	NO GAS	0.105	ug/l	535.62
Ba	137	159	1	NO GAS	0.116	ug/l	1064.61
La	139	175	1	NO GAS	0.114	ug/l	9385.73
La	139	175	3	He	0.113	ug/l	2028.88
Ce	140	175	1	NO GAS	0.113	ug/l	9185.46
Ce	140	175	3	He	0.112	ug/l	2562.85
Hg	201	175	1	NO GAS	0.004	ug/l	29.33
Hg	202	175	1	NO GAS	0.002	ug/l	93.98
Hg	202	175	3	He	0.003	ug/l	44.32
Tl	203	175	3	He	0.121	ug/l	1797.76
Tl	205	175	1	NO GAS	0.115	ug/l	7504.16
Tl	205	175	3	He	0.118	ug/l	4171.09
[Pb]	206	175	1	NO GAS	0.113	ug/l	2516.90
[Pb]	207	175	1	NO GAS	0.110	ug/l	2156.84
Pb	208	175	1	NO GAS	0.113	ug/l	10022.51
Th	232	175	3	He	0.111	ug/l	6526.82
U	238	175	1	NO GAS	0.109	ug/l	11098.64

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2057414.54	110.3
Sc	45	2	H2	87492.60	105.9
Sc	45	3	He	54613.84	108.6
Ge	72	1	NO GAS	888115.24	105.0
Ge	72	2	H2	121297.02	102.3
Ge	72	3	He	80460.34	106.6
Tb	159	1	NO GAS	19038794.16	104.2
Tb	159	3	He	6871243.19	97.4
Ho	165	1	NO GAS	17622776.11	103.9
Ho	165	3	He	6828977.12	102.4
Lu	175	1	NO GAS	19330347.58	101.9
Lu	175	3	He	4255222.99	102.3

ICPMS206-B Analytical Data

Sample Name	QCS
File Name	040_QCS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 22:46:30
Sample Type	QCS
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	47.201	ug/l	28961.73
Be	9	45	1	NO GAS	24.978	ug/l	7227.05
B	11	45	1	NO GAS	48.524	ug/l	10547.82
Na	23	45	3	He	2413.794	ug/l	233611.59
Mg	24	45	3	He	2295.493	ug/l	110356.08
Al	27	45	1	NO GAS	246.938	ug/l	751768.07
Si	28	45	2	H2	502.551	ug/l	10052.99
K	39	72	3	He	2315.630	ug/l	103152.75
Ca	40	72	2	H2	2453.452	ug/l	504734.40
Ti	47	72	1	NO GAS	47.244	ug/l	40919.44
V	51	72	1	NO GAS	53.148	ug/l	677380.47
V	51	72	3	He	49.522	ug/l	64628.86
Cr	52	72	1	NO GAS	50.171	ug/l	621567.99
Cr	52	72	3	He	49.496	ug/l	90957.10
Cr	53	72	1	NO GAS	43.148	ug/l	117223.73
Mn	55	72	1	NO GAS	244.977	ug/l	4473722.88
Mn	55	72	3	He	248.926	ug/l	215093.25
Fe	56	72	2	H2	240.261	ug/l	273330.74
Fe	56	72	3	He	240.380	ug/l	412736.46
Co	59	72	1	NO GAS	50.972	ug/l	820803.64
Ni	60	72	1	NO GAS	52.140	ug/l	186639.19
Ni	60	72	3	He	50.670	ug/l	58304.16
Ni	62	72	1	NO GAS	52.679	ug/l	29141.19
Cu	63	72	1	NO GAS	52.211	ug/l	474309.81
Cu	63	72	3	He	52.558	ug/l	179674.62
Cu	65	72	1	NO GAS	52.137	ug/l	236614.34
Zn	66	72	1	NO GAS	52.597	ug/l	157170.75
Zn	66	72	3	He	51.826	ug/l	25660.94
As	75	72	1	NO GAS	49.988	ug/l	163057.01
As	75	72	3	He	50.407	ug/l	15874.03
Se	78	72	2	H2	50.250	ug/l	5464.16
Br	79	72	1	NO GAS	1.011	ug/l	72732.05
Br	79	72	2	H2	1.165	ug/l	10389.41
Se	82	72	1	NO GAS	52.553	ug/l	14436.39
Kr	84	72	1	NO GAS		ug/l	18617.05
Sr	88	72	1	NO GAS	48.931	ug/l	1816417.85
Sr	88	72	3	He	50.426	ug/l	80312.03

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	49.052	ug/l	399498.68
Mo	95	72	3	He	50.219	ug/l	136458.31
Mo	98	72	1	NO GAS	48.388	ug/l	674826.03
Ag	107	72	1	NO GAS	26.299	ug/l	605191.64
Ag	109	72	1	NO GAS	26.147	ug/l	592313.11
Cd	111	159	1	NO GAS	26.226	ug/l	140583.41
Cd	111	159	3	He	25.554	ug/l	35941.38
Cd	114	159	1	NO GAS	26.495	ug/l	324662.37
Cd	114	159	3	He	24.724	ug/l	90154.00
Sn	118	159	1	NO GAS	51.416	ug/l	819822.37
Sn	118	159	3	He	48.181	ug/l	126511.17
Sb	121	159	1	NO GAS	52.352	ug/l	1133205.81
Sb	121	159	3	He	49.105	ug/l	163064.35
Sb	123	159	1	NO GAS	52.727	ug/l	888745.81
Sb	123	159	3	He	48.387	ug/l	132993.83
Ba	135	159	1	NO GAS	51.566	ug/l	242478.79
Ba	137	159	1	NO GAS	52.040	ug/l	431325.51
La	139	175	1	NO GAS	51.937	ug/l	3998511.29
La	139	175	3	He	49.153	ug/l	872629.90
Ce	140	175	1	NO GAS	52.727	ug/l	3981848.63
Ce	140	175	3	He	50.337	ug/l	1135775.46
Hg	201	175	1	NO GAS	1.026	ug/l	4076.07
Hg	202	175	1	NO GAS	1.037	ug/l	9350.69
Hg	202	175	3	He	0.978	ug/l	6643.13
Tl	203	175	3	He	50.137	ug/l	697040.49
Tl	205	175	1	NO GAS	55.315	ug/l	3265280.72
Tl	205	175	3	He	51.738	ug/l	1704844.43
[Pb]	206	175	1	NO GAS	54.122	ug/l	1104081.72
[Pb]	207	175	1	NO GAS	52.457	ug/l	942094.25
Pb	208	175	1	NO GAS	52.407	ug/l	4281414.36
Th	232	175	3	He	50.874	ug/l	2525147.22
U	238	175	1	NO GAS	53.499	ug/l	5082711.04

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1921023.96	102.9
Sc	45	2	H2	86230.81	104.4
Sc	45	3	He	52967.00	105.3
Ge	72	1	NO GAS	879148.72	103.9
Ge	72	2	H2	122785.15	103.6
Ge	72	3	He	80361.32	106.5
Tb	159	1	NO GAS	17901134.26	98.0
Tb	159	3	He	7041351.47	99.8
Ho	165	1	NO GAS	16652538.83	98.1
Ho	165	3	He	6696817.21	100.5
Lu	175	1	NO GAS	18158486.81	95.7
Lu	175	3	He	4207459.24	101.1

ICPMS206-B Analytical Data

Sample Name	CCV
File Name	041_CCV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 22:52:14
Sample Type	CCV
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	555.264	ug/l	317098.88
Be	9	45	1	NO GAS	49.642	ug/l	14844.53
B	11	45	1	NO GAS	47.652	ug/l	10730.60
Na	23	45	3	He	11945.422	ug/l	1252563.99
Mg	24	45	3	He	11743.325	ug/l	626956.30
Al	27	45	1	NO GAS	48.182	ug/l	151931.86
Si	28	45	2	H2	198.646	ug/l	4515.05
K	39	72	3	He	12066.330	ug/l	558956.23
Ca	40	72	2	H2	12606.686	ug/l	2742030.77
Ti	47	72	1	NO GAS	50.065	ug/l	42710.24
V	51	72	1	NO GAS	51.613	ug/l	645407.46
V	51	72	3	He	50.134	ug/l	69587.01
Cr	52	72	1	NO GAS	50.360	ug/l	612390.14
Cr	52	72	3	He	49.377	ug/l	96538.02
Cr	53	72	1	NO GAS	52.932	ug/l	131096.53
Mn	55	72	1	NO GAS	50.194	ug/l	901894.91
Mn	55	72	3	He	50.443	ug/l	46364.74
Fe	56	72	2	H2	1252.365	ug/l	1506383.13
Fe	56	72	3	He	1242.462	ug/l	2265468.06
Co	59	72	1	NO GAS	51.278	ug/l	811310.68
Ni	60	72	1	NO GAS	52.055	ug/l	183997.19
Ni	60	72	3	He	49.450	ug/l	60518.38
Ni	62	72	1	NO GAS	53.206	ug/l	29021.20
Cu	63	72	1	NO GAS	51.279	ug/l	457630.24
Cu	63	72	3	He	50.539	ug/l	183754.24
Cu	65	72	1	NO GAS	51.766	ug/l	231407.76
Zn	66	72	1	NO GAS	49.504	ug/l	145745.94
Zn	66	72	3	He	49.632	ug/l	26139.32
As	75	72	1	NO GAS	51.408	ug/l	164728.79
As	75	72	3	He	49.820	ug/l	16688.65
Se	78	72	2	H2	52.106	ug/l	5997.57
Br	79	72	1	NO GAS	0.478	ug/l	68179.17
Br	79	72	2	H2	1.016	ug/l	10845.52
Se	82	72	1	NO GAS	50.828	ug/l	13701.13
Kr	84	72	1	NO GAS		ug/l	18800.25
Sr	88	72	1	NO GAS	50.000	ug/l	1824330.39
Sr	88	72	3	He	49.718	ug/l	84210.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	50.799	ug/l	406873.60
Mo	95	72	3	He	48.712	ug/l	140821.24
Mo	98	72	1	NO GAS	49.447	ug/l	677413.09
Ag	107	72	1	NO GAS	20.439	ug/l	462046.86
Ag	109	72	1	NO GAS	20.448	ug/l	456303.80
Cd	111	159	1	NO GAS	53.101	ug/l	279734.91
Cd	111	159	3	He	51.004	ug/l	71752.46
Cd	114	159	1	NO GAS	53.436	ug/l	643633.55
Cd	114	159	3	He	50.712	ug/l	185021.39
Sn	118	159	1	NO GAS	51.066	ug/l	800160.23
Sn	118	159	3	He	49.471	ug/l	129779.37
Sb	121	159	1	NO GAS	52.274	ug/l	1112411.88
Sb	121	159	3	He	49.947	ug/l	165910.54
Sb	123	159	1	NO GAS	51.976	ug/l	860856.85
Sb	123	159	3	He	49.784	ug/l	136893.96
Ba	135	159	1	NO GAS	52.231	ug/l	241510.60
Ba	137	159	1	NO GAS	50.017	ug/l	407522.70
La	139	175	1	NO GAS	48.465	ug/l	3784380.18
La	139	175	3	He	49.428	ug/l	894990.34
Ce	140	175	1	NO GAS	47.937	ug/l	3668935.21
Ce	140	175	3	He	48.843	ug/l	1124111.91
Hg	201	175	1	NO GAS	0.962	ug/l	3889.39
Hg	202	175	1	NO GAS	0.989	ug/l	9070.92
Hg	202	175	3	He	0.990	ug/l	6864.52
Tl	203	175	3	He	49.308	ug/l	699138.28
Tl	205	175	1	NO GAS	51.597	ug/l	3097139.57
Tl	205	175	3	He	51.528	ug/l	1732843.73
[Pb]	206	175	1	NO GAS	49.407	ug/l	1025273.64
[Pb]	207	175	1	NO GAS	49.900	ug/l	911299.94
Pb	208	175	1	NO GAS	50.224	ug/l	4172199.09
Th	232	175	3	He	49.205	ug/l	2493056.49
U	238	175	1	NO GAS	48.757	ug/l	4702594.62

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1996364.82	107.0
Sc	45	2	H2	97789.31	118.4
Sc	45	3	He	58834.50	117.0
Ge	72	1	NO GAS	870262.09	102.9
Ge	72	2	H2	129969.12	109.7
Ge	72	3	He	85471.74	113.2
Tb	159	1	NO GAS	17729006.82	97.1
Tb	159	3	He	7045483.99	99.8
Ho	165	1	NO GAS	16605346.53	97.9
Ho	165	3	He	6766876.12	101.5
Lu	175	1	NO GAS	18701621.49	98.6
Lu	175	3	He	4293016.67	103.2

ICPMS206-B Analytical Data

Sample Name	CCB
File Name	042_CCB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 22:57:57
Sample Type	CCB
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.590	ug/l	2294.37
Be	9	45	1	NO GAS	0.002	ug/l	7.67
B	11	45	1	NO GAS	0.607	ug/l	342.60
Na	23	45	3	He	-3.526	ug/l	7630.61
Mg	24	45	3	He	0.086	ug/l	19.96
Al	27	45	1	NO GAS	-0.018	ug/l	695.58
Si	28	45	2	H2	0.564	ug/l	35.99
K	39	72	3	He	-1.826	ug/l	2943.61
Ca	40	72	2	H2	0.013	ug/l	649.70
Ti	47	72	1	NO GAS	0.036	ug/l	58.31
V	51	72	1	NO GAS	-0.280	ug/l	-11789.90
V	51	72	3	He	0.014	ug/l	113.34
Cr	52	72	1	NO GAS	0.091	ug/l	11641.07
Cr	52	72	3	He	-0.002	ug/l	149.70
Cr	53	72	1	NO GAS	6.069	ug/l	59733.57
Mn	55	72	1	NO GAS	0.012	ug/l	1001.38
Mn	55	72	3	He	-0.003	ug/l	2.67
Fe	56	72	2	H2	-0.024	ug/l	368.16
Fe	56	72	3	He	0.037	ug/l	731.33
Co	59	72	1	NO GAS	-0.001	ug/l	63.21
Ni	60	72	1	NO GAS	0.009	ug/l	103.13
Ni	60	72	3	He	-0.006	ug/l	24.44
Ni	62	72	1	NO GAS	0.258	ug/l	449.12
Cu	63	72	1	NO GAS	-0.005	ug/l	462.58
Cu	63	72	3	He	-0.010	ug/l	188.30
Cu	65	72	1	NO GAS	-0.010	ug/l	212.63
Zn	66	72	1	NO GAS	-0.073	ug/l	309.36
Zn	66	72	3	He	-0.072	ug/l	65.56
As	75	72	1	NO GAS	-0.105	ug/l	3032.23
As	75	72	3	He	0.012	ug/l	9.67
Se	78	72	2	H2	0.019	ug/l	5.00
Br	79	72	1	NO GAS	-0.516	ug/l	65666.46
Br	79	72	2	H2	-0.132	ug/l	10091.51
Se	82	72	1	NO GAS	1.002	ug/l	482.41
Kr	84	72	1	NO GAS		ug/l	8125.91
Sr	88	72	1	NO GAS	0.000	ug/l	372.60
Sr	88	72	3	He	0.007	ug/l	283.34

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.009	ug/l	156.67
Mo	95	72	3	He	0.005	ug/l	53.34
Mo	98	72	1	NO GAS	0.005	ug/l	245.57
Ag	107	72	1	NO GAS	0.010	ug/l	2125.06
Ag	109	72	1	NO GAS	0.012	ug/l	2117.06
Cd	111	159	1	NO GAS	0.005	ug/l	-7.78
Cd	111	159	3	He	0.002	ug/l	3.33
Cd	114	159	1	NO GAS	0.006	ug/l	-199.64
Cd	114	159	3	He	0.003	ug/l	-26.71
Sn	118	159	1	NO GAS	-0.013	ug/l	44426.68
Sn	118	159	3	He	0.072	ug/l	7012.69
Sb	121	159	1	NO GAS	0.053	ug/l	1443.41
Sb	121	159	3	He	0.039	ug/l	177.78
Sb	123	159	1	NO GAS	0.055	ug/l	1173.39
Sb	123	159	3	He	0.041	ug/l	146.67
Ba	135	159	1	NO GAS	0.002	ug/l	26.61
Ba	137	159	1	NO GAS	0.004	ug/l	86.49
La	139	175	1	NO GAS	0.000	ug/l	43.38
La	139	175	3	He	0.001	ug/l	16.68
Ce	140	175	1	NO GAS	0.000	ug/l	86.75
Ce	140	175	3	He	0.000	ug/l	16.68
Hg	201	175	1	NO GAS	0.007	ug/l	45.32
Hg	202	175	1	NO GAS	0.006	ug/l	135.64
Hg	202	175	3	He	0.006	ug/l	71.99
Tl	203	175	3	He	0.009	ug/l	238.62
Tl	205	175	1	NO GAS	0.008	ug/l	828.92
Tl	205	175	3	He	0.008	ug/l	535.90
[Pb]	206	175	1	NO GAS	0.001	ug/l	83.33
[Pb]	207	175	1	NO GAS	0.002	ug/l	88.89
Pb	208	175	1	NO GAS	0.002	ug/l	393.34
Th	232	175	3	He	0.067	ug/l	4607.15
U	238	175	1	NO GAS	0.003	ug/l	499.91

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2213824.88	118.6
Sc	45	2	H2	100830.81	122.1
Sc	45	3	He	58405.65	116.1
Ge	72	1	NO GAS	925210.27	109.4
Ge	72	2	H2	135547.15	114.4
Ge	72	3	He	85528.16	113.3
Tb	159	1	NO GAS	19710704.60	107.9
Tb	159	3	He	7687793.51	108.9
Ho	165	1	NO GAS	18046168.24	106.4
Ho	165	3	He	7132707.98	107.0
Lu	175	1	NO GAS	20098221.47	106.0
Lu	175	3	He	4532393.33	108.9

ICPMS206-B Analytical Data

Sample Name	LRB
File Name	043_LRB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 23:03:43
Sample Type	LRB
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.003	ug/l	2085.38
Be	9	45	1	NO GAS	-0.003	ug/l	5.67
B	11	45	1	NO GAS	0.276	ug/l	265.95
Na	23	45	3	He	32.018	ug/l	11324.85
Mg	24	45	3	He	0.898	ug/l	63.21
Al	27	45	1	NO GAS	0.341	ug/l	1989.04
Si	28	45	2	H2	4.461	ug/l	103.99
K	39	72	3	He	-2.897	ug/l	2924.16
Ca	40	72	2	H2	6.779	ug/l	1910.84
Ti	47	72	1	NO GAS	0.019	ug/l	41.65
V	51	72	1	NO GAS	0.255	ug/l	-4364.97
V	51	72	3	He	0.036	ug/l	146.67
Cr	52	72	1	NO GAS	0.134	ug/l	12683.08
Cr	52	72	3	He	0.132	ug/l	415.85
Cr	53	72	1	NO GAS	2.805	ug/l	56046.37
Mn	55	72	1	NO GAS	0.015	ug/l	1084.56
Mn	55	72	3	He	0.012	ug/l	17.33
Fe	56	72	2	H2	0.795	ug/l	1226.11
Fe	56	72	3	He	0.579	ug/l	1737.57
Co	59	72	1	NO GAS	0.000	ug/l	83.17
Ni	60	72	1	NO GAS	0.078	ug/l	369.28
Ni	60	72	3	He	0.065	ug/l	112.22
Ni	62	72	1	NO GAS	0.376	ug/l	538.94
Cu	63	72	1	NO GAS	-0.007	ug/l	458.58
Cu	63	72	3	He	-0.026	ug/l	132.31
Cu	65	72	1	NO GAS	-0.012	ug/l	209.96
Zn	66	72	1	NO GAS	0.650	ug/l	2658.22
Zn	66	72	3	He	0.642	ug/l	444.46
As	75	72	1	NO GAS	-0.046	ug/l	3335.22
As	75	72	3	He	-0.004	ug/l	4.33
Se	78	72	2	H2	0.013	ug/l	3.67
Br	79	72	1	NO GAS	-0.276	ug/l	69718.12
Br	79	72	2	H2	1.715	ug/l	10529.26
Se	82	72	1	NO GAS	0.373	ug/l	290.77
Kr	84	72	1	NO GAS		ug/l	8132.61
Sr	88	72	1	NO GAS	0.008	ug/l	728.58
Sr	88	72	3	He	-0.003	ug/l	271.11

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.014	ug/l	213.34
Mo	95	72	3	He	0.008	ug/l	63.33
Mo	98	72	1	NO GAS	0.011	ug/l	347.93
Ag	107	72	1	NO GAS	-0.069	ug/l	228.63
Ag	109	72	1	NO GAS	-0.067	ug/l	261.95
Cd	111	159	1	NO GAS	0.012	ug/l	27.28
Cd	111	159	3	He	0.000	ug/l	1.33
Cd	114	159	1	NO GAS	0.018	ug/l	-27.69
Cd	114	159	3	He	0.010	ug/l	4.22
Sn	118	159	1	NO GAS	-2.543	ug/l	2595.10
Sn	118	159	3	He	-2.368	ug/l	362.23
Sb	121	159	1	NO GAS	0.013	ug/l	503.35
Sb	121	159	3	He	0.011	ug/l	74.44
Sb	123	159	1	NO GAS	0.010	ug/l	361.12
Sb	123	159	3	He	0.013	ug/l	64.44
Ba	135	159	1	NO GAS	0.007	ug/l	53.23
Ba	137	159	1	NO GAS	0.010	ug/l	146.38
La	139	175	1	NO GAS	0.000	ug/l	56.72
La	139	175	3	He	0.001	ug/l	23.36
Ce	140	175	1	NO GAS	0.000	ug/l	80.08
Ce	140	175	3	He	0.001	ug/l	46.71
Hg	201	175	1	NO GAS	0.004	ug/l	33.32
Hg	202	175	1	NO GAS	0.003	ug/l	104.31
Hg	202	175	3	He	0.003	ug/l	52.99
Tl	203	175	3	He	0.002	ug/l	135.31
Tl	205	175	1	NO GAS	0.002	ug/l	454.45
Tl	205	175	3	He	0.003	ug/l	361.94
[Pb]	206	175	1	NO GAS	0.002	ug/l	110.00
[Pb]	207	175	1	NO GAS	0.002	ug/l	83.33
Pb	208	175	1	NO GAS	0.002	ug/l	417.78
Th	232	175	3	He	0.032	ug/l	2767.05
U	238	175	1	NO GAS	0.001	ug/l	237.29

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2265722.91	121.4
Sc	45	2	H2	85319.63	103.3
Sc	45	3	He	58544.53	116.4
Ge	72	1	NO GAS	962263.56	113.8
Ge	72	2	H2	119310.82	100.7
Ge	72	3	He	86427.77	114.5
Tb	159	1	NO GAS	20323242.53	111.3
Tb	159	3	He	7586856.95	107.5
Ho	165	1	NO GAS	19498100.75	114.9
Ho	165	3	He	7229168.29	108.4
Lu	175	1	NO GAS	20856139.78	110.0
Lu	175	3	He	4566669.53	109.7

ICPMS206-B Analytical Data

Sample Name	LFB
File Name	044LFB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 23:09:28
Sample Type	LFB
Total Dilution	1.0300
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2138.311	ug/l	1331945.67
Be	9	45	1	NO GAS	46.706	ug/l	14758.25
B	11	45	1	NO GAS	47.174	ug/l	11227.44
Na	23	45	3	He	50530.263	ug/l	4797210.87
Mg	24	45	3	He	49242.987	ug/l	2393122.64
Al	27	45	1	NO GAS	46.598	ug/l	155674.36
Si	28	45	2	H2	234.597	ug/l	4110.36
K	39	72	3	He	47715.381	ug/l	2097886.57
Ca	40	72	2	H2	60463.276	ug/l	10202964.98
Ti	47	72	1	NO GAS	54.260	ug/l	47753.77
V	51	72	1	NO GAS	49.963	ug/l	646529.98
V	51	72	3	He	49.356	ug/l	65275.12
Cr	52	72	1	NO GAS	48.586	ug/l	612215.21
Cr	52	72	3	He	47.097	ug/l	87726.53
Cr	53	72	1	NO GAS	74.999	ug/l	173327.98
Mn	55	72	1	NO GAS	48.749	ug/l	904096.29
Mn	55	72	3	He	49.388	ug/l	43244.43
Fe	56	72	2	H2	5544.510	ug/l	5180959.52
Fe	56	72	3	He	4620.097	ug/l	8027391.51
Co	59	72	1	NO GAS	49.387	ug/l	807161.11
Ni	60	72	1	NO GAS	48.267	ug/l	175911.91
Ni	60	72	3	He	48.910	ug/l	57027.47
Ni	62	72	1	NO GAS	48.251	ug/l	27271.63
Cu	63	72	1	NO GAS	49.518	ug/l	457155.97
Cu	63	72	3	He	49.159	ug/l	170326.94
Cu	65	72	1	NO GAS	48.882	ug/l	225507.45
Zn	66	72	1	NO GAS	48.362	ug/l	147067.37
Zn	66	72	3	He	48.280	ug/l	24227.55
As	75	72	1	NO GAS	49.111	ug/l	162814.31
As	75	72	3	He	48.901	ug/l	15606.16
Se	78	72	2	H2	61.686	ug/l	5528.83
Br	79	72	1	NO GAS	-0.920	ug/l	62917.56
Br	79	72	2	H2	2.740	ug/l	9903.50
Se	82	72	1	NO GAS	49.110	ug/l	13724.96
Kr	84	72	1	NO GAS		ug/l	19169.81
Sr	88	72	1	NO GAS	48.699	ug/l	1836749.83
Sr	88	72	3	He	48.582	ug/l	78423.29

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	48.433	ug/l	400909.78
Mo	95	72	3	He	48.961	ug/l	134838.78
Mo	98	72	1	NO GAS	47.726	ug/l	676413.70
Ag	107	72	1	NO GAS	20.030	ug/l	469015.84
Ag	109	72	1	NO GAS	19.488	ug/l	449616.32
Cd	111	159	1	NO GAS	46.762	ug/l	266691.61
Cd	111	159	3	He	48.219	ug/l	66576.66
Cd	114	159	1	NO GAS	47.669	ug/l	621269.65
Cd	114	159	3	He	48.542	ug/l	173869.04
Sn	118	159	1	NO GAS	46.647	ug/l	797728.93
Sn	118	159	3	He	46.717	ug/l	120809.94
Sb	121	159	1	NO GAS	47.783	ug/l	1101843.95
Sb	121	159	3	He	48.746	ug/l	158924.03
Sb	123	159	1	NO GAS	48.961	ug/l	878278.88
Sb	123	159	3	He	48.577	ug/l	131153.27
Ba	135	159	1	NO GAS	47.979	ug/l	239856.63
Ba	137	159	1	NO GAS	46.978	ug/l	413930.72
La	139	175	1	NO GAS	0.005	ug/l	457.14
La	139	175	3	He	0.006	ug/l	100.10
Ce	140	175	1	NO GAS	45.095	ug/l	3779729.31
Ce	140	175	3	He	48.656	ug/l	1092192.84
Hg	201	175	1	NO GAS	0.937	ug/l	4110.74
Hg	202	175	1	NO GAS	0.913	ug/l	9111.92
Hg	202	175	3	He	0.966	ug/l	6526.43
Tl	203	175	3	He	46.952	ug/l	649021.56
Tl	205	175	1	NO GAS	45.390	ug/l	2959233.81
Tl	205	175	3	He	48.749	ug/l	1596919.14
[Pb]	206	175	1	NO GAS	46.303	ug/l	1042980.95
[Pb]	207	175	1	NO GAS	44.264	ug/l	878360.99
Pb	208	175	1	NO GAS	45.196	ug/l	4079517.92
Th	232	175	3	He	49.235	ug/l	2430931.00
U	238	175	1	NO GAS	45.042	ug/l	4725044.42

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2186484.30	117.2
Sc	45	2	H2	78256.88	94.8
Sc	45	3	He	55125.81	109.6
Ge	72	1	NO GAS	928971.13	109.8
Ge	72	2	H2	104886.82	88.5
Ge	72	3	He	83860.34	111.1
Tb	159	1	NO GAS	19877366.25	108.8
Tb	159	3	He	7127157.01	101.0
Ho	165	1	NO GAS	18783457.17	110.7
Ho	165	3	He	6704475.33	100.6
Lu	175	1	NO GAS	21007560.15	110.8
Lu	175	3	He	4312499.90	103.6

ICPMS206-B Analytical Data

Sample Name	ICSA
File Name	045ICSA.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 23:15:10
Sample Type	ICSA
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.196	ug/l	2679.01
Be	9	45	1	NO GAS	-0.007	ug/l	4.33
B	11	45	1	NO GAS	0.463	ug/l	290.61
Na	23	45	3	He	91386.874	ug/l	8293275.22
Mg	24	45	3	He	37624.393	ug/l	1748363.40
Al	27	45	1	NO GAS	35003.679	ug/l	116173306.05
Si	28	45	2	H2	0.647	ug/l	29.99
K	39	72	3	He	35683.368	ug/l	1535746.11
Ca	40	72	2	H2	103358.347	ug/l	20901666.07
Ti	47	72	1	NO GAS	769.392	ug/l	693540.71
V	51	72	1	NO GAS	-0.044	ug/l	-8457.14
V	51	72	3	He	-0.001	ug/l	86.67
Cr	52	72	1	NO GAS	0.900	ug/l	21824.32
Cr	52	72	3	He	0.805	ug/l	1610.23
Cr	53	72	1	NO GAS	-6.290	ug/l	38406.53
Mn	55	72	1	NO GAS	0.208	ug/l	4718.00
Mn	55	72	3	He	0.186	ug/l	164.35
Fe	56	72	2	H2	91367.196	ug/l	102218740.85
Fe	56	72	3	He	88968.740	ug/l	151267903.78
Co	59	72	1	NO GAS	0.355	ug/l	6025.86
Ni	60	72	1	NO GAS	1.387	ug/l	5240.51
Ni	60	72	3	He	0.175	ug/l	228.89
Ni	62	72	1	NO GAS	3.783	ug/l	2461.98
Cu	63	72	1	NO GAS	1.443	ug/l	14131.82
Cu	63	72	3	He	0.018	ug/l	268.62
Cu	65	72	1	NO GAS	0.491	ug/l	2576.36
Zn	66	72	1	NO GAS	0.719	ug/l	2760.73
Zn	66	72	3	He	0.327	ug/l	256.67
As	75	72	1	NO GAS	0.091	ug/l	3696.67
As	75	72	3	He	0.067	ug/l	26.33
Se	78	72	2	H2	0.124	ug/l	15.67
Br	79	72	1	NO GAS	0.156	ug/l	69760.62
Br	79	72	2	H2	0.731	ug/l	9816.83
Se	82	72	1	NO GAS	1.022	ug/l	470.44
Kr	84	72	1	NO GAS		ug/l	8748.40
Sr	88	72	1	NO GAS	1.221	ug/l	47521.23
Sr	88	72	3	He	1.285	ug/l	2276.84

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	773.732	ug/l	6556165.60
Mo	95	72	3	He	785.219	ug/l	2115096.98
Mo	98	72	1	NO GAS	765.933	ug/l	11105619.98
Ag	107	72	1	NO GAS	0.006	ug/l	1996.40
Ag	109	72	1	NO GAS	0.001	ug/l	1850.41
Cd	111	159	1	NO GAS	0.037	ug/l	171.67
Cd	111	159	3	He	0.203	ug/l	282.61
Cd	114	159	1	NO GAS	0.069	ug/l	669.55
Cd	114	159	3	He	0.154	ug/l	519.77
Sn	118	159	1	NO GAS	-2.292	ug/l	6621.64
Sn	118	159	3	He	-2.068	ug/l	1066.71
Sb	121	159	1	NO GAS	0.031	ug/l	915.59
Sb	121	159	3	He	0.029	ug/l	128.89
Sb	123	159	1	NO GAS	0.047	ug/l	1023.88
Sb	123	159	3	He	0.030	ug/l	104.45
Ba	135	159	1	NO GAS	0.066	ug/l	349.31
Ba	137	159	1	NO GAS	0.069	ug/l	672.02
La	139	175	1	NO GAS	0.009	ug/l	817.53
La	139	175	3	He	0.008	ug/l	146.82
Ce	140	175	1	NO GAS	0.003	ug/l	350.37
Ce	140	175	3	He	0.002	ug/l	70.07
Hg	201	175	1	NO GAS	0.006	ug/l	41.66
Hg	202	175	1	NO GAS	0.003	ug/l	103.98
Hg	202	175	3	He	0.004	ug/l	54.99
Tl	203	175	3	He	0.059	ug/l	948.51
Tl	205	175	1	NO GAS	0.057	ug/l	4007.24
Tl	205	175	3	He	0.061	ug/l	2316.40
[Pb]	206	175	1	NO GAS	0.017	ug/l	456.68
[Pb]	207	175	1	NO GAS	0.018	ug/l	398.90
Pb	208	175	1	NO GAS	0.018	ug/l	1831.17
Th	232	175	3	He	0.179	ug/l	10189.48
U	238	175	1	NO GAS	0.003	ug/l	407.26

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2095276.48	112.3
Sc	45	2	H2	79607.90	96.4
Sc	45	3	He	51211.65	101.8
Ge	72	1	NO GAS	913888.71	108.0
Ge	72	2	H2	120967.96	102.1
Ge	72	3	He	79669.96	105.6
Tb	159	1	NO GAS	19444552.20	106.5
Tb	159	3	He	6936234.90	98.3
Ho	165	1	NO GAS	18050524.47	106.4
Ho	165	3	He	6657292.74	99.9
Lu	175	1	NO GAS	19943811.02	105.2
Lu	175	3	He	4359751.94	104.8

ICPMS206-B Analytical Data

Sample Name	ICSAB
File Name	046ICSB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 23:20:56
Sample Type	ICSB
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.286	ug/l	1980.39
Be	9	45	1	NO GAS	-0.009	ug/l	3.00
B	11	45	1	NO GAS	0.043	ug/l	168.64
Na	23	45	3	He	85095.780	ug/l	6864011.36
Mg	24	45	3	He	32846.490	ug/l	1357130.23
Al	27	45	1	NO GAS	32310.096	ug/l	93614165.27
Si	28	45	2	H2	0.719	ug/l	26.00
K	39	72	3	He	33574.049	ug/l	1323971.09
Ca	40	72	2	H2	91663.019	ug/l	16821058.77
Ti	47	72	1	NO GAS	739.476	ug/l	610618.29
V	51	72	1	NO GAS	18.887	ug/l	225002.10
V	51	72	3	He	18.635	ug/l	22143.45
Cr	52	72	1	NO GAS	19.426	ug/l	235197.83
Cr	52	72	3	He	18.842	ug/l	31547.12
Cr	53	72	1	NO GAS	9.489	ug/l	59616.65
Mn	55	72	1	NO GAS	19.033	ug/l	331728.61
Mn	55	72	3	He	19.012	ug/l	14927.39
Fe	56	72	2	H2	82292.131	ug/l	83397874.50
Fe	56	72	3	He	86683.998	ug/l	135032940.43
Co	59	72	1	NO GAS	19.294	ug/l	296018.49
Ni	60	72	1	NO GAS	20.060	ug/l	68590.61
Ni	60	72	3	He	19.039	ug/l	19917.43
Ni	62	72	1	NO GAS	23.380	ug/l	12493.38
Cu	63	72	1	NO GAS	20.126	ug/l	174574.85
Cu	63	72	3	He	18.690	ug/l	58167.70
Cu	65	72	1	NO GAS	18.936	ug/l	82088.88
Zn	66	72	1	NO GAS	9.922	ug/l	28662.36
Zn	66	72	3	He	9.528	ug/l	4357.26
As	75	72	1	NO GAS	9.715	ug/l	32703.05
As	75	72	3	He	9.932	ug/l	2845.68
Se	78	72	2	H2	10.424	ug/l	1012.50
Br	79	72	1	NO GAS	0.984	ug/l	69196.38
Br	79	72	2	H2	2.133	ug/l	10114.77
Se	82	72	1	NO GAS	10.843	ug/l	2973.95
Kr	84	72	1	NO GAS		ug/l	8392.23
Sr	88	72	1	NO GAS	1.186	ug/l	42277.48
Sr	88	72	3	He	1.278	ug/l	2075.70

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	759.976	ug/l	5901501.16
Mo	95	72	3	He	782.181	ug/l	1930666.97
Mo	98	72	1	NO GAS	779.814	ug/l	10361880.13
Ag	107	72	1	NO GAS	4.783	ug/l	106258.89
Ag	109	72	1	NO GAS	4.793	ug/l	104845.15
Cd	111	159	1	NO GAS	9.468	ug/l	50640.56
Cd	111	159	3	He	9.772	ug/l	12382.27
Cd	114	159	1	NO GAS	9.737	ug/l	119095.71
Cd	114	159	3	He	9.803	ug/l	32184.63
Sn	118	159	1	NO GAS	-2.290	ug/l	6132.39
Sn	118	159	3	He	-2.102	ug/l	902.26
Sb	121	159	1	NO GAS	0.031	ug/l	825.59
Sb	121	159	3	He	0.018	ug/l	85.56
Sb	123	159	1	NO GAS	0.026	ug/l	582.24
Sb	123	159	3	He	0.036	ug/l	111.11
Ba	135	159	1	NO GAS	0.081	ug/l	395.89
Ba	137	159	1	NO GAS	0.058	ug/l	525.64
La	139	175	1	NO GAS	0.010	ug/l	807.52
La	139	175	3	He	0.011	ug/l	176.85
Ce	140	175	1	NO GAS	0.003	ug/l	270.28
Ce	140	175	3	He	0.003	ug/l	93.43
Hg	201	175	1	NO GAS	0.001	ug/l	17.33
Hg	202	175	1	NO GAS	0.003	ug/l	91.98
Hg	202	175	3	He	0.003	ug/l	41.99
Tl	203	175	3	He	0.023	ug/l	383.93
Tl	205	175	1	NO GAS	0.019	ug/l	1414.52
Tl	205	175	3	He	0.022	ug/l	906.52
[Pb]	206	175	1	NO GAS	0.014	ug/l	346.67
[Pb]	207	175	1	NO GAS	0.016	ug/l	332.23
Pb	208	175	1	NO GAS	0.017	ug/l	1573.38
Th	232	175	3	He	0.110	ug/l	6092.06
U	238	175	1	NO GAS	0.001	ug/l	202.96

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1830032.57	98.1
Sc	45	2	H2	66997.69	81.1
Sc	45	3	He	45527.51	90.5
Ge	72	1	NO GAS	837202.58	99.0
Ge	72	2	H2	109836.04	92.7
Ge	72	3	He	72989.72	96.7
Tb	159	1	NO GAS	17888454.07	97.9
Tb	159	3	He	6345353.93	89.9
Ho	165	1	NO GAS	16873470.17	99.4
Ho	165	3	He	6205712.42	93.1
Lu	175	1	NO GAS	17888641.14	94.3
Lu	175	3	He	3999132.87	96.1

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	047BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 23:26:40
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.537	ug/l	2203.04
Be	9	45	1	NO GAS	0.020	ug/l	11.00
B	11	45	1	NO GAS	-0.015	ug/l	157.30
Na	23	45	3	He	34.396	ug/l	9469.30
Mg	24	45	3	He	3.157	ug/l	149.71
Al	27	45	1	NO GAS	0.314	ug/l	1530.08
Si	28	45	2	H2	0.186	ug/l	20.66
K	39	72	3	He	0.479	ug/l	2785.80
Ca	40	72	2	H2	2.416	ug/l	1034.53
Ti	47	72	1	NO GAS	0.036	ug/l	53.31
V	51	72	1	NO GAS	-0.161	ug/l	-9212.48
V	51	72	3	He	0.020	ug/l	111.11
Cr	52	72	1	NO GAS	-0.188	ug/l	7423.62
Cr	52	72	3	He	0.031	ug/l	196.28
Cr	53	72	1	NO GAS	-8.448	ug/l	32101.03
Mn	55	72	1	NO GAS	0.035	ug/l	1327.43
Mn	55	72	3	He	0.030	ug/l	30.00
Fe	56	72	2	H2	0.953	ug/l	1376.06
Fe	56	72	3	He	1.007	ug/l	2285.71
Co	59	72	1	NO GAS	0.025	ug/l	459.10
Ni	60	72	1	NO GAS	0.038	ug/l	192.96
Ni	60	72	3	He	0.020	ug/l	51.11
Ni	62	72	1	NO GAS	0.576	ug/l	582.20
Cu	63	72	1	NO GAS	0.058	ug/l	969.84
Cu	63	72	3	He	0.010	ug/l	238.29
Cu	65	72	1	NO GAS	0.022	ug/l	335.27
Zn	66	72	1	NO GAS	-0.020	ug/l	432.46
Zn	66	72	3	He	-0.030	ug/l	80.00
As	75	72	1	NO GAS	-0.089	ug/l	2846.13
As	75	72	3	He	0.035	ug/l	16.00
Se	78	72	2	H2	0.016	ug/l	4.00
Br	79	72	1	NO GAS	0.007	ug/l	63438.47
Br	79	72	2	H2	0.489	ug/l	9297.59
Se	82	72	1	NO GAS	0.430	ug/l	284.12
Kr	84	72	1	NO GAS		ug/l	7786.45
Sr	88	72	1	NO GAS	0.029	ug/l	1387.33
Sr	88	72	3	He	0.028	ug/l	292.23

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.083	ug/l	727.80
Mo	95	72	3	He	0.085	ug/l	261.12
Mo	98	72	1	NO GAS	0.076	ug/l	1173.88
Ag	107	72	1	NO GAS	0.017	ug/l	2102.39
Ag	109	72	1	NO GAS	0.015	ug/l	2011.73
Cd	111	159	1	NO GAS	0.022	ug/l	84.66
Cd	111	159	3	He	0.030	ug/l	43.32
Cd	114	159	1	NO GAS	0.032	ug/l	155.30
Cd	114	159	3	He	0.035	ug/l	92.21
Sn	118	159	1	NO GAS	-2.547	ug/l	2318.92
Sn	118	159	3	He	-2.347	ug/l	386.67
Sb	121	159	1	NO GAS	0.012	ug/l	432.23
Sb	121	159	3	He	0.012	ug/l	74.44
Sb	123	159	1	NO GAS	0.010	ug/l	333.34
Sb	123	159	3	He	0.012	ug/l	56.66
Ba	135	159	1	NO GAS	0.046	ug/l	239.53
Ba	137	159	1	NO GAS	0.035	ug/l	345.99
La	139	175	1	NO GAS	0.005	ug/l	457.14
La	139	175	3	He	0.004	ug/l	73.41
Ce	140	175	1	NO GAS	0.006	ug/l	507.20
Ce	140	175	3	He	0.007	ug/l	180.18
Hg	201	175	1	NO GAS	0.001	ug/l	16.00
Hg	202	175	1	NO GAS	0.000	ug/l	73.98
Hg	202	175	3	He	0.002	ug/l	35.99
Tl	203	175	3	He	0.042	ug/l	672.55
Tl	205	175	1	NO GAS	0.043	ug/l	2982.54
Tl	205	175	3	He	0.041	ug/l	1571.11
[Pb]	206	175	1	NO GAS	0.032	ug/l	743.36
[Pb]	207	175	1	NO GAS	0.033	ug/l	674.47
Pb	208	175	1	NO GAS	0.032	ug/l	2976.81
Th	232	175	3	He	0.031	ug/l	2482.39
U	238	175	1	NO GAS	0.029	ug/l	2983.38

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1830058.02	98.1
Sc	45	2	H2	76084.59	92.1
Sc	45	3	He	47866.95	95.2
Ge	72	1	NO GAS	845401.06	99.9
Ge	72	2	H2	117207.50	98.9
Ge	72	3	He	78128.82	103.5
Tb	159	1	NO GAS	18585338.64	101.7
Tb	159	3	He	7022732.12	99.5
Ho	165	1	NO GAS	17485406.04	103.1
Ho	165	3	He	6687185.70	100.3
Lu	175	1	NO GAS	19134443.35	100.9
Lu	175	3	He	4201683.62	101.0

ICPMS206-B Analytical Data

Sample Name	CCV
File Name	048_CCV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 23:32:25
Sample Type	CCV
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	386.612	ug/l	250354.46
Be	9	45	1	NO GAS	39.939	ug/l	11363.10
B	11	45	1	NO GAS	38.537	ug/l	8274.36
Na	23	45	3	He	10961.827	ug/l	956587.31
Mg	24	45	3	He	10376.644	ug/l	460964.46
Al	27	45	1	NO GAS	41.515	ug/l	124862.21
Si	28	45	2	H2	179.853	ug/l	3135.00
K	39	72	3	He	10569.038	ug/l	441076.88
Ca	40	72	2	H2	10466.454	ug/l	1981976.03
Ti	47	72	1	NO GAS	42.990	ug/l	38085.87
V	51	72	1	NO GAS	44.814	ug/l	584893.54
V	51	72	3	He	48.765	ug/l	60923.75
Cr	52	72	1	NO GAS	44.071	ug/l	560867.84
Cr	52	72	3	He	46.277	ug/l	81431.13
Cr	53	72	1	NO GAS	40.793	ug/l	115687.05
Mn	55	72	1	NO GAS	46.010	ug/l	860311.60
Mn	55	72	3	He	47.518	ug/l	39305.93
Fe	56	72	2	H2	1127.180	ug/l	1179596.24
Fe	56	72	3	He	1152.280	ug/l	1891758.29
Co	59	72	1	NO GAS	46.607	ug/l	768997.32
Ni	60	72	1	NO GAS	46.581	ug/l	171220.33
Ni	60	72	3	He	48.560	ug/l	53488.07
Ni	62	72	1	NO GAS	47.817	ug/l	27158.21
Cu	63	72	1	NO GAS	47.496	ug/l	441809.99
Cu	63	72	3	He	50.189	ug/l	164247.53
Cu	65	72	1	NO GAS	46.921	ug/l	218149.22
Zn	66	72	1	NO GAS	46.484	ug/l	141878.65
Zn	66	72	3	He	49.629	ug/l	23522.24
As	75	72	1	NO GAS	47.309	ug/l	158373.50
As	75	72	3	He	50.013	ug/l	15078.44
Se	78	72	2	H2	51.388	ug/l	5146.45
Br	79	72	1	NO GAS	0.645	ug/l	72087.36
Br	79	72	2	H2	0.902	ug/l	9340.86
Se	82	72	1	NO GAS	48.617	ug/l	13651.93
Kr	84	72	1	NO GAS		ug/l	18820.17
Sr	88	72	1	NO GAS	48.879	ug/l	1853734.43
Sr	88	72	3	He	48.253	ug/l	73570.20

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	48.418	ug/l	403957.53
Mo	95	72	3	He	50.677	ug/l	131842.89
Mo	98	72	1	NO GAS	47.964	ug/l	684404.65
Ag	107	72	1	NO GAS	19.988	ug/l	471352.63
Ag	109	72	1	NO GAS	19.544	ug/l	453689.27
Cd	111	159	1	NO GAS	46.772	ug/l	278283.66
Cd	111	159	3	He	48.381	ug/l	66606.31
Cd	114	159	1	NO GAS	47.055	ug/l	642104.55
Cd	114	159	3	He	48.607	ug/l	173627.16
Sn	118	159	1	NO GAS	44.978	ug/l	802336.12
Sn	118	159	3	He	46.930	ug/l	120784.67
Sb	121	159	1	NO GAS	46.221	ug/l	1110744.33
Sb	121	159	3	He	47.012	ug/l	152885.48
Sb	123	159	1	NO GAS	46.221	ug/l	865313.75
Sb	123	159	3	He	47.683	ug/l	128348.96
Ba	135	159	1	NO GAS	47.406	ug/l	247698.02
Ba	137	159	1	NO GAS	45.263	ug/l	416688.67
La	139	175	1	NO GAS	46.101	ug/l	3930459.46
La	139	175	3	He	49.137	ug/l	861673.92
Ce	140	175	1	NO GAS	46.664	ug/l	3904250.65
Ce	140	175	3	He	48.883	ug/l	1089418.05
Hg	201	175	1	NO GAS	0.900	ug/l	3963.07
Hg	202	175	1	NO GAS	0.899	ug/l	8986.87
Hg	202	175	3	He	0.980	ug/l	6574.11
Tl	203	175	3	He	48.964	ug/l	672306.42
Tl	205	175	1	NO GAS	47.730	ug/l	3128406.65
Tl	205	175	3	He	51.039	ug/l	1662396.11
[Pb]	206	175	1	NO GAS	46.105	ug/l	1040593.46
[Pb]	207	175	1	NO GAS	45.147	ug/l	898734.49
Pb	208	175	1	NO GAS	45.717	ug/l	4133734.10
Th	232	175	3	He	49.582	ug/l	2431709.08
U	238	175	1	NO GAS	45.133	ug/l	4736147.36

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1913213.36	102.5
Sc	45	2	H2	74930.58	90.7
Sc	45	3	He	48954.17	97.3
Ge	72	1	NO GAS	906602.56	107.2
Ge	72	2	H2	113114.38	95.4
Ge	72	3	He	76907.54	101.9
Tb	159	1	NO GAS	20101491.82	110.1
Tb	159	3	He	6898071.21	97.7
Ho	165	1	NO GAS	18856683.10	111.1
Ho	165	3	He	6704734.86	100.6
Lu	175	1	NO GAS	20273146.18	106.9
Lu	175	3	He	4157461.09	99.9

ICPMS206-B Analytical Data

Sample Name	CCB
File Name	049_CCB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 23:38:09
Sample Type	CCB
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.795	ug/l	2593.69
Be	9	45	1	NO GAS	0.001	ug/l	6.67
B	11	45	1	NO GAS	0.134	ug/l	197.96
Na	23	45	3	He	12.258	ug/l	7918.52
Mg	24	45	3	He	-0.139	ug/l	6.65
Al	27	45	1	NO GAS	-0.027	ug/l	577.79
Si	28	45	2	H2	0.332	ug/l	23.33
K	39	72	3	He	-7.152	ug/l	2484.65
Ca	40	72	2	H2	-0.150	ug/l	533.08
Ti	47	72	1	NO GAS	0.006	ug/l	31.65
V	51	72	1	NO GAS	-0.301	ug/l	-11218.96
V	51	72	3	He	0.045	ug/l	144.45
Cr	52	72	1	NO GAS	-0.003	ug/l	10156.38
Cr	52	72	3	He	-0.013	ug/l	119.76
Cr	53	72	1	NO GAS	5.757	ug/l	57258.52
Mn	55	72	1	NO GAS	0.002	ug/l	798.44
Mn	55	72	3	He	-0.001	ug/l	4.33
Fe	56	72	2	H2	0.171	ug/l	531.41
Fe	56	72	3	He	0.209	ug/l	962.90
Co	59	72	1	NO GAS	-0.002	ug/l	39.92
Ni	60	72	1	NO GAS	-0.001	ug/l	59.88
Ni	60	72	3	He	-0.011	ug/l	16.67
Ni	62	72	1	NO GAS	0.265	ug/l	442.47
Cu	63	72	1	NO GAS	0.004	ug/l	531.91
Cu	63	72	3	He	0.000	ug/l	206.97
Cu	65	72	1	NO GAS	-0.009	ug/l	212.62
Zn	66	72	1	NO GAS	-0.062	ug/l	335.96
Zn	66	72	3	He	-0.075	ug/l	58.89
As	75	72	1	NO GAS	0.195	ug/l	4030.40
As	75	72	3	He	0.006	ug/l	7.00
Se	78	72	2	H2	0.019	ug/l	4.33
Br	79	72	1	NO GAS	-0.242	ug/l	65549.73
Br	79	72	2	H2	0.017	ug/l	8911.46
Se	82	72	1	NO GAS	1.193	ug/l	525.01
Kr	84	72	1	NO GAS		ug/l	7666.65
Sr	88	72	1	NO GAS	0.000	ug/l	349.32
Sr	88	72	3	He	-0.011	ug/l	234.45

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.017	ug/l	223.34
Mo	95	72	3	He	0.020	ug/l	90.00
Mo	98	72	1	NO GAS	0.014	ug/l	362.24
Ag	107	72	1	NO GAS	0.004	ug/l	1921.74
Ag	109	72	1	NO GAS	0.011	ug/l	2021.73
Cd	111	159	1	NO GAS	0.005	ug/l	-9.24
Cd	111	159	3	He	0.003	ug/l	4.67
Cd	114	159	1	NO GAS	0.003	ug/l	-211.95
Cd	114	159	3	He	0.000	ug/l	-33.54
Sn	118	159	1	NO GAS	0.006	ug/l	45037.25
Sn	118	159	3	He	0.135	ug/l	6845.96
Sb	121	159	1	NO GAS	0.046	ug/l	1273.40
Sb	121	159	3	He	0.041	ug/l	178.89
Sb	123	159	1	NO GAS	0.042	ug/l	963.37
Sb	123	159	3	He	0.026	ug/l	97.78
Ba	135	159	1	NO GAS	0.005	ug/l	39.92
Ba	137	159	1	NO GAS	0.003	ug/l	76.51
La	139	175	1	NO GAS	0.000	ug/l	76.74
La	139	175	3	He	0.001	ug/l	23.36
Ce	140	175	1	NO GAS	0.001	ug/l	136.81
Ce	140	175	3	He	0.000	ug/l	10.01
Hg	201	175	1	NO GAS	0.007	ug/l	46.32
Hg	202	175	1	NO GAS	0.005	ug/l	132.31
Hg	202	175	3	He	0.004	ug/l	54.99
Tl	203	175	3	He	0.005	ug/l	175.30
Tl	205	175	1	NO GAS	0.006	ug/l	731.13
Tl	205	175	3	He	0.007	ug/l	482.58
[Pb]	206	175	1	NO GAS	0.000	ug/l	73.33
[Pb]	207	175	1	NO GAS	0.003	ug/l	114.44
Pb	208	175	1	NO GAS	0.001	ug/l	340.00
Th	232	175	3	He	0.046	ug/l	3431.73
U	238	175	1	NO GAS	0.001	ug/l	298.61

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1978796.13	106.0
Sc	45	2	H2	76532.99	92.7
Sc	45	3	He	49930.29	99.3
Ge	72	1	NO GAS	906057.91	107.1
Ge	72	2	H2	117839.83	99.4
Ge	72	3	He	78780.68	104.4
Tb	159	1	NO GAS	20013969.72	109.6
Tb	159	3	He	7321424.35	103.7
Ho	165	1	NO GAS	19466432.41	114.7
Ho	165	3	He	7131189.74	107.0
Lu	175	1	NO GAS	21259213.46	112.1
Lu	175	3	He	4443885.14	106.8

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	050BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 23:43:55
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.563	ug/l	2329.70
Be	9	45	1	NO GAS	-0.006	ug/l	4.00
B	11	45	1	NO GAS	-0.076	ug/l	147.31
Na	23	45	3	He	70.586	ug/l	12360.03
Mg	24	45	3	He	0.864	ug/l	49.90
Al	27	45	1	NO GAS	0.102	ug/l	938.92
Si	28	45	2	H2	0.176	ug/l	19.33
K	39	72	3	He	-7.993	ug/l	2392.41
Ca	40	72	2	H2	4.476	ug/l	1400.31
Ti	47	72	1	NO GAS	0.047	ug/l	64.97
V	51	72	1	NO GAS	0.159	ug/l	-5552.04
V	51	72	3	He	0.050	ug/l	147.78
Cr	52	72	1	NO GAS	-0.101	ug/l	8814.88
Cr	52	72	3	He	0.003	ug/l	143.05
Cr	53	72	1	NO GAS	-1.915	ug/l	44182.69
Mn	55	72	1	NO GAS	0.005	ug/l	831.71
Mn	55	72	3	He	0.004	ug/l	8.67
Fe	56	72	2	H2	0.309	ug/l	661.36
Fe	56	72	3	He	0.431	ug/l	1314.88
Co	59	72	1	NO GAS	0.003	ug/l	129.74
Ni	60	72	1	NO GAS	0.005	ug/l	83.17
Ni	60	72	3	He	-0.002	ug/l	26.66
Ni	62	72	1	NO GAS	0.220	ug/l	412.52
Cu	63	72	1	NO GAS	0.001	ug/l	497.91
Cu	63	72	3	He	-0.019	ug/l	139.64
Cu	65	72	1	NO GAS	-0.011	ug/l	199.96
Zn	66	72	1	NO GAS	-0.042	ug/l	389.19
Zn	66	72	3	He	-0.053	ug/l	67.78
As	75	72	1	NO GAS	-0.168	ug/l	2709.96
As	75	72	3	He	0.013	ug/l	9.00
Se	78	72	2	H2	0.011	ug/l	3.33
Br	79	72	1	NO GAS	-1.943	ug/l	53206.60
Br	79	72	2	H2	-1.889	ug/l	6944.44
Se	82	72	1	NO GAS	0.027	ug/l	182.98
Kr	84	72	1	NO GAS		ug/l	8448.82
Sr	88	72	1	NO GAS	0.007	ug/l	615.46
Sr	88	72	3	He	-0.014	ug/l	223.34

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.010	ug/l	161.12
Mo	95	72	3	He	0.012	ug/l	66.66
Mo	98	72	1	NO GAS	0.010	ug/l	294.11
Ag	107	72	1	NO GAS	0.007	ug/l	1962.40
Ag	109	72	1	NO GAS	0.007	ug/l	1915.74
Cd	111	159	1	NO GAS	0.007	ug/l	-1.50
Cd	111	159	3	He	0.003	ug/l	4.67
Cd	114	159	1	NO GAS	0.010	ug/l	-134.78
Cd	114	159	3	He	0.013	ug/l	14.17
Sn	118	159	1	NO GAS	-2.529	ug/l	2781.42
Sn	118	159	3	He	-2.330	ug/l	437.79
Sb	121	159	1	NO GAS	0.013	ug/l	487.79
Sb	121	159	3	He	0.012	ug/l	76.67
Sb	123	159	1	NO GAS	0.011	ug/l	373.34
Sb	123	159	3	He	0.011	ug/l	53.33
Ba	135	159	1	NO GAS	0.015	ug/l	93.15
Ba	137	159	1	NO GAS	0.016	ug/l	199.61
La	139	175	1	NO GAS	0.000	ug/l	96.76
La	139	175	3	He	0.001	ug/l	16.68
Ce	140	175	1	NO GAS	0.001	ug/l	150.16
Ce	140	175	3	He	0.001	ug/l	53.39
Hg	201	175	1	NO GAS	0.003	ug/l	28.66
Hg	202	175	1	NO GAS	0.002	ug/l	96.31
Hg	202	175	3	He	0.002	ug/l	41.99
Tl	203	175	3	He	0.006	ug/l	177.97
Tl	205	175	1	NO GAS	0.005	ug/l	671.13
Tl	205	175	3	He	0.007	ug/l	445.92
[Pb]	206	175	1	NO GAS	0.003	ug/l	143.34
[Pb]	207	175	1	NO GAS	0.005	ug/l	152.23
Pb	208	175	1	NO GAS	0.004	ug/l	614.46
Th	232	175	3	He	0.023	ug/l	2165.07
U	238	175	1	NO GAS	0.003	ug/l	471.58

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1863188.62	99.8
Sc	45	2	H2	72375.52	87.6
Sc	45	3	He	47198.44	93.8
Ge	72	1	NO GAS	881561.34	104.2
Ge	72	2	H2	114258.97	96.4
Ge	72	3	He	76997.16	102.0
Tb	159	1	NO GAS	19855591.56	108.7
Tb	159	3	He	7160473.14	101.5
Ho	165	1	NO GAS	18394736.80	108.4
Ho	165	3	He	7044181.75	105.7
Lu	175	1	NO GAS	19921039.51	105.0
Lu	175	3	He	4289129.50	103.1

ICPMS206-B Analytical Data

Sample Name	MB-162360
File Name	051_ARF.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 23:49:40
Sample Type	AllRef
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.178	ug/l	2295.70
Be	9	45	1	NO GAS	-0.004	ug/l	4.67
B	11	45	1	NO GAS	0.455	ug/l	254.62
Na	23	45	3	He	-4.526	ug/l	6162.24
Mg	24	45	3	He	1.317	ug/l	69.86
Al	27	45	1	NO GAS	1.800	ug/l	5903.28
Si	28	45	2	H2	9.822	ug/l	174.63
K	39	72	3	He	-10.612	ug/l	2262.39
Ca	40	72	2	H2	8.141	ug/l	2037.46
Ti	47	72	1	NO GAS	0.297	ug/l	289.86
V	51	72	1	NO GAS	-1.619	ug/l	-29345.00
V	51	72	3	He	0.082	ug/l	185.56
Cr	52	72	1	NO GAS	0.709	ug/l	19239.65
Cr	52	72	3	He	0.676	ug/l	1314.12
Cr	53	72	1	NO GAS	22.575	ug/l	86446.54
Mn	55	72	1	NO GAS	0.126	ug/l	3147.42
Mn	55	72	3	He	0.055	ug/l	49.67
Fe	56	72	2	H2	3.345	ug/l	3750.25
Fe	56	72	3	He	3.706	ug/l	6619.76
Co	59	72	1	NO GAS	0.005	ug/l	153.03
Ni	60	72	1	NO GAS	0.163	ug/l	668.69
Ni	60	72	3	He	0.203	ug/l	250.00
Ni	62	72	1	NO GAS	0.477	ug/l	568.89
Cu	63	72	1	NO GAS	0.157	ug/l	1973.73
Cu	63	72	3	He	0.163	ug/l	728.87
Cu	65	72	1	NO GAS	0.156	ug/l	985.17
Zn	66	72	1	NO GAS	2.592	ug/l	8488.65
Zn	66	72	3	He	2.962	ug/l	1476.74
As	75	72	1	NO GAS	-0.137	ug/l	2910.74
As	75	72	3	He	0.022	ug/l	11.67
Se	78	72	2	H2	0.026	ug/l	4.67
Br	79	72	1	NO GAS	-6.699	ug/l	21925.00
Br	79	72	2	H2	-6.637	ug/l	2628.37
Se	82	72	1	NO GAS	-0.513	ug/l	39.25
Kr	84	72	1	NO GAS		ug/l	7902.96
Sr	88	72	1	NO GAS	0.022	ug/l	1194.35
Sr	88	72	3	He	0.041	ug/l	304.45

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.056	ug/l	553.35
Mo	95	72	3	He	0.057	ug/l	182.23
Mo	98	72	1	NO GAS	0.055	ug/l	954.48
Ag	107	72	1	NO GAS	-0.053	ug/l	588.56
Ag	109	72	1	NO GAS	-0.053	ug/l	571.23
Cd	111	159	1	NO GAS	0.010	ug/l	14.76
Cd	111	159	3	He	0.004	ug/l	6.67
Cd	114	159	1	NO GAS	0.018	ug/l	-30.72
Cd	114	159	3	He	0.009	ug/l	-1.12
Sn	118	159	1	NO GAS	-2.358	ug/l	5906.13
Sn	118	159	3	He	-2.155	ug/l	930.04
Sb	121	159	1	NO GAS	0.039	ug/l	1158.94
Sb	121	159	3	He	0.046	ug/l	201.11
Sb	123	159	1	NO GAS	0.038	ug/l	912.25
Sb	123	159	3	He	0.046	ug/l	161.11
Ba	135	159	1	NO GAS	0.101	ug/l	562.24
Ba	137	159	1	NO GAS	0.087	ug/l	888.27
La	139	175	1	NO GAS	0.002	ug/l	246.92
La	139	175	3	He	0.002	ug/l	36.70
Ce	140	175	1	NO GAS	0.002	ug/l	290.30
Ce	140	175	3	He	0.002	ug/l	60.06
Hg	201	175	1	NO GAS	0.009	ug/l	58.32
Hg	202	175	1	NO GAS	0.011	ug/l	201.30
Hg	202	175	3	He	0.013	ug/l	118.65
Tl	203	175	3	He	0.003	ug/l	137.97
Tl	205	175	1	NO GAS	0.003	ug/l	557.80
Tl	205	175	3	He	0.003	ug/l	332.60
[Pb]	206	175	1	NO GAS	0.028	ug/l	775.58
[Pb]	207	175	1	NO GAS	0.027	ug/l	650.02
Pb	208	175	1	NO GAS	0.028	ug/l	3050.15
Th	232	175	3	He	0.121	ug/l	7383.06
U	238	175	1	NO GAS	0.002	ug/l	436.92

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1849059.25	99.1
Sc	45	2	H2	69827.51	84.5
Sc	45	3	He	47804.32	95.0
Ge	72	1	NO GAS	906222.69	107.1
Ge	72	2	H2	110824.80	93.5
Ge	72	3	He	76193.07	100.9
Tb	159	1	NO GAS	20709753.40	113.4
Tb	159	3	He	7531682.41	106.7
Ho	165	1	NO GAS	20241892.43	119.3
Ho	165	3	He	7285324.65	109.3
Lu	175	1	NO GAS	22186808.74	117.0
Lu	175	3	He	4477697.23	107.6

ICPMS206-B Analytical Data

Sample Name	MB-162497
File Name	052_ARF.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-18 23:55:24
Sample Type	AllRef
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.217	ug/l	1956.39
Be	9	45	1	NO GAS	0.000	ug/l	6.00
B	11	45	1	NO GAS	0.489	ug/l	268.62
Na	23	45	3	He	-7.982	ug/l	6174.47
Mg	24	45	3	He	1.095	ug/l	63.21
Al	27	45	1	NO GAS	1.929	ug/l	6451.26
Si	28	45	2	H2	8.677	ug/l	167.30
K	39	72	3	He	-11.226	ug/l	2362.41
Ca	40	72	2	H2	20.877	ug/l	4566.73
Ti	47	72	1	NO GAS	0.252	ug/l	239.89
V	51	72	1	NO GAS	-0.867	ug/l	-18557.14
V	51	72	3	He	0.032	ug/l	131.11
Cr	52	72	1	NO GAS	0.291	ug/l	13425.43
Cr	52	72	3	He	0.229	ug/l	565.56
Cr	53	72	1	NO GAS	9.772	ug/l	62336.07
Mn	55	72	1	NO GAS	0.099	ug/l	2531.87
Mn	55	72	3	He	0.020	ug/l	22.33
Fe	56	72	2	H2	1.128	ug/l	1537.66
Fe	56	72	3	He	1.290	ug/l	2845.52
Co	59	72	1	NO GAS	0.001	ug/l	93.15
Ni	60	72	1	NO GAS	0.001	ug/l	69.86
Ni	60	72	3	He	0.004	ug/l	34.44
Ni	62	72	1	NO GAS	0.158	ug/l	372.60
Cu	63	72	1	NO GAS	0.127	ug/l	1620.43
Cu	63	72	3	He	0.098	ug/l	547.57
Cu	65	72	1	NO GAS	0.107	ug/l	727.87
Zn	66	72	1	NO GAS	0.171	ug/l	1007.94
Zn	66	72	3	He	0.202	ug/l	197.78
As	75	72	1	NO GAS	-0.137	ug/l	2752.82
As	75	72	3	He	0.003	ug/l	6.33
Se	78	72	2	H2	0.049	ug/l	7.33
Br	79	72	1	NO GAS	-7.287	ug/l	17075.22
Br	79	72	2	H2	-7.417	ug/l	2029.45
Se	82	72	1	NO GAS	0.828	ug/l	394.58
Kr	84	72	1	NO GAS		ug/l	7916.27
Sr	88	72	1	NO GAS	0.031	ug/l	1480.48
Sr	88	72	3	He	0.037	ug/l	314.45

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.035	ug/l	360.01
Mo	95	72	3	He	0.033	ug/l	128.89
Mo	98	72	1	NO GAS	0.038	ug/l	677.94
Ag	107	72	1	NO GAS	-0.064	ug/l	319.94
Ag	109	72	1	NO GAS	-0.062	ug/l	353.27
Cd	111	159	1	NO GAS	0.014	ug/l	41.56
Cd	111	159	3	He	0.002	ug/l	4.00
Cd	114	159	1	NO GAS	0.023	ug/l	49.96
Cd	114	159	3	He	0.006	ug/l	-12.66
Sn	118	159	1	NO GAS	-2.409	ug/l	5017.58
Sn	118	159	3	He	-2.211	ug/l	790.03
Sb	121	159	1	NO GAS	0.023	ug/l	777.80
Sb	121	159	3	He	0.021	ug/l	114.44
Sb	123	159	1	NO GAS	0.018	ug/l	521.13
Sb	123	159	3	He	0.022	ug/l	90.00
Ba	135	159	1	NO GAS	0.052	ug/l	299.41
Ba	137	159	1	NO GAS	0.037	ug/l	409.20
La	139	175	1	NO GAS	0.000	ug/l	96.76
La	139	175	3	He	0.001	ug/l	23.36
Ce	140	175	1	NO GAS	0.002	ug/l	240.25
Ce	140	175	3	He	0.001	ug/l	43.38
Hg	201	175	1	NO GAS	0.013	ug/l	77.65
Hg	202	175	1	NO GAS	0.012	ug/l	215.63
Hg	202	175	3	He	0.016	ug/l	142.31
Tl	203	175	3	He	0.002	ug/l	125.31
Tl	205	175	1	NO GAS	0.001	ug/l	420.01
Tl	205	175	3	He	0.002	ug/l	315.28
[Pb]	206	175	1	NO GAS	0.010	ug/l	318.89
[Pb]	207	175	1	NO GAS	0.013	ug/l	322.23
Pb	208	175	1	NO GAS	0.012	ug/l	1405.59
Th	232	175	3	He	0.067	ug/l	4631.15
U	238	175	1	NO GAS	0.000	ug/l	137.98

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1902646.47	102.0
Sc	45	2	H2	74841.50	90.6
Sc	45	3	He	50287.33	100.0
Ge	72	1	NO GAS	869158.83	102.7
Ge	72	2	H2	115122.39	97.1
Ge	72	3	He	80574.54	106.8
Tb	159	1	NO GAS	20729301.70	113.5
Tb	159	3	He	7645473.70	108.3
Ho	165	1	NO GAS	19623683.20	115.7
Ho	165	3	He	7221648.06	108.3
Lu	175	1	NO GAS	21808078.35	115.0
Lu	175	3	He	4545455.35	109.2

ICPMS206-B Analytical Data

Sample Name	MB-162992
File Name	053_ARF.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 00:01:08
Sample Type	AllRef
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.267	ug/l	1938.39
Be	9	45	1	NO GAS	0.002	ug/l	6.33
B	11	45	1	NO GAS	0.225	ug/l	214.62
Na	23	45	3	He	-6.902	ug/l	6257.84
Mg	24	45	3	He	0.806	ug/l	49.90
Al	27	45	1	NO GAS	3.364	ug/l	10822.06
Si	28	45	2	H2	9.825	ug/l	183.30
K	39	72	3	He	-10.391	ug/l	2291.29
Ca	40	72	2	H2	32.503	ug/l	6766.43
Ti	47	72	1	NO GAS	0.341	ug/l	326.51
V	51	72	1	NO GAS	-0.191	ug/l	-10262.07
V	51	72	3	He	0.046	ug/l	142.22
Cr	52	72	1	NO GAS	0.137	ug/l	11907.33
Cr	52	72	3	He	0.057	ug/l	239.53
Cr	53	72	1	NO GAS	12.535	ug/l	68881.69
Mn	55	72	1	NO GAS	0.097	ug/l	2571.79
Mn	55	72	3	He	0.015	ug/l	17.67
Fe	56	72	2	H2	1.344	ug/l	1754.24
Fe	56	72	3	He	1.668	ug/l	3342.04
Co	59	72	1	NO GAS	0.005	ug/l	159.69
Ni	60	72	1	NO GAS	0.023	ug/l	153.03
Ni	60	72	3	He	-0.003	ug/l	24.45
Ni	62	72	1	NO GAS	0.224	ug/l	419.18
Cu	63	72	1	NO GAS	0.001	ug/l	507.91
Cu	63	72	3	He	-0.011	ug/l	165.97
Cu	65	72	1	NO GAS	-0.013	ug/l	191.30
Zn	66	72	1	NO GAS	6.457	ug/l	20135.58
Zn	66	72	3	He	6.809	ug/l	3310.35
As	75	72	1	NO GAS	0.240	ug/l	4102.96
As	75	72	3	He	0.019	ug/l	11.00
Se	78	72	2	H2	0.014	ug/l	3.67
Br	79	72	1	NO GAS	1.889	ug/l	80248.06
Br	79	72	2	H2	2.418	ug/l	10798.91
Se	82	72	1	NO GAS	0.491	ug/l	312.73
Kr	84	72	1	NO GAS		ug/l	8239.11
Sr	88	72	1	NO GAS	0.063	ug/l	2748.13
Sr	88	72	3	He	0.072	ug/l	353.34

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.141	ug/l	1251.17
Mo	95	72	3	He	0.123	ug/l	355.56
Mo	98	72	1	NO GAS	0.135	ug/l	2080.23
Ag	107	72	1	NO GAS	-0.066	ug/l	267.28
Ag	109	72	1	NO GAS	-0.067	ug/l	242.62
Cd	111	159	1	NO GAS	0.007	ug/l	-1.28
Cd	111	159	3	He	0.001	ug/l	2.00
Cd	114	159	1	NO GAS	0.013	ug/l	-100.69
Cd	114	159	3	He	0.008	ug/l	-4.90
Sn	118	159	1	NO GAS	-2.148	ug/l	9793.69
Sn	118	159	3	He	-1.981	ug/l	1391.18
Sb	121	159	1	NO GAS	0.039	ug/l	1194.50
Sb	121	159	3	He	0.053	ug/l	225.56
Sb	123	159	1	NO GAS	0.042	ug/l	1008.93
Sb	123	159	3	He	0.045	ug/l	156.67
Ba	135	159	1	NO GAS	0.031	ug/l	189.63
Ba	137	159	1	NO GAS	0.027	ug/l	322.70
La	139	175	1	NO GAS	0.000	ug/l	103.44
La	139	175	3	He	0.001	ug/l	13.35
Ce	140	175	1	NO GAS	0.002	ug/l	256.93
Ce	140	175	3	He	0.001	ug/l	50.05
Hg	201	175	1	NO GAS	0.009	ug/l	59.66
Hg	202	175	1	NO GAS	0.011	ug/l	199.29
Hg	202	175	3	He	0.014	ug/l	128.64
Tl	203	175	3	He	0.000	ug/l	101.32
Tl	205	175	1	NO GAS	0.000	ug/l	345.56
Tl	205	175	3	He	0.000	ug/l	242.62
[Pb]	206	175	1	NO GAS	0.014	ug/l	412.23
[Pb]	207	175	1	NO GAS	0.012	ug/l	312.23
Pb	208	175	1	NO GAS	0.013	ug/l	1494.48
Th	232	175	3	He	0.058	ug/l	4107.77
U	238	175	1	NO GAS	0.000	ug/l	170.97

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1910401.46	102.4
Sc	45	2	H2	73265.08	88.7
Sc	45	3	He	50186.43	99.8
Ge	72	1	NO GAS	896421.74	106.0
Ge	72	2	H2	114324.28	96.5
Ge	72	3	He	76975.57	102.0
Tb	159	1	NO GAS	21211901.15	116.1
Tb	159	3	He	7520764.41	106.6
Ho	165	1	NO GAS	19753963.68	116.4
Ho	165	3	He	7237062.12	108.6
Lu	175	1	NO GAS	21688105.26	114.4
Lu	175	3	He	4466956.23	107.4

ICPMS206-B Analytical Data

Sample Name	LCS4-162360
File Name	054LCS4.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 00:06:52
Sample Type	LCS4
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	57.127	ug/l	42328.02
Be	9	45	1	NO GAS	42.334	ug/l	11700.24
B	11	45	1	NO GAS	91.632	ug/l	18895.21
Na	23	45	3	He	4800.067	ug/l	412604.79
Mg	24	45	3	He	4757.993	ug/l	206248.57
Al	27	45	1	NO GAS	440.943	ug/l	1282431.46
Si	28	45	2	H2	963.121	ug/l	15399.86
K	39	72	3	He	4458.080	ug/l	183850.71
Ca	40	72	2	H2	4306.029	ug/l	793339.20
Ti	47	72	1	NO GAS	89.247	ug/l	79835.86
V	51	72	1	NO GAS	95.647	ug/l	1269361.40
V	51	72	3	He	97.781	ug/l	119638.48
Cr	52	72	1	NO GAS	93.207	ug/l	1180254.19
Cr	52	72	3	He	99.322	ug/l	171177.07
Cr	53	72	1	NO GAS	102.824	ug/l	220822.90
Mn	55	72	1	NO GAS	470.593	ug/l	8872077.53
Mn	55	72	3	He	490.512	ug/l	397540.98
Fe	56	72	2	H2	445.599	ug/l	453965.77
Fe	56	72	3	He	466.950	ug/l	751494.03
Co	59	72	1	NO GAS	98.302	ug/l	1637574.36
Ni	60	72	1	NO GAS	94.181	ug/l	348551.96
Ni	60	72	3	He	102.022	ug/l	110079.87
Ni	62	72	1	NO GAS	94.940	ug/l	54006.95
Cu	63	72	1	NO GAS	95.046	ug/l	891747.09
Cu	63	72	3	He	102.871	ug/l	329793.69
Cu	65	72	1	NO GAS	97.571	ug/l	457277.52
Zn	66	72	1	NO GAS	90.536	ug/l	279556.56
Zn	66	72	3	He	93.828	ug/l	43509.65
As	75	72	1	NO GAS	94.029	ug/l	313696.88
As	75	72	3	He	93.675	ug/l	27675.62
Se	78	72	2	H2	94.722	ug/l	9226.39
Br	79	72	1	NO GAS	-6.485	ug/l	23433.68
Br	79	72	2	H2	-6.498	ug/l	2734.82
Se	82	72	1	NO GAS	92.668	ug/l	26087.07
Kr	84	72	1	NO GAS		ug/l	31354.51
Sr	88	72	1	NO GAS	103.110	ug/l	3959234.18
Sr	88	72	3	He	106.068	ug/l	158235.85

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	103.288	ug/l	869434.40
Mo	95	72	3	He	108.440	ug/l	276441.42
Mo	98	72	1	NO GAS	103.872	ug/l	1493152.39
Ag	107	72	1	NO GAS	10.580	ug/l	252430.45
Ag	109	72	1	NO GAS	10.581	ug/l	248463.40
Cd	111	159	1	NO GAS	46.675	ug/l	296985.69
Cd	111	159	3	He	48.058	ug/l	69583.04
Cd	114	159	1	NO GAS	47.072	ug/l	685652.36
Cd	114	159	3	He	46.914	ug/l	176160.04
Sn	118	159	1	NO GAS	99.506	ug/l	1839260.50
Sn	118	159	3	He	94.971	ug/l	250473.37
Sb	121	159	1	NO GAS	94.364	ug/l	2421075.22
Sb	121	159	3	He	92.810	ug/l	317201.60
Sb	123	159	1	NO GAS	95.303	ug/l	1904784.36
Sb	123	159	3	He	92.693	ug/l	262275.83
Ba	135	159	1	NO GAS	91.308	ug/l	508999.95
Ba	137	159	1	NO GAS	88.639	ug/l	871787.50
La	139	175	1	NO GAS	93.163	ug/l	8796821.41
La	139	175	3	He	99.063	ug/l	1821121.89
Ce	140	175	1	NO GAS	94.940	ug/l	8784141.75
Ce	140	175	3	He	98.816	ug/l	2308630.58
Hg	201	175	1	NO GAS	0.007	ug/l	47.99
Hg	202	175	1	NO GAS	0.011	ug/l	204.96
Hg	202	175	3	He	0.007	ug/l	77.65
Tl	203	175	3	He	103.273	ug/l	1486294.97
Tl	205	175	1	NO GAS	99.852	ug/l	7241647.12
Tl	205	175	3	He	106.315	ug/l	3627608.32
[Pb]	206	175	1	NO GAS	102.669	ug/l	2572692.20
[Pb]	207	175	1	NO GAS	99.642	ug/l	2196383.21
Pb	208	175	1	NO GAS	101.823	ug/l	10206117.17
Th	232	175	3	He	102.916	ug/l	5289570.29
U	238	175	1	NO GAS	99.028	ug/l	11525665.32

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1856850.03	99.5
Sc	45	2	H2	68924.04	83.5
Sc	45	3	He	47770.73	95.0
Ge	72	1	NO GAS	919392.06	108.7
Ge	72	2	H2	110042.82	92.9
Ge	72	3	He	75404.06	99.9
Tb	159	1	NO GAS	21474288.11	117.6
Tb	159	3	He	7249036.59	102.7
Ho	165	1	NO GAS	20555831.77	121.1
Ho	165	3	He	6891500.16	103.4
Lu	175	1	NO GAS	22533131.09	118.8
Lu	175	3	He	4356958.31	104.7

ICPMS206-B Analytical Data

Sample Name	LCS4-162497
File Name	055LCS4.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 00:12:26
Sample Type	LCS4
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	59.188	ug/l	44085.75
Be	9	45	1	NO GAS	42.352	ug/l	11868.99
B	11	45	1	NO GAS	90.272	ug/l	18877.17
Na	23	45	3	He	4957.275	ug/l	445048.82
Mg	24	45	3	He	4754.320	ug/l	215445.35
Al	27	45	1	NO GAS	453.266	ug/l	1336478.69
Si	28	45	2	H2	976.311	ug/l	16331.21
K	39	72	3	He	4674.096	ug/l	192657.84
Ca	40	72	2	H2	4228.972	ug/l	811541.25
Ti	47	72	1	NO GAS	89.932	ug/l	81228.70
V	51	72	1	NO GAS	95.107	ug/l	1269879.53
V	51	72	3	He	102.457	ug/l	125423.83
Cr	52	72	1	NO GAS	93.021	ug/l	1190992.32
Cr	52	72	3	He	99.917	ug/l	172161.99
Cr	53	72	1	NO GAS	105.565	ug/l	227699.05
Mn	55	72	1	NO GAS	484.721	ug/l	9214142.26
Mn	55	72	3	He	507.536	ug/l	411414.63
Fe	56	72	2	H2	452.055	ug/l	479576.60
Fe	56	72	3	He	483.766	ug/l	778912.67
Co	59	72	1	NO GAS	96.883	ug/l	1623619.69
Ni	60	72	1	NO GAS	95.198	ug/l	355371.79
Ni	60	72	3	He	102.772	ug/l	110909.51
Ni	62	72	1	NO GAS	96.502	ug/l	55441.57
Cu	63	72	1	NO GAS	96.010	ug/l	908237.70
Cu	63	72	3	He	106.666	ug/l	341924.88
Cu	65	72	1	NO GAS	98.235	ug/l	464243.36
Zn	66	72	1	NO GAS	88.726	ug/l	275603.22
Zn	66	72	3	He	94.428	ug/l	43772.62
As	75	72	1	NO GAS	94.076	ug/l	316813.28
As	75	72	3	He	96.957	ug/l	28643.73
Se	78	72	2	H2	94.482	ug/l	9582.51
Br	79	72	1	NO GAS	-7.182	ug/l	18770.23
Br	79	72	2	H2	-6.871	ug/l	2508.58
Se	82	72	1	NO GAS	93.912	ug/l	26742.57
Kr	84	72	1	NO GAS		ug/l	30734.63
Sr	88	72	1	NO GAS	105.323	ug/l	4074423.00
Sr	88	72	3	He	108.626	ug/l	162028.40

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	104.018	ug/l	882678.48
Mo	95	72	3	He	112.103	ug/l	285759.31
Mo	98	72	1	NO GAS	106.603	ug/l	1547547.22
Ag	107	72	1	NO GAS	10.575	ug/l	254493.76
Ag	109	72	1	NO GAS	10.647	ug/l	252226.79
Cd	111	159	1	NO GAS	48.058	ug/l	304119.07
Cd	111	159	3	He	48.129	ug/l	70042.97
Cd	114	159	1	NO GAS	48.194	ug/l	698180.59
Cd	114	159	3	He	48.195	ug/l	181953.93
Sn	118	159	1	NO GAS	98.781	ug/l	1818431.56
Sn	118	159	3	He	98.940	ug/l	262082.83
Sb	121	159	1	NO GAS	96.195	ug/l	2461845.85
Sb	121	159	3	He	95.964	ug/l	329706.59
Sb	123	159	1	NO GAS	99.020	ug/l	1971712.16
Sb	123	159	3	He	96.151	ug/l	273531.70
Ba	135	159	1	NO GAS	94.392	ug/l	524105.17
Ba	137	159	1	NO GAS	92.300	ug/l	904283.87
La	139	175	1	NO GAS	94.965	ug/l	9045838.96
La	139	175	3	He	101.427	ug/l	1860032.06
Ce	140	175	1	NO GAS	96.220	ug/l	8985658.47
Ce	140	175	3	He	101.524	ug/l	2366271.97
Hg	201	175	1	NO GAS	0.008	ug/l	57.32
Hg	202	175	1	NO GAS	0.009	ug/l	189.63
Hg	202	175	3	He	0.010	ug/l	99.65
Tl	203	175	3	He	104.966	ug/l	1506850.32
Tl	205	175	1	NO GAS	97.719	ug/l	7138381.56
Tl	205	175	3	He	108.195	ug/l	3682389.86
[Pb]	206	175	1	NO GAS	100.968	ug/l	2548316.01
[Pb]	207	175	1	NO GAS	97.596	ug/l	2168949.00
Pb	208	175	1	NO GAS	98.651	ug/l	9967201.56
Th	232	175	3	He	106.409	ug/l	5455669.06
U	238	175	1	NO GAS	97.028	ug/l	11393862.35

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1860979.12	99.7
Sc	45	2	H2	72217.57	87.4
Sc	45	3	He	49927.95	99.3
Ge	72	1	NO GAS	915758.38	108.3
Ge	72	2	H2	114585.45	96.7
Ge	72	3	He	75396.03	99.9
Tb	159	1	NO GAS	21152827.71	115.8
Tb	159	3	He	7290423.92	103.3
Ho	165	1	NO GAS	20472547.24	120.7
Ho	165	3	He	7031236.82	105.5
Lu	175	1	NO GAS	22461079.45	118.4
Lu	175	3	He	4346508.65	104.5

ICPMS206-B Analytical Data

Sample Name	LCS4-162992
File Name	056LCS4.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 00:18:02
Sample Type	LCS4
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	60.152	ug/l	43342.83
Be	9	45	1	NO GAS	43.139	ug/l	11609.18
B	11	45	1	NO GAS	94.467	ug/l	18961.88
Na	23	45	3	He	4842.809	ug/l	426917.17
Mg	24	45	3	He	4719.162	ug/l	209857.12
Al	27	45	1	NO GAS	450.488	ug/l	1275554.98
Si	28	45	2	H2	980.950	ug/l	15678.03
K	39	72	3	He	4528.325	ug/l	188910.44
Ca	40	72	2	H2	4386.719	ug/l	792879.76
Ti	47	72	1	NO GAS	87.429	ug/l	78222.56
V	51	72	1	NO GAS	90.454	ug/l	1195598.40
V	51	72	3	He	98.416	ug/l	121820.20
Cr	52	72	1	NO GAS	91.818	ug/l	1164431.73
Cr	52	72	3	He	99.943	ug/l	174305.45
Cr	53	72	1	NO GAS	103.916	ug/l	222633.41
Mn	55	72	1	NO GAS	492.484	ug/l	9274462.56
Mn	55	72	3	He	488.627	ug/l	400764.98
Fe	56	72	2	H2	459.456	ug/l	459147.93
Fe	56	72	3	He	465.225	ug/l	757686.29
Co	59	72	1	NO GAS	99.729	ug/l	1656640.74
Ni	60	72	1	NO GAS	95.284	ug/l	352464.57
Ni	60	72	3	He	100.568	ug/l	109863.26
Ni	62	72	1	NO GAS	99.270	ug/l	56469.45
Cu	63	72	1	NO GAS	95.821	ug/l	897884.82
Cu	63	72	3	He	103.037	ug/l	334230.11
Cu	65	72	1	NO GAS	96.865	ug/l	453574.00
Zn	66	72	1	NO GAS	90.830	ug/l	279679.13
Zn	66	72	3	He	93.132	ug/l	43683.44
As	75	72	1	NO GAS	94.679	ug/l	315737.19
As	75	72	3	He	94.708	ug/l	28317.92
Se	78	72	2	H2	98.020	ug/l	9363.10
Br	79	72	1	NO GAS	0.110	ug/l	68879.36
Br	79	72	2	H2	1.273	ug/l	9224.36
Se	82	72	1	NO GAS	93.187	ug/l	26277.69
Kr	84	72	1	NO GAS		ug/l	30837.65
Sr	88	72	1	NO GAS	104.210	ug/l	3990636.93
Sr	88	72	3	He	105.738	ug/l	159568.42

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	104.289	ug/l	876882.59
Mo	95	72	3	He	106.733	ug/l	275369.25
Mo	98	72	1	NO GAS	103.153	ug/l	1483998.15
Ag	107	72	1	NO GAS	10.865	ug/l	258981.29
Ag	109	72	1	NO GAS	10.681	ug/l	250693.14
Cd	111	159	1	NO GAS	47.143	ug/l	294493.14
Cd	111	159	3	He	47.137	ug/l	68836.21
Cd	114	159	1	NO GAS	48.590	ug/l	694879.07
Cd	114	159	3	He	47.474	ug/l	179800.28
Sn	118	159	1	NO GAS	100.716	ug/l	1829706.21
Sn	118	159	3	He	97.339	ug/l	258769.97
Sb	121	159	1	NO GAS	95.764	ug/l	2419454.46
Sb	121	159	3	He	92.338	ug/l	318340.64
Sb	123	159	1	NO GAS	99.534	ug/l	1956784.24
Sb	123	159	3	He	93.404	ug/l	266600.55
Ba	135	159	1	NO GAS	94.321	ug/l	516948.31
Ba	137	159	1	NO GAS	92.841	ug/l	897983.85
La	139	175	1	NO GAS	95.336	ug/l	8999405.13
La	139	175	3	He	102.067	ug/l	1869219.49
Ce	140	175	1	NO GAS	94.787	ug/l	8773261.70
Ce	140	175	3	He	103.936	ug/l	2419035.46
Hg	201	175	1	NO GAS	0.007	ug/l	48.32
Hg	202	175	1	NO GAS	0.010	ug/l	191.96
Hg	202	175	3	He	0.011	ug/l	102.65
Tl	203	175	3	He	104.656	ug/l	1500782.48
Tl	205	175	1	NO GAS	97.803	ug/l	7082880.31
Tl	205	175	3	He	105.924	ug/l	3600892.45
[Pb]	206	175	1	NO GAS	99.915	ug/l	2498864.18
[Pb]	207	175	1	NO GAS	97.552	ug/l	2146655.94
Pb	208	175	1	NO GAS	99.069	ug/l	9916008.83
Th	232	175	3	He	104.402	ug/l	5346201.58
U	238	175	1	NO GAS	100.524	ug/l	11697462.37

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1789151.01	95.9
Sc	45	2	H2	68949.01	83.5
Sc	45	3	He	49007.25	97.4
Ge	72	1	NO GAS	906455.86	107.2
Ge	72	2	H2	107941.60	91.1
Ge	72	3	He	76301.39	101.1
Tb	159	1	NO GAS	20882730.95	114.3
Tb	159	3	He	7311728.71	103.6
Ho	165	1	NO GAS	19828509.90	116.9
Ho	165	3	He	7007060.83	105.1
Lu	175	1	NO GAS	22268385.73	117.4
Lu	175	3	He	4340079.93	104.3

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	057BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 00:23:38
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.843	ug/l	1467.11
Be	9	45	1	NO GAS	0.001	ug/l	6.00
B	11	45	1	NO GAS	0.154	ug/l	192.63
Na	23	45	3	He	79.793	ug/l	13296.26
Mg	24	45	3	He	0.020	ug/l	13.31
Al	27	45	1	NO GAS	0.178	ug/l	1145.60
Si	28	45	2	H2	0.148	ug/l	18.67
K	39	72	3	He	-10.472	ug/l	2293.51
Ca	40	72	2	H2	0.560	ug/l	636.37
Ti	47	72	1	NO GAS	0.059	ug/l	74.96
V	51	72	1	NO GAS	-0.099	ug/l	-8589.91
V	51	72	3	He	0.005	ug/l	91.11
Cr	52	72	1	NO GAS	-0.124	ug/l	8428.80
Cr	52	72	3	He	-0.010	ug/l	123.09
Cr	53	72	1	NO GAS	-4.398	ug/l	39763.89
Mn	55	72	1	NO GAS	0.001	ug/l	755.19
Mn	55	72	3	He	0.011	ug/l	14.00
Fe	56	72	2	H2	0.102	ug/l	431.46
Fe	56	72	3	He	0.194	ug/l	917.91
Co	59	72	1	NO GAS	0.001	ug/l	86.49
Ni	60	72	1	NO GAS	0.012	ug/l	109.78
Ni	60	72	3	He	-0.001	ug/l	26.67
Ni	62	72	1	NO GAS	0.227	ug/l	419.18
Cu	63	72	1	NO GAS	0.002	ug/l	508.58
Cu	63	72	3	He	-0.013	ug/l	160.30
Cu	65	72	1	NO GAS	-0.006	ug/l	222.63
Zn	66	72	1	NO GAS	0.134	ug/l	911.52
Zn	66	72	3	He	0.123	ug/l	151.11
As	75	72	1	NO GAS	0.067	ug/l	3421.96
As	75	72	3	He	0.002	ug/l	5.67
Se	78	72	2	H2	0.008	ug/l	3.00
Br	79	72	1	NO GAS	-1.850	ug/l	53420.15
Br	79	72	2	H2	-1.416	ug/l	7184.05
Se	82	72	1	NO GAS	0.556	ug/l	326.04
Kr	84	72	1	NO GAS		ug/l	7799.77
Sr	88	72	1	NO GAS	0.003	ug/l	465.75
Sr	88	72	3	He	0.012	ug/l	263.34

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.011	ug/l	167.78
Mo	95	72	3	He	0.004	ug/l	45.55
Mo	98	72	1	NO GAS	0.007	ug/l	262.65
Ag	107	72	1	NO GAS	0.008	ug/l	1951.07
Ag	109	72	1	NO GAS	0.005	ug/l	1847.74
Cd	111	159	1	NO GAS	0.007	ug/l	-7.37
Cd	111	159	3	He	0.002	ug/l	3.33
Cd	114	159	1	NO GAS	0.013	ug/l	-103.82
Cd	114	159	3	He	0.013	ug/l	14.05
Sn	118	159	1	NO GAS	-2.514	ug/l	3054.25
Sn	118	159	3	He	-2.342	ug/l	417.79
Sb	121	159	1	NO GAS	0.025	ug/l	793.36
Sb	121	159	3	He	0.021	ug/l	106.67
Sb	123	159	1	NO GAS	0.022	ug/l	580.01
Sb	123	159	3	He	0.023	ug/l	91.11
Ba	135	159	1	NO GAS	0.025	ug/l	143.05
Ba	137	159	1	NO GAS	0.017	ug/l	209.59
La	139	175	1	NO GAS	0.000	ug/l	126.80
La	139	175	3	He	0.002	ug/l	33.37
Ce	140	175	1	NO GAS	0.001	ug/l	193.54
Ce	140	175	3	He	0.001	ug/l	36.70
Hg	201	175	1	NO GAS	0.001	ug/l	17.67
Hg	202	175	1	NO GAS	0.000	ug/l	81.98
Hg	202	175	3	He	0.002	ug/l	38.32
Tl	203	175	3	He	0.422	ug/l	6184.72
Tl	205	175	1	NO GAS	0.381	ug/l	26699.66
Tl	205	175	3	He	0.442	ug/l	15340.72
[Pb]	206	175	1	NO GAS	0.005	ug/l	190.00
[Pb]	207	175	1	NO GAS	0.003	ug/l	120.00
Pb	208	175	1	NO GAS	0.004	ug/l	670.01
Th	232	175	3	He	0.083	ug/l	5274.57
U	238	175	1	NO GAS	0.007	ug/l	876.85

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1862948.43	99.8
Sc	45	2	H2	71871.03	87.0
Sc	45	3	He	47795.53	95.0
Ge	72	1	NO GAS	884453.16	104.6
Ge	72	2	H2	111498.09	94.1
Ge	72	3	He	77080.91	102.1
Tb	159	1	NO GAS	20074185.35	109.9
Tb	159	3	He	7362562.61	104.3
Ho	165	1	NO GAS	19058914.91	112.3
Ho	165	3	He	6922920.02	103.8
Lu	175	1	NO GAS	21337286.74	112.5
Lu	175	3	He	4367746.76	105.0

ICPMS206-B Analytical Data

Sample Name	B21121609-001A
File Name	058SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 00:29:22
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.521	ug/l	1754.74
Be	9	45	1	NO GAS	0.017	ug/l	10.00
B	11	45	1	NO GAS	194.033	ug/l	38391.86
Na	23	45	3	He	85932.541	ug/l	6693145.04
Mg	24	45	3	He	33783.472	ug/l	1347473.71
Al	27	45	1	NO GAS	721.225	ug/l	2021596.01
Si	28	45	2	H2	20129.489	ug/l	308708.21
K	39	72	3	He	2585.146	ug/l	101306.02
Ca	40	72	2	H2	32328.261	ug/l	5574461.91
Ti	47	72	1	NO GAS	62.678	ug/l	52732.38
V	51	72	1	NO GAS	9.498	ug/l	111830.82
V	51	72	3	He	11.170	ug/l	12920.57
Cr	52	72	1	NO GAS	5.517	ug/l	74994.25
Cr	52	72	3	He	5.229	ug/l	8591.89
Cr	53	72	1	NO GAS	40.756	ug/l	109966.05
Mn	55	72	1	NO GAS	377.557	ug/l	6686920.03
Mn	55	72	3	He	386.661	ug/l	294695.27
Fe	56	72	2	H2	2441.819	ug/l	2327732.76
Fe	56	72	3	He	2580.836	ug/l	3904694.52
Co	59	72	1	NO GAS	2.727	ug/l	42696.84
Ni	60	72	1	NO GAS	19.383	ug/l	67478.77
Ni	60	72	3	He	18.565	ug/l	18859.58
Ni	62	72	1	NO GAS	19.387	ug/l	10599.10
Cu	63	72	1	NO GAS	13.039	ug/l	115342.95
Cu	63	72	3	He	12.320	ug/l	37290.24
Cu	65	72	1	NO GAS	12.158	ug/l	53764.35
Zn	66	72	1	NO GAS	53.698	ug/l	155683.23
Zn	66	72	3	He	55.730	ug/l	24329.96
As	75	72	1	NO GAS	1.438	ug/l	7624.87
As	75	72	3	He	1.592	ug/l	446.92
Se	78	72	2	H2	2.536	ug/l	233.29
Br	79	72	1	NO GAS	4.182	ug/l	91209.09
Br	79	72	2	H2	6.029	ug/l	12623.31
Se	82	72	1	NO GAS	3.272	ug/l	1038.04
Kr	84	72	1	NO GAS		ug/l	73193.47
Sr	88	72	1	NO GAS	311.189	ug/l	11203007.50
Sr	88	72	3	He	305.948	ug/l	428763.35

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.744	ug/l	5958.91
Mo	95	72	3	He	0.712	ug/l	1739.00
Mo	98	72	1	NO GAS	0.719	ug/l	9885.57
Ag	107	72	1	NO GAS	-0.029	ug/l	1091.16
Ag	109	72	1	NO GAS	-0.029	ug/l	1063.83
Cd	111	159	1	NO GAS	0.320	ug/l	1897.57
Cd	111	159	3	He	0.342	ug/l	486.58
Cd	114	159	1	NO GAS	0.339	ug/l	4442.67
Cd	114	159	3	He	0.354	ug/l	1271.81
Sn	118	159	1	NO GAS	-1.959	ug/l	12660.02
Sn	118	159	3	He	-1.818	ug/l	1727.89
Sb	121	159	1	NO GAS	0.759	ug/l	18813.31
Sb	121	159	3	He	0.728	ug/l	2480.21
Sb	123	159	1	NO GAS	0.778	ug/l	15044.94
Sb	123	159	3	He	0.700	ug/l	1970.14
Ba	135	159	1	NO GAS	59.995	ug/l	319800.35
Ba	137	159	1	NO GAS	58.644	ug/l	551468.13
La	139	175	1	NO GAS	0.349	ug/l	32499.68
La	139	175	3	He	0.343	ug/l	6277.69
Ce	140	175	1	NO GAS	0.756	ug/l	68842.20
Ce	140	175	3	He	0.782	ug/l	18205.76
Hg	201	175	1	NO GAS	0.112	ug/l	551.57
Hg	202	175	1	NO GAS	0.116	ug/l	1328.46
Hg	202	175	3	He	0.114	ug/l	823.19
Tl	203	175	3	He	0.157	ug/l	2338.40
Tl	205	175	1	NO GAS	0.107	ug/l	7953.30
Tl	205	175	3	He	0.163	ug/l	5751.30
[Pb]	206	175	1	NO GAS	15.738	ug/l	386892.78
[Pb]	207	175	1	NO GAS	15.335	ug/l	331625.62
Pb	208	175	1	NO GAS	15.490	ug/l	1523565.28
Th	232	175	3	He	0.249	ug/l	13695.61
U	238	175	1	NO GAS	0.097	ug/l	11282.04

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1768293.34	94.8
Sc	45	2	H2	66195.89	80.1
Sc	45	3	He	43952.55	87.4
Ge	72	1	NO GAS	852800.96	100.8
Ge	72	2	H2	103002.52	86.9
Ge	72	3	He	70880.19	93.9
Tb	159	1	NO GAS	20305800.50	111.2
Tb	159	3	He	7121425.08	100.9
Ho	165	1	NO GAS	19623649.83	115.7
Ho	165	3	He	6872131.84	103.1
Lu	175	1	NO GAS	21862752.82	115.3
Lu	175	3	He	4334988.64	104.2

ICPMS206-B Analytical Data

Sample Name	B21121611-001H
File Name	059SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 00:35:03
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.248	ug/l	2985.00
Be	9	45	1	NO GAS	0.002	ug/l	6.00
B	11	45	1	NO GAS	173.331	ug/l	34474.01
Na	23	45	3	He	96160.600	ug/l	7324179.68
Mg	24	45	3	He	30473.120	ug/l	1188700.74
Al	27	45	1	NO GAS	652.845	ug/l	1838295.30
Si	28	45	2	H2	36641.182	ug/l	548928.53
K	39	72	3	He	3132.995	ug/l	122528.36
Ca	40	72	2	H2	20374.193	ug/l	3458476.46
Ti	47	72	1	NO GAS	65.487	ug/l	54766.46
V	51	72	1	NO GAS	16.978	ug/l	204147.46
V	51	72	3	He	17.816	ug/l	20610.44
Cr	52	72	1	NO GAS	2.509	ug/l	39164.56
Cr	52	72	3	He	2.259	ug/l	3792.93
Cr	53	72	1	NO GAS	57.939	ug/l	136306.25
Mn	55	72	1	NO GAS	167.716	ug/l	2953515.00
Mn	55	72	3	He	170.571	ug/l	130279.76
Fe	56	72	2	H2	901.256	ug/l	845683.44
Fe	56	72	3	He	939.840	ug/l	1424919.05
Co	59	72	1	NO GAS	1.908	ug/l	29710.94
Ni	60	72	1	NO GAS	5.746	ug/l	19939.21
Ni	60	72	3	He	5.309	ug/l	5425.36
Ni	62	72	1	NO GAS	6.064	ug/l	3486.84
Cu	63	72	1	NO GAS	4.584	ug/l	40614.95
Cu	63	72	3	He	3.450	ug/l	10603.23
Cu	65	72	1	NO GAS	3.574	ug/l	15879.73
Zn	66	72	1	NO GAS	5.679	ug/l	16810.16
Zn	66	72	3	He	5.474	ug/l	2471.32
As	75	72	1	NO GAS	0.961	ug/l	6098.22
As	75	72	3	He	1.138	ug/l	321.27
Se	78	72	2	H2	0.249	ug/l	24.33
Br	79	72	1	NO GAS	0.483	ug/l	66786.51
Br	79	72	2	H2	1.497	ug/l	8834.98
Se	82	72	1	NO GAS	1.153	ug/l	472.42
Kr	84	72	1	NO GAS		ug/l	42987.33
Sr	88	72	1	NO GAS	175.356	ug/l	6280916.35
Sr	88	72	3	He	170.325	ug/l	239267.78

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	3.137	ug/l	24747.73
Mo	95	72	3	He	3.165	ug/l	7635.17
Mo	98	72	1	NO GAS	3.091	ug/l	41743.18
Ag	107	72	1	NO GAS	-0.002	ug/l	1681.09
Ag	109	72	1	NO GAS	-0.003	ug/l	1628.43
Cd	111	159	1	NO GAS	0.032	ug/l	158.52
Cd	111	159	3	He	0.012	ug/l	17.33
Cd	114	159	1	NO GAS	0.022	ug/l	33.08
Cd	114	159	3	He	0.017	ug/l	26.80
Sn	118	159	1	NO GAS	-2.139	ug/l	9876.90
Sn	118	159	3	He	-1.930	ug/l	1426.75
Sb	121	159	1	NO GAS	0.956	ug/l	24473.13
Sb	121	159	3	He	0.940	ug/l	3154.78
Sb	123	159	1	NO GAS	0.969	ug/l	19323.92
Sb	123	159	3	He	1.001	ug/l	2774.71
Ba	135	159	1	NO GAS	15.432	ug/l	85024.68
Ba	137	159	1	NO GAS	14.922	ug/l	145087.88
La	139	175	1	NO GAS	0.183	ug/l	17146.81
La	139	175	3	He	0.206	ug/l	3740.96
Ce	140	175	1	NO GAS	0.518	ug/l	47398.71
Ce	140	175	3	He	0.536	ug/l	12390.88
Hg	201	175	1	NO GAS	0.056	ug/l	282.28
Hg	202	175	1	NO GAS	0.772	ug/l	8438.68
Hg	202	175	3	He	0.521	ug/l	3634.38
Tl	203	175	3	He	0.119	ug/l	1781.76
Tl	205	175	1	NO GAS	0.070	ug/l	5371.03
Tl	205	175	3	He	0.113	ug/l	4033.75
[Pb]	206	175	1	NO GAS	0.764	ug/l	18928.64
[Pb]	207	175	1	NO GAS	0.721	ug/l	15726.10
Pb	208	175	1	NO GAS	0.744	ug/l	73727.68
Th	232	175	3	He	0.130	ug/l	7583.80
U	238	175	1	NO GAS	0.139	ug/l	16103.85

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1778761.39	95.3
Sc	45	2	H2	64681.23	78.3
Sc	45	3	He	43006.38	85.5
Ge	72	1	NO GAS	847658.07	100.2
Ge	72	2	H2	101394.55	85.6
Ge	72	3	He	71032.74	94.1
Tb	159	1	NO GAS	20987639.61	114.9
Tb	159	3	He	7039414.11	99.7
Ho	165	1	NO GAS	19825116.29	116.8
Ho	165	3	He	6891159.14	103.4
Lu	175	1	NO GAS	21958406.38	115.8
Lu	175	3	He	4303930.55	103.4

ICPMS206-B Analytical Data

Sample Name	B21121613-001A
File Name	060SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 00:40:47
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.598	ug/l	1696.42
Be	9	45	1	NO GAS	0.010	ug/l	7.67
B	11	45	1	NO GAS	183.299	ug/l	34842.56
Na	23	45	3	He	93046.811	ug/l	6927542.19
Mg	24	45	3	He	8140.644	ug/l	310425.96
Al	27	45	1	NO GAS	725.595	ug/l	1954230.77
Si	28	45	2	H2	32284.879	ug/l	457154.76
K	39	72	3	He	2872.441	ug/l	108493.51
Ca	40	72	2	H2	4679.865	ug/l	768926.63
Ti	47	72	1	NO GAS	40.943	ug/l	33573.45
V	51	72	1	NO GAS	43.106	ug/l	518835.14
V	51	72	3	He	46.357	ug/l	51580.67
Cr	52	72	1	NO GAS	6.564	ug/l	85170.14
Cr	52	72	3	He	6.728	ug/l	10652.35
Cr	53	72	1	NO GAS	72.067	ug/l	155337.97
Mn	55	72	1	NO GAS	15.533	ug/l	269027.15
Mn	55	72	3	He	16.337	ug/l	12033.81
Fe	56	72	2	H2	675.016	ug/l	613040.23
Fe	56	72	3	He	708.779	ug/l	1036516.74
Co	59	72	1	NO GAS	0.525	ug/l	8072.71
Ni	60	72	1	NO GAS	1.450	ug/l	4967.60
Ni	60	72	3	He	1.439	ug/l	1435.63
Ni	62	72	1	NO GAS	1.397	ug/l	998.06
Cu	63	72	1	NO GAS	3.028	ug/l	26465.69
Cu	63	72	3	He	1.968	ug/l	5908.86
Cu	65	72	1	NO GAS	1.970	ug/l	8683.89
Zn	66	72	1	NO GAS	4.178	ug/l	12251.87
Zn	66	72	3	He	4.279	ug/l	1881.24
As	75	72	1	NO GAS	0.242	ug/l	3819.30
As	75	72	3	He	0.273	ug/l	77.65
Se	78	72	2	H2	0.338	ug/l	31.32
Br	79	72	1	NO GAS	-0.095	ug/l	61885.55
Br	79	72	2	H2	0.708	ug/l	7949.53
Se	82	72	1	NO GAS	1.105	ug/l	451.80
Kr	84	72	1	NO GAS		ug/l	18473.79
Sr	88	72	1	NO GAS	58.781	ug/l	2063165.60
Sr	88	72	3	He	56.017	ug/l	76022.27

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.712	ug/l	5563.23
Mo	95	72	3	He	0.736	ug/l	1735.67
Mo	98	72	1	NO GAS	0.706	ug/l	9464.09
Ag	107	72	1	NO GAS	-0.058	ug/l	439.25
Ag	109	72	1	NO GAS	-0.058	ug/l	418.59
Cd	111	159	1	NO GAS	0.021	ug/l	83.13
Cd	111	159	3	He	0.017	ug/l	24.00
Cd	114	159	1	NO GAS	0.024	ug/l	58.16
Cd	114	159	3	He	0.032	ug/l	80.65
Sn	118	159	1	NO GAS	-2.194	ug/l	8841.65
Sn	118	159	3	He	-1.999	ug/l	1234.51
Sb	121	159	1	NO GAS	0.142	ug/l	3779.36
Sb	121	159	3	He	0.146	ug/l	510.01
Sb	123	159	1	NO GAS	0.147	ug/l	3055.87
Sb	123	159	3	He	0.159	ug/l	452.23
Ba	135	159	1	NO GAS	6.217	ug/l	34059.03
Ba	137	159	1	NO GAS	6.222	ug/l	60151.45
La	139	175	1	NO GAS	0.202	ug/l	19064.34
La	139	175	3	He	0.220	ug/l	3851.10
Ce	140	175	1	NO GAS	0.732	ug/l	67468.33
Ce	140	175	3	He	0.769	ug/l	17113.40
Hg	201	175	1	NO GAS	0.017	ug/l	97.31
Hg	202	175	1	NO GAS	0.021	ug/l	307.94
Hg	202	175	3	He	0.023	ug/l	175.63
Tl	203	175	3	He	0.069	ug/l	1029.84
Tl	205	175	1	NO GAS	0.042	ug/l	3350.41
Tl	205	175	3	He	0.072	ug/l	2538.39
[Pb]	206	175	1	NO GAS	0.292	ug/l	7332.97
[Pb]	207	175	1	NO GAS	0.273	ug/l	6033.49
Pb	208	175	1	NO GAS	0.282	ug/l	28386.27
Th	232	175	3	He	0.152	ug/l	8378.05
U	238	175	1	NO GAS	0.030	ug/l	3618.06

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1698520.20	91.0
Sc	45	2	H2	61145.33	74.0
Sc	45	3	He	42012.75	83.5
Ge	72	1	NO GAS	831907.53	98.3
Ge	72	2	H2	98123.42	82.8
Ge	72	3	He	68488.90	90.7
Tb	159	1	NO GAS	20872730.33	114.3
Tb	159	3	He	6911175.67	97.9
Ho	165	1	NO GAS	19573250.89	115.4
Ho	165	3	He	6764724.48	101.5
Lu	175	1	NO GAS	22147368.88	116.8
Lu	175	3	He	4144194.15	99.6

ICPMS206-B Analytical Data

Sample Name	B21121613-001ADIL
File Name	061SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 00:46:30
Sample Type	Sample
Total Dilution	5.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-5.960	ug/l	1273.13
Be	9	45	1	NO GAS	-0.011	ug/l	4.67
B	11	45	1	NO GAS	179.163	ug/l	6730.64
Na	23	45	3	He	93291.094	ug/l	1309218.01
Mg	24	45	3	He	8251.223	ug/l	59125.37
Al	27	45	1	NO GAS	765.602	ug/l	400211.43
Si	28	45	2	H2	33779.801	ug/l	92008.41
K	39	72	3	He	2807.376	ug/l	22629.51
Ca	40	72	2	H2	4714.362	ug/l	151559.60
Ti	47	72	1	NO GAS	41.064	ug/l	6643.04
V	51	72	1	NO GAS	39.368	ug/l	87427.56
V	51	72	3	He	46.533	ug/l	10175.34
Cr	52	72	1	NO GAS	6.735	ug/l	24562.66
Cr	52	72	3	He	6.681	ug/l	2162.53
Cr	53	72	1	NO GAS	167.312	ug/l	94377.13
Mn	55	72	1	NO GAS	16.354	ug/l	56228.76
Mn	55	72	3	He	16.464	ug/l	2374.08
Fe	56	72	2	H2	685.054	ug/l	121716.60
Fe	56	72	3	He	714.548	ug/l	204581.74
Co	59	72	1	NO GAS	0.587	ug/l	1826.49
Ni	60	72	1	NO GAS	1.574	ug/l	1107.85
Ni	60	72	3	He	1.664	ug/l	343.34
Ni	62	72	1	NO GAS	3.196	ug/l	595.50
Cu	63	72	1	NO GAS	3.642	ug/l	6615.33
Cu	63	72	3	He	2.645	ug/l	1680.08
Cu	65	72	1	NO GAS	2.655	ug/l	2470.37
Zn	66	72	1	NO GAS	22.946	ug/l	13197.21
Zn	66	72	3	He	23.325	ug/l	1996.80
As	75	72	1	NO GAS	-1.097	ug/l	2398.52
As	75	72	3	He	0.227	ug/l	16.33
Se	78	72	2	H2	0.705	ug/l	13.67
Br	79	72	1	NO GAS	5.275	ug/l	67994.06
Br	79	72	2	H2	9.691	ug/l	8685.17
Se	82	72	1	NO GAS	3.386	ug/l	332.69
Kr	84	72	1	NO GAS		ug/l	9490.65
Sr	88	72	1	NO GAS	56.835	ug/l	393006.86
Sr	88	72	3	He	57.680	ug/l	15466.22

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.729	ug/l	1186.72
Mo	95	72	3	He	0.745	ug/l	368.90
Mo	98	72	1	NO GAS	0.734	ug/l	2052.44
Ag	107	72	1	NO GAS	-0.356	ug/l	143.31
Ag	109	72	1	NO GAS	-0.347	ug/l	170.63
Cd	111	159	1	NO GAS	0.112	ug/l	94.13
Cd	111	159	3	He	0.060	ug/l	17.33
Cd	114	159	1	NO GAS	0.148	ug/l	136.48
Cd	114	159	3	He	0.111	ug/l	47.04
Sn	118	159	1	NO GAS	-12.027	ug/l	5057.50
Sn	118	159	3	He	-11.240	ug/l	627.79
Sb	121	159	1	NO GAS	0.233	ug/l	1353.40
Sb	121	159	3	He	0.197	ug/l	163.34
Sb	123	159	1	NO GAS	0.249	ug/l	1141.17
Sb	123	159	3	He	0.207	ug/l	135.56
Ba	135	159	1	NO GAS	7.136	ug/l	7749.93
Ba	137	159	1	NO GAS	7.083	ug/l	13608.88
La	139	175	1	NO GAS	0.247	ug/l	4485.22
La	139	175	3	He	0.224	ug/l	784.16
Ce	140	175	1	NO GAS	0.778	ug/l	13706.62
Ce	140	175	3	He	0.713	ug/l	3190.24
Hg	201	175	1	NO GAS	0.018	ug/l	30.99
Hg	202	175	1	NO GAS	0.026	ug/l	131.98
Hg	202	175	3	He	0.033	ug/l	69.32
Tl	203	175	3	He	0.233	ug/l	728.55
Tl	205	175	1	NO GAS	0.192	ug/l	3023.69
Tl	205	175	3	He	0.227	ug/l	1689.10
[Pb]	206	175	1	NO GAS	0.380	ug/l	1865.68
[Pb]	207	175	1	NO GAS	0.368	ug/l	1585.65
Pb	208	175	1	NO GAS	0.380	ug/l	7428.56
Th	232	175	3	He	0.121	ug/l	2137.73
U	238	175	1	NO GAS	0.031	ug/l	827.86

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1655802.64	88.7
Sc	45	2	H2	58819.61	71.2
Sc	45	3	He	39475.73	78.5
Ge	72	1	NO GAS	819081.77	96.8
Ge	72	2	H2	95960.24	81.0
Ge	72	3	He	66921.36	88.7
Tb	159	1	NO GAS	20668324.68	113.2
Tb	159	3	He	6961414.56	98.6
Ho	165	1	NO GAS	19250608.06	113.5
Ho	165	3	He	6763489.92	101.5
Lu	175	1	NO GAS	21128526.95	111.4
Lu	175	3	He	4143478.02	99.6

ICPMS206-B Analytical Data

Sample Name	CCV
File Name	062_CCV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 00:52:13
Sample Type	CCV
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	351.735	ug/l	230745.32
Be	9	45	1	NO GAS	42.574	ug/l	10880.53
B	11	45	1	NO GAS	41.563	ug/l	8008.26
Na	23	45	3	He	10665.038	ug/l	870700.05
Mg	24	45	3	He	10532.663	ug/l	437517.67
Al	27	45	1	NO GAS	42.297	ug/l	114264.89
Si	28	45	2	H2	192.334	ug/l	2978.34
K	39	72	3	He	9873.817	ug/l	399182.05
Ca	40	72	2	H2	10447.965	ug/l	1793620.94
Ti	47	72	1	NO GAS	44.374	ug/l	36344.32
V	51	72	1	NO GAS	43.840	ug/l	527661.91
V	51	72	3	He	46.543	ug/l	56293.24
Cr	52	72	1	NO GAS	45.203	ug/l	529609.70
Cr	52	72	3	He	46.613	ug/l	79387.50
Cr	53	72	1	NO GAS	68.843	ug/l	150017.38
Mn	55	72	1	NO GAS	46.801	ug/l	807484.24
Mn	55	72	3	He	45.626	ug/l	36546.54
Fe	56	72	2	H2	1123.517	ug/l	1066384.88
Fe	56	72	3	He	1123.470	ug/l	1785912.71
Co	59	72	1	NO GAS	49.031	ug/l	745321.71
Ni	60	72	1	NO GAS	48.676	ug/l	164848.44
Ni	60	72	3	He	47.192	ug/l	50352.12
Ni	62	72	1	NO GAS	49.825	ug/l	26091.99
Cu	63	72	1	NO GAS	48.906	ug/l	419794.38
Cu	63	72	3	He	48.685	ug/l	154265.73
Cu	65	72	1	NO GAS	48.092	ug/l	206288.09
Zn	66	72	1	NO GAS	48.437	ug/l	136862.51
Zn	66	72	3	He	48.611	ug/l	22313.84
As	75	72	1	NO GAS	51.030	ug/l	157276.90
As	75	72	3	He	49.267	ug/l	14383.63
Se	78	72	2	H2	52.330	ug/l	4751.07
Br	79	72	1	NO GAS	0.932	ug/l	68248.38
Br	79	72	2	H2	1.881	ug/l	9250.98
Se	82	72	1	NO GAS	52.962	ug/l	13754.31
Kr	84	72	1	NO GAS		ug/l	17904.29
Sr	88	72	1	NO GAS	51.829	ug/l	1818115.75
Sr	88	72	3	He	48.802	ug/l	72050.31

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	52.614	ug/l	405145.18
Mo	95	72	3	He	50.106	ug/l	126238.60
Mo	98	72	1	NO GAS	52.006	ug/l	684989.52
Ag	107	72	1	NO GAS	21.691	ug/l	471993.08
Ag	109	72	1	NO GAS	21.560	ug/l	461758.01
Cd	111	159	1	NO GAS	47.551	ug/l	287361.25
Cd	111	159	3	He	46.876	ug/l	66493.04
Cd	114	159	1	NO GAS	47.941	ug/l	663378.45
Cd	114	159	3	He	46.577	ug/l	171411.92
Sn	118	159	1	NO GAS	46.052	ug/l	833947.35
Sn	118	159	3	He	45.062	ug/l	119803.32
Sb	121	159	1	NO GAS	47.095	ug/l	1151027.01
Sb	121	159	3	He	45.800	ug/l	153418.84
Sb	123	159	1	NO GAS	47.568	ug/l	904575.42
Sb	123	159	3	He	45.375	ug/l	125823.74
Ba	135	159	1	NO GAS	47.325	ug/l	250945.44
Ba	137	159	1	NO GAS	47.047	ug/l	440235.77
La	139	175	1	NO GAS	46.302	ug/l	4080250.81
La	139	175	3	He	47.179	ug/l	839496.03
Ce	140	175	1	NO GAS	47.339	ug/l	4088987.07
Ce	140	175	3	He	48.104	ug/l	1087995.17
Hg	201	175	1	NO GAS	0.952	ug/l	4327.09
Hg	202	175	1	NO GAS	0.965	ug/l	9964.95
Hg	202	175	3	He	1.005	ug/l	6845.51
Tl	203	175	3	He	49.811	ug/l	694020.32
Tl	205	175	1	NO GAS	50.442	ug/l	3409777.21
Tl	205	175	3	He	50.705	ug/l	1674793.78
[Pb]	206	175	1	NO GAS	48.018	ug/l	1121099.38
[Pb]	207	175	1	NO GAS	47.328	ug/l	972155.83
Pb	208	175	1	NO GAS	47.299	ug/l	4418486.06
Th	232	175	3	He	51.043	ug/l	2540033.45
U	238	175	1	NO GAS	46.672	ug/l	5067264.88

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1696644.66	90.9
Sc	45	2	H2	66502.80	80.5
Sc	45	3	He	45784.87	91.0
Ge	72	1	NO GAS	830691.50	98.2
Ge	72	2	H2	102547.47	86.5
Ge	72	3	He	74485.69	98.7
Tb	159	1	NO GAS	20203750.96	110.6
Tb	159	3	He	7105314.07	100.7
Ho	165	1	NO GAS	18811324.62	110.9
Ho	165	3	He	6798718.53	102.0
Lu	175	1	NO GAS	20769070.84	109.5
Lu	175	3	He	4217421.02	101.4

ICPMS206-B Analytical Data

Sample Name	CCB
File Name	063_CCB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 00:57:53
Sample Type	CCB
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.439	ug/l	1755.75
Be	9	45	1	NO GAS	-0.003	ug/l	4.33
B	11	45	1	NO GAS	0.582	ug/l	247.29
Na	23	45	3	He	29.553	ug/l	8006.35
Mg	24	45	3	He	0.317	ug/l	23.29
Al	27	45	1	NO GAS	-0.026	ug/l	488.90
Si	28	45	2	H2	0.465	ug/l	20.66
K	39	72	3	He	-12.885	ug/l	1997.91
Ca	40	72	2	H2	-0.323	ug/l	423.13
Ti	47	72	1	NO GAS	0.007	ug/l	28.32
V	51	72	1	NO GAS	-0.346	ug/l	-11099.94
V	51	72	3	He	0.124	ug/l	218.89
Cr	52	72	1	NO GAS	0.199	ug/l	11484.57
Cr	52	72	3	He	-0.011	ug/l	109.78
Cr	53	72	1	NO GAS	36.400	ug/l	98077.85
Mn	55	72	1	NO GAS	0.004	ug/l	758.52
Mn	55	72	3	He	-0.003	ug/l	2.33
Fe	56	72	2	H2	-0.025	ug/l	269.87
Fe	56	72	3	He	0.030	ug/l	591.39
Co	59	72	1	NO GAS	-0.002	ug/l	39.92
Ni	60	72	1	NO GAS	-0.002	ug/l	53.23
Ni	60	72	3	He	-0.010	ug/l	15.56
Ni	62	72	1	NO GAS	0.017	ug/l	276.12
Cu	63	72	1	NO GAS	-0.008	ug/l	385.93
Cu	63	72	3	He	-0.013	ug/l	145.30
Cu	65	72	1	NO GAS	-0.012	ug/l	177.97
Zn	66	72	1	NO GAS	-0.075	ug/l	265.81
Zn	66	72	3	He	-0.129	ug/l	28.89
As	75	72	1	NO GAS	-0.012	ug/l	2971.41
As	75	72	3	He	0.000	ug/l	4.67
Se	78	72	2	H2	0.015	ug/l	3.33
Br	79	72	1	NO GAS	0.085	ug/l	61471.34
Br	79	72	2	H2	0.396	ug/l	7866.38
Se	82	72	1	NO GAS	0.745	ug/l	350.66
Kr	84	72	1	NO GAS		ug/l	6814.66
Sr	88	72	1	NO GAS	-0.001	ug/l	296.09
Sr	88	72	3	He	-0.009	ug/l	211.11

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.008	ug/l	130.00
Mo	95	72	3	He	0.002	ug/l	38.89
Mo	98	72	1	NO GAS	0.005	ug/l	216.68
Ag	107	72	1	NO GAS	0.007	ug/l	1803.08
Ag	109	72	1	NO GAS	0.012	ug/l	1870.41
Cd	111	159	1	NO GAS	0.009	ug/l	9.64
Cd	111	159	3	He	0.002	ug/l	3.33
Cd	114	159	1	NO GAS	-0.002	ug/l	-299.79
Cd	114	159	3	He	-0.002	ug/l	-42.66
Sn	118	159	1	NO GAS	-0.183	ug/l	43462.88
Sn	118	159	3	He	-0.050	ug/l	6245.71
Sb	121	159	1	NO GAS	0.057	ug/l	1593.43
Sb	121	159	3	He	0.037	ug/l	160.00
Sb	123	159	1	NO GAS	0.056	ug/l	1246.72
Sb	123	159	3	He	0.044	ug/l	146.67
Ba	135	159	1	NO GAS	0.004	ug/l	33.27
Ba	137	159	1	NO GAS	0.002	ug/l	73.19
La	139	175	1	NO GAS	0.000	ug/l	40.04
La	139	175	3	He	0.001	ug/l	16.68
Ce	140	175	1	NO GAS	0.000	ug/l	70.07
Ce	140	175	3	He	-0.001	ug/l	0.00
Hg	201	175	1	NO GAS	0.008	ug/l	51.32
Hg	202	175	1	NO GAS	0.007	ug/l	151.64
Hg	202	175	3	He	0.010	ug/l	91.98
Tl	203	175	3	He	0.036	ug/l	592.56
Tl	205	175	1	NO GAS	0.025	ug/l	2020.16
Tl	205	175	3	He	0.036	ug/l	1401.79
[Pb]	206	175	1	NO GAS	0.000	ug/l	75.56
[Pb]	207	175	1	NO GAS	0.001	ug/l	64.44
Pb	208	175	1	NO GAS	0.001	ug/l	330.00
Th	232	175	3	He	0.046	ug/l	3231.72
U	238	175	1	NO GAS	0.002	ug/l	353.93

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1622785.97	87.0
Sc	45	2	H2	62342.29	75.5
Sc	45	3	He	42350.72	84.2
Ge	72	1	NO GAS	810834.00	95.9
Ge	72	2	H2	100153.88	84.5
Ge	72	3	He	70243.86	93.1
Tb	159	1	NO GAS	20446313.93	111.9
Tb	159	3	He	7189632.45	101.9
Ho	165	1	NO GAS	19031921.46	112.2
Ho	165	3	He	6795656.72	101.9
Lu	175	1	NO GAS	20703236.46	109.2
Lu	175	3	He	4192894.05	100.8

ICPMS206-B Analytical Data

Sample Name	B21121613-001APDS1
File Name	064_ARF.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 01:03:40
Sample Type	AllRef
Total Dilution	1.0300
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1231.797	ug/l	759430.95
Be	9	45	1	NO GAS	37.853	ug/l	8755.44
B	11	45	1	NO GAS	218.533	ug/l	37522.43
Na	23	45	3	He	137130.019	ug/l	9499202.98
Mg	24	45	3	He	54993.063	ug/l	1952486.61
Al	27	45	1	NO GAS	764.753	ug/l	1860882.99
Si	28	45	2	H2	32390.412	ug/l	407734.86
K	39	72	3	He	44700.968	ug/l	1601397.70
Ca	40	72	2	H2	42799.268	ug/l	6478216.74
Ti	47	72	1	NO GAS	85.342	ug/l	65626.06
V	51	72	1	NO GAS	83.984	ug/l	955197.54
V	51	72	3	He	89.966	ug/l	96851.07
Cr	52	72	1	NO GAS	49.686	ug/l	546346.25
Cr	52	72	3	He	49.735	ug/l	75428.50
Cr	53	72	1	NO GAS	132.497	ug/l	233990.03
Mn	55	72	1	NO GAS	60.107	ug/l	974047.62
Mn	55	72	3	He	61.190	ug/l	43628.80
Fe	56	72	2	H2	4837.604	ug/l	4048048.21
Fe	56	72	3	He	4959.017	ug/l	7018325.94
Co	59	72	1	NO GAS	45.486	ug/l	649846.86
Ni	60	72	1	NO GAS	46.366	ug/l	147546.40
Ni	60	72	3	He	46.610	ug/l	44264.88
Ni	62	72	1	NO GAS	46.167	ug/l	22727.28
Cu	63	72	1	NO GAS	47.637	ug/l	384074.26
Cu	63	72	3	He	47.537	ug/l	134142.46
Cu	65	72	1	NO GAS	46.448	ug/l	187085.04
Zn	66	72	1	NO GAS	44.703	ug/l	118573.60
Zn	66	72	3	He	44.418	ug/l	18165.45
As	75	72	1	NO GAS	46.809	ug/l	135718.76
As	75	72	3	He	46.056	ug/l	11972.23
Se	78	72	2	H2	47.067	ug/l	3769.35
Br	79	72	1	NO GAS	0.488	ug/l	63248.40
Br	79	72	2	H2	1.989	ug/l	8438.84
Se	82	72	1	NO GAS	46.861	ug/l	11450.20
Kr	84	72	1	NO GAS		ug/l	28718.07
Sr	88	72	1	NO GAS	109.556	ug/l	3606550.01
Sr	88	72	3	He	105.360	ug/l	138302.64

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	53.208	ug/l	384720.19
Mo	95	72	3	He	52.848	ug/l	118507.90
Mo	98	72	1	NO GAS	53.362	ug/l	660298.75
Ag	107	72	1	NO GAS	21.715	ug/l	443661.35
Ag	109	72	1	NO GAS	21.556	ug/l	433521.17
Cd	111	159	1	NO GAS	44.294	ug/l	251253.20
Cd	111	159	3	He	44.675	ug/l	57285.86
Cd	114	159	1	NO GAS	44.716	ug/l	580910.00
Cd	114	159	3	He	45.207	ug/l	150301.26
Sn	118	159	1	NO GAS	46.541	ug/l	792054.60
Sn	118	159	3	He	46.058	ug/l	110673.80
Sb	121	159	1	NO GAS	46.434	ug/l	1065579.56
Sb	121	159	3	He	45.717	ug/l	138391.05
Sb	123	159	1	NO GAS	46.168	ug/l	824305.34
Sb	123	159	3	He	45.124	ug/l	113087.21
Ba	135	159	1	NO GAS	53.951	ug/l	268525.95
Ba	137	159	1	NO GAS	52.391	ug/l	460233.06
La	139	175	1	NO GAS	0.216	ug/l	18900.65
La	139	175	3	He	0.221	ug/l	3650.82
Ce	140	175	1	NO GAS	44.150	ug/l	3768269.99
Ce	140	175	3	He	48.658	ug/l	1019879.36
Hg	201	175	1	NO GAS	0.885	ug/l	3975.07
Hg	202	175	1	NO GAS	0.907	ug/l	9259.65
Hg	202	175	3	He	0.973	ug/l	6143.68
Tl	203	175	3	He	48.206	ug/l	622462.82
Tl	205	175	1	NO GAS	45.839	ug/l	3058381.27
Tl	205	175	3	He	49.642	ug/l	1519394.10
[Pb]	206	175	1	NO GAS	45.515	ug/l	1049938.64
[Pb]	207	175	1	NO GAS	44.905	ug/l	911597.92
Pb	208	175	1	NO GAS	45.547	ug/l	4204631.68
Th	232	175	3	He	52.339	ug/l	2413948.73
U	238	175	1	NO GAS	45.511	ug/l	4882753.95

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1580987.21	84.7
Sc	45	2	H2	55985.45	67.8
Sc	45	3	He	40342.37	80.2
Ge	72	1	NO GAS	802957.67	94.9
Ge	72	2	H2	93151.29	78.6
Ge	72	3	He	68325.97	90.5
Tb	159	1	NO GAS	19537637.99	107.0
Tb	159	3	He	6613665.25	93.7
Ho	165	1	NO GAS	18322718.53	108.0
Ho	165	3	He	6439619.34	96.6
Lu	175	1	NO GAS	21153090.26	111.5
Lu	175	3	He	4027578.66	96.8

ICPMS206-B Analytical Data

Sample Name	B21121613-001AMS4
File Name	065MS4.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 01:09:20
Sample Type	MS4
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	63.012	ug/l	40732.66
Be	9	45	1	NO GAS	40.081	ug/l	10697.57
B	11	45	1	NO GAS	278.476	ug/l	55224.44
Na	23	45	3	He	93727.390	ug/l	6879502.26
Mg	24	45	3	He	12686.221	ug/l	476825.72
Al	27	45	1	NO GAS	1530.065	ug/l	4273808.93
Si	28	45	2	H2	30455.484	ug/l	444571.75
K	39	72	3	He	6961.603	ug/l	264153.79
Ca	40	72	2	H2	8583.545	ug/l	1510084.84
Ti	47	72	1	NO GAS	130.702	ug/l	108660.15
V	51	72	1	NO GAS	140.720	ug/l	1729856.75
V	51	72	3	He	140.174	ug/l	158609.54
Cr	52	72	1	NO GAS	98.336	ug/l	1153015.60
Cr	52	72	3	He	100.149	ug/l	159613.00
Cr	53	72	1	NO GAS	159.619	ug/l	293512.69
Mn	55	72	1	NO GAS	477.213	ug/l	8369895.63
Mn	55	72	3	He	491.415	ug/l	368387.92
Fe	56	72	2	H2	1123.540	ug/l	1091378.64
Fe	56	72	3	He	1192.650	ug/l	1774433.27
Co	59	72	1	NO GAS	94.145	ug/l	1459264.54
Ni	60	72	1	NO GAS	91.741	ug/l	316167.86
Ni	60	72	3	He	99.151	ug/l	98955.36
Ni	62	72	1	NO GAS	93.544	ug/l	49527.81
Cu	63	72	1	NO GAS	94.989	ug/l	826079.75
Cu	63	72	3	He	101.440	ug/l	300729.66
Cu	65	72	1	NO GAS	98.447	ug/l	427823.63
Zn	66	72	1	NO GAS	132.757	ug/l	371713.09
Zn	66	72	3	He	95.701	ug/l	41038.16
As	75	72	1	NO GAS	94.304	ug/l	291533.46
As	75	72	3	He	95.073	ug/l	25974.60
Se	78	72	2	H2	92.912	ug/l	8631.19
Br	79	72	1	NO GAS	-0.861	ug/l	57687.08
Br	79	72	2	H2	-1.122	ug/l	7010.96
Se	82	72	1	NO GAS	95.751	ug/l	25066.73
Kr	84	72	1	NO GAS		ug/l	40814.20
Sr	88	72	1	NO GAS	158.141	ug/l	5641308.00
Sr	88	72	3	He	159.374	ug/l	219785.68

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	102.324	ug/l	798635.50
Mo	95	72	3	He	107.727	ug/l	254059.90
Mo	98	72	1	NO GAS	105.582	ug/l	1408740.50
Ag	107	72	1	NO GAS	9.846	ug/l	218033.66
Ag	109	72	1	NO GAS	9.911	ug/l	216056.19
Cd	111	159	1	NO GAS	45.286	ug/l	259267.69
Cd	111	159	3	He	46.853	ug/l	64609.87
Cd	114	159	1	NO GAS	46.228	ug/l	606579.01
Cd	114	159	3	He	46.163	ug/l	165109.81
Sn	118	159	1	NO GAS	97.585	ug/l	1626105.66
Sn	118	159	3	He	96.869	ug/l	243206.00
Sb	121	159	1	NO GAS	93.086	ug/l	2151297.01
Sb	121	159	3	He	91.588	ug/l	298254.82
Sb	123	159	1	NO GAS	97.341	ug/l	1747692.09
Sb	123	159	3	He	92.661	ug/l	249703.65
Ba	135	159	1	NO GAS	97.334	ug/l	486755.45
Ba	137	159	1	NO GAS	97.256	ug/l	861168.25
La	139	175	1	NO GAS	94.392	ug/l	8070737.64
La	139	175	3	He	102.500	ug/l	1772871.16
Ce	140	175	1	NO GAS	95.525	ug/l	8013182.53
Ce	140	175	3	He	103.013	ug/l	2264645.16
Hg	201	175	1	NO GAS	0.027	ug/l	132.31
Hg	202	175	1	NO GAS	0.030	ug/l	375.60
Hg	202	175	3	He	0.025	ug/l	192.63
Tl	203	175	3	He	99.265	ug/l	1344480.97
Tl	205	175	1	NO GAS	95.249	ug/l	6247062.33
Tl	205	175	3	He	103.298	ug/l	3316522.09
[Pb]	206	175	1	NO GAS	99.092	ug/l	2246194.29
[Pb]	207	175	1	NO GAS	95.320	ug/l	1900824.27
Pb	208	175	1	NO GAS	96.751	ug/l	8768626.34
Th	232	175	3	He	105.700	ug/l	5110958.81
U	238	175	1	NO GAS	98.797	ug/l	10403024.05

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1790879.26	96.0
Sc	45	2	H2	63027.82	76.3
Sc	45	3	He	41395.36	82.3
Ge	72	1	NO GAS	844798.16	99.9
Ge	72	2	H2	105026.66	88.6
Ge	72	3	He	69717.28	92.4
Tb	159	1	NO GAS	19207934.13	105.2
Tb	159	3	He	6904671.61	97.8
Ho	165	1	NO GAS	17989054.98	106.0
Ho	165	3	He	6699448.59	100.5
Lu	175	1	NO GAS	20240093.55	106.7
Lu	175	3	He	4099570.00	98.5

ICPMS206-B Analytical Data

Sample Name	B21121613-001AMSD4
File Name	066MSD4.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 01:14:57
Sample Type	MSD4
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	55.017	ug/l	38952.75
Be	9	45	1	NO GAS	39.082	ug/l	10120.23
B	11	45	1	NO GAS	262.738	ug/l	50483.53
Na	23	45	3	He	94544.126	ug/l	7475099.54
Mg	24	45	3	He	12162.313	ug/l	492466.98
Al	27	45	1	NO GAS	1482.315	ug/l	4048886.54
Si	28	45	2	H2	33209.399	ug/l	485176.45
K	39	72	3	He	7153.870	ug/l	280835.44
Ca	40	72	2	H2	8944.952	ug/l	1531867.04
Ti	47	72	1	NO GAS	126.069	ug/l	108829.31
V	51	72	1	NO GAS	136.565	ug/l	1747018.55
V	51	72	3	He	143.274	ug/l	167755.59
Cr	52	72	1	NO GAS	93.097	ug/l	1139993.50
Cr	52	72	3	He	101.571	ug/l	167592.25
Cr	53	72	1	NO GAS	147.170	ug/l	284993.73
Mn	55	72	1	NO GAS	472.602	ug/l	8589929.11
Mn	55	72	3	He	489.919	ug/l	380203.70
Fe	56	72	2	H2	1129.058	ug/l	1067815.94
Fe	56	72	3	He	1221.867	ug/l	1881415.08
Co	59	72	1	NO GAS	96.587	ug/l	1548319.72
Ni	60	72	1	NO GAS	94.443	ug/l	337242.95
Ni	60	72	3	He	97.877	ug/l	101157.21
Ni	62	72	1	NO GAS	93.561	ug/l	51390.07
Cu	63	72	1	NO GAS	95.349	ug/l	862381.57
Cu	63	72	3	He	101.722	ug/l	312137.38
Cu	65	72	1	NO GAS	96.048	ug/l	434114.68
Zn	66	72	1	NO GAS	90.784	ug/l	269769.58
Zn	66	72	3	He	94.893	ug/l	42113.83
As	75	72	1	NO GAS	92.117	ug/l	296607.14
As	75	72	3	He	94.786	ug/l	26803.05
Se	78	72	2	H2	96.965	ug/l	8776.24
Br	79	72	1	NO GAS	-0.356	ug/l	63401.87
Br	79	72	2	H2	0.661	ug/l	8255.78
Se	82	72	1	NO GAS	89.028	ug/l	24248.57
Kr	84	72	1	NO GAS		ug/l	42410.31
Sr	88	72	1	NO GAS	164.414	ug/l	6080657.39
Sr	88	72	3	He	162.147	ug/l	231413.76

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	105.252	ug/l	854115.15
Mo	95	72	3	He	107.765	ug/l	262991.01
Mo	98	72	1	NO GAS	103.164	ug/l	1432957.74
Ag	107	72	1	NO GAS	10.315	ug/l	237454.46
Ag	109	72	1	NO GAS	10.197	ug/l	231160.24
Cd	111	159	1	NO GAS	46.500	ug/l	291210.19
Cd	111	159	3	He	46.764	ug/l	66907.76
Cd	114	159	1	NO GAS	46.259	ug/l	663269.23
Cd	114	159	3	He	46.254	ug/l	171659.58
Sn	118	159	1	NO GAS	98.803	ug/l	1800278.50
Sn	118	159	3	He	97.358	ug/l	253564.24
Sb	121	159	1	NO GAS	96.315	ug/l	2439414.94
Sb	121	159	3	He	91.672	ug/l	309633.60
Sb	123	159	1	NO GAS	96.317	ug/l	1898221.60
Sb	123	159	3	He	92.161	ug/l	257711.84
Ba	135	159	1	NO GAS	99.167	ug/l	544942.47
Ba	137	159	1	NO GAS	97.019	ug/l	940801.36
La	139	175	1	NO GAS	97.514	ug/l	9032949.30
La	139	175	3	He	99.225	ug/l	1801391.34
Ce	140	175	1	NO GAS	96.295	ug/l	8746322.37
Ce	140	175	3	He	102.005	ug/l	2353873.17
Hg	201	175	1	NO GAS	0.017	ug/l	94.98
Hg	202	175	1	NO GAS	0.023	ug/l	326.27
Hg	202	175	3	He	0.023	ug/l	188.30
Tl	203	175	3	He	99.703	ug/l	1417110.17
Tl	205	175	1	NO GAS	95.016	ug/l	6749725.59
Tl	205	175	3	He	103.616	ug/l	3490442.75
[Pb]	206	175	1	NO GAS	97.173	ug/l	2383774.76
[Pb]	207	175	1	NO GAS	96.241	ug/l	2077696.44
Pb	208	175	1	NO GAS	96.886	ug/l	9512917.79
Th	232	175	3	He	104.684	ug/l	5312618.18
U	238	175	1	NO GAS	96.390	ug/l	11002276.51

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1723338.89	92.4
Sc	45	2	H2	63095.30	76.4
Sc	45	3	He	44616.63	88.7
Ge	72	1	NO GAS	874973.32	103.4
Ge	72	2	H2	102256.46	86.3
Ge	72	3	He	72165.32	95.6
Tb	159	1	NO GAS	20938922.14	114.6
Tb	159	3	He	7163656.79	101.5
Ho	165	1	NO GAS	19387913.07	114.3
Ho	165	3	He	6998290.44	105.0
Lu	175	1	NO GAS	21834361.72	115.1
Lu	175	3	He	4302734.67	103.4

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	067BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 01:20:32
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.003	ug/l	2055.05
Be	9	45	1	NO GAS	-0.005	ug/l	4.00
B	11	45	1	NO GAS	1.184	ug/l	376.60
Na	23	45	3	He	128.978	ug/l	15443.62
Mg	24	45	3	He	0.834	ug/l	43.25
Al	27	45	1	NO GAS	0.109	ug/l	880.03
Si	28	45	2	H2	3.185	ug/l	60.66
K	39	72	3	He	-8.484	ug/l	2182.38
Ca	40	72	2	H2	0.441	ug/l	564.73
Ti	47	72	1	NO GAS	0.019	ug/l	38.32
V	51	72	1	NO GAS	-0.995	ug/l	-19574.68
V	51	72	3	He	0.099	ug/l	192.22
Cr	52	72	1	NO GAS	0.121	ug/l	10985.25
Cr	52	72	3	He	-0.007	ug/l	116.44
Cr	53	72	1	NO GAS	29.939	ug/l	91576.46
Mn	55	72	1	NO GAS	0.011	ug/l	898.25
Mn	55	72	3	He	0.007	ug/l	10.00
Fe	56	72	2	H2	0.094	ug/l	389.82
Fe	56	72	3	He	0.148	ug/l	774.65
Co	59	72	1	NO GAS	0.004	ug/l	129.74
Ni	60	72	1	NO GAS	0.012	ug/l	103.13
Ni	60	72	3	He	0.008	ug/l	34.44
Ni	62	72	1	NO GAS	0.161	ug/l	362.62
Cu	63	72	1	NO GAS	0.001	ug/l	476.58
Cu	63	72	3	He	-0.003	ug/l	177.97
Cu	65	72	1	NO GAS	-0.003	ug/l	223.29
Zn	66	72	1	NO GAS	0.018	ug/l	542.09
Zn	66	72	3	He	0.021	ug/l	94.44
As	75	72	1	NO GAS	-0.134	ug/l	2686.79
As	75	72	3	He	0.035	ug/l	14.33
Se	78	72	2	H2	0.015	ug/l	3.33
Br	79	72	1	NO GAS	-2.036	ug/l	50159.85
Br	79	72	2	H2	-1.785	ug/l	6315.44
Se	82	72	1	NO GAS	0.259	ug/l	234.21
Kr	84	72	1	NO GAS		ug/l	7164.09
Sr	88	72	1	NO GAS	0.008	ug/l	638.76
Sr	88	72	3	He	0.001	ug/l	226.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.007	ug/l	126.67
Mo	95	72	3	He	0.003	ug/l	40.00
Mo	98	72	1	NO GAS	0.007	ug/l	240.50
Ag	107	72	1	NO GAS	0.006	ug/l	1830.41
Ag	109	72	1	NO GAS	0.005	ug/l	1787.75
Cd	111	159	1	NO GAS	0.005	ug/l	-12.69
Cd	111	159	3	He	0.006	ug/l	9.33
Cd	114	159	1	NO GAS	0.010	ug/l	-134.83
Cd	114	159	3	He	0.014	ug/l	15.50
Sn	118	159	1	NO GAS	-2.529	ug/l	2887.89
Sn	118	159	3	He	-2.336	ug/l	413.35
Sb	121	159	1	NO GAS	0.022	ug/l	735.58
Sb	121	159	3	He	0.016	ug/l	87.78
Sb	123	159	1	NO GAS	0.024	ug/l	640.02
Sb	123	159	3	He	0.012	ug/l	56.67
Ba	135	159	1	NO GAS	0.021	ug/l	133.07
Ba	137	159	1	NO GAS	0.025	ug/l	289.43
La	139	175	1	NO GAS	0.001	ug/l	150.16
La	139	175	3	He	0.002	ug/l	30.03
Ce	140	175	1	NO GAS	0.001	ug/l	163.50
Ce	140	175	3	He	0.001	ug/l	40.04
Hg	201	175	1	NO GAS	0.001	ug/l	21.66
Hg	202	175	1	NO GAS	0.000	ug/l	85.98
Hg	202	175	3	He	0.001	ug/l	31.66
Tl	203	175	3	He	0.446	ug/l	6326.74
Tl	205	175	1	NO GAS	0.362	ug/l	25679.33
Tl	205	175	3	He	0.481	ug/l	16172.08
[Pb]	206	175	1	NO GAS	0.005	ug/l	190.00
[Pb]	207	175	1	NO GAS	0.003	ug/l	116.67
Pb	208	175	1	NO GAS	0.004	ug/l	625.57
Th	232	175	3	He	0.073	ug/l	4637.16
U	238	175	1	NO GAS	0.006	ug/l	793.20

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1713626.22	91.8
Sc	45	2	H2	62766.70	76.0
Sc	45	3	He	42287.19	84.1
Ge	72	1	NO GAS	841405.51	99.5
Ge	72	2	H2	102523.49	86.5
Ge	72	3	He	70809.43	93.8
Tb	159	1	NO GAS	20682739.30	113.2
Tb	159	3	He	6981859.06	98.9
Ho	165	1	NO GAS	19185721.30	113.1
Ho	165	3	He	6857725.30	102.9
Lu	175	1	NO GAS	21674850.55	114.3
Lu	175	3	He	4235275.60	101.8

ICPMS206-B Analytical Data

Sample Name	B21121616-001A
File Name	068SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 01:26:18
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.364	ug/l	2971.67
Be	9	45	1	NO GAS	-0.005	ug/l	3.67
B	11	45	1	NO GAS	70.771	ug/l	12646.10
Na	23	45	3	He	46342.385	ug/l	3241765.93
Mg	24	45	3	He	20127.076	ug/l	720652.00
Al	27	45	1	NO GAS	31.826	ug/l	80597.04
Si	28	45	2	H2	31312.783	ug/l	405906.34
K	39	72	3	He	1945.024	ug/l	73235.41
Ca	40	72	2	H2	9869.271	ug/l	1473920.00
Ti	47	72	1	NO GAS	7.673	ug/l	5889.82
V	51	72	1	NO GAS	-0.357	ug/l	-11028.69
V	51	72	3	He	0.772	ug/l	920.03
Cr	52	72	1	NO GAS	1.061	ug/l	20238.84
Cr	52	72	3	He	0.485	ug/l	868.31
Cr	53	72	1	NO GAS	70.383	ug/l	142458.17
Mn	55	72	1	NO GAS	1471.292	ug/l	23675904.84
Mn	55	72	3	He	1414.236	ug/l	1026668.84
Fe	56	72	2	H2	1500.149	ug/l	1238648.51
Fe	56	72	3	He	1520.434	ug/l	2191310.73
Co	59	72	1	NO GAS	0.736	ug/l	10509.17
Ni	60	72	1	NO GAS	1.142	ug/l	3663.16
Ni	60	72	3	He	0.862	ug/l	857.81
Ni	62	72	1	NO GAS	1.173	ug/l	821.73
Cu	63	72	1	NO GAS	2.302	ug/l	18872.17
Cu	63	72	3	He	1.623	ug/l	4833.74
Cu	65	72	1	NO GAS	1.723	ug/l	7112.10
Zn	66	72	1	NO GAS	4.961	ug/l	13504.67
Zn	66	72	3	He	4.965	ug/l	2139.05
As	75	72	1	NO GAS	0.147	ug/l	3333.16
As	75	72	3	He	0.142	ug/l	41.99
Se	78	72	2	H2	0.066	ug/l	7.00
Br	79	72	1	NO GAS	-2.409	ug/l	44031.01
Br	79	72	2	H2	-1.549	ug/l	5656.46
Se	82	72	1	NO GAS	1.435	ug/l	502.37
Kr	84	72	1	NO GAS		ug/l	25592.57
Sr	88	72	1	NO GAS	101.937	ug/l	3339302.57
Sr	88	72	3	He	94.024	ug/l	125650.86

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.232	ug/l	1733.44
Mo	95	72	3	He	0.199	ug/l	486.68
Mo	98	72	1	NO GAS	0.220	ug/l	2841.52
Ag	107	72	1	NO GAS	-0.050	ug/l	556.57
Ag	109	72	1	NO GAS	-0.050	ug/l	552.57
Cd	111	159	1	NO GAS	0.018	ug/l	64.36
Cd	111	159	3	He	0.010	ug/l	14.00
Cd	114	159	1	NO GAS	0.025	ug/l	79.40
Cd	114	159	3	He	0.018	ug/l	33.03
Sn	118	159	1	NO GAS	-2.328	ug/l	6295.48
Sn	118	159	3	He	-2.177	ug/l	801.14
Sb	121	159	1	NO GAS	0.162	ug/l	4158.35
Sb	121	159	3	He	0.164	ug/l	572.24
Sb	123	159	1	NO GAS	0.165	ug/l	3327.04
Sb	123	159	3	He	0.156	ug/l	446.68
Ba	135	159	1	NO GAS	17.420	ug/l	92812.01
Ba	137	159	1	NO GAS	16.799	ug/l	158012.17
La	139	175	1	NO GAS	0.035	ug/l	3283.71
La	139	175	3	He	0.041	ug/l	720.75
Ce	140	175	1	NO GAS	0.135	ug/l	12240.57
Ce	140	175	3	He	0.152	ug/l	3413.88
Hg	201	175	1	NO GAS	0.007	ug/l	50.32
Hg	202	175	1	NO GAS	0.046	ug/l	576.56
Hg	202	175	3	He	0.035	ug/l	257.62
Tl	203	175	3	He	0.169	ug/l	2416.39
Tl	205	175	1	NO GAS	0.106	ug/l	7862.20
Tl	205	175	3	He	0.169	ug/l	5729.97
[Pb]	206	175	1	NO GAS	0.153	ug/l	3797.17
[Pb]	207	175	1	NO GAS	0.146	ug/l	3170.36
Pb	208	175	1	NO GAS	0.150	ug/l	14852.99
Th	232	175	3	He	0.174	ug/l	9516.52
U	238	175	1	NO GAS	0.010	ug/l	1259.14

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1591444.39	85.3
Sc	45	2	H2	55973.15	67.8
Sc	45	3	He	39451.72	78.4
Ge	72	1	NO GAS	776025.95	91.7
Ge	72	2	H2	89225.05	75.3
Ge	72	3	He	67522.08	89.5
Tb	159	1	NO GAS	20318821.65	111.2
Tb	159	3	He	6952530.88	98.5
Ho	165	1	NO GAS	19242801.50	113.4
Ho	165	3	He	6622851.94	99.3
Lu	175	1	NO GAS	21710476.79	114.5
Lu	175	3	He	4164078.41	100.1

ICPMS206-B Analytical Data

Sample Name	B21121622-001G
File Name	069SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 01:32:03
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.926	ug/l	2649.68
Be	9	45	1	NO GAS	0.008	ug/l	6.33
B	11	45	1	NO GAS	32.481	ug/l	5479.12
Na	23	45	3	He	43109.689	ug/l	2811342.47
Mg	24	45	3	He	8252.722	ug/l	275253.49
Al	27	45	1	NO GAS	728.276	ug/l	1706346.02
Si	28	45	2	H2	19213.974	ug/l	221244.05
K	39	72	3	He	2505.939	ug/l	88652.23
Ca	40	72	2	H2	11269.411	ug/l	1619260.17
Ti	47	72	1	NO GAS	53.774	ug/l	40635.13
V	51	72	1	NO GAS	8.042	ug/l	83885.36
V	51	72	3	He	10.667	ug/l	11129.27
Cr	52	72	1	NO GAS	4.648	ug/l	58084.68
Cr	52	72	3	He	4.341	ug/l	6455.16
Cr	53	72	1	NO GAS	73.248	ug/l	144784.85
Mn	55	72	1	NO GAS	39.762	ug/l	633219.14
Mn	55	72	3	He	40.786	ug/l	28041.25
Fe	56	72	2	H2	587.676	ug/l	466956.94
Fe	56	72	3	He	626.450	ug/l	854987.52
Co	59	72	1	NO GAS	0.381	ug/l	5413.51
Ni	60	72	1	NO GAS	2.044	ug/l	6441.87
Ni	60	72	3	He	1.951	ug/l	1810.12
Ni	62	72	1	NO GAS	2.088	ug/l	1250.91
Cu	63	72	1	NO GAS	3.024	ug/l	24351.42
Cu	63	72	3	He	2.546	ug/l	7085.08
Cu	65	72	1	NO GAS	2.517	ug/l	10166.40
Zn	66	72	1	NO GAS	69.321	ug/l	180402.81
Zn	66	72	3	He	69.340	ug/l	27292.19
As	75	72	1	NO GAS	1.275	ug/l	6384.18
As	75	72	3	He	1.421	ug/l	360.26
Se	78	72	2	H2	0.162	ug/l	14.00
Br	79	72	1	NO GAS	-1.872	ug/l	46652.95
Br	79	72	2	H2	-1.187	ug/l	5686.45
Se	82	72	1	NO GAS	-0.050	ug/l	142.37
Kr	84	72	1	NO GAS		ug/l	34644.66
Sr	88	72	1	NO GAS	150.873	ug/l	4881899.87
Sr	88	72	3	He	142.497	ug/l	180235.09

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	8.260	ug/l	58734.52
Mo	95	72	3	He	8.423	ug/l	18243.63
Mo	98	72	1	NO GAS	8.308	ug/l	101118.29
Ag	107	72	1	NO GAS	-0.038	ug/l	803.86
Ag	109	72	1	NO GAS	-0.039	ug/l	759.21
Cd	111	159	1	NO GAS	0.017	ug/l	59.97
Cd	111	159	3	He	0.005	ug/l	7.33
Cd	114	159	1	NO GAS	0.016	ug/l	-48.36
Cd	114	159	3	He	0.015	ug/l	19.07
Sn	118	159	1	NO GAS	-1.977	ug/l	12044.09
Sn	118	159	3	He	-1.811	ug/l	1638.98
Sb	121	159	1	NO GAS	0.787	ug/l	19040.20
Sb	121	159	3	He	0.762	ug/l	2435.76
Sb	123	159	1	NO GAS	0.812	ug/l	15311.83
Sb	123	159	3	He	0.762	ug/l	2011.25
Ba	135	159	1	NO GAS	27.300	ug/l	142041.10
Ba	137	159	1	NO GAS	27.027	ug/l	248169.95
La	139	175	1	NO GAS	0.455	ug/l	40603.13
La	139	175	3	He	0.492	ug/l	8247.23
Ce	140	175	1	NO GAS	1.004	ug/l	87696.36
Ce	140	175	3	He	1.069	ug/l	22832.93
Hg	201	175	1	NO GAS	0.033	ug/l	166.63
Hg	202	175	1	NO GAS	0.460	ug/l	4834.15
Hg	202	175	3	He	0.337	ug/l	2182.39
Tl	203	175	3	He	0.137	ug/l	1884.41
Tl	205	175	1	NO GAS	0.087	ug/l	6299.18
Tl	205	175	3	He	0.141	ug/l	4605.14
[Pb]	206	175	1	NO GAS	0.247	ug/l	5884.53
[Pb]	207	175	1	NO GAS	0.225	ug/l	4725.22
Pb	208	175	1	NO GAS	0.232	ug/l	22119.75
Th	232	175	3	He	0.324	ug/l	16110.87
U	238	175	1	NO GAS	0.444	ug/l	48785.05

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1478558.75	79.2
Sc	45	2	H2	49716.52	60.2
Sc	45	3	He	36755.59	73.1
Ge	72	1	NO GAS	765753.14	90.5
Ge	72	2	H2	85838.52	72.4
Ge	72	3	He	63944.23	84.7
Tb	159	1	NO GAS	19821775.66	108.5
Tb	159	3	He	6696858.03	94.9
Ho	165	1	NO GAS	19001158.41	112.0
Ho	165	3	He	6632889.17	99.5
Lu	175	1	NO GAS	20981700.76	110.6
Lu	175	3	He	3978312.24	95.6

ICPMS206-B Analytical Data

Sample Name	B21121622-002G
File Name	070SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 01:37:47
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.279	ug/l	2181.04
Be	9	45	1	NO GAS	0.001	ug/l	4.67
B	11	45	1	NO GAS	22.183	ug/l	3655.00
Na	23	45	3	He	32733.217	ug/l	2047184.36
Mg	24	45	3	He	14339.208	ug/l	458545.24
Al	27	45	1	NO GAS	373.189	ug/l	844629.98
Si	28	45	2	H2	20124.495	ug/l	221620.14
K	39	72	3	He	1936.076	ug/l	67012.30
Ca	40	72	2	H2	13903.808	ug/l	1892021.09
Ti	47	72	1	NO GAS	38.111	ug/l	28359.62
V	51	72	1	NO GAS	7.076	ug/l	71892.97
V	51	72	3	He	10.609	ug/l	10751.24
Cr	52	72	1	NO GAS	2.984	ug/l	39811.28
Cr	52	72	3	He	2.593	ug/l	3789.61
Cr	53	72	1	NO GAS	81.382	ug/l	153904.85
Mn	55	72	1	NO GAS	5.786	ug/l	91284.79
Mn	55	72	3	He	5.917	ug/l	3954.20
Fe	56	72	2	H2	341.853	ug/l	257219.37
Fe	56	72	3	He	355.198	ug/l	471031.76
Co	59	72	1	NO GAS	0.211	ug/l	2974.40
Ni	60	72	1	NO GAS	1.003	ug/l	3140.75
Ni	60	72	3	He	0.846	ug/l	774.47
Ni	62	72	1	NO GAS	0.993	ug/l	715.27
Cu	63	72	1	NO GAS	1.536	ug/l	12385.44
Cu	63	72	3	He	1.077	ug/l	3004.00
Cu	65	72	1	NO GAS	1.139	ug/l	4645.07
Zn	66	72	1	NO GAS	92.873	ug/l	237860.55
Zn	66	72	3	He	94.557	ug/l	36111.04
As	75	72	1	NO GAS	0.221	ug/l	3406.77
As	75	72	3	He	0.242	ug/l	62.99
Se	78	72	2	H2	0.117	ug/l	10.00
Br	79	72	1	NO GAS	0.018	ug/l	56787.69
Br	79	72	2	H2	1.302	ug/l	6961.05
Se	82	72	1	NO GAS	0.254	ug/l	210.25
Kr	84	72	1	NO GAS		ug/l	31284.44
Sr	88	72	1	NO GAS	134.332	ug/l	4278571.14
Sr	88	72	3	He	123.915	ug/l	152217.35

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.205	ug/l	8497.82
Mo	95	72	3	He	1.185	ug/l	2519.10
Mo	98	72	1	NO GAS	1.170	ug/l	14145.86
Ag	107	72	1	NO GAS	-0.061	ug/l	338.60
Ag	109	72	1	NO GAS	-0.064	ug/l	269.95
Cd	111	159	1	NO GAS	0.013	ug/l	35.52
Cd	111	159	3	He	0.004	ug/l	6.00
Cd	114	159	1	NO GAS	0.011	ug/l	-113.56
Cd	114	159	3	He	0.009	ug/l	-0.13
Sn	118	159	1	NO GAS	-2.248	ug/l	7440.35
Sn	118	159	3	He	-2.085	ug/l	992.26
Sb	121	159	1	NO GAS	0.068	ug/l	1792.34
Sb	121	159	3	He	0.075	ug/l	271.12
Sb	123	159	1	NO GAS	0.074	ug/l	1538.98
Sb	123	159	3	He	0.091	ug/l	260.00
Ba	135	159	1	NO GAS	7.930	ug/l	40998.37
Ba	137	159	1	NO GAS	7.637	ug/l	69688.41
La	139	175	1	NO GAS	0.106	ug/l	9602.78
La	139	175	3	He	0.113	ug/l	1892.05
Ce	140	175	1	NO GAS	0.262	ug/l	23080.31
Ce	140	175	3	He	0.302	ug/l	6437.95
Hg	201	175	1	NO GAS	0.005	ug/l	38.66
Hg	202	175	1	NO GAS	0.009	ug/l	172.97
Hg	202	175	3	He	0.009	ug/l	78.31
Tl	203	175	3	He	0.087	ug/l	1227.81
Tl	205	175	1	NO GAS	0.059	ug/l	4431.81
Tl	205	175	3	He	0.093	ug/l	3081.71
[Pb]	206	175	1	NO GAS	0.057	ug/l	1416.75
[Pb]	207	175	1	NO GAS	0.052	ug/l	1150.06
Pb	208	175	1	NO GAS	0.055	ug/l	5435.99
Th	232	175	3	He	0.082	ug/l	4757.16
U	238	175	1	NO GAS	0.032	ug/l	3723.06

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1428816.84	76.6
Sc	45	2	H2	47563.59	57.6
Sc	45	3	He	35244.05	70.1
Ge	72	1	NO GAS	754193.34	89.2
Ge	72	2	H2	81329.68	68.6
Ge	72	3	He	62085.19	82.3
Tb	159	1	NO GAS	19689116.55	107.8
Tb	159	3	He	6712776.03	95.1
Ho	165	1	NO GAS	18640825.79	109.9
Ho	165	3	He	6530646.72	98.0
Lu	175	1	NO GAS	21145880.55	111.5
Lu	175	3	He	3958309.60	95.1

ICPMS206-B Analytical Data

Sample Name	B21121622-003G
File Name	071SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 01:43:29
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.013	ug/l	2007.06
Be	9	45	1	NO GAS	-0.013	ug/l	1.67
B	11	45	1	NO GAS	44.659	ug/l	7287.43
Na	23	45	3	He	32624.889	ug/l	2055422.00
Mg	24	45	3	He	9346.606	ug/l	301334.25
Al	27	45	1	NO GAS	2.864	ug/l	7018.15
Si	28	45	2	H2	24392.864	ug/l	265329.00
K	39	72	3	He	1490.576	ug/l	51263.75
Ca	40	72	2	H2	7029.270	ug/l	962455.90
Ti	47	72	1	NO GAS	2.172	ug/l	1585.97
V	51	72	1	NO GAS	17.129	ug/l	177536.67
V	51	72	3	He	19.419	ug/l	19322.24
Cr	52	72	1	NO GAS	2.585	ug/l	34536.84
Cr	52	72	3	He	2.297	ug/l	3317.10
Cr	53	72	1	NO GAS	75.656	ug/l	141445.18
Mn	55	72	1	NO GAS	1.606	ug/l	24999.14
Mn	55	72	3	He	1.468	ug/l	968.46
Fe	56	72	2	H2	20.720	ug/l	15916.40
Fe	56	72	3	He	23.203	ug/l	30732.72
Co	59	72	1	NO GAS	0.054	ug/l	781.81
Ni	60	72	1	NO GAS	2.976	ug/l	8928.08
Ni	60	72	3	He	2.836	ug/l	2501.32
Ni	62	72	1	NO GAS	3.074	ug/l	1643.51
Cu	63	72	1	NO GAS	0.654	ug/l	5347.14
Cu	63	72	3	He	0.176	ug/l	618.22
Cu	65	72	1	NO GAS	0.251	ug/l	1151.81
Zn	66	72	1	NO GAS	8.113	ug/l	20533.56
Zn	66	72	3	He	8.160	ug/l	3135.88
As	75	72	1	NO GAS	0.331	ug/l	3593.32
As	75	72	3	He	0.050	ug/l	16.00
Se	78	72	2	H2	0.094	ug/l	8.33
Br	79	72	1	NO GAS	-2.135	ug/l	43053.83
Br	79	72	2	H2	-1.458	ug/l	5250.50
Se	82	72	1	NO GAS	1.275	ug/l	434.51
Kr	84	72	1	NO GAS		ug/l	19886.03
Sr	88	72	1	NO GAS	75.037	ug/l	2317367.33
Sr	88	72	3	He	68.714	ug/l	83150.51

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.278	ug/l	1952.36
Mo	95	72	3	He	0.263	ug/l	572.24
Mo	98	72	1	NO GAS	0.290	ug/l	3492.84
Ag	107	72	1	NO GAS	-0.067	ug/l	199.96
Ag	109	72	1	NO GAS	-0.068	ug/l	185.96
Cd	111	159	1	NO GAS	0.007	ug/l	-0.49
Cd	111	159	3	He	0.001	ug/l	2.00
Cd	114	159	1	NO GAS	0.023	ug/l	36.91
Cd	114	159	3	He	0.009	ug/l	0.63
Sn	118	159	1	NO GAS	-2.362	ug/l	5560.01
Sn	118	159	3	He	-2.178	ug/l	766.69
Sb	121	159	1	NO GAS	0.057	ug/l	1547.87
Sb	121	159	3	He	0.063	ug/l	232.22
Sb	123	159	1	NO GAS	0.059	ug/l	1262.28
Sb	123	159	3	He	0.064	ug/l	187.78
Ba	135	159	1	NO GAS	3.007	ug/l	15620.18
Ba	137	159	1	NO GAS	3.049	ug/l	27979.34
La	139	175	1	NO GAS	0.001	ug/l	153.49
La	139	175	3	He	0.002	ug/l	36.70
Ce	140	175	1	NO GAS	0.001	ug/l	136.81
Ce	140	175	3	He	0.002	ug/l	56.72
Hg	201	175	1	NO GAS	0.004	ug/l	35.32
Hg	202	175	1	NO GAS	0.009	ug/l	170.97
Hg	202	175	3	He	0.010	ug/l	90.65
Tl	203	175	3	He	0.062	ug/l	912.52
Tl	205	175	1	NO GAS	0.040	ug/l	3101.47
Tl	205	175	3	He	0.065	ug/l	2261.73
[Pb]	206	175	1	NO GAS	0.015	ug/l	426.67
[Pb]	207	175	1	NO GAS	0.017	ug/l	413.34
Pb	208	175	1	NO GAS	0.017	ug/l	1863.39
Th	232	175	3	He	0.052	ug/l	3397.72
U	238	175	1	NO GAS	0.008	ug/l	1011.83

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1438334.89	77.1
Sc	45	2	H2	46952.00	56.8
Sc	45	3	He	35520.55	70.6
Ge	72	1	NO GAS	730828.25	86.4
Ge	72	2	H2	81787.13	69.0
Ge	72	3	He	61114.58	81.0
Tb	159	1	NO GAS	19778500.10	108.3
Tb	159	3	He	6667152.08	94.5
Ho	165	1	NO GAS	18788221.94	110.7
Ho	165	3	He	6454659.38	96.8
Lu	175	1	NO GAS	21279662.45	112.2
Lu	175	3	He	4014815.38	96.5

ICPMS206-B Analytical Data

Sample Name	B21121623-001A
File Name	072SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 01:49:12
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.092	ug/l	2089.72
Be	9	45	1	NO GAS	-0.007	ug/l	3.00
B	11	45	1	NO GAS	54.654	ug/l	8844.49
Na	23	45	3	He	36438.001	ug/l	2317640.74
Mg	24	45	3	He	9098.660	ug/l	295902.02
Al	27	45	1	NO GAS	33.691	ug/l	76894.22
Si	28	45	2	H2	27392.613	ug/l	316121.47
K	39	72	3	He	1665.898	ug/l	58338.43
Ca	40	72	2	H2	8187.158	ug/l	1128733.63
Ti	47	72	1	NO GAS	5.058	ug/l	3676.94
V	51	72	1	NO GAS	-2.687	ug/l	-35235.57
V	51	72	3	He	0.922	ug/l	1003.37
Cr	52	72	1	NO GAS	0.850	ug/l	16998.37
Cr	52	72	3	He	0.439	ug/l	738.56
Cr	53	72	1	NO GAS	64.541	ug/l	126817.52
Mn	55	72	1	NO GAS	488.334	ug/l	7438865.33
Mn	55	72	3	He	477.306	ug/l	320564.87
Fe	56	72	2	H2	329.292	ug/l	251042.92
Fe	56	72	3	He	345.678	ug/l	461445.30
Co	59	72	1	NO GAS	0.577	ug/l	7813.03
Ni	60	72	1	NO GAS	1.315	ug/l	3989.26
Ni	60	72	3	He	1.255	ug/l	1146.72
Ni	62	72	1	NO GAS	1.398	ug/l	881.62
Cu	63	72	1	NO GAS	1.589	ug/l	12440.17
Cu	63	72	3	He	1.024	ug/l	2882.35
Cu	65	72	1	NO GAS	1.150	ug/l	4561.06
Zn	66	72	1	NO GAS	1.519	ug/l	4200.35
Zn	66	72	3	He	1.438	ug/l	626.68
As	75	72	1	NO GAS	0.632	ug/l	4404.30
As	75	72	3	He	0.984	ug/l	245.29
Se	78	72	2	H2	0.046	ug/l	5.00
Br	79	72	1	NO GAS	-1.655	ug/l	45869.23
Br	79	72	2	H2	-0.996	ug/l	5589.92
Se	82	72	1	NO GAS	0.752	ug/l	317.39
Kr	84	72	1	NO GAS		ug/l	21085.16
Sr	88	72	1	NO GAS	86.311	ug/l	2673431.93
Sr	88	72	3	He	80.768	ug/l	99896.82

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.064	ug/l	7298.33
Mo	95	72	3	He	1.047	ug/l	2237.95
Mo	98	72	1	NO GAS	1.038	ug/l	12205.23
Ag	107	72	1	NO GAS	-0.023	ug/l	1046.50
Ag	109	72	1	NO GAS	-0.022	ug/l	1051.83
Cd	111	159	1	NO GAS	0.011	ug/l	24.20
Cd	111	159	3	He	0.001	ug/l	2.00
Cd	114	159	1	NO GAS	0.022	ug/l	28.65
Cd	114	159	3	He	0.013	ug/l	13.51
Sn	118	159	1	NO GAS	-2.367	ug/l	5633.19
Sn	118	159	3	He	-2.170	ug/l	783.36
Sb	121	159	1	NO GAS	0.144	ug/l	3716.01
Sb	121	159	3	He	0.159	ug/l	531.13
Sb	123	159	1	NO GAS	0.145	ug/l	2943.62
Sb	123	159	3	He	0.160	ug/l	436.68
Ba	135	159	1	NO GAS	3.497	ug/l	18647.42
Ba	137	159	1	NO GAS	3.457	ug/l	32552.29
La	139	175	1	NO GAS	0.026	ug/l	2442.69
La	139	175	3	He	0.025	ug/l	430.45
Ce	140	175	1	NO GAS	0.089	ug/l	7973.51
Ce	140	175	3	He	0.092	ug/l	2002.17
Hg	201	175	1	NO GAS	0.055	ug/l	272.95
Hg	202	175	1	NO GAS	0.879	ug/l	9316.01
Hg	202	175	3	He	0.639	ug/l	4156.08
Tl	203	175	3	He	0.053	ug/l	791.20
Tl	205	175	1	NO GAS	0.031	ug/l	2514.68
Tl	205	175	3	He	0.050	ug/l	1793.76
[Pb]	206	175	1	NO GAS	0.050	ug/l	1276.73
[Pb]	207	175	1	NO GAS	0.053	ug/l	1157.83
Pb	208	175	1	NO GAS	0.052	ug/l	5203.73
Th	232	175	3	He	0.047	ug/l	3181.72
U	238	175	1	NO GAS	0.019	ug/l	2281.39

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1431300.85	76.7
Sc	45	2	H2	49829.38	60.3
Sc	45	3	He	35851.77	71.3
Ge	72	1	NO GAS	733012.53	86.7
Ge	72	2	H2	82369.79	69.5
Ge	72	3	He	62475.20	82.8
Tb	159	1	NO GAS	20302852.13	111.2
Tb	159	3	He	6650068.12	94.2
Ho	165	1	NO GAS	18896427.22	111.4
Ho	165	3	He	6531312.75	98.0
Lu	175	1	NO GAS	21295973.14	112.3
Lu	175	3	He	4019568.26	96.6

ICPMS206-B Analytical Data

Sample Name	B21121957-001H
File Name	073SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 01:54:53
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.406	ug/l	1790.41
Be	9	45	1	NO GAS	-0.014	ug/l	1.33
B	11	45	1	NO GAS	58.155	ug/l	9486.05
Na	23	45	3	He	34517.651	ug/l	2245392.97
Mg	24	45	3	He	7535.929	ug/l	250719.53
Al	27	45	1	NO GAS	4.864	ug/l	11619.55
Si	28	45	2	H2	21751.805	ug/l	251573.16
K	39	72	3	He	1432.862	ug/l	51488.85
Ca	40	72	2	H2	5875.817	ug/l	841242.89
Ti	47	72	1	NO GAS	1.999	ug/l	1504.33
V	51	72	1	NO GAS	17.048	ug/l	181843.11
V	51	72	3	He	19.368	ug/l	20083.14
Cr	52	72	1	NO GAS	3.300	ug/l	42999.55
Cr	52	72	3	He	3.264	ug/l	4864.42
Cr	53	72	1	NO GAS	47.044	ug/l	105757.96
Mn	55	72	1	NO GAS	0.980	ug/l	15949.28
Mn	55	72	3	He	0.869	ug/l	600.07
Fe	56	72	2	H2	17.257	ug/l	13908.95
Fe	56	72	3	He	18.025	ug/l	24992.85
Co	59	72	1	NO GAS	0.025	ug/l	402.54
Ni	60	72	1	NO GAS	0.319	ug/l	1034.66
Ni	60	72	3	He	0.237	ug/l	240.00
Ni	62	72	1	NO GAS	0.173	ug/l	329.35
Cu	63	72	1	NO GAS	0.818	ug/l	6771.36
Cu	63	72	3	He	0.331	ug/l	1064.49
Cu	65	72	1	NO GAS	0.396	ug/l	1750.42
Zn	66	72	1	NO GAS	12.193	ug/l	31522.72
Zn	66	72	3	He	12.148	ug/l	4826.29
As	75	72	1	NO GAS	-0.193	ug/l	2264.89
As	75	72	3	He	0.074	ug/l	22.66
Se	78	72	2	H2	0.172	ug/l	14.67
Br	79	72	1	NO GAS	-3.439	ug/l	36847.93
Br	79	72	2	H2	-3.413	ug/l	4182.27
Se	82	72	1	NO GAS	0.629	ug/l	300.09
Kr	84	72	1	NO GAS		ug/l	18373.92
Sr	88	72	1	NO GAS	66.711	ug/l	2120160.28
Sr	88	72	3	He	62.076	ug/l	78358.46

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.054	ug/l	7418.40
Mo	95	72	3	He	1.055	ug/l	2304.63
Mo	98	72	1	NO GAS	1.019	ug/l	12293.58
Ag	107	72	1	NO GAS	-0.068	ug/l	190.63
Ag	109	72	1	NO GAS	-0.069	ug/l	167.97
Cd	111	159	1	NO GAS	0.010	ug/l	14.33
Cd	111	159	3	He	0.010	ug/l	14.00
Cd	114	159	1	NO GAS	0.019	ug/l	-12.13
Cd	114	159	3	He	0.018	ug/l	30.61
Sn	118	159	1	NO GAS	-1.769	ug/l	15490.09
Sn	118	159	3	He	-1.586	ug/l	2174.61
Sb	121	159	1	NO GAS	0.062	ug/l	1660.10
Sb	121	159	3	He	0.061	ug/l	224.45
Sb	123	159	1	NO GAS	0.066	ug/l	1393.41
Sb	123	159	3	He	0.064	ug/l	190.00
Ba	135	159	1	NO GAS	2.036	ug/l	10569.31
Ba	137	159	1	NO GAS	2.042	ug/l	18747.22
La	139	175	1	NO GAS	0.001	ug/l	190.20
La	139	175	3	He	0.004	ug/l	73.41
Ce	140	175	1	NO GAS	0.003	ug/l	337.02
Ce	140	175	3	He	0.003	ug/l	76.74
Hg	201	175	1	NO GAS	0.007	ug/l	48.66
Hg	202	175	1	NO GAS	0.027	ug/l	370.93
Hg	202	175	3	He	0.023	ug/l	171.97
Tl	203	175	3	He	0.041	ug/l	621.23
Tl	205	175	1	NO GAS	0.027	ug/l	2261.31
Tl	205	175	3	He	0.040	ug/l	1470.45
[Pb]	206	175	1	NO GAS	0.084	ug/l	2106.83
[Pb]	207	175	1	NO GAS	0.081	ug/l	1799.01
Pb	208	175	1	NO GAS	0.082	ug/l	8237.61
Th	232	175	3	He	0.035	ug/l	2571.06
U	238	175	1	NO GAS	0.007	ug/l	894.52

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1444051.40	77.4
Sc	45	2	H2	49929.54	60.5
Sc	45	3	He	36664.61	72.9
Ge	72	1	NO GAS	752031.34	88.9
Ge	72	2	H2	85559.31	72.2
Ge	72	3	He	63734.30	84.4
Tb	159	1	NO GAS	19767690.54	108.2
Tb	159	3	He	6699358.13	94.9
Ho	165	1	NO GAS	19167137.30	113.0
Ho	165	3	He	6614519.71	99.2
Lu	175	1	NO GAS	21638897.72	114.1
Lu	175	3	He	3974653.26	95.5

ICPMS206-B Analytical Data

Sample Name	B21121957-001HDIL
File Name	074SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 02:00:38
Sample Type	Sample
Total Dilution	5.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.629	ug/l	1805.07
Be	9	45	1	NO GAS	-0.035	ug/l	3.00
B	11	45	1	NO GAS	56.849	ug/l	1998.39
Na	23	45	3	He	31755.471	ug/l	413973.05
Mg	24	45	3	He	7398.804	ug/l	48845.79
Al	27	45	1	NO GAS	12.439	ug/l	6314.53
Si	28	45	2	H2	21136.097	ug/l	51115.18
K	39	72	3	He	1387.000	ug/l	11816.36
Ca	40	72	2	H2	5996.999	ug/l	178149.20
Ti	47	72	1	NO GAS	1.675	ug/l	269.87
V	51	72	1	NO GAS	14.804	ug/l	26319.51
V	51	72	3	He	19.371	ug/l	4087.20
Cr	52	72	1	NO GAS	2.922	ug/l	14733.98
Cr	52	72	3	He	3.080	ug/l	1014.69
Cr	53	72	1	NO GAS	95.381	ug/l	67147.36
Mn	55	72	1	NO GAS	1.238	ug/l	4521.69
Mn	55	72	3	He	1.097	ug/l	155.02
Fe	56	72	2	H2	18.785	ug/l	3335.37
Fe	56	72	3	He	21.008	ug/l	6226.43
Co	59	72	1	NO GAS	0.033	ug/l	156.36
Ni	60	72	1	NO GAS	0.255	ug/l	212.91
Ni	60	72	3	He	0.339	ug/l	85.56
Ni	62	72	1	NO GAS	0.967	ug/l	339.33
Cu	63	72	1	NO GAS	1.736	ug/l	3131.05
Cu	63	72	3	He	1.194	ug/l	815.86
Cu	65	72	1	NO GAS	1.236	ug/l	1175.81
Zn	66	72	1	NO GAS	26.816	ug/l	14171.01
Zn	66	72	3	He	27.487	ug/l	2233.50
As	75	72	1	NO GAS	3.452	ug/l	4702.43
As	75	72	3	He	0.102	ug/l	9.33
Se	78	72	2	H2	0.123	ug/l	3.67
Br	79	72	1	NO GAS	1.930	ug/l	58960.52
Br	79	72	2	H2	4.537	ug/l	7313.85
Se	82	72	1	NO GAS	4.807	ug/l	379.95
Kr	84	72	1	NO GAS		ug/l	13089.29
Sr	88	72	1	NO GAS	63.750	ug/l	407066.60
Sr	88	72	3	He	60.823	ug/l	15561.89

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.073	ug/l	1570.09
Mo	95	72	3	He	1.006	ug/l	464.45
Mo	98	72	1	NO GAS	0.986	ug/l	2502.17
Ag	107	72	1	NO GAS	-0.364	ug/l	101.32
Ag	109	72	1	NO GAS	-0.363	ug/l	93.98
Cd	111	159	1	NO GAS	0.043	ug/l	7.68
Cd	111	159	3	He	0.019	ug/l	6.00
Cd	114	159	1	NO GAS	0.113	ug/l	36.35
Cd	114	159	3	He	0.053	ug/l	5.07
Sn	118	159	1	NO GAS	-11.732	ug/l	5749.69
Sn	118	159	3	He	-10.759	ug/l	848.92
Sb	121	159	1	NO GAS	0.144	ug/l	855.59
Sb	121	159	3	He	0.128	ug/l	115.56
Sb	123	159	1	NO GAS	0.126	ug/l	627.80
Sb	123	159	3	He	0.158	ug/l	106.66
Ba	135	159	1	NO GAS	3.134	ug/l	3223.97
Ba	137	159	1	NO GAS	2.861	ug/l	5217.25
La	139	175	1	NO GAS	0.006	ug/l	193.54
La	139	175	3	He	0.009	ug/l	30.03
Ce	140	175	1	NO GAS	0.012	ug/l	280.29
Ce	140	175	3	He	0.017	ug/l	93.43
Hg	201	175	1	NO GAS	0.005	ug/l	19.00
Hg	202	175	1	NO GAS	0.026	ug/l	133.31
Hg	202	175	3	He	0.026	ug/l	57.99
Tl	203	175	3	He	0.173	ug/l	547.24
Tl	205	175	1	NO GAS	0.112	ug/l	1866.81
Tl	205	175	3	He	0.178	ug/l	1335.80
[Pb]	206	175	1	NO GAS	0.200	ug/l	1014.49
[Pb]	207	175	1	NO GAS	0.194	ug/l	856.70
Pb	208	175	1	NO GAS	0.202	ug/l	4049.14
Th	232	175	3	He	-0.011	ug/l	822.53
U	238	175	1	NO GAS	0.005	ug/l	247.29

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1475240.02	79.1
Sc	45	2	H2	52197.75	63.2
Sc	45	3	He	36366.72	72.3
Ge	72	1	NO GAS	755006.63	89.3
Ge	72	2	H2	88573.55	74.7
Ge	72	3	He	63899.26	84.7
Tb	159	1	NO GAS	19508524.92	106.8
Tb	159	3	He	6829196.40	96.8
Ho	165	1	NO GAS	18819254.84	110.9
Ho	165	3	He	6601631.71	99.0
Lu	175	1	NO GAS	20997367.46	110.7
Lu	175	3	He	4022424.71	96.7

ICPMS206-B Analytical Data

Sample Name	CCV
File Name	075_CCV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 02:06:24
Sample Type	CCV
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	287.850	ug/l	194169.05
Be	9	45	1	NO GAS	36.819	ug/l	9049.19
B	11	45	1	NO GAS	35.651	ug/l	6627.96
Na	23	45	3	He	10450.579	ug/l	777860.97
Mg	24	45	3	He	10258.504	ug/l	388334.73
Al	27	45	1	NO GAS	37.557	ug/l	97735.65
Si	28	45	2	H2	219.763	ug/l	2939.68
K	39	72	3	He	9529.420	ug/l	370271.93
Ca	40	72	2	H2	10091.439	ug/l	1614534.46
Ti	47	72	1	NO GAS	39.857	ug/l	31720.63
V	51	72	1	NO GAS	41.651	ug/l	485706.08
V	51	72	3	He	44.555	ug/l	51796.60
Cr	52	72	1	NO GAS	41.258	ug/l	470987.21
Cr	52	72	3	He	43.897	ug/l	71872.83
Cr	53	72	1	NO GAS	65.461	ug/l	140802.77
Mn	55	72	1	NO GAS	43.648	ug/l	731447.29
Mn	55	72	3	He	43.745	ug/l	33660.91
Fe	56	72	2	H2	1078.683	ug/l	954330.17
Fe	56	72	3	He	1089.425	ug/l	1663331.53
Co	59	72	1	NO GAS	44.325	ug/l	654609.22
Ni	60	72	1	NO GAS	44.143	ug/l	145195.17
Ni	60	72	3	He	46.339	ug/l	47482.26
Ni	62	72	1	NO GAS	46.678	ug/l	23696.66
Cu	63	72	1	NO GAS	46.254	ug/l	385755.10
Cu	63	72	3	He	47.324	ug/l	144102.87
Cu	65	72	1	NO GAS	46.362	ug/l	193133.55
Zn	66	72	1	NO GAS	45.875	ug/l	125758.55
Zn	66	72	3	He	47.325	ug/l	20869.73
As	75	72	1	NO GAS	48.443	ug/l	144914.74
As	75	72	3	He	48.608	ug/l	13631.50
Se	78	72	2	H2	52.876	ug/l	4474.38
Br	79	72	1	NO GAS	1.030	ug/l	66855.52
Br	79	72	2	H2	1.563	ug/l	8382.23
Se	82	72	1	NO GAS	50.210	ug/l	12652.23
Kr	84	72	1	NO GAS		ug/l	18920.08
Sr	88	72	1	NO GAS	51.256	ug/l	1745474.74
Sr	88	72	3	He	48.467	ug/l	68736.62

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	50.836	ug/l	379779.41
Mo	95	72	3	He	50.806	ug/l	122959.44
Mo	98	72	1	NO GAS	51.219	ug/l	655034.53
Ag	107	72	1	NO GAS	21.183	ug/l	447075.77
Ag	109	72	1	NO GAS	21.017	ug/l	436831.23
Cd	111	159	1	NO GAS	43.810	ug/l	264819.51
Cd	111	159	3	He	46.784	ug/l	63371.52
Cd	114	159	1	NO GAS	44.761	ug/l	620027.75
Cd	114	159	3	He	46.494	ug/l	163330.50
Sn	118	159	1	NO GAS	44.523	ug/l	808746.65
Sn	118	159	3	He	45.163	ug/l	114578.03
Sb	121	159	1	NO GAS	44.815	ug/l	1097415.36
Sb	121	159	3	He	46.209	ug/l	147779.53
Sb	123	159	1	NO GAS	45.244	ug/l	861299.44
Sb	123	159	3	He	46.273	ug/l	122498.67
Ba	135	159	1	NO GAS	45.577	ug/l	241895.56
Ba	137	159	1	NO GAS	45.406	ug/l	425058.85
La	139	175	1	NO GAS	45.024	ug/l	3992824.61
La	139	175	3	He	48.964	ug/l	829038.51
Ce	140	175	1	NO GAS	45.158	ug/l	3922085.98
Ce	140	175	3	He	48.995	ug/l	1054421.09
Hg	201	175	1	NO GAS	0.901	ug/l	4125.07
Hg	202	175	1	NO GAS	0.921	ug/l	9585.12
Hg	202	175	3	He	1.028	ug/l	6662.80
Tl	203	175	3	He	50.672	ug/l	671736.74
Tl	205	175	1	NO GAS	47.001	ug/l	3201903.39
Tl	205	175	3	He	52.589	ug/l	1652760.72
[Pb]	206	175	1	NO GAS	46.733	ug/l	1098777.72
[Pb]	207	175	1	NO GAS	45.370	ug/l	938496.85
Pb	208	175	1	NO GAS	45.968	ug/l	4324239.56
Th	232	175	3	He	52.445	ug/l	2483600.57
U	238	175	1	NO GAS	45.254	ug/l	4947199.27

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1639744.04	87.9
Sc	45	2	H2	57525.94	69.7
Sc	45	3	He	41729.15	83.0
Ge	72	1	NO GAS	808917.28	95.6
Ge	72	2	H2	95590.24	80.7
Ge	72	3	He	71556.99	94.8
Tb	159	1	NO GAS	20313007.08	111.2
Tb	159	3	He	6781112.33	96.1
Ho	165	1	NO GAS	19420959.86	114.5
Ho	165	3	He	6634050.85	99.5
Lu	175	1	NO GAS	21027300.10	110.9
Lu	175	3	He	4013792.61	96.5

ICPMS206-B Analytical Data

Sample Name	CCB
File Name	076_CCB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 02:12:07
Sample Type	CCB
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.669	ug/l	2329.70
Be	9	45	1	NO GAS	0.004	ug/l	5.00
B	11	45	1	NO GAS	0.327	ug/l	177.30
Na	23	45	3	He	60.349	ug/l	8778.94
Mg	24	45	3	He	0.419	ug/l	23.29
Al	27	45	1	NO GAS	-0.043	ug/l	388.90
Si	28	45	2	H2	31.556	ug/l	383.27
K	39	72	3	He	-7.694	ug/l	1945.68
Ca	40	72	2	H2	-0.189	ug/l	393.14
Ti	47	72	1	NO GAS	0.030	ug/l	43.31
V	51	72	1	NO GAS	-0.607	ug/l	-13477.13
V	51	72	3	He	0.115	ug/l	183.34
Cr	52	72	1	NO GAS	0.226	ug/l	11274.77
Cr	52	72	3	He	-0.017	ug/l	83.17
Cr	53	72	1	NO GAS	35.830	ug/l	92926.72
Mn	55	72	1	NO GAS	0.002	ug/l	695.31
Mn	55	72	3	He	-0.003	ug/l	2.67
Fe	56	72	2	H2	-0.047	ug/l	219.89
Fe	56	72	3	He	-0.009	ug/l	471.44
Co	59	72	1	NO GAS	-0.001	ug/l	53.23
Ni	60	72	1	NO GAS	0.000	ug/l	56.55
Ni	60	72	3	He	-0.016	ug/l	8.89
Ni	62	72	1	NO GAS	-0.005	ug/l	252.84
Cu	63	72	1	NO GAS	-0.011	ug/l	348.60
Cu	63	72	3	He	-0.015	ug/l	121.98
Cu	65	72	1	NO GAS	-0.007	ug/l	191.30
Zn	66	72	1	NO GAS	-0.076	ug/l	255.93
Zn	66	72	3	He	-0.050	ug/l	55.56
As	75	72	1	NO GAS	-0.034	ug/l	2690.36
As	75	72	3	He	0.010	ug/l	6.67
Se	78	72	2	H2	0.038	ug/l	4.67
Br	79	72	1	NO GAS	0.299	ug/l	60232.76
Br	79	72	2	H2	1.306	ug/l	7536.84
Se	82	72	1	NO GAS	0.745	ug/l	345.34
Kr	84	72	1	NO GAS		ug/l	6891.16
Sr	88	72	1	NO GAS	0.000	ug/l	306.07
Sr	88	72	3	He	-0.040	ug/l	147.78

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.008	ug/l	130.00
Mo	95	72	3	He	0.005	ug/l	41.11
Mo	98	72	1	NO GAS	0.005	ug/l	202.44
Ag	107	72	1	NO GAS	0.005	ug/l	1687.76
Ag	109	72	1	NO GAS	0.009	ug/l	1714.42
Cd	111	159	1	NO GAS	0.003	ug/l	-24.30
Cd	111	159	3	He	0.002	ug/l	2.67
Cd	114	159	1	NO GAS	-0.004	ug/l	-293.84
Cd	114	159	3	He	-0.005	ug/l	-45.47
Sn	118	159	1	NO GAS	-0.082	ug/l	42712.30
Sn	118	159	3	He	0.236	ug/l	6028.95
Sb	121	159	1	NO GAS	0.065	ug/l	1701.22
Sb	121	159	3	He	0.053	ug/l	186.67
Sb	123	159	1	NO GAS	0.062	ug/l	1291.17
Sb	123	159	3	He	0.057	ug/l	156.67
Ba	135	159	1	NO GAS	0.004	ug/l	36.59
Ba	137	159	1	NO GAS	0.003	ug/l	69.86
La	139	175	1	NO GAS	0.000	ug/l	66.73
La	139	175	3	He	0.000	ug/l	6.67
Ce	140	175	1	NO GAS	0.000	ug/l	43.38
Ce	140	175	3	He	-0.001	ug/l	3.34
Hg	201	175	1	NO GAS	0.007	ug/l	44.66
Hg	202	175	1	NO GAS	0.007	ug/l	144.97
Hg	202	175	3	He	0.009	ug/l	75.32
Tl	203	175	3	He	0.033	ug/l	491.25
Tl	205	175	1	NO GAS	0.027	ug/l	2080.16
Tl	205	175	3	He	0.037	ug/l	1289.14
[Pb]	206	175	1	NO GAS	0.001	ug/l	93.33
[Pb]	207	175	1	NO GAS	0.001	ug/l	77.78
Pb	208	175	1	NO GAS	0.001	ug/l	332.22
Th	232	175	3	He	0.045	ug/l	2875.72
U	238	175	1	NO GAS	0.003	ug/l	411.93

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1455630.98	78.0
Sc	45	2	H2	51321.39	62.1
Sc	45	3	He	36480.25	72.5
Ge	72	1	NO GAS	783282.92	92.6
Ge	72	2	H2	87988.25	74.2
Ge	72	3	He	63317.54	83.9
Tb	159	1	NO GAS	19536220.53	107.0
Tb	159	3	He	6327610.67	89.7
Ho	165	1	NO GAS	18077119.09	106.5
Ho	165	3	He	6190558.62	92.9
Lu	175	1	NO GAS	20056206.96	105.7
Lu	175	3	He	3831354.42	92.1

ICPMS206-B Analytical Data

Sample Name	B21121957-001HPDS1
File Name	077_ARF.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 02:17:53
Sample Type	AllRef
Total Dilution	1.0300
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1136.836	ug/l	676234.91
Be	9	45	1	NO GAS	36.721	ug/l	7834.53
B	11	45	1	NO GAS	95.067	ug/l	15118.24
Na	23	45	3	He	76092.246	ug/l	4853838.16
Mg	24	45	3	He	52178.986	ug/l	1704955.87
Al	27	45	1	NO GAS	43.778	ug/l	98787.25
Si	28	45	2	H2	20815.260	ug/l	238531.42
K	39	72	3	He	41722.144	ug/l	1413131.84
Ca	40	72	2	H2	43615.997	ug/l	6154848.04
Ti	47	72	1	NO GAS	46.161	ug/l	33397.88
V	51	72	1	NO GAS	59.363	ug/l	632608.36
V	51	72	3	He	63.951	ug/l	65138.04
Cr	52	72	1	NO GAS	47.067	ug/l	487303.18
Cr	52	72	3	He	46.670	ug/l	66945.93
Cr	53	72	1	NO GAS	136.306	ug/l	225275.27
Mn	55	72	1	NO GAS	45.496	ug/l	693795.58
Mn	55	72	3	He	45.616	ug/l	30764.82
Fe	56	72	2	H2	4085.198	ug/l	3187408.02
Fe	56	72	3	He	4369.357	ug/l	5846249.93
Co	59	72	1	NO GAS	45.442	ug/l	610566.39
Ni	60	72	1	NO GAS	44.719	ug/l	133842.39
Ni	60	72	3	He	45.320	ug/l	40698.00
Ni	62	72	1	NO GAS	45.452	ug/l	21058.37
Cu	63	72	1	NO GAS	45.762	ug/l	347089.53
Cu	63	72	3	He	45.920	ug/l	122550.46
Cu	65	72	1	NO GAS	44.420	ug/l	168367.32
Zn	66	72	1	NO GAS	50.359	ug/l	125635.90
Zn	66	72	3	He	52.220	ug/l	20178.87
As	75	72	1	NO GAS	46.767	ug/l	127613.88
As	75	72	3	He	46.555	ug/l	11444.97
Se	78	72	2	H2	46.244	ug/l	3452.68
Br	79	72	1	NO GAS	-2.921	ug/l	40465.51
Br	79	72	2	H2	-2.752	ug/l	4747.96
Se	82	72	1	NO GAS	45.589	ug/l	10485.95
Kr	84	72	1	NO GAS		ug/l	27945.01
Sr	88	72	1	NO GAS	115.296	ug/l	3572594.80
Sr	88	72	3	He	110.329	ug/l	136875.57

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	53.841	ug/l	366217.49
Mo	95	72	3	He	53.573	ug/l	113655.17
Mo	98	72	1	NO GAS	53.786	ug/l	626112.13
Ag	107	72	1	NO GAS	21.753	ug/l	418104.13
Ag	109	72	1	NO GAS	21.762	ug/l	411726.84
Cd	111	159	1	NO GAS	43.737	ug/l	240540.44
Cd	111	159	3	He	44.338	ug/l	55281.89
Cd	114	159	1	NO GAS	44.356	ug/l	558508.55
Cd	114	159	3	He	44.273	ug/l	143109.65
Sn	118	159	1	NO GAS	47.532	ug/l	783417.90
Sn	118	159	3	He	47.149	ug/l	110026.86
Sb	121	159	1	NO GAS	46.230	ug/l	1028258.42
Sb	121	159	3	He	45.420	ug/l	133663.02
Sb	123	159	1	NO GAS	46.665	ug/l	807698.41
Sb	123	159	3	He	45.973	ug/l	112031.53
Ba	135	159	1	NO GAS	49.357	ug/l	238223.90
Ba	137	159	1	NO GAS	48.434	ug/l	412426.03
La	139	175	1	NO GAS	0.005	ug/l	490.51
La	139	175	3	He	0.004	ug/l	70.07
Ce	140	175	1	NO GAS	46.470	ug/l	3709554.09
Ce	140	175	3	He	47.989	ug/l	974720.52
Hg	201	175	1	NO GAS	0.918	ug/l	3858.73
Hg	202	175	1	NO GAS	0.937	ug/l	8941.84
Hg	202	175	3	He	0.960	ug/l	5874.63
Tl	203	175	3	He	48.166	ug/l	602789.08
Tl	205	175	1	NO GAS	48.636	ug/l	3037569.33
Tl	205	175	3	He	50.934	ug/l	1511580.18
[Pb]	206	175	1	NO GAS	47.527	ug/l	1025350.27
[Pb]	207	175	1	NO GAS	46.847	ug/l	889211.23
Pb	208	175	1	NO GAS	47.881	ug/l	4133820.34
Th	232	175	3	He	52.306	ug/l	2337739.02
U	238	175	1	NO GAS	47.863	ug/l	4803634.86

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1462653.05	78.4
Sc	45	2	H2	50969.89	61.7
Sc	45	3	He	37063.49	73.7
Ge	72	1	NO GAS	755143.93	89.3
Ge	72	2	H2	86852.64	73.3
Ge	72	3	He	64588.67	85.6
Tb	159	1	NO GAS	18943060.31	103.7
Tb	159	3	He	6430701.57	91.1
Ho	165	1	NO GAS	17680516.98	104.2
Ho	165	3	He	6306647.31	94.6
Lu	175	1	NO GAS	19765659.96	104.2
Lu	175	3	He	3904455.60	93.8

ICPMS206-B Analytical Data

Sample Name	B21121957-001HMS4
File Name	078MS4.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 02:23:31
Sample Type	MS4
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	53.923	ug/l	36616.72
Be	9	45	1	NO GAS	40.124	ug/l	9697.42
B	11	45	1	NO GAS	144.114	ug/l	25904.02
Na	23	45	3	He	36733.434	ug/l	2665493.47
Mg	24	45	3	He	12063.881	ug/l	447759.28
Al	27	45	1	NO GAS	416.690	ug/l	1059679.76
Si	28	45	2	H2	25285.616	ug/l	300557.29
K	39	72	3	He	5385.138	ug/l	205465.28
Ca	40	72	2	H2	10818.126	ug/l	1556160.71
Ti	47	72	1	NO GAS	88.399	ug/l	70214.63
V	51	72	1	NO GAS	106.261	ug/l	1250414.18
V	51	72	3	He	108.545	ug/l	123141.29
Cr	52	72	1	NO GAS	91.609	ug/l	1032184.42
Cr	52	72	3	He	92.711	ug/l	148113.78
Cr	53	72	1	NO GAS	166.845	ug/l	291489.61
Mn	55	72	1	NO GAS	465.816	ug/l	7792441.05
Mn	55	72	3	He	452.754	ug/l	340413.85
Fe	56	72	2	H2	490.215	ug/l	391731.40
Fe	56	72	3	He	454.883	ug/l	678921.19
Co	59	72	1	NO GAS	97.427	ug/l	1437333.04
Ni	60	72	1	NO GAS	93.331	ug/l	306669.42
Ni	60	72	3	He	94.568	ug/l	94660.68
Ni	62	72	1	NO GAS	95.733	ug/l	48397.19
Cu	63	72	1	NO GAS	95.847	ug/l	797772.75
Cu	63	72	3	He	96.700	ug/l	287463.55
Cu	65	72	1	NO GAS	96.992	ug/l	403438.32
Zn	66	72	1	NO GAS	100.062	ug/l	273615.57
Zn	66	72	3	He	96.380	ug/l	41453.25
As	75	72	1	NO GAS	95.212	ug/l	281975.48
As	75	72	3	He	91.954	ug/l	25198.19
Se	78	72	2	H2	104.686	ug/l	7960.99
Br	79	72	1	NO GAS	-3.453	ug/l	39388.84
Br	79	72	2	H2	-2.472	ug/l	4881.12
Se	82	72	1	NO GAS	95.239	ug/l	23865.89
Kr	84	72	1	NO GAS		ug/l	41089.68
Sr	88	72	1	NO GAS	171.098	ug/l	5821421.68
Sr	88	72	3	He	160.732	ug/l	222258.13

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	106.446	ug/l	794995.53
Mo	95	72	3	He	105.668	ug/l	249852.50
Mo	98	72	1	NO GAS	106.276	ug/l	1358375.25
Ag	107	72	1	NO GAS	10.834	ug/l	229398.65
Ag	109	72	1	NO GAS	10.822	ug/l	225643.94
Cd	111	159	1	NO GAS	45.911	ug/l	268293.26
Cd	111	159	3	He	45.748	ug/l	62542.65
Cd	114	159	1	NO GAS	47.148	ug/l	630702.17
Cd	114	159	3	He	45.688	ug/l	162032.58
Sn	118	159	1	NO GAS	102.299	ug/l	1737531.21
Sn	118	159	3	He	97.576	ug/l	242857.35
Sb	121	159	1	NO GAS	97.482	ug/l	2304860.92
Sb	121	159	3	He	91.888	ug/l	296693.32
Sb	123	159	1	NO GAS	100.043	ug/l	1840167.61
Sb	123	159	3	He	92.766	ug/l	247860.37
Ba	135	159	1	NO GAS	96.024	ug/l	492483.62
Ba	137	159	1	NO GAS	94.817	ug/l	857808.94
La	139	175	1	NO GAS	98.126	ug/l	8556183.70
La	139	175	3	He	98.499	ug/l	1702142.17
Ce	140	175	1	NO GAS	97.361	ug/l	8322971.53
Ce	140	175	3	He	99.223	ug/l	2179485.14
Hg	201	175	1	NO GAS	0.012	ug/l	67.32
Hg	202	175	1	NO GAS	0.039	ug/l	472.58
Hg	202	175	3	He	0.030	ug/l	224.62
Tl	203	175	3	He	100.685	ug/l	1362414.46
Tl	205	175	1	NO GAS	96.481	ug/l	6450719.70
Tl	205	175	3	He	103.297	ug/l	3313558.97
[Pb]	206	175	1	NO GAS	100.702	ug/l	2326042.93
[Pb]	207	175	1	NO GAS	99.508	ug/l	2022639.60
Pb	208	175	1	NO GAS	99.515	ug/l	9198499.86
Th	232	175	3	He	105.316	ug/l	5088411.07
U	238	175	1	NO GAS	99.115	ug/l	10650775.91

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1604073.52	86.0
Sc	45	2	H2	53787.39	65.1
Sc	45	3	He	40901.49	81.3
Ge	72	1	NO GAS	805555.94	95.2
Ge	72	2	H2	91349.20	77.1
Ge	72	3	He	69921.36	92.6
Tb	159	1	NO GAS	19545086.27	107.0
Tb	159	3	He	6849255.26	97.0
Ho	165	1	NO GAS	18577797.98	109.5
Ho	165	3	He	6705311.74	100.6
Lu	175	1	NO GAS	20556304.33	108.4
Lu	175	3	He	4095509.84	98.4

ICPMS206-B Analytical Data

Sample Name	B21121957-001HMSD4
File Name	079MSD4.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 02:29:07
Sample Type	MSD4
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	52.292	ug/l	34913.72
Be	9	45	1	NO GAS	38.404	ug/l	9035.53
B	11	45	1	NO GAS	139.492	ug/l	24406.34
Na	23	45	3	He	37397.953	ug/l	2416861.63
Mg	24	45	3	He	12135.487	ug/l	401053.07
Al	27	45	1	NO GAS	398.866	ug/l	987800.06
Si	28	45	2	H2	23304.440	ug/l	277293.76
K	39	72	3	He	5412.973	ug/l	186513.17
Ca	40	72	2	H2	10430.404	ug/l	1502336.98
Ti	47	72	1	NO GAS	84.434	ug/l	65465.20
V	51	72	1	NO GAS	108.647	ug/l	1246497.77
V	51	72	3	He	114.205	ug/l	117025.89
Cr	52	72	1	NO GAS	89.972	ug/l	989504.07
Cr	52	72	3	He	96.510	ug/l	139305.40
Cr	53	72	1	NO GAS	150.112	ug/l	260133.44
Mn	55	72	1	NO GAS	468.704	ug/l	7650179.89
Mn	55	72	3	He	467.945	ug/l	317677.37
Fe	56	72	2	H2	455.959	ug/l	363391.80
Fe	56	72	3	He	460.496	ug/l	620667.44
Co	59	72	1	NO GAS	95.684	ug/l	1377656.44
Ni	60	72	1	NO GAS	91.211	ug/l	292464.45
Ni	60	72	3	He	97.191	ug/l	87869.55
Ni	62	72	1	NO GAS	97.004	ug/l	47843.68
Cu	63	72	1	NO GAS	94.222	ug/l	765407.86
Cu	63	72	3	He	99.742	ug/l	267716.80
Cu	65	72	1	NO GAS	96.057	ug/l	389816.32
Zn	66	72	1	NO GAS	104.045	ug/l	277568.72
Zn	66	72	3	He	105.558	ug/l	40970.13
As	75	72	1	NO GAS	95.111	ug/l	274930.15
As	75	72	3	He	96.197	ug/l	23796.49
Se	78	72	2	H2	98.443	ug/l	7498.87
Br	79	72	1	NO GAS	-4.115	ug/l	34471.08
Br	79	72	2	H2	-3.501	ug/l	4155.66
Se	82	72	1	NO GAS	92.620	ug/l	22658.42
Kr	84	72	1	NO GAS		ug/l	38548.72
Sr	88	72	1	NO GAS	167.209	ug/l	5549386.21
Sr	88	72	3	He	168.204	ug/l	209978.55

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	108.418	ug/l	789913.03
Mo	95	72	3	He	111.653	ug/l	238402.68
Mo	98	72	1	NO GAS	109.378	ug/l	1363703.56
Ag	107	72	1	NO GAS	10.815	ug/l	223533.34
Ag	109	72	1	NO GAS	10.690	ug/l	217493.87
Cd	111	159	1	NO GAS	44.790	ug/l	265782.35
Cd	111	159	3	He	46.620	ug/l	59331.18
Cd	114	159	1	NO GAS	45.145	ug/l	613460.24
Cd	114	159	3	He	46.853	ug/l	154704.22
Sn	118	159	1	NO GAS	98.972	ug/l	1708068.89
Sn	118	159	3	He	98.951	ug/l	229180.23
Sb	121	159	1	NO GAS	95.986	ug/l	2303901.06
Sb	121	159	3	He	95.111	ug/l	285807.34
Sb	123	159	1	NO GAS	96.944	ug/l	1810796.48
Sb	123	159	3	He	96.862	ug/l	240945.80
Ba	135	159	1	NO GAS	93.809	ug/l	488646.15
Ba	137	159	1	NO GAS	92.622	ug/l	850916.88
La	139	175	1	NO GAS	93.644	ug/l	8242707.11
La	139	175	3	He	102.862	ug/l	1631789.99
Ce	140	175	1	NO GAS	93.912	ug/l	8104000.07
Ce	140	175	3	He	104.817	ug/l	2112053.50
Hg	201	175	1	NO GAS	0.008	ug/l	51.32
Hg	202	175	1	NO GAS	0.034	ug/l	422.92
Hg	202	175	3	He	0.027	ug/l	186.30
Tl	203	175	3	He	106.079	ug/l	1317300.32
Tl	205	175	1	NO GAS	95.095	ug/l	6418216.29
Tl	205	175	3	He	109.665	ug/l	3226390.84
[Pb]	206	175	1	NO GAS	99.738	ug/l	2325636.27
[Pb]	207	175	1	NO GAS	94.826	ug/l	1945407.16
Pb	208	175	1	NO GAS	96.070	ug/l	8964154.78
Th	232	175	3	He	109.477	ug/l	4848595.29
U	238	175	1	NO GAS	98.026	ug/l	10632832.58

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1565188.30	83.9
Sc	45	2	H2	51375.40	62.2
Sc	45	3	He	36419.82	72.4
Ge	72	1	NO GAS	785826.89	92.9
Ge	72	2	H2	86066.20	72.6
Ge	72	3	He	63151.58	83.7
Tb	159	1	NO GAS	19842797.31	108.6
Tb	159	3	He	6379031.57	90.4
Ho	165	1	NO GAS	18226937.55	107.4
Ho	165	3	He	6235954.49	93.5
Lu	175	1	NO GAS	20741224.87	109.4
Lu	175	3	He	3763179.32	90.4

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	080BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 02:34:40
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.079	ug/l	2517.02
Be	9	45	1	NO GAS	-0.002	ug/l	3.67
B	11	45	1	NO GAS	0.633	ug/l	217.96
Na	23	45	3	He	144.649	ug/l	14716.31
Mg	24	45	3	He	1.080	ug/l	46.57
Al	27	45	1	NO GAS	0.152	ug/l	804.47
Si	28	45	2	H2	23.152	ug/l	303.94
K	39	72	3	He	-9.589	ug/l	1934.57
Ca	40	72	2	H2	0.777	ug/l	539.75
Ti	47	72	1	NO GAS	0.037	ug/l	48.31
V	51	72	1	NO GAS	-0.882	ug/l	-16247.58
V	51	72	3	He	0.138	ug/l	213.34
Cr	52	72	1	NO GAS	0.146	ug/l	10026.48
Cr	52	72	3	He	-0.022	ug/l	83.17
Cr	53	72	1	NO GAS	31.026	ug/l	82905.63
Mn	55	72	1	NO GAS	0.015	ug/l	868.31
Mn	55	72	3	He	0.013	ug/l	13.00
Fe	56	72	2	H2	0.087	ug/l	331.51
Fe	56	72	3	He	0.094	ug/l	626.37
Co	59	72	1	NO GAS	0.004	ug/l	113.11
Ni	60	72	1	NO GAS	0.001	ug/l	59.88
Ni	60	72	3	He	-0.010	ug/l	14.44
Ni	62	72	1	NO GAS	0.015	ug/l	252.84
Cu	63	72	1	NO GAS	0.001	ug/l	419.26
Cu	63	72	3	He	-0.010	ug/l	141.97
Cu	65	72	1	NO GAS	0.002	ug/l	220.63
Zn	66	72	1	NO GAS	-0.001	ug/l	432.27
Zn	66	72	3	He	0.039	ug/l	92.22
As	75	72	1	NO GAS	0.614	ug/l	4450.50
As	75	72	3	He	0.015	ug/l	8.00
Se	78	72	2	H2	0.007	ug/l	2.33
Br	79	72	1	NO GAS	-1.766	ug/l	46089.50
Br	79	72	2	H2	-1.354	ug/l	5769.60
Se	82	72	1	NO GAS	0.989	ug/l	381.27
Kr	84	72	1	NO GAS		ug/l	6608.29
Sr	88	72	1	NO GAS	0.008	ug/l	568.89
Sr	88	72	3	He	0.001	ug/l	205.56

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.013	ug/l	156.67
Mo	95	72	3	He	0.007	ug/l	44.44
Mo	98	72	1	NO GAS	0.006	ug/l	206.19
Ag	107	72	1	NO GAS	0.010	ug/l	1711.76
Ag	109	72	1	NO GAS	0.005	ug/l	1580.44
Cd	111	159	1	NO GAS	0.011	ug/l	19.32
Cd	111	159	3	He	0.007	ug/l	9.33
Cd	114	159	1	NO GAS	0.006	ug/l	-170.80
Cd	114	159	3	He	0.012	ug/l	8.46
Sn	118	159	1	NO GAS	-2.495	ug/l	3097.61
Sn	118	159	3	He	-2.339	ug/l	377.79
Sb	121	159	1	NO GAS	0.022	ug/l	653.35
Sb	121	159	3	He	0.019	ug/l	88.89
Sb	123	159	1	NO GAS	0.022	ug/l	528.90
Sb	123	159	3	He	0.024	ug/l	84.44
Ba	135	159	1	NO GAS	0.030	ug/l	156.36
Ba	137	159	1	NO GAS	0.018	ug/l	196.28
La	139	175	1	NO GAS	0.000	ug/l	96.76
La	139	175	3	He	0.001	ug/l	20.02
Ce	140	175	1	NO GAS	0.001	ug/l	153.49
Ce	140	175	3	He	0.000	ug/l	20.02
Hg	201	175	1	NO GAS	0.002	ug/l	21.00
Hg	202	175	1	NO GAS	0.001	ug/l	77.98
Hg	202	175	3	He	0.001	ug/l	28.00
Tl	203	175	3	He	0.569	ug/l	7159.62
Tl	205	175	1	NO GAS	0.463	ug/l	29148.90
Tl	205	175	3	He	0.581	ug/l	17343.16
[Pb]	206	175	1	NO GAS	0.004	ug/l	147.78
[Pb]	207	175	1	NO GAS	0.005	ug/l	150.00
Pb	208	175	1	NO GAS	0.005	ug/l	618.90
Th	232	175	3	He	0.076	ug/l	4265.78
U	238	175	1	NO GAS	0.007	ug/l	834.53

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1384643.07	74.2
Sc	45	2	H2	54323.25	65.8
Sc	45	3	He	37442.27	74.4
Ge	72	1	NO GAS	747041.98	88.3
Ge	72	2	H2	88907.38	75.0
Ge	72	3	He	64041.46	84.8
Tb	159	1	NO GAS	18374227.74	100.6
Tb	159	3	He	6534516.11	92.6
Ho	165	1	NO GAS	17421497.97	102.7
Ho	165	3	He	6376714.67	95.7
Lu	175	1	NO GAS	19162746.24	101.0
Lu	175	3	He	3767633.07	90.5

ICPMS206-B Analytical Data

Sample Name	B21121957-001I
File Name	081SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 02:40:23
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.090	ug/l	1775.07
Be	9	45	1	NO GAS	-0.007	ug/l	3.67
B	11	45	1	NO GAS	65.276	ug/l	13149.04
Na	23	45	3	He	32821.684	ug/l	2946305.23
Mg	24	45	3	He	7629.027	ug/l	350222.22
Al	27	45	1	NO GAS	1.899	ug/l	5981.09
Si	28	45	2	H2	22469.292	ug/l	437107.11
K	39	72	3	He	1603.646	ug/l	73549.73
Ca	40	72	2	H2	7188.249	ug/l	1480833.50
Ti	47	72	1	NO GAS	1.768	ug/l	1509.33
V	51	72	1	NO GAS	20.584	ug/l	249810.95
V	51	72	3	He	19.094	ug/l	25403.58
Cr	52	72	1	NO GAS	2.753	ug/l	42215.66
Cr	52	72	3	He	2.869	ug/l	5506.71
Cr	53	72	1	NO GAS	-13.764	ug/l	23994.86
Mn	55	72	1	NO GAS	0.795	ug/l	14770.54
Mn	55	72	3	He	0.738	ug/l	653.75
Fe	56	72	2	H2	7.755	ug/l	9174.71
Fe	56	72	3	He	7.321	ug/l	13407.12
Co	59	72	1	NO GAS	0.018	ug/l	342.66
Ni	60	72	1	NO GAS	0.257	ug/l	958.14
Ni	60	72	3	He	0.152	ug/l	208.89
Ni	62	72	1	NO GAS	0.230	ug/l	402.54
Cu	63	72	1	NO GAS	1.013	ug/l	9376.78
Cu	63	72	3	He	0.544	ug/l	2104.38
Cu	65	72	1	NO GAS	0.623	ug/l	2978.35
Zn	66	72	1	NO GAS	9.130	ug/l	26827.62
Zn	66	72	3	He	8.454	ug/l	4341.71
As	75	72	1	NO GAS	0.224	ug/l	3847.21
As	75	72	3	He	0.113	ug/l	41.66
Se	78	72	2	H2	0.163	ug/l	20.33
Br	79	72	1	NO GAS	6.142	ug/l	103707.57
Br	79	72	2	H2	6.439	ug/l	15476.79
Se	82	72	1	NO GAS	0.954	ug/l	424.53
Kr	84	72	1	NO GAS		ug/l	21005.19
Sr	88	72	1	NO GAS	62.138	ug/l	2234636.95
Sr	88	72	3	He	56.713	ug/l	91789.82

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.878	ug/l	7001.55
Mo	95	72	3	He	0.829	ug/l	2330.19
Mo	98	72	1	NO GAS	0.891	ug/l	12190.17
Ag	107	72	1	NO GAS	-0.075	ug/l	66.65
Ag	109	72	1	NO GAS	-0.075	ug/l	64.66
Cd	111	159	1	NO GAS	0.023	ug/l	81.11
Cd	111	159	3	He	0.013	ug/l	18.66
Cd	114	159	1	NO GAS	-0.060	ug/l	-979.96
Cd	114	159	3	He	-0.098	ug/l	-402.21
Sn	118	159	1	NO GAS	40.755	ug/l	657764.07
Sn	118	159	3	He	36.353	ug/l	99306.16
Sb	121	159	1	NO GAS	0.026	ug/l	728.91
Sb	121	159	3	He	0.013	ug/l	78.89
Sb	123	159	1	NO GAS	0.027	ug/l	610.02
Sb	123	159	3	He	0.016	ug/l	70.00
Ba	135	159	1	NO GAS	2.071	ug/l	9737.06
Ba	137	159	1	NO GAS	2.125	ug/l	17631.61
La	139	175	1	NO GAS	0.004	ug/l	394.13
La	139	175	3	He	0.003	ug/l	50.05
Ce	140	175	1	NO GAS	0.002	ug/l	236.91
Ce	140	175	3	He	0.003	ug/l	76.74
Hg	201	175	1	NO GAS	0.002	ug/l	21.66
Hg	202	175	1	NO GAS	0.019	ug/l	247.95
Hg	202	175	3	He	0.016	ug/l	134.64
Tl	203	175	3	He	0.275	ug/l	3903.74
Tl	205	175	1	NO GAS	0.196	ug/l	12452.19
Tl	205	175	3	He	0.280	ug/l	9420.41
[Pb]	206	175	1	NO GAS	0.038	ug/l	877.81
[Pb]	207	175	1	NO GAS	0.042	ug/l	830.03
Pb	208	175	1	NO GAS	0.040	ug/l	3589.09
Th	232	175	3	He	0.015	ug/l	1709.77
U	238	175	1	NO GAS	0.007	ug/l	779.53

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1786168.09	95.7
Sc	45	2	H2	84004.45	101.7
Sc	45	3	He	50591.31	100.6
Ge	72	1	NO GAS	851175.15	100.6
Ge	72	2	H2	123100.36	103.9
Ge	72	3	He	81738.96	108.3
Tb	159	1	NO GAS	17879998.95	97.9
Tb	159	3	He	7213003.22	102.2
Ho	165	1	NO GAS	17047354.04	100.5
Ho	165	3	He	6844074.04	102.7
Lu	175	1	NO GAS	18897787.75	99.6
Lu	175	3	He	4195498.74	100.8

ICPMS206-B Analytical Data

Sample Name	B21121957-001IDIL
File Name	082_ARF.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 02:46:07
Sample Type	AllRef
Total Dilution	5.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.631	ug/l	2143.71
Be	9	45	1	NO GAS	-0.079	ug/l	1.00
B	11	45	1	NO GAS	57.818	ug/l	1990.39
Na	23	45	3	He	29877.171	ug/l	391038.02
Mg	24	45	3	He	6935.086	ug/l	45904.80
Al	27	45	1	NO GAS	5.547	ug/l	3039.18
Si	28	45	2	H2	26795.849	ug/l	54592.56
K	39	72	3	He	1351.825	ug/l	11599.60
Ca	40	72	2	H2	6689.710	ug/l	177191.35
Ti	47	72	1	NO GAS	1.681	ug/l	273.20
V	51	72	1	NO GAS	15.641	ug/l	28402.81
V	51	72	3	He	18.460	ug/l	3906.04
Cr	52	72	1	NO GAS	2.144	ug/l	13172.49
Cr	52	72	3	He	3.032	ug/l	1001.39
Cr	53	72	1	NO GAS	68.808	ug/l	60090.40
Mn	55	72	1	NO GAS	0.786	ug/l	3124.12
Mn	55	72	3	He	0.790	ug/l	113.01
Fe	56	72	2	H2	10.749	ug/l	1805.88
Fe	56	72	3	He	10.122	ug/l	3263.72
Co	59	72	1	NO GAS	0.007	ug/l	83.17
Ni	60	72	1	NO GAS	0.353	ug/l	276.12
Ni	60	72	3	He	0.288	ug/l	76.67
Ni	62	72	1	NO GAS	0.235	ug/l	272.80
Cu	63	72	1	NO GAS	2.059	ug/l	3653.02
Cu	63	72	3	He	1.665	ug/l	1074.15
Cu	65	72	1	NO GAS	1.682	ug/l	1534.44
Zn	66	72	1	NO GAS	15.363	ug/l	8355.27
Zn	66	72	3	He	15.322	ug/l	1281.17
As	75	72	1	NO GAS	-2.173	ug/l	1616.70
As	75	72	3	He	0.087	ug/l	8.67
Se	78	72	2	H2	0.253	ug/l	5.00
Br	79	72	1	NO GAS	10.811	ug/l	69597.70
Br	79	72	2	H2	17.335	ug/l	8106.01
Se	82	72	1	NO GAS	0.143	ug/l	157.69
Kr	84	72	1	NO GAS		ug/l	9344.20
Sr	88	72	1	NO GAS	60.513	ug/l	388730.95
Sr	88	72	3	He	58.469	ug/l	14999.15

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.996	ug/l	1471.20
Mo	95	72	3	He	0.954	ug/l	444.46
Mo	98	72	1	NO GAS	0.979	ug/l	2499.25
Ag	107	72	1	NO GAS	-0.364	ug/l	99.98
Ag	109	72	1	NO GAS	-0.363	ug/l	95.98
Cd	111	159	1	NO GAS	0.060	ug/l	26.61
Cd	111	159	3	He	0.023	ug/l	6.67
Cd	114	159	1	NO GAS	-0.028	ug/l	-335.04
Cd	114	159	3	He	-0.020	ug/l	-46.04
Sn	118	159	1	NO GAS	28.433	ug/l	135260.63
Sn	118	159	3	He	25.985	ug/l	18319.40
Sb	121	159	1	NO GAS	0.076	ug/l	521.13
Sb	121	159	3	He	0.054	ug/l	66.67
Sb	123	159	1	NO GAS	0.061	ug/l	382.23
Sb	123	159	3	He	0.059	ug/l	53.33
Ba	135	159	1	NO GAS	2.417	ug/l	2442.03
Ba	137	159	1	NO GAS	2.289	ug/l	4089.14
La	139	175	1	NO GAS	0.002	ug/l	110.11
La	139	175	3	He	0.009	ug/l	30.03
Ce	140	175	1	NO GAS	0.004	ug/l	136.81
Ce	140	175	3	He	0.006	ug/l	46.71
Hg	201	175	1	NO GAS	0.005	ug/l	18.67
Hg	202	175	1	NO GAS	0.017	ug/l	109.65
Hg	202	175	3	He	0.018	ug/l	46.99
Tl	203	175	3	He	0.614	ug/l	1705.10
Tl	205	175	1	NO GAS	0.426	ug/l	6011.28
Tl	205	175	3	He	0.601	ug/l	3964.41
[Pb]	206	175	1	NO GAS	0.086	ug/l	462.23
[Pb]	207	175	1	NO GAS	0.089	ug/l	408.90
Pb	208	175	1	NO GAS	0.091	ug/l	1894.51
Th	232	175	3	He	0.038	ug/l	1276.47
U	238	175	1	NO GAS	0.008	ug/l	296.61

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1446855.49	77.5
Sc	45	2	H2	44544.79	53.9
Sc	45	3	He	36517.97	72.6
Ge	72	1	NO GAS	759648.06	89.8
Ge	72	2	H2	79988.13	67.5
Ge	72	3	He	64060.87	84.9
Tb	159	1	NO GAS	19088409.40	104.5
Tb	159	3	He	6713282.58	95.1
Ho	165	1	NO GAS	18058935.38	106.4
Ho	165	3	He	6526407.74	97.9
Lu	175	1	NO GAS	20423311.55	107.7
Lu	175	3	He	3989289.17	95.9

ICPMS206-B Analytical Data

Sample Name	B21121957-001IMS
File Name	083MS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 02:51:52
Sample Type	MS
Total Dilution	1.0300
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1323.190	ug/l	731074.34
Be	9	45	1	NO GAS	39.839	ug/l	8664.75
B	11	45	1	NO GAS	92.566	ug/l	15015.55
Na	23	45	3	He	73066.214	ug/l	5416724.50
Mg	24	45	3	He	50907.672	ug/l	1932529.53
Al	27	45	1	NO GAS	42.476	ug/l	97751.74
Si	28	45	2	H2	22119.690	ug/l	303120.47
K	39	72	3	He	43168.825	ug/l	1615471.36
Ca	40	72	2	H2	48596.732	ug/l	7559136.24
Ti	47	72	1	NO GAS	47.894	ug/l	34050.81
V	51	72	1	NO GAS	64.535	ug/l	676087.46
V	51	72	3	He	64.423	ug/l	72474.19
Cr	52	72	1	NO GAS	47.677	ug/l	484125.95
Cr	52	72	3	He	46.474	ug/l	73697.98
Cr	53	72	1	NO GAS	74.461	ug/l	138796.36
Mn	55	72	1	NO GAS	46.932	ug/l	702006.05
Mn	55	72	3	He	45.293	ug/l	33755.15
Fe	56	72	2	H2	4414.524	ug/l	3796775.71
Fe	56	72	3	He	4320.444	ug/l	6389520.62
Co	59	72	1	NO GAS	46.332	ug/l	610935.23
Ni	60	72	1	NO GAS	45.980	ug/l	135181.40
Ni	60	72	3	He	46.238	ug/l	45898.16
Ni	62	72	1	NO GAS	46.091	ug/l	20975.05
Cu	63	72	1	NO GAS	48.208	ug/l	359010.76
Cu	63	72	3	He	45.282	ug/l	133511.99
Cu	65	72	1	NO GAS	46.615	ug/l	173359.68
Zn	66	72	1	NO GAS	56.478	ug/l	138296.19
Zn	66	72	3	He	55.169	ug/l	23547.77
As	75	72	1	NO GAS	51.908	ug/l	138800.08
As	75	72	3	He	50.715	ug/l	13773.25
Se	78	72	2	H2	52.355	ug/l	4307.71
Br	79	72	1	NO GAS	7.835	ug/l	98670.15
Br	79	72	2	H2	9.169	ug/l	13871.79
Se	82	72	1	NO GAS	55.012	ug/l	12423.71
Kr	84	72	1	NO GAS		ug/l	27188.52
Sr	88	72	1	NO GAS	113.525	ug/l	3452779.92
Sr	88	72	3	He	106.204	ug/l	145617.96

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	51.938	ug/l	346692.74
Mo	95	72	3	He	50.058	ug/l	117312.90
Mo	98	72	1	NO GAS	51.855	ug/l	592841.47
Ag	107	72	1	NO GAS	21.959	ug/l	414195.34
Ag	109	72	1	NO GAS	21.560	ug/l	400558.39
Cd	111	159	1	NO GAS	46.214	ug/l	235732.36
Cd	111	159	3	He	46.329	ug/l	57814.35
Cd	114	159	1	NO GAS	46.967	ug/l	548982.80
Cd	114	159	3	He	47.506	ug/l	153757.34
Sn	118	159	1	NO GAS	86.334	ug/l	1287362.07
Sn	118	159	3	He	85.876	ug/l	195877.47
Sb	121	159	1	NO GAS	50.476	ug/l	1042394.82
Sb	121	159	3	He	49.803	ug/l	146723.08
Sb	123	159	1	NO GAS	51.054	ug/l	818228.12
Sb	123	159	3	He	49.660	ug/l	121129.50
Ba	135	159	1	NO GAS	51.392	ug/l	229847.58
Ba	137	159	1	NO GAS	50.421	ug/l	398481.20
La	139	175	1	NO GAS	0.006	ug/l	540.57
La	139	175	3	He	0.005	ug/l	86.75
Ce	140	175	1	NO GAS	49.044	ug/l	3549623.87
Ce	140	175	3	He	48.843	ug/l	990576.69
Hg	201	175	1	NO GAS	0.979	ug/l	3723.05
Hg	202	175	1	NO GAS	0.993	ug/l	8584.05
Hg	202	175	3	He	1.009	ug/l	6162.69
Tl	203	175	3	He	47.394	ug/l	592190.09
Tl	205	175	1	NO GAS	46.229	ug/l	2619218.17
Tl	205	175	3	He	49.117	ug/l	1454116.45
[Pb]	206	175	1	NO GAS	47.733	ug/l	934838.69
[Pb]	207	175	1	NO GAS	46.438	ug/l	799302.59
Pb	208	175	1	NO GAS	47.067	ug/l	3688210.99
Th	232	175	3	He	50.762	ug/l	2264149.18
U	238	175	1	NO GAS	46.786	ug/l	4260334.92

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1497725.00	80.3
Sc	45	2	H2	60983.34	73.8
Sc	45	3	He	43065.72	85.6
Ge	72	1	NO GAS	742714.53	87.8
Ge	72	2	H2	95726.10	80.8
Ge	72	3	He	71365.42	94.6
Tb	159	1	NO GAS	17688849.68	96.8
Tb	159	3	He	6436200.87	91.2
Ho	165	1	NO GAS	16468930.64	97.1
Ho	165	3	He	6448332.74	96.7
Lu	175	1	NO GAS	17981590.54	94.8
Lu	175	3	He	3898868.86	93.7

ICPMS206-B Analytical Data

Sample Name	B21121957-001IMSD
File Name	084MSD.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 02:57:36
Sample Type	MSD
Total Dilution	1.0300
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1671.125	ug/l	967662.72
Be	9	45	1	NO GAS	40.567	ug/l	10392.34
B	11	45	1	NO GAS	95.734	ug/l	18290.67
Na	23	45	3	He	74915.771	ug/l	6122765.81
Mg	24	45	3	He	52194.954	ug/l	2184687.27
Al	27	45	1	NO GAS	43.213	ug/l	117016.30
Si	28	45	2	H2	21701.299	ug/l	350315.50
K	39	72	3	He	44371.733	ug/l	1787367.54
Ca	40	72	2	H2	48205.067	ug/l	8782943.35
Ti	47	72	1	NO GAS	50.564	ug/l	39881.90
V	51	72	1	NO GAS	68.639	ug/l	798350.41
V	51	72	3	He	65.650	ug/l	79520.53
Cr	52	72	1	NO GAS	48.981	ug/l	552204.35
Cr	52	72	3	He	47.736	ug/l	81434.34
Cr	53	72	1	NO GAS	69.180	ug/l	146329.30
Mn	55	72	1	NO GAS	47.620	ug/l	791196.35
Mn	55	72	3	He	47.164	ug/l	37830.11
Fe	56	72	2	H2	4254.376	ug/l	4283588.43
Fe	56	72	3	He	4427.461	ug/l	7047756.43
Co	59	72	1	NO GAS	45.963	ug/l	672952.38
Ni	60	72	1	NO GAS	45.590	ug/l	148723.03
Ni	60	72	3	He	46.334	ug/l	49500.33
Ni	62	72	1	NO GAS	47.593	ug/l	24016.40
Cu	63	72	1	NO GAS	48.023	ug/l	396993.06
Cu	63	72	3	He	46.307	ug/l	146972.44
Cu	65	72	1	NO GAS	46.409	ug/l	191676.12
Zn	66	72	1	NO GAS	55.119	ug/l	149801.04
Zn	66	72	3	He	54.426	ug/l	25010.94
As	75	72	1	NO GAS	51.626	ug/l	153170.61
As	75	72	3	He	50.080	ug/l	14639.82
Se	78	72	2	H2	51.381	ug/l	4951.42
Br	79	72	1	NO GAS	7.210	ug/l	105675.60
Br	79	72	2	H2	6.760	ug/l	14211.39
Se	82	72	1	NO GAS	55.409	ug/l	13848.08
Kr	84	72	1	NO GAS		ug/l	29877.94
Sr	88	72	1	NO GAS	109.498	ug/l	3697863.93
Sr	88	72	3	He	105.289	ug/l	155422.18

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	50.420	ug/l	373747.98
Mo	95	72	3	He	48.784	ug/l	123045.22
Mo	98	72	1	NO GAS	50.197	ug/l	636772.53
Ag	107	72	1	NO GAS	20.673	ug/l	433055.16
Ag	109	72	1	NO GAS	20.453	ug/l	421870.94
Cd	111	159	1	NO GAS	47.833	ug/l	250175.58
Cd	111	159	3	He	47.946	ug/l	61675.92
Cd	114	159	1	NO GAS	49.598	ug/l	593891.39
Cd	114	159	3	He	46.838	ug/l	156272.72
Sn	118	159	1	NO GAS	90.889	ug/l	1387216.07
Sn	118	159	3	He	88.233	ug/l	207297.64
Sb	121	159	1	NO GAS	51.150	ug/l	1081967.48
Sb	121	159	3	He	51.124	ug/l	155293.11
Sb	123	159	1	NO GAS	52.369	ug/l	861899.30
Sb	123	159	3	He	49.859	ug/l	125365.16
Ba	135	159	1	NO GAS	51.289	ug/l	235375.74
Ba	137	159	1	NO GAS	50.403	ug/l	408174.03
La	139	175	1	NO GAS	0.005	ug/l	477.16
La	139	175	3	He	0.005	ug/l	83.42
Ce	140	175	1	NO GAS	48.134	ug/l	3664367.36
Ce	140	175	3	He	50.010	ug/l	1025041.26
Hg	201	175	1	NO GAS	0.941	ug/l	3773.06
Hg	202	175	1	NO GAS	0.977	ug/l	8896.50
Hg	202	175	3	He	1.023	ug/l	6315.06
Tl	203	175	3	He	48.049	ug/l	606939.92
Tl	205	175	1	NO GAS	46.273	ug/l	2754921.52
Tl	205	175	3	He	49.576	ug/l	1484847.30
[Pb]	206	175	1	NO GAS	47.177	ug/l	970523.43
[Pb]	207	175	1	NO GAS	46.663	ug/l	844969.79
Pb	208	175	1	NO GAS	46.871	ug/l	3859558.11
Th	232	175	3	He	50.716	ug/l	2287864.08
U	238	175	1	NO GAS	46.733	ug/l	4471964.21

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1750906.79	93.8
Sc	45	2	H2	71801.30	86.9
Sc	45	3	He	47492.36	94.4
Ge	72	1	NO GAS	823094.81	97.3
Ge	72	2	H2	112117.16	94.6
Ge	72	3	He	76824.49	101.8
Tb	159	1	NO GAS	18006260.63	98.6
Tb	159	3	He	6633948.61	94.0
Ho	165	1	NO GAS	17218505.82	101.5
Ho	165	3	He	6433780.43	96.5
Lu	175	1	NO GAS	18865664.79	99.5
Lu	175	3	He	3938739.95	94.7

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	085BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 03:03:14
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	3.484	ug/l	4075.01
Be	9	45	1	NO GAS	-0.008	ug/l	3.33
B	11	45	1	NO GAS	0.748	ug/l	306.61
Na	23	45	3	He	141.663	ug/l	17511.12
Mg	24	45	3	He	2.309	ug/l	106.45
Al	27	45	1	NO GAS	0.170	ug/l	1101.16
Si	28	45	2	H2	8.082	ug/l	145.31
K	39	72	3	He	-2.625	ug/l	2505.76
Ca	40	72	2	H2	0.963	ug/l	694.68
Ti	47	72	1	NO GAS	0.059	ug/l	71.63
V	51	72	1	NO GAS	-1.470	ug/l	-25125.57
V	51	72	3	He	0.169	ug/l	283.34
Cr	52	72	1	NO GAS	0.256	ug/l	12400.15
Cr	52	72	3	He	-0.014	ug/l	109.78
Cr	53	72	1	NO GAS	43.772	ug/l	111733.91
Mn	55	72	1	NO GAS	0.014	ug/l	948.16
Mn	55	72	3	He	0.007	ug/l	10.33
Fe	56	72	2	H2	0.165	ug/l	483.11
Fe	56	72	3	He	0.216	ug/l	912.91
Co	59	72	1	NO GAS	0.004	ug/l	133.07
Ni	60	72	1	NO GAS	-0.001	ug/l	59.88
Ni	60	72	3	He	-0.007	ug/l	20.00
Ni	62	72	1	NO GAS	0.010	ug/l	279.45
Cu	63	72	1	NO GAS	0.005	ug/l	505.91
Cu	63	72	3	He	-0.009	ug/l	165.30
Cu	65	72	1	NO GAS	-0.005	ug/l	211.96
Zn	66	72	1	NO GAS	-0.044	ug/l	359.04
Zn	66	72	3	He	-0.052	ug/l	65.55
As	75	72	1	NO GAS	-0.230	ug/l	2371.07
As	75	72	3	He	0.006	ug/l	6.67
Se	78	72	2	H2	0.037	ug/l	5.67
Br	79	72	1	NO GAS	-1.451	ug/l	53216.61
Br	79	72	2	H2	-1.247	ug/l	7147.40
Se	82	72	1	NO GAS	-0.788	ug/l	-34.62
Kr	84	72	1	NO GAS		ug/l	8132.60
Sr	88	72	1	NO GAS	0.009	ug/l	638.75
Sr	88	72	3	He	-0.017	ug/l	210.00

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.030	ug/l	308.90
Mo	95	72	3	He	0.026	ug/l	100.00
Mo	98	72	1	NO GAS	0.027	ug/l	510.08
Ag	107	72	1	NO GAS	0.002	ug/l	1737.09
Ag	109	72	1	NO GAS	0.007	ug/l	1803.75
Cd	111	159	1	NO GAS	0.000	ug/l	-38.36
Cd	111	159	3	He	0.005	ug/l	7.33
Cd	114	159	1	NO GAS	0.008	ug/l	-155.22
Cd	114	159	3	He	0.014	ug/l	15.43
Sn	118	159	1	NO GAS	-2.191	ug/l	8006.19
Sn	118	159	3	He	-2.023	ug/l	1181.17
Sb	121	159	1	NO GAS	0.018	ug/l	567.79
Sb	121	159	3	He	0.022	ug/l	106.66
Sb	123	159	1	NO GAS	0.017	ug/l	454.46
Sb	123	159	3	He	0.013	ug/l	57.78
Ba	135	159	1	NO GAS	0.023	ug/l	126.42
Ba	137	159	1	NO GAS	0.017	ug/l	199.61
La	139	175	1	NO GAS	0.001	ug/l	153.49
La	139	175	3	He	0.002	ug/l	26.69
Ce	140	175	1	NO GAS	0.002	ug/l	206.88
Ce	140	175	3	He	0.003	ug/l	73.41
Hg	201	175	1	NO GAS	0.005	ug/l	34.32
Hg	202	175	1	NO GAS	0.006	ug/l	132.64
Hg	202	175	3	He	0.006	ug/l	60.66
Tl	203	175	3	He	0.242	ug/l	3297.72
Tl	205	175	1	NO GAS	0.198	ug/l	12613.17
Tl	205	175	3	He	0.242	ug/l	7824.48
[Pb]	206	175	1	NO GAS	0.007	ug/l	210.00
[Pb]	207	175	1	NO GAS	0.007	ug/l	176.67
Pb	208	175	1	NO GAS	0.006	ug/l	772.24
Th	232	175	3	He	0.062	ug/l	3871.75
U	238	175	1	NO GAS	0.005	ug/l	644.22

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1806643.87	96.8
Sc	45	2	H2	69148.67	83.7
Sc	45	3	He	45163.42	89.8
Ge	72	1	NO GAS	830582.89	98.2
Ge	72	2	H2	108758.71	91.8
Ge	72	3	He	73752.29	97.7
Tb	159	1	NO GAS	18780285.87	102.8
Tb	159	3	He	6978884.73	98.9
Ho	165	1	NO GAS	17883582.95	105.4
Ho	165	3	He	6624963.48	99.4
Lu	175	1	NO GAS	19134166.62	100.9
Lu	175	3	He	4020481.01	96.6

ICPMS206-B Analytical Data

Sample Name	B21121959-001A
File Name	086SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 03:08:58
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.759	ug/l	3728.33
Be	9	45	1	NO GAS	0.004	ug/l	7.67
B	11	45	1	NO GAS	75.207	ug/l	18577.60
Na	23	45	3	He	49636.918	ug/l	5027877.77
Mg	24	45	3	He	23545.066	ug/l	1220821.18
Al	27	45	1	NO GAS	5.334	ug/l	19336.60
Si	28	45	2	H2	35029.942	ug/l	795115.07
K	39	72	3	He	2460.557	ug/l	121394.95
Ca	40	72	2	H2	11957.709	ug/l	2694654.14
Ti	47	72	1	NO GAS	3.925	ug/l	3661.95
V	51	72	1	NO GAS	1.799	ug/l	16518.88
V	51	72	3	He	1.074	ug/l	1650.09
Cr	52	72	1	NO GAS	0.031	ug/l	11134.97
Cr	52	72	3	He	0.132	ug/l	429.16
Cr	53	72	1	NO GAS	-15.255	ug/l	24145.24
Mn	55	72	1	NO GAS	1660.136	ug/l	32543973.73
Mn	55	72	3	He	1628.900	ug/l	1561595.03
Fe	56	72	2	H2	1378.533	ug/l	1696319.92
Fe	56	72	3	He	1266.690	ug/l	2410434.52
Co	59	72	1	NO GAS	1.586	ug/l	27491.57
Ni	60	72	1	NO GAS	2.197	ug/l	8541.93
Ni	60	72	3	He	2.106	ug/l	2718.02
Ni	62	72	1	NO GAS	2.151	ug/l	1583.61
Cu	63	72	1	NO GAS	1.097	ug/l	11216.22
Cu	63	72	3	He	0.499	ug/l	2124.05
Cu	65	72	1	NO GAS	0.547	ug/l	2935.02
Zn	66	72	1	NO GAS	3.906	ug/l	12995.39
Zn	66	72	3	He	4.768	ug/l	2716.90
As	75	72	1	NO GAS	0.512	ug/l	5292.76
As	75	72	3	He	0.356	ug/l	130.31
Se	78	72	2	H2	0.042	ug/l	7.33
Br	79	72	1	NO GAS	4.140	ug/l	100504.92
Br	79	72	2	H2	5.043	ug/l	15256.91
Se	82	72	1	NO GAS	1.011	ug/l	498.38
Kr	84	72	1	NO GAS		ug/l	30194.62
Sr	88	72	1	NO GAS	90.941	ug/l	3625965.97
Sr	88	72	3	He	91.953	ug/l	162221.52

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.220	ug/l	2006.81
Mo	95	72	3	He	0.196	ug/l	632.24
Mo	98	72	1	NO GAS	0.187	ug/l	2971.41
Ag	107	72	1	NO GAS	-0.075	ug/l	83.99
Ag	109	72	1	NO GAS	-0.074	ug/l	93.32
Cd	111	159	1	NO GAS	0.004	ug/l	-21.12
Cd	111	159	3	He	0.005	ug/l	7.33
Cd	114	159	1	NO GAS	0.021	ug/l	27.53
Cd	114	159	3	He	0.013	ug/l	13.37
Sn	118	159	1	NO GAS	-2.479	ug/l	3593.32
Sn	118	159	3	He	-2.267	ug/l	591.13
Sb	121	159	1	NO GAS	0.337	ug/l	8191.06
Sb	121	159	3	He	0.344	ug/l	1187.84
Sb	123	159	1	NO GAS	0.339	ug/l	6435.79
Sb	123	159	3	He	0.342	ug/l	972.26
Ba	135	159	1	NO GAS	17.541	ug/l	90724.54
Ba	137	159	1	NO GAS	17.177	ug/l	156938.35
La	139	175	1	NO GAS	0.016	ug/l	1438.21
La	139	175	3	He	0.020	ug/l	357.04
Ce	140	175	1	NO GAS	0.059	ug/l	5002.60
Ce	140	175	3	He	0.069	ug/l	1621.76
Hg	201	175	1	NO GAS	0.005	ug/l	36.99
Hg	202	175	1	NO GAS	0.024	ug/l	309.61
Hg	202	175	3	He	0.019	ug/l	159.64
Tl	203	175	3	He	0.167	ug/l	2471.05
Tl	205	175	1	NO GAS	0.130	ug/l	8767.09
Tl	205	175	3	He	0.168	ug/l	5898.66
[Pb]	206	175	1	NO GAS	0.035	ug/l	848.92
[Pb]	207	175	1	NO GAS	0.033	ug/l	708.92
Pb	208	175	1	NO GAS	0.034	ug/l	3292.39
Th	232	175	3	He	0.062	ug/l	4143.77
U	238	175	1	NO GAS	0.005	ug/l	643.22

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2242549.33	120.2
Sc	45	2	H2	128730.81	155.9
Sc	45	3	He	57161.52	113.6
Ge	72	1	NO GAS	952114.39	112.6
Ge	72	2	H2	164141.95	138.5
Ge	72	3	He	89129.38	118.1
Tb	159	1	NO GAS	20143121.79	110.3
Tb	159	3	He	7116649.47	100.8
Ho	165	1	NO GAS	18688606.91	110.1
Ho	165	3	He	7036458.60	105.5
Lu	175	1	NO GAS	20320259.96	107.1
Lu	175	3	He	4318723.88	103.8

ICPMS206-B Analytical Data

Sample Name	B21121959-001B
File Name	087SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 03:14:42
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	3.947	ug/l	4243.01
Be	9	45	1	NO GAS	0.021	ug/l	10.33
B	11	45	1	NO GAS	71.573	ug/l	13443.90
Na	23	45	3	He	45221.672	ug/l	3361205.33
Mg	24	45	3	He	19915.522	ug/l	758506.44
Al	27	45	1	NO GAS	355.841	ug/l	940563.11
Si	28	45	2	H2	31391.199	ug/l	450045.21
K	39	72	3	He	2197.826	ug/l	84536.52
Ca	40	72	2	H2	11067.008	ug/l	1796769.79
Ti	47	72	1	NO GAS	33.487	ug/l	27009.95
V	51	72	1	NO GAS	0.891	ug/l	3733.85
V	51	72	3	He	2.709	ug/l	3120.88
Cr	52	72	1	NO GAS	1.916	ug/l	31020.52
Cr	52	72	3	He	1.351	ug/l	2262.36
Cr	53	72	1	NO GAS	73.187	ug/l	154375.50
Mn	55	72	1	NO GAS	1578.461	ug/l	26793192.43
Mn	55	72	3	He	1611.979	ug/l	1200505.10
Fe	56	72	2	H2	2278.688	ug/l	2044784.00
Fe	56	72	3	He	2329.627	ug/l	3444072.39
Co	59	72	1	NO GAS	2.164	ug/l	32473.89
Ni	60	72	1	NO GAS	3.764	ug/l	12606.48
Ni	60	72	3	He	4.049	ug/l	4040.52
Ni	62	72	1	NO GAS	4.294	ug/l	2458.66
Cu	63	72	1	NO GAS	5.996	ug/l	51079.90
Cu	63	72	3	He	5.380	ug/l	16014.74
Cu	65	72	1	NO GAS	5.454	ug/l	23236.86
Zn	66	72	1	NO GAS	7.886	ug/l	22333.52
Zn	66	72	3	He	7.762	ug/l	3384.82
As	75	72	1	NO GAS	0.269	ug/l	3822.86
As	75	72	3	He	0.555	ug/l	155.30
Se	78	72	2	H2	0.072	ug/l	8.00
Br	79	72	1	NO GAS	-1.798	ug/l	50243.10
Br	79	72	2	H2	-1.267	ug/l	6365.34
Se	82	72	1	NO GAS	-0.052	ug/l	151.03
Kr	84	72	1	NO GAS		ug/l	27944.99
Sr	88	72	1	NO GAS	106.090	ug/l	3663255.64
Sr	88	72	3	He	100.868	ug/l	138271.49

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.400	ug/l	3106.43
Mo	95	72	3	He	0.379	ug/l	920.03
Mo	98	72	1	NO GAS	0.377	ug/l	5042.49
Ag	107	72	1	NO GAS	0.030	ug/l	2291.71
Ag	109	72	1	NO GAS	0.026	ug/l	2176.05
Cd	111	159	1	NO GAS	0.017	ug/l	57.54
Cd	111	159	3	He	0.010	ug/l	14.00
Cd	114	159	1	NO GAS	0.026	ug/l	83.48
Cd	114	159	3	He	0.021	ug/l	42.73
Sn	118	159	1	NO GAS	-1.772	ug/l	14837.49
Sn	118	159	3	He	-1.624	ug/l	2095.71
Sb	121	159	1	NO GAS	0.510	ug/l	11884.48
Sb	121	159	3	He	0.517	ug/l	1675.66
Sb	123	159	1	NO GAS	0.534	ug/l	9705.23
Sb	123	159	3	He	0.520	ug/l	1388.96
Ba	135	159	1	NO GAS	19.311	ug/l	96213.76
Ba	137	159	1	NO GAS	18.837	ug/l	165672.37
La	139	175	1	NO GAS	0.177	ug/l	14621.79
La	139	175	3	He	0.174	ug/l	2959.98
Ce	140	175	1	NO GAS	0.574	ug/l	46311.19
Ce	140	175	3	He	0.600	ug/l	12978.70
Hg	201	175	1	NO GAS	0.014	ug/l	72.99
Hg	202	175	1	NO GAS	0.055	ug/l	594.23
Hg	202	175	3	He	0.039	ug/l	276.62
Tl	203	175	3	He	0.081	ug/l	1162.49
Tl	205	175	1	NO GAS	0.058	ug/l	3955.56
Tl	205	175	3	He	0.085	ug/l	2912.38
[Pb]	206	175	1	NO GAS	0.579	ug/l	12667.61
[Pb]	207	175	1	NO GAS	0.546	ug/l	10505.96
Pb	208	175	1	NO GAS	0.567	ug/l	49582.35
Th	232	175	3	He	0.127	ug/l	6971.61
U	238	175	1	NO GAS	0.019	ug/l	2010.07

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1669078.79	89.4
Sc	45	2	H2	61888.22	74.9
Sc	45	3	He	42005.68	83.5
Ge	72	1	NO GAS	817262.94	96.6
Ge	72	2	H2	97059.53	81.9
Ge	72	3	He	69264.70	91.8
Tb	159	1	NO GAS	19001123.37	104.0
Tb	159	3	He	6733912.37	95.4
Ho	165	1	NO GAS	17400042.14	102.5
Ho	165	3	He	6697028.15	100.5
Lu	175	1	NO GAS	19378846.91	102.2
Lu	175	3	He	4029978.56	96.8

ICPMS206-B Analytical Data

Sample Name	B21121961-001A
File Name	088SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 03:20:28
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.979	ug/l	2633.02
Be	9	45	1	NO GAS	-0.011	ug/l	3.00
B	11	45	1	NO GAS	58.399	ug/l	14054.22
Na	23	45	3	He	36970.129	ug/l	3749300.74
Mg	24	45	3	He	8979.345	ug/l	465725.27
Al	27	45	1	NO GAS	5.941	ug/l	20770.39
Si	28	45	2	H2	26870.280	ug/l	613724.70
K	39	72	3	He	1948.424	ug/l	96095.27
Ca	40	72	2	H2	9972.563	ug/l	2296077.00
Ti	47	72	1	NO GAS	2.298	ug/l	2129.10
V	51	72	1	NO GAS	1.294	ug/l	9654.31
V	51	72	3	He	0.780	ug/l	1217.83
Cr	52	72	1	NO GAS	-0.246	ug/l	7416.99
Cr	52	72	3	He	0.039	ug/l	239.53
Cr	53	72	1	NO GAS	-18.281	ug/l	18442.23
Mn	55	72	1	NO GAS	524.960	ug/l	10125588.67
Mn	55	72	3	He	490.308	ug/l	466486.37
Fe	56	72	2	H2	321.344	ug/l	409170.36
Fe	56	72	3	He	306.542	ug/l	579540.61
Co	59	72	1	NO GAS	0.502	ug/l	8621.86
Ni	60	72	1	NO GAS	1.002	ug/l	3862.85
Ni	60	72	3	He	0.974	ug/l	1265.61
Ni	62	72	1	NO GAS	1.022	ug/l	898.25
Cu	63	72	1	NO GAS	0.559	ug/l	5879.22
Cu	63	72	3	He	0.085	ug/l	550.90
Cu	65	72	1	NO GAS	0.136	ug/l	912.51
Zn	66	72	1	NO GAS	2.194	ug/l	7438.79
Zn	66	72	3	He	2.469	ug/l	1447.85
As	75	72	1	NO GAS	1.390	ug/l	8134.77
As	75	72	3	He	1.060	ug/l	373.27
Se	78	72	2	H2	0.019	ug/l	5.00
Br	79	72	1	NO GAS	4.497	ug/l	101526.80
Br	79	72	2	H2	4.470	ug/l	15170.35
Se	82	72	1	NO GAS	0.137	ug/l	226.90
Kr	84	72	1	NO GAS		ug/l	24646.17
Sr	88	72	1	NO GAS	72.383	ug/l	2839310.39
Sr	88	72	3	He	70.612	ug/l	123744.74

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.610	ug/l	5332.03
Mo	95	72	3	He	0.569	ug/l	1744.55
Mo	98	72	1	NO GAS	0.569	ug/l	8547.83
Ag	107	72	1	NO GAS	-0.074	ug/l	95.98
Ag	109	72	1	NO GAS	-0.074	ug/l	93.98
Cd	111	159	1	NO GAS	0.005	ug/l	-11.74
Cd	111	159	3	He	0.002	ug/l	3.33
Cd	114	159	1	NO GAS	0.019	ug/l	-6.01
Cd	114	159	3	He	0.009	ug/l	0.67
Sn	118	159	1	NO GAS	-2.551	ug/l	2435.39
Sn	118	159	3	He	-2.330	ug/l	444.45
Sb	121	159	1	NO GAS	0.142	ug/l	3629.33
Sb	121	159	3	He	0.168	ug/l	612.24
Sb	123	159	1	NO GAS	0.142	ug/l	2841.38
Sb	123	159	3	He	0.159	ug/l	476.68
Ba	135	159	1	NO GAS	3.267	ug/l	17178.64
Ba	137	159	1	NO GAS	3.179	ug/l	29525.70
La	139	175	1	NO GAS	0.003	ug/l	323.67
La	139	175	3	He	0.006	ug/l	103.44
Ce	140	175	1	NO GAS	0.017	ug/l	1548.33
Ce	140	175	3	He	0.016	ug/l	410.42
Hg	201	175	1	NO GAS	0.035	ug/l	171.63
Hg	202	175	1	NO GAS	0.557	ug/l	5733.95
Hg	202	175	3	He	0.446	ug/l	3199.04
Tl	203	175	3	He	0.109	ug/l	1687.10
Tl	205	175	1	NO GAS	0.102	ug/l	7124.01
Tl	205	175	3	He	0.116	ug/l	4243.77
[Pb]	206	175	1	NO GAS	0.007	ug/l	238.89
[Pb]	207	175	1	NO GAS	0.006	ug/l	168.89
Pb	208	175	1	NO GAS	0.007	ug/l	878.91
Th	232	175	3	He	0.008	ug/l	1446.45
U	238	175	1	NO GAS	0.017	ug/l	1927.75

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2132684.71	114.3
Sc	45	2	H2	98639.68	119.4
Sc	45	3	He	57167.94	113.6
Ge	72	1	NO GAS	928296.41	109.7
Ge	72	2	H2	137558.95	116.1
Ge	72	3	He	88482.42	117.2
Tb	159	1	NO GAS	20071747.50	109.9
Tb	159	3	He	7274577.91	103.1
Ho	165	1	NO GAS	18633630.68	109.8
Ho	165	3	He	7180824.63	107.7
Lu	175	1	NO GAS	20601511.41	108.6
Lu	175	3	He	4416391.65	106.1

ICPMS206-B Analytical Data

Sample Name	CCV
File Name	089_CCV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 03:26:11
Sample Type	CCV
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	363.455	ug/l	246267.18
Be	9	45	1	NO GAS	41.198	ug/l	11254.36
B	11	45	1	NO GAS	40.350	ug/l	8311.02
Na	23	45	3	He	10598.190	ug/l	927997.37
Mg	24	45	3	He	10395.164	ug/l	463520.17
Al	27	45	1	NO GAS	42.738	ug/l	123371.38
Si	28	45	2	H2	203.644	ug/l	3447.01
K	39	72	3	He	10162.931	ug/l	445716.48
Ca	40	72	2	H2	11000.694	ug/l	2114569.23
Ti	47	72	1	NO GAS	43.365	ug/l	38070.35
V	51	72	1	NO GAS	45.922	ug/l	592295.58
V	51	72	3	He	46.335	ug/l	60827.52
Cr	52	72	1	NO GAS	45.683	ug/l	574028.19
Cr	52	72	3	He	45.265	ug/l	83680.56
Cr	53	72	1	NO GAS	73.576	ug/l	168792.72
Mn	55	72	1	NO GAS	47.013	ug/l	870005.90
Mn	55	72	3	He	45.074	ug/l	39169.86
Fe	56	72	2	H2	1117.706	ug/l	1187975.60
Fe	56	72	3	He	1099.261	ug/l	1895852.98
Co	59	72	1	NO GAS	47.858	ug/l	780386.37
Ni	60	72	1	NO GAS	47.652	ug/l	173053.37
Ni	60	72	3	He	46.803	ug/l	54173.58
Ni	62	72	1	NO GAS	48.403	ug/l	27181.70
Cu	63	72	1	NO GAS	49.118	ug/l	452071.80
Cu	63	72	3	He	47.534	ug/l	163448.85
Cu	65	72	1	NO GAS	48.454	ug/l	222819.79
Zn	66	72	1	NO GAS	47.644	ug/l	144232.75
Zn	66	72	3	He	47.263	ug/l	23538.79
As	75	72	1	NO GAS	49.495	ug/l	163597.96
As	75	72	3	He	48.611	ug/l	15399.35
Se	78	72	2	H2	52.168	ug/l	5303.13
Br	79	72	1	NO GAS	0.670	ug/l	71411.30
Br	79	72	2	H2	1.972	ug/l	10436.04
Se	82	72	1	NO GAS	52.156	ug/l	14517.29
Kr	84	72	1	NO GAS		ug/l	19233.08
Sr	88	72	1	NO GAS	52.640	ug/l	1978244.19
Sr	88	72	3	He	49.349	ug/l	79054.08

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	50.934	ug/l	420369.51
Mo	95	72	3	He	49.448	ug/l	135172.77
Mo	98	72	1	NO GAS	49.997	ug/l	706078.34
Ag	107	72	1	NO GAS	21.186	ug/l	494034.93
Ag	109	72	1	NO GAS	21.036	ug/l	482940.27
Cd	111	159	1	NO GAS	49.321	ug/l	295195.82
Cd	111	159	3	He	46.639	ug/l	68955.95
Cd	114	159	1	NO GAS	49.392	ug/l	676578.15
Cd	114	159	3	He	47.000	ug/l	180194.45
Sn	118	159	1	NO GAS	48.468	ug/l	867115.81
Sn	118	159	3	He	46.322	ug/l	128069.30
Sb	121	159	1	NO GAS	49.019	ug/l	1186592.74
Sb	121	159	3	He	46.947	ug/l	163833.66
Sb	123	159	1	NO GAS	50.018	ug/l	942006.08
Sb	123	159	3	He	46.979	ug/l	135735.11
Ba	135	159	1	NO GAS	50.053	ug/l	262818.69
Ba	137	159	1	NO GAS	49.868	ug/l	462073.96
La	139	175	1	NO GAS	47.770	ug/l	4258120.94
La	139	175	3	He	49.466	ug/l	896333.28
Ce	140	175	1	NO GAS	47.101	ug/l	4115672.40
Ce	140	175	3	He	49.343	ug/l	1136294.74
Hg	201	175	1	NO GAS	0.949	ug/l	4366.76
Hg	202	175	1	NO GAS	0.963	ug/l	10052.99
Hg	202	175	3	He	1.002	ug/l	6949.21
Tl	203	175	3	He	50.382	ug/l	715045.78
Tl	205	175	1	NO GAS	49.374	ug/l	3375947.55
Tl	205	175	3	He	51.623	ug/l	1738048.00
[Pb]	206	175	1	NO GAS	48.496	ug/l	1145180.43
[Pb]	207	175	1	NO GAS	47.102	ug/l	978772.07
Pb	208	175	1	NO GAS	48.653	ug/l	4597336.64
Th	232	175	3	He	50.420	ug/l	2555705.77
U	238	175	1	NO GAS	47.521	ug/l	5219402.61

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1813681.73	97.2
Sc	45	2	H2	72706.59	88.0
Sc	45	3	He	49142.18	97.7
Ge	72	1	NO GAS	889838.86	105.2
Ge	72	2	H2	114821.32	96.9
Ge	72	3	He	80804.98	107.1
Tb	159	1	NO GAS	20028188.52	109.6
Tb	159	3	He	7403363.21	104.9
Ho	165	1	NO GAS	19444544.27	114.6
Ho	165	3	He	7048599.55	105.7
Lu	175	1	NO GAS	21008577.63	110.8
Lu	175	3	He	4297588.37	103.3

ICPMS206-B Analytical Data

Sample Name	CCB
File Name	090_CCB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 03:31:52
Sample Type	CCB
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.188	ug/l	3478.99
Be	9	45	1	NO GAS	-0.010	ug/l	3.00
B	11	45	1	NO GAS	0.407	ug/l	246.62
Na	23	45	3	He	32.024	ug/l	8843.41
Mg	24	45	3	He	1.076	ug/l	56.55
Al	27	45	1	NO GAS	-0.060	ug/l	457.79
Si	28	45	2	H2	28.505	ug/l	481.25
K	39	72	3	He	-9.519	ug/l	2302.40
Ca	40	72	2	H2	-0.649	ug/l	408.14
Ti	47	72	1	NO GAS	0.025	ug/l	44.98
V	51	72	1	NO GAS	-0.636	ug/l	-15506.79
V	51	72	3	He	0.110	ug/l	220.00
Cr	52	72	1	NO GAS	0.293	ug/l	13358.90
Cr	52	72	3	He	-0.002	ug/l	133.07
Cr	53	72	1	NO GAS	37.824	ug/l	106765.82
Mn	55	72	1	NO GAS	0.004	ug/l	811.75
Mn	55	72	3	He	-0.002	ug/l	3.33
Fe	56	72	2	H2	-0.064	ug/l	259.88
Fe	56	72	3	He	-0.032	ug/l	539.75
Co	59	72	1	NO GAS	-0.001	ug/l	53.23
Ni	60	72	1	NO GAS	-0.005	ug/l	46.57
Ni	60	72	3	He	-0.002	ug/l	25.56
Ni	62	72	1	NO GAS	0.027	ug/l	299.41
Cu	63	72	1	NO GAS	-0.005	ug/l	432.59
Cu	63	72	3	He	-0.009	ug/l	172.30
Cu	65	72	1	NO GAS	-0.007	ug/l	212.63
Zn	66	72	1	NO GAS	0.021	ug/l	561.92
Zn	66	72	3	He	-0.023	ug/l	81.11
As	75	72	1	NO GAS	0.266	ug/l	4035.84
As	75	72	3	He	0.005	ug/l	6.67
Se	78	72	2	H2	0.045	ug/l	6.67
Br	79	72	1	NO GAS	-0.337	ug/l	62713.91
Br	79	72	2	H2	0.101	ug/l	8468.81
Se	82	72	1	NO GAS	0.487	ug/l	303.42
Kr	84	72	1	NO GAS		ug/l	7759.87
Sr	88	72	1	NO GAS	0.002	ug/l	412.53
Sr	88	72	3	He	-0.005	ug/l	234.45

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.010	ug/l	156.67
Mo	95	72	3	He	0.005	ug/l	48.89
Mo	98	72	1	NO GAS	0.005	ug/l	221.81
Ag	107	72	1	NO GAS	0.010	ug/l	1993.07
Ag	109	72	1	NO GAS	0.007	ug/l	1866.41
Cd	111	159	1	NO GAS	-0.003	ug/l	-63.75
Cd	111	159	3	He	0.000	ug/l	1.33
Cd	114	159	1	NO GAS	0.002	ug/l	-252.08
Cd	114	159	3	He	0.001	ug/l	-30.81
Sn	118	159	1	NO GAS	0.012	ug/l	46044.58
Sn	118	159	3	He	0.135	ug/l	6720.33
Sb	121	159	1	NO GAS	0.049	ug/l	1384.51
Sb	121	159	3	He	0.031	ug/l	138.89
Sb	123	159	1	NO GAS	0.054	ug/l	1182.28
Sb	123	159	3	He	0.042	ug/l	142.22
Ba	135	159	1	NO GAS	0.005	ug/l	39.92
Ba	137	159	1	NO GAS	-0.002	ug/l	36.59
La	139	175	1	NO GAS	0.000	ug/l	53.39
La	139	175	3	He	0.001	ug/l	16.68
Ce	140	175	1	NO GAS	0.000	ug/l	93.43
Ce	140	175	3	He	0.000	ug/l	16.68
Hg	201	175	1	NO GAS	0.004	ug/l	32.32
Hg	202	175	1	NO GAS	0.004	ug/l	120.98
Hg	202	175	3	He	0.004	ug/l	54.99
Tl	203	175	3	He	0.053	ug/l	817.86
Tl	205	175	1	NO GAS	0.038	ug/l	2914.76
Tl	205	175	3	He	0.052	ug/l	1925.08
[Pb]	206	175	1	NO GAS	0.000	ug/l	73.33
[Pb]	207	175	1	NO GAS	0.000	ug/l	57.78
Pb	208	175	1	NO GAS	0.001	ug/l	310.01
Th	232	175	3	He	0.037	ug/l	2773.05
U	238	175	1	NO GAS	0.002	ug/l	344.27

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1855711.57	99.4
Sc	45	2	H2	70382.91	85.2
Sc	45	3	He	45661.10	90.8
Ge	72	1	NO GAS	863831.06	102.1
Ge	72	2	H2	110967.57	93.6
Ge	72	3	He	76082.22	100.8
Tb	159	1	NO GAS	20131080.16	110.2
Tb	159	3	He	7191328.78	101.9
Ho	165	1	NO GAS	19001100.64	112.0
Ho	165	3	He	7005201.52	105.1
Lu	175	1	NO GAS	21102717.18	111.3
Lu	175	3	He	4152165.40	99.8

ICPMS206-B Analytical Data

Sample Name	B21121961-001B
File Name	091SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 03:37:38
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.348	ug/l	3755.00
Be	9	45	1	NO GAS	-0.010	ug/l	3.00
B	11	45	1	NO GAS	52.743	ug/l	11243.42
Na	23	45	3	He	37370.755	ug/l	2921767.04
Mg	24	45	3	He	9240.310	ug/l	369285.12
Al	27	45	1	NO GAS	36.635	ug/l	110034.32
Si	28	45	2	H2	24863.376	ug/l	374867.23
K	39	72	3	He	1774.852	ug/l	72620.62
Ca	40	72	2	H2	8563.865	ug/l	1506957.55
Ti	47	72	1	NO GAS	5.396	ug/l	4461.74
V	51	72	1	NO GAS	-1.254	ug/l	-22435.47
V	51	72	3	He	0.967	ug/l	1228.94
Cr	52	72	1	NO GAS	1.018	ug/l	21281.36
Cr	52	72	3	He	0.460	ug/l	901.58
Cr	53	72	1	NO GAS	65.841	ug/l	146230.79
Mn	55	72	1	NO GAS	511.271	ug/l	8856317.70
Mn	55	72	3	He	475.665	ug/l	374268.71
Fe	56	72	2	H2	389.908	ug/l	379613.10
Fe	56	72	3	He	395.716	ug/l	618434.51
Co	59	72	1	NO GAS	0.543	ug/l	8365.59
Ni	60	72	1	NO GAS	1.203	ug/l	4158.95
Ni	60	72	3	He	1.159	ug/l	1241.17
Ni	62	72	1	NO GAS	1.123	ug/l	858.33
Cu	63	72	1	NO GAS	1.465	ug/l	13085.18
Cu	63	72	3	He	0.882	ug/l	2933.34
Cu	65	72	1	NO GAS	0.981	ug/l	4457.72
Zn	66	72	1	NO GAS	2.460	ug/l	7441.40
Zn	66	72	3	He	2.521	ug/l	1220.05
As	75	72	1	NO GAS	1.104	ug/l	6447.05
As	75	72	3	He	0.958	ug/l	279.28
Se	78	72	2	H2	0.057	ug/l	7.33
Br	79	72	1	NO GAS	-3.203	ug/l	42356.73
Br	79	72	2	H2	-2.965	ug/l	5506.72
Se	82	72	1	NO GAS	1.150	ug/l	465.11
Kr	84	72	1	NO GAS		ug/l	24296.35
Sr	88	72	1	NO GAS	79.569	ug/l	2803775.20
Sr	88	72	3	He	77.492	ug/l	112256.01

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.735	ug/l	5761.06
Mo	95	72	3	He	0.762	ug/l	1921.24
Mo	98	72	1	NO GAS	0.749	ug/l	10063.16
Ag	107	72	1	NO GAS	-0.015	ug/l	1379.12
Ag	109	72	1	NO GAS	-0.013	ug/l	1376.45
Cd	111	159	1	NO GAS	0.010	ug/l	17.12
Cd	111	159	3	He	0.005	ug/l	7.33
Cd	114	159	1	NO GAS	0.021	ug/l	19.42
Cd	114	159	3	He	0.011	ug/l	7.34
Sn	118	159	1	NO GAS	-2.124	ug/l	9963.39
Sn	118	159	3	He	-1.950	ug/l	1382.30
Sb	121	159	1	NO GAS	0.180	ug/l	4677.38
Sb	121	159	3	He	0.167	ug/l	588.90
Sb	123	159	1	NO GAS	0.176	ug/l	3588.21
Sb	123	159	3	He	0.171	ug/l	493.34
Ba	135	159	1	NO GAS	3.610	ug/l	19536.75
Ba	137	159	1	NO GAS	3.599	ug/l	34402.55
La	139	175	1	NO GAS	0.028	ug/l	2686.31
La	139	175	3	He	0.029	ug/l	527.22
Ce	140	175	1	NO GAS	0.096	ug/l	8808.20
Ce	140	175	3	He	0.111	ug/l	2566.17
Hg	201	175	1	NO GAS	0.039	ug/l	203.29
Hg	202	175	1	NO GAS	0.502	ug/l	5519.24
Hg	202	175	3	He	0.374	ug/l	2601.04
Tl	203	175	3	He	0.043	ug/l	705.22
Tl	205	175	1	NO GAS	0.026	ug/l	2192.40
Tl	205	175	3	He	0.042	ug/l	1643.77
[Pb]	206	175	1	NO GAS	0.065	ug/l	1675.66
[Pb]	207	175	1	NO GAS	0.064	ug/l	1435.64
Pb	208	175	1	NO GAS	0.062	ug/l	6420.58
Th	232	175	3	He	0.109	ug/l	6472.81
U	238	175	1	NO GAS	0.020	ug/l	2407.39

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1886241.08	101.1
Sc	45	2	H2	65091.56	78.8
Sc	45	3	He	44067.51	87.6
Ge	72	1	NO GAS	833917.28	98.6
Ge	72	2	H2	105155.85	88.7
Ge	72	3	He	73165.30	96.9
Tb	159	1	NO GAS	20608068.18	112.8
Tb	159	3	He	7051778.51	99.9
Ho	165	1	NO GAS	19938764.31	117.5
Ho	165	3	He	6972774.51	104.6
Lu	175	1	NO GAS	21963295.23	115.8
Lu	175	3	He	4274225.80	102.7

ICPMS206-B Analytical Data

Sample Name	B21121965-001A
File Name	092SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 03:43:22
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.718	ug/l	3573.66
Be	9	45	1	NO GAS	-0.010	ug/l	3.33
B	11	45	1	NO GAS	161.142	ug/l	37551.31
Na	23	45	3	He	92066.444	ug/l	9618078.95
Mg	24	45	3	He	29935.705	ug/l	1602066.50
Al	27	45	1	NO GAS	8.014	ug/l	27096.46
Si	28	45	2	H2	35779.466	ug/l	824382.88
K	39	72	3	He	3266.725	ug/l	165247.85
Ca	40	72	2	H2	21921.988	ug/l	5125108.33
Ti	47	72	1	NO GAS	3.063	ug/l	2863.86
V	51	72	1	NO GAS	16.999	ug/l	226097.72
V	51	72	3	He	15.880	ug/l	23788.98
Cr	52	72	1	NO GAS	0.163	ug/l	12792.97
Cr	52	72	3	He	0.453	ug/l	1117.82
Cr	53	72	1	NO GAS	-18.426	ug/l	18378.74
Mn	55	72	1	NO GAS	202.170	ug/l	3941187.57
Mn	55	72	3	He	190.728	ug/l	188603.81
Fe	56	72	2	H2	446.340	ug/l	577056.38
Fe	56	72	3	He	418.872	ug/l	822692.67
Co	59	72	1	NO GAS	1.491	ug/l	25742.10
Ni	60	72	1	NO GAS	4.379	ug/l	16845.12
Ni	60	72	3	He	3.982	ug/l	5274.20
Ni	62	72	1	NO GAS	4.810	ug/l	3120.84
Cu	63	72	1	NO GAS	1.414	ug/l	14230.56
Cu	63	72	3	He	0.228	ug/l	1132.15
Cu	65	72	1	NO GAS	0.338	ug/l	1899.73
Zn	66	72	1	NO GAS	3.397	ug/l	11368.05
Zn	66	72	3	He	3.133	ug/l	1880.12
As	75	72	1	NO GAS	1.705	ug/l	9326.75
As	75	72	3	He	1.133	ug/l	414.59
Se	78	72	2	H2	0.137	ug/l	19.67
Br	79	72	1	NO GAS	9.514	ug/l	138435.80
Br	79	72	2	H2	9.969	ug/l	21404.79
Se	82	72	1	NO GAS	1.314	ug/l	578.22
Kr	84	72	1	NO GAS		ug/l	44247.86
Sr	88	72	1	NO GAS	156.623	ug/l	6213598.43
Sr	88	72	3	He	149.911	ug/l	272657.04

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	2.919	ug/l	25487.61
Mo	95	72	3	He	2.844	ug/l	8883.57
Mo	98	72	1	NO GAS	2.906	ug/l	43438.69
Ag	107	72	1	NO GAS	-0.072	ug/l	132.64
Ag	109	72	1	NO GAS	-0.074	ug/l	83.32
Cd	111	159	1	NO GAS	0.003	ug/l	-29.00
Cd	111	159	3	He	0.002	ug/l	4.00
Cd	114	159	1	NO GAS	0.013	ug/l	-97.52
Cd	114	159	3	He	0.011	ug/l	7.57
Sn	118	159	1	NO GAS	-2.573	ug/l	1976.23
Sn	118	159	3	He	-2.383	ug/l	312.23
Sb	121	159	1	NO GAS	0.409	ug/l	9595.14
Sb	121	159	3	He	0.384	ug/l	1366.74
Sb	123	159	1	NO GAS	0.411	ug/l	7522.92
Sb	123	159	3	He	0.356	ug/l	1046.71
Ba	135	159	1	NO GAS	16.005	ug/l	80058.59
Ba	137	159	1	NO GAS	15.380	ug/l	135734.01
La	139	175	1	NO GAS	0.009	ug/l	850.90
La	139	175	3	He	0.012	ug/l	216.89
Ce	140	175	1	NO GAS	0.032	ug/l	2669.63
Ce	140	175	3	He	0.029	ug/l	717.42
Hg	201	175	1	NO GAS	0.048	ug/l	218.29
Hg	202	175	1	NO GAS	0.695	ug/l	6747.49
Hg	202	175	3	He	0.522	ug/l	3723.72
Tl	203	175	3	He	0.066	ug/l	1053.83
Tl	205	175	1	NO GAS	0.066	ug/l	4522.95
Tl	205	175	3	He	0.066	ug/l	2521.05
[Pb]	206	175	1	NO GAS	0.048	ug/l	1116.72
[Pb]	207	175	1	NO GAS	0.049	ug/l	995.60
Pb	208	175	1	NO GAS	0.047	ug/l	4344.72
Th	232	175	3	He	0.012	ug/l	1631.11
U	238	175	1	NO GAS	0.136	ug/l	13978.14

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2100113.58	112.5
Sc	45	2	H2	99490.31	120.5
Sc	45	3	He	58975.68	117.2
Ge	72	1	NO GAS	940774.29	111.2
Ge	72	2	H2	139651.07	117.8
Ge	72	3	He	91945.77	121.8
Tb	159	1	NO GAS	19125756.54	104.7
Tb	159	3	He	7353244.81	104.2
Ho	165	1	NO GAS	17825440.65	105.1
Ho	165	3	He	7144881.25	107.2
Lu	175	1	NO GAS	19596389.03	103.3
Lu	175	3	He	4402621.06	105.8

ICPMS206-B Analytical Data

Sample Name	B21121965-001B
File Name	093SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 03:49:06
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.263	ug/l	3405.66
Be	9	45	1	NO GAS	-0.001	ug/l	5.33
B	11	45	1	NO GAS	158.676	ug/l	32467.11
Na	23	45	3	He	93247.891	ug/l	7678786.97
Mg	24	45	3	He	31770.786	ug/l	1339041.39
Al	27	45	1	NO GAS	71.185	ug/l	206630.82
Si	28	45	2	H2	34273.879	ug/l	552280.11
K	39	72	3	He	3126.158	ug/l	128148.15
Ca	40	72	2	H2	20429.512	ug/l	3832823.00
Ti	47	72	1	NO GAS	10.766	ug/l	8806.34
V	51	72	1	NO GAS	18.373	ug/l	216027.04
V	51	72	3	He	19.187	ug/l	23249.35
Cr	52	72	1	NO GAS	1.810	ug/l	30197.33
Cr	52	72	3	He	1.329	ug/l	2395.45
Cr	53	72	1	NO GAS	65.615	ug/l	144729.21
Mn	55	72	1	NO GAS	137.720	ug/l	2366998.88
Mn	55	72	3	He	132.228	ug/l	105883.99
Fe	56	72	2	H2	370.237	ug/l	384050.93
Fe	56	72	3	He	381.387	ug/l	606212.81
Co	59	72	1	NO GAS	1.528	ug/l	23230.05
Ni	60	72	1	NO GAS	5.339	ug/l	18080.67
Ni	60	72	3	He	5.108	ug/l	5469.82
Ni	62	72	1	NO GAS	4.927	ug/l	2818.01
Cu	63	72	1	NO GAS	2.692	ug/l	23463.77
Cu	63	72	3	He	1.370	ug/l	4529.37
Cu	65	72	1	NO GAS	1.547	ug/l	6838.05
Zn	66	72	1	NO GAS	2.763	ug/l	8228.36
Zn	66	72	3	He	2.828	ug/l	1381.18
As	75	72	1	NO GAS	0.766	ug/l	5372.85
As	75	72	3	He	0.748	ug/l	223.62
Se	78	72	2	H2	0.191	ug/l	21.33
Br	79	72	1	NO GAS	-2.818	ug/l	44441.70
Br	79	72	2	H2	-2.649	ug/l	6152.31
Se	82	72	1	NO GAS	0.105	ug/l	193.62
Kr	84	72	1	NO GAS		ug/l	39952.50
Sr	88	72	1	NO GAS	165.100	ug/l	5769425.67
Sr	88	72	3	He	155.072	ug/l	228341.19

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	3.117	ug/l	23985.46
Mo	95	72	3	He	3.059	ug/l	7738.57
Mo	98	72	1	NO GAS	3.096	ug/l	40798.26
Ag	107	72	1	NO GAS	-0.059	ug/l	398.59
Ag	109	72	1	NO GAS	-0.057	ug/l	433.92
Cd	111	159	1	NO GAS	0.013	ug/l	31.58
Cd	111	159	3	He	0.006	ug/l	9.33
Cd	114	159	1	NO GAS	0.021	ug/l	8.67
Cd	114	159	3	He	0.012	ug/l	9.39
Sn	118	159	1	NO GAS	-2.221	ug/l	7709.94
Sn	118	159	3	He	-2.005	ug/l	1232.28
Sb	121	159	1	NO GAS	0.242	ug/l	5802.21
Sb	121	159	3	He	0.244	ug/l	840.03
Sb	123	159	1	NO GAS	0.241	ug/l	4521.78
Sb	123	159	3	He	0.250	ug/l	708.91
Ba	135	159	1	NO GAS	15.154	ug/l	76408.35
Ba	137	159	1	NO GAS	14.547	ug/l	129443.09
La	139	175	1	NO GAS	0.029	ug/l	2652.95
La	139	175	3	He	0.033	ug/l	583.94
Ce	140	175	1	NO GAS	0.079	ug/l	6871.85
Ce	140	175	3	He	0.082	ug/l	1862.02
Hg	201	175	1	NO GAS	0.058	ug/l	274.95
Hg	202	175	1	NO GAS	0.779	ug/l	8017.86
Hg	202	175	3	He	0.574	ug/l	3901.06
Tl	203	175	3	He	0.031	ug/l	519.24
Tl	205	175	1	NO GAS	0.021	ug/l	1713.45
Tl	205	175	3	He	0.026	ug/l	1093.83
[Pb]	206	175	1	NO GAS	0.143	ug/l	3385.97
[Pb]	207	175	1	NO GAS	0.135	ug/l	2809.18
Pb	208	175	1	NO GAS	0.138	ug/l	13054.53
Th	232	175	3	He	0.049	ug/l	3375.72
U	238	175	1	NO GAS	0.145	ug/l	15848.97

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1826552.14	97.9
Sc	45	2	H2	69632.03	84.3
Sc	45	3	He	46469.24	92.4
Ge	72	1	NO GAS	827112.30	97.8
Ge	72	2	H2	112100.95	94.6
Ge	72	3	He	74463.14	98.7
Tb	159	1	NO GAS	19206256.83	105.1
Tb	159	3	He	7008228.82	99.3
Ho	165	1	NO GAS	18344524.71	108.1
Ho	165	3	He	6828595.59	102.4
Lu	175	1	NO GAS	20678941.54	109.0
Lu	175	3	He	4203729.36	101.0

ICPMS206-B Analytical Data

Sample Name	B21121967-001A
File Name	094SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 03:54:50
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.406	ug/l	1708.42
Be	9	45	1	NO GAS	-0.007	ug/l	4.67
B	11	45	1	NO GAS	210.728	ug/l	53748.36
Na	23	45	3	He	88415.498	ug/l	10670917.55
Mg	24	45	3	He	31768.216	ug/l	1963659.35
Al	27	45	1	NO GAS	8.956	ug/l	33135.26
Si	28	45	2	H2	17568.219	ug/l	480879.07
K	39	72	3	He	2713.386	ug/l	149613.89
Ca	40	72	2	H2	33932.152	ug/l	9316223.51
Ti	47	72	1	NO GAS	1.275	ug/l	1264.43
V	51	72	1	NO GAS	8.036	ug/l	107497.49
V	51	72	3	He	7.077	ug/l	11570.68
Cr	52	72	1	NO GAS	-0.035	ug/l	10722.27
Cr	52	72	3	He	0.049	ug/l	292.76
Cr	53	72	1	NO GAS	-14.988	ug/l	25488.39
Mn	55	72	1	NO GAS	344.113	ug/l	7022852.44
Mn	55	72	3	He	328.202	ug/l	352305.59
Fe	56	72	2	H2	83.099	ug/l	126688.43
Fe	56	72	3	He	79.603	ug/l	170370.93
Co	59	72	1	NO GAS	2.019	ug/l	36423.99
Ni	60	72	1	NO GAS	11.692	ug/l	46922.43
Ni	60	72	3	He	10.837	ug/l	15522.81
Ni	62	72	1	NO GAS	11.801	ug/l	7560.16
Cu	63	72	1	NO GAS	3.324	ug/l	34287.41
Cu	63	72	3	He	2.053	ug/l	8969.59
Cu	65	72	1	NO GAS	2.266	ug/l	11767.78
Zn	66	72	1	NO GAS	18.101	ug/l	60861.06
Zn	66	72	3	He	17.448	ug/l	10811.33
As	75	72	1	NO GAS	0.921	ug/l	6928.34
As	75	72	3	He	0.438	ug/l	177.96
Se	78	72	2	H2	2.497	ug/l	365.93
Br	79	72	1	NO GAS	38.463	ug/l	361260.66
Br	79	72	2	H2	39.593	ug/l	63101.66
Se	82	72	1	NO GAS	5.011	ug/l	1716.82
Kr	84	72	1	NO GAS		ug/l	75689.19
Sr	88	72	1	NO GAS	279.200	ug/l	11588378.44
Sr	88	72	3	He	268.963	ug/l	530810.15

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.464	ug/l	4311.72
Mo	95	72	3	He	0.437	ug/l	1523.42
Mo	98	72	1	NO GAS	0.442	ug/l	7062.62
Ag	107	72	1	NO GAS	-0.075	ug/l	67.99
Ag	109	72	1	NO GAS	-0.075	ug/l	59.99
Cd	111	159	1	NO GAS	0.154	ug/l	852.77
Cd	111	159	3	He	0.144	ug/l	221.29
Cd	114	159	1	NO GAS	0.162	ug/l	1902.98
Cd	114	159	3	He	0.144	ug/l	534.24
Sn	118	159	1	NO GAS	-2.588	ug/l	1763.28
Sn	118	159	3	He	-2.371	ug/l	357.78
Sb	121	159	1	NO GAS	0.266	ug/l	6433.54
Sb	121	159	3	He	0.286	ug/l	1067.82
Sb	123	159	1	NO GAS	0.276	ug/l	5219.78
Sb	123	159	3	He	0.263	ug/l	812.25
Ba	135	159	1	NO GAS	54.295	ug/l	277547.23
Ba	137	159	1	NO GAS	53.897	ug/l	486250.24
La	139	175	1	NO GAS	0.004	ug/l	380.39
La	139	175	3	He	0.003	ug/l	53.39
Ce	140	175	1	NO GAS	0.009	ug/l	847.56
Ce	140	175	3	He	0.009	ug/l	253.60
Hg	201	175	1	NO GAS	0.005	ug/l	36.66
Hg	202	175	1	NO GAS	0.004	ug/l	112.98
Hg	202	175	3	He	0.006	ug/l	72.99
Tl	203	175	3	He	0.038	ug/l	685.21
Tl	205	175	1	NO GAS	0.038	ug/l	2794.73
Tl	205	175	3	He	0.039	ug/l	1665.10
[Pb]	206	175	1	NO GAS	0.119	ug/l	2740.27
[Pb]	207	175	1	NO GAS	0.111	ug/l	2236.85
Pb	208	175	1	NO GAS	0.115	ug/l	10580.43
Th	232	175	3	He	0.096	ug/l	6274.77
U	238	175	1	NO GAS	0.054	ug/l	5803.65

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2280443.96	122.2
Sc	45	2	H2	118180.12	143.1
Sc	45	3	He	68116.81	135.4
Ge	72	1	NO GAS	982240.27	116.1
Ge	72	2	H2	164167.51	138.5
Ge	72	3	He	99818.15	132.2
Tb	159	1	NO GAS	19477251.77	106.6
Tb	159	3	He	7656897.36	108.5
Ho	165	1	NO GAS	18300945.30	107.9
Ho	165	3	He	7411174.56	111.2
Lu	175	1	NO GAS	19948708.21	105.2
Lu	175	3	He	4619351.17	111.0

ICPMS206-B Analytical Data

Sample Name	B21121967-001B
File Name	095SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 04:00:34
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.575	ug/l	2276.37
Be	9	45	1	NO GAS	-0.005	ug/l	5.00
B	11	45	1	NO GAS	213.654	ug/l	52174.65
Na	23	45	3	He	95803.213	ug/l	9860636.24
Mg	24	45	3	He	32366.437	ug/l	1705287.97
Al	27	45	1	NO GAS	315.531	ug/l	1092300.46
Si	28	45	2	H2	16776.711	ug/l	379823.15
K	39	72	3	He	2636.526	ug/l	128246.42
Ca	40	72	2	H2	34991.040	ug/l	7931841.78
Ti	47	72	1	NO GAS	27.958	ug/l	25921.93
V	51	72	1	NO GAS	8.255	ug/l	105802.58
V	51	72	3	He	9.736	ug/l	13990.31
Cr	52	72	1	NO GAS	3.119	ug/l	51332.82
Cr	52	72	3	He	2.324	ug/l	4827.82
Cr	53	72	1	NO GAS	82.570	ug/l	193791.40
Mn	55	72	1	NO GAS	347.774	ug/l	6789968.73
Mn	55	72	3	He	345.517	ug/l	326882.16
Fe	56	72	2	H2	1758.335	ug/l	2204891.37
Fe	56	72	3	He	1688.739	ug/l	3171290.38
Co	59	72	1	NO GAS	2.398	ug/l	41332.49
Ni	60	72	1	NO GAS	13.910	ug/l	53395.55
Ni	60	72	3	He	12.303	ug/l	15531.71
Ni	62	72	1	NO GAS	13.782	ug/l	8388.86
Cu	63	72	1	NO GAS	8.514	ug/l	83137.30
Cu	63	72	3	He	7.111	ug/l	26816.21
Cu	65	72	1	NO GAS	7.529	ug/l	36775.50
Zn	66	72	1	NO GAS	37.942	ug/l	121363.92
Zn	66	72	3	He	37.178	ug/l	20181.11
As	75	72	1	NO GAS	1.051	ug/l	7062.56
As	75	72	3	He	0.720	ug/l	253.95
Se	78	72	2	H2	2.240	ug/l	271.62
Br	79	72	1	NO GAS	3.708	ug/l	97082.91
Br	79	72	2	H2	4.643	ug/l	15163.73
Se	82	72	1	NO GAS	4.130	ug/l	1386.74
Kr	84	72	1	NO GAS		ug/l	75154.96
Sr	88	72	1	NO GAS	291.039	ug/l	11546652.51
Sr	88	72	3	He	282.168	ug/l	490793.52

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.513	ug/l	4555.68
Mo	95	72	3	He	0.540	ug/l	1646.76
Mo	98	72	1	NO GAS	0.509	ug/l	7759.62
Ag	107	72	1	NO GAS	-0.056	ug/l	549.24
Ag	109	72	1	NO GAS	-0.057	ug/l	501.91
Cd	111	159	1	NO GAS	0.248	ug/l	1397.03
Cd	111	159	3	He	0.242	ug/l	353.27
Cd	114	159	1	NO GAS	0.264	ug/l	3252.14
Cd	114	159	3	He	0.255	ug/l	927.40
Sn	118	159	1	NO GAS	-1.865	ug/l	13648.85
Sn	118	159	3	He	-1.702	ug/l	2065.70
Sb	121	159	1	NO GAS	0.465	ug/l	11107.24
Sb	121	159	3	He	0.462	ug/l	1624.54
Sb	123	159	1	NO GAS	0.478	ug/l	8899.20
Sb	123	159	3	He	0.446	ug/l	1293.40
Ba	135	159	1	NO GAS	57.131	ug/l	291285.04
Ba	137	159	1	NO GAS	55.182	ug/l	496485.67
La	139	175	1	NO GAS	0.146	ug/l	12771.49
La	139	175	3	He	0.153	ug/l	2873.20
Ce	140	175	1	NO GAS	0.337	ug/l	28755.39
Ce	140	175	3	He	0.328	ug/l	7826.63
Hg	201	175	1	NO GAS	0.059	ug/l	274.95
Hg	202	175	1	NO GAS	0.060	ug/l	683.88
Hg	202	175	3	He	0.062	ug/l	468.91
Tl	203	175	3	He	0.022	ug/l	413.26
Tl	205	175	1	NO GAS	0.016	ug/l	1386.74
Tl	205	175	3	He	0.021	ug/l	970.51
[Pb]	206	175	1	NO GAS	6.322	ug/l	145403.02
[Pb]	207	175	1	NO GAS	6.198	ug/l	125336.94
Pb	208	175	1	NO GAS	6.248	ug/l	574631.71
Th	232	175	3	He	0.048	ug/l	3519.74
U	238	175	1	NO GAS	0.064	ug/l	6978.59

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2183166.28	117.0
Sc	45	2	H2	97770.66	118.4
Sc	45	3	He	58099.76	115.5
Ge	72	1	NO GAS	939320.61	111.0
Ge	72	2	H2	135659.62	114.5
Ge	72	3	He	87987.12	116.6
Tb	159	1	NO GAS	19432090.57	106.4
Tb	159	3	He	7297635.45	103.4
Ho	165	1	NO GAS	17889276.56	105.4
Ho	165	3	He	7172005.03	107.6
Lu	175	1	NO GAS	20479624.32	108.0
Lu	175	3	He	4445678.96	106.8

ICPMS206-B Analytical Data

Sample Name	B21121968-001A
File Name	096SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 04:06:18
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.352	ug/l	1795.74
Be	9	45	1	NO GAS	-0.011	ug/l	4.00
B	11	45	1	NO GAS	54.433	ug/l	16910.20
Na	23	45	3	He	35064.485	ug/l	4521139.58
Mg	24	45	3	He	10115.897	ug/l	666898.79
Al	27	45	1	NO GAS	1.661	ug/l	8172.01
Si	28	45	2	H2	23269.172	ug/l	767950.67
K	39	72	3	He	1989.335	ug/l	116465.61
Ca	40	72	2	H2	9887.824	ug/l	2988090.87
Ti	47	72	1	NO GAS	1.970	ug/l	2097.44
V	51	72	1	NO GAS	22.473	ug/l	342277.25
V	51	72	3	He	20.232	ug/l	34604.17
Cr	52	72	1	NO GAS	1.746	ug/l	37924.16
Cr	52	72	3	He	1.829	ug/l	4581.56
Cr	53	72	1	NO GAS	-12.638	ug/l	32260.05
Mn	55	72	1	NO GAS	0.389	ug/l	9503.95
Mn	55	72	3	He	0.402	ug/l	461.39
Fe	56	72	2	H2	0.907	ug/l	2044.13
Fe	56	72	3	He	0.817	ug/l	2648.92
Co	59	72	1	NO GAS	0.044	ug/l	951.48
Ni	60	72	1	NO GAS	2.870	ug/l	12548.20
Ni	60	72	3	He	2.647	ug/l	4018.28
Ni	62	72	1	NO GAS	2.709	ug/l	2152.56
Cu	63	72	1	NO GAS	0.645	ug/l	7690.27
Cu	63	72	3	He	0.170	ug/l	1034.16
Cu	65	72	1	NO GAS	0.245	ug/l	1645.10
Zn	66	72	1	NO GAS	8.693	ug/l	32008.88
Zn	66	72	3	He	8.141	ug/l	5376.45
As	75	72	1	NO GAS	0.166	ug/l	4592.72
As	75	72	3	He	0.070	ug/l	35.66
Se	78	72	2	H2	0.165	ug/l	29.99
Br	79	72	1	NO GAS	7.469	ug/l	140552.81
Br	79	72	2	H2	7.747	ug/l	24532.98
Se	82	72	1	NO GAS	0.936	ug/l	525.01
Kr	84	72	1	NO GAS		ug/l	24976.22
Sr	88	72	1	NO GAS	66.263	ug/l	2981161.87
Sr	88	72	3	He	63.500	ug/l	132179.28

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.239	ug/l	2460.21
Mo	95	72	3	He	0.224	ug/l	846.70
Mo	98	72	1	NO GAS	0.237	ug/l	4198.00
Ag	107	72	1	NO GAS	-0.075	ug/l	68.65
Ag	109	72	1	NO GAS	-0.075	ug/l	63.99
Cd	111	159	1	NO GAS	0.006	ug/l	-8.66
Cd	111	159	3	He	0.003	ug/l	6.00
Cd	114	159	1	NO GAS	0.019	ug/l	-10.02
Cd	114	159	3	He	0.009	ug/l	-0.15
Sn	118	159	1	NO GAS	-2.098	ug/l	10209.81
Sn	118	159	3	He	-1.925	ug/l	1610.09
Sb	121	159	1	NO GAS	0.005	ug/l	312.23
Sb	121	159	3	He	0.007	ug/l	63.34
Sb	123	159	1	NO GAS	0.006	ug/l	290.00
Sb	123	159	3	He	0.005	ug/l	42.22
Ba	135	159	1	NO GAS	3.130	ug/l	16622.52
Ba	137	159	1	NO GAS	3.086	ug/l	28945.70
La	139	175	1	NO GAS	0.000	ug/l	93.43
La	139	175	3	He	0.001	ug/l	10.01
Ce	140	175	1	NO GAS	0.000	ug/l	83.42
Ce	140	175	3	He	0.001	ug/l	36.70
Hg	201	175	1	NO GAS	0.002	ug/l	24.66
Hg	202	175	1	NO GAS	0.001	ug/l	85.98
Hg	202	175	3	He	0.004	ug/l	56.99
Tl	203	175	3	He	0.033	ug/l	619.89
Tl	205	175	1	NO GAS	0.029	ug/l	2295.75
Tl	205	175	3	He	0.035	ug/l	1545.11
[Pb]	206	175	1	NO GAS	0.006	ug/l	214.45
[Pb]	207	175	1	NO GAS	0.006	ug/l	168.89
Pb	208	175	1	NO GAS	0.006	ug/l	774.46
Th	232	175	3	He	-0.010	ug/l	523.91
U	238	175	1	NO GAS	0.008	ug/l	980.84

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2747430.39	147.2
Sc	45	2	H2	142431.37	172.5
Sc	45	3	He	72661.40	144.4
Ge	72	1	NO GAS	1064767.60	125.9
Ge	72	2	H2	180533.75	152.3
Ge	72	3	He	105090.24	139.2
Tb	159	1	NO GAS	20217387.51	110.7
Tb	159	3	He	7866913.51	111.5
Ho	165	1	NO GAS	18852106.03	111.1
Ho	165	3	He	7621929.11	114.3
Lu	175	1	NO GAS	20633904.43	108.8
Lu	175	3	He	4686448.42	112.6

ICPMS206-B Analytical Data

Sample Name	B21121968-001B
File Name	097SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 04:12:02
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.445	ug/l	2311.03
Be	9	45	1	NO GAS	-0.014	ug/l	2.00
B	11	45	1	NO GAS	52.989	ug/l	13071.00
Na	23	45	3	He	35098.027	ug/l	3400722.66
Mg	24	45	3	He	10234.378	ug/l	507211.34
Al	27	45	1	NO GAS	3.726	ug/l	13607.70
Si	28	45	2	H2	22134.067	ug/l	467069.98
K	39	72	3	He	1845.398	ug/l	84858.89
Ca	40	72	2	H2	8660.911	ug/l	1902432.53
Ti	47	72	1	NO GAS	2.335	ug/l	2102.44
V	51	72	1	NO GAS	21.775	ug/l	280799.09
V	51	72	3	He	20.786	ug/l	27852.98
Cr	52	72	1	NO GAS	3.719	ug/l	56792.83
Cr	52	72	3	He	3.014	ug/l	5816.21
Cr	53	72	1	NO GAS	74.894	ug/l	173110.91
Mn	55	72	1	NO GAS	0.675	ug/l	13395.54
Mn	55	72	3	He	0.550	ug/l	492.06
Fe	56	72	2	H2	8.254	ug/l	10398.13
Fe	56	72	3	He	8.333	ug/l	15284.45
Co	59	72	1	NO GAS	0.054	ug/l	974.77
Ni	60	72	1	NO GAS	3.753	ug/l	13871.67
Ni	60	72	3	He	3.308	ug/l	3928.26
Ni	62	72	1	NO GAS	3.730	ug/l	2398.77
Cu	63	72	1	NO GAS	0.717	ug/l	7175.46
Cu	63	72	3	He	0.173	ug/l	822.52
Cu	65	72	1	NO GAS	0.279	ug/l	1555.10
Zn	66	72	1	NO GAS	8.895	ug/l	27719.35
Zn	66	72	3	He	8.699	ug/l	4495.08
As	75	72	1	NO GAS	0.419	ug/l	4747.13
As	75	72	3	He	0.086	ug/l	32.99
Se	78	72	2	H2	0.144	ug/l	19.33
Br	79	72	1	NO GAS	-3.497	ug/l	43754.47
Br	79	72	2	H2	-3.386	ug/l	6451.89
Se	82	72	1	NO GAS	0.249	ug/l	250.85
Kr	84	72	1	NO GAS		ug/l	23173.68
Sr	88	72	1	NO GAS	72.733	ug/l	2770739.24
Sr	88	72	3	He	68.053	ug/l	111001.38

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.434	ug/l	3707.11
Mo	95	72	3	He	0.398	ug/l	1147.83
Mo	98	72	1	NO GAS	0.414	ug/l	6085.14
Ag	107	72	1	NO GAS	-0.067	ug/l	253.95
Ag	109	72	1	NO GAS	-0.069	ug/l	198.63
Cd	111	159	1	NO GAS	0.007	ug/l	-0.97
Cd	111	159	3	He	0.001	ug/l	2.67
Cd	114	159	1	NO GAS	0.025	ug/l	66.70
Cd	114	159	3	He	0.010	ug/l	3.22
Sn	118	159	1	NO GAS	-2.104	ug/l	10033.28
Sn	118	159	3	He	-1.879	ug/l	1633.43
Sb	121	159	1	NO GAS	0.023	ug/l	736.69
Sb	121	159	3	He	0.023	ug/l	115.55
Sb	123	159	1	NO GAS	0.024	ug/l	620.02
Sb	123	159	3	He	0.034	ug/l	121.11
Ba	135	159	1	NO GAS	3.335	ug/l	17585.05
Ba	137	159	1	NO GAS	3.137	ug/l	29192.50
La	139	175	1	NO GAS	0.000	ug/l	86.75
La	139	175	3	He	0.002	ug/l	46.71
Ce	140	175	1	NO GAS	0.001	ug/l	176.85
Ce	140	175	3	He	0.001	ug/l	50.05
Hg	201	175	1	NO GAS	0.004	ug/l	34.66
Hg	202	175	1	NO GAS	0.008	ug/l	163.97
Hg	202	175	3	He	0.008	ug/l	85.98
Tl	203	175	3	He	0.014	ug/l	297.95
Tl	205	175	1	NO GAS	0.009	ug/l	960.04
Tl	205	175	3	He	0.014	ug/l	735.21
[Pb]	206	175	1	NO GAS	0.010	ug/l	295.56
[Pb]	207	175	1	NO GAS	0.011	ug/l	270.00
Pb	208	175	1	NO GAS	0.010	ug/l	1178.92
Th	232	175	3	He	0.017	ug/l	1946.41
U	238	175	1	NO GAS	0.008	ug/l	975.84

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2186240.99	117.2
Sc	45	2	H2	91115.51	110.3
Sc	45	3	He	54613.10	108.6
Ge	72	1	NO GAS	901765.46	106.6
Ge	72	2	H2	131212.94	110.7
Ge	72	3	He	82342.19	109.1
Tb	159	1	NO GAS	20077642.35	109.9
Tb	159	3	He	7396553.90	104.8
Ho	165	1	NO GAS	18817867.41	110.9
Ho	165	3	He	7332336.25	110.0
Lu	175	1	NO GAS	20747930.12	109.4
Lu	175	3	He	4462722.98	107.2

ICPMS206-B Analytical Data

Sample Name	CCV
File Name	098_CCV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 04:17:46
Sample Type	CCV
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	478.110	ug/l	311822.79
Be	9	45	1	NO GAS	45.706	ug/l	14409.71
B	11	45	1	NO GAS	45.671	ug/l	10831.90
Na	23	45	3	He	11258.092	ug/l	1181175.47
Mg	24	45	3	He	11123.489	ug/l	593868.98
Al	27	45	1	NO GAS	45.997	ug/l	153231.32
Si	28	45	2	H2	255.880	ug/l	5821.85
K	39	72	3	He	10955.829	ug/l	540762.72
Ca	40	72	2	H2	12163.748	ug/l	2838904.24
Ti	47	72	1	NO GAS	46.930	ug/l	44087.03
V	51	72	1	NO GAS	46.094	ug/l	636118.07
V	51	72	3	He	47.804	ug/l	70668.02
Cr	52	72	1	NO GAS	48.899	ug/l	656552.49
Cr	52	72	3	He	46.150	ug/l	96051.12
Cr	53	72	1	NO GAS	81.805	ug/l	195056.68
Mn	55	72	1	NO GAS	48.992	ug/l	969726.12
Mn	55	72	3	He	46.876	ug/l	45884.97
Fe	56	72	2	H2	1200.598	ug/l	1549232.99
Fe	56	72	3	He	1112.745	ug/l	2160518.08
Co	59	72	1	NO GAS	49.150	ug/l	857405.83
Ni	60	72	1	NO GAS	49.234	ug/l	191293.32
Ni	60	72	3	He	46.841	ug/l	61059.14
Ni	62	72	1	NO GAS	48.087	ug/l	28887.66
Cu	63	72	1	NO GAS	49.466	ug/l	487073.40
Cu	63	72	3	He	45.972	ug/l	178011.36
Cu	65	72	1	NO GAS	48.334	ug/l	237815.32
Zn	66	72	1	NO GAS	46.847	ug/l	151748.85
Zn	66	72	3	He	47.218	ug/l	26478.74
As	75	72	1	NO GAS	48.487	ug/l	171527.95
As	75	72	3	He	47.790	ug/l	17047.60
Se	78	72	2	H2	50.639	ug/l	6252.60
Br	79	72	1	NO GAS	0.710	ug/l	76688.25
Br	79	72	2	H2	1.250	ug/l	11890.85
Se	82	72	1	NO GAS	49.075	ug/l	14630.12
Kr	84	72	1	NO GAS		ug/l	19999.27
Sr	88	72	1	NO GAS	51.169	ug/l	2058211.26
Sr	88	72	3	He	47.345	ug/l	85386.36

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	48.789	ug/l	430852.73
Mo	95	72	3	He	46.403	ug/l	142879.33
Mo	98	72	1	NO GAS	48.408	ug/l	731522.27
Ag	107	72	1	NO GAS	19.929	ug/l	497338.30
Ag	109	72	1	NO GAS	19.722	ug/l	484587.37
Cd	111	159	1	NO GAS	48.419	ug/l	291390.10
Cd	111	159	3	He	47.850	ug/l	72140.94
Cd	114	159	1	NO GAS	49.453	ug/l	681054.16
Cd	114	159	3	He	47.115	ug/l	184212.99
Sn	118	159	1	NO GAS	48.993	ug/l	880844.39
Sn	118	159	3	He	48.093	ug/l	135397.88
Sb	121	159	1	NO GAS	49.521	ug/l	1205177.87
Sb	121	159	3	He	48.450	ug/l	172522.25
Sb	123	159	1	NO GAS	49.016	ug/l	928192.12
Sb	123	159	3	He	48.317	ug/l	142407.01
Ba	135	159	1	NO GAS	49.827	ug/l	263077.85
Ba	137	159	1	NO GAS	47.838	ug/l	445694.41
La	139	175	1	NO GAS	48.173	ug/l	4231187.65
La	139	175	3	He	48.926	ug/l	934756.70
Ce	140	175	1	NO GAS	48.107	ug/l	4142326.19
Ce	140	175	3	He	48.632	ug/l	1180963.00
Hg	201	175	1	NO GAS	0.925	ug/l	4190.75
Hg	202	175	1	NO GAS	0.934	ug/l	9611.46
Hg	202	175	3	He	0.939	ug/l	6863.85
Tl	203	175	3	He	48.101	ug/l	719578.07
Tl	205	175	1	NO GAS	48.501	ug/l	3267245.68
Tl	205	175	3	He	48.746	ug/l	1728744.28
[Pb]	206	175	1	NO GAS	46.927	ug/l	1092033.18
[Pb]	207	175	1	NO GAS	46.849	ug/l	959202.11
Pb	208	175	1	NO GAS	47.535	ug/l	4426066.33
Th	232	175	3	He	48.530	ug/l	2592957.32
U	238	175	1	NO GAS	45.377	ug/l	4910978.68

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2093528.10	112.2
Sc	45	2	H2	97828.69	118.4
Sc	45	3	He	58824.94	116.9
Ge	72	1	NO GAS	951833.32	112.5
Ge	72	2	H2	139468.14	117.7
Ge	72	3	He	91006.49	120.6
Tb	159	1	NO GAS	20118108.23	110.1
Tb	159	3	He	7550012.14	107.0
Ho	165	1	NO GAS	18742431.77	110.5
Ho	165	3	He	7387526.33	110.8
Lu	175	1	NO GAS	20705100.83	109.2
Lu	175	3	He	4527711.35	108.8

ICPMS206-B Analytical Data

Sample Name	CCB
File Name	099_CCB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 04:23:28
Sample Type	CCB
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	026CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.900	ug/l	2655.68
Be	9	45	1	NO GAS	-0.013	ug/l	2.33
B	11	45	1	NO GAS	0.794	ug/l	375.26
Na	23	45	3	He	27.971	ug/l	10402.05
Mg	24	45	3	He	0.823	ug/l	56.55
Al	27	45	1	NO GAS	-0.031	ug/l	623.35
Si	28	45	2	H2	64.286	ug/l	1416.45
K	39	72	3	He	-6.594	ug/l	2814.70
Ca	40	72	2	H2	0.173	ug/l	683.01
Ti	47	72	1	NO GAS	0.035	ug/l	58.31
V	51	72	1	NO GAS	-0.452	ug/l	-14410.01
V	51	72	3	He	0.140	ug/l	296.67
Cr	52	72	1	NO GAS	0.353	ug/l	15306.71
Cr	52	72	3	He	-0.024	ug/l	109.78
Cr	53	72	1	NO GAS	44.366	ug/l	127450.94
Mn	55	72	1	NO GAS	0.019	ug/l	1157.75
Mn	55	72	3	He	0.001	ug/l	6.67
Fe	56	72	2	H2	-0.058	ug/l	323.18
Fe	56	72	3	He	-0.080	ug/l	536.41
Co	59	72	1	NO GAS	0.000	ug/l	76.51
Ni	60	72	1	NO GAS	-0.008	ug/l	39.92
Ni	60	72	3	He	-0.016	ug/l	12.22
Ni	62	72	1	NO GAS	0.198	ug/l	425.83
Cu	63	72	1	NO GAS	-0.003	ug/l	494.58
Cu	63	72	3	He	-0.013	ug/l	183.96
Cu	65	72	1	NO GAS	-0.003	ug/l	249.29
Zn	66	72	1	NO GAS	-0.050	ug/l	385.63
Zn	66	72	3	He	-0.103	ug/l	51.11
As	75	72	1	NO GAS	0.258	ug/l	4366.68
As	75	72	3	He	-0.005	ug/l	4.00
Se	78	72	2	H2	0.020	ug/l	5.00
Br	79	72	1	NO GAS	0.200	ug/l	72016.42
Br	79	72	2	H2	1.021	ug/l	11261.58
Se	82	72	1	NO GAS	0.803	ug/l	423.19
Kr	84	72	1	NO GAS		ug/l	8189.18
Sr	88	72	1	NO GAS	0.002	ug/l	462.43
Sr	88	72	3	He	-0.020	ug/l	246.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.006	ug/l	136.67
Mo	95	72	3	He	0.009	ug/l	70.00
Mo	98	72	1	NO GAS	0.002	ug/l	203.83
Ag	107	72	1	NO GAS	0.000	ug/l	1909.07
Ag	109	72	1	NO GAS	-0.001	ug/l	1856.41
Cd	111	159	1	NO GAS	0.016	ug/l	50.25
Cd	111	159	3	He	0.001	ug/l	2.67
Cd	114	159	1	NO GAS	-0.002	ug/l	-296.76
Cd	114	159	3	He	0.002	ug/l	-29.34
Sn	118	159	1	NO GAS	0.075	ug/l	46905.63
Sn	118	159	3	He	0.188	ug/l	7282.81
Sb	121	159	1	NO GAS	0.051	ug/l	1414.52
Sb	121	159	3	He	0.041	ug/l	185.56
Sb	123	159	1	NO GAS	0.053	ug/l	1171.16
Sb	123	159	3	He	0.048	ug/l	167.78
Ba	135	159	1	NO GAS	0.005	ug/l	39.92
Ba	137	159	1	NO GAS	0.000	ug/l	46.57
La	139	175	1	NO GAS	0.000	ug/l	53.39
La	139	175	3	He	0.001	ug/l	10.01
Ce	140	175	1	NO GAS	0.000	ug/l	106.77
Ce	140	175	3	He	0.001	ug/l	53.39
Hg	201	175	1	NO GAS	0.006	ug/l	42.99
Hg	202	175	1	NO GAS	0.004	ug/l	115.64
Hg	202	175	3	He	0.003	ug/l	47.99
Tl	203	175	3	He	0.028	ug/l	499.91
Tl	205	175	1	NO GAS	0.025	ug/l	1969.04
Tl	205	175	3	He	0.029	ug/l	1229.81
[Pb]	206	175	1	NO GAS	0.000	ug/l	68.89
[Pb]	207	175	1	NO GAS	0.001	ug/l	76.67
Pb	208	175	1	NO GAS	0.001	ug/l	313.34
Th	232	175	3	He	0.035	ug/l	2810.39
U	238	175	1	NO GAS	0.003	ug/l	472.91

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2132400.54	114.3
Sc	45	2	H2	93655.85	113.4
Sc	45	3	He	55839.41	111.0
Ge	72	1	NO GAS	939196.60	111.0
Ge	72	2	H2	135050.58	114.0
Ge	72	3	He	88483.38	117.2
Tb	159	1	NO GAS	20002551.43	109.5
Tb	159	3	He	7637602.86	108.2
Ho	165	1	NO GAS	19176062.05	113.0
Ho	165	3	He	7248520.45	108.7
Lu	175	1	NO GAS	20353483.81	107.3
Lu	175	3	He	4390424.38	105.5

ICPMS206-B Analytical Data

Sample Name	BLANK
File Name	100CALB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 04:29:16
Sample Type	CalBlk
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.000	ug/l	2535.02
Be	9	45	1	NO GAS	0.000	ug/l	2.00
B	11	45	1	NO GAS	0.000	ug/l	307.27
Na	23	45	3	He	0.000	ug/l	9282.53
Mg	24	45	3	He	0.000	ug/l	73.19
Al	27	45	1	NO GAS	0.000	ug/l	553.35
Si	28	45	2	H2	0.000	ug/l	1120.49
K	39	72	3	He	0.000	ug/l	2821.37
Ca	40	72	2	H2	0.000	ug/l	551.41
Ti	47	72	1	NO GAS	0.000	ug/l	38.32
V	51	72	1	NO GAS	0.000	ug/l	-23371.87
V	51	72	3	He	0.000	ug/l	317.78
Cr	52	72	1	NO GAS	0.000	ug/l	15070.33
Cr	52	72	3	He	0.000	ug/l	133.07
Cr	53	72	1	NO GAS	0.000	ug/l	126167.55
Mn	55	72	1	NO GAS	0.000	ug/l	1061.27
Mn	55	72	3	He	0.000	ug/l	9.33
Fe	56	72	2	H2	0.000	ug/l	298.19
Fe	56	72	3	He	0.000	ug/l	546.41
Co	59	72	1	NO GAS	0.000	ug/l	59.88
Ni	60	72	1	NO GAS	0.000	ug/l	16.63
Ni	60	72	3	He	0.000	ug/l	32.22
Ni	62	72	1	NO GAS	0.000	ug/l	392.57
Cu	63	72	1	NO GAS	0.000	ug/l	467.25
Cu	63	72	3	He	0.000	ug/l	183.97
Cu	65	72	1	NO GAS	0.000	ug/l	235.96
Zn	66	72	1	NO GAS	0.000	ug/l	325.76
Zn	66	72	3	He	0.000	ug/l	57.78
As	75	72	1	NO GAS	0.000	ug/l	3634.94
As	75	72	3	He	0.000	ug/l	6.33
Se	78	72	2	H2	0.000	ug/l	3.33
Br	79	72	1	NO GAS	0.000	ug/l	71221.84
Br	79	72	2	H2	0.000	ug/l	10286.23
Se	82	72	1	NO GAS	0.000	ug/l	170.34
Kr	84	72	1	NO GAS		ug/l	8129.26
Sr	88	72	1	NO GAS	0.000	ug/l	385.91
Sr	88	72	3	He	0.000	ug/l	223.34

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.000	ug/l	87.78
Mo	95	72	3	He	0.000	ug/l	38.89
Mo	98	72	1	NO GAS	0.000	ug/l	153.83
Ag	107	72	1	NO GAS	0.000	ug/l	1838.41
Ag	109	72	1	NO GAS	0.000	ug/l	1730.42
Cd	111	159	1	NO GAS	0.000	ug/l	12.97
Cd	111	159	3	He	0.000	ug/l	3.33
Cd	114	159	1	NO GAS	0.000	ug/l	-217.98
Cd	114	159	3	He	0.000	ug/l	-26.96
Sn	118	159	1	NO GAS	0.000	ug/l	46101.39
Sn	118	159	3	He	0.000	ug/l	7071.60
Sb	121	159	1	NO GAS	0.000	ug/l	571.13
Sb	121	159	3	He	0.000	ug/l	74.45
Sb	123	159	1	NO GAS	0.000	ug/l	446.67
Sb	123	159	3	He	0.000	ug/l	48.89
Ba	135	159	1	NO GAS	0.000	ug/l	23.29
Ba	137	159	1	NO GAS	0.000	ug/l	43.25
La	139	175	1	NO GAS	0.000	ug/l	70.07
La	139	175	3	He	0.000	ug/l	10.01
Ce	140	175	1	NO GAS	0.000	ug/l	60.06
Ce	140	175	3	He	0.000	ug/l	13.35
Hg	201	175	1	NO GAS	0.000	ug/l	21.67
Hg	202	175	1	NO GAS	0.000	ug/l	79.32
Hg	202	175	3	He	0.000	ug/l	36.66
Tl	203	175	3	He	0.000	ug/l	391.26
Tl	205	175	1	NO GAS	0.000	ug/l	1693.44
Tl	205	175	3	He	0.000	ug/l	994.51
[Pb]	206	175	1	NO GAS	0.000	ug/l	65.56
[Pb]	207	175	1	NO GAS	0.000	ug/l	58.89
Pb	208	175	1	NO GAS	0.000	ug/l	251.11
Th	232	175	3	He	0.000	ug/l	1375.13
U	238	175	1	NO GAS	0.000	ug/l	182.63

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2081740.17	100.0
Sc	45	2	H2	90811.41	100.0
Sc	45	3	He	54923.83	100.0
Ge	72	1	NO GAS	895833.15	100.0
Ge	72	2	H2	129474.72	100.0
Ge	72	3	He	84293.88	100.0
Tb	159	1	NO GAS	20122691.15	100.0
Tb	159	3	He	7346789.03	100.0
Ho	165	1	NO GAS	18771236.20	100.0
Ho	165	3	He	7241593.42	100.0
Lu	175	1	NO GAS	20014819.53	100.0
Lu	175	3	He	4411221.64	100.0

ICPMS206-B Analytical Data

Sample Name	0.025 PPB STD
File Name	101CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 04:35:07
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.359	ug/l	2757.01
Be	9	45	1	NO GAS	0.034	ug/l	11.67
B	11	45	1	NO GAS	-0.200	ug/l	260.62
Na	23	45	3	He	-1.795	ug/l	9090.22
Mg	24	45	3	He	4.452	ug/l	282.78
Al	27	45	1	NO GAS	0.076	ug/l	776.69
Si	28	45	2	H2	-16.094	ug/l	877.18
K	39	72	3	He	4.117	ug/l	3086.97
Ca	40	72	2	H2	6.850	ug/l	1945.82
Ti	47	72	1	NO GAS	0.023	ug/l	59.97
V	51	72	1	NO GAS	1.308	ug/l	-5059.91
V	51	72	3	He	0.049	ug/l	393.34
Cr	52	72	1	NO GAS	-0.004	ug/l	15359.99
Cr	52	72	3	He	0.000	ug/l	136.39
Cr	53	72	1	NO GAS	-1.459	ug/l	127460.79
Mn	55	72	1	NO GAS	0.017	ug/l	1417.27
Mn	55	72	3	He	0.021	ug/l	28.33
Fe	56	72	2	H2	0.545	ug/l	932.91
Fe	56	72	3	He	0.577	ug/l	1509.33
Co	59	72	1	NO GAS	0.024	ug/l	472.41
Ni	60	72	1	NO GAS	0.033	ug/l	139.72
Ni	60	72	3	He	0.008	ug/l	42.22
Ni	62	72	1	NO GAS	-0.044	ug/l	375.93
Cu	63	72	1	NO GAS	0.009	ug/l	559.90
Cu	63	72	3	He	0.000	ug/l	188.96
Cu	65	72	1	NO GAS	-0.003	ug/l	229.29
Zn	66	72	1	NO GAS	-0.018	ug/l	275.77
Zn	66	72	3	He	0.028	ug/l	73.33
As	75	72	1	NO GAS	0.090	ug/l	3981.21
As	75	72	3	He	0.019	ug/l	12.67
Se	78	72	2	H2	0.028	ug/l	6.33
Br	79	72	1	NO GAS	0.253	ug/l	74465.13
Br	79	72	2	H2	0.645	ug/l	10812.16
Se	82	72	1	NO GAS	0.727	ug/l	388.59
Kr	84	72	1	NO GAS		ug/l	8322.33
Sr	88	72	1	NO GAS	0.027	ug/l	1427.25
Sr	88	72	3	He	0.007	ug/l	240.00

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.026	ug/l	302.23
Mo	95	72	3	He	0.037	ug/l	135.56
Mo	98	72	1	NO GAS	0.025	ug/l	507.31
Ag	107	72	1	NO GAS	0.007	ug/l	2045.06
Ag	109	72	1	NO GAS	0.011	ug/l	2019.73
Cd	111	159	1	NO GAS	0.016	ug/l	109.43
Cd	111	159	3	He	0.027	ug/l	43.99
Cd	114	159	1	NO GAS	0.022	ug/l	96.72
Cd	114	159	3	He	0.028	ug/l	80.05
Sn	118	159	1	NO GAS	-2.342	ug/l	4105.75
Sn	118	159	3	He	-2.413	ug/l	713.36
Sb	121	159	1	NO GAS	0.014	ug/l	936.70
Sb	121	159	3	He	0.016	ug/l	136.67
Sb	123	159	1	NO GAS	0.017	ug/l	796.69
Sb	123	159	3	He	0.024	ug/l	120.00
Ba	135	159	1	NO GAS	0.027	ug/l	169.67
Ba	137	159	1	NO GAS	0.022	ug/l	249.51
La	139	175	1	NO GAS	0.025	ug/l	2179.07
La	139	175	3	He	0.022	ug/l	433.78
Ce	140	175	1	NO GAS	0.022	ug/l	1915.42
Ce	140	175	3	He	0.024	ug/l	607.30
Hg	201	175	1	NO GAS	-0.001	ug/l	19.67
Hg	202	175	1	NO GAS	0.000	ug/l	84.31
Hg	202	175	3	He	0.000	ug/l	35.99
Tl	203	175	3	He	0.022	ug/l	713.21
Tl	205	175	1	NO GAS	0.019	ug/l	3037.00
Tl	205	175	3	He	0.019	ug/l	1669.43
[Pb]	206	175	1	NO GAS	0.021	ug/l	553.35
[Pb]	207	175	1	NO GAS	0.024	ug/l	528.90
Pb	208	175	1	NO GAS	0.024	ug/l	2422.33
Th	232	175	3	He	0.011	ug/l	1954.42
U	238	175	1	NO GAS	0.023	ug/l	2573.72

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2048032.19	98.4
Sc	45	2	H2	90734.66	99.9
Sc	45	3	He	54742.12	99.7
Ge	72	1	NO GAS	915678.62	102.2
Ge	72	2	H2	128265.42	99.1
Ge	72	3	He	86604.34	102.7
Tb	159	1	NO GAS	19978249.42	99.3
Tb	159	3	He	7546185.19	102.7
Ho	165	1	NO GAS	18567037.84	98.9
Ho	165	3	He	7288028.81	100.6
Lu	175	1	NO GAS	20430529.81	102.1
Lu	175	3	He	4460535.43	101.1

ICPMS206-B Analytical Data

Sample Name	1000 PPB STD
File Name	109CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 05:21:50
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2635.605	ug/l	1853064.76
Be	9	45	1	NO GAS	994.983	ug/l	358862.55
B	11	45	1	NO GAS	984.340	ug/l	256318.61
Na	23	45	3	He	50139.285	ug/l	5971619.29
Mg	24	45	3	He	50477.693	ug/l	3133926.50
Al	27	45	1	NO GAS	1017.243	ug/l	3930546.85
Si	28	45	2	H2	-60.329	ug/l	271.95
K	39	72	3	He	50794.757	ug/l	2853738.00
Ca	40	72	2	H2	50632.558	ug/l	13297281.21
Ti	47	72	1	NO GAS	6.022	ug/l	5869.86
V	51	72	1	NO GAS	1059.981	ug/l	16413589.48
V	51	72	3	He	1064.698	ug/l	1740143.95
Cr	52	72	1	NO GAS	1077.371	ug/l	14975915.32
Cr	52	72	3	He	1068.350	ug/l	2313511.29
Cr	53	72	1	NO GAS	1554.208	ug/l	1877649.39
Mn	55	72	1	NO GAS	1064.460	ug/l	22614027.52
Mn	55	72	3	He	1026.955	ug/l	1085845.29
Fe	56	72	2	H2	6126.841	ug/l	9222012.70
Fe	56	72	3	He	6002.966	ug/l	11838353.09
Co	59	72	1	NO GAS	1042.515	ug/l	19180562.91
Ni	60	72	1	NO GAS	1036.039	ug/l	4142280.70
Ni	60	72	3	He	1037.120	ug/l	1389841.81
Ni	62	72	1	NO GAS	1015.748	ug/l	630257.94
Cu	63	72	1	NO GAS	995.485	ug/l	10112740.37
Cu	63	72	3	He	1007.005	ug/l	4039726.17
Cu	65	72	1	NO GAS	1001.844	ug/l	5050804.76
Zn	66	72	1	NO GAS	996.669	ug/l	3342841.59
Zn	66	72	3	He	998.466	ug/l	591139.61
As	75	72	1	NO GAS	976.197	ug/l	3547449.36
As	75	72	3	He	1010.422	ug/l	389324.04
Se	78	72	2	H2	991.649	ug/l	136788.76
Br	79	72	1	NO GAS	0.753	ug/l	83523.57
Br	79	72	2	H2	2.293	ug/l	15932.88
Se	82	72	1	NO GAS	952.005	ug/l	291842.72
Kr	84	72	1	NO GAS		ug/l	250585.46
Sr	88	72	1	NO GAS	1018.491	ug/l	42347001.67
Sr	88	72	3	He	1025.320	ug/l	1948859.24

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.058	ug/l	617.79
Mo	95	72	3	He	0.045	ug/l	187.78
Mo	98	72	1	NO GAS	0.069	ug/l	1221.60
Ag	107	72	1	NO GAS	387.961	ug/l	9784047.20
Ag	109	72	1	NO GAS	345.258	ug/l	8575759.65
Cd	111	159	1	NO GAS	994.591	ug/l	5832079.61
Cd	111	159	3	He	1033.583	ug/l	1551973.58
Cd	114	159	1	NO GAS	997.586	ug/l	13573049.57
Cd	114	159	3	He	984.849	ug/l	3854819.18
Sn	118	159	1	NO GAS	-2.263	ug/l	5303.73
Sn	118	159	3	He	-2.332	ug/l	943.37
Sb	121	159	1	NO GAS	0.128	ug/l	3707.12
Sb	121	159	3	He	0.109	ug/l	477.79
Sb	123	159	1	NO GAS	0.138	ug/l	3127.00
Sb	123	159	3	He	0.119	ug/l	408.90
Ba	135	159	1	NO GAS	959.649	ug/l	5041482.17
Ba	137	159	1	NO GAS	952.610	ug/l	8681002.39
La	139	175	1	NO GAS	0.013	ug/l	1111.18
La	139	175	3	He	0.007	ug/l	156.83
Ce	140	175	1	NO GAS	0.021	ug/l	1788.60
Ce	140	175	3	He	0.023	ug/l	590.62
Hg	201	175	1	NO GAS	0.010	ug/l	63.32
Hg	202	175	1	NO GAS	0.015	ug/l	224.63
Hg	202	175	3	He	0.009	ug/l	100.31
Tl	203	175	3	He	945.949	ug/l	13638262.56
Tl	205	175	1	NO GAS	947.788	ug/l	61933537.97
Tl	205	175	3	He	926.340	ug/l	32746002.05
[Pb]	206	175	1	NO GAS	936.742	ug/l	20637301.22
[Pb]	207	175	1	NO GAS	931.293	ug/l	17790120.57
Pb	208	175	1	NO GAS	945.581	ug/l	82675786.41
Th	232	175	3	He	958.885	ug/l	49467446.54
U	238	175	1	NO GAS	958.649	ug/l	96466665.46

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2587187.90	124.3
Sc	45	2	H2	122340.96	134.7
Sc	45	3	He	71977.32	131.0
Ge	72	1	NO GAS	981882.38	109.6
Ge	72	2	H2	164993.13	127.4
Ge	72	3	He	103955.29	123.3
Tb	159	1	NO GAS	19202678.04	95.4
Tb	159	3	He	7636798.82	103.9
Ho	165	1	NO GAS	18349965.78	97.8
Ho	165	3	He	7295134.62	100.7
Lu	175	1	NO GAS	19795901.66	98.9
Lu	175	3	He	4536571.51	102.8

ICPMS206-B Analytical Data

Sample Name	0.05 PPB STD
File Name	102CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 04:40:58
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.289	ug/l	2783.01
Be	9	45	1	NO GAS	0.049	ug/l	16.33
B	11	45	1	NO GAS	-0.399	ug/l	225.29
Na	23	45	3	He	-0.358	ug/l	9430.39
Mg	24	45	3	He	12.492	ug/l	682.00
Al	27	45	1	NO GAS	0.066	ug/l	765.58
Si	28	45	2	H2	-25.231	ug/l	723.87
K	39	72	3	He	8.203	ug/l	3366.47
Ca	40	72	2	H2	14.009	ug/l	3418.67
Ti	47	72	1	NO GAS	0.075	ug/l	108.28
V	51	72	1	NO GAS	0.700	ug/l	-13915.98
V	51	72	3	He	0.060	ug/l	418.90
Cr	52	72	1	NO GAS	0.052	ug/l	16495.45
Cr	52	72	3	He	0.061	ug/l	252.84
Cr	53	72	1	NO GAS	-2.611	ug/l	129505.53
Mn	55	72	1	NO GAS	0.044	ug/l	2029.45
Mn	55	72	3	He	0.047	ug/l	52.67
Fe	56	72	2	H2	1.225	ug/l	1734.25
Fe	56	72	3	He	1.396	ug/l	2928.84
Co	59	72	1	NO GAS	0.057	ug/l	1074.58
Ni	60	72	1	NO GAS	0.062	ug/l	256.16
Ni	60	72	3	He	0.051	ug/l	92.22
Ni	62	72	1	NO GAS	0.018	ug/l	425.84
Cu	63	72	1	NO GAS	0.035	ug/l	827.86
Cu	63	72	3	He	0.038	ug/l	323.27
Cu	65	72	1	NO GAS	0.034	ug/l	413.26
Zn	66	72	1	NO GAS	0.025	ug/l	425.59
Zn	66	72	3	He	0.020	ug/l	71.11
As	75	72	1	NO GAS	-0.082	ug/l	3547.11
As	75	72	3	He	0.049	ug/l	23.00
Se	78	72	2	H2	0.056	ug/l	9.33
Br	79	72	1	NO GAS	0.295	ug/l	76825.26
Br	79	72	2	H2	1.275	ug/l	11454.73
Se	82	72	1	NO GAS	0.722	ug/l	397.89
Kr	84	72	1	NO GAS		ug/l	8089.38
Sr	88	72	1	NO GAS	0.052	ug/l	2488.60
Sr	88	72	3	He	0.069	ug/l	346.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.048	ug/l	496.68
Mo	95	72	3	He	0.046	ug/l	165.56
Mo	98	72	1	NO GAS	0.048	ug/l	863.72
Ag	107	72	1	NO GAS	0.019	ug/l	2389.71
Ag	109	72	1	NO GAS	0.019	ug/l	2270.72
Cd	111	159	1	NO GAS	0.048	ug/l	306.46
Cd	111	159	3	He	0.049	ug/l	74.65
Cd	114	159	1	NO GAS	0.054	ug/l	552.60
Cd	114	159	3	He	0.061	ug/l	207.78
Sn	118	159	1	NO GAS	-2.295	ug/l	4964.28
Sn	118	159	3	He	-2.379	ug/l	796.69
Sb	121	159	1	NO GAS	0.041	ug/l	1603.43
Sb	121	159	3	He	0.062	ug/l	300.01
Sb	123	159	1	NO GAS	0.039	ug/l	1235.61
Sb	123	159	3	He	0.045	ug/l	181.11
Ba	135	159	1	NO GAS	0.053	ug/l	312.72
Ba	137	159	1	NO GAS	0.059	ug/l	608.81
La	139	175	1	NO GAS	0.054	ug/l	4708.86
La	139	175	3	He	0.053	ug/l	1067.80
Ce	140	175	1	NO GAS	0.052	ug/l	4525.29
Ce	140	175	3	He	0.051	ug/l	1301.39
Hg	201	175	1	NO GAS	-0.001	ug/l	20.33
Hg	202	175	1	NO GAS	0.001	ug/l	90.98
Hg	202	175	3	He	0.001	ug/l	44.32
Tl	203	175	3	He	0.049	ug/l	1111.16
Tl	205	175	1	NO GAS	0.046	ug/l	4850.81
Tl	205	175	3	He	0.050	ug/l	2807.04
[Pb]	206	175	1	NO GAS	0.051	ug/l	1233.39
[Pb]	207	175	1	NO GAS	0.050	ug/l	1046.71
Pb	208	175	1	NO GAS	0.052	ug/l	4975.92
Th	232	175	3	He	0.032	ug/l	3060.39
U	238	175	1	NO GAS	0.051	ug/l	5527.27

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2101237.32	100.9
Sc	45	2	H2	89330.51	98.4
Sc	45	3	He	56099.52	102.1
Ge	72	1	NO GAS	942436.42	105.2
Ge	72	2	H2	128772.89	99.5
Ge	72	3	He	88878.59	105.4
Tb	159	1	NO GAS	20064071.28	99.7
Tb	159	3	He	7469174.59	101.7
Ho	165	1	NO GAS	19166687.68	102.1
Ho	165	3	He	7453297.88	102.9
Lu	175	1	NO GAS	20643325.30	103.1
Lu	175	3	He	4557951.07	103.3

ICPMS206-B Analytical Data

Sample Name	0.10 PPB STD
File Name	103CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 04:46:50
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.637	ug/l	3092.33
Be	9	45	1	NO GAS	0.102	ug/l	32.32
B	11	45	1	NO GAS	-0.388	ug/l	231.29
Na	23	45	3	He	23.637	ug/l	11806.30
Mg	24	45	3	He	26.321	ug/l	1364.02
Al	27	45	1	NO GAS	0.550	ug/l	2311.29
Si	28	45	2	H2	-34.705	ug/l	562.57
K	39	72	3	He	23.232	ug/l	4104.97
Ca	40	72	2	H2	32.200	ug/l	7123.02
Ti	47	72	1	NO GAS	0.142	ug/l	171.58
V	51	72	1	NO GAS	-0.063	ug/l	-25580.33
V	51	72	3	He	0.092	ug/l	466.68
Cr	52	72	1	NO GAS	0.022	ug/l	15999.34
Cr	52	72	3	He	0.123	ug/l	369.28
Cr	53	72	1	NO GAS	-0.437	ug/l	131157.68
Mn	55	72	1	NO GAS	0.109	ug/l	3317.11
Mn	55	72	3	He	0.125	ug/l	123.01
Fe	56	72	2	H2	3.109	ug/l	3928.55
Fe	56	72	3	He	3.252	ug/l	6086.46
Co	59	72	1	NO GAS	0.122	ug/l	2199.13
Ni	60	72	1	NO GAS	0.121	ug/l	475.73
Ni	60	72	3	He	0.135	ug/l	190.00
Ni	62	72	1	NO GAS	0.019	ug/l	419.18
Cu	63	72	1	NO GAS	0.128	ug/l	1727.75
Cu	63	72	3	He	0.126	ug/l	630.22
Cu	65	72	1	NO GAS	0.129	ug/l	863.86
Zn	66	72	1	NO GAS	0.198	ug/l	971.13
Zn	66	72	3	He	0.236	ug/l	181.11
As	75	72	1	NO GAS	0.074	ug/l	4035.11
As	75	72	3	He	0.102	ug/l	40.32
Se	78	72	2	H2	0.066	ug/l	10.33
Br	79	72	1	NO GAS	0.054	ug/l	74645.65
Br	79	72	2	H2	0.054	ug/l	10239.62
Se	82	72	1	NO GAS	1.250	ug/l	548.29
Kr	84	72	1	NO GAS		ug/l	8046.07
Sr	88	72	1	NO GAS	0.122	ug/l	5227.18
Sr	88	72	3	He	0.126	ug/l	442.23

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.112	ug/l	1038.93
Mo	95	72	3	He	0.115	ug/l	351.12
Mo	98	72	1	NO GAS	0.118	ug/l	1872.91
Ag	107	72	1	NO GAS	0.045	ug/l	2995.03
Ag	109	72	1	NO GAS	0.047	ug/l	2923.03
Cd	111	159	1	NO GAS	0.129	ug/l	796.80
Cd	111	159	3	He	0.106	ug/l	159.97
Cd	114	159	1	NO GAS	0.114	ug/l	1403.30
Cd	114	159	3	He	0.126	ug/l	458.71
Sn	118	159	1	NO GAS	-2.257	ug/l	5599.93
Sn	118	159	3	He	-2.339	ug/l	908.93
Sb	121	159	1	NO GAS	0.104	ug/l	3217.02
Sb	121	159	3	He	0.114	ug/l	490.01
Sb	123	159	1	NO GAS	0.102	ug/l	2503.55
Sb	123	159	3	He	0.112	ug/l	382.23
Ba	135	159	1	NO GAS	0.117	ug/l	662.04
Ba	137	159	1	NO GAS	0.116	ug/l	1137.80
La	139	175	1	NO GAS	0.117	ug/l	10437.49
La	139	175	3	He	0.119	ug/l	2339.24
Ce	140	175	1	NO GAS	0.112	ug/l	9953.29
Ce	140	175	3	He	0.115	ug/l	2886.56
Hg	201	175	1	NO GAS	0.000	ug/l	23.66
Hg	202	175	1	NO GAS	0.001	ug/l	96.65
Hg	202	175	3	He	0.000	ug/l	40.32
Tl	203	175	3	He	0.110	ug/l	1972.41
Tl	205	175	1	NO GAS	0.100	ug/l	8740.36
Tl	205	175	3	He	0.107	ug/l	4767.82
[Pb]	206	175	1	NO GAS	0.115	ug/l	2758.05
[Pb]	207	175	1	NO GAS	0.110	ug/l	2303.53
Pb	208	175	1	NO GAS	0.116	ug/l	11033.93
Th	232	175	3	He	0.083	ug/l	5653.30
U	238	175	1	NO GAS	0.111	ug/l	12077.52

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2127167.07	102.2
Sc	45	2	H2	86463.90	95.2
Sc	45	3	He	56759.41	103.3
Ge	72	1	NO GAS	934375.36	104.3
Ge	72	2	H2	128279.73	99.1
Ge	72	3	He	89286.35	105.9
Tb	159	1	NO GAS	19935785.08	99.1
Tb	159	3	He	7521535.75	102.4
Ho	165	1	NO GAS	19396388.62	103.3
Ho	165	3	He	7154318.08	98.8
Lu	175	1	NO GAS	21081868.42	105.3
Lu	175	3	He	4510628.02	102.3

ICPMS206-B Analytical Data

Sample Name	0.5 PPB STD
File Name	104CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 04:52:42
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	4.062	ug/l	5539.12
Be	9	45	1	NO GAS	0.477	ug/l	140.64
B	11	45	1	NO GAS	-0.046	ug/l	298.61
Na	23	45	3	He	115.066	ug/l	20638.98
Mg	24	45	3	He	121.152	ug/l	6082.41
Al	27	45	1	NO GAS	0.541	ug/l	2241.27
Si	28	45	2	H2	-40.155	ug/l	503.24
K	39	72	3	He	108.204	ug/l	8280.96
Ca	40	72	2	H2	117.241	ug/l	25293.19
Ti	47	72	1	NO GAS	0.457	ug/l	461.45
V	51	72	1	NO GAS	0.195	ug/l	-21687.25
V	51	72	3	He	0.452	ug/l	981.15
Cr	52	72	1	NO GAS	0.442	ug/l	21594.46
Cr	52	72	3	He	0.489	ug/l	1061.27
Cr	53	72	1	NO GAS	0.641	ug/l	132541.10
Mn	55	72	1	NO GAS	0.489	ug/l	11001.85
Mn	55	72	3	He	0.503	ug/l	470.72
Fe	56	72	2	H2	12.350	ug/l	15231.11
Fe	56	72	3	He	12.875	ug/l	22609.06
Co	59	72	1	NO GAS	0.461	ug/l	8145.87
Ni	60	72	1	NO GAS	0.484	ug/l	1859.76
Ni	60	72	3	He	0.509	ug/l	625.57
Ni	62	72	1	NO GAS	0.318	ug/l	598.83
Cu	63	72	1	NO GAS	0.509	ug/l	5410.48
Cu	63	72	3	He	0.531	ug/l	2043.72
Cu	65	72	1	NO GAS	0.512	ug/l	2703.69
Zn	66	72	1	NO GAS	0.449	ug/l	1776.14
Zn	66	72	3	He	0.531	ug/l	334.45
As	75	72	1	NO GAS	0.247	ug/l	4640.32
As	75	72	3	He	0.464	ug/l	161.97
Se	78	72	2	H2	0.643	ug/l	74.65
Br	79	72	1	NO GAS	0.333	ug/l	76688.16
Br	79	72	2	H2	0.907	ug/l	11434.74
Se	82	72	1	NO GAS	0.753	ug/l	406.56
Kr	84	72	1	NO GAS		ug/l	8072.67
Sr	88	72	1	NO GAS	0.514	ug/l	20762.07
Sr	88	72	3	He	0.502	ug/l	1065.59

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.515	ug/l	4459.53
Mo	95	72	3	He	0.504	ug/l	1414.52
Mo	98	72	1	NO GAS	0.494	ug/l	7335.73
Ag	107	72	1	NO GAS	0.211	ug/l	6988.80
Ag	109	72	1	NO GAS	0.207	ug/l	6710.74
Cd	111	159	1	NO GAS	0.482	ug/l	2998.49
Cd	111	159	3	He	0.497	ug/l	742.54
Cd	114	159	1	NO GAS	0.503	ug/l	7021.54
Cd	114	159	3	He	0.506	ug/l	1932.84
Sn	118	159	1	NO GAS	-1.863	ug/l	12846.36
Sn	118	159	3	He	-1.964	ug/l	1934.58
Sb	121	159	1	NO GAS	0.451	ug/l	12345.93
Sb	121	159	3	He	0.438	ug/l	1674.54
Sb	123	159	1	NO GAS	0.448	ug/l	9727.47
Sb	123	159	3	He	0.493	ug/l	1518.98
Ba	135	159	1	NO GAS	0.500	ug/l	2801.41
Ba	137	159	1	NO GAS	0.451	ug/l	4388.61
La	139	175	1	NO GAS	0.498	ug/l	43707.96
La	139	175	3	He	0.484	ug/l	9726.27
Ce	140	175	1	NO GAS	0.497	ug/l	43209.16
Ce	140	175	3	He	0.470	ug/l	11970.08
Hg	201	175	1	NO GAS	0.007	ug/l	52.66
Hg	202	175	1	NO GAS	0.008	ug/l	161.30
Hg	202	175	3	He	0.009	ug/l	100.31
Tl	203	175	3	He	0.478	ug/l	7408.36
Tl	205	175	1	NO GAS	0.465	ug/l	33766.60
Tl	205	175	3	He	0.484	ug/l	18415.53
[Pb]	206	175	1	NO GAS	0.482	ug/l	11253.15
[Pb]	207	175	1	NO GAS	0.494	ug/l	10000.05
Pb	208	175	1	NO GAS	0.493	ug/l	45592.93
Th	232	175	3	He	0.409	ug/l	22859.68
U	238	175	1	NO GAS	0.470	ug/l	49992.79

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2088269.70	100.3
Sc	45	2	H2	90163.49	99.3
Sc	45	3	He	57487.26	104.7
Ge	72	1	NO GAS	935245.84	104.4
Ge	72	2	H2	132566.41	102.4
Ge	72	3	He	90181.46	107.0
Tb	159	1	NO GAS	20316626.54	101.0
Tb	159	3	He	7556717.02	102.9
Ho	165	1	NO GAS	19084270.06	101.7
Ho	165	3	He	7344201.23	101.4
Lu	175	1	NO GAS	20835216.78	104.1
Lu	175	3	He	4608059.51	104.5

ICPMS206-B Analytical Data

Sample Name	1 PPB STD
File Name	105CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 04:58:34
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	9.555	ug/l	9512.71
Be	9	45	1	NO GAS	1.082	ug/l	312.94
B	11	45	1	NO GAS	0.537	ug/l	415.93
Na	23	45	3	He	269.025	ug/l	35142.38
Mg	24	45	3	He	284.205	ug/l	14114.60
Al	27	45	1	NO GAS	1.138	ug/l	4047.19
Si	28	45	2	H2	-47.427	ug/l	404.59
K	39	72	3	He	245.265	ug/l	14584.08
Ca	40	72	2	H2	268.939	ug/l	57421.79
Ti	47	72	1	NO GAS	1.099	ug/l	1091.17
V	51	72	1	NO GAS	1.485	ug/l	-2822.80
V	51	72	3	He	1.083	ug/l	1827.89
Cr	52	72	1	NO GAS	0.960	ug/l	29490.94
Cr	52	72	3	He	1.126	ug/l	2199.14
Cr	53	72	1	NO GAS	-6.003	ug/l	130071.75
Mn	55	72	1	NO GAS	1.029	ug/l	22717.01
Mn	55	72	3	He	1.133	ug/l	1023.14
Fe	56	72	2	H2	26.930	ug/l	32934.37
Fe	56	72	3	He	29.120	ug/l	49110.60
Co	59	72	1	NO GAS	1.082	ug/l	19712.73
Ni	60	72	1	NO GAS	1.101	ug/l	4365.29
Ni	60	72	3	He	1.213	ug/l	1407.85
Ni	62	72	1	NO GAS	0.926	ug/l	991.41
Cu	63	72	1	NO GAS	1.079	ug/l	11329.60
Cu	63	72	3	He	1.210	ug/l	4295.69
Cu	65	72	1	NO GAS	1.075	ug/l	5615.17
Zn	66	72	1	NO GAS	1.021	ug/l	3732.43
Zn	66	72	3	He	1.159	ug/l	641.13
As	75	72	1	NO GAS	1.089	ug/l	7841.64
As	75	72	3	He	1.102	ug/l	365.60
Se	78	72	2	H2	1.332	ug/l	151.30
Br	79	72	1	NO GAS	0.045	ug/l	77450.93
Br	79	72	2	H2	0.570	ug/l	11121.71
Se	82	72	1	NO GAS	1.963	ug/l	787.84
Kr	84	72	1	NO GAS		ug/l	8265.74
Sr	88	72	1	NO GAS	1.087	ug/l	45059.04
Sr	88	72	3	He	1.160	ug/l	2097.93

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.059	ug/l	9408.34
Mo	95	72	3	He	1.233	ug/l	3311.47
Mo	98	72	1	NO GAS	1.072	ug/l	16296.87
Ag	107	72	1	NO GAS	0.453	ug/l	13294.81
Ag	109	72	1	NO GAS	0.449	ug/l	12902.60
Cd	111	159	1	NO GAS	1.099	ug/l	6869.22
Cd	111	159	3	He	1.129	ug/l	1663.76
Cd	114	159	1	NO GAS	1.145	ug/l	16348.72
Cd	114	159	3	He	1.144	ug/l	4360.33
Sn	118	159	1	NO GAS	-1.285	ug/l	23414.06
Sn	118	159	3	He	-1.281	ug/l	3756.02
Sb	121	159	1	NO GAS	1.028	ug/l	27501.41
Sb	121	159	3	He	1.072	ug/l	3950.52
Sb	123	159	1	NO GAS	1.028	ug/l	21833.78
Sb	123	159	3	He	1.139	ug/l	3411.50
Ba	135	159	1	NO GAS	1.054	ug/l	5912.77
Ba	137	159	1	NO GAS	1.087	ug/l	10585.98
La	139	175	1	NO GAS	1.109	ug/l	97068.13
La	139	175	3	He	1.117	ug/l	21793.91
Ce	140	175	1	NO GAS	1.064	ug/l	92420.43
Ce	140	175	3	He	1.091	ug/l	26987.22
Hg	201	175	1	NO GAS	0.021	ug/l	112.31
Hg	202	175	1	NO GAS	0.021	ug/l	286.94
Hg	202	175	3	He	0.021	ug/l	179.30
Tl	203	175	3	He	1.122	ug/l	16381.61
Tl	205	175	1	NO GAS	1.027	ug/l	72356.74
Tl	205	175	3	He	1.136	ug/l	40695.68
[Pb]	206	175	1	NO GAS	1.119	ug/l	25991.30
[Pb]	207	175	1	NO GAS	1.111	ug/l	22381.12
Pb	208	175	1	NO GAS	1.126	ug/l	103797.22
Th	232	175	3	He	1.007	ug/l	52726.51
U	238	175	1	NO GAS	1.077	ug/l	114122.22

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2062331.27	99.1
Sc	45	2	H2	92208.47	101.5
Sc	45	3	He	57320.00	104.4
Ge	72	1	NO GAS	969929.11	108.3
Ge	72	2	H2	132863.41	102.6
Ge	72	3	He	87909.35	104.3
Tb	159	1	NO GAS	20435835.95	101.6
Tb	159	3	He	7486314.70	101.9
Ho	165	1	NO GAS	19005717.55	101.2
Ho	165	3	He	7259442.94	100.2
Lu	175	1	NO GAS	20813195.38	104.0
Lu	175	3	He	4481773.13	101.6

ICPMS206-B Analytical Data

Sample Name	10 PPB STD
File Name	106CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 05:04:25
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	85.210	ug/l	66835.72
Be	9	45	1	NO GAS	8.806	ug/l	2765.34
B	11	45	1	NO GAS	8.351	ug/l	2229.71
Na	23	45	3	He	2373.541	ug/l	221385.23
Mg	24	45	3	He	2322.382	ug/l	108491.94
Al	27	45	1	NO GAS	9.137	ug/l	31365.28
Si	28	45	2	H2	-0.166	ug/l	980.50
K	39	72	3	He	2231.743	ug/l	106012.53
Ca	40	72	2	H2	2514.467	ug/l	466994.14
Ti	47	72	1	NO GAS	9.082	ug/l	8774.66
V	51	72	1	NO GAS	8.955	ug/l	112520.61
V	51	72	3	He	9.719	ug/l	13407.62
Cr	52	72	1	NO GAS	9.049	ug/l	141394.02
Cr	52	72	3	He	9.875	ug/l	17754.21
Cr	53	72	1	NO GAS	3.182	ug/l	141177.33
Mn	55	72	1	NO GAS	8.929	ug/l	189615.64
Mn	55	72	3	He	9.762	ug/l	8510.99
Fe	56	72	2	H2	253.961	ug/l	270136.65
Fe	56	72	3	He	254.852	ug/l	414501.43
Co	59	72	1	NO GAS	9.410	ug/l	172129.81
Ni	60	72	1	NO GAS	9.618	ug/l	38211.34
Ni	60	72	3	He	10.346	ug/l	11447.28
Ni	62	72	1	NO GAS	9.397	ug/l	6225.51
Cu	63	72	1	NO GAS	9.902	ug/l	100574.93
Cu	63	72	3	He	10.619	ug/l	35271.00
Cu	65	72	1	NO GAS	9.692	ug/l	48848.56
Zn	66	72	1	NO GAS	9.653	ug/l	32516.16
Zn	66	72	3	He	9.726	ug/l	4800.73
As	75	72	1	NO GAS	8.903	ug/l	36116.13
As	75	72	3	He	10.159	ug/l	3231.01
Se	78	72	2	H2	11.521	ug/l	1122.15
Br	79	72	1	NO GAS	0.101	ug/l	78389.12
Br	79	72	2	H2	1.579	ug/l	10652.38
Se	82	72	1	NO GAS	9.820	ug/l	3194.93
Kr	84	72	1	NO GAS		ug/l	10882.07
Sr	88	72	1	NO GAS	10.044	ug/l	415712.24
Sr	88	72	3	He	10.149	ug/l	16117.96

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	9.841	ug/l	87293.00
Mo	95	72	3	He	10.573	ug/l	27374.04
Mo	98	72	1	NO GAS	9.704	ug/l	147204.65
Ag	107	72	1	NO GAS	4.077	ug/l	104305.80
Ag	109	72	1	NO GAS	4.000	ug/l	100655.44
Cd	111	159	1	NO GAS	9.375	ug/l	59581.32
Cd	111	159	3	He	9.631	ug/l	13969.96
Cd	114	159	1	NO GAS	9.336	ug/l	137252.59
Cd	114	159	3	He	9.646	ug/l	36441.86
Sn	118	159	1	NO GAS	7.301	ug/l	182336.25
Sn	118	159	3	He	7.551	ug/l	27136.21
Sb	121	159	1	NO GAS	9.002	ug/l	240769.82
Sb	121	159	3	He	9.517	ug/l	33986.97
Sb	123	159	1	NO GAS	8.980	ug/l	190649.35
Sb	123	159	3	He	9.544	ug/l	27813.04
Ba	135	159	1	NO GAS	9.260	ug/l	52702.82
Ba	137	159	1	NO GAS	9.545	ug/l	94035.59
La	139	175	1	NO GAS	9.559	ug/l	870417.35
La	139	175	3	He	9.800	ug/l	183904.37
Ce	140	175	1	NO GAS	9.297	ug/l	840209.10
Ce	140	175	3	He	10.011	ug/l	238178.99
Hg	201	175	1	NO GAS	0.192	ug/l	888.85
Hg	202	175	1	NO GAS	0.194	ug/l	2094.73
Hg	202	175	3	He	0.208	ug/l	1400.45
Tl	203	175	3	He	10.215	ug/l	140371.25
Tl	205	175	1	NO GAS	9.286	ug/l	666414.45
Tl	205	175	3	He	10.204	ug/l	343808.66
[Pb]	206	175	1	NO GAS	9.632	ug/l	232445.59
[Pb]	207	175	1	NO GAS	9.356	ug/l	195639.59
Pb	208	175	1	NO GAS	9.571	ug/l	916302.39
Th	232	175	3	He	9.900	ug/l	486785.27
U	238	175	1	NO GAS	9.236	ug/l	1017308.04

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2265665.73	108.8
Sc	45	2	H2	80044.29	88.1
Sc	45	3	He	54158.98	98.6
Ge	72	1	NO GAS	979066.15	109.3
Ge	72	2	H2	116795.57	90.2
Ge	72	3	He	85630.73	101.6
Tb	159	1	NO GAS	20932849.19	104.0
Tb	159	3	He	7376704.05	100.4
Ho	165	1	NO GAS	19804794.51	105.5
Ho	165	3	He	7205577.15	99.5
Lu	175	1	NO GAS	21763163.86	108.7
Lu	175	3	He	4309824.46	97.7

ICPMS206-B Analytical Data

Sample Name	50 PPB STD
File Name	107CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 05:10:16
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	451.172	ug/l	304909.64
Be	9	45	1	NO GAS	49.424	ug/l	13913.72
B	11	45	1	NO GAS	48.140	ug/l	10068.25
Na	23	45	3	He	12716.737	ug/l	1232014.44
Mg	24	45	3	He	11838.899	ug/l	594422.76
Al	27	45	1	NO GAS	49.029	ug/l	148311.05
Si	28	45	2	H2	188.806	ug/l	4103.02
K	39	72	3	He	11193.166	ug/l	550023.47
Ca	40	72	2	H2	12418.885	ug/l	2630695.20
Ti	47	72	1	NO GAS	46.805	ug/l	42949.65
V	51	72	1	NO GAS	46.486	ug/l	657767.67
V	51	72	3	He	49.358	ug/l	70590.84
Cr	52	72	1	NO GAS	46.963	ug/l	633147.15
Cr	52	72	3	He	49.859	ug/l	94199.83
Cr	53	72	1	NO GAS	41.929	ug/l	175600.20
Mn	55	72	1	NO GAS	47.374	ug/l	953788.16
Mn	55	72	3	He	49.666	ug/l	45754.24
Fe	56	72	2	H2	1237.376	ug/l	1504066.03
Fe	56	72	3	He	1283.018	ug/l	2203633.71
Co	59	72	1	NO GAS	47.196	ug/l	822137.46
Ni	60	72	1	NO GAS	47.933	ug/l	181460.27
Ni	60	72	3	He	50.448	ug/l	58894.94
Ni	62	72	1	NO GAS	49.748	ug/l	29621.02
Cu	63	72	1	NO GAS	49.114	ug/l	472952.62
Cu	63	72	3	He	50.794	ug/l	177636.39
Cu	65	72	1	NO GAS	49.036	ug/l	234277.72
Zn	66	72	1	NO GAS	47.176	ug/l	150130.44
Zn	66	72	3	He	50.729	ug/l	26229.53
As	75	72	1	NO GAS	48.049	ug/l	168963.93
As	75	72	3	He	50.589	ug/l	16986.23
Se	78	72	2	H2	53.153	ug/l	5926.55
Br	79	72	1	NO GAS	0.127	ug/l	74836.97
Br	79	72	2	H2	0.752	ug/l	11321.58
Se	82	72	1	NO GAS	50.054	ug/l	14717.73
Kr	84	72	1	NO GAS		ug/l	19379.65
Sr	88	72	1	NO GAS	49.630	ug/l	1954347.15
Sr	88	72	3	He	51.090	ug/l	84792.50

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	48.877	ug/l	412558.08
Mo	95	72	3	He	51.069	ug/l	139640.11
Mo	98	72	1	NO GAS	48.087	ug/l	694151.92
Ag	107	72	1	NO GAS	19.906	ug/l	477651.92
Ag	109	72	1	NO GAS	19.923	ug/l	470739.59
Cd	111	159	1	NO GAS	49.145	ug/l	280674.73
Cd	111	159	3	He	50.027	ug/l	72275.05
Cd	114	159	1	NO GAS	48.854	ug/l	647450.58
Cd	114	159	3	He	49.908	ug/l	187819.63
Sn	118	159	1	NO GAS	47.909	ug/l	841121.18
Sn	118	159	3	He	47.208	ug/l	131773.09
Sb	121	159	1	NO GAS	47.520	ug/l	1142173.84
Sb	121	159	3	He	48.569	ug/l	172407.93
Sb	123	159	1	NO GAS	47.248	ug/l	901288.39
Sb	123	159	3	He	48.485	ug/l	140451.43
Ba	135	159	1	NO GAS	49.749	ug/l	254650.75
Ba	137	159	1	NO GAS	47.998	ug/l	426337.66
La	139	175	1	NO GAS	49.300	ug/l	4011464.50
La	139	175	3	He	48.641	ug/l	911701.81
Ce	140	175	1	NO GAS	48.483	ug/l	3914568.10
Ce	140	175	3	He	48.435	ug/l	1151630.04
Hg	201	175	1	NO GAS	1.010	ug/l	4089.07
Hg	202	175	1	NO GAS	0.988	ug/l	9228.63
Hg	202	175	3	He	1.018	ug/l	6710.48
Tl	203	175	3	He	50.978	ug/l	698221.12
Tl	205	175	1	NO GAS	49.620	ug/l	3175401.38
Tl	205	175	3	He	51.899	ug/l	1743339.40
[Pb]	206	175	1	NO GAS	48.979	ug/l	1056305.08
[Pb]	207	175	1	NO GAS	48.462	ug/l	906009.11
Pb	208	175	1	NO GAS	49.469	ug/l	4232101.83
Th	232	175	3	He	51.787	ug/l	2537167.25
U	238	175	1	NO GAS	48.788	ug/l	4801283.96

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2018978.14	97.0
Sc	45	2	H2	93289.84	102.7
Sc	45	3	He	58211.24	106.0
Ge	72	1	NO GAS	930154.06	103.8
Ge	72	2	H2	133296.79	103.0
Ge	72	3	He	90545.24	107.4
Tb	159	1	NO GAS	18718159.37	93.0
Tb	159	3	He	7348364.67	100.0
Ho	165	1	NO GAS	17528716.23	93.4
Ho	165	3	He	7068048.69	97.6
Lu	175	1	NO GAS	19390700.02	96.9
Lu	175	3	He	4305685.59	97.6

ICPMS206-B Analytical Data

Sample Name	100 PPB STD
File Name	108CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 05:16:05
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020B-CAL
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1069.724	ug/l	708297.94
Be	9	45	1	NO GAS	100.407	ug/l	31458.50
B	11	45	1	NO GAS	101.103	ug/l	23178.18
Na	23	45	3	He	24625.576	ug/l	2703618.45
Mg	24	45	3	He	24392.602	ug/l	1392240.20
Al	27	45	1	NO GAS	100.570	ug/l	338126.04
Si	28	45	2	H2	410.386	ug/l	9422.06
K	39	72	3	He	24090.864	ug/l	1284170.05
Ca	40	72	2	H2	23773.835	ug/l	5826619.59
Ti	47	72	1	NO GAS	101.689	ug/l	94351.53
V	51	72	1	NO GAS	101.858	ug/l	1488476.59
V	51	72	3	He	100.349	ug/l	155816.61
Cr	52	72	1	NO GAS	101.614	ug/l	1367085.54
Cr	52	72	3	He	100.082	ug/l	205590.81
Cr	53	72	1	NO GAS	104.789	ug/l	244939.56
Mn	55	72	1	NO GAS	101.420	ug/l	2064639.16
Mn	55	72	3	He	100.189	ug/l	100404.51
Fe	56	72	2	H2	2339.198	ug/l	3286681.57
Fe	56	72	3	He	2602.129	ug/l	4863962.43
Co	59	72	1	NO GAS	101.460	ug/l	1788066.89
Ni	60	72	1	NO GAS	101.071	ug/l	387110.97
Ni	60	72	3	He	99.739	ug/l	126701.32
Ni	62	72	1	NO GAS	100.188	ug/l	59931.52
Cu	63	72	1	NO GAS	100.452	ug/l	978151.50
Cu	63	72	3	He	99.539	ug/l	378642.99
Cu	65	72	1	NO GAS	100.512	ug/l	485668.11
Zn	66	72	1	NO GAS	101.447	ug/l	326276.73
Zn	66	72	3	He	99.661	ug/l	55983.23
As	75	72	1	NO GAS	101.085	ug/l	355288.36
As	75	72	3	He	99.689	ug/l	36420.55
Se	78	72	2	H2	98.267	ug/l	12662.30
Br	79	72	1	NO GAS	0.823	ug/l	80491.66
Br	79	72	2	H2	0.322	ug/l	12609.93
Se	82	72	1	NO GAS	99.979	ug/l	29537.88
Kr	84	72	1	NO GAS		ug/l	31794.13
Sr	88	72	1	NO GAS	100.180	ug/l	3989793.74
Sr	88	72	3	He	99.438	ug/l	179440.16

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	100.577	ug/l	858672.43
Mo	95	72	3	He	99.406	ug/l	295772.33
Mo	98	72	1	NO GAS	100.985	ug/l	1474337.75
Ag	107	72	1	NO GAS	40.039	ug/l	969950.18
Ag	109	72	1	NO GAS	40.038	ug/l	954983.26
Cd	111	159	1	NO GAS	100.489	ug/l	569214.46
Cd	111	159	3	He	100.022	ug/l	145066.31
Cd	114	159	1	NO GAS	100.638	ug/l	1323356.05
Cd	114	159	3	He	100.080	ug/l	378370.17
Sn	118	159	1	NO GAS	101.354	ug/l	1718635.56
Sn	118	159	3	He	101.680	ug/l	276872.66
Sb	121	159	1	NO GAS	101.340	ug/l	2416370.33
Sb	121	159	3	He	100.763	ug/l	359124.80
Sb	123	159	1	NO GAS	101.478	ug/l	1920387.42
Sb	123	159	3	He	100.802	ug/l	293168.93
Ba	135	159	1	NO GAS	100.199	ug/l	509026.77
Ba	137	159	1	NO GAS	101.046	ug/l	890055.94
La	139	175	1	NO GAS	100.393	ug/l	8070390.16
La	139	175	3	He	100.698	ug/l	1946132.31
Ce	140	175	1	NO GAS	100.828	ug/l	8038615.00
Ce	140	175	3	He	100.780	ug/l	2469618.78
Hg	201	175	1	NO GAS	1.996	ug/l	7964.16
Hg	202	175	1	NO GAS	2.007	ug/l	18447.48
Hg	202	175	3	He	1.990	ug/l	13486.27
Tl	203	175	3	He	99.488	ug/l	1404723.43
Tl	205	175	1	NO GAS	100.261	ug/l	6340544.08
Tl	205	175	3	He	99.029	ug/l	3427826.15
[Pb]	206	175	1	NO GAS	100.546	ug/l	2141764.50
[Pb]	207	175	1	NO GAS	100.832	ug/l	1863639.03
Pb	208	175	1	NO GAS	100.307	ug/l	8488818.40
Th	232	175	3	He	99.117	ug/l	5008271.64
U	238	175	1	NO GAS	100.682	ug/l	9795766.44

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2251194.05	108.1
Sc	45	2	H2	116064.13	127.8
Sc	45	3	He	66213.54	120.6
Ge	72	1	NO GAS	940583.84	105.0
Ge	72	2	H2	154064.69	119.0
Ge	72	3	He	98609.76	117.0
Tb	159	1	NO GAS	18584674.43	92.4
Tb	159	3	He	7379678.58	100.4
Ho	165	1	NO GAS	17290564.54	92.1
Ho	165	3	He	7338443.86	101.3
Lu	175	1	NO GAS	19210667.91	96.0
Lu	175	3	He	4440233.78	100.7

ICPMS206-B Analytical Data

Sample Name	100 ppb Bromine
File Name	110CALS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 05:27:26
Sample Type	CalStd
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.463	ug/l	4239.01
Be	9	45	1	NO GAS	0.193	ug/l	71.99
B	11	45	1	NO GAS	5.777	ug/l	1875.74
Na	23	45	3	He	39.462	ug/l	15940.74
Mg	24	45	3	He	5.205	ug/l	395.89
Al	27	45	1	NO GAS	9.077	ug/l	35467.70
Si	28	45	2	H2	-65.415	ug/l	168.64
K	39	72	3	He	540.856	ug/l	32726.87
Ca	40	72	2	H2	8.611	ug/l	2975.47
Ti	47	72	1	NO GAS	0.089	ug/l	134.93
V	51	72	1	NO GAS	1.758	ug/l	1515.63
V	51	72	3	He	0.020	ug/l	411.12
Cr	52	72	1	NO GAS	-0.038	ug/l	16881.69
Cr	52	72	3	He	0.145	ug/l	462.43
Cr	53	72	1	NO GAS	-55.818	ug/l	80133.17
Mn	55	72	1	NO GAS	0.119	ug/l	3899.42
Mn	55	72	3	He	0.120	ug/l	133.68
Fe	56	72	2	H2	1.235	ug/l	2239.06
Fe	56	72	3	He	1.153	ug/l	2848.85
Co	59	72	1	NO GAS	0.111	ug/l	2219.10
Ni	60	72	1	NO GAS	0.182	ug/l	785.13
Ni	60	72	3	He	0.213	ug/l	314.45
Ni	62	72	1	NO GAS	0.245	ug/l	615.46
Cu	63	72	1	NO GAS	0.203	ug/l	2719.02
Cu	63	72	3	He	0.196	ug/l	978.17
Cu	65	72	1	NO GAS	0.195	ug/l	1307.80
Zn	66	72	1	NO GAS	0.611	ug/l	2541.64
Zn	66	72	3	He	0.613	ug/l	420.01
As	75	72	1	NO GAS	0.809	ug/l	7270.37
As	75	72	3	He	0.143	ug/l	60.99
Se	78	72	2	H2	0.209	ug/l	33.32
Br	79	72	1	NO GAS	100.000	ug/l	840232.42
Br	79	72	2	H2	100.000	ug/l	136619.15
Se	82	72	1	NO GAS	4.274	ug/l	1584.40
Kr	84	72	1	NO GAS		ug/l	8848.23
Sr	88	72	1	NO GAS	0.099	ug/l	4784.60
Sr	88	72	3	He	0.113	ug/l	474.46

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.018	ug/l	268.89
Mo	95	72	3	He	0.015	ug/l	93.33
Mo	98	72	1	NO GAS	0.011	ug/l	353.21
Ag	107	72	1	NO GAS	1.533	ug/l	42967.48
Ag	109	72	1	NO GAS	1.581	ug/l	43517.05
Cd	111	159	1	NO GAS	0.105	ug/l	649.79
Cd	111	159	3	He	0.099	ug/l	154.64
Cd	114	159	1	NO GAS	0.106	ug/l	1280.03
Cd	114	159	3	He	0.107	ug/l	399.85
Sn	118	159	1	NO GAS	-2.186	ug/l	6824.69
Sn	118	159	3	He	-2.296	ug/l	1064.49
Sb	121	159	1	NO GAS	0.021	ug/l	1098.94
Sb	121	159	3	He	0.021	ug/l	157.78
Sb	123	159	1	NO GAS	0.022	ug/l	885.59
Sb	123	159	3	He	0.030	ug/l	143.34
Ba	135	159	1	NO GAS	0.144	ug/l	805.10
Ba	137	159	1	NO GAS	0.138	ug/l	1334.09
La	139	175	1	NO GAS	0.002	ug/l	236.91
La	139	175	3	He	0.001	ug/l	36.70
Ce	140	175	1	NO GAS	0.003	ug/l	320.33
Ce	140	175	3	He	0.004	ug/l	113.45
Hg	201	175	1	NO GAS	0.004	ug/l	39.32
Hg	202	175	1	NO GAS	0.004	ug/l	122.64
Hg	202	175	3	He	0.004	ug/l	68.65
Tl	203	175	3	He	0.363	ug/l	5726.63
Tl	205	175	1	NO GAS	0.330	ug/l	24181.68
Tl	205	175	3	He	0.359	ug/l	13940.34
[Pb]	206	175	1	NO GAS	0.119	ug/l	2783.62
[Pb]	207	175	1	NO GAS	0.114	ug/l	2316.86
Pb	208	175	1	NO GAS	0.117	ug/l	10904.98
Th	232	175	3	He	0.296	ug/l	16954.97
U	238	175	1	NO GAS	0.126	ug/l	13355.01

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2572099.57	123.6
Sc	45	2	H2	123889.40	136.4
Sc	45	3	He	68062.89	123.9
Ge	72	1	NO GAS	1035774.36	115.6
Ge	72	2	H2	165543.65	127.9
Ge	72	3	He	100629.48	119.4
Tb	159	1	NO GAS	19790598.44	98.3
Tb	159	3	He	7802654.00	106.2
Ho	165	1	NO GAS	18498642.37	98.5
Ho	165	3	He	7530503.57	104.0
Lu	175	1	NO GAS	20575906.01	102.8
Lu	175	3	He	4609688.43	104.5

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	111BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 05:33:14
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.780	ug/l	3103.67
Be	9	45	1	NO GAS	0.057	ug/l	24.00
B	11	45	1	NO GAS	1.265	ug/l	716.54
Na	23	45	3	He	127.207	ug/l	25494.39
Mg	24	45	3	He	1.046	ug/l	149.70
Al	27	45	1	NO GAS	1.119	ug/l	4964.09
Si	28	45	2	H2	-8.004	ug/l	1025.91
K	39	72	3	He	6.398	ug/l	3657.09
Ca	40	72	2	H2	2.406	ug/l	1229.44
Ti	47	72	1	NO GAS	0.006	ug/l	49.97
V	51	72	1	NO GAS	1.399	ug/l	-4482.46
V	51	72	3	He	-0.079	ug/l	250.00
Cr	52	72	1	NO GAS	-0.187	ug/l	14910.39
Cr	52	72	3	He	0.011	ug/l	179.65
Cr	53	72	1	NO GAS	-58.478	ug/l	78340.31
Mn	55	72	1	NO GAS	0.007	ug/l	1413.94
Mn	55	72	3	He	0.018	ug/l	29.33
Fe	56	72	2	H2	0.358	ug/l	847.95
Fe	56	72	3	He	0.301	ug/l	1206.12
Co	59	72	1	NO GAS	0.013	ug/l	342.66
Ni	60	72	1	NO GAS	0.030	ug/l	143.05
Ni	60	72	3	He	0.000	ug/l	37.78
Ni	62	72	1	NO GAS	0.168	ug/l	578.87
Cu	63	72	1	NO GAS	0.023	ug/l	809.86
Cu	63	72	3	He	0.017	ug/l	279.61
Cu	65	72	1	NO GAS	0.014	ug/l	359.93
Zn	66	72	1	NO GAS	0.033	ug/l	505.49
Zn	66	72	3	He	0.048	ug/l	94.45
As	75	72	1	NO GAS	0.241	ug/l	5157.28
As	75	72	3	He	0.020	ug/l	14.67
Se	78	72	2	H2	0.055	ug/l	11.33
Br	79	72	1	NO GAS	-1.595	ug/l	71505.24
Br	79	72	2	H2	-0.253	ug/l	11814.23
Se	82	72	1	NO GAS	1.192	ug/l	606.85
Kr	84	72	1	NO GAS		ug/l	9114.50
Sr	88	72	1	NO GAS	0.015	ug/l	1127.82
Sr	88	72	3	He	0.020	ug/l	298.90

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.007	ug/l	174.45
Mo	95	72	3	He	0.003	ug/l	55.56
Mo	98	72	1	NO GAS	0.004	ug/l	251.40
Ag	107	72	1	NO GAS	0.107	ug/l	5074.47
Ag	109	72	1	NO GAS	0.170	ug/l	6559.23
Cd	111	159	1	NO GAS	0.004	ug/l	35.21
Cd	111	159	3	He	0.020	ug/l	33.33
Cd	114	159	1	NO GAS	0.013	ug/l	-41.94
Cd	114	159	3	He	0.021	ug/l	55.84
Sn	118	159	1	NO GAS	-2.326	ug/l	4421.90
Sn	118	159	3	He	-2.424	ug/l	696.69
Sb	121	159	1	NO GAS	0.000	ug/l	570.02
Sb	121	159	3	He	0.013	ug/l	125.56
Sb	123	159	1	NO GAS	-0.002	ug/l	408.90
Sb	123	159	3	He	-0.001	ug/l	47.78
Ba	135	159	1	NO GAS	0.033	ug/l	192.96
Ba	137	159	1	NO GAS	0.040	ug/l	422.50
La	139	175	1	NO GAS	0.002	ug/l	210.22
La	139	175	3	He	0.004	ug/l	86.75
Ce	140	175	1	NO GAS	0.003	ug/l	290.30
Ce	140	175	3	He	0.001	ug/l	36.70
Hg	201	175	1	NO GAS	0.001	ug/l	28.33
Hg	202	175	1	NO GAS	0.001	ug/l	86.98
Hg	202	175	3	He	0.001	ug/l	47.32
Tl	203	175	3	He	0.210	ug/l	3576.39
Tl	205	175	1	NO GAS	0.212	ug/l	16106.49
Tl	205	175	3	He	0.209	ug/l	8780.15
[Pb]	206	175	1	NO GAS	0.011	ug/l	323.34
[Pb]	207	175	1	NO GAS	0.014	ug/l	330.01
Pb	208	175	1	NO GAS	0.013	ug/l	1426.71
Th	232	175	3	He	0.053	ug/l	4337.79
U	238	175	1	NO GAS	0.016	ug/l	1807.75

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2632555.81	126.5
Sc	45	2	H2	110032.54	121.2
Sc	45	3	He	67294.14	122.5
Ge	72	1	NO GAS	1064867.36	118.9
Ge	72	2	H2	155009.15	119.7
Ge	72	3	He	99063.30	117.5
Tb	159	1	NO GAS	20303508.63	100.9
Tb	159	3	He	7679126.72	104.5
Ho	165	1	NO GAS	19085175.54	101.7
Ho	165	3	He	7505515.36	103.6
Lu	175	1	NO GAS	20814109.21	104.0
Lu	175	3	He	4738398.34	107.4

ICPMS206-B Analytical Data

Sample Name	QCS
File Name	112_QCS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 05:38:59
Sample Type	QCS
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	44.876	ug/l	33828.49
Be	9	45	1	NO GAS	25.036	ug/l	8502.37
B	11	45	1	NO GAS	50.564	ug/l	12717.48
Na	23	45	3	He	2488.573	ug/l	285113.46
Mg	24	45	3	He	2403.282	ug/l	138196.50
Al	27	45	1	NO GAS	254.127	ug/l	923837.76
Si	28	45	2	H2	565.019	ug/l	12573.46
K	39	72	3	He	2413.248	ug/l	133177.19
Ca	40	72	2	H2	2600.611	ug/l	671005.70
Ti	47	72	1	NO GAS	48.506	ug/l	49863.16
V	51	72	1	NO GAS	50.084	ug/l	796782.13
V	51	72	3	He	50.671	ug/l	79800.15
Cr	52	72	1	NO GAS	49.480	ug/l	746232.65
Cr	52	72	3	He	51.481	ug/l	107071.89
Cr	53	72	1	NO GAS	19.689	ug/l	170213.74
Mn	55	72	1	NO GAS	254.141	ug/l	5727784.47
Mn	55	72	3	He	256.660	ug/l	260203.94
Fe	56	72	2	H2	245.295	ug/l	363050.92
Fe	56	72	3	He	256.003	ug/l	484527.48
Co	59	72	1	NO GAS	49.816	ug/l	972308.15
Ni	60	72	1	NO GAS	50.488	ug/l	214193.26
Ni	60	72	3	He	52.862	ug/l	67924.51
Ni	62	72	1	NO GAS	49.565	ug/l	33073.96
Cu	63	72	1	NO GAS	52.021	ug/l	561284.35
Cu	63	72	3	He	54.517	ug/l	209874.73
Cu	65	72	1	NO GAS	52.024	ug/l	278544.78
Zn	66	72	1	NO GAS	50.778	ug/l	181075.90
Zn	66	72	3	He	53.685	ug/l	30544.51
As	75	72	1	NO GAS	49.178	ug/l	193596.60
As	75	72	3	He	50.897	ug/l	18814.48
Se	78	72	2	H2	52.951	ug/l	7177.46
Br	79	72	1	NO GAS	0.610	ug/l	87500.35
Br	79	72	2	H2	1.703	ug/l	14930.52
Se	82	72	1	NO GAS	50.284	ug/l	16555.81
Kr	84	72	1	NO GAS		ug/l	21921.08
Sr	88	72	1	NO GAS	48.634	ug/l	2145212.26
Sr	88	72	3	He	52.024	ug/l	95062.66

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	48.025	ug/l	454175.95
Mo	95	72	3	He	50.785	ug/l	152871.30
Mo	98	72	1	NO GAS	47.094	ug/l	761590.13
Ag	107	72	1	NO GAS	25.237	ug/l	677918.64
Ag	109	72	1	NO GAS	24.919	ug/l	659049.83
Cd	111	159	1	NO GAS	26.010	ug/l	157019.20
Cd	111	159	3	He	27.052	ug/l	40201.73
Cd	114	159	1	NO GAS	26.157	ug/l	366166.13
Cd	114	159	3	He	26.187	ug/l	101396.30
Sn	118	159	1	NO GAS	49.424	ug/l	915152.92
Sn	118	159	3	He	50.581	ug/l	144776.60
Sb	121	159	1	NO GAS	50.260	ug/l	1276162.84
Sb	121	159	3	He	51.913	ug/l	189580.05
Sb	123	159	1	NO GAS	49.678	ug/l	1001416.52
Sb	123	159	3	He	52.102	ug/l	155241.09
Ba	135	159	1	NO GAS	51.256	ug/l	277148.08
Ba	137	159	1	NO GAS	50.369	ug/l	472676.67
La	139	175	1	NO GAS	50.909	ug/l	4392384.16
La	139	175	3	He	51.030	ug/l	989039.05
Ce	140	175	1	NO GAS	50.780	ug/l	4347966.56
Ce	140	175	3	He	52.273	ug/l	1284758.44
Hg	201	175	1	NO GAS	0.979	ug/l	4203.41
Hg	202	175	1	NO GAS	0.984	ug/l	9750.18
Hg	202	175	3	He	1.010	ug/l	6882.52
Tl	203	175	3	He	53.628	ug/l	759413.72
Tl	205	175	1	NO GAS	48.992	ug/l	3322779.60
Tl	205	175	3	He	53.218	ug/l	1848238.62
[Pb]	206	175	1	NO GAS	50.509	ug/l	1154374.93
[Pb]	207	175	1	NO GAS	49.509	ug/l	981528.28
Pb	208	175	1	NO GAS	50.763	ug/l	4605994.16
Th	232	175	3	He	53.131	ug/l	2692214.78
U	238	175	1	NO GAS	52.163	ug/l	5447031.62

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2436849.72	117.1
Sc	45	2	H2	117413.38	129.3
Sc	45	3	He	66624.28	121.3
Ge	72	1	NO GAS	1041647.99	116.3
Ge	72	2	H2	162091.94	125.2
Ge	72	3	He	99674.38	118.2
Tb	159	1	NO GAS	19775924.81	98.3
Tb	159	3	He	7556990.16	102.9
Ho	165	1	NO GAS	18262726.46	97.3
Ho	165	3	He	7345086.49	101.4
Lu	175	1	NO GAS	20546087.86	102.7
Lu	175	3	He	4453170.20	101.0

ICPMS206-B Analytical Data

Sample Name	ICSA
File Name	113ICSA.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 05:44:41
Sample Type	ICSA
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.180	ug/l	2365.70
Be	9	45	1	NO GAS	0.017	ug/l	7.67
B	11	45	1	NO GAS	0.605	ug/l	481.25
Na	23	45	3	He	96156.145	ug/l	8525205.22
Mg	24	45	3	He	38617.401	ug/l	1785609.91
Al	27	45	1	NO GAS	36345.365	ug/l	125167278.14
Si	28	45	2	H2	-66.447	ug/l	108.65
K	39	72	3	He	35298.623	ug/l	1652284.21
Ca	40	72	2	H2	106618.250	ug/l	23498382.85
Ti	47	72	1	NO GAS	788.404	ug/l	750123.51
V	51	72	1	NO GAS	1.080	ug/l	-8868.45
V	51	72	3	He	-0.162	ug/l	105.56
Cr	52	72	1	NO GAS	0.653	ug/l	25159.05
Cr	52	72	3	He	0.871	ug/l	1706.72
Cr	53	72	1	NO GAS	-79.782	ug/l	48291.26
Mn	55	72	1	NO GAS	0.181	ug/l	4924.35
Mn	55	72	3	He	0.198	ug/l	184.02
Fe	56	72	2	H2	90797.874	ug/l	114607886.92
Fe	56	72	3	He	94804.754	ug/l	155645931.66
Co	59	72	1	NO GAS	0.353	ug/l	6445.15
Ni	60	72	1	NO GAS	1.355	ug/l	5343.65
Ni	60	72	3	He	0.170	ug/l	223.34
Ni	62	72	1	NO GAS	3.012	ug/l	2259.02
Cu	63	72	1	NO GAS	1.438	ug/l	14861.63
Cu	63	72	3	He	0.023	ug/l	266.95
Cu	65	72	1	NO GAS	0.491	ug/l	2685.02
Zn	66	72	1	NO GAS	0.757	ug/l	2844.97
Zn	66	72	3	He	0.454	ug/l	283.34
As	75	72	1	NO GAS	-0.033	ug/l	3787.74
As	75	72	3	He	0.069	ug/l	28.66
Se	78	72	2	H2	0.139	ug/l	19.67
Br	79	72	1	NO GAS	0.396	ug/l	79548.22
Br	79	72	2	H2	0.644	ug/l	11667.75
Se	82	72	1	NO GAS	1.174	ug/l	546.30
Kr	84	72	1	NO GAS		ug/l	8751.72
Sr	88	72	1	NO GAS	1.214	ug/l	50023.28
Sr	88	72	3	He	1.309	ug/l	2300.18

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	771.166	ug/l	6754848.79
Mo	95	72	3	He	821.142	ug/l	2145745.84
Mo	98	72	1	NO GAS	768.894	ug/l	11515789.28
Ag	107	72	1	NO GAS	0.023	ug/l	2563.70
Ag	109	72	1	NO GAS	0.058	ug/l	3290.79
Cd	111	159	1	NO GAS	0.030	ug/l	190.74
Cd	111	159	3	He	0.198	ug/l	274.62
Cd	114	159	1	NO GAS	0.081	ug/l	918.41
Cd	114	159	3	He	0.153	ug/l	521.53
Sn	118	159	1	NO GAS	-2.146	ug/l	7420.40
Sn	118	159	3	He	-2.207	ug/l	1174.50
Sb	121	159	1	NO GAS	0.055	ug/l	1921.25
Sb	121	159	3	He	0.038	ug/l	198.89
Sb	123	159	1	NO GAS	0.050	ug/l	1433.41
Sb	123	159	3	He	0.058	ug/l	206.67
Ba	135	159	1	NO GAS	0.058	ug/l	332.68
Ba	137	159	1	NO GAS	0.070	ug/l	691.98
La	139	175	1	NO GAS	0.010	ug/l	897.62
La	139	175	3	He	0.010	ug/l	200.21
Ce	140	175	1	NO GAS	0.003	ug/l	323.67
Ce	140	175	3	He	0.005	ug/l	123.46
Hg	201	175	1	NO GAS	0.006	ug/l	45.32
Hg	202	175	1	NO GAS	0.005	ug/l	125.65
Hg	202	175	3	He	0.004	ug/l	64.66
Tl	203	175	3	He	0.177	ug/l	2809.71
Tl	205	175	1	NO GAS	0.160	ug/l	12370.68
Tl	205	175	3	He	0.174	ug/l	6839.54
[Pb]	206	175	1	NO GAS	0.019	ug/l	490.01
[Pb]	207	175	1	NO GAS	0.018	ug/l	414.46
Pb	208	175	1	NO GAS	0.019	ug/l	1963.41
Th	232	175	3	He	0.157	ug/l	9044.96
U	238	175	1	NO GAS	0.006	ug/l	830.86

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2306357.16	110.8
Sc	45	2	H2	90397.68	99.5
Sc	45	3	He	53622.41	97.6
Ge	72	1	NO GAS	964924.16	107.7
Ge	72	2	H2	138496.87	107.0
Ge	72	3	He	86551.29	102.7
Tb	159	1	NO GAS	19488014.41	96.8
Tb	159	3	He	6967589.06	94.8
Ho	165	1	NO GAS	18458253.85	98.3
Ho	165	3	He	6850327.12	94.6
Lu	175	1	NO GAS	20187537.24	100.9
Lu	175	3	He	4314301.60	97.8

ICPMS206-B Analytical Data

Sample Name	ICSAB
File Name	114ICSB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 05:50:25
Sample Type	ICSB
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.591	ug/l	1993.73
Be	9	45	1	NO GAS	0.022	ug/l	8.00
B	11	45	1	NO GAS	-0.295	ug/l	237.29
Na	23	45	3	He	92370.567	ug/l	7328518.71
Mg	24	45	3	He	35999.423	ug/l	1489694.49
Al	27	45	1	NO GAS	34292.967	ug/l	102820764.03
Si	28	45	2	H2	-65.945	ug/l	92.65
K	39	72	3	He	32991.151	ug/l	1417966.26
Ca	40	72	2	H2	96843.091	ug/l	18546511.03
Ti	47	72	1	NO GAS	726.812	ug/l	648337.60
V	51	72	1	NO GAS	18.311	ug/l	237950.69
V	51	72	3	He	18.545	ug/l	23477.45
Cr	52	72	1	NO GAS	18.479	ug/l	251716.59
Cr	52	72	3	He	20.194	ug/l	33566.76
Cr	53	72	1	NO GAS	-57.552	ug/l	68246.55
Mn	55	72	1	NO GAS	18.438	ug/l	361940.12
Mn	55	72	3	He	19.144	ug/l	15484.93
Fe	56	72	2	H2	86805.917	ug/l	95215723.67
Fe	56	72	3	He	96300.033	ug/l	145176515.84
Co	59	72	1	NO GAS	18.925	ug/l	320813.22
Ni	60	72	1	NO GAS	19.620	ug/l	72294.96
Ni	60	72	3	He	19.861	ug/l	20371.25
Ni	62	72	1	NO GAS	21.397	ug/l	12633.16
Cu	63	72	1	NO GAS	19.978	ug/l	187554.87
Cu	63	72	3	He	19.511	ug/l	60007.26
Cu	65	72	1	NO GAS	18.966	ug/l	88347.64
Zn	66	72	1	NO GAS	9.807	ug/l	30643.96
Zn	66	72	3	He	10.107	ug/l	4630.67
As	75	72	1	NO GAS	9.844	ug/l	36592.89
As	75	72	3	He	10.422	ug/l	3076.67
Se	78	72	2	H2	10.980	ug/l	1108.15
Br	79	72	1	NO GAS	0.891	ug/l	77876.88
Br	79	72	2	H2	2.132	ug/l	11487.95
Se	82	72	1	NO GAS	10.788	ug/l	3230.82
Kr	84	72	1	NO GAS		ug/l	8581.93
Sr	88	72	1	NO GAS	1.226	ug/l	47364.08
Sr	88	72	3	He	1.322	ug/l	2131.27

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	795.754	ug/l	6535239.69
Mo	95	72	3	He	868.529	ug/l	2084264.62
Mo	98	72	1	NO GAS	791.217	ug/l	11114305.05
Ag	107	72	1	NO GAS	4.910	ug/l	116051.60
Ag	109	72	1	NO GAS	4.843	ug/l	112681.05
Cd	111	159	1	NO GAS	9.217	ug/l	53893.65
Cd	111	159	3	He	9.732	ug/l	12844.55
Cd	114	159	1	NO GAS	9.263	ug/l	125467.00
Cd	114	159	3	He	9.569	ug/l	32888.15
Sn	118	159	1	NO GAS	-2.154	ug/l	7147.48
Sn	118	159	3	He	-2.206	ug/l	1133.38
Sb	121	159	1	NO GAS	0.013	ug/l	863.36
Sb	121	159	3	He	0.020	ug/l	133.34
Sb	123	159	1	NO GAS	0.016	ug/l	741.14
Sb	123	159	3	He	0.030	ug/l	124.45
Ba	135	159	1	NO GAS	0.068	ug/l	379.26
Ba	137	159	1	NO GAS	0.069	ug/l	665.37
La	139	175	1	NO GAS	0.009	ug/l	774.14
La	139	175	3	He	0.009	ug/l	170.18
Ce	140	175	1	NO GAS	0.003	ug/l	300.31
Ce	140	175	3	He	0.004	ug/l	110.11
Hg	201	175	1	NO GAS	0.001	ug/l	26.99
Hg	202	175	1	NO GAS	0.002	ug/l	97.65
Hg	202	175	3	He	0.003	ug/l	51.66
Tl	203	175	3	He	0.143	ug/l	2235.73
Tl	205	175	1	NO GAS	0.141	ug/l	10848.40
Tl	205	175	3	He	0.138	ug/l	5346.57
[Pb]	206	175	1	NO GAS	0.019	ug/l	474.46
[Pb]	207	175	1	NO GAS	0.019	ug/l	410.01
Pb	208	175	1	NO GAS	0.019	ug/l	1886.73
Th	232	175	3	He	0.086	ug/l	5312.58
U	238	175	1	NO GAS	0.002	ug/l	385.60

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2008179.97	96.5
Sc	45	2	H2	72539.00	79.9
Sc	45	3	He	47980.30	87.4
Ge	72	1	NO GAS	905190.47	101.0
Ge	72	2	H2	120344.68	92.9
Ge	72	3	He	79484.66	94.3
Tb	159	1	NO GAS	19147312.26	95.2
Tb	159	3	He	6711538.33	91.4
Ho	165	1	NO GAS	17747591.55	94.5
Ho	165	3	He	6647417.24	91.8
Lu	175	1	NO GAS	19685215.77	98.4
Lu	175	3	He	4107604.26	93.1

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	115BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 05:56:09
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.826	ug/l	2007.72
Be	9	45	1	NO GAS	0.062	ug/l	19.67
B	11	45	1	NO GAS	-0.305	ug/l	241.29
Na	23	45	3	He	28.610	ug/l	11563.92
Mg	24	45	3	He	4.160	ug/l	262.82
Al	27	45	1	NO GAS	0.805	ug/l	3019.17
Si	28	45	2	H2	-64.750	ug/l	126.64
K	39	72	3	He	8.039	ug/l	3270.89
Ca	40	72	2	H2	7.477	ug/l	2165.75
Ti	47	72	1	NO GAS	0.059	ug/l	98.29
V	51	72	1	NO GAS	0.853	ug/l	-12449.38
V	51	72	3	He	-0.090	ug/l	203.34
Cr	52	72	1	NO GAS	-0.567	ug/l	8591.90
Cr	52	72	3	He	0.060	ug/l	246.18
Cr	53	72	1	NO GAS	-90.580	ug/l	36781.57
Mn	55	72	1	NO GAS	0.068	ug/l	2598.40
Mn	55	72	3	He	0.080	ug/l	79.68
Fe	56	72	2	H2	2.587	ug/l	3455.34
Fe	56	72	3	He	2.880	ug/l	5293.24
Co	59	72	1	NO GAS	0.052	ug/l	1011.36
Ni	60	72	1	NO GAS	0.067	ug/l	286.10
Ni	60	72	3	He	0.044	ug/l	82.22
Ni	62	72	1	NO GAS	0.091	ug/l	482.39
Cu	63	72	1	NO GAS	0.061	ug/l	1121.82
Cu	63	72	3	He	0.059	ug/l	384.93
Cu	65	72	1	NO GAS	0.056	ug/l	537.90
Zn	66	72	1	NO GAS	0.025	ug/l	439.06
Zn	66	72	3	He	0.082	ug/l	100.00
As	75	72	1	NO GAS	-0.121	ug/l	3516.09
As	75	72	3	He	0.045	ug/l	21.00
Se	78	72	2	H2	0.079	ug/l	12.33
Br	79	72	1	NO GAS	-0.242	ug/l	75768.48
Br	79	72	2	H2	0.357	ug/l	10998.60
Se	82	72	1	NO GAS	1.548	ug/l	670.72
Kr	84	72	1	NO GAS		ug/l	8541.98
Sr	88	72	1	NO GAS	0.061	ug/l	2937.81
Sr	88	72	3	He	0.067	ug/l	336.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.103	ug/l	1008.93
Mo	95	72	3	He	0.121	ug/l	354.45
Mo	98	72	1	NO GAS	0.104	ug/l	1731.57
Ag	107	72	1	NO GAS	0.028	ug/l	2696.36
Ag	109	72	1	NO GAS	0.031	ug/l	2656.37
Cd	111	159	1	NO GAS	0.054	ug/l	360.21
Cd	111	159	3	He	0.068	ug/l	103.31
Cd	114	159	1	NO GAS	0.057	ug/l	627.79
Cd	114	159	3	He	0.067	ug/l	228.72
Sn	118	159	1	NO GAS	-2.373	ug/l	3749.71
Sn	118	159	3	He	-2.457	ug/l	588.90
Sb	121	159	1	NO GAS	0.004	ug/l	700.02
Sb	121	159	3	He	0.006	ug/l	97.78
Sb	123	159	1	NO GAS	0.011	ug/l	698.91
Sb	123	159	3	He	0.008	ug/l	74.44
Ba	135	159	1	NO GAS	0.063	ug/l	382.58
Ba	137	159	1	NO GAS	0.071	ug/l	748.54
La	139	175	1	NO GAS	0.010	ug/l	977.70
La	139	175	3	He	0.011	ug/l	220.23
Ce	140	175	1	NO GAS	0.011	ug/l	1057.79
Ce	140	175	3	He	0.011	ug/l	280.29
Hg	201	175	1	NO GAS	0.000	ug/l	22.67
Hg	202	175	1	NO GAS	0.001	ug/l	94.98
Hg	202	175	3	He	0.001	ug/l	45.99
Tl	203	175	3	He	0.169	ug/l	2751.05
Tl	205	175	1	NO GAS	0.167	ug/l	13531.71
Tl	205	175	3	He	0.178	ug/l	7093.59
[Pb]	206	175	1	NO GAS	0.056	ug/l	1393.41
[Pb]	207	175	1	NO GAS	0.055	ug/l	1187.84
Pb	208	175	1	NO GAS	0.058	ug/l	5694.94
Th	232	175	3	He	0.050	ug/l	3855.74
U	238	175	1	NO GAS	0.051	ug/l	5733.97

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2064322.18	99.2
Sc	45	2	H2	85648.32	94.3
Sc	45	3	He	53468.76	97.4
Ge	72	1	NO GAS	974543.58	108.8
Ge	72	2	H2	133775.58	103.3
Ge	72	3	He	86600.85	102.7
Tb	159	1	NO GAS	21053830.80	104.6
Tb	159	3	He	7496557.07	102.0
Ho	165	1	NO GAS	19418284.68	103.4
Ho	165	3	He	7207185.00	99.5
Lu	175	1	NO GAS	21337327.62	106.6
Lu	175	3	He	4404643.34	99.9

ICPMS206-B Analytical Data

Sample Name	CCV
File Name	116_CCV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 06:01:53
Sample Type	CCV
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	368.093	ug/l	267676.04
Be	9	45	1	NO GAS	41.028	ug/l	12192.79
B	11	45	1	NO GAS	40.326	ug/l	8946.55
Na	23	45	3	He	11791.071	ug/l	1074511.18
Mg	24	45	3	He	10898.707	ug/l	514214.72
Al	27	45	1	NO GAS	45.228	ug/l	144485.72
Si	28	45	2	H2	179.543	ug/l	3671.01
K	39	72	3	He	10640.166	ug/l	509929.67
Ca	40	72	2	H2	11070.885	ug/l	2350649.69
Ti	47	72	1	NO GAS	46.426	ug/l	44561.36
V	51	72	1	NO GAS	43.312	ug/l	638944.54
V	51	72	3	He	48.603	ug/l	67790.13
Cr	52	72	1	NO GAS	44.496	ug/l	628358.33
Cr	52	72	3	He	50.991	ug/l	93913.40
Cr	53	72	1	NO GAS	0.920	ug/l	138148.85
Mn	55	72	1	NO GAS	46.647	ug/l	982378.01
Mn	55	72	3	He	48.647	ug/l	43686.94
Fe	56	72	2	H2	1168.175	ug/l	1421163.57
Fe	56	72	3	He	1256.420	ug/l	2104040.61
Co	59	72	1	NO GAS	47.173	ug/l	859121.29
Ni	60	72	1	NO GAS	48.176	ug/l	190595.55
Ni	60	72	3	He	51.921	ug/l	59090.91
Ni	62	72	1	NO GAS	49.387	ug/l	30744.04
Cu	63	72	1	NO GAS	49.788	ug/l	501218.51
Cu	63	72	3	He	52.471	ug/l	178902.17
Cu	65	72	1	NO GAS	49.019	ug/l	244908.87
Zn	66	72	1	NO GAS	47.023	ug/l	156321.57
Zn	66	72	3	He	51.901	ug/l	26153.77
As	75	72	1	NO GAS	49.013	ug/l	180088.84
As	75	72	3	He	51.654	ug/l	16908.16
Se	78	72	2	H2	54.460	ug/l	6076.24
Br	79	72	1	NO GAS	0.943	ug/l	84011.42
Br	79	72	2	H2	1.187	ug/l	11780.91
Se	82	72	1	NO GAS	52.624	ug/l	16169.45
Kr	84	72	1	NO GAS		ug/l	21381.53
Sr	88	72	1	NO GAS	51.303	ug/l	2111947.75
Sr	88	72	3	He	52.297	ug/l	84631.51

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	50.254	ug/l	443335.22
Mo	95	72	3	He	52.617	ug/l	140267.89
Mo	98	72	1	NO GAS	49.219	ug/l	742624.08
Ag	107	72	1	NO GAS	20.381	ug/l	511164.56
Ag	109	72	1	NO GAS	20.120	ug/l	496773.73
Cd	111	159	1	NO GAS	48.689	ug/l	301104.44
Cd	111	159	3	He	49.586	ug/l	71966.90
Cd	114	159	1	NO GAS	48.231	ug/l	691884.16
Cd	114	159	3	He	48.958	ug/l	185211.91
Sn	118	159	1	NO GAS	46.993	ug/l	894225.65
Sn	118	159	3	He	48.149	ug/l	134933.59
Sb	121	159	1	NO GAS	47.471	ug/l	1234731.39
Sb	121	159	3	He	47.794	ug/l	170555.27
Sb	123	159	1	NO GAS	46.009	ug/l	949782.17
Sb	123	159	3	He	49.000	ug/l	142658.60
Ba	135	159	1	NO GAS	48.700	ug/l	269833.46
Ba	137	159	1	NO GAS	48.136	ug/l	462708.49
La	139	175	1	NO GAS	49.991	ug/l	4334458.21
La	139	175	3	He	49.303	ug/l	935999.84
Ce	140	175	1	NO GAS	49.569	ug/l	4267347.30
Ce	140	175	3	He	48.775	ug/l	1173988.03
Hg	201	175	1	NO GAS	0.989	ug/l	4271.75
Hg	202	175	1	NO GAS	0.957	ug/l	9527.75
Hg	202	175	3	He	1.007	ug/l	6721.15
Tl	203	175	3	He	50.799	ug/l	704519.78
Tl	205	175	1	NO GAS	47.953	ug/l	3269685.47
Tl	205	175	3	He	50.754	ug/l	1725656.23
[Pb]	206	175	1	NO GAS	47.938	ug/l	1101555.30
[Pb]	207	175	1	NO GAS	48.050	ug/l	957643.58
Pb	208	175	1	NO GAS	48.307	ug/l	4406656.74
Th	232	175	3	He	51.321	ug/l	2547425.12
U	238	175	1	NO GAS	47.864	ug/l	5020567.68

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2132670.39	102.4
Sc	45	2	H2	86511.79	95.3
Sc	45	3	He	54705.69	99.6
Ge	72	1	NO GAS	973025.35	108.6
Ge	72	2	H2	133401.70	103.0
Ge	72	3	He	88269.26	104.7
Tb	159	1	NO GAS	20253123.87	100.6
Tb	159	3	He	7384896.41	100.5
Ho	165	1	NO GAS	18864040.46	100.5
Ho	165	3	He	7037433.12	97.2
Lu	175	1	NO GAS	20665335.86	103.3
Lu	175	3	He	4360475.84	98.8

ICPMS206-B Analytical Data

Sample Name	CCB
File Name	117_CCB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 06:07:35
Sample Type	CCB
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.797	ug/l	1907.73
Be	9	45	1	NO GAS	0.026	ug/l	9.00
B	11	45	1	NO GAS	-0.106	ug/l	271.28
Na	23	45	3	He	-12.140	ug/l	7757.34
Mg	24	45	3	He	-0.571	ug/l	43.25
Al	27	45	1	NO GAS	0.173	ug/l	1040.04
Si	28	45	2	H2	-69.688	ug/l	52.66
K	39	72	3	He	1.241	ug/l	2876.93
Ca	40	72	2	H2	0.366	ug/l	626.37
Ti	47	72	1	NO GAS	0.005	ug/l	44.98
V	51	72	1	NO GAS	0.865	ug/l	-11798.26
V	51	72	3	He	-0.117	ug/l	163.33
Cr	52	72	1	NO GAS	-0.370	ug/l	10948.59
Cr	52	72	3	He	0.013	ug/l	156.36
Cr	53	72	1	NO GAS	-65.606	ug/l	62433.02
Mn	55	72	1	NO GAS	-0.006	ug/l	988.08
Mn	55	72	3	He	-0.002	ug/l	7.33
Fe	56	72	2	H2	0.889	ug/l	1347.74
Fe	56	72	3	He	0.843	ug/l	1894.18
Co	59	72	1	NO GAS	0.002	ug/l	103.13
Ni	60	72	1	NO GAS	0.012	ug/l	63.21
Ni	60	72	3	He	-0.018	ug/l	12.22
Ni	62	72	1	NO GAS	-0.046	ug/l	385.91
Cu	63	72	1	NO GAS	0.003	ug/l	523.91
Cu	63	72	3	He	0.000	ug/l	185.63
Cu	65	72	1	NO GAS	0.004	ug/l	267.28
Zn	66	72	1	NO GAS	-0.024	ug/l	266.01
Zn	66	72	3	He	-0.005	ug/l	55.56
As	75	72	1	NO GAS	0.262	ug/l	4733.33
As	75	72	3	He	0.002	ug/l	7.00
Se	78	72	2	H2	0.053	ug/l	9.00
Br	79	72	1	NO GAS	-0.346	ug/l	72637.93
Br	79	72	2	H2	0.292	ug/l	10559.19
Se	82	72	1	NO GAS	1.417	ug/l	607.50
Kr	84	72	1	NO GAS		ug/l	8482.02
Sr	88	72	1	NO GAS	0.002	ug/l	482.39
Sr	88	72	3	He	0.006	ug/l	233.34

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.022	ug/l	281.12
Mo	95	72	3	He	0.028	ug/l	110.00
Mo	98	72	1	NO GAS	0.020	ug/l	458.84
Ag	107	72	1	NO GAS	0.009	ug/l	2147.72
Ag	109	72	1	NO GAS	0.011	ug/l	2085.72
Cd	111	159	1	NO GAS	-0.006	ug/l	-22.54
Cd	111	159	3	He	0.001	ug/l	4.00
Cd	114	159	1	NO GAS	-0.007	ug/l	-302.55
Cd	114	159	3	He	0.000	ug/l	-26.75
Sn	118	159	1	NO GAS	0.220	ug/l	47713.05
Sn	118	159	3	He	0.074	ug/l	7187.20
Sb	121	159	1	NO GAS	0.035	ug/l	1406.74
Sb	121	159	3	He	0.035	ug/l	195.56
Sb	123	159	1	NO GAS	0.033	ug/l	1063.38
Sb	123	159	3	He	0.035	ug/l	148.89
Ba	135	159	1	NO GAS	0.004	ug/l	43.25
Ba	137	159	1	NO GAS	0.004	ug/l	76.51
La	139	175	1	NO GAS	0.001	ug/l	120.12
La	139	175	3	He	0.000	ug/l	13.35
Ce	140	175	1	NO GAS	0.001	ug/l	136.80
Ce	140	175	3	He	0.001	ug/l	40.04
Hg	201	175	1	NO GAS	0.005	ug/l	41.66
Hg	202	175	1	NO GAS	0.006	ug/l	131.64
Hg	202	175	3	He	0.005	ug/l	66.66
Tl	203	175	3	He	0.091	ug/l	1646.43
Tl	205	175	1	NO GAS	0.100	ug/l	8177.83
Tl	205	175	3	He	0.094	ug/l	4188.43
[Pb]	206	175	1	NO GAS	0.002	ug/l	117.78
[Pb]	207	175	1	NO GAS	0.002	ug/l	94.44
Pb	208	175	1	NO GAS	0.002	ug/l	414.45
Th	232	175	3	He	0.031	ug/l	2923.72
U	238	175	1	NO GAS	0.002	ug/l	384.60

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1987890.14	95.5
Sc	45	2	H2	81881.85	90.2
Sc	45	3	He	52078.22	94.8
Ge	72	1	NO GAS	943315.89	105.3
Ge	72	2	H2	129316.77	99.9
Ge	72	3	He	84359.91	100.1
Tb	159	1	NO GAS	19179817.27	95.3
Tb	159	3	He	7265332.52	98.9
Ho	165	1	NO GAS	18250684.83	97.2
Ho	165	3	He	7245450.61	100.1
Lu	175	1	NO GAS	19698609.79	98.4
Lu	175	3	He	4369713.78	99.1

ICPMS206-B Analytical Data

Sample Name	B22010751-001A
File Name	118SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 06:13:22
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.282	ug/l	1484.44
Be	9	45	1	NO GAS	0.014	ug/l	6.67
B	11	45	1	NO GAS	217.102	ug/l	49146.09
Na	23	45	3	He	144917.666	ug/l	14853555.75
Mg	24	45	3	He	44665.741	ug/l	2389115.09
Al	27	45	1	NO GAS	7.666	ug/l	26153.33
Si	28	45	2	H2	21142.537	ug/l	389954.32
K	39	72	3	He	3824.259	ug/l	196153.03
Ca	40	72	2	H2	46446.521	ug/l	11197961.59
Ti	47	72	1	NO GAS	1.696	ug/l	1630.95
V	51	72	1	NO GAS	10.986	ug/l	139830.72
V	51	72	3	He	9.638	ug/l	14522.99
Cr	52	72	1	NO GAS	0.806	ug/l	26924.90
Cr	52	72	3	He	1.328	ug/l	2734.83
Cr	53	72	1	NO GAS	-103.429	ug/l	22213.99
Mn	55	72	1	NO GAS	132.130	ug/l	2722191.65
Mn	55	72	3	He	133.053	ug/l	126563.25
Fe	56	72	2	H2	7.702	ug/l	10991.55
Fe	56	72	3	He	7.864	ug/l	14554.16
Co	59	72	1	NO GAS	0.935	ug/l	16808.52
Ni	60	72	1	NO GAS	7.318	ug/l	28364.39
Ni	60	72	3	He	7.172	ug/l	8680.07
Ni	62	72	1	NO GAS	7.343	ug/l	4821.17
Cu	63	72	1	NO GAS	4.822	ug/l	48103.78
Cu	63	72	3	He	3.026	ug/l	11123.44
Cu	65	72	1	NO GAS	3.121	ug/l	15492.07
Zn	66	72	1	NO GAS	8.319	ug/l	27523.53
Zn	66	72	3	He	9.536	ug/l	5141.94
As	75	72	1	NO GAS	1.119	ug/l	8067.08
As	75	72	3	He	0.501	ug/l	180.63
Se	78	72	2	H2	6.202	ug/l	789.20
Br	79	72	1	NO GAS	72.318	ug/l	579231.14
Br	79	72	2	H2	87.026	ug/l	110463.59
Se	82	72	1	NO GAS	8.525	ug/l	2786.96
Kr	84	72	1	NO GAS		ug/l	97038.23
Sr	88	72	1	NO GAS	370.104	ug/l	14942264.08
Sr	88	72	3	He	389.765	ug/l	666620.47

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.579	ug/l	13719.18
Mo	95	72	3	He	1.630	ug/l	4645.15
Mo	98	72	1	NO GAS	1.534	ug/l	22828.83
Ag	107	72	1	NO GAS	-0.074	ug/l	157.30
Ag	109	72	1	NO GAS	-0.071	ug/l	129.98
Cd	111	159	1	NO GAS	0.045	ug/l	270.31
Cd	111	159	3	He	0.074	ug/l	108.65
Cd	114	159	1	NO GAS	0.069	ug/l	718.76
Cd	114	159	3	He	0.074	ug/l	248.72
Sn	118	159	1	NO GAS	-2.464	ug/l	1846.47
Sn	118	159	3	He	-2.573	ug/l	267.78
Sb	121	159	1	NO GAS	0.200	ug/l	5255.34
Sb	121	159	3	He	0.195	ug/l	756.69
Sb	123	159	1	NO GAS	0.194	ug/l	4054.43
Sb	123	159	3	He	0.190	ug/l	588.91
Ba	135	159	1	NO GAS	78.491	ug/l	395497.49
Ba	137	159	1	NO GAS	77.844	ug/l	681341.89
La	139	175	1	NO GAS	0.008	ug/l	644.01
La	139	175	3	He	0.010	ug/l	200.20
Ce	140	175	1	NO GAS	0.016	ug/l	1271.35
Ce	140	175	3	He	0.016	ug/l	413.76
Hg	201	175	1	NO GAS	0.007	ug/l	47.99
Hg	202	175	1	NO GAS	0.007	ug/l	136.64
Hg	202	175	3	He	0.007	ug/l	84.98
Tl	203	175	3	He	0.084	ug/l	1565.11
Tl	205	175	1	NO GAS	0.079	ug/l	6572.61
Tl	205	175	3	He	0.084	ug/l	3864.40
[Pb]	206	175	1	NO GAS	0.077	ug/l	1644.54
[Pb]	207	175	1	NO GAS	0.073	ug/l	1336.74
Pb	208	175	1	NO GAS	0.074	ug/l	6278.33
Th	232	175	3	He	0.060	ug/l	4379.12
U	238	175	1	NO GAS	0.272	ug/l	25719.07

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2345658.46	112.7
Sc	45	2	H2	109645.67	120.7
Sc	45	3	He	61999.78	112.9
Ge	72	1	NO GAS	985447.02	110.0
Ge	72	2	H2	151492.32	117.0
Ge	72	3	He	93517.47	110.9
Tb	159	1	NO GAS	19285948.60	95.8
Tb	159	3	He	7241479.30	98.6
Ho	165	1	NO GAS	17871663.43	95.2
Ho	165	3	He	7108556.53	98.2
Lu	175	1	NO GAS	19345868.00	96.7
Lu	175	3	He	4409191.59	100.0

ICPMS206-B Analytical Data

Sample Name	B22010971-001A
File Name	119SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 06:19:26
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.392	ug/l	2305.70
Be	9	45	1	NO GAS	0.012	ug/l	7.00
B	11	45	1	NO GAS	33.895	ug/l	9085.27
Na	23	45	3	He	41115.614	ug/l	4360032.74
Mg	24	45	3	He	8440.655	ug/l	466252.73
Al	27	45	1	NO GAS	4.343	ug/l	17268.86
Si	28	45	2	H2	23545.780	ug/l	422131.18
K	39	72	3	He	2911.928	ug/l	156423.53
Ca	40	72	2	H2	13349.543	ug/l	3270771.45
Ti	47	72	1	NO GAS	1.362	ug/l	1432.69
V	51	72	1	NO GAS	10.026	ug/l	136502.18
V	51	72	3	He	9.093	ug/l	14292.78
Cr	52	72	1	NO GAS	1.337	ug/l	36907.46
Cr	52	72	3	He	2.148	ug/l	4518.35
Cr	53	72	1	NO GAS	-99.905	ug/l	28038.58
Mn	55	72	1	NO GAS	3.786	ug/l	85767.18
Mn	55	72	3	He	4.258	ug/l	4228.96
Fe	56	72	2	H2	3.675	ug/l	5514.88
Fe	56	72	3	He	3.566	ug/l	7218.01
Co	59	72	1	NO GAS	0.024	ug/l	535.62
Ni	60	72	1	NO GAS	0.432	ug/l	1839.81
Ni	60	72	3	He	0.353	ug/l	480.01
Ni	62	72	1	NO GAS	0.217	ug/l	598.83
Cu	63	72	1	NO GAS	0.730	ug/l	8341.09
Cu	63	72	3	He	0.215	ug/l	1020.16
Cu	65	72	1	NO GAS	0.242	ug/l	1557.10
Zn	66	72	1	NO GAS	3.415	ug/l	12415.58
Zn	66	72	3	He	4.286	ug/l	2445.75
As	75	72	1	NO GAS	1.314	ug/l	9199.64
As	75	72	3	He	1.495	ug/l	547.23
Se	78	72	2	H2	0.115	ug/l	18.67
Br	79	72	1	NO GAS	10.133	ug/l	158742.88
Br	79	72	2	H2	11.442	ug/l	25379.47
Se	82	72	1	NO GAS	0.948	ug/l	517.02
Kr	84	72	1	NO GAS		ug/l	37625.05
Sr	88	72	1	NO GAS	113.141	ug/l	4948366.88
Sr	88	72	3	He	122.695	ug/l	218807.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	4.748	ug/l	44602.93
Mo	95	72	3	He	5.298	ug/l	15625.33
Mo	98	72	1	NO GAS	4.610	ug/l	74060.85
Ag	107	72	1	NO GAS	-0.072	ug/l	203.30
Ag	109	72	1	NO GAS	-0.069	ug/l	182.63
Cd	111	159	1	NO GAS	0.001	ug/l	18.63
Cd	111	159	3	He	0.004	ug/l	9.33
Cd	114	159	1	NO GAS	0.020	ug/l	71.00
Cd	114	159	3	He	0.008	ug/l	5.35
Sn	118	159	1	NO GAS	-2.413	ug/l	2987.72
Sn	118	159	3	He	-2.486	ug/l	517.79
Sb	121	159	1	NO GAS	0.424	ug/l	11995.65
Sb	121	159	3	He	0.473	ug/l	1814.57
Sb	123	159	1	NO GAS	0.422	ug/l	9492.90
Sb	123	159	3	He	0.496	ug/l	1537.86
Ba	135	159	1	NO GAS	20.921	ug/l	120039.62
Ba	137	159	1	NO GAS	20.369	ug/l	202666.93
La	139	175	1	NO GAS	0.001	ug/l	163.50
La	139	175	3	He	0.001	ug/l	26.69
Ce	140	175	1	NO GAS	0.001	ug/l	193.54
Ce	140	175	3	He	0.002	ug/l	60.06
Hg	201	175	1	NO GAS	0.019	ug/l	103.65
Hg	202	175	1	NO GAS	0.371	ug/l	3812.39
Hg	202	175	3	He	0.267	ug/l	1865.75
Tl	203	175	3	He	0.056	ug/l	1202.48
Tl	205	175	1	NO GAS	0.045	ug/l	4911.97
Tl	205	175	3	He	0.054	ug/l	2913.04
[Pb]	206	175	1	NO GAS	0.122	ug/l	2926.97
[Pb]	207	175	1	NO GAS	0.111	ug/l	2317.98
Pb	208	175	1	NO GAS	0.117	ug/l	11082.79
Th	232	175	3	He	-0.015	ug/l	651.89
U	238	175	1	NO GAS	0.264	ug/l	28349.67

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2562160.90	123.1
Sc	45	2	H2	106643.70	117.4
Sc	45	3	He	64096.77	116.7
Ge	72	1	NO GAS	1033880.83	115.4
Ge	72	2	H2	153973.71	118.9
Ge	72	3	He	97415.43	115.6
Tb	159	1	NO GAS	20983849.36	104.3
Tb	159	3	He	7613802.75	103.6
Ho	165	1	NO GAS	19240068.35	102.5
Ho	165	3	He	7211992.57	99.6
Lu	175	1	NO GAS	21028098.19	105.1
Lu	175	3	He	4503672.05	102.1

ICPMS206-B Analytical Data

Sample Name	B22010971-001B
File Name	120SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 06:25:10
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.386	ug/l	2917.67
Be	9	45	1	NO GAS	0.020	ug/l	8.00
B	11	45	1	NO GAS	36.059	ug/l	8111.63
Na	23	45	3	He	49448.621	ug/l	4076507.55
Mg	24	45	3	He	9482.145	ug/l	408482.95
Al	27	45	1	NO GAS	33.517	ug/l	108128.79
Si	28	45	2	H2	23353.440	ug/l	337624.77
K	39	72	3	He	3116.182	ug/l	130927.77
Ca	40	72	2	H2	11985.035	ug/l	2542804.53
Ti	47	72	1	NO GAS	3.366	ug/l	3143.76
V	51	72	1	NO GAS	7.853	ug/l	91573.14
V	51	72	3	He	10.401	ug/l	12778.25
Cr	52	72	1	NO GAS	2.556	ug/l	49577.44
Cr	52	72	3	He	2.690	ug/l	4395.22
Cr	53	72	1	NO GAS	59.454	ug/l	195260.68
Mn	55	72	1	NO GAS	7.080	ug/l	144388.36
Mn	55	72	3	He	8.162	ug/l	6341.83
Fe	56	72	2	H2	31.008	ug/l	38004.12
Fe	56	72	3	He	36.855	ug/l	53837.66
Co	59	72	1	NO GAS	0.057	ug/l	1057.95
Ni	60	72	1	NO GAS	0.552	ug/l	2122.61
Ni	60	72	3	He	0.492	ug/l	513.35
Ni	62	72	1	NO GAS	0.453	ug/l	678.67
Cu	63	72	1	NO GAS	1.184	ug/l	11951.91
Cu	63	72	3	He	0.611	ug/l	1968.06
Cu	65	72	1	NO GAS	0.619	ug/l	3218.34
Zn	66	72	1	NO GAS	19.323	ug/l	62078.82
Zn	66	72	3	He	23.029	ug/l	10066.42
As	75	72	1	NO GAS	1.473	ug/l	8877.42
As	75	72	3	He	1.501	ug/l	429.59
Se	78	72	2	H2	0.116	ug/l	16.33
Br	79	72	1	NO GAS	3.220	ug/l	96467.46
Br	79	72	2	H2	4.067	ug/l	14640.96
Se	82	72	1	NO GAS	1.366	ug/l	584.22
Kr	84	72	1	NO GAS		ug/l	35408.04
Sr	88	72	1	NO GAS	126.896	ug/l	5026235.47
Sr	88	72	3	He	141.379	ug/l	197477.38

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	5.590	ug/l	47557.73
Mo	95	72	3	He	6.737	ug/l	15554.14
Mo	98	72	1	NO GAS	5.681	ug/l	82637.10
Ag	107	72	1	NO GAS	-0.039	ug/l	976.51
Ag	109	72	1	NO GAS	-0.034	ug/l	995.17
Cd	111	159	1	NO GAS	0.005	ug/l	45.73
Cd	111	159	3	He	0.009	ug/l	16.00
Cd	114	159	1	NO GAS	0.022	ug/l	104.05
Cd	114	159	3	He	0.012	ug/l	17.12
Sn	118	159	1	NO GAS	-1.951	ug/l	11278.36
Sn	118	159	3	He	-1.976	ug/l	1686.77
Sb	121	159	1	NO GAS	0.445	ug/l	12214.71
Sb	121	159	3	He	0.545	ug/l	1835.68
Sb	123	159	1	NO GAS	0.442	ug/l	9610.73
Sb	123	159	3	He	0.537	ug/l	1467.86
Ba	135	159	1	NO GAS	21.650	ug/l	120545.78
Ba	137	159	1	NO GAS	21.732	ug/l	209940.04
La	139	175	1	NO GAS	0.024	ug/l	2199.07
La	139	175	3	He	0.021	ug/l	383.73
Ce	140	175	1	NO GAS	0.053	ug/l	4785.63
Ce	140	175	3	He	0.054	ug/l	1244.66
Hg	201	175	1	NO GAS	0.033	ug/l	169.97
Hg	202	175	1	NO GAS	0.448	ug/l	4676.46
Hg	202	175	3	He	0.337	ug/l	2155.06
Tl	203	175	3	He	0.035	ug/l	829.20
Tl	205	175	1	NO GAS	0.024	ug/l	3547.12
Tl	205	175	3	He	0.030	ug/l	1905.75
[Pb]	206	175	1	NO GAS	0.041	ug/l	1042.27
[Pb]	207	175	1	NO GAS	0.047	ug/l	1033.38
Pb	208	175	1	NO GAS	0.044	ug/l	4408.07
Th	232	175	3	He	0.094	ug/l	5714.65
U	238	175	1	NO GAS	0.300	ug/l	32861.35

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2150636.15	103.3
Sc	45	2	H2	85995.09	94.7
Sc	45	3	He	50064.43	91.2
Ge	72	1	NO GAS	935545.08	104.4
Ge	72	2	H2	133324.27	103.0
Ge	72	3	He	76482.36	90.7
Tb	159	1	NO GAS	20352007.12	101.1
Tb	159	3	He	6754364.70	91.9
Ho	165	1	NO GAS	19491028.68	103.8
Ho	165	3	He	6567077.21	90.7
Lu	175	1	NO GAS	21432475.68	107.1
Lu	175	3	He	4147121.32	94.0

ICPMS206-B Analytical Data

Sample Name	B22010971-001BDIL
File Name	121SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 06:30:55
Sample Type	Sample
Total Dilution	5.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-7.084	ug/l	1552.43
Be	9	45	1	NO GAS	0.018	ug/l	3.00
B	11	45	1	NO GAS	36.755	ug/l	1789.07
Na	23	45	3	He	43994.414	ug/l	739069.31
Mg	24	45	3	He	8981.144	ug/l	77942.30
Al	27	45	1	NO GAS	37.709	ug/l	23261.42
Si	28	45	2	H2	23500.425	ug/l	64235.11
K	39	72	3	He	2674.278	ug/l	26340.35
Ca	40	72	2	H2	11783.183	ug/l	467969.54
Ti	47	72	1	NO GAS	3.159	ug/l	608.05
V	51	72	1	NO GAS	6.677	ug/l	-4866.54
V	51	72	3	He	8.565	ug/l	2511.31
Cr	52	72	1	NO GAS	1.839	ug/l	20175.44
Cr	52	72	3	He	2.362	ug/l	934.85
Cr	53	72	1	NO GAS	-10.630	ug/l	126890.06
Mn	55	72	1	NO GAS	6.918	ug/l	28487.69
Mn	55	72	3	He	7.269	ug/l	1217.83
Fe	56	72	2	H2	31.325	ug/l	7404.70
Fe	56	72	3	He	33.561	ug/l	10938.21
Co	59	72	1	NO GAS	0.050	ug/l	232.88
Ni	60	72	1	NO GAS	0.660	ug/l	509.01
Ni	60	72	3	He	0.538	ug/l	144.45
Ni	62	72	1	NO GAS	0.289	ug/l	435.81
Cu	63	72	1	NO GAS	1.335	ug/l	3008.35
Cu	63	72	3	He	0.719	ug/l	632.22
Cu	65	72	1	NO GAS	0.802	ug/l	995.17
Zn	66	72	1	NO GAS	9.323	ug/l	6163.09
Zn	66	72	3	He	9.961	ug/l	984.48
As	75	72	1	NO GAS	0.796	ug/l	4264.49
As	75	72	3	He	1.512	ug/l	97.65
Se	78	72	2	H2	0.151	ug/l	6.33
Br	79	72	1	NO GAS	9.194	ug/l	85191.39
Br	79	72	2	H2	13.224	ug/l	12356.87
Se	82	72	1	NO GAS	6.556	ug/l	560.27
Kr	84	72	1	NO GAS		ug/l	13515.40
Sr	88	72	1	NO GAS	124.432	ug/l	965057.46
Sr	88	72	3	He	130.713	ug/l	39297.97

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	5.758	ug/l	9659.57
Mo	95	72	3	He	6.169	ug/l	3082.54
Mo	98	72	1	NO GAS	5.512	ug/l	15815.54
Ag	107	72	1	NO GAS	-0.340	ug/l	282.62
Ag	109	72	1	NO GAS	-0.321	ug/l	282.61
Cd	111	159	1	NO GAS	0.031	ug/l	51.90
Cd	111	159	3	He	0.034	ug/l	12.67
Cd	114	159	1	NO GAS	0.130	ug/l	152.06
Cd	114	159	3	He	0.055	ug/l	14.37
Sn	118	159	1	NO GAS	-11.672	ug/l	4238.86
Sn	118	159	3	He	-11.973	ug/l	726.69
Sb	121	159	1	NO GAS	0.453	ug/l	2882.51
Sb	121	159	3	He	0.554	ug/l	456.68
Sb	123	159	1	NO GAS	0.422	ug/l	2157.94
Sb	123	159	3	He	0.521	ug/l	342.23
Ba	135	159	1	NO GAS	23.799	ug/l	25970.04
Ba	137	159	1	NO GAS	23.285	ug/l	44090.62
La	139	175	1	NO GAS	0.034	ug/l	687.39
La	139	175	3	He	0.027	ug/l	110.11
Ce	140	175	1	NO GAS	0.056	ug/l	1071.14
Ce	140	175	3	He	0.067	ug/l	330.34
Hg	201	175	1	NO GAS	0.027	ug/l	46.99
Hg	202	175	1	NO GAS	0.422	ug/l	953.18
Hg	202	175	3	He	0.317	ug/l	447.58
Tl	203	175	3	He	0.110	ug/l	675.22
Tl	205	175	1	NO GAS	0.081	ug/l	2970.32
Tl	205	175	3	He	0.116	ug/l	1732.43
[Pb]	206	175	1	NO GAS	0.078	ug/l	443.34
[Pb]	207	175	1	NO GAS	0.065	ug/l	334.45
Pb	208	175	1	NO GAS	0.069	ug/l	1584.49
Th	232	175	3	He	-0.005	ug/l	1286.47
U	238	175	1	NO GAS	0.303	ug/l	6818.88

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2019529.16	97.0
Sc	45	2	H2	80250.14	88.4
Sc	45	3	He	50281.72	91.5
Ge	72	1	NO GAS	915885.45	102.2
Ge	72	2	H2	124660.43	96.3
Ge	72	3	He	81779.19	97.0
Tb	159	1	NO GAS	19923419.38	99.0
Tb	159	3	He	7175828.60	97.7
Ho	165	1	NO GAS	19203281.36	102.3
Ho	165	3	He	6985191.61	96.5
Lu	175	1	NO GAS	21489562.35	107.4
Lu	175	3	He	4270795.23	96.8

ICPMS206-B Analytical Data

Sample Name	B22010971-001BPDS1
File Name	122_ARF.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 06:36:39
Sample Type	AllRef
Total Dilution	1.0300
Comment	ICPMS-6020-W-T
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1530.328	ug/l	1052052.40
Be	9	45	1	NO GAS	41.488	ug/l	11243.02
B	11	45	1	NO GAS	82.319	ug/l	16367.16
Na	23	45	3	He	96850.309	ug/l	7902589.33
Mg	24	45	3	He	60834.485	ug/l	2588795.88
Al	27	45	1	NO GAS	78.675	ug/l	228848.13
Si	28	45	2	H2	23720.313	ug/l	299167.74
K	39	72	3	He	47948.529	ug/l	2013230.68
Ca	40	72	2	H2	54870.309	ug/l	10298149.47
Ti	47	72	1	NO GAS	53.878	ug/l	46995.08
V	51	72	1	NO GAS	53.713	ug/l	725629.75
V	51	72	3	He	58.503	ug/l	71798.94
Cr	52	72	1	NO GAS	47.863	ug/l	613284.14
Cr	52	72	3	He	53.972	ug/l	87521.57
Cr	53	72	1	NO GAS	161.393	ug/l	290853.76
Mn	55	72	1	NO GAS	50.939	ug/l	974849.86
Mn	55	72	3	He	56.591	ug/l	44734.86
Fe	56	72	2	H2	4558.481	ug/l	4896683.11
Fe	56	72	3	He	4977.245	ug/l	7334920.05
Co	59	72	1	NO GAS	44.575	ug/l	738107.51
Ni	60	72	1	NO GAS	45.529	ug/l	163835.81
Ni	60	72	3	He	51.038	ug/l	51131.97
Ni	62	72	1	NO GAS	44.720	ug/l	25355.69
Cu	63	72	1	NO GAS	46.493	ug/l	425657.58
Cu	63	72	3	He	50.233	ug/l	150812.17
Cu	65	72	1	NO GAS	45.943	ug/l	208712.35
Zn	66	72	1	NO GAS	46.264	ug/l	139966.62
Zn	66	72	3	He	49.294	ug/l	21867.66
As	75	72	1	NO GAS	45.656	ug/l	152835.93
As	75	72	3	He	50.288	ug/l	14492.71
Se	78	72	2	H2	47.906	ug/l	4721.06
Br	79	72	1	NO GAS	3.535	ug/l	95269.99
Br	79	72	2	H2	4.636	ug/l	13705.25
Se	82	72	1	NO GAS	44.486	ug/l	12457.11
Kr	84	72	1	NO GAS		ug/l	45786.39
Sr	88	72	1	NO GAS	171.783	ug/l	6428472.44
Sr	88	72	3	He	182.828	ug/l	259939.63

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	55.608	ug/l	446115.13
Mo	95	72	3	He	61.009	ug/l	143203.93
Mo	98	72	1	NO GAS	54.773	ug/l	751439.36
Ag	107	72	1	NO GAS	20.476	ug/l	466980.95
Ag	109	72	1	NO GAS	20.309	ug/l	455885.28
Cd	111	159	1	NO GAS	44.631	ug/l	263548.66
Cd	111	159	3	He	47.022	ug/l	61871.54
Cd	114	159	1	NO GAS	44.057	ug/l	603078.90
Cd	114	159	3	He	47.060	ug/l	161388.01
Sn	118	159	1	NO GAS	45.431	ug/l	827989.90
Sn	118	159	3	He	48.062	ug/l	122305.72
Sb	121	159	1	NO GAS	45.629	ug/l	1133450.09
Sb	121	159	3	He	47.102	ug/l	152292.02
Sb	123	159	1	NO GAS	44.942	ug/l	885954.38
Sb	123	159	3	He	47.800	ug/l	126143.41
Ba	135	159	1	NO GAS	69.082	ug/l	365679.27
Ba	137	159	1	NO GAS	68.323	ug/l	627471.28
La	139	175	1	NO GAS	0.031	ug/l	2609.55
La	139	175	3	He	0.029	ug/l	510.53
Ce	140	175	1	NO GAS	49.518	ug/l	4046345.71
Ce	140	175	3	He	48.674	ug/l	1071289.40
Hg	201	175	1	NO GAS	0.974	ug/l	3992.40
Hg	202	175	1	NO GAS	1.425	ug/l	13440.59
Hg	202	175	3	He	1.298	ug/l	7913.16
Tl	203	175	3	He	49.896	ug/l	632834.56
Tl	205	175	1	NO GAS	47.048	ug/l	3046288.67
Tl	205	175	3	He	50.056	ug/l	1556608.08
[Pb]	206	175	1	NO GAS	47.631	ug/l	1039438.46
[Pb]	207	175	1	NO GAS	47.140	ug/l	891837.59
Pb	208	175	1	NO GAS	47.561	ug/l	4118724.91
Th	232	175	3	He	53.315	ug/l	2419022.05
U	238	175	1	NO GAS	48.286	ug/l	4812631.15

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2004468.94	96.3
Sc	45	2	H2	77259.54	85.1
Sc	45	3	He	50838.79	92.6
Ge	72	1	NO GAS	910238.35	101.6
Ge	72	2	H2	121371.85	93.7
Ge	72	3	He	80055.26	95.0
Tb	159	1	NO GAS	19956377.76	99.2
Tb	159	3	He	6894380.75	93.8
Ho	165	1	NO GAS	18476078.13	98.4
Ho	165	3	He	6755669.70	93.3
Lu	175	1	NO GAS	20195618.03	100.9
Lu	175	3	He	4105873.12	93.1

ICPMS206-B Analytical Data

Sample Name	B22010971-001BMS4
File Name	123MS4.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 06:42:19
Sample Type	MS4
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	66.304	ug/l	50778.39
Be	9	45	1	NO GAS	43.240	ug/l	13185.98
B	11	45	1	NO GAS	136.611	ug/l	30351.02
Na	23	45	3	He	49974.207	ug/l	4580551.70
Mg	24	45	3	He	13825.019	ug/l	660282.66
Al	27	45	1	NO GAS	508.199	ug/l	1661789.65
Si	28	45	2	H2	23921.068	ug/l	362427.47
K	39	72	3	He	7660.232	ug/l	356505.34
Ca	40	72	2	H2	16853.642	ug/l	3627492.56
Ti	47	72	1	NO GAS	96.381	ug/l	93330.28
V	51	72	1	NO GAS	103.986	ug/l	1586397.87
V	51	72	3	He	112.521	ug/l	151632.94
Cr	52	72	1	NO GAS	97.487	ug/l	1369536.03
Cr	52	72	3	He	105.981	ug/l	188999.01
Cr	53	72	1	NO GAS	181.972	ug/l	341981.92
Mn	55	72	1	NO GAS	488.372	ug/l	10372884.71
Mn	55	72	3	He	520.447	ug/l	452764.61
Fe	56	72	2	H2	488.974	ug/l	603147.65
Fe	56	72	3	He	545.432	ug/l	885375.87
Co	59	72	1	NO GAS	95.807	ug/l	1762248.13
Ni	60	72	1	NO GAS	93.674	ug/l	374483.09
Ni	60	72	3	He	107.284	ug/l	118264.11
Ni	62	72	1	NO GAS	93.174	ug/l	58192.11
Cu	63	72	1	NO GAS	94.607	ug/l	961476.29
Cu	63	72	3	He	107.198	ug/l	353912.08
Cu	65	72	1	NO GAS	96.210	ug/l	485199.14
Zn	66	72	1	NO GAS	91.740	ug/l	307937.60
Zn	66	72	3	He	100.650	ug/l	49084.91
As	75	72	1	NO GAS	92.199	ug/l	338625.19
As	75	72	3	He	100.556	ug/l	31885.56
Se	78	72	2	H2	99.830	ug/l	11289.23
Br	79	72	1	NO GAS	2.580	ug/l	96615.33
Br	79	72	2	H2	4.074	ug/l	14850.68
Se	82	72	1	NO GAS	89.536	ug/l	27633.16
Kr	84	72	1	NO GAS		ug/l	61258.71
Sr	88	72	1	NO GAS	220.443	ug/l	9162537.66
Sr	88	72	3	He	238.570	ug/l	373261.77

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	104.777	ug/l	933684.07
Mo	95	72	3	He	119.857	ug/l	309569.19
Mo	98	72	1	NO GAS	109.216	ug/l	1664062.58
Ag	107	72	1	NO GAS	10.197	ug/l	259302.89
Ag	109	72	1	NO GAS	9.808	ug/l	245562.66
Cd	111	159	1	NO GAS	47.761	ug/l	295315.93
Cd	111	159	3	He	49.603	ug/l	71313.80
Cd	114	159	1	NO GAS	47.165	ug/l	676359.44
Cd	114	159	3	He	49.218	ug/l	184402.47
Sn	118	159	1	NO GAS	100.595	ug/l	1859955.51
Sn	118	159	3	He	101.950	ug/l	275157.73
Sb	121	159	1	NO GAS	96.715	ug/l	2513088.40
Sb	121	159	3	He	98.576	ug/l	348261.85
Sb	123	159	1	NO GAS	94.967	ug/l	1959311.55
Sb	123	159	3	He	98.144	ug/l	282981.11
Ba	135	159	1	NO GAS	114.714	ug/l	635420.72
Ba	137	159	1	NO GAS	113.990	ug/l	1095300.26
La	139	175	1	NO GAS	102.445	ug/l	9088490.25
La	139	175	3	He	100.536	ug/l	1935181.49
Ce	140	175	1	NO GAS	100.320	ug/l	8830002.61
Ce	140	175	3	He	101.218	ug/l	2470175.56
Hg	201	175	1	NO GAS	0.035	ug/l	177.30
Hg	202	175	1	NO GAS	0.474	ug/l	4876.48
Hg	202	175	3	He	0.325	ug/l	2225.73
Tl	203	175	3	He	101.352	ug/l	1425256.42
Tl	205	175	1	NO GAS	95.811	ug/l	6678046.29
Tl	205	175	3	He	98.433	ug/l	3393842.41
[Pb]	206	175	1	NO GAS	99.559	ug/l	2338137.48
[Pb]	207	175	1	NO GAS	100.329	ug/l	2044545.42
Pb	208	175	1	NO GAS	99.761	ug/l	9299715.36
Th	232	175	3	He	104.953	ug/l	5280987.83
U	238	175	1	NO GAS	99.995	ug/l	10734206.30

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2189030.20	105.2
Sc	45	2	H2	90071.69	99.2
Sc	45	3	He	55379.98	100.8
Ge	72	1	NO GAS	981710.04	109.6
Ge	72	2	H2	135177.08	104.4
Ge	72	3	He	85530.71	101.5
Tb	159	1	NO GAS	20247325.57	100.6
Tb	159	3	He	7315475.06	99.6
Ho	165	1	NO GAS	19007830.70	101.3
Ho	165	3	He	7255301.56	100.2
Lu	175	1	NO GAS	21119042.88	105.5
Lu	175	3	He	4421010.44	100.2

ICPMS206-B Analytical Data

Sample Name	B22010971-001BMSD4
File Name	124MSD4.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 06:47:54
Sample Type	MSD4
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	60.059	ug/l	48189.68
Be	9	45	1	NO GAS	42.799	ug/l	12620.35
B	11	45	1	NO GAS	127.654	ug/l	27452.12
Na	23	45	3	He	51725.876	ug/l	4614227.57
Mg	24	45	3	He	14373.668	ug/l	668211.45
Al	27	45	1	NO GAS	503.151	ug/l	1590136.14
Si	28	45	2	H2	24561.714	ug/l	341764.92
K	39	72	3	He	7498.016	ug/l	343758.93
Ca	40	72	2	H2	16637.420	ug/l	3451224.85
Ti	47	72	1	NO GAS	94.538	ug/l	90435.25
V	51	72	1	NO GAS	102.053	ug/l	1537158.84
V	51	72	3	He	111.266	ug/l	147635.34
Cr	52	72	1	NO GAS	94.556	ug/l	1312368.14
Cr	52	72	3	He	107.580	ug/l	188872.95
Cr	53	72	1	NO GAS	167.746	ug/l	322112.66
Mn	55	72	1	NO GAS	471.498	ug/l	9893437.96
Mn	55	72	3	He	515.508	ug/l	441628.41
Fe	56	72	2	H2	491.906	ug/l	584937.55
Fe	56	72	3	He	535.308	ug/l	855490.73
Co	59	72	1	NO GAS	94.147	ug/l	1710625.50
Ni	60	72	1	NO GAS	93.257	ug/l	368255.05
Ni	60	72	3	He	106.559	ug/l	115655.04
Ni	62	72	1	NO GAS	94.194	ug/l	58118.57
Cu	63	72	1	NO GAS	94.582	ug/l	949740.04
Cu	63	72	3	He	108.158	ug/l	351591.79
Cu	65	72	1	NO GAS	95.998	ug/l	478359.06
Zn	66	72	1	NO GAS	93.112	ug/l	308849.93
Zn	66	72	3	He	102.177	ug/l	49058.28
As	75	72	1	NO GAS	91.402	ug/l	331610.87
As	75	72	3	He	102.366	ug/l	31961.36
Se	78	72	2	H2	99.295	ug/l	10819.37
Br	79	72	1	NO GAS	1.399	ug/l	87067.94
Br	79	72	2	H2	2.939	ug/l	13205.91
Se	82	72	1	NO GAS	89.228	ug/l	27202.06
Kr	84	72	1	NO GAS		ug/l	60544.23
Sr	88	72	1	NO GAS	222.348	ug/l	9129584.71
Sr	88	72	3	He	245.867	ug/l	378740.88

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	104.670	ug/l	921428.66
Mo	95	72	3	He	121.111	ug/l	307981.45
Mo	98	72	1	NO GAS	106.922	ug/l	1610003.90
Ag	107	72	1	NO GAS	10.135	ug/l	254597.80
Ag	109	72	1	NO GAS	9.975	ug/l	246678.84
Cd	111	159	1	NO GAS	45.578	ug/l	294995.83
Cd	111	159	3	He	49.985	ug/l	70819.93
Cd	114	159	1	NO GAS	45.746	ug/l	686403.60
Cd	114	159	3	He	49.469	ug/l	182685.11
Sn	118	159	1	NO GAS	100.112	ug/l	1937428.48
Sn	118	159	3	He	102.895	ug/l	273638.71
Sb	121	159	1	NO GAS	94.543	ug/l	2571569.22
Sb	121	159	3	He	99.332	ug/l	345796.64
Sb	123	159	1	NO GAS	94.413	ug/l	2038868.82
Sb	123	159	3	He	100.518	ug/l	285651.32
Ba	135	159	1	NO GAS	110.196	ug/l	638927.26
Ba	137	159	1	NO GAS	109.464	ug/l	1100835.24
La	139	175	1	NO GAS	97.843	ug/l	9058879.08
La	139	175	3	He	102.157	ug/l	1947774.35
Ce	140	175	1	NO GAS	96.094	ug/l	8826973.12
Ce	140	175	3	He	101.583	ug/l	2455392.78
Hg	201	175	1	NO GAS	0.031	ug/l	163.97
Hg	202	175	1	NO GAS	0.449	ug/l	4814.48
Hg	202	175	3	He	0.331	ug/l	2240.39
Tl	203	175	3	He	102.914	ug/l	1432948.66
Tl	205	175	1	NO GAS	90.313	ug/l	6571219.28
Tl	205	175	3	He	102.779	ug/l	3509786.72
[Pb]	206	175	1	NO GAS	95.460	ug/l	2340707.71
[Pb]	207	175	1	NO GAS	95.551	ug/l	2031988.81
Pb	208	175	1	NO GAS	96.029	ug/l	9345656.72
Th	232	175	3	He	109.522	ug/l	5456010.70
U	238	175	1	NO GAS	95.820	ug/l	10733015.04

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2115330.59	101.6
Sc	45	2	H2	82752.83	91.1
Sc	45	3	He	53903.52	98.1
Ge	72	1	NO GAS	970035.48	108.3
Ge	72	2	H2	130316.57	100.7
Ge	72	3	He	84224.59	99.9
Tb	159	1	NO GAS	21197997.04	105.3
Tb	159	3	He	7206242.14	98.1
Ho	165	1	NO GAS	19803588.10	105.5
Ho	165	3	He	7124911.69	98.4
Lu	175	1	NO GAS	22029246.18	110.1
Lu	175	3	He	4378479.63	99.3

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	125BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 06:54:12
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.126	ug/l	1597.76
Be	9	45	1	NO GAS	0.020	ug/l	7.00
B	11	45	1	NO GAS	0.134	ug/l	299.95
Na	23	45	3	He	168.807	ug/l	23144.36
Mg	24	45	3	He	1.911	ug/l	153.03
Al	27	45	1	NO GAS	0.551	ug/l	2009.02
Si	28	45	2	H2	-68.031	ug/l	73.99
K	39	72	3	He	0.741	ug/l	2793.59
Ca	40	72	2	H2	2.256	ug/l	989.55
Ti	47	72	1	NO GAS	0.016	ug/l	49.98
V	51	72	1	NO GAS	0.238	ug/l	-20370.17
V	51	72	3	He	-0.059	ug/l	234.45
Cr	52	72	1	NO GAS	-0.081	ug/l	13775.09
Cr	52	72	3	He	-0.012	ug/l	109.78
Cr	53	72	1	NO GAS	-22.620	ug/l	101135.75
Mn	55	72	1	NO GAS	0.016	ug/l	1340.74
Mn	55	72	3	He	0.027	ug/l	31.67
Fe	56	72	2	H2	0.542	ug/l	911.25
Fe	56	72	3	He	0.572	ug/l	1429.36
Co	59	72	1	NO GAS	0.007	ug/l	169.67
Ni	60	72	1	NO GAS	0.036	ug/l	139.72
Ni	60	72	3	He	-0.002	ug/l	28.89
Ni	62	72	1	NO GAS	0.124	ug/l	455.77
Cu	63	72	1	NO GAS	0.023	ug/l	663.88
Cu	63	72	3	He	0.010	ug/l	212.96
Cu	65	72	1	NO GAS	0.007	ug/l	259.95
Zn	66	72	1	NO GAS	0.064	ug/l	522.06
Zn	66	72	3	He	0.054	ug/l	82.22
As	75	72	1	NO GAS	-0.346	ug/l	2318.36
As	75	72	3	He	0.015	ug/l	10.67
Se	78	72	2	H2	0.026	ug/l	6.00
Br	79	72	1	NO GAS	-1.351	ug/l	60974.17
Br	79	72	2	H2	-1.620	ug/l	8480.45
Se	82	72	1	NO GAS	0.560	ug/l	308.07
Kr	84	72	1	NO GAS		ug/l	8162.57
Sr	88	72	1	NO GAS	0.022	ug/l	1174.40
Sr	88	72	3	He	0.027	ug/l	258.90

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.020	ug/l	243.34
Mo	95	72	3	He	0.012	ug/l	68.89
Mo	98	72	1	NO GAS	0.012	ug/l	307.93
Ag	107	72	1	NO GAS	0.010	ug/l	2023.06
Ag	109	72	1	NO GAS	0.013	ug/l	1989.07
Cd	111	159	1	NO GAS	0.001	ug/l	20.69
Cd	111	159	3	He	0.007	ug/l	13.33
Cd	114	159	1	NO GAS	0.010	ug/l	-51.75
Cd	114	159	3	He	0.019	ug/l	45.91
Sn	118	159	1	NO GAS	-2.365	ug/l	3480.17
Sn	118	159	3	He	-2.448	ug/l	595.57
Sb	121	159	1	NO GAS	0.010	ug/l	780.03
Sb	121	159	3	He	0.010	ug/l	107.78
Sb	123	159	1	NO GAS	0.012	ug/l	647.79
Sb	123	159	3	He	0.018	ug/l	98.89
Ba	135	159	1	NO GAS	0.054	ug/l	292.76
Ba	137	159	1	NO GAS	0.040	ug/l	385.91
La	139	175	1	NO GAS	0.003	ug/l	337.02
La	139	175	3	He	0.002	ug/l	40.04
Ce	140	175	1	NO GAS	0.002	ug/l	246.92
Ce	140	175	3	He	0.004	ug/l	100.10
Hg	201	175	1	NO GAS	0.001	ug/l	25.33
Hg	202	175	1	NO GAS	0.000	ug/l	78.98
Hg	202	175	3	He	0.000	ug/l	33.66
Tl	203	175	3	He	0.356	ug/l	5249.88
Tl	205	175	1	NO GAS	0.297	ug/l	20665.37
Tl	205	175	3	He	0.354	ug/l	12832.22
[Pb]	206	175	1	NO GAS	0.011	ug/l	311.12
[Pb]	207	175	1	NO GAS	0.012	ug/l	277.78
Pb	208	175	1	NO GAS	0.011	ug/l	1212.25
Th	232	175	3	He	0.059	ug/l	4246.44
U	238	175	1	NO GAS	0.013	ug/l	1504.11

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1897446.01	91.1
Sc	45	2	H2	80029.77	88.1
Sc	45	3	He	51695.14	94.1
Ge	72	1	NO GAS	890332.24	99.4
Ge	72	2	H2	125985.77	97.3
Ge	72	3	He	82547.36	97.9
Tb	159	1	NO GAS	19444245.54	96.6
Tb	159	3	He	7268122.50	98.9
Ho	165	1	NO GAS	17955256.81	95.7
Ho	165	3	He	7029036.19	97.1
Lu	175	1	NO GAS	19932396.91	99.6
Lu	175	3	He	4297698.54	97.4

ICPMS206-B Analytical Data

Sample Name	B22010972-001A
File Name	126SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 06:59:56
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.546	ug/l	1425.11
Be	9	45	1	NO GAS	0.004	ug/l	3.67
B	11	45	1	NO GAS	25.052	ug/l	6036.52
Na	23	45	3	He	37151.525	ug/l	3669560.08
Mg	24	45	3	He	14520.531	ug/l	747178.23
Al	27	45	1	NO GAS	3.672	ug/l	13041.69
Si	28	45	2	H2	24252.863	ug/l	420157.41
K	39	72	3	He	2377.758	ug/l	122470.27
Ca	40	72	2	H2	17068.764	ug/l	4097635.25
Ti	47	72	1	NO GAS	1.521	ug/l	1496.01
V	51	72	1	NO GAS	10.991	ug/l	141653.97
V	51	72	3	He	9.589	ug/l	14372.83
Cr	52	72	1	NO GAS	1.105	ug/l	31287.00
Cr	52	72	3	He	1.950	ug/l	3922.71
Cr	53	72	1	NO GAS	-97.583	ug/l	28823.78
Mn	55	72	1	NO GAS	0.068	ug/l	2571.78
Mn	55	72	3	He	0.105	ug/l	109.68
Fe	56	72	2	H2	0.722	ug/l	1341.07
Fe	56	72	3	He	0.544	ug/l	1562.65
Co	59	72	1	NO GAS	0.022	ug/l	465.75
Ni	60	72	1	NO GAS	0.401	ug/l	1586.93
Ni	60	72	3	He	0.221	ug/l	301.12
Ni	62	72	1	NO GAS	0.224	ug/l	565.56
Cu	63	72	1	NO GAS	1.062	ug/l	11114.82
Cu	63	72	3	He	0.632	ug/l	2469.02
Cu	65	72	1	NO GAS	0.670	ug/l	3559.68
Zn	66	72	1	NO GAS	9.411	ug/l	31344.09
Zn	66	72	3	He	9.863	ug/l	5287.54
As	75	72	1	NO GAS	0.716	ug/l	6481.01
As	75	72	3	He	0.475	ug/l	170.63
Se	78	72	2	H2	0.064	ug/l	12.00
Br	79	72	1	NO GAS	20.130	ug/l	218914.59
Br	79	72	2	H2	19.847	ug/l	34327.98
Se	82	72	1	NO GAS	1.371	ug/l	613.51
Kr	84	72	1	NO GAS		ug/l	37168.12
Sr	88	72	1	NO GAS	120.078	ug/l	4908988.14
Sr	88	72	3	He	122.360	ug/l	208271.10

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.728	ug/l	6455.77
Mo	95	72	3	He	0.771	ug/l	2207.94
Mo	98	72	1	NO GAS	0.737	ug/l	11179.44
Ag	107	72	1	NO GAS	-0.069	ug/l	263.28
Ag	109	72	1	NO GAS	-0.066	ug/l	254.62
Cd	111	159	1	NO GAS	-0.002	ug/l	-2.79
Cd	111	159	3	He	0.000	ug/l	4.00
Cd	114	159	1	NO GAS	0.016	ug/l	9.61
Cd	114	159	3	He	0.009	ug/l	8.22
Sn	118	159	1	NO GAS	-2.477	ug/l	1720.03
Sn	118	159	3	He	-2.577	ug/l	263.34
Sb	121	159	1	NO GAS	-0.003	ug/l	495.57
Sb	121	159	3	He	0.003	ug/l	85.55
Sb	123	159	1	NO GAS	0.000	ug/l	444.45
Sb	123	159	3	He	0.006	ug/l	66.67
Ba	135	159	1	NO GAS	6.145	ug/l	33502.24
Ba	137	159	1	NO GAS	6.174	ug/l	58381.00
La	139	175	1	NO GAS	0.001	ug/l	156.83
La	139	175	3	He	0.003	ug/l	63.40
Ce	140	175	1	NO GAS	0.001	ug/l	186.86
Ce	140	175	3	He	0.003	ug/l	76.74
Hg	201	175	1	NO GAS	0.000	ug/l	20.66
Hg	202	175	1	NO GAS	0.000	ug/l	85.65
Hg	202	175	3	He	0.002	ug/l	50.66
Tl	203	175	3	He	0.271	ug/l	4247.77
Tl	205	175	1	NO GAS	0.205	ug/l	15782.90
Tl	205	175	3	He	0.274	ug/l	10566.27
[Pb]	206	175	1	NO GAS	0.003	ug/l	140.00
[Pb]	207	175	1	NO GAS	0.003	ug/l	116.67
Pb	208	175	1	NO GAS	0.004	ug/l	587.79
Th	232	175	3	He	-0.004	ug/l	1169.82
U	238	175	1	NO GAS	0.032	ug/l	3550.05

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2277644.53	109.4
Sc	45	2	H2	103008.25	113.4
Sc	45	3	He	59669.91	108.6
Ge	72	1	NO GAS	971779.90	108.5
Ge	72	2	H2	150788.05	116.5
Ge	72	3	He	92992.39	110.3
Tb	159	1	NO GAS	20020687.28	99.5
Tb	159	3	He	7447267.00	101.4
Ho	165	1	NO GAS	19039752.42	101.4
Ho	165	3	He	7214526.09	99.6
Lu	175	1	NO GAS	20869679.78	104.3
Lu	175	3	He	4474526.09	101.4

ICPMS206-B Analytical Data

Sample Name	B22010972-001B
File Name	127SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 07:05:40
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.129	ug/l	1748.41
Be	9	45	1	NO GAS	0.027	ug/l	8.67
B	11	45	1	NO GAS	24.862	ug/l	4989.74
Na	23	45	3	He	37714.437	ug/l	2924836.83
Mg	24	45	3	He	14708.653	ug/l	593958.05
Al	27	45	1	NO GAS	64.487	ug/l	182291.33
Si	28	45	2	H2	24298.392	ug/l	290142.91
K	39	72	3	He	2254.929	ug/l	94298.65
Ca	40	72	2	H2	15183.684	ug/l	2815160.40
Ti	47	72	1	NO GAS	7.990	ug/l	6716.40
V	51	72	1	NO GAS	8.562	ug/l	92357.26
V	51	72	3	He	9.729	ug/l	11819.75
Cr	52	72	1	NO GAS	2.420	ug/l	43386.58
Cr	52	72	3	He	2.293	ug/l	3723.06
Cr	53	72	1	NO GAS	51.890	ug/l	170310.58
Mn	55	72	1	NO GAS	0.847	ug/l	16562.18
Mn	55	72	3	He	0.847	ug/l	658.08
Fe	56	72	2	H2	50.669	ug/l	54164.43
Fe	56	72	3	He	59.669	ug/l	85818.97
Co	59	72	1	NO GAS	0.065	ug/l	1094.54
Ni	60	72	1	NO GAS	0.715	ug/l	2508.58
Ni	60	72	3	He	0.453	ug/l	468.90
Ni	62	72	1	NO GAS	0.438	ug/l	608.81
Cu	63	72	1	NO GAS	0.749	ug/l	7037.44
Cu	63	72	3	He	0.206	ug/l	762.87
Cu	65	72	1	NO GAS	0.284	ug/l	1461.78
Zn	66	72	1	NO GAS	14.111	ug/l	41345.41
Zn	66	72	3	He	14.721	ug/l	6372.38
As	75	72	1	NO GAS	0.974	ug/l	6493.29
As	75	72	3	He	0.515	ug/l	149.64
Se	78	72	2	H2	0.109	ug/l	13.67
Br	79	72	1	NO GAS	3.133	ug/l	87407.79
Br	79	72	2	H2	4.743	ug/l	13379.02
Se	82	72	1	NO GAS	1.373	ug/l	531.65
Kr	84	72	1	NO GAS		ug/l	34454.47
Sr	88	72	1	NO GAS	130.105	ug/l	4686973.72
Sr	88	72	3	He	132.160	ug/l	182398.19

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.212	ug/l	9442.81
Mo	95	72	3	He	1.315	ug/l	3029.19
Mo	98	72	1	NO GAS	1.241	ug/l	16530.32
Ag	107	72	1	NO GAS	0.542	ug/l	13599.02
Ag	109	72	1	NO GAS	0.539	ug/l	13246.81
Cd	111	159	1	NO GAS	-0.001	ug/l	7.43
Cd	111	159	3	He	-0.001	ug/l	1.33
Cd	114	159	1	NO GAS	0.008	ug/l	-109.60
Cd	114	159	3	He	0.008	ug/l	3.87
Sn	118	159	1	NO GAS	-2.122	ug/l	8361.23
Sn	118	159	3	He	-2.275	ug/l	1016.71
Sb	121	159	1	NO GAS	0.014	ug/l	967.82
Sb	121	159	3	He	0.027	ug/l	162.23
Sb	123	159	1	NO GAS	0.018	ug/l	843.36
Sb	123	159	3	He	0.036	ug/l	146.67
Ba	135	159	1	NO GAS	5.720	ug/l	32465.50
Ba	137	159	1	NO GAS	5.705	ug/l	56178.25
La	139	175	1	NO GAS	0.016	ug/l	1471.58
La	139	175	3	He	0.015	ug/l	293.64
Ce	140	175	1	NO GAS	0.036	ug/l	3183.59
Ce	140	175	3	He	0.034	ug/l	807.52
Hg	201	175	1	NO GAS	0.003	ug/l	37.66
Hg	202	175	1	NO GAS	0.008	ug/l	167.63
Hg	202	175	3	He	0.007	ug/l	81.65
Tl	203	175	3	He	0.113	ug/l	1935.08
Tl	205	175	1	NO GAS	0.073	ug/l	6915.00
Tl	205	175	3	He	0.112	ug/l	4727.15
[Pb]	206	175	1	NO GAS	0.025	ug/l	644.46
[Pb]	207	175	1	NO GAS	0.022	ug/l	513.35
Pb	208	175	1	NO GAS	0.022	ug/l	2304.53
Th	232	175	3	He	0.114	ug/l	6912.25
U	238	175	1	NO GAS	0.036	ug/l	4040.75

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1895263.21	91.0
Sc	45	2	H2	71025.92	78.2
Sc	45	3	He	46845.79	85.3
Ge	72	1	NO GAS	854579.07	95.4
Ge	72	2	H2	116586.37	90.0
Ge	72	3	He	75407.54	89.5
Tb	159	1	NO GAS	20800748.35	103.4
Tb	159	3	He	7060510.05	96.1
Ho	165	1	NO GAS	19094043.37	101.7
Ho	165	3	He	6901951.71	95.3
Lu	175	1	NO GAS	21157172.26	105.7
Lu	175	3	He	4306763.33	97.6

ICPMS206-B Analytical Data

Sample Name	B22010973-001A
File Name	128SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 07:11:23
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.930	ug/l	1027.83
Be	9	45	1	NO GAS	0.009	ug/l	4.33
B	11	45	1	NO GAS	71.355	ug/l	13667.40
Na	23	45	3	He	41820.887	ug/l	4049514.97
Mg	24	45	3	He	12677.852	ug/l	639690.61
Al	27	45	1	NO GAS	1.899	ug/l	5764.34
Si	28	45	2	H2	9900.838	ug/l	166145.46
K	39	72	3	He	3441.129	ug/l	176685.78
Ca	40	72	2	H2	13360.787	ug/l	3057083.59
Ti	47	72	1	NO GAS	0.593	ug/l	576.39
V	51	72	1	NO GAS	1.690	ug/l	326.27
V	51	72	3	He	-0.092	ug/l	217.78
Cr	52	72	1	NO GAS	-0.502	ug/l	8961.34
Cr	52	72	3	He	0.066	ug/l	276.13
Cr	53	72	1	NO GAS	-102.812	ug/l	22123.73
Mn	55	72	1	NO GAS	25.253	ug/l	495825.72
Mn	55	72	3	He	25.690	ug/l	24422.65
Fe	56	72	2	H2	21.040	ug/l	27872.73
Fe	56	72	3	He	21.423	ug/l	38579.99
Co	59	72	1	NO GAS	0.032	ug/l	595.50
Ni	60	72	1	NO GAS	0.361	ug/l	1340.74
Ni	60	72	3	He	0.243	ug/l	328.89
Ni	62	72	1	NO GAS	0.189	ug/l	538.95
Cu	63	72	1	NO GAS	0.748	ug/l	7526.88
Cu	63	72	3	He	0.224	ug/l	1013.17
Cu	65	72	1	NO GAS	0.259	ug/l	1451.11
Zn	66	72	1	NO GAS	3.565	ug/l	11416.90
Zn	66	72	3	He	3.723	ug/l	2043.48
As	75	72	1	NO GAS	0.357	ug/l	5057.85
As	75	72	3	He	0.160	ug/l	62.32
Se	78	72	2	H2	0.055	ug/l	10.33
Br	79	72	1	NO GAS	9.225	ug/l	133205.86
Br	79	72	2	H2	9.786	ug/l	21918.02
Se	82	72	1	NO GAS	0.759	ug/l	415.20
Kr	84	72	1	NO GAS		ug/l	28494.63
Sr	88	72	1	NO GAS	91.475	ug/l	3522292.77
Sr	88	72	3	He	87.896	ug/l	150401.51

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	16.902	ug/l	138782.27
Mo	95	72	3	He	16.881	ug/l	47656.99
Mo	98	72	1	NO GAS	16.550	ug/l	232234.90
Ag	107	72	1	NO GAS	-0.077	ug/l	63.32
Ag	109	72	1	NO GAS	-0.073	ug/l	71.98
Cd	111	159	1	NO GAS	0.001	ug/l	11.12
Cd	111	159	3	He	0.009	ug/l	16.00
Cd	114	159	1	NO GAS	0.024	ug/l	105.17
Cd	114	159	3	He	0.016	ug/l	35.48
Sn	118	159	1	NO GAS	-2.426	ug/l	2488.63
Sn	118	159	3	He	-2.549	ug/l	340.01
Sb	121	159	1	NO GAS	0.036	ug/l	1327.84
Sb	121	159	3	He	0.024	ug/l	161.11
Sb	123	159	1	NO GAS	0.037	ug/l	1051.15
Sb	123	159	3	He	0.038	ug/l	163.34
Ba	135	159	1	NO GAS	2.378	ug/l	11704.45
Ba	137	159	1	NO GAS	2.402	ug/l	20336.28
La	139	175	1	NO GAS	0.001	ug/l	130.13
La	139	175	3	He	0.001	ug/l	30.03
Ce	140	175	1	NO GAS	0.002	ug/l	223.57
Ce	140	175	3	He	0.003	ug/l	83.42
Hg	201	175	1	NO GAS	0.001	ug/l	23.00
Hg	202	175	1	NO GAS	0.025	ug/l	292.28
Hg	202	175	3	He	0.018	ug/l	157.30
Tl	203	175	3	He	0.129	ug/l	2218.40
Tl	205	175	1	NO GAS	0.117	ug/l	8758.18
Tl	205	175	3	He	0.133	ug/l	5633.28
[Pb]	206	175	1	NO GAS	0.014	ug/l	360.01
[Pb]	207	175	1	NO GAS	0.012	ug/l	261.11
Pb	208	175	1	NO GAS	0.013	ug/l	1282.26
Th	232	175	3	He	-0.014	ug/l	683.22
U	238	175	1	NO GAS	0.007	ug/l	838.86

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2077201.94	99.8
Sc	45	2	H2	99297.16	109.3
Sc	45	3	He	58481.60	106.5
Ge	72	1	NO GAS	971566.89	108.5
Ge	72	2	H2	143695.04	111.0
Ge	72	3	He	93461.69	110.9
Tb	159	1	NO GAS	19874735.29	98.8
Tb	159	3	He	7482455.89	101.8
Ho	165	1	NO GAS	18876155.28	100.6
Ho	165	3	He	7325530.95	101.2
Lu	175	1	NO GAS	20458449.71	102.2
Lu	175	3	He	4455255.36	101.0

ICPMS206-B Analytical Data

Sample Name	CCV
File Name	129_CCV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 07:17:08
Sample Type	CCV
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	335.828	ug/l	239165.82
Be	9	45	1	NO GAS	43.391	ug/l	10961.90
B	11	45	1	NO GAS	43.884	ug/l	8250.36
Na	23	45	3	He	11350.143	ug/l	912980.35
Mg	24	45	3	He	11254.512	ug/l	468638.05
Al	27	45	1	NO GAS	44.410	ug/l	120574.76
Si	28	45	2	H2	182.651	ug/l	3141.01
K	39	72	3	He	10455.004	ug/l	442106.46
Ca	40	72	2	H2	11092.975	ug/l	2023790.85
Ti	47	72	1	NO GAS	45.037	ug/l	38790.09
V	51	72	1	NO GAS	43.411	ug/l	575456.95
V	51	72	3	He	47.730	ug/l	58747.39
Cr	52	72	1	NO GAS	44.201	ug/l	560224.83
Cr	52	72	3	He	49.500	ug/l	80428.54
Cr	53	72	1	NO GAS	33.883	ug/l	156780.09
Mn	55	72	1	NO GAS	44.747	ug/l	845825.35
Mn	55	72	3	He	47.264	ug/l	37444.56
Fe	56	72	2	H2	1123.887	ug/l	1174188.32
Fe	56	72	3	He	1244.387	ug/l	1838137.59
Co	59	72	1	NO GAS	45.453	ug/l	743150.32
Ni	60	72	1	NO GAS	46.177	ug/l	164120.94
Ni	60	72	3	He	51.592	ug/l	51792.99
Ni	62	72	1	NO GAS	47.619	ug/l	26631.70
Cu	63	72	1	NO GAS	47.918	ug/l	433225.53
Cu	63	72	3	He	51.610	ug/l	155238.62
Cu	65	72	1	NO GAS	47.414	ug/l	212694.08
Zn	66	72	1	NO GAS	47.200	ug/l	141017.29
Zn	66	72	3	He	50.916	ug/l	22635.42
As	75	72	1	NO GAS	47.444	ug/l	156584.77
As	75	72	3	He	50.550	ug/l	14597.79
Se	78	72	2	H2	55.187	ug/l	5286.13
Br	79	72	1	NO GAS	0.793	ug/l	74489.34
Br	79	72	2	H2	1.624	ug/l	10505.98
Se	82	72	1	NO GAS	49.761	ug/l	13725.01
Kr	84	72	1	NO GAS		ug/l	18490.45
Sr	88	72	1	NO GAS	51.460	ug/l	1901676.94
Sr	88	72	3	He	52.733	ug/l	75286.01

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	50.696	ug/l	401655.45
Mo	95	72	3	He	54.961	ug/l	129274.11
Mo	98	72	1	NO GAS	50.308	ug/l	681590.42
Ag	107	72	1	NO GAS	20.676	ug/l	465674.82
Ag	109	72	1	NO GAS	20.782	ug/l	460778.11
Cd	111	159	1	NO GAS	46.603	ug/l	279800.01
Cd	111	159	3	He	49.196	ug/l	66691.95
Cd	114	159	1	NO GAS	46.571	ug/l	648596.56
Cd	114	159	3	He	48.282	ug/l	170562.56
Sn	118	159	1	NO GAS	45.714	ug/l	845226.50
Sn	118	159	3	He	46.455	ug/l	121843.10
Sb	121	159	1	NO GAS	45.770	ug/l	1155517.11
Sb	121	159	3	He	48.144	ug/l	160375.19
Sb	123	159	1	NO GAS	45.367	ug/l	908999.56
Sb	123	159	3	He	47.978	ug/l	130449.44
Ba	135	159	1	NO GAS	46.675	ug/l	251015.73
Ba	137	159	1	NO GAS	47.201	ug/l	440453.33
La	139	175	1	NO GAS	47.601	ug/l	4034172.11
La	139	175	3	He	47.314	ug/l	853984.59
Ce	140	175	1	NO GAS	47.674	ug/l	4009319.18
Ce	140	175	3	He	47.263	ug/l	1081416.88
Hg	201	175	1	NO GAS	0.983	ug/l	4143.41
Hg	202	175	1	NO GAS	0.967	ug/l	9413.71
Hg	202	175	3	He	1.033	ug/l	6553.11
Tl	203	175	3	He	51.338	ug/l	676926.30
Tl	205	175	1	NO GAS	48.203	ug/l	3211253.22
Tl	205	175	3	He	51.970	ug/l	1680539.07
[Pb]	206	175	1	NO GAS	48.283	ug/l	1084045.98
[Pb]	207	175	1	NO GAS	47.785	ug/l	930462.06
Pb	208	175	1	NO GAS	48.332	ug/l	4306991.55
Th	232	175	3	He	53.022	ug/l	2501964.27
U	238	175	1	NO GAS	48.294	ug/l	4951372.02

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1812362.64	87.1
Sc	45	2	H2	73134.71	80.5
Sc	45	3	He	48282.19	87.9
Ge	72	1	NO GAS	872828.10	97.4
Ge	72	2	H2	114661.70	88.6
Ge	72	3	He	77876.45	92.4
Tb	159	1	NO GAS	19655598.87	97.7
Tb	159	3	He	6894775.00	93.8
Ho	165	1	NO GAS	18426234.34	98.2
Ho	165	3	He	6754646.34	93.3
Lu	175	1	NO GAS	20172676.34	100.8
Lu	175	3	He	4144878.74	94.0

ICPMS206-B Analytical Data

Sample Name	CCB
File Name	130_CCB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 07:22:48
Sample Type	CCB
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.319	ug/l	1553.76
Be	9	45	1	NO GAS	0.009	ug/l	4.00
B	11	45	1	NO GAS	-0.090	ug/l	255.28
Na	23	45	3	He	3.892	ug/l	8196.43
Mg	24	45	3	He	-0.061	ug/l	59.88
Al	27	45	1	NO GAS	0.006	ug/l	506.68
Si	28	45	2	H2	-70.784	ug/l	41.32
K	39	72	3	He	0.146	ug/l	2526.87
Ca	40	72	2	H2	-0.012	ug/l	574.73
Ti	47	72	1	NO GAS	0.001	ug/l	38.32
V	51	72	1	NO GAS	0.455	ug/l	-16609.60
V	51	72	3	He	-0.024	ug/l	255.56
Cr	52	72	1	NO GAS	-0.140	ug/l	12936.14
Cr	52	72	3	He	0.015	ug/l	143.05
Cr	53	72	1	NO GAS	-19.144	ug/l	103706.15
Mn	55	72	1	NO GAS	0.004	ug/l	1097.87
Mn	55	72	3	He	0.001	ug/l	9.33
Fe	56	72	2	H2	0.012	ug/l	321.51
Fe	56	72	3	He	0.076	ug/l	596.39
Co	59	72	1	NO GAS	0.002	ug/l	83.17
Ni	60	72	1	NO GAS	0.010	ug/l	53.23
Ni	60	72	3	He	-0.015	ug/l	14.44
Ni	62	72	1	NO GAS	-0.144	ug/l	302.74
Cu	63	72	1	NO GAS	-0.001	ug/l	449.92
Cu	63	72	3	He	-0.007	ug/l	144.97
Cu	65	72	1	NO GAS	-0.005	ug/l	208.63
Zn	66	72	1	NO GAS	-0.012	ug/l	282.55
Zn	66	72	3	He	-0.033	ug/l	37.78
As	75	72	1	NO GAS	0.125	ug/l	3924.51
As	75	72	3	He	-0.002	ug/l	5.00
Se	78	72	2	H2	0.005	ug/l	4.00
Br	79	72	1	NO GAS	0.270	ug/l	70944.22
Br	79	72	2	H2	-1.564	ug/l	9177.78
Se	82	72	1	NO GAS	0.789	ug/l	388.58
Kr	84	72	1	NO GAS		ug/l	8219.11
Sr	88	72	1	NO GAS	0.002	ug/l	452.44
Sr	88	72	3	He	-0.006	ug/l	191.12

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.016	ug/l	215.56
Mo	95	72	3	He	0.010	ug/l	56.67
Mo	98	72	1	NO GAS	0.011	ug/l	302.23
Ag	107	72	1	NO GAS	0.004	ug/l	1870.41
Ag	109	72	1	NO GAS	0.002	ug/l	1735.75
Cd	111	159	1	NO GAS	-0.005	ug/l	-17.17
Cd	111	159	3	He	-0.001	ug/l	2.00
Cd	114	159	1	NO GAS	-0.003	ug/l	-251.36
Cd	114	159	3	He	-0.005	ug/l	-41.24
Sn	118	159	1	NO GAS	-0.006	ug/l	44617.16
Sn	118	159	3	He	0.028	ug/l	6687.00
Sb	121	159	1	NO GAS	0.034	ug/l	1400.08
Sb	121	159	3	He	0.023	ug/l	146.67
Sb	123	159	1	NO GAS	0.035	ug/l	1132.27
Sb	123	159	3	He	0.032	ug/l	133.34
Ba	135	159	1	NO GAS	0.011	ug/l	79.84
Ba	137	159	1	NO GAS	0.006	ug/l	99.80
La	139	175	1	NO GAS	0.000	ug/l	103.44
La	139	175	3	He	0.000	ug/l	13.35
Ce	140	175	1	NO GAS	0.001	ug/l	150.15
Ce	140	175	3	He	0.001	ug/l	36.70
Hg	201	175	1	NO GAS	0.002	ug/l	32.32
Hg	202	175	1	NO GAS	0.004	ug/l	120.64
Hg	202	175	3	He	0.002	ug/l	48.32
Tl	203	175	3	He	0.081	ug/l	1419.12
Tl	205	175	1	NO GAS	0.063	ug/l	5898.99
Tl	205	175	3	He	0.080	ug/l	3474.39
[Pb]	206	175	1	NO GAS	0.001	ug/l	94.45
[Pb]	207	175	1	NO GAS	0.000	ug/l	68.89
Pb	208	175	1	NO GAS	0.001	ug/l	353.34
Th	232	175	3	He	0.039	ug/l	3109.72
U	238	175	1	NO GAS	0.003	ug/l	529.90

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1847973.82	88.8
Sc	45	2	H2	90468.98	99.6
Sc	45	3	He	46742.13	85.1
Ge	72	1	NO GAS	870243.34	97.1
Ge	72	2	H2	137036.01	105.8
Ge	72	3	He	75353.06	89.4
Tb	159	1	NO GAS	19517441.75	97.0
Tb	159	3	He	6877658.72	93.6
Ho	165	1	NO GAS	18375843.11	97.9
Ho	165	3	He	6692171.83	92.4
Lu	175	1	NO GAS	20284527.15	101.3
Lu	175	3	He	4098382.19	92.9

ICPMS206-B Analytical Data

Sample Name	B22010973-001ADIL
File Name	131_ARF.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 07:28:36
Sample Type	AllRef
Total Dilution	5.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-8.217	ug/l	1349.79
Be	9	45	1	NO GAS	0.005	ug/l	2.00
B	11	45	1	NO GAS	59.500	ug/l	2461.69
Na	23	45	3	He	40234.385	ug/l	630272.14
Mg	24	45	3	He	12173.083	ug/l	98393.07
Al	27	45	1	NO GAS	6.185	ug/l	3871.58
Si	28	45	2	H2	9349.686	ug/l	23765.77
K	39	72	3	He	3227.617	ug/l	29624.70
Ca	40	72	2	H2	11886.972	ug/l	443893.91
Ti	47	72	1	NO GAS	0.972	ug/l	208.23
V	51	72	1	NO GAS	1.904	ug/l	-17931.41
V	51	72	3	He	-0.198	ug/l	244.45
Cr	52	72	1	NO GAS	-1.210	ug/l	11900.75
Cr	52	72	3	He	0.156	ug/l	172.99
Cr	53	72	1	NO GAS	-153.707	ug/l	93926.88
Mn	55	72	1	NO GAS	23.413	ug/l	90854.04
Mn	55	72	3	He	25.277	ug/l	3998.21
Fe	56	72	2	H2	20.030	ug/l	4555.07
Fe	56	72	3	He	22.804	ug/l	7214.67
Co	59	72	1	NO GAS	0.047	ug/l	216.24
Ni	60	72	1	NO GAS	0.363	ug/l	279.45
Ni	60	72	3	He	0.200	ug/l	68.89
Ni	62	72	1	NO GAS	-0.015	ug/l	385.91
Cu	63	72	1	NO GAS	0.853	ug/l	2026.39
Cu	63	72	3	He	0.393	ug/l	404.59
Cu	65	72	1	NO GAS	0.403	ug/l	600.56
Zn	66	72	1	NO GAS	7.605	ug/l	4930.54
Zn	66	72	3	He	8.823	ug/l	832.25
As	75	72	1	NO GAS	0.135	ug/l	3659.40
As	75	72	3	He	0.154	ug/l	14.67
Se	78	72	2	H2	0.015	ug/l	3.33
Br	79	72	1	NO GAS	10.894	ug/l	84678.37
Br	79	72	2	H2	14.001	ug/l	11750.97
Se	82	72	1	NO GAS	4.707	ug/l	437.83
Kr	84	72	1	NO GAS		ug/l	11354.80
Sr	88	72	1	NO GAS	85.265	ug/l	640503.31
Sr	88	72	3	He	92.321	ug/l	26405.66

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	16.815	ug/l	27139.19
Mo	95	72	3	He	18.709	ug/l	8803.54
Mo	98	72	1	NO GAS	16.676	ug/l	46053.98
Ag	107	72	1	NO GAS	-0.373	ug/l	119.31
Ag	109	72	1	NO GAS	-0.358	ug/l	108.65
Cd	111	159	1	NO GAS	0.023	ug/l	41.19
Cd	111	159	3	He	0.010	ug/l	6.00
Cd	114	159	1	NO GAS	0.124	ug/l	135.25
Cd	114	159	3	He	0.063	ug/l	19.80
Sn	118	159	1	NO GAS	-11.946	ug/l	3213.99
Sn	118	159	3	He	-12.332	ug/l	525.57
Sb	121	159	1	NO GAS	0.043	ug/l	773.36
Sb	121	159	3	He	0.060	ug/l	111.11
Sb	123	159	1	NO GAS	0.044	ug/l	611.13
Sb	123	159	3	He	0.049	ug/l	73.33
Ba	135	159	1	NO GAS	2.498	ug/l	2704.90
Ba	137	159	1	NO GAS	2.530	ug/l	4754.66
La	139	175	1	NO GAS	0.008	ug/l	206.88
La	139	175	3	He	0.009	ug/l	43.38
Ce	140	175	1	NO GAS	0.007	ug/l	176.85
Ce	140	175	3	He	0.010	ug/l	60.06
Hg	201	175	1	NO GAS	0.007	ug/l	27.66
Hg	202	175	1	NO GAS	0.036	ug/l	150.64
Hg	202	175	3	He	0.020	ug/l	59.66
Tl	203	175	3	He	0.309	ug/l	1179.15
Tl	205	175	1	NO GAS	0.228	ug/l	4808.58
Tl	205	175	3	He	0.303	ug/l	2885.71
[Pb]	206	175	1	NO GAS	0.041	ug/l	255.56
[Pb]	207	175	1	NO GAS	0.049	ug/l	252.23
Pb	208	175	1	NO GAS	0.049	ug/l	1133.44
Th	232	175	3	He	0.012	ug/l	1399.13
U	238	175	1	NO GAS	0.009	ug/l	371.27

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1836645.00	88.2
Sc	45	2	H2	72967.74	80.4
Sc	45	3	He	46836.96	85.3
Ge	72	1	NO GAS	886771.66	99.0
Ge	72	2	H2	117187.70	90.5
Ge	72	3	He	77613.61	92.1
Tb	159	1	NO GAS	19657616.09	97.7
Tb	159	3	He	6979374.86	95.0
Ho	165	1	NO GAS	18673644.86	99.5
Ho	165	3	He	6794317.05	93.8
Lu	175	1	NO GAS	20444453.94	102.1
Lu	175	3	He	4135640.91	93.8

ICPMS206-B Analytical Data

Sample Name	B22010973-001AMS
File Name	132MS.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 07:34:19
Sample Type	MS
Total Dilution	1.0300
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1596.753	ug/l	1044536.69
Be	9	45	1	NO GAS	42.875	ug/l	11025.27
B	11	45	1	NO GAS	101.146	ug/l	19034.71
Na	23	45	3	He	92379.375	ug/l	7675989.40
Mg	24	45	3	He	61642.642	ug/l	2671102.55
Al	27	45	1	NO GAS	47.940	ug/l	132527.15
Si	28	45	2	H2	10009.517	ug/l	131484.04
K	39	72	3	He	49342.280	ug/l	2116633.86
Ca	40	72	2	H2	58716.791	ug/l	10836658.79
Ti	47	72	1	NO GAS	51.072	ug/l	42111.61
V	51	72	1	NO GAS	47.144	ug/l	599452.76
V	51	72	3	He	50.221	ug/l	62992.54
Cr	52	72	1	NO GAS	45.506	ug/l	552018.86
Cr	52	72	3	He	50.315	ug/l	83350.38
Cr	53	72	1	NO GAS	21.283	ug/l	141565.05
Mn	55	72	1	NO GAS	68.439	ug/l	1237630.16
Mn	55	72	3	He	75.191	ug/l	60725.89
Fe	56	72	2	H2	4625.670	ug/l	4891424.48
Fe	56	72	3	He	5069.116	ug/l	7631981.38
Co	59	72	1	NO GAS	45.636	ug/l	714146.19
Ni	60	72	1	NO GAS	47.186	ug/l	160539.90
Ni	60	72	3	He	51.731	ug/l	52955.40
Ni	62	72	1	NO GAS	46.522	ug/l	24915.95
Cu	63	72	1	NO GAS	47.787	ug/l	413526.75
Cu	63	72	3	He	50.698	ug/l	155476.83
Cu	65	72	1	NO GAS	47.057	ug/l	202070.40
Zn	66	72	1	NO GAS	49.471	ug/l	141464.85
Zn	66	72	3	He	54.279	ug/l	24593.71
As	75	72	1	NO GAS	50.044	ug/l	158080.46
As	75	72	3	He	53.887	ug/l	15865.35
Se	78	72	2	H2	55.749	ug/l	5406.47
Br	79	72	1	NO GAS	9.448	ug/l	126224.24
Br	79	72	2	H2	10.567	ug/l	18633.75
Se	82	72	1	NO GAS	53.623	ug/l	14155.19
Kr	84	72	1	NO GAS		ug/l	36608.16
Sr	88	72	1	NO GAS	134.819	ug/l	4768807.56
Sr	88	72	3	He	141.035	ug/l	204912.49

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	66.897	ug/l	507299.97
Mo	95	72	3	He	72.072	ug/l	172788.50
Mo	98	72	1	NO GAS	67.204	ug/l	871405.69
Ag	107	72	1	NO GAS	20.560	ug/l	443299.71
Ag	109	72	1	NO GAS	20.732	ug/l	439986.06
Cd	111	159	1	NO GAS	46.908	ug/l	256195.86
Cd	111	159	3	He	48.170	ug/l	63788.95
Cd	114	159	1	NO GAS	46.800	ug/l	592886.94
Cd	114	159	3	He	47.809	ug/l	164991.26
Sn	118	159	1	NO GAS	46.691	ug/l	785807.25
Sn	118	159	3	He	47.342	ug/l	121363.51
Sb	121	159	1	NO GAS	49.228	ug/l	1130611.92
Sb	121	159	3	He	48.777	ug/l	158738.06
Sb	123	159	1	NO GAS	48.760	ug/l	888903.93
Sb	123	159	3	He	49.965	ug/l	132698.38
Ba	135	159	1	NO GAS	50.329	ug/l	246285.49
Ba	137	159	1	NO GAS	51.033	ug/l	433193.44
La	139	175	1	NO GAS	0.006	ug/l	520.54
La	139	175	3	He	0.004	ug/l	80.08
Ce	140	175	1	NO GAS	46.994	ug/l	3724431.36
Ce	140	175	3	He	47.954	ug/l	1063016.35
Hg	201	175	1	NO GAS	0.957	ug/l	3806.72
Hg	202	175	1	NO GAS	0.990	ug/l	9083.91
Hg	202	175	3	He	1.032	ug/l	6345.06
Tl	203	175	3	He	48.179	ug/l	615489.15
Tl	205	175	1	NO GAS	45.790	ug/l	2875535.72
Tl	205	175	3	He	49.361	ug/l	1546158.91
[Pb]	206	175	1	NO GAS	47.223	ug/l	999230.70
[Pb]	207	175	1	NO GAS	46.762	ug/l	857930.27
Pb	208	175	1	NO GAS	47.597	ug/l	3996175.27
Th	232	175	3	He	53.030	ug/l	2423793.58
U	238	175	1	NO GAS	48.638	ug/l	4701073.75

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1899157.52	91.2
Sc	45	2	H2	80078.54	88.2
Sc	45	3	He	51765.97	94.3
Ge	72	1	NO GAS	860389.42	96.0
Ge	72	2	H2	119432.26	92.2
Ge	72	3	He	81767.05	97.0
Tb	159	1	NO GAS	18415696.92	91.5
Tb	159	3	He	6935993.30	94.4
Ho	165	1	NO GAS	17569489.08	93.6
Ho	165	3	He	6714220.13	92.7
Lu	175	1	NO GAS	19586361.09	97.9
Lu	175	3	He	4135483.46	93.7

ICPMS206-B Analytical Data

Sample Name	B22010973-001AMSD
File Name	133MSD.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 07:39:58
Sample Type	MSD
Total Dilution	1.0300
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1968.250	ug/l	1278338.72
Be	9	45	1	NO GAS	44.813	ug/l	13407.12
B	11	45	1	NO GAS	103.276	ug/l	22630.26
Na	23	45	3	He	91451.543	ug/l	8639541.19
Mg	24	45	3	He	61855.765	ug/l	3049169.14
Al	27	45	1	NO GAS	48.512	ug/l	156139.38
Si	28	45	2	H2	9917.396	ug/l	164396.60
K	39	72	3	He	51060.499	ug/l	2364167.55
Ca	40	72	2	H2	64503.855	ug/l	13754164.25
Ti	47	72	1	NO GAS	52.019	ug/l	46595.80
V	51	72	1	NO GAS	47.619	ug/l	658078.56
V	51	72	3	He	49.166	ug/l	66573.67
Cr	52	72	1	NO GAS	46.283	ug/l	609621.16
Cr	52	72	3	He	48.938	ug/l	87498.65
Cr	53	72	1	NO GAS	14.183	ug/l	146441.67
Mn	55	72	1	NO GAS	71.251	ug/l	1399750.25
Mn	55	72	3	He	76.047	ug/l	66281.11
Fe	56	72	2	H2	4838.177	ug/l	5913049.19
Fe	56	72	3	He	5175.376	ug/l	8411248.14
Co	59	72	1	NO GAS	46.002	ug/l	782131.66
Ni	60	72	1	NO GAS	46.103	ug/l	170449.63
Ni	60	72	3	He	50.705	ug/l	56014.25
Ni	62	72	1	NO GAS	46.732	ug/l	27201.77
Cu	63	72	1	NO GAS	47.420	ug/l	445845.04
Cu	63	72	3	He	49.894	ug/l	165132.60
Cu	65	72	1	NO GAS	46.620	ug/l	217508.84
Zn	66	72	1	NO GAS	47.872	ug/l	148768.42
Zn	66	72	3	He	50.710	ug/l	24805.07
As	75	72	1	NO GAS	48.967	ug/l	168065.05
As	75	72	3	He	52.155	ug/l	16570.22
Se	78	72	2	H2	53.689	ug/l	6019.56
Br	79	72	1	NO GAS	9.583	ug/l	138019.28
Br	79	72	2	H2	10.829	ug/l	21791.41
Se	82	72	1	NO GAS	50.011	ug/l	14356.44
Kr	84	72	1	NO GAS		ug/l	38161.79
Sr	88	72	1	NO GAS	135.534	ug/l	5208696.28
Sr	88	72	3	He	140.586	ug/l	220471.29

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	64.980	ug/l	535208.45
Mo	95	72	3	He	69.329	ug/l	179386.46
Mo	98	72	1	NO GAS	63.210	ug/l	890314.38
Ag	107	72	1	NO GAS	19.740	ug/l	462409.74
Ag	109	72	1	NO GAS	19.015	ug/l	438557.22
Cd	111	159	1	NO GAS	46.686	ug/l	264514.27
Cd	111	159	3	He	48.149	ug/l	65283.73
Cd	114	159	1	NO GAS	46.776	ug/l	614906.55
Cd	114	159	3	He	48.023	ug/l	169734.11
Sn	118	159	1	NO GAS	46.065	ug/l	805079.86
Sn	118	159	3	He	46.927	ug/l	123226.30
Sb	121	159	1	NO GAS	47.228	ug/l	1125469.03
Sb	121	159	3	He	49.520	ug/l	165002.12
Sb	123	159	1	NO GAS	46.599	ug/l	881555.40
Sb	123	159	3	He	49.901	ug/l	135681.91
Ba	135	159	1	NO GAS	49.209	ug/l	249857.95
Ba	137	159	1	NO GAS	48.862	ug/l	430369.13
La	139	175	1	NO GAS	0.007	ug/l	603.97
La	139	175	3	He	0.003	ug/l	60.06
Ce	140	175	1	NO GAS	48.047	ug/l	3781561.22
Ce	140	175	3	He	47.848	ug/l	1082496.59
Hg	201	175	1	NO GAS	0.960	ug/l	3790.72
Hg	202	175	1	NO GAS	0.970	ug/l	8837.81
Hg	202	175	3	He	1.001	ug/l	6282.38
Tl	203	175	3	He	46.842	ug/l	610623.72
Tl	205	175	1	NO GAS	46.799	ug/l	2917397.08
Tl	205	175	3	He	48.094	ug/l	1536691.26
[Pb]	206	175	1	NO GAS	45.536	ug/l	956551.83
[Pb]	207	175	1	NO GAS	44.901	ug/l	818123.90
Pb	208	175	1	NO GAS	46.064	ug/l	3841586.51
Th	232	175	3	He	51.354	ug/l	2396433.40
U	238	175	1	NO GAS	46.974	ug/l	4509958.19

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2214738.44	106.4
Sc	45	2	H2	101072.66	111.3
Sc	45	3	He	58882.96	107.2
Ge	72	1	NO GAS	934803.70	104.4
Ge	72	2	H2	138023.97	106.6
Ge	72	3	He	88256.69	104.7
Tb	159	1	NO GAS	19108969.34	95.0
Tb	159	3	He	7107750.21	96.7
Ho	165	1	NO GAS	17454031.54	93.0
Ho	165	3	He	6809421.89	94.0
Lu	175	1	NO GAS	19452177.95	97.2
Lu	175	3	He	4222291.99	95.7

ICPMS206-B Analytical Data

Sample Name	Rinse
File Name	134BLKV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 07:45:36
Sample Type	BlkVrfy
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.605	ug/l	3532.33
Be	9	45	1	NO GAS	0.023	ug/l	9.67
B	11	45	1	NO GAS	0.389	ug/l	413.93
Na	23	45	3	He	187.664	ug/l	27813.52
Mg	24	45	3	He	2.508	ug/l	202.93
Al	27	45	1	NO GAS	0.548	ug/l	2397.97
Si	28	45	2	H2	-68.824	ug/l	75.32
K	39	72	3	He	11.311	ug/l	3467.04
Ca	40	72	2	H2	3.515	ug/l	1341.07
Ti	47	72	1	NO GAS	0.085	ug/l	116.61
V	51	72	1	NO GAS	0.762	ug/l	-14165.05
V	51	72	3	He	-0.039	ug/l	275.56
Cr	52	72	1	NO GAS	-0.038	ug/l	15306.69
Cr	52	72	3	He	-0.003	ug/l	133.07
Cr	53	72	1	NO GAS	-28.679	ug/l	101766.15
Mn	55	72	1	NO GAS	0.023	ug/l	1573.63
Mn	55	72	3	He	0.020	ug/l	27.33
Fe	56	72	2	H2	0.678	ug/l	1151.15
Fe	56	72	3	He	0.670	ug/l	1680.93
Co	59	72	1	NO GAS	0.012	ug/l	272.80
Ni	60	72	1	NO GAS	0.027	ug/l	123.09
Ni	60	72	3	He	0.011	ug/l	45.56
Ni	62	72	1	NO GAS	-0.126	ug/l	349.31
Cu	63	72	1	NO GAS	0.015	ug/l	641.89
Cu	63	72	3	He	0.015	ug/l	241.62
Cu	65	72	1	NO GAS	0.013	ug/l	311.94
Zn	66	72	1	NO GAS	0.004	ug/l	359.16
Zn	66	72	3	He	0.044	ug/l	82.22
As	75	72	1	NO GAS	0.011	ug/l	3706.04
As	75	72	3	He	0.013	ug/l	11.00
Se	78	72	2	H2	0.011	ug/l	4.67
Br	79	72	1	NO GAS	-2.359	ug/l	58276.63
Br	79	72	2	H2	-1.585	ug/l	9181.11
Se	82	72	1	NO GAS	0.534	ug/l	338.68
Kr	84	72	1	NO GAS		ug/l	8658.52
Sr	88	72	1	NO GAS	0.019	ug/l	1161.09
Sr	88	72	3	He	0.020	ug/l	264.45

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.039	ug/l	432.23
Mo	95	72	3	He	0.048	ug/l	166.67
Mo	98	72	1	NO GAS	0.040	ug/l	742.12
Ag	107	72	1	NO GAS	0.005	ug/l	2045.73
Ag	109	72	1	NO GAS	0.004	ug/l	1906.41
Cd	111	159	1	NO GAS	-0.004	ug/l	-9.63
Cd	111	159	3	He	0.009	ug/l	16.67
Cd	114	159	1	NO GAS	0.010	ug/l	-68.10
Cd	114	159	3	He	0.019	ug/l	44.03
Sn	118	159	1	NO GAS	-2.321	ug/l	4208.92
Sn	118	159	3	He	-2.409	ug/l	714.46
Sb	121	159	1	NO GAS	0.003	ug/l	612.24
Sb	121	159	3	He	0.010	ug/l	111.11
Sb	123	159	1	NO GAS	0.008	ug/l	566.68
Sb	123	159	3	He	0.016	ug/l	96.67
Ba	135	159	1	NO GAS	0.038	ug/l	222.89
Ba	137	159	1	NO GAS	0.046	ug/l	452.45
La	139	175	1	NO GAS	0.002	ug/l	260.27
La	139	175	3	He	0.002	ug/l	53.39
Ce	140	175	1	NO GAS	0.003	ug/l	320.33
Ce	140	175	3	He	0.003	ug/l	83.42
Hg	201	175	1	NO GAS	0.005	ug/l	42.99
Hg	202	175	1	NO GAS	0.005	ug/l	126.64
Hg	202	175	3	He	0.005	ug/l	66.99
Tl	203	175	3	He	0.258	ug/l	4014.42
Tl	205	175	1	NO GAS	0.220	ug/l	16409.36
Tl	205	175	3	He	0.263	ug/l	10056.70
[Pb]	206	175	1	NO GAS	0.015	ug/l	382.23
[Pb]	207	175	1	NO GAS	0.015	ug/l	341.12
Pb	208	175	1	NO GAS	0.014	ug/l	1428.93
Th	232	175	3	He	0.047	ug/l	3721.07
U	238	175	1	NO GAS	0.010	ug/l	1194.82

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2284109.59	109.7
Sc	45	2	H2	94967.64	104.6
Sc	45	3	He	58074.82	105.7
Ge	72	1	NO GAS	956637.85	106.8
Ge	72	2	H2	136024.16	105.1
Ge	72	3	He	87621.34	103.9
Tb	159	1	NO GAS	19075420.27	94.8
Tb	159	3	He	7435003.65	101.2
Ho	165	1	NO GAS	18380819.45	97.9
Ho	165	3	He	7144288.57	98.7
Lu	175	1	NO GAS	20178762.22	100.8
Lu	175	3	He	4420310.16	100.2

ICPMS206-B Analytical Data

Sample Name	B22010973-001B
File Name	135SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 07:51:23
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.828	ug/l	3109.66
Be	9	45	1	NO GAS	0.013	ug/l	6.00
B	11	45	1	NO GAS	66.761	ug/l	14375.76
Na	23	45	3	He	44160.144	ug/l	4056586.92
Mg	24	45	3	He	13204.562	ug/l	631711.28
Al	27	45	1	NO GAS	7.839	ug/l	25107.43
Si	28	45	2	H2	10158.958	ug/l	150949.20
K	39	72	3	He	3665.394	ug/l	170050.01
Ca	40	72	2	H2	13292.196	ug/l	2822481.59
Ti	47	72	1	NO GAS	1.493	ug/l	1379.39
V	51	72	1	NO GAS	0.564	ug/l	-15788.88
V	51	72	3	He	0.094	ug/l	443.35
Cr	52	72	1	NO GAS	0.577	ug/l	22760.31
Cr	52	72	3	He	0.321	ug/l	698.64
Cr	53	72	1	NO GAS	18.614	ug/l	147671.77
Mn	55	72	1	NO GAS	33.476	ug/l	660385.64
Mn	55	72	3	He	36.335	ug/l	31245.45
Fe	56	72	2	H2	107.560	ug/l	131267.29
Fe	56	72	3	He	119.420	ug/l	191980.41
Co	59	72	1	NO GAS	0.077	ug/l	1380.67
Ni	60	72	1	NO GAS	0.499	ug/l	1866.42
Ni	60	72	3	He	0.355	ug/l	418.90
Ni	62	72	1	NO GAS	0.445	ug/l	655.39
Cu	63	72	1	NO GAS	0.765	ug/l	7683.58
Cu	63	72	3	He	0.245	ug/l	983.50
Cu	65	72	1	NO GAS	0.302	ug/l	1651.76
Zn	66	72	1	NO GAS	2.917	ug/l	9402.49
Zn	66	72	3	He	3.093	ug/l	1546.75
As	75	72	1	NO GAS	0.579	ug/l	5632.24
As	75	72	3	He	0.181	ug/l	62.99
Se	78	72	2	H2	0.105	ug/l	15.00
Br	79	72	1	NO GAS	0.041	ug/l	72695.10
Br	79	72	2	H2	1.844	ug/l	12436.78
Se	82	72	1	NO GAS	0.960	ug/l	455.13
Kr	84	72	1	NO GAS		ug/l	27598.33
Sr	88	72	1	NO GAS	89.264	ug/l	3441416.01
Sr	88	72	3	He	93.363	ug/l	144488.81

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	16.966	ug/l	140290.36
Mo	95	72	3	He	18.199	ug/l	46479.16
Mo	98	72	1	NO GAS	16.644	ug/l	235346.25
Ag	107	72	1	NO GAS	-0.064	ug/l	378.60
Ag	109	72	1	NO GAS	-0.061	ug/l	351.27
Cd	111	159	1	NO GAS	-0.006	ug/l	-20.95
Cd	111	159	3	He	0.007	ug/l	13.33
Cd	114	159	1	NO GAS	0.016	ug/l	14.77
Cd	114	159	3	He	0.012	ug/l	19.34
Sn	118	159	1	NO GAS	-1.950	ug/l	10878.85
Sn	118	159	3	He	-1.999	ug/l	1727.89
Sb	121	159	1	NO GAS	0.053	ug/l	1882.35
Sb	121	159	3	He	0.065	ug/l	293.34
Sb	123	159	1	NO GAS	0.047	ug/l	1372.29
Sb	123	159	3	He	0.058	ug/l	211.11
Ba	135	159	1	NO GAS	2.229	ug/l	11984.16
Ba	137	159	1	NO GAS	2.224	ug/l	20752.50
La	139	175	1	NO GAS	0.002	ug/l	283.63
La	139	175	3	He	0.002	ug/l	53.39
Ce	140	175	1	NO GAS	0.012	ug/l	1117.86
Ce	140	175	3	He	0.012	ug/l	300.31
Hg	201	175	1	NO GAS	0.010	ug/l	65.99
Hg	202	175	1	NO GAS	0.040	ug/l	474.91
Hg	202	175	3	He	0.030	ug/l	230.96
Tl	203	175	3	He	0.120	ug/l	2014.41
Tl	205	175	1	NO GAS	0.076	ug/l	6881.65
Tl	205	175	3	He	0.121	ug/l	4995.85
[Pb]	206	175	1	NO GAS	0.554	ug/l	12653.17
[Pb]	207	175	1	NO GAS	0.540	ug/l	10699.45
Pb	208	175	1	NO GAS	0.546	ug/l	49505.30
Th	232	175	3	He	0.126	ug/l	7457.74
U	238	175	1	NO GAS	0.008	ug/l	1044.83

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2097292.14	100.7
Sc	45	2	H2	88037.34	96.9
Sc	45	3	He	55482.14	101.0
Ge	72	1	NO GAS	910412.99	101.6
Ge	72	2	H2	133621.16	103.2
Ge	72	3	He	84517.05	100.3
Tb	159	1	NO GAS	19625241.01	97.5
Tb	159	3	He	7103834.58	96.7
Ho	165	1	NO GAS	18672184.65	99.5
Ho	165	3	He	7062396.99	97.5
Lu	175	1	NO GAS	20403645.64	101.9
Lu	175	3	He	4287941.23	97.2

ICPMS206-B Analytical Data

Sample Name	B22010974-001A
File Name	136SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 07:57:08
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.536	ug/l	3536.33
Be	9	45	1	NO GAS	0.001	ug/l	2.67
B	11	45	1	NO GAS	40.112	ug/l	9986.91
Na	23	45	3	He	33067.595	ug/l	3486207.73
Mg	24	45	3	He	9155.148	ug/l	502265.54
Al	27	45	1	NO GAS	5.574	ug/l	20556.82
Si	28	45	2	H2	28856.464	ug/l	548313.42
K	39	72	3	He	3895.737	ug/l	202766.18
Ca	40	72	2	H2	10871.227	ug/l	2744582.30
Ti	47	72	1	NO GAS	1.691	ug/l	1735.91
V	51	72	1	NO GAS	16.819	ug/l	243722.18
V	51	72	3	He	16.381	ug/l	24817.17
Cr	52	72	1	NO GAS	1.634	ug/l	40485.27
Cr	52	72	3	He	2.346	ug/l	4794.58
Cr	53	72	1	NO GAS	-97.885	ug/l	29900.22
Mn	55	72	1	NO GAS	0.053	ug/l	2362.18
Mn	55	72	3	He	0.099	ug/l	106.34
Fe	56	72	2	H2	1.306	ug/l	2254.06
Fe	56	72	3	He	1.219	ug/l	2810.54
Co	59	72	1	NO GAS	0.024	ug/l	535.62
Ni	60	72	1	NO GAS	0.536	ug/l	2235.74
Ni	60	72	3	He	0.457	ug/l	595.57
Ni	62	72	1	NO GAS	0.413	ug/l	715.27
Cu	63	72	1	NO GAS	1.264	ug/l	13851.66
Cu	63	72	3	He	0.927	ug/l	3604.67
Cu	65	72	1	NO GAS	0.909	ug/l	5009.10
Zn	66	72	1	NO GAS	8.810	ug/l	31024.91
Zn	66	72	3	He	10.095	ug/l	5519.84
As	75	72	1	NO GAS	0.357	ug/l	5457.85
As	75	72	3	He	0.184	ug/l	71.65
Se	78	72	2	H2	0.179	ug/l	27.66
Br	79	72	1	NO GAS	4.604	ug/l	115256.83
Br	79	72	2	H2	5.217	ug/l	18786.97
Se	82	72	1	NO GAS	1.337	ug/l	619.50
Kr	84	72	1	NO GAS		ug/l	24996.08
Sr	88	72	1	NO GAS	68.148	ug/l	2932713.24
Sr	88	72	3	He	71.905	ug/l	125058.22

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.157	ug/l	1543.42
Mo	95	72	3	He	0.168	ug/l	524.46
Mo	98	72	1	NO GAS	0.150	ug/l	2530.22
Ag	107	72	1	NO GAS	-0.076	ug/l	113.98
Ag	109	72	1	NO GAS	-0.072	ug/l	108.65
Cd	111	159	1	NO GAS	-0.003	ug/l	-9.44
Cd	111	159	3	He	0.000	ug/l	4.00
Cd	114	159	1	NO GAS	0.021	ug/l	77.31
Cd	114	159	3	He	0.005	ug/l	-9.85
Sn	118	159	1	NO GAS	-1.846	ug/l	12643.32
Sn	118	159	3	He	-1.828	ug/l	2265.73
Sb	121	159	1	NO GAS	0.264	ug/l	7166.10
Sb	121	159	3	He	0.301	ug/l	1153.38
Sb	123	159	1	NO GAS	0.271	ug/l	5854.43
Sb	123	159	3	He	0.290	ug/l	900.03
Ba	135	159	1	NO GAS	4.467	ug/l	23964.06
Ba	137	159	1	NO GAS	4.237	ug/l	39587.62
La	139	175	1	NO GAS	0.001	ug/l	123.46
La	139	175	3	He	0.002	ug/l	43.38
Ce	140	175	1	NO GAS	0.002	ug/l	220.23
Ce	140	175	3	He	0.001	ug/l	40.04
Hg	201	175	1	NO GAS	0.003	ug/l	33.99
Hg	202	175	1	NO GAS	0.007	ug/l	143.30
Hg	202	175	3	He	0.008	ug/l	91.65
Tl	203	175	3	He	0.163	ug/l	2721.05
Tl	205	175	1	NO GAS	0.125	ug/l	9934.47
Tl	205	175	3	He	0.157	ug/l	6526.79
[Pb]	206	175	1	NO GAS	0.012	ug/l	343.34
[Pb]	207	175	1	NO GAS	0.012	ug/l	295.56
Pb	208	175	1	NO GAS	0.013	ug/l	1405.59
Th	232	175	3	He	-0.015	ug/l	642.56
U	238	175	1	NO GAS	0.021	ug/l	2321.39

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2460335.72	118.2
Sc	45	2	H2	113049.58	124.5
Sc	45	3	He	63633.76	115.9
Ge	72	1	NO GAS	1030757.91	115.1
Ge	72	2	H2	158520.46	122.4
Ge	72	3	He	94964.37	112.7
Tb	159	1	NO GAS	19958929.27	99.2
Tb	159	3	He	7436711.24	101.2
Ho	165	1	NO GAS	18604661.72	99.1
Ho	165	3	He	7165670.52	99.0
Lu	175	1	NO GAS	20567407.73	102.8
Lu	175	3	He	4494150.81	101.9

ICPMS206-B Analytical Data

Sample Name	B22010974-001B
File Name	137SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 08:02:52
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.000	ug/l	4087.68
Be	9	45	1	NO GAS	0.002	ug/l	2.33
B	11	45	1	NO GAS	40.115	ug/l	8357.70
Na	23	45	3	He	36302.966	ug/l	2995109.29
Mg	24	45	3	He	9708.108	ug/l	417049.71
Al	27	45	1	NO GAS	26.100	ug/l	78335.56
Si	28	45	2	H2	28390.470	ug/l	372706.78
K	39	72	3	He	4068.477	ug/l	177127.40
Ca	40	72	2	H2	9744.534	ug/l	1851826.84
Ti	47	72	1	NO GAS	3.605	ug/l	3232.20
V	51	72	1	NO GAS	15.334	ug/l	193179.99
V	51	72	3	He	16.336	ug/l	20703.90
Cr	52	72	1	NO GAS	2.647	ug/l	48730.34
Cr	52	72	3	He	2.658	ug/l	4531.66
Cr	53	72	1	NO GAS	34.040	ug/l	161326.87
Mn	55	72	1	NO GAS	0.622	ug/l	13145.83
Mn	55	72	3	He	0.550	ug/l	453.38
Fe	56	72	2	H2	28.529	ug/l	31357.43
Fe	56	72	3	He	31.550	ug/l	48076.46
Co	59	72	1	NO GAS	0.067	ug/l	1181.05
Ni	60	72	1	NO GAS	0.651	ug/l	2402.11
Ni	60	72	3	He	0.542	ug/l	584.46
Ni	62	72	1	NO GAS	0.548	ug/l	705.29
Cu	63	72	1	NO GAS	1.560	ug/l	14948.38
Cu	63	72	3	He	1.114	ug/l	3589.67
Cu	65	72	1	NO GAS	1.126	ug/l	5424.48
Zn	66	72	1	NO GAS	28.831	ug/l	88745.10
Zn	66	72	3	He	30.961	ug/l	14065.98
As	75	72	1	NO GAS	0.249	ug/l	4457.52
As	75	72	3	He	0.238	ug/l	75.99
Se	78	72	2	H2	0.210	ug/l	24.00
Br	79	72	1	NO GAS	0.041	ug/l	71646.05
Br	79	72	2	H2	0.495	ug/l	9933.40
Se	82	72	1	NO GAS	1.470	ug/l	586.23
Kr	84	72	1	NO GAS		ug/l	24103.15
Sr	88	72	1	NO GAS	74.342	ug/l	2824330.58
Sr	88	72	3	He	79.103	ug/l	115114.71

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.221	ug/l	1886.79
Mo	95	72	3	He	0.209	ug/l	537.79
Mo	98	72	1	NO GAS	0.230	ug/l	3355.32
Ag	107	72	1	NO GAS	-0.060	ug/l	468.58
Ag	109	72	1	NO GAS	-0.058	ug/l	427.26
Cd	111	159	1	NO GAS	0.000	ug/l	13.00
Cd	111	159	3	He	0.002	ug/l	6.67
Cd	114	159	1	NO GAS	0.017	ug/l	19.53
Cd	114	159	3	He	0.004	ug/l	-11.17
Sn	118	159	1	NO GAS	-0.905	ug/l	30171.87
Sn	118	159	3	He	-0.924	ug/l	4635.18
Sb	121	159	1	NO GAS	0.319	ug/l	8878.07
Sb	121	159	3	He	0.334	ug/l	1260.06
Sb	123	159	1	NO GAS	0.322	ug/l	7110.51
Sb	123	159	3	He	0.332	ug/l	1012.26
Ba	135	159	1	NO GAS	5.224	ug/l	29052.49
Ba	137	159	1	NO GAS	5.203	ug/l	50189.73
La	139	175	1	NO GAS	0.009	ug/l	887.60
La	139	175	3	He	0.011	ug/l	223.57
Ce	140	175	1	NO GAS	0.018	ug/l	1658.46
Ce	140	175	3	He	0.022	ug/l	540.56
Hg	201	175	1	NO GAS	0.007	ug/l	52.32
Hg	202	175	1	NO GAS	0.017	ug/l	257.95
Hg	202	175	3	He	0.011	ug/l	111.65
Tl	203	175	3	He	0.043	ug/l	972.51
Tl	205	175	1	NO GAS	0.029	ug/l	3811.63
Tl	205	175	3	He	0.044	ug/l	2461.06
[Pb]	206	175	1	NO GAS	0.045	ug/l	1120.05
[Pb]	207	175	1	NO GAS	0.044	ug/l	963.37
Pb	208	175	1	NO GAS	0.045	ug/l	4455.86
Th	232	175	3	He	0.055	ug/l	4094.43
U	238	175	1	NO GAS	0.023	ug/l	2647.05

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1998354.36	96.0
Sc	45	2	H2	78029.31	85.9
Sc	45	3	He	49812.13	90.7
Ge	72	1	NO GAS	897711.16	100.2
Ge	72	2	H2	119558.56	92.3
Ge	72	3	He	79484.09	94.3
Tb	159	1	NO GAS	20301565.43	100.9
Tb	159	3	He	7353855.83	100.1
Ho	165	1	NO GAS	19347270.55	103.1
Ho	165	3	He	6895195.48	95.2
Lu	175	1	NO GAS	21071619.42	105.3
Lu	175	3	He	4342125.88	98.4

ICPMS206-B Analytical Data

Sample Name	B22010975-001A
File Name	138SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 08:08:35
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.513	ug/l	1548.43
Be	9	45	1	NO GAS	-0.004	ug/l	1.00
B	11	45	1	NO GAS	53.446	ug/l	13679.35
Na	23	45	3	He	37118.100	ug/l	3848936.05
Mg	24	45	3	He	11145.397	ug/l	601948.73
Al	27	45	1	NO GAS	3.359	ug/l	13097.29
Si	28	45	2	H2	28759.346	ug/l	529285.45
K	39	72	3	He	2081.284	ug/l	112223.56
Ca	40	72	2	H2	11354.053	ug/l	2827744.84
Ti	47	72	1	NO GAS	1.892	ug/l	1972.49
V	51	72	1	NO GAS	17.108	ug/l	252234.77
V	51	72	3	He	16.165	ug/l	25029.63
Cr	52	72	1	NO GAS	1.549	ug/l	40054.72
Cr	52	72	3	He	2.314	ug/l	4831.16
Cr	53	72	1	NO GAS	-99.232	ug/l	28830.49
Mn	55	72	1	NO GAS	0.239	ug/l	6564.96
Mn	55	72	3	He	0.282	ug/l	288.70
Fe	56	72	2	H2	3.786	ug/l	5766.56
Fe	56	72	3	He	3.965	ug/l	7924.76
Co	59	72	1	NO GAS	0.028	ug/l	608.81
Ni	60	72	1	NO GAS	0.637	ug/l	2701.57
Ni	60	72	3	He	0.508	ug/l	672.24
Ni	62	72	1	NO GAS	0.441	ug/l	741.88
Cu	63	72	1	NO GAS	3.603	ug/l	39088.25
Cu	63	72	3	He	3.321	ug/l	12645.55
Cu	65	72	1	NO GAS	3.203	ug/l	17277.47
Zn	66	72	1	NO GAS	56.458	ug/l	199752.80
Zn	66	72	3	He	60.361	ug/l	33429.96
As	75	72	1	NO GAS	0.509	ug/l	6132.60
As	75	72	3	He	0.189	ug/l	75.32
Se	78	72	2	H2	0.244	ug/l	35.99
Br	79	72	1	NO GAS	9.103	ug/l	151120.46
Br	79	72	2	H2	9.790	ug/l	23856.54
Se	82	72	1	NO GAS	1.604	ug/l	724.64
Kr	84	72	1	NO GAS		ug/l	28658.11
Sr	88	72	1	NO GAS	80.349	ug/l	3517416.14
Sr	88	72	3	He	81.816	ug/l	145401.74

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.337	ug/l	3268.13
Mo	95	72	3	He	0.382	ug/l	1163.38
Mo	98	72	1	NO GAS	0.347	ug/l	5742.79
Ag	107	72	1	NO GAS	-0.071	ug/l	237.29
Ag	109	72	1	NO GAS	-0.068	ug/l	217.30
Cd	111	159	1	NO GAS	0.003	ug/l	37.21
Cd	111	159	3	He	0.003	ug/l	8.67
Cd	114	159	1	NO GAS	0.019	ug/l	59.82
Cd	114	159	3	He	0.009	ug/l	8.18
Sn	118	159	1	NO GAS	-2.319	ug/l	4821.20
Sn	118	159	3	He	-2.421	ug/l	708.91
Sb	121	159	1	NO GAS	2.599	ug/l	71570.18
Sb	121	159	3	He	2.775	ug/l	10441.25
Sb	123	159	1	NO GAS	2.563	ug/l	56039.40
Sb	123	159	3	He	2.744	ug/l	8415.59
Ba	135	159	1	NO GAS	6.429	ug/l	37443.29
Ba	137	159	1	NO GAS	6.483	ug/l	65501.55
La	139	175	1	NO GAS	0.001	ug/l	190.20
La	139	175	3	He	0.001	ug/l	26.69
Ce	140	175	1	NO GAS	0.002	ug/l	250.26
Ce	140	175	3	He	0.002	ug/l	53.39
Hg	201	175	1	NO GAS	0.003	ug/l	38.99
Hg	202	175	1	NO GAS	0.047	ug/l	586.56
Hg	202	175	3	He	0.034	ug/l	274.95
Tl	203	175	3	He	0.093	ug/l	1776.42
Tl	205	175	1	NO GAS	0.062	ug/l	6402.54
Tl	205	175	3	He	0.092	ug/l	4344.44
[Pb]	206	175	1	NO GAS	0.103	ug/l	2632.47
[Pb]	207	175	1	NO GAS	0.101	ug/l	2242.41
Pb	208	175	1	NO GAS	0.102	ug/l	10277.00
Th	232	175	3	He	-0.018	ug/l	467.25
U	238	175	1	NO GAS	0.015	ug/l	1939.41

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2480039.54	119.1
Sc	45	2	H2	109458.74	120.5
Sc	45	3	He	62627.71	114.0
Ge	72	1	NO GAS	1033876.00	115.4
Ge	72	2	H2	156447.84	120.8
Ge	72	3	He	97037.85	115.1
Tb	159	1	NO GAS	21268512.97	105.7
Tb	159	3	He	7735226.67	105.3
Ho	165	1	NO GAS	20053030.24	106.8
Ho	165	3	He	7637756.45	105.5
Lu	175	1	NO GAS	22255228.61	111.2
Lu	175	3	He	4609208.37	104.5

ICPMS206-B Analytical Data

Sample Name	B22010975-001B
File Name	139SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 08:14:19
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.895	ug/l	2060.39
Be	9	45	1	NO GAS	0.000	ug/l	2.00
B	11	45	1	NO GAS	50.006	ug/l	10705.84
Na	23	45	3	He	39835.094	ug/l	3352482.00
Mg	24	45	3	He	11449.005	ug/l	501829.78
Al	27	45	1	NO GAS	23.093	ug/l	71905.36
Si	28	45	2	H2	29006.181	ug/l	376481.65
K	39	72	3	He	1884.290	ug/l	84896.74
Ca	40	72	2	H2	10108.386	ug/l	1972296.35
Ti	47	72	1	NO GAS	4.317	ug/l	3956.26
V	51	72	1	NO GAS	13.863	ug/l	177594.07
V	51	72	3	He	16.834	ug/l	21691.75
Cr	52	72	1	NO GAS	2.949	ug/l	53929.13
Cr	52	72	3	He	2.853	ug/l	4927.68
Cr	53	72	1	NO GAS	51.930	ug/l	184362.21
Mn	55	72	1	NO GAS	1.317	ug/l	27331.44
Mn	55	72	3	He	1.276	ug/l	1058.14
Fe	56	72	2	H2	47.292	ug/l	53159.06
Fe	56	72	3	He	54.608	ug/l	84221.07
Co	59	72	1	NO GAS	0.055	ug/l	1004.72
Ni	60	72	1	NO GAS	0.811	ug/l	3057.60
Ni	60	72	3	He	0.700	ug/l	758.91
Ni	62	72	1	NO GAS	0.671	ug/l	795.12
Cu	63	72	1	NO GAS	2.294	ug/l	22345.08
Cu	63	72	3	He	1.833	ug/l	5889.86
Cu	65	72	1	NO GAS	1.792	ug/l	8717.22
Zn	66	72	1	NO GAS	61.290	ug/l	193184.63
Zn	66	72	3	He	65.554	ug/l	30223.91
As	75	72	1	NO GAS	-0.361	ug/l	2492.20
As	75	72	3	He	0.121	ug/l	42.32
Se	78	72	2	H2	0.212	ug/l	24.99
Br	79	72	1	NO GAS	3.516	ug/l	97006.80
Br	79	72	2	H2	3.534	ug/l	12976.15
Se	82	72	1	NO GAS	1.206	ug/l	532.31
Kr	84	72	1	NO GAS		ug/l	27538.27
Sr	88	72	1	NO GAS	86.632	ug/l	3379727.19
Sr	88	72	3	He	87.111	ug/l	128926.18

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.429	ug/l	3679.33
Mo	95	72	3	He	0.421	ug/l	1064.49
Mo	98	72	1	NO GAS	0.421	ug/l	6182.69
Ag	107	72	1	NO GAS	-0.038	ug/l	983.84
Ag	109	72	1	NO GAS	-0.036	ug/l	953.84
Cd	111	159	1	NO GAS	-0.009	ug/l	-46.66
Cd	111	159	3	He	-0.001	ug/l	2.67
Cd	114	159	1	NO GAS	0.010	ug/l	-82.22
Cd	114	159	3	He	0.011	ug/l	13.58
Sn	118	159	1	NO GAS	-1.806	ug/l	15260.45
Sn	118	159	3	He	-1.913	ug/l	2064.59
Sb	121	159	1	NO GAS	1.351	ug/l	39329.12
Sb	121	159	3	He	1.468	ug/l	5410.94
Sb	123	159	1	NO GAS	1.361	ug/l	31439.64
Sb	123	159	3	He	1.473	ug/l	4417.31
Ba	135	159	1	NO GAS	6.846	ug/l	41815.77
Ba	137	159	1	NO GAS	7.012	ug/l	74323.37
La	139	175	1	NO GAS	0.013	ug/l	1354.78
La	139	175	3	He	0.013	ug/l	280.29
Ce	140	175	1	NO GAS	0.025	ug/l	2469.40
Ce	140	175	3	He	0.029	ug/l	750.79
Hg	201	175	1	NO GAS	0.005	ug/l	46.99
Hg	202	175	1	NO GAS	0.037	ug/l	487.25
Hg	202	175	3	He	0.026	ug/l	220.29
Tl	203	175	3	He	0.028	ug/l	816.53
Tl	205	175	1	NO GAS	0.015	ug/l	3047.01
Tl	205	175	3	He	0.025	ug/l	1924.41
[Pb]	206	175	1	NO GAS	0.274	ug/l	7011.70
[Pb]	207	175	1	NO GAS	0.248	ug/l	5499.93
Pb	208	175	1	NO GAS	0.257	ug/l	26101.18
Th	232	175	3	He	0.039	ug/l	3482.40
U	238	175	1	NO GAS	0.017	ug/l	2126.73

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2069640.53	99.4
Sc	45	2	H2	77215.91	85.0
Sc	45	3	He	50826.07	92.5
Ge	72	1	NO GAS	921294.93	102.8
Ge	72	2	H2	122639.70	94.7
Ge	72	3	He	80809.06	95.9
Tb	159	1	NO GAS	22314528.74	110.9
Tb	159	3	He	7526994.75	102.5
Ho	165	1	NO GAS	20463434.38	109.0
Ho	165	3	He	7452323.10	102.9
Lu	175	1	NO GAS	22713587.79	113.5
Lu	175	3	He	4584783.74	103.9

ICPMS206-B Analytical Data

Sample Name	B22010976-001A
File Name	140SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 08:20:05
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-2.282	ug/l	934.51
Be	9	45	1	NO GAS	0.014	ug/l	6.67
B	11	45	1	NO GAS	39.106	ug/l	9263.31
Na	23	45	3	He	39611.719	ug/l	3914817.79
Mg	24	45	3	He	16976.147	ug/l	874004.93
Al	27	45	1	NO GAS	0.666	ug/l	2861.37
Si	28	45	2	H2	24299.606	ug/l	408342.25
K	39	72	3	He	1228.739	ug/l	65709.26
Ca	40	72	2	H2	16712.463	ug/l	3974639.71
Ti	47	72	1	NO GAS	1.660	ug/l	1689.26
V	51	72	1	NO GAS	1.746	ug/l	1330.43
V	51	72	3	He	-0.046	ug/l	286.67
Cr	52	72	1	NO GAS	-0.536	ug/l	9310.87
Cr	52	72	3	He	0.001	ug/l	149.71
Cr	53	72	1	NO GAS	-102.731	ug/l	24041.51
Mn	55	72	1	NO GAS	352.540	ug/l	7674753.40
Mn	55	72	3	He	367.653	ug/l	352720.38
Fe	56	72	2	H2	98.033	ug/l	133985.81
Fe	56	72	3	He	105.843	ug/l	189954.16
Co	59	72	1	NO GAS	0.168	ug/l	3240.58
Ni	60	72	1	NO GAS	0.326	ug/l	1357.38
Ni	60	72	3	He	0.179	ug/l	254.45
Ni	62	72	1	NO GAS	0.263	ug/l	608.81
Cu	63	72	1	NO GAS	0.622	ug/l	7001.42
Cu	63	72	3	He	0.123	ug/l	653.88
Cu	65	72	1	NO GAS	0.189	ug/l	1243.80
Zn	66	72	1	NO GAS	7.090	ug/l	24734.72
Zn	66	72	3	He	7.801	ug/l	4255.01
As	75	72	1	NO GAS	0.660	ug/l	6531.48
As	75	72	3	He	0.183	ug/l	70.99
Se	78	72	2	H2	-0.007	ug/l	3.00
Br	79	72	1	NO GAS	8.931	ug/l	145815.37
Br	79	72	2	H2	9.070	ug/l	21971.22
Se	82	72	1	NO GAS	1.818	ug/l	772.55
Kr	84	72	1	NO GAS		ug/l	48178.00
Sr	88	72	1	NO GAS	151.767	ug/l	6465838.28
Sr	88	72	3	He	156.516	ug/l	270141.59

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	6.435	ug/l	58868.49
Mo	95	72	3	He	7.082	ug/l	20206.98
Mo	98	72	1	NO GAS	6.532	ug/l	102165.79
Ag	107	72	1	NO GAS	-0.077	ug/l	67.32
Ag	109	72	1	NO GAS	-0.074	ug/l	62.66
Cd	111	159	1	NO GAS	-0.002	ug/l	1.68
Cd	111	159	3	He	0.003	ug/l	7.33
Cd	114	159	1	NO GAS	0.016	ug/l	10.36
Cd	114	159	3	He	0.010	ug/l	12.35
Sn	118	159	1	NO GAS	-2.469	ug/l	1979.55
Sn	118	159	3	He	-2.571	ug/l	283.34
Sb	121	159	1	NO GAS	-0.002	ug/l	537.79
Sb	121	159	3	He	0.005	ug/l	94.45
Sb	123	159	1	NO GAS	-0.003	ug/l	404.45
Sb	123	159	3	He	0.007	ug/l	72.22
Ba	135	159	1	NO GAS	2.315	ug/l	13499.07
Ba	137	159	1	NO GAS	2.350	ug/l	23780.79
La	139	175	1	NO GAS	0.001	ug/l	130.13
La	139	175	3	He	0.001	ug/l	26.69
Ce	140	175	1	NO GAS	0.003	ug/l	323.67
Ce	140	175	3	He	0.003	ug/l	80.08
Hg	201	175	1	NO GAS	0.002	ug/l	32.66
Hg	202	175	1	NO GAS	0.087	ug/l	987.17
Hg	202	175	3	He	0.066	ug/l	492.58
Tl	203	175	3	He	0.058	ug/l	1232.48
Tl	205	175	1	NO GAS	0.038	ug/l	4516.27
Tl	205	175	3	He	0.055	ug/l	2959.05
[Pb]	206	175	1	NO GAS	0.008	ug/l	266.67
[Pb]	207	175	1	NO GAS	0.005	ug/l	165.56
Pb	208	175	1	NO GAS	0.007	ug/l	925.58
Th	232	175	3	He	-0.018	ug/l	478.58
U	238	175	1	NO GAS	0.006	ug/l	805.53

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2271559.62	109.1
Sc	45	2	H2	99911.99	110.0
Sc	45	3	He	59686.64	108.7
Ge	72	1	NO GAS	1006171.47	112.3
Ge	72	2	H2	149473.41	115.4
Ge	72	3	He	94326.30	111.9
Tb	159	1	NO GAS	21273719.63	105.7
Tb	159	3	He	7557456.67	102.9
Ho	165	1	NO GAS	19574588.48	104.3
Ho	165	3	He	7372169.67	101.8
Lu	175	1	NO GAS	21625503.70	108.0
Lu	175	3	He	4529402.84	102.7

ICPMS206-B Analytical Data

Sample Name	B22010976-001B
File Name	141SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 08:25:49
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.533	ug/l	1552.43
Be	9	45	1	NO GAS	0.016	ug/l	6.33
B	11	45	1	NO GAS	39.485	ug/l	8224.33
Na	23	45	3	He	40901.884	ug/l	3379584.57
Mg	24	45	3	He	18320.700	ug/l	788501.51
Al	27	45	1	NO GAS	2.329	ug/l	7482.78
Si	28	45	2	H2	24637.852	ug/l	303137.55
K	39	72	3	He	1226.553	ug/l	55576.97
Ca	40	72	2	H2	16032.203	ug/l	3004256.10
Ti	47	72	1	NO GAS	2.193	ug/l	1984.15
V	51	72	1	NO GAS	-0.158	ug/l	-25893.84
V	51	72	3	He	0.282	ug/l	655.57
Cr	52	72	1	NO GAS	0.424	ug/l	20545.38
Cr	52	72	3	He	0.126	ug/l	336.01
Cr	53	72	1	NO GAS	50.431	ug/l	178573.27
Mn	55	72	1	NO GAS	362.846	ug/l	7063471.10
Mn	55	72	3	He	381.983	ug/l	310516.38
Fe	56	72	2	H2	127.222	ug/l	136927.11
Fe	56	72	3	He	143.221	ug/l	217587.42
Co	59	72	1	NO GAS	0.189	ug/l	3240.57
Ni	60	72	1	NO GAS	0.414	ug/l	1533.71
Ni	60	72	3	He	0.242	ug/l	280.00
Ni	62	72	1	NO GAS	0.347	ug/l	592.18
Cu	63	72	1	NO GAS	0.873	ug/l	8595.19
Cu	63	72	3	He	0.314	ug/l	1142.81
Cu	65	72	1	NO GAS	0.414	ug/l	2150.39
Zn	66	72	1	NO GAS	3.948	ug/l	12461.64
Zn	66	72	3	He	4.142	ug/l	1939.01
As	75	72	1	NO GAS	0.490	ug/l	5268.20
As	75	72	3	He	0.175	ug/l	57.66
Se	78	72	2	H2	0.033	ug/l	6.33
Br	79	72	1	NO GAS	1.574	ug/l	81939.44
Br	79	72	2	H2	2.502	ug/l	11551.27
Se	82	72	1	NO GAS	1.053	ug/l	476.42
Kr	84	72	1	NO GAS		ug/l	45162.55
Sr	88	72	1	NO GAS	167.463	ug/l	6380502.55
Sr	88	72	3	He	171.703	ug/l	251083.69

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	7.846	ug/l	64168.21
Mo	95	72	3	He	8.587	ug/l	20754.33
Mo	98	72	1	NO GAS	7.923	ug/l	110803.90
Ag	107	72	1	NO GAS	-0.071	ug/l	205.30
Ag	109	72	1	NO GAS	-0.067	ug/l	207.30
Cd	111	159	1	NO GAS	-0.001	ug/l	9.36
Cd	111	159	3	He	0.001	ug/l	4.67
Cd	114	159	1	NO GAS	0.012	ug/l	-45.83
Cd	114	159	3	He	0.008	ug/l	4.84
Sn	118	159	1	NO GAS	-2.164	ug/l	7952.93
Sn	118	159	3	He	-2.262	ug/l	1104.49
Sb	121	159	1	NO GAS	0.012	ug/l	958.93
Sb	121	159	3	He	0.020	ug/l	147.78
Sb	123	159	1	NO GAS	0.019	ug/l	910.03
Sb	123	159	3	He	0.033	ug/l	146.67
Ba	135	159	1	NO GAS	2.284	ug/l	13648.96
Ba	137	159	1	NO GAS	2.256	ug/l	23404.41
La	139	175	1	NO GAS	0.001	ug/l	176.85
La	139	175	3	He	0.002	ug/l	46.71
Ce	140	175	1	NO GAS	0.004	ug/l	443.80
Ce	140	175	3	He	0.004	ug/l	110.11
Hg	201	175	1	NO GAS	0.007	ug/l	58.66
Hg	202	175	1	NO GAS	0.114	ug/l	1325.13
Hg	202	175	3	He	0.080	ug/l	590.89
Tl	203	175	3	He	0.013	ug/l	595.90
Tl	205	175	1	NO GAS	0.001	ug/l	2009.04
Tl	205	175	3	He	0.009	ug/l	1326.47
[Pb]	206	175	1	NO GAS	0.063	ug/l	1651.22
[Pb]	207	175	1	NO GAS	0.057	ug/l	1313.40
Pb	208	175	1	NO GAS	0.061	ug/l	6348.36
Th	232	175	3	He	0.023	ug/l	2615.72
U	238	175	1	NO GAS	0.006	ug/l	884.86

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1998977.73	96.0
Sc	45	2	H2	73206.83	80.6
Sc	45	3	He	49941.17	90.9
Ge	72	1	NO GAS	899781.22	100.4
Ge	72	2	H2	117763.30	91.0
Ge	72	3	He	79924.62	94.8
Tb	159	1	NO GAS	21808817.84	108.4
Tb	159	3	He	7434540.43	101.2
Ho	165	1	NO GAS	20338472.55	108.3
Ho	165	3	He	7238182.51	100.0
Lu	175	1	NO GAS	22612703.78	113.0
Lu	175	3	He	4527978.86	102.6

ICPMS206-B Analytical Data

Sample Name	CCV
File Name	142_CCV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 08:31:32
Sample Type	CCV
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	316.723	ug/l	247338.68
Be	9	45	1	NO GAS	40.967	ug/l	11430.10
B	11	45	1	NO GAS	40.962	ug/l	8540.41
Na	23	45	3	He	11640.702	ug/l	989132.37
Mg	24	45	3	He	11081.733	ug/l	487727.41
Al	27	45	1	NO GAS	42.599	ug/l	127966.93
Si	28	45	2	H2	184.714	ug/l	3391.01
K	39	72	3	He	10415.526	ug/l	461924.80
Ca	40	72	2	H2	11244.084	ug/l	2194798.70
Ti	47	72	1	NO GAS	41.874	ug/l	38850.28
V	51	72	1	NO GAS	40.926	ug/l	582405.54
V	51	72	3	He	49.364	ug/l	63713.68
Cr	52	72	1	NO GAS	41.959	ug/l	573869.43
Cr	52	72	3	He	49.878	ug/l	85004.42
Cr	53	72	1	NO GAS	34.439	ug/l	169465.85
Mn	55	72	1	NO GAS	43.376	ug/l	882167.06
Mn	55	72	3	He	48.291	ug/l	40130.14
Fe	56	72	2	H2	1146.197	ug/l	1282687.07
Fe	56	72	3	He	1277.106	ug/l	1979257.85
Co	59	72	1	NO GAS	43.225	ug/l	761542.79
Ni	60	72	1	NO GAS	45.879	ug/l	175614.89
Ni	60	72	3	He	50.906	ug/l	53613.82
Ni	62	72	1	NO GAS	46.103	ug/l	27781.30
Cu	63	72	1	NO GAS	46.343	ug/l	451324.50
Cu	63	72	3	He	52.220	ug/l	164752.61
Cu	65	72	1	NO GAS	47.029	ug/l	227108.90
Zn	66	72	1	NO GAS	45.422	ug/l	146096.18
Zn	66	72	3	He	49.994	ug/l	23308.49
As	75	72	1	NO GAS	46.172	ug/l	164236.62
As	75	72	3	He	51.674	ug/l	15651.53
Se	78	72	2	H2	53.145	ug/l	5458.81
Br	79	72	1	NO GAS	0.882	ug/l	80902.64
Br	79	72	2	H2	2.052	ug/l	11634.39
Se	82	72	1	NO GAS	49.244	ug/l	14619.39
Kr	84	72	1	NO GAS		ug/l	20758.73
Sr	88	72	1	NO GAS	50.895	ug/l	2024948.05
Sr	88	72	3	He	53.873	ug/l	80672.96

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	49.594	ug/l	423118.54
Mo	95	72	3	He	54.500	ug/l	134444.51
Mo	98	72	1	NO GAS	49.300	ug/l	719185.29
Ag	107	72	1	NO GAS	20.501	ug/l	497410.93
Ag	109	72	1	NO GAS	20.314	ug/l	485197.95
Cd	111	159	1	NO GAS	44.254	ug/l	292759.90
Cd	111	159	3	He	49.331	ug/l	69591.21
Cd	114	159	1	NO GAS	45.566	ug/l	698896.59
Cd	114	159	3	He	48.705	ug/l	179044.76
Sn	118	159	1	NO GAS	43.546	ug/l	889381.81
Sn	118	159	3	He	46.678	ug/l	127370.80
Sb	121	159	1	NO GAS	43.369	ug/l	1204874.14
Sb	121	159	3	He	47.892	ug/l	166025.12
Sb	123	159	1	NO GAS	43.508	ug/l	961682.64
Sb	123	159	3	He	48.433	ug/l	137036.76
Ba	135	159	1	NO GAS	45.846	ug/l	271845.56
Ba	137	159	1	NO GAS	46.008	ug/l	473213.18
La	139	175	1	NO GAS	46.070	ug/l	4354630.42
La	139	175	3	He	47.779	ug/l	892743.59
Ce	140	175	1	NO GAS	47.616	ug/l	4463518.93
Ce	140	175	3	He	48.088	ug/l	1138974.33
Hg	201	175	1	NO GAS	0.914	ug/l	4290.09
Hg	202	175	1	NO GAS	0.934	ug/l	10116.35
Hg	202	175	3	He	1.043	ug/l	6848.52
Tl	203	175	3	He	51.764	ug/l	706799.14
Tl	205	175	1	NO GAS	47.394	ug/l	3510611.16
Tl	205	175	3	He	51.902	ug/l	1736900.42
[Pb]	206	175	1	NO GAS	46.115	ug/l	1152434.04
[Pb]	207	175	1	NO GAS	46.050	ug/l	997114.84
Pb	208	175	1	NO GAS	46.487	ug/l	4607082.02
Th	232	175	3	He	53.143	ug/l	2595974.15
U	238	175	1	NO GAS	46.209	ug/l	5266075.32

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2017560.84	96.9
Sc	45	2	H2	78392.30	86.3
Sc	45	3	He	51022.72	92.9
Ge	72	1	NO GAS	944092.67	105.4
Ge	72	2	H2	122758.83	94.8
Ge	72	3	He	81679.46	96.9
Tb	159	1	NO GAS	21916106.37	108.9
Tb	159	3	He	7176021.55	97.7
Ho	165	1	NO GAS	20433119.90	108.9
Ho	165	3	He	7049151.82	97.3
Lu	175	1	NO GAS	22558525.02	112.7
Lu	175	3	He	4300035.66	97.5

ICPMS206-B Analytical Data

Sample Name	CCB
File Name	143_CCB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 08:37:14
Sample Type	CCB
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.122	ug/l	1787.74
Be	9	45	1	NO GAS	0.003	ug/l	2.67
B	11	45	1	NO GAS	-0.262	ug/l	233.96
Na	23	45	3	He	8.883	ug/l	8890.10
Mg	24	45	3	He	1.016	ug/l	106.45
Al	27	45	1	NO GAS	0.008	ug/l	537.79
Si	28	45	2	H2	-69.965	ug/l	45.99
K	39	72	3	He	-4.509	ug/l	2480.20
Ca	40	72	2	H2	1.245	ug/l	741.32
Ti	47	72	1	NO GAS	0.034	ug/l	66.63
V	51	72	1	NO GAS	0.023	ug/l	-22789.55
V	51	72	3	He	-0.019	ug/l	277.78
Cr	52	72	1	NO GAS	-0.139	ug/l	13059.20
Cr	52	72	3	He	-0.012	ug/l	106.45
Cr	53	72	1	NO GAS	-11.257	ug/l	112491.58
Mn	55	72	1	NO GAS	0.003	ug/l	1104.52
Mn	55	72	3	He	0.008	ug/l	15.33
Fe	56	72	2	H2	0.092	ug/l	371.49
Fe	56	72	3	He	0.090	ug/l	654.69
Co	59	72	1	NO GAS	0.001	ug/l	73.19
Ni	60	72	1	NO GAS	0.010	ug/l	53.23
Ni	60	72	3	He	-0.018	ug/l	12.22
Ni	62	72	1	NO GAS	-0.112	ug/l	322.70
Cu	63	72	1	NO GAS	0.076	ug/l	1151.82
Cu	63	72	3	He	0.166	ug/l	685.21
Cu	65	72	1	NO GAS	0.064	ug/l	518.57
Zn	66	72	1	NO GAS	-0.009	ug/l	292.52
Zn	66	72	3	He	-0.023	ug/l	44.45
As	75	72	1	NO GAS	-0.284	ug/l	2627.61
As	75	72	3	He	0.000	ug/l	6.00
Se	78	72	2	H2	0.040	ug/l	7.00
Br	79	72	1	NO GAS	0.364	ug/l	72156.65
Br	79	72	2	H2	0.692	ug/l	10043.24
Se	82	72	1	NO GAS	0.564	ug/l	330.69
Kr	84	72	1	NO GAS		ug/l	7030.94
Sr	88	72	1	NO GAS	0.007	ug/l	625.44
Sr	88	72	3	He	0.003	ug/l	216.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.015	ug/l	208.89
Mo	95	72	3	He	0.020	ug/l	85.56
Mo	98	72	1	NO GAS	0.010	ug/l	284.18
Ag	107	72	1	NO GAS	0.002	ug/l	1855.08
Ag	109	72	1	NO GAS	0.005	ug/l	1808.41
Cd	111	159	1	NO GAS	0.004	ug/l	41.53
Cd	111	159	3	He	0.002	ug/l	6.00
Cd	114	159	1	NO GAS	0.001	ug/l	-199.97
Cd	114	159	3	He	0.000	ug/l	-26.09
Sn	118	159	1	NO GAS	0.003	ug/l	46478.69
Sn	118	159	3	He	-0.094	ug/l	6693.67
Sb	121	159	1	NO GAS	0.033	ug/l	1426.74
Sb	121	159	3	He	0.026	ug/l	164.45
Sb	123	159	1	NO GAS	0.036	ug/l	1188.94
Sb	123	159	3	He	0.036	ug/l	151.11
Ba	135	159	1	NO GAS	0.003	ug/l	39.92
Ba	137	159	1	NO GAS	0.005	ug/l	93.15
La	139	175	1	NO GAS	0.001	ug/l	180.19
La	139	175	3	He	0.001	ug/l	33.37
Ce	140	175	1	NO GAS	0.002	ug/l	223.56
Ce	140	175	3	He	0.003	ug/l	76.74
Hg	201	175	1	NO GAS	0.003	ug/l	35.33
Hg	202	175	1	NO GAS	0.005	ug/l	131.97
Hg	202	175	3	He	0.002	ug/l	48.66
Tl	203	175	3	He	0.042	ug/l	951.84
Tl	205	175	1	NO GAS	0.034	ug/l	4169.50
Tl	205	175	3	He	0.043	ug/l	2386.39
[Pb]	206	175	1	NO GAS	0.002	ug/l	112.22
[Pb]	207	175	1	NO GAS	0.001	ug/l	90.00
Pb	208	175	1	NO GAS	0.002	ug/l	418.90
Th	232	175	3	He	0.033	ug/l	2953.05
U	238	175	1	NO GAS	0.005	ug/l	688.88

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1932353.57	92.8
Sc	45	2	H2	75968.82	83.7
Sc	45	3	He	48403.61	88.1
Ge	72	1	NO GAS	877692.21	98.0
Ge	72	2	H2	118763.93	91.7
Ge	72	3	He	79954.68	94.9
Tb	159	1	NO GAS	20250645.35	100.6
Tb	159	3	He	7214048.59	98.2
Ho	165	1	NO GAS	19415110.89	103.4
Ho	165	3	He	7157306.12	98.8
Lu	175	1	NO GAS	21284827.41	106.3
Lu	175	3	He	4262501.42	96.6

ICPMS206-B Analytical Data

Sample Name	B22010977-001A
File Name	144SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 08:43:02
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.968	ug/l	1163.81
Be	9	45	1	NO GAS	0.006	ug/l	4.00
B	11	45	1	NO GAS	76.326	ug/l	17122.33
Na	23	45	3	He	57020.152	ug/l	5439338.98
Mg	24	45	3	He	32130.350	ug/l	1597354.15
Al	27	45	1	NO GAS	2.784	ug/l	9683.91
Si	28	45	2	H2	24047.386	ug/l	390542.00
K	39	72	3	He	2694.312	ug/l	137379.43
Ca	40	72	2	H2	27246.299	ug/l	6350507.41
Ti	47	72	1	NO GAS	1.552	ug/l	1481.02
V	51	72	1	NO GAS	9.490	ug/l	116321.36
V	51	72	3	He	7.898	ug/l	11814.22
Cr	52	72	1	NO GAS	-0.190	ug/l	13325.58
Cr	52	72	3	He	0.329	ug/l	778.48
Cr	53	72	1	NO GAS	-98.210	ug/l	27339.79
Mn	55	72	1	NO GAS	215.801	ug/l	4395628.44
Mn	55	72	3	He	214.835	ug/l	201752.37
Fe	56	72	2	H2	3.700	ug/l	5273.26
Fe	56	72	3	He	3.890	ug/l	7406.34
Co	59	72	1	NO GAS	0.362	ug/l	6438.52
Ni	60	72	1	NO GAS	2.399	ug/l	9210.99
Ni	60	72	3	He	2.291	ug/l	2760.24
Ni	62	72	1	NO GAS	2.245	ug/l	1746.64
Cu	63	72	1	NO GAS	1.016	ug/l	10385.18
Cu	63	72	3	He	0.284	ug/l	1213.47
Cu	65	72	1	NO GAS	0.389	ug/l	2127.72
Zn	66	72	1	NO GAS	2.999	ug/l	9984.06
Zn	66	72	3	He	3.131	ug/l	1708.99
As	75	72	1	NO GAS	0.981	ug/l	7225.95
As	75	72	3	He	0.657	ug/l	231.62
Se	78	72	2	H2	0.134	ug/l	20.00
Br	79	72	1	NO GAS	46.064	ug/l	392059.17
Br	79	72	2	H2	44.426	ug/l	60193.46
Se	82	72	1	NO GAS	2.232	ug/l	844.40
Kr	84	72	1	NO GAS		ug/l	60497.08
Sr	88	72	1	NO GAS	240.148	ug/l	9570977.46
Sr	88	72	3	He	238.728	ug/l	403133.97

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	10.695	ug/l	91454.20
Mo	95	72	3	He	11.175	ug/l	31188.58
Mo	98	72	1	NO GAS	10.585	ug/l	154794.78
Ag	107	72	1	NO GAS	-0.077	ug/l	71.99
Ag	109	72	1	NO GAS	-0.074	ug/l	65.32
Cd	111	159	1	NO GAS	-0.005	ug/l	-14.12
Cd	111	159	3	He	0.005	ug/l	10.67
Cd	114	159	1	NO GAS	0.016	ug/l	16.90
Cd	114	159	3	He	0.015	ug/l	27.68
Sn	118	159	1	NO GAS	-2.424	ug/l	2731.50
Sn	118	159	3	He	-2.522	ug/l	406.68
Sb	121	159	1	NO GAS	0.343	ug/l	9615.16
Sb	121	159	3	He	0.401	ug/l	1493.42
Sb	123	159	1	NO GAS	0.348	ug/l	7718.58
Sb	123	159	3	He	0.390	ug/l	1175.61
Ba	135	159	1	NO GAS	4.175	ug/l	23440.85
Ba	137	159	1	NO GAS	4.028	ug/l	39237.53
La	139	175	1	NO GAS	0.001	ug/l	186.86
La	139	175	3	He	0.002	ug/l	46.71
Ce	140	175	1	NO GAS	0.002	ug/l	273.62
Ce	140	175	3	He	0.003	ug/l	86.75
Hg	201	175	1	NO GAS	0.003	ug/l	35.99
Hg	202	175	1	NO GAS	0.055	ug/l	644.55
Hg	202	175	3	He	0.046	ug/l	346.94
Tl	203	175	3	He	0.044	ug/l	1020.50
Tl	205	175	1	NO GAS	0.033	ug/l	4146.15
Tl	205	175	3	He	0.042	ug/l	2459.05
[Pb]	206	175	1	NO GAS	0.005	ug/l	186.67
[Pb]	207	175	1	NO GAS	0.005	ug/l	158.89
Pb	208	175	1	NO GAS	0.005	ug/l	733.35
Th	232	175	3	He	-0.008	ug/l	1002.50
U	238	175	1	NO GAS	0.070	ug/l	7796.83

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2190173.10	105.2
Sc	45	2	H2	96599.10	106.4
Sc	45	3	He	57646.79	105.0
Ge	72	1	NO GAS	941185.73	105.1
Ge	72	2	H2	146416.04	113.1
Ge	72	3	He	92324.52	109.5
Tb	159	1	NO GAS	20499265.63	101.9
Tb	159	3	He	7334585.06	99.8
Ho	165	1	NO GAS	19485138.20	103.8
Ho	165	3	He	7320796.47	101.1
Lu	175	1	NO GAS	21285291.63	106.3
Lu	175	3	He	4451328.72	100.9

ICPMS206-B Analytical Data

Sample Name	B22010977-001B
File Name	145SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 08:48:48
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.373	ug/l	1582.43
Be	9	45	1	NO GAS	0.004	ug/l	2.67
B	11	45	1	NO GAS	79.872	ug/l	15174.97
Na	23	45	3	He	58888.330	ug/l	4669818.72
Mg	24	45	3	He	32481.726	ug/l	1342856.55
Al	27	45	1	NO GAS	6.696	ug/l	19025.05
Si	28	45	2	H2	23468.928	ug/l	278072.19
K	39	72	3	He	2640.462	ug/l	109172.58
Ca	40	72	2	H2	24735.658	ug/l	4435013.39
Ti	47	72	1	NO GAS	1.896	ug/l	1682.60
V	51	72	1	NO GAS	6.627	ug/l	69828.45
V	51	72	3	He	8.397	ug/l	10162.00
Cr	52	72	1	NO GAS	0.695	ug/l	23583.20
Cr	52	72	3	He	0.519	ug/l	928.20
Cr	53	72	1	NO GAS	32.769	ug/l	157325.37
Mn	55	72	1	NO GAS	199.789	ug/l	3806626.74
Mn	55	72	3	He	223.394	ug/l	170049.44
Fe	56	72	2	H2	9.484	ug/l	9993.06
Fe	56	72	3	He	10.585	ug/l	15507.86
Co	59	72	1	NO GAS	0.365	ug/l	6109.06
Ni	60	72	1	NO GAS	2.554	ug/l	9181.05
Ni	60	72	3	He	2.444	ug/l	2384.63
Ni	62	72	1	NO GAS	1.800	ug/l	1407.28
Cu	63	72	1	NO GAS	0.966	ug/l	9298.11
Cu	63	72	3	He	0.250	ug/l	884.18
Cu	65	72	1	NO GAS	0.371	ug/l	1926.40
Zn	66	72	1	NO GAS	4.652	ug/l	14321.83
Zn	66	72	3	He	5.017	ug/l	2190.16
As	75	72	1	NO GAS	0.734	ug/l	6084.92
As	75	72	3	He	0.689	ug/l	196.63
Se	78	72	2	H2	0.195	ug/l	21.33
Br	79	72	1	NO GAS	4.538	ug/l	99378.49
Br	79	72	2	H2	5.936	ug/l	13938.35
Se	82	72	1	NO GAS	0.098	ug/l	208.93
Kr	84	72	1	NO GAS		ug/l	57439.18
Sr	88	72	1	NO GAS	234.605	ug/l	8756315.30
Sr	88	72	3	He	257.933	ug/l	353067.62

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	11.761	ug/l	94201.76
Mo	95	72	3	He	13.106	ug/l	29647.91
Mo	98	72	1	NO GAS	11.709	ug/l	160602.85
Ag	107	72	1	NO GAS	-0.068	ug/l	277.28
Ag	109	72	1	NO GAS	-0.064	ug/l	281.95
Cd	111	159	1	NO GAS	0.003	ug/l	32.71
Cd	111	159	3	He	0.010	ug/l	17.33
Cd	114	159	1	NO GAS	0.025	ug/l	152.97
Cd	114	159	3	He	0.013	ug/l	21.45
Sn	118	159	1	NO GAS	-2.094	ug/l	8555.35
Sn	118	159	3	He	-2.192	ug/l	1230.06
Sb	121	159	1	NO GAS	0.368	ug/l	10013.16
Sb	121	159	3	He	0.407	ug/l	1455.64
Sb	123	159	1	NO GAS	0.370	ug/l	7989.82
Sb	123	159	3	He	0.386	ug/l	1122.27
Ba	135	159	1	NO GAS	4.023	ug/l	22028.43
Ba	137	159	1	NO GAS	4.263	ug/l	40441.39
La	139	175	1	NO GAS	0.003	ug/l	367.05
La	139	175	3	He	0.006	ug/l	116.79
Ce	140	175	1	NO GAS	0.009	ug/l	880.93
Ce	140	175	3	He	0.007	ug/l	183.52
Hg	201	175	1	NO GAS	0.010	ug/l	64.32
Hg	202	175	1	NO GAS	0.083	ug/l	911.18
Hg	202	175	3	He	0.059	ug/l	416.92
Tl	203	175	3	He	0.017	ug/l	599.23
Tl	205	175	1	NO GAS	0.008	ug/l	2343.53
Tl	205	175	3	He	0.014	ug/l	1395.13
[Pb]	206	175	1	NO GAS	0.012	ug/l	338.90
[Pb]	207	175	1	NO GAS	0.012	ug/l	305.56
Pb	208	175	1	NO GAS	0.012	ug/l	1362.26
Th	232	175	3	He	0.077	ug/l	4979.85
U	238	175	1	NO GAS	0.078	ug/l	8420.72

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1867909.24	89.7
Sc	45	2	H2	70450.09	77.6
Sc	45	3	He	47929.71	87.3
Ge	72	1	NO GAS	892562.48	99.6
Ge	72	2	H2	112710.07	87.1
Ge	72	3	He	74836.84	88.8
Tb	159	1	NO GAS	20136181.93	100.1
Tb	159	3	He	7061610.84	96.1
Ho	165	1	NO GAS	19350126.53	103.1
Ho	165	3	He	6915627.26	95.5
Lu	175	1	NO GAS	21112510.31	105.5
Lu	175	3	He	4216036.20	95.6

ICPMS206-B Analytical Data

Sample Name	B22010978-001A
File Name	146SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 08:54:34
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.160	ug/l	4113.01
Be	9	45	1	NO GAS	0.003	ug/l	3.00
B	11	45	1	NO GAS	90.260	ug/l	19818.61
Na	23	45	3	He	103133.304	ug/l	9603280.90
Mg	24	45	3	He	26729.064	ug/l	1299018.90
Al	27	45	1	NO GAS	1.240	ug/l	4550.64
Si	28	45	2	H2	30163.972	ug/l	481656.55
K	39	72	3	He	6812.540	ug/l	330173.26
Ca	40	72	2	H2	23556.407	ug/l	5298455.73
Ti	47	72	1	NO GAS	1.805	ug/l	1699.26
V	51	72	1	NO GAS	14.468	ug/l	188450.93
V	51	72	3	He	13.585	ug/l	19343.35
Cr	52	72	1	NO GAS	0.997	ug/l	28824.14
Cr	52	72	3	He	1.500	ug/l	2921.15
Cr	53	72	1	NO GAS	-99.375	ug/l	25815.96
Mn	55	72	1	NO GAS	0.315	ug/l	7446.94
Mn	55	72	3	He	0.366	ug/l	340.70
Fe	56	72	2	H2	0.822	ug/l	1386.05
Fe	56	72	3	He	0.690	ug/l	1740.91
Co	59	72	1	NO GAS	0.057	ug/l	1057.94
Ni	60	72	1	NO GAS	1.306	ug/l	4977.59
Ni	60	72	3	He	1.085	ug/l	1277.84
Ni	62	72	1	NO GAS	1.103	ug/l	1057.95
Cu	63	72	1	NO GAS	1.953	ug/l	19317.96
Cu	63	72	3	He	0.706	ug/l	2616.68
Cu	65	72	1	NO GAS	0.805	ug/l	4098.37
Zn	66	72	1	NO GAS	2.104	ug/l	7036.66
Zn	66	72	3	He	2.307	ug/l	1230.05
As	75	72	1	NO GAS	4.051	ug/l	17729.10
As	75	72	3	He	3.839	ug/l	1272.79
Se	78	72	2	H2	0.707	ug/l	87.32
Br	79	72	1	NO GAS	38.481	ug/l	336452.13
Br	79	72	2	H2	38.400	ug/l	51745.11
Se	82	72	1	NO GAS	3.058	ug/l	1078.64
Kr	84	72	1	NO GAS		ug/l	74051.51
Sr	88	72	1	NO GAS	290.662	ug/l	11468578.76
Sr	88	72	3	He	296.816	ug/l	483079.69

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	11.383	ug/l	96376.02
Mo	95	72	3	He	12.162	ug/l	32714.77
Mo	98	72	1	NO GAS	11.399	ug/l	165002.13
Ag	107	72	1	NO GAS	-0.076	ug/l	93.31
Ag	109	72	1	NO GAS	-0.072	ug/l	107.98
Cd	111	159	1	NO GAS	0.001	ug/l	22.25
Cd	111	159	3	He	0.003	ug/l	8.00
Cd	114	159	1	NO GAS	0.018	ug/l	36.40
Cd	114	159	3	He	0.012	ug/l	17.16
Sn	118	159	1	NO GAS	-2.222	ug/l	6332.08
Sn	118	159	3	He	-2.310	ug/l	968.92
Sb	121	159	1	NO GAS	0.302	ug/l	8431.16
Sb	121	159	3	He	0.353	ug/l	1327.84
Sb	123	159	1	NO GAS	0.306	ug/l	6758.13
Sb	123	159	3	He	0.321	ug/l	981.15
Ba	135	159	1	NO GAS	26.560	ug/l	147204.45
Ba	137	159	1	NO GAS	25.849	ug/l	248598.61
La	139	175	1	NO GAS	0.001	ug/l	130.13
La	139	175	3	He	0.001	ug/l	36.70
Ce	140	175	1	NO GAS	0.001	ug/l	163.50
Ce	140	175	3	He	0.002	ug/l	56.72
Hg	201	175	1	NO GAS	0.086	ug/l	398.26
Hg	202	175	1	NO GAS	1.529	ug/l	15394.40
Hg	202	175	3	He	1.184	ug/l	7946.84
Tl	203	175	3	He	0.034	ug/l	869.19
Tl	205	175	1	NO GAS	0.019	ug/l	3094.78
Tl	205	175	3	He	0.027	ug/l	1899.08
[Pb]	206	175	1	NO GAS	0.011	ug/l	333.34
[Pb]	207	175	1	NO GAS	0.010	ug/l	266.67
Pb	208	175	1	NO GAS	0.011	ug/l	1278.92
Th	232	175	3	He	0.016	ug/l	2151.07
U	238	175	1	NO GAS	0.360	ug/l	38456.24

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2149323.31	103.2
Sc	45	2	H2	94968.77	104.6
Sc	45	3	He	56355.98	102.6
Ge	72	1	NO GAS	931744.25	104.0
Ge	72	2	H2	141324.00	109.2
Ge	72	3	He	88976.80	105.6
Tb	159	1	NO GAS	20258095.09	100.7
Tb	159	3	He	7365352.23	100.3
Ho	165	1	NO GAS	18887984.61	100.6
Ho	165	3	He	7208516.86	99.5
Lu	175	1	NO GAS	20930854.91	104.6
Lu	175	3	He	4387198.30	99.5

ICPMS206-B Analytical Data

Sample Name	B22010978-001B
File Name	147SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 09:00:19
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.100	ug/l	4139.68
Be	9	45	1	NO GAS	0.004	ug/l	3.00
B	11	45	1	NO GAS	92.543	ug/l	18632.88
Na	23	45	3	He	112262.439	ug/l	8980380.21
Mg	24	45	3	He	29486.635	ug/l	1231079.94
Al	27	45	1	NO GAS	5.302	ug/l	16129.87
Si	28	45	2	H2	29101.736	ug/l	373038.67
K	39	72	3	He	6614.911	ug/l	284569.73
Ca	40	72	2	H2	22379.016	ug/l	4273638.53
Ti	47	72	1	NO GAS	2.392	ug/l	2104.11
V	51	72	1	NO GAS	12.491	ug/l	150391.58
V	51	72	3	He	13.671	ug/l	17269.99
Cr	52	72	1	NO GAS	1.903	ug/l	38374.19
Cr	52	72	3	He	1.688	ug/l	2901.19
Cr	53	72	1	NO GAS	47.084	ug/l	170649.75
Mn	55	72	1	NO GAS	1.228	ug/l	24346.10
Mn	55	72	3	He	1.179	ug/l	956.12
Fe	56	72	2	H2	6.066	ug/l	6909.70
Fe	56	72	3	He	6.507	ug/l	10261.45
Co	59	72	1	NO GAS	0.075	ug/l	1294.17
Ni	60	72	1	NO GAS	1.515	ug/l	5436.81
Ni	60	72	3	He	1.324	ug/l	1377.85
Ni	62	72	1	NO GAS	1.061	ug/l	971.44
Cu	63	72	1	NO GAS	2.360	ug/l	21883.89
Cu	63	72	3	He	0.975	ug/l	3143.00
Cu	65	72	1	NO GAS	1.066	ug/l	5031.76
Zn	66	72	1	NO GAS	1.542	ug/l	4943.98
Zn	66	72	3	He	1.396	ug/l	681.13
As	75	72	1	NO GAS	3.343	ug/l	14407.66
As	75	72	3	He	3.468	ug/l	1020.83
Se	78	72	2	H2	0.703	ug/l	73.65
Br	79	72	1	NO GAS	5.389	ug/l	104390.40
Br	79	72	2	H2	6.215	ug/l	15100.33
Se	82	72	1	NO GAS	1.458	ug/l	575.56
Kr	84	72	1	NO GAS		ug/l	69438.10
Sr	88	72	1	NO GAS	302.269	ug/l	11228106.06
Sr	88	72	3	He	305.153	ug/l	440679.68

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	12.607	ug/l	100465.39
Mo	95	72	3	He	13.364	ug/l	31893.25
Mo	98	72	1	NO GAS	12.606	ug/l	171791.77
Ag	107	72	1	NO GAS	-0.062	ug/l	402.59
Ag	109	72	1	NO GAS	-0.059	ug/l	385.26
Cd	111	159	1	NO GAS	-0.012	ug/l	-59.50
Cd	111	159	3	He	0.003	ug/l	7.33
Cd	114	159	1	NO GAS	0.007	ug/l	-115.68
Cd	114	159	3	He	0.011	ug/l	14.55
Sn	118	159	1	NO GAS	-1.863	ug/l	12806.52
Sn	118	159	3	He	-1.951	ug/l	1831.24
Sb	121	159	1	NO GAS	0.328	ug/l	9101.52
Sb	121	159	3	He	0.322	ug/l	1161.16
Sb	123	159	1	NO GAS	0.328	ug/l	7219.45
Sb	123	159	3	He	0.367	ug/l	1064.49
Ba	135	159	1	NO GAS	26.172	ug/l	145103.09
Ba	137	159	1	NO GAS	26.172	ug/l	251641.81
La	139	175	1	NO GAS	0.004	ug/l	397.08
La	139	175	3	He	0.003	ug/l	70.07
Ce	140	175	1	NO GAS	0.007	ug/l	647.35
Ce	140	175	3	He	0.007	ug/l	183.52
Hg	201	175	1	NO GAS	0.107	ug/l	492.58
Hg	202	175	1	NO GAS	1.890	ug/l	19235.65
Hg	202	175	3	He	1.394	ug/l	9099.25
Tl	203	175	3	He	0.009	ug/l	501.24
Tl	205	175	1	NO GAS	-0.001	ug/l	1755.67
Tl	205	175	3	He	0.001	ug/l	1002.51
[Pb]	206	175	1	NO GAS	0.032	ug/l	818.92
[Pb]	207	175	1	NO GAS	0.030	ug/l	667.80
Pb	208	175	1	NO GAS	0.031	ug/l	3131.27
Th	232	175	3	He	0.039	ug/l	3223.72
U	238	175	1	NO GAS	0.375	ug/l	40554.04

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1971890.14	94.7
Sc	45	2	H2	76273.09	84.0
Sc	45	3	He	48399.37	88.1
Ge	72	1	NO GAS	877399.54	97.9
Ge	72	2	H2	120022.74	92.7
Ge	72	3	He	78968.78	93.7
Tb	159	1	NO GAS	20256111.23	100.7
Tb	159	3	He	7025119.66	95.6
Ho	165	1	NO GAS	19233778.10	102.5
Ho	165	3	He	6909926.56	95.4
Lu	175	1	NO GAS	21183812.23	105.8
Lu	175	3	He	4268654.91	96.8

ICPMS206-B Analytical Data

Sample Name	B22010979-001A
File Name	148SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 09:06:02
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.353	ug/l	1587.09
Be	9	45	1	NO GAS	0.009	ug/l	5.33
B	11	45	1	NO GAS	39.791	ug/l	9800.83
Na	23	45	3	He	39905.210	ug/l	4165230.56
Mg	24	45	3	He	16926.031	ug/l	920364.68
Al	27	45	1	NO GAS	58.399	ug/l	206835.10
Si	28	45	2	H2	34940.827	ug/l	642428.42
K	39	72	3	He	4180.602	ug/l	221001.71
Ca	40	72	2	H2	16510.084	ug/l	4116324.00
Ti	47	72	1	NO GAS	4.184	ug/l	4164.13
V	51	72	1	NO GAS	9.297	ug/l	120169.15
V	51	72	3	He	8.278	ug/l	12924.99
Cr	52	72	1	NO GAS	0.555	ug/l	24609.26
Cr	52	72	3	He	1.078	ug/l	2318.92
Cr	53	72	1	NO GAS	-99.741	ug/l	27226.14
Mn	55	72	1	NO GAS	19.619	ug/l	424496.30
Mn	55	72	3	He	20.132	ug/l	19774.46
Fe	56	72	2	H2	22.577	ug/l	32559.43
Fe	56	72	3	He	22.865	ug/l	42472.65
Co	59	72	1	NO GAS	0.204	ug/l	3879.46
Ni	60	72	1	NO GAS	1.398	ug/l	5693.15
Ni	60	72	3	He	1.358	ug/l	1727.88
Ni	62	72	1	NO GAS	1.323	ug/l	1270.87
Cu	63	72	1	NO GAS	1.611	ug/l	17146.66
Cu	63	72	3	He	1.180	ug/l	4601.71
Cu	65	72	1	NO GAS	1.238	ug/l	6602.00
Zn	66	72	1	NO GAS	3.024	ug/l	10662.28
Zn	66	72	3	He	2.956	ug/l	1690.10
As	75	72	1	NO GAS	0.131	ug/l	4516.16
As	75	72	3	He	0.137	ug/l	56.32
Se	78	72	2	H2	0.333	ug/l	47.66
Br	79	72	1	NO GAS	6.278	ug/l	125143.58
Br	79	72	2	H2	6.731	ug/l	20299.00
Se	82	72	1	NO GAS	0.965	ug/l	499.72
Kr	84	72	1	NO GAS		ug/l	53206.85
Sr	88	72	1	NO GAS	187.131	ug/l	7901080.59
Sr	88	72	3	He	195.630	ug/l	345451.00

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.514	ug/l	4748.51
Mo	95	72	3	He	0.528	ug/l	1583.42
Mo	98	72	1	NO GAS	0.524	ug/l	8285.00
Ag	107	72	1	NO GAS	-0.069	ug/l	267.95
Ag	109	72	1	NO GAS	-0.066	ug/l	259.95
Cd	111	159	1	NO GAS	0.005	ug/l	42.46
Cd	111	159	3	He	0.003	ug/l	8.00
Cd	114	159	1	NO GAS	0.018	ug/l	45.73
Cd	114	159	3	He	0.013	ug/l	22.38
Sn	118	159	1	NO GAS	-2.417	ug/l	2801.39
Sn	118	159	3	He	-2.519	ug/l	430.01
Sb	121	159	1	NO GAS	0.069	ug/l	2352.42
Sb	121	159	3	He	0.075	ug/l	353.34
Sb	123	159	1	NO GAS	0.066	ug/l	1783.45
Sb	123	159	3	He	0.081	ug/l	293.34
Ba	135	159	1	NO GAS	6.115	ug/l	33608.93
Ba	137	159	1	NO GAS	6.268	ug/l	59747.29
La	139	175	1	NO GAS	0.055	ug/l	4738.92
La	139	175	3	He	0.056	ug/l	1117.86
Ce	140	175	1	NO GAS	0.119	ug/l	10198.46
Ce	140	175	3	He	0.106	ug/l	2689.65
Hg	201	175	1	NO GAS	-0.001	ug/l	19.67
Hg	202	175	1	NO GAS	0.001	ug/l	88.98
Hg	202	175	3	He	0.002	ug/l	48.99
Tl	203	175	3	He	0.016	ug/l	637.22
Tl	205	175	1	NO GAS	0.011	ug/l	2476.89
Tl	205	175	3	He	0.017	ug/l	1637.77
[Pb]	206	175	1	NO GAS	0.042	ug/l	1008.93
[Pb]	207	175	1	NO GAS	0.037	ug/l	778.92
Pb	208	175	1	NO GAS	0.039	ug/l	3805.78
Th	232	175	3	He	-0.019	ug/l	411.26
U	238	175	1	NO GAS	0.014	ug/l	1641.77

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2363551.40	113.5
Sc	45	2	H2	109414.06	120.5
Sc	45	3	He	63049.17	114.8
Ge	72	1	NO GAS	997322.24	111.3
Ge	72	2	H2	156597.28	120.9
Ge	72	3	He	96526.32	114.5
Tb	159	1	NO GAS	20070476.44	99.7
Tb	159	3	He	7601288.11	103.5
Ho	165	1	NO GAS	19082899.10	101.7
Ho	165	3	He	7383149.19	102.0
Lu	175	1	NO GAS	20389191.60	101.9
Lu	175	3	He	4574200.08	103.7

ICPMS206-B Analytical Data

Sample Name	B22010979-001B
File Name	149SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 09:11:45
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.175	ug/l	1800.41
Be	9	45	1	NO GAS	-0.001	ug/l	1.67
B	11	45	1	NO GAS	41.746	ug/l	8855.17
Na	23	45	3	He	42095.798	ug/l	3543579.81
Mg	24	45	3	He	17413.817	ug/l	764021.17
Al	27	45	1	NO GAS	23.965	ug/l	73475.35
Si	28	45	2	H2	35292.867	ug/l	464647.84
K	39	72	3	He	3995.530	ug/l	175139.06
Ca	40	72	2	H2	15296.114	ug/l	2994668.16
Ti	47	72	1	NO GAS	3.514	ug/l	3235.40
V	51	72	1	NO GAS	6.722	ug/l	73594.09
V	51	72	3	He	8.106	ug/l	10494.44
Cr	52	72	1	NO GAS	1.381	ug/l	33540.14
Cr	52	72	3	He	1.181	ug/l	2092.67
Cr	53	72	1	NO GAS	54.943	ug/l	187807.16
Mn	55	72	1	NO GAS	9.029	ug/l	181234.14
Mn	55	72	3	He	9.943	ug/l	8096.75
Fe	56	72	2	H2	15.636	ug/l	17797.29
Fe	56	72	3	He	17.125	ug/l	26487.68
Co	59	72	1	NO GAS	0.080	ug/l	1443.87
Ni	60	72	1	NO GAS	1.321	ug/l	4977.58
Ni	60	72	3	He	1.187	ug/l	1253.39
Ni	62	72	1	NO GAS	1.128	ug/l	1061.27
Cu	63	72	1	NO GAS	1.298	ug/l	12866.38
Cu	63	72	3	He	0.773	ug/l	2560.35
Cu	65	72	1	NO GAS	0.855	ug/l	4293.70
Zn	66	72	1	NO GAS	3.371	ug/l	10954.99
Zn	66	72	3	He	3.482	ug/l	1640.10
As	75	72	1	NO GAS	0.023	ug/l	3807.26
As	75	72	3	He	0.147	ug/l	49.66
Se	78	72	2	H2	0.274	ug/l	31.33
Br	79	72	1	NO GAS	1.104	ug/l	80822.12
Br	79	72	2	H2	1.468	ug/l	11105.11
Se	82	72	1	NO GAS	1.601	ug/l	646.12
Kr	84	72	1	NO GAS		ug/l	49376.16
Sr	88	72	1	NO GAS	187.119	ug/l	7307771.73
Sr	88	72	3	He	194.074	ug/l	283905.09

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.810	ug/l	15243.84
Mo	95	72	3	He	1.997	ug/l	4858.54
Mo	98	72	1	NO GAS	1.837	ug/l	26450.46
Ag	107	72	1	NO GAS	-0.070	ug/l	235.96
Ag	109	72	1	NO GAS	-0.066	ug/l	247.95
Cd	111	159	1	NO GAS	-0.003	ug/l	-7.09
Cd	111	159	3	He	0.006	ug/l	11.33
Cd	114	159	1	NO GAS	0.016	ug/l	19.93
Cd	114	159	3	He	0.013	ug/l	22.86
Sn	118	159	1	NO GAS	-2.117	ug/l	8538.77
Sn	118	159	3	He	-2.220	ug/l	1202.27
Sb	121	159	1	NO GAS	0.075	ug/l	2606.90
Sb	121	159	3	He	0.094	ug/l	406.67
Sb	123	159	1	NO GAS	0.078	ug/l	2136.82
Sb	123	159	3	He	0.098	ug/l	332.23
Ba	135	159	1	NO GAS	4.762	ug/l	27386.06
Ba	137	159	1	NO GAS	4.623	ug/l	46125.48
La	139	175	1	NO GAS	0.008	ug/l	767.47
La	139	175	3	He	0.007	ug/l	146.82
Ce	140	175	1	NO GAS	0.015	ug/l	1444.90
Ce	140	175	3	He	0.016	ug/l	390.41
Hg	201	175	1	NO GAS	0.003	ug/l	37.32
Hg	202	175	1	NO GAS	0.009	ug/l	180.97
Hg	202	175	3	He	0.009	ug/l	94.65
Tl	203	175	3	He	-0.002	ug/l	361.94
Tl	205	175	1	NO GAS	-0.005	ug/l	1474.53
Tl	205	175	3	He	-0.005	ug/l	828.53
[Pb]	206	175	1	NO GAS	0.021	ug/l	574.46
[Pb]	207	175	1	NO GAS	0.023	ug/l	535.57
Pb	208	175	1	NO GAS	0.022	ug/l	2372.31
Th	232	175	3	He	0.020	ug/l	2359.73
U	238	175	1	NO GAS	0.012	ug/l	1478.12

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2038787.30	97.9
Sc	45	2	H2	78375.93	86.3
Sc	45	3	He	50906.14	92.7
Ge	72	1	NO GAS	922326.28	103.0
Ge	72	2	H2	122902.04	94.9
Ge	72	3	He	79965.61	94.9
Tb	159	1	NO GAS	20997072.58	104.3
Tb	159	3	He	7330605.40	99.8
Ho	165	1	NO GAS	20004743.00	106.6
Ho	165	3	He	7093581.35	98.0
Lu	175	1	NO GAS	21538224.55	107.6
Lu	175	3	He	4389779.21	99.5

ICPMS206-B Analytical Data

Sample Name	B22010980-001A
File Name	150SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 09:17:28
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.510	ug/l	1472.44
Be	9	45	1	NO GAS	0.001	ug/l	2.67
B	11	45	1	NO GAS	72.828	ug/l	18664.93
Na	23	45	3	He	94472.564	ug/l	10159030.41
Mg	24	45	3	He	36939.437	ug/l	2071223.21
Al	27	45	1	NO GAS	3.276	ug/l	12888.27
Si	28	45	2	H2	30139.599	ug/l	563239.23
K	39	72	3	He	3086.086	ug/l	167034.10
Ca	40	72	2	H2	40828.366	ug/l	10269802.29
Ti	47	72	1	NO GAS	1.911	ug/l	1909.18
V	51	72	1	NO GAS	15.788	ug/l	221098.26
V	51	72	3	He	14.507	ug/l	22793.15
Cr	52	72	1	NO GAS	0.115	ug/l	18303.70
Cr	52	72	3	He	0.599	ug/l	1380.67
Cr	53	72	1	NO GAS	-97.621	ug/l	29455.41
Mn	55	72	1	NO GAS	5.412	ug/l	117200.31
Mn	55	72	3	He	5.663	ug/l	5673.52
Fe	56	72	2	H2	12.159	ug/l	17895.72
Fe	56	72	3	He	12.641	ug/l	24207.04
Co	59	72	1	NO GAS	0.121	ug/l	2312.26
Ni	60	72	1	NO GAS	0.963	ug/l	3906.10
Ni	60	72	3	He	0.530	ug/l	708.91
Ni	62	72	1	NO GAS	0.471	ug/l	728.58
Cu	63	72	1	NO GAS	2.233	ug/l	23418.29
Cu	63	72	3	He	0.988	ug/l	3958.68
Cu	65	72	1	NO GAS	1.194	ug/l	6337.29
Zn	66	72	1	NO GAS	2.364	ug/l	8363.91
Zn	66	72	3	He	2.460	ug/l	1444.52
As	75	72	1	NO GAS	2.342	ug/l	12588.62
As	75	72	3	He	2.028	ug/l	746.20
Se	78	72	2	H2	0.474	ug/l	66.65
Br	79	72	1	NO GAS	67.083	ug/l	565332.37
Br	79	72	2	H2	66.788	ug/l	91353.30
Se	82	72	1	NO GAS	3.216	ug/l	1191.78
Kr	84	72	1	NO GAS		ug/l	80561.41
Sr	88	72	1	NO GAS	300.717	ug/l	12616912.96
Sr	88	72	3	He	304.799	ug/l	547943.56

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	3.798	ug/l	34259.05
Mo	95	72	3	He	3.974	ug/l	11833.24
Mo	98	72	1	NO GAS	3.749	ug/l	57828.17
Ag	107	72	1	NO GAS	-0.069	ug/l	265.95
Ag	109	72	1	NO GAS	-0.067	ug/l	227.29
Cd	111	159	1	NO GAS	0.003	ug/l	33.26
Cd	111	159	3	He	0.006	ug/l	12.67
Cd	114	159	1	NO GAS	0.020	ug/l	64.12
Cd	114	159	3	He	0.013	ug/l	21.28
Sn	118	159	1	NO GAS	-2.454	ug/l	2179.17
Sn	118	159	3	He	-2.541	ug/l	372.23
Sb	121	159	1	NO GAS	0.054	ug/l	2011.26
Sb	121	159	3	He	0.058	ug/l	293.34
Sb	123	159	1	NO GAS	0.055	ug/l	1603.43
Sb	123	159	3	He	0.068	ug/l	257.78
Ba	135	159	1	NO GAS	9.943	ug/l	55913.43
Ba	137	159	1	NO GAS	9.896	ug/l	96543.13
La	139	175	1	NO GAS	0.000	ug/l	93.43
La	139	175	3	He	0.001	ug/l	33.37
Ce	140	175	1	NO GAS	0.001	ug/l	160.17
Ce	140	175	3	He	0.001	ug/l	46.71
Hg	201	175	1	NO GAS	0.162	ug/l	722.54
Hg	202	175	1	NO GAS	2.999	ug/l	29889.28
Hg	202	175	3	He	2.283	ug/l	16298.46
Tl	203	175	3	He	0.019	ug/l	691.21
Tl	205	175	1	NO GAS	0.001	ug/l	1843.47
Tl	205	175	3	He	0.003	ug/l	1161.82
[Pb]	206	175	1	NO GAS	0.005	ug/l	181.12
[Pb]	207	175	1	NO GAS	0.004	ug/l	142.22
Pb	208	175	1	NO GAS	0.005	ug/l	691.12
Th	232	175	3	He	-0.020	ug/l	393.26
U	238	175	1	NO GAS	0.193	ug/l	20579.78

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2497794.47	120.0
Sc	45	2	H2	111197.36	122.4
Sc	45	3	He	65039.38	118.4
Ge	72	1	NO GAS	991053.59	110.6
Ge	72	2	H2	158095.19	122.1
Ge	72	3	He	98292.90	116.6
Tb	159	1	NO GAS	20543957.61	102.1
Tb	159	3	He	7684030.90	104.6
Ho	165	1	NO GAS	19071160.28	101.6
Ho	165	3	He	7602081.29	105.0
Lu	175	1	NO GAS	20813106.12	104.0
Lu	175	3	He	4676132.48	106.0

ICPMS206-B Analytical Data

Sample Name	B22010980-001B
File Name	151SMPL.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 09:23:10
Sample Type	Sample
Total Dilution	1.0000
Comment	ICPMS-6020-W-T
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.958	ug/l	1793.74
Be	9	45	1	NO GAS	0.018	ug/l	7.33
B	11	45	1	NO GAS	90.858	ug/l	18512.14
Na	23	45	3	He	97614.968	ug/l	9196378.82
Mg	24	45	3	He	38554.810	ug/l	1894652.32
Al	27	45	1	NO GAS	37.695	ug/l	113824.87
Si	28	45	2	H2	29486.224	ug/l	437862.54
K	39	72	3	He	3082.712	ug/l	144763.86
Ca	40	72	2	H2	38911.559	ug/l	8118705.60
Ti	47	72	1	NO GAS	4.986	ug/l	4418.48
V	51	72	1	NO GAS	13.714	ug/l	169905.24
V	51	72	3	He	15.437	ug/l	21027.56
Cr	52	72	1	NO GAS	1.949	ug/l	39450.23
Cr	52	72	3	He	1.488	ug/l	2778.08
Cr	53	72	1	NO GAS	67.510	ug/l	193823.47
Mn	55	72	1	NO GAS	6.994	ug/l	136427.57
Mn	55	72	3	He	7.486	ug/l	6503.24
Fe	56	72	2	H2	187.745	ug/l	224176.77
Fe	56	72	3	He	205.099	ug/l	332376.38
Co	59	72	1	NO GAS	0.172	ug/l	2924.50
Ni	60	72	1	NO GAS	1.424	ug/l	5077.59
Ni	60	72	3	He	0.663	ug/l	762.25
Ni	62	72	1	NO GAS	0.715	ug/l	778.49
Cu	63	72	1	NO GAS	3.894	ug/l	36440.38
Cu	63	72	3	He	2.473	ug/l	8320.06
Cu	65	72	1	NO GAS	2.727	ug/l	12741.15
Zn	66	72	1	NO GAS	53.411	ug/l	146100.70
Zn	66	72	3	He	3.977	ug/l	1989.04
As	75	72	1	NO GAS	1.725	ug/l	9342.68
As	75	72	3	He	2.094	ug/l	668.55
Se	78	72	2	H2	0.392	ug/l	45.99
Br	79	72	1	NO GAS	11.247	ug/l	144196.20
Br	79	72	2	H2	11.009	ug/l	21115.19
Se	82	72	1	NO GAS	1.349	ug/l	543.63
Kr	84	72	1	NO GAS		ug/l	75512.22
Sr	88	72	1	NO GAS	314.205	ug/l	11882329.08
Sr	88	72	3	He	328.366	ug/l	512280.65

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	4.412	ug/l	35866.89
Mo	95	72	3	He	4.929	ug/l	12731.65
Mo	98	72	1	NO GAS	4.456	ug/l	61981.44
Ag	107	72	1	NO GAS	-0.049	ug/l	696.55
Ag	109	72	1	NO GAS	-0.048	ug/l	633.23
Cd	111	159	1	NO GAS	0.001	ug/l	15.66
Cd	111	159	3	He	0.001	ug/l	5.33
Cd	114	159	1	NO GAS	0.007	ug/l	-114.94
Cd	114	159	3	He	0.012	ug/l	19.88
Sn	118	159	1	NO GAS	-1.917	ug/l	10895.76
Sn	118	159	3	He	-2.151	ug/l	1386.74
Sb	121	159	1	NO GAS	0.077	ug/l	2420.20
Sb	121	159	3	He	0.081	ug/l	363.34
Sb	123	159	1	NO GAS	0.087	ug/l	2126.83
Sb	123	159	3	He	0.101	ug/l	340.00
Ba	135	159	1	NO GAS	10.447	ug/l	54474.56
Ba	137	159	1	NO GAS	10.345	ug/l	93821.93
La	139	175	1	NO GAS	0.020	ug/l	1711.86
La	139	175	3	He	0.021	ug/l	400.42
Ce	140	175	1	NO GAS	0.050	ug/l	4178.20
Ce	140	175	3	He	0.055	ug/l	1328.09
Hg	201	175	1	NO GAS	0.216	ug/l	901.85
Hg	202	175	1	NO GAS	3.823	ug/l	35933.11
Hg	202	175	3	He	2.553	ug/l	16995.77
Tl	203	175	3	He	0.013	ug/l	569.23
Tl	205	175	1	NO GAS	-0.006	ug/l	1258.95
Tl	205	175	3	He	-0.002	ug/l	912.52
[Pb]	206	175	1	NO GAS	0.054	ug/l	1224.51
[Pb]	207	175	1	NO GAS	0.050	ug/l	988.93
Pb	208	175	1	NO GAS	0.052	ug/l	4619.24
Th	232	175	3	He	0.014	ug/l	2046.41
U	238	175	1	NO GAS	0.205	ug/l	20703.25

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2049283.84	98.4
Sc	45	2	H2	88305.32	97.2
Sc	45	3	He	56986.72	103.8
Ge	72	1	NO GAS	894246.95	99.8
Ge	72	2	H2	130760.13	101.0
Ge	72	3	He	85300.51	101.2
Tb	159	1	NO GAS	19159434.38	95.2
Tb	159	3	He	7343468.63	100.0
Ho	165	1	NO GAS	18342721.35	97.7
Ho	165	3	He	7105510.84	98.1
Lu	175	1	NO GAS	19762342.90	98.7
Lu	175	3	He	4363576.13	98.9

ICPMS206-B Analytical Data

Sample Name	CCV
File Name	152_CCV.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 09:28:53
Sample Type	CCV
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	449.634	ug/l	341574.97
Be	9	45	1	NO GAS	46.423	ug/l	15533.42
B	11	45	1	NO GAS	47.707	ug/l	11862.36
Na	23	45	3	He	13178.430	ug/l	1402622.17
Mg	24	45	3	He	12286.470	ug/l	677937.94
Al	27	45	1	NO GAS	48.060	ug/l	172877.48
Si	28	45	2	H2	261.677	ug/l	6313.92
K	39	72	3	He	11463.002	ug/l	603557.21
Ca	40	72	2	H2	12828.296	ug/l	3152643.16
Ti	47	72	1	NO GAS	47.639	ug/l	47412.49
V	51	72	1	NO GAS	49.529	ug/l	762207.80
V	51	72	3	He	49.678	ug/l	76154.25
Cr	52	72	1	NO GAS	47.584	ug/l	695376.71
Cr	52	72	3	He	50.705	ug/l	102658.89
Cr	53	72	1	NO GAS	51.308	ug/l	201154.12
Mn	55	72	1	NO GAS	47.477	ug/l	1037054.04
Mn	55	72	3	He	50.154	ug/l	49510.98
Fe	56	72	2	H2	1310.371	ug/l	1845954.28
Fe	56	72	3	He	1302.677	ug/l	2397437.63
Co	59	72	1	NO GAS	47.750	ug/l	902287.81
Ni	60	72	1	NO GAS	49.088	ug/l	201594.31
Ni	60	72	3	He	51.733	ug/l	64711.26
Ni	62	72	1	NO GAS	48.884	ug/l	31577.17
Cu	63	72	1	NO GAS	49.897	ug/l	521230.87
Cu	63	72	3	He	51.060	ug/l	191361.38
Cu	65	72	1	NO GAS	49.383	ug/l	255960.11
Zn	66	72	1	NO GAS	48.214	ug/l	166457.04
Zn	66	72	3	He	50.454	ug/l	27947.72
As	75	72	1	NO GAS	47.678	ug/l	181824.89
As	75	72	3	He	50.835	ug/l	18291.65
Se	78	72	2	H2	53.081	ug/l	6859.72
Br	79	72	1	NO GAS	1.307	ug/l	89860.34
Br	79	72	2	H2	1.828	ug/l	14371.17
Se	82	72	1	NO GAS	49.462	ug/l	15768.38
Kr	84	72	1	NO GAS		ug/l	20565.35
Sr	88	72	1	NO GAS	49.262	ug/l	2103785.50
Sr	88	72	3	He	50.768	ug/l	90311.79

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	48.799	ug/l	446717.93
Mo	95	72	3	He	50.818	ug/l	148910.87
Mo	98	72	1	NO GAS	48.626	ug/l	761213.35
Ag	107	72	1	NO GAS	19.863	ug/l	516932.53
Ag	109	72	1	NO GAS	19.620	ug/l	502705.30
Cd	111	159	1	NO GAS	48.592	ug/l	309304.71
Cd	111	159	3	He	49.772	ug/l	74977.40
Cd	114	159	1	NO GAS	48.715	ug/l	719200.48
Cd	114	159	3	He	48.910	ug/l	192030.62
Sn	118	159	1	NO GAS	46.631	ug/l	913323.39
Sn	118	159	3	He	47.990	ug/l	139640.13
Sb	121	159	1	NO GAS	46.182	ug/l	1236207.77
Sb	121	159	3	He	48.722	ug/l	180374.98
Sb	123	159	1	NO GAS	45.656	ug/l	970129.20
Sb	123	159	3	He	48.528	ug/l	146598.18
Ba	135	159	1	NO GAS	47.963	ug/l	273518.50
Ba	137	159	1	NO GAS	47.675	ug/l	471660.79
La	139	175	1	NO GAS	49.256	ug/l	4477306.68
La	139	175	3	He	47.760	ug/l	952242.23
Ce	140	175	1	NO GAS	47.981	ug/l	4327300.48
Ce	140	175	3	He	47.596	ug/l	1203329.31
Hg	201	175	1	NO GAS	0.972	ug/l	4396.76
Hg	202	175	1	NO GAS	0.932	ug/l	9728.83
Hg	202	175	3	He	0.994	ug/l	6966.87
Tl	203	175	3	He	49.118	ug/l	715618.45
Tl	205	175	1	NO GAS	47.067	ug/l	3363683.14
Tl	205	175	3	He	50.188	ug/l	1792700.38
[Pb]	206	175	1	NO GAS	46.549	ug/l	1120802.36
[Pb]	207	175	1	NO GAS	45.979	ug/l	960047.99
Pb	208	175	1	NO GAS	46.668	ug/l	4459136.41
Th	232	175	3	He	50.417	ug/l	2627961.76
U	238	175	1	NO GAS	46.379	ug/l	5100248.03

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2399877.57	115.3
Sc	45	2	H2	112321.34	123.7
Sc	45	3	He	63977.00	116.5
Ge	72	1	NO GAS	1008489.50	112.6
Ge	72	2	H2	154445.08	119.3
Ge	72	3	He	97031.34	115.1
Tb	159	1	NO GAS	20838404.34	103.6
Tb	159	3	He	7661174.76	104.3
Ho	165	1	NO GAS	19700610.54	105.0
Ho	165	3	He	7286169.19	100.6
Lu	175	1	NO GAS	21629691.64	108.1
Lu	175	3	He	4579338.45	103.8

ICPMS206-B Analytical Data

Sample Name	CCB
File Name	153_CCB.d
Data Path Name	D:\Data\220118ADoD.b
Acq Time	2022-01-19 09:36:39
Sample Type	CCB
Total Dilution	1.0000
Comment	ICPMS-6020-W-D
ISTD Ref FileName	100CALB.d
Operator	SRH/AEM/JPV/CAR
Method	EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.346	ug/l	1628.42
Be	9	45	1	NO GAS	0.005	ug/l	4.00
B	11	45	1	NO GAS	-0.092	ug/l	329.27
Na	23	45	3	He	17.547	ug/l	12184.34
Mg	24	45	3	He	3.667	ug/l	276.12
Al	27	45	1	NO GAS	0.056	ug/l	830.03
Si	28	45	2	H2	-28.931	ug/l	822.53
K	39	72	3	He	6.194	ug/l	3407.03
Ca	40	72	2	H2	4.921	ug/l	1885.85
Ti	47	72	1	NO GAS	0.019	ug/l	61.64
V	51	72	1	NO GAS	0.977	ug/l	-10829.01
V	51	72	3	He	0.017	ug/l	373.34
Cr	52	72	1	NO GAS	0.005	ug/l	16941.69
Cr	52	72	3	He	0.012	ug/l	169.67
Cr	53	72	1	NO GAS	-4.113	ug/l	136511.01
Mn	55	72	1	NO GAS	0.018	ug/l	1573.63
Mn	55	72	3	He	0.006	ug/l	15.67
Fe	56	72	2	H2	0.212	ug/l	659.69
Fe	56	72	3	He	0.252	ug/l	1041.19
Co	59	72	1	NO GAS	0.003	ug/l	129.74
Ni	60	72	1	NO GAS	0.014	ug/l	76.51
Ni	60	72	3	He	-0.010	ug/l	23.33
Ni	62	72	1	NO GAS	-0.114	ug/l	365.95
Cu	63	72	1	NO GAS	0.077	ug/l	1325.80
Cu	63	72	3	He	0.200	ug/l	914.51
Cu	65	72	1	NO GAS	0.071	ug/l	629.89
Zn	66	72	1	NO GAS	0.030	ug/l	465.51
Zn	66	72	3	He	0.002	ug/l	64.44
As	75	72	1	NO GAS	0.503	ug/l	5915.99
As	75	72	3	He	0.002	ug/l	7.67
Se	78	72	2	H2	0.005	ug/l	4.67
Br	79	72	1	NO GAS	0.254	ug/l	81537.14
Br	79	72	2	H2	0.171	ug/l	12586.62
Se	82	72	1	NO GAS	0.875	ug/l	474.43
Kr	84	72	1	NO GAS		ug/l	8771.65
Sr	88	72	1	NO GAS	0.042	ug/l	2222.44
Sr	88	72	3	He	0.054	ug/l	336.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.010	ug/l	191.12
Mo	95	72	3	He	0.007	ug/l	62.22
Mo	98	72	1	NO GAS	0.006	ug/l	269.66
Ag	107	72	1	NO GAS	-0.003	ug/l	1985.74
Ag	109	72	1	NO GAS	0.003	ug/l	2000.40
Cd	111	159	1	NO GAS	-0.005	ug/l	-15.37
Cd	111	159	3	He	0.005	ug/l	11.33
Cd	114	159	1	NO GAS	-0.011	ug/l	-380.09
Cd	114	159	3	He	-0.001	ug/l	-29.98
Sn	118	159	1	NO GAS	0.037	ug/l	48763.69
Sn	118	159	3	He	0.016	ug/l	7356.18
Sb	121	159	1	NO GAS	0.017	ug/l	1064.49
Sb	121	159	3	He	0.024	ug/l	163.33
Sb	123	159	1	NO GAS	0.017	ug/l	821.14
Sb	123	159	3	He	0.019	ug/l	108.89
Ba	135	159	1	NO GAS	0.017	ug/l	123.09
Ba	137	159	1	NO GAS	0.010	ug/l	146.38
La	139	175	1	NO GAS	0.004	ug/l	407.09
La	139	175	3	He	0.002	ug/l	56.72
Ce	140	175	1	NO GAS	0.005	ug/l	497.19
Ce	140	175	3	He	0.005	ug/l	140.14
Hg	201	175	1	NO GAS	0.001	ug/l	29.00
Hg	202	175	1	NO GAS	0.003	ug/l	109.31
Hg	202	175	3	He	0.003	ug/l	58.66
Tl	203	175	3	He	0.017	ug/l	635.23
Tl	205	175	1	NO GAS	0.015	ug/l	2819.18
Tl	205	175	3	He	0.017	ug/l	1594.44
[Pb]	206	175	1	NO GAS	0.004	ug/l	170.00
[Pb]	207	175	1	NO GAS	0.003	ug/l	118.89
Pb	208	175	1	NO GAS	0.004	ug/l	683.35
Th	232	175	3	He	0.018	ug/l	2306.40
U	238	175	1	NO GAS	0.006	ug/l	809.53

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2379932.18	114.3
Sc	45	2	H2	109882.07	121.0
Sc	45	3	He	61535.44	112.0
Ge	72	1	NO GAS	1001671.02	111.8
Ge	72	2	H2	155956.81	120.5
Ge	72	3	He	92543.96	109.8
Tb	159	1	NO GAS	20988626.85	104.3
Tb	159	3	He	7595274.54	103.4
Ho	165	1	NO GAS	19499381.61	103.9
Ho	165	3	He	7368572.27	101.8
Lu	175	1	NO GAS	21168585.75	105.8
Lu	175	3	He	4485558.26	101.7

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211124 EL-MSICV-2		
Standard Name	EL-MSICV-2	Type:	Primary
Date Prepared	11/24/2021	BY:	Amanda E. McDani
Date Expires:	11/24/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:			
Balance ID:			

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Multi Analyte Custom Grade Solution	14023	500	mL	11/24

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 - USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

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fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	EL-MSICV-2
Lot Number:	R2-MEB696849
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Silicon, 100 µg/mL ea: Tin, Titanium, Molybdenum, Antimony

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.6 µg/mL	Molybdenum, Mo	100.0 ± 0.5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	99.9 ± 0.4 µg/mL
Titanium, Ti	99.9 ± 0.6 µg/mL		

Density: 1.019 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	070330
Sn	Calculated		See Sec. 4.2
Ti	ICP Assay	3162a	130925

The follow ing equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

ID #: 14023
Opened:
Multi Analyte Custom Grade Solution
Expires: 9/14/2024
Rec'd: 7/7/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 14, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 14, 2024

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Michael J Booth

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Paul R Gaines

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211202 EL200.2MS		
Standard Name	EL-200.2MS	Type:	Primary
Date Prepared	12/2/2021	BY:	Amanda E. McDani
Date Expires:	12/2/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	P2-MEB685870		
Balance ID:			
Comments:	Opened 811/2021; Expires 8/11/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Multi Analyte Custom Grade Solution	14398	500	mL	12/2/

Final Volume: 500 mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

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Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	EL-200.2MS
Lot Number:	S2-MEB702960
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 1 000 µg/mL ea: Phosphorus, 500 µg/mL ea: Manganese, Iron, Aluminum, 100 µg/mL ea: Arsenic, Boron, Barium, Cobalt, Chromium, Copper, Lithium, Nickel, Lead, Selenium, Strontium, Thallium, Vanadium, Zinc, 50 µg/mL ea: Cadmium, Beryllium, 10 µg/mL ea: Silver

ID #: 14398
Opened:_____
Multi Analyte Custom Grade Solution
Expires: 3/8/2025
Rec'd: 10/18/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	499.9 ± 1.9 µg/mL	Arsenic, As	100.0 ± 0.8 µg/mL
Barium, Ba	100.0 ± 0.4 µg/mL	Beryllium, Be	50.01 ± 0.30 µg/mL
Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	50.01 ± 0.22 µg/mL
Calcium, Ca	5 000 ± 20 µg/mL	Chromium, Cr	100.0 ± 0.7 µg/mL
Cobalt, Co	100.0 ± 0.5 µg/mL	Copper, Cu	100.0 ± 0.4 µg/mL
Iron, Fe	499.8 ± 2.1 µg/mL	Lead, Pb	100.0 ± 0.5 µg/mL
Lithium, Li	100.0 ± 0.4 µg/mL	Magnesium, Mg	5 000 ± 20 µg/mL
Manganese, Mn	500.1 ± 2.0 µg/mL	Nickel, Ni	100.0 ± 0.5 µg/mL
Phosphorus, P	1 000 ± 6 µg/mL	Potassium, K	5 000 ± 19 µg/mL
Selenium, Se	100.0 ± 0.8 µg/mL	Silver, Ag	10.00 ± 0.05 µg/mL
Sodium, Na	5 000 ± 18 µg/mL	Strontium, Sr	100.0 ± 0.4 µg/mL
Thallium, Tl	100.0 ± 0.7 µg/mL	Vanadium, V	100.0 ± 0.5 µg/mL
Zinc, Zn	100.1 ± 0.4 µg/mL		

Density: 1.097 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Tl	ICP Assay	3158	151215
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 08, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 08, 2025

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Energy Laboratories Inc

Spike LOG

Standard ID:	ME220106 AUDIGSPK		
Standard Name	AUDIGSPK	Type:	Secondary
Date Prepared	1/6/2022	BY:	Amanda E. McDani
Date Expires:	10/25/2022		
Department	ME	Status:	Open
Vendor:			
Lot Number:			
Balance ID:			

Comments:

Final Volume:
50 mL

Stock Source		**Base Units**	**Amount Added**
ME211202A	U Stock	ug/mL	5 mL
ME 211025 Th Sec	Th Seondary Stock	ug/mL	5 mL
ME211222 Ce 2nd	Ce Secondary Stock	ug/mL	5 mL
ME211222 La Sec	La Secondary Stock	ug/mL	5 mL
ME211229A AU 2n	Au 2nd source Stock	ug/mL	15 mL
ME211025A	Te Stock	ug/mL	15 mL

Analytes	**CAS**	Conc:	**ug/mL**

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211202A		
Standard Name	U Stock	Type:	Primary
Date Prepared	12/2/2021	BY:	Amanda E. McDani
Date Expires:	12/2/2022		
Department	ME	Status:	New
Vendor:	SCP Science		
Lot Number:	S210517021		
Balance ID:			

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Uranium	14419	500	mL	12/2/2022

Final Volume:
500 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

SCP SCIENCE

Providing Innovative Solutions to Analytical Chemists

Certificate of Analysis

U

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Uranium 1000 µg/ml

Catalogue Number: 140-051-920/-921/-925

Starting Material: Uranyl Nitrate 99.99%

Lot Number: **S210517021**

Matrix: 4% HNO_3 (See Section 3 for actual matrix)

Expiration Date (End of month): **May 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1004 µg/ml +/- 4 µg/ml**

985 µg/g +/- 4 µg/g

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3164 Lot: **080521**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

ID #: 14419
Opened:_____
ICP/ICPMS Standard Uranium
Expires: 5/31/2023
Rec'd: 10/20/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 REFERENCE VALUES:

Density: **1.020 g/ml @ 24.0 °C**

Actual Matrix: **4.0% (v/v) HNO_3**

% abundance of stable isotopes : ^{238}U : 99. 82% ; ^{235}U : 0.18%

Note : The uranyl nitrate comes from a depleted source of uranium.

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	<0.0010	Sn	<0.0010
Al	**0.0252**	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0026	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	N/A
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0020	Sb	<0.0010	Yb	<0.0010
Cu	<0.0010	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	<0.0010	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Yaling Sui, Chemist

Certification Date: May 27, 2021

Yaling Sui

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter* ***SCP SCIENCE***.

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ*:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION*:

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ*:

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité* ***enregistré*** *à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)*** *est* ***accréditée*** *ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)*** *est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Alte Marktoberdorfer Straße 14, 87616
Marktoberdorf

Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID:	ME 211025 TH SECONDARY STOCK		
Standard Name	Th Seondary Stock	Type:	Primary
Date Prepared	10/25/2021	BY:	Stacy R. Hendricks
Date Expires:	10/25/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	S2-TH706436		
Balance ID:			
Comments:	Opened 10/25/2021; Expires 10/25/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Thorium Single Analyte Custom Grade Sol	14318	125	mL	10/25/2022

Final Volume:
500 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTH1
Lot Number:	S2-TH706436
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Thorium
Starting Material:	TH(NO3)4*4H2O
Starting Material Lot#:	2250
Starting Material Purity:	99.9905%

ID #: 14318
Opened:
Thorium Single Analyte Custom Grade Solutic
Expires: 7/4/2025
Rec'd: 9/24/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 4 µg/mL

Density: 1.026 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1001 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #2 **1001 ± 6 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000448	M	Eu	<	0.000224	O	Na		0.064077	M	Se	<	0.005827	M	Zn		0.003183
O	Al		0.010962	M	Fe		0.012392	M	Nb	<	0.003138	i	Si	<		M	Zr	<	0.010310
M	As	<	0.038776	M	Ga	<	0.004931	M	Nd		0.004697	M	Sm		0.000871				
M	Au	<	0.000224	M	Gd		0.000300	M	Ni	<	0.006724	M	Sn	<	0.028242				
M	B	<	0.021293	M	Ge	<	0.008965	M	Os	<	0.000224	M	Sr		0.002582				
M	Ba		0.001317	M	Hf	<	0.000224	i	P	<		M	Ta	<	0.001344				
M	Be	<	0.000224	M	Hg	<	0.000448	M	Pb		0.003287	M	Tb	<	0.001793				
M	Bi	<	0.001793	M	Ho	<	0.001344	M	Pd	<	0.000448	M	Te	<	0.010086				
O	Ca		0.051969	M	In		0.000134	M	Pr		0.001202	s	Th	<					
M	Cd	<	0.001344	M	Ir	<	0.000224	M	Pt	<	0.000224	M	Ti	<	0.004258				
M	Ce		0.015420	O	K		0.028928	M	Rb	<	0.005155	M	Tl	<	0.000224				
M	Co	<	0.001344	M	La		0.003577	M	Re	<	0.000224	M	Tm	<	0.000224				
M	Cr	<	0.015465	M	Li	<	0.000448	M	Rh	<	0.000224	M	U		0.006564				
M	Cs	<	0.013896	M	Lu	<	0.000224	M	Ru	<	0.000224	M	V	<	0.001793				
M	Cu		0.001472	O	Mg		0.027914	i	S	<		M	W	<	0.000224				
M	Dy		0.000197	M	Mn		0.001814	M	Sb	<	0.004931	M	Y		0.000860				
M	Er	<	0.002241	M	Mo	<	0.000896	M	Sc	<	0.000672	M	Yb	<	0.000224				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 232.04 +4 8 Th(OH) 3+ and Th(OH)22+

Chemical Compatibility -Soluble in HCl, and HNO3. Avoid H3PO4, H2SO4 and HF although solubilities may not be a problem depending upon pH and matrix (For example: ThF4 is soluble in acids). Avoid neutral to basic media. Th4+ is stable with most metals and inorganic anions forming an insoluble carbonate, oxide, fluoride, oxalate, sulfate and phosphate in neutral to slightly acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Th Containing Samples (Preparation and Solution) -Metal (Soluble in Aqua Regia); Oxide (The heated oxide is not soluble in acids except hot conc. H2SO4); Ores (Na2O2 fusion at 480 ± 20EC for 7 minutes, cool and treat sintered mass with 50 mL cold water and stand until disintegrated. The mass is transferred to a beaker and acidified with HCl with 25 mL excess HCl added. Any residue is collected on a Whatman No. 42 filter, dried and ignited to 1000 EC in Pt0 crucible and the ash treated with H2SO4 / HF and fumed. If residue remains, then treat it by peroxide fusion as above.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 232 amu	1 ppt	N/A	
ICP-OES 274.716 nm	0.08 / 0.008 µg/mL	1	Ti, Ta, Fe, V
ICP-OES 283.231 nm	0.07 / 0.007 µg/mL	1	U, Mo, Ti, Fe, Cr
ICP-OES 283.730 nm	0.07 / 0.007 µg/mL	1	U, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 04, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 04, 2025

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Michael J Booth

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Paul R Gaines

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211222 CE 2ND SOURCE		
Standard Name	Ce Secondary Stock	Type:	Primary
Date Prepared	12/22/2021	BY:	Amanda E. McDani
Date Expires:	12/22/2022		
Department	ME	Status:	Open
Vendor:	SCP Science		
Lot Number:	S210208003		
Balance ID:			
Comments:	opened 12/22/2021, expires 12/22/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Cerium PlasmaCal Standard	14327	125	mL	12/22/2022

Final Volume:
125 mL

Stock Source | **Base Units** | **Amount Added**

Analytes		**CAS**	Conc:	**ug/mL**
A	Cerium	7440-45-1		1000

SCP SCIENCE

Providing Innovative Solutions to Analytical Chemists

Certificate of Analysis

1.0 DESCRIPTION:

***Plasma*CAL ICP/ICPMS Standard - Cerium 1000 µg/ml**

Catalogue Number: 140-051-580/-581/-585

Starting Material: Cerium(III) Nitrate Hexahydrate 99.99+%

Lot Number: **S210208003**

Matrix: 4% HNO_3 (See Section 3 for actual matrix)

Expiration Date (End of month): **February 2023** (or 15 months after bottle is opened, whichever comes first)

Ce

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1003 µg/ml +/- 4 µg/ml**

982 µg/g +/- 4 µg/g

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3110 Lot: **090504**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.021 g/ml @ 22.5 °C**

Actual Matrix: **4.0% (v/v) HNO_3**

Trace Metal Impurities as tested by ICP-MS:

ID #: 14327
Opened: _____
Cerium PlasmaCal Standard
Expires: 2/28/2023
Rec'd: 9/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	**0.0102**	Sn	<0.0010
Al	**0.0148**	Ga	**0.0526**	Ni	**0.0064**	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	**0.0235**	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	<0.0011
Ca	**0.0375**	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	N/A	La	<0.10	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	**0.0121**	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	<0.0010	Si	<0.10		
Eu	**0.0035**	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Yaling Sui, Chemist

Certification Date: February 22, 2021

Yaling Sui

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter **SCP SCIENCE**.*

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité **enregistré** à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est **accréditée** ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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3rd Party Distribution Center
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N.Y. 12919-4816

Phone: +1 (800) 361-6820
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Villebon sur Yvette, France
Phone: +33 (0) 1 69 18 71 17
Fax: +33 (0) 1 60 92 05 67

GERMANY
Alte Marktoberdorfer Straße 14, 87616
Marktoberdorf

Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211222 LA SECOND SOURCE		
Standard Name	La Secondary Stock	Type:	Primary
Date Prepared	12/22/2021	BY:	Amanda E. McDani
Date Expires:	12/22/2022		
Department	ME	Status:	Open
Vendor:	SCP Science		
Lot Number:	S210803016		
Balance ID:			
Comments:	opened 12/22/2021, expires 12/22/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Lanthanum PlasmaCal Standard	14326	125	mL	12/22/2022

Final Volume: mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

SCP SCIENCE

Providing Innovative Solutions to Analytical Chemists

Certificate of Analysis

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Lanthanum 1000 µg/ml

Catalogue Number: 140-051-570/-571/-575

Starting Material: Lanthanum(III) Oxide 99.99+%

Lot Number: **S210803016**

Matrix: 4% HNO_3 (See Section 3 for actual matrix)

Expiration Date (End of month): **August 2023** (or 15 months after bottle is opened, whichever comes first)

La

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1005 µg/ml +/- 4 µg/ml**

985 µg/g +/- 3 µg/g

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3127a Lot: **151030**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.020 g/ml @ 23.2 °C**

Actual Matrix: **4.0% (v/v) HNO_3**

ID #: 14326
Opened:_____
Lanthanum PlasmaCal Standard
Expires: 8/31/2023
Rec'd: 9/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	<0.0010	Sn	<0.0010
Al	**0.0106**	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	**0.0889**	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0026	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	**0.0031**	Hg	*	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0062
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	<0.0011
Ca	**0.0169**	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	**0.0272**	La	N/A	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	**0.0020**
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	<0.0010	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	**0.0156**	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: August 12, 2021

Daniel Boisvert

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter **SCP SCIENCE**.*

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité **enregistré** à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est **accréditée** ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Fax: +33 (0) 1 60 92 05 67

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Marktoberdorf

Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

CORPORATE : Phone: +1 (514) 457-0701 | Fax: +1 (514) 457-4499 www.scpscience.com | sales@scpscience.com

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211229A AU 2ND SOURCE		
Standard Name	Au 2nd source Stock	Type:	Primary
Date Prepared	12/29/2021	BY:	Amanda E. McDani
Date Expires:	12/29/2022		
Department	ME	Status:	Open
Vendor:	SCP Science		
Lot Number:	S211129013		
Balance ID:			
Comments:	opened 12/29/2021; expires 12/29/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

ID #: 14710
Opened:
ICP/ICPMS Standard Gold
Expires: 12/31/2023
Rec'd: 12/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

SCP SCIENC
Providing Innovative Solutions to Analytical

Certificate of Analysis

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml

Au

Catalogue Number: 140-052-790/-791/-795
Starting Material: Gold Metal 99.99+%
Lot Number: **S211129013**
Matrix: 10% HCl (See Section 3 for actual matrix)
Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1001 µg/ml +/- 4 µg/ml**
982 µg/g +/- 4 µg/g

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.019 g/ml @ 22.4 °C**
Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	**0.3851**	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	**0.0062**	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	**0.0434**	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	**0.0048**	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	**0.0362**	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	**0.0029**	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	**0.0023**	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	**0.0070**	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter **SCP SCIENCE**.*

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité **enregistré** à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: **SCP SCIENCE (Corporate Headquarters)** operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est **accréditée** ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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91140, Villebon-sur-Yvette
Phone: +33 (0) 1 69 18 71 17
Fax: +33 (0) 1 60 92 05 67

GERMANY
Alte Marktoberdorfer Straße 14, 87616
Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211025A		
Standard Name	Te Stock	Type:	Primary
Date Prepared	10/25/2021	BY:	Stacy R. Hendricks
Date Expires:	10/25/2022		
Department	ME	Status:	Open
Vendor:	SCP Science		
Lot Number:	S200130018		
Balance ID:			
Comments:	Opened 10/25/2021; Expires 10/25/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
ICP/ICPMS Standard Tellurium	14418	500	mL	10/25

Final Volume: 500 mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**

SCP SCIENCE

Providing Innovative Solutions to Analytical Chemists

Certificate of Analysis

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Tellurium 1000 µg/ml

Catalogue Number: 140-051-520/-521/-525

Starting Material: Tellurium Metal 99.99+%

Lot Number: **S210615004**

Matrix: 10% HNO3 (See Section 3 for actual matrix)

Expiration Date (End of month): **June 2023** (or 15 months after bottle is opened, whichever comes first)

Te

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1005 µg/ml +/- 5 µg/ml**

958 µg/g +/- 5 µg/g

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3156 Lot: **140830**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

ID #: 14418
Opened:
ICP/ICPMS Standard Tellurium
Expires: 6/30/2023
Rec'd: 10/20/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 REFERENCE VALUES:

Density: **1.049 g/ml @ 25.5 °C**

Actual Matrix: **10.0% (v/v) HNO3**

Trace Metal Impurities as tested by ICP-AES:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	**0.0449**	Sn	<0.0010
Al	<0.0010	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	**0.0184**	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	N/A
Ba	<0.0010	Hg	*	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	**0.0028**	Ti	<0.0012
Bi	<0.0010	In	**0.0020**	Pt	<0.0010	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0020	Sb	<0.0010	Yb	<0.0010
Cu	<0.0010	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.1	Zr	<0.0010
Er	<0.0010	Na	<0.0025	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: June 30, 2021

Daniel Boisvert

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter* ***SCP SCIENCE***.

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité* ***enregistré*** *à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)*** *est* ***accréditée*** *ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)*** *est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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91140, Villebon-sur-Yvette
Phone: +33 (0) 1 69 18 71 17
Fax: +33 (0) 1 60 92 05 67

GERMANY
Alte Marktoberdorfer Straße 14, 87616
Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211207 2008TS		
Standard Name	200.8 Tune Solution	Type:	Primary
Date Prepared	12/7/2021	BY:	Stacy R. Hendricks
Date Expires:	12/7/2022		
Department	ME	Status:	New
Vendor:	Inorganic Ventures		
Lot Number:	R2-MEB691898		
Balance ID:			
Comments:	Opened 12/7/2021; Expired 12/7/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Multi Analyte Custom Grade Solution	13795	125	mL	12/7/

Final Volume: 125 mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 - USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 ; 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	2008TS
Lot Number:	R2-MEB691898
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	10 µg/mL ea: Beryllium, Indium, Lead, Cobalt, Magnesium,

ID #: 13795
Opened: _____
Multi Analyte Custom Grade Solution
Expires: 4/8/2024
Rec'd: 4/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Beryllium, Be	**10.01 ± 0.06 µg/mL**	**Cobalt, Co**	**10.01 ± 0.04 µg/mL**
Indium, In	**10.01 ± 0.04 µg/mL**	**Lead, Pb**	**10.01 ± 0.04 µg/mL**
Magnesium, Mg	**10.01 ± 0.05 µg/mL**		

Density: 1.014 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Be	ICP Assay	3105a	090514
Co	EDTA	928	928
Co	ICP Assay	traceable to 3113	M2-CO661665
Co	Calculated		See Sec. 4.2
In	ICP Assay	3124a	110516
In	EDTA	928	928
In	Calculated		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mg	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 08, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- April 08, 2024

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control

Michael 2 Booth

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

Paul R Gaines

Energy Laboratories Inc

Standard LOG

Standard ID: ME220112A 1000 PPB STANDARD
Standard Name 1000 PPB Standard
Date Prepared 1/12/2022
Date Expires: 11/18/2022
Department ME
Vendor:
Lot Number:
Balance ID:

Type: Secondary
BY: Cindy Rohrer
Status: Open

Comments: Made fresh daily

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.25	mL	6/1/2100

Final Volume:
50 mL

Stock Source		**Base Units**	**Amount Added**
ME211208 MSCAL	MSCAL 2B	ug/mL	0.5 mL
ME211118 MSCAL	EL-MSCAL-5A	ug/mL	0.5 mL
ME211229A AU 2n	Au 2nd source Stock	ug/mL	0.01 mL

Analytes	**CAS**	Conc:	**mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211208 MSCAL2B		
Standard Name	MSCAL 2B	Type:	Primary
Date Prepared	12/8/2021	BY:	Stacy R. Hendricks
Date Expires:	12/8/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	S2-MEB704403		
Balance ID:			
Comments:	Opened 12/08/2021; Expires 12/08/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13793		mL	12/8/2022

Final Volume: mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	EL-MSCAL-2B
Lot Number:	S2-MEB704403
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	100 µg/mL ea:

Aluminum, Arsenic,
Boron, Barium,
Beryllium, Cadmium,
Cobalt, Chromium,
Copper, Iron,
Manganese, Nickel,
Lead, Selenium,
Strontium, Thorium,
Thallium, Uranium,
Vanadium, Zinc,

40 µg/mL ea:
Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ID #: 13793
Opened:
Multi Analyte Custom Grade Solution
Expires: 4/21/2025
Rec'd: 4/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Arsenic, As	100.0 ± 0.9 µg/mL
Barium, Ba	100.0 ± 0.5 µg/mL	Beryllium, Be	100.0 ± 0.7 µg/mL
Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	100.0 ± 0.5 µg/mL
Chromium, Cr	100.0 ± 0.8 µg/mL	Cobalt, Co	100.0 ± 0.6 µg/mL
Copper, Cu	100.0 ± 0.5 µg/mL	Iron, Fe	100.1 ± 0.4 µg/mL
Lead, Pb	100.0 ± 0.6 µg/mL	Manganese, Mn	100.0 ± 0.5 µg/mL
Nickel, Ni	100.0 ± 0.6 µg/mL	Selenium, Se	100.0 ± 0.7 µg/mL
Silver, Ag	39.99 ± 0.18 µg/mL	Strontium, Sr	100.0 ± 0.4 µg/mL
Thallium, Tl	100.0 ± 0.6 µg/mL	Thorium, Th	100.0 ± 0.5 µg/mL
Uranium, U	100.0 ± 0.5 µg/mL	Vanadium, V	100.0 ± 0.5 µg/mL
Zinc, Zn	100.0 ± 0.5 µg/mL		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Sr	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

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Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.24 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 21, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- April 21, 2025

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Michael J Booth

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Paul R Gaines

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211118 MSCAL-5A		
Standard Name	EL-MSCAL-5A	Type:	Primary
Date Prepared	11/18/2021	BY:	Stacy R. Hendricks
Date Expires:	11/18/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	P2-MEB687200		
Balance ID:			
Comments:	Opened 11/18/2021; Expires 11/18/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13175	500	mL	11/18/2022

Final Volume:
500 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	EL-MSCAL-5A
Lot Number:	P2-MEB687200
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 500 µg/mL ea: Phosphorus, Iron, 250 µg/mL ea: Lithium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Calcium, Ca	**5 000 ± 20 µg/mL**	**Iron, Fe**	**499.9 ± 2.1 µg/mL**
Lithium, Li	**250.0 ± 1.1 µg/mL**	**Magnesium, Mg**	**5 000 ± 21 µg/mL**
Phosphorus, P	**499.8 ± 2.5 µg/mL**	**Potassium, K**	**5 000 ± 18 µg/mL**
Sodium, Na	**5 000 ± 18 µg/mL**		

Density: 1.076 g/mL (measured at 20 ± 4 °C)

Assay Information:

ID #: 13175
Opened:
Multi Analyte Custom Grade Solution
Expires: 12/2/2023
Rec'd: 10/12/2020
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed outer bag.

- While stored in the sealed outer bag, transpiration of this CRM/RM is negligible. After opening the sealed outer bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed outer bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 02, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- December 02, 2023

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed outer Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control

Michael J Booth

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

Paul R Gaines

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211229A AU 2ND SOURCE		
Standard Name	Au 2nd source Stock	Type:	Primary
Date Prepared	12/29/2021	BY:	Amanda E. McDani
Date Expires:	12/29/2022		
Department	ME	Status:	Open
Vendor:	SCP Science		
Lot Number:	S211129013		
Balance ID:			
Comments:	opened 12/29/2021; expires 12/29/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

ID #: 14710
Opened:
ICP/ICPMS Standard Gold
Expires: 12/31/2023
Rec'd: 12/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

SCP SCIENC
Providing Innovative Solutions to Analytical

Certificate of Analysis

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml

Au

Catalogue Number: 140-052-790/-791/-795
Starting Material: Gold Metal 99.99+%
Lot Number: **S211129013**
Matrix: 10% HCl (See Section 3 for actual matrix)
Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1001 µg/ml +/- 4 µg/ml**
982 µg/g +/- 4 µg/g

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.019 g/ml @ 22.4 °C**
Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	**0.3851**	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	**0.0062**	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	**0.0434**	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	**0.0048**	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	**0.0362**	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	**0.0029**	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	**0.0023**	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	**0.0070**	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter **SCP SCIENCE**.*

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité **enregistré** à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: **SCP SCIENCE (Corporate Headquarters)** operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est **accréditée** ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID:	ME220112 100 PPB STANDARD		
Standard Name	100 ppb Standard	Type:	Secondary
Date Prepared	1/12/2022	BY:	Cindy Rohrer
Date Expires:	11/18/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:			
Balance ID:			

Comments: Made Fresh Daily

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source		**Base Units**	**Amount Added**
ME211221 MSCAL	MSCAL 3C	ug/mL	0.05 mL
ME211118 MSCAL	EL-MSCAL-5A	ug/mL	0.25 mL
ME220105 HgPrim	Primary Hg Stock 2 PPM	ug/mL	0.05 mL
ME211208 MSCAL	MSCAL 2B	ug/mL	0.05 mL
ME211229A AU 2n	Au 2nd source Stock	ug/mL	0.01 mL
ME220110 Ce, La	Ce, La Primary	ug/mL	0.05 mL

Analytes	**CAS**	Conc:	**mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211221 MSCAL 3C		
Standard Name	MSCAL 3C	Type:	Primary
Date Prepared	12/21/2021	BY:	Stacy R. Hendricks
Date Expires:	12/21/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	S2-MEB700780		
Balance ID:			
Comments:	Opened 12/21/21; expires 12/21/22		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13473	250	mL	12/21/2022

Final Volume:
250 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

INORGANIC VENTURES

CERTIFICATE OF ANALYSIS

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	EL-MSCAL-3C
Lot Number:	S2-MEB700780
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	400 µg/mL ea: Silicon, 100 µg/mL ea: Tin, Molybdenum, Titanium, Antimony

1-6-2025

ID #: 13473
Opened:_____
Multi Analyte Custom Grade Solution
Expires: 1/6/2025
Rec'd: 1/15/2021
Energy Laboratories Inc 1120 So 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.8 µg/mL	Molybdenum, Mo	100.0 ± 0.6 µg/mL
Silicon, Si	399.9 ± 3.0 µg/mL	Tin, Sn	100.0 ± 0.6 µg/mL
Titanium, Ti	100.0 ± 0.7 µg/mL		

Density: 1.018 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 06, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- January 06, 2025

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211118 MSCAL-5A		
Standard Name	EL-MSCAL-5A	Type:	Primary
Date Prepared	11/18/2021	BY:	Stacy R. Hendricks
Date Expires:	11/18/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	P2-MEB687200		
Balance ID:			
Comments:	Opened 11/18/2021; Expires 11/18/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13175	500	mL	11/18/2022

Final Volume:
500 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	EL-MSCAL-5A
Lot Number:	P2-MEB687200
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 500 µg/mL ea: Phosphorus, Iron, 250 µg/mL ea: Lithium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Calcium, Ca	**5 000 ± 20 µg/mL**	**Iron, Fe**	**499.9 ± 2.1 µg/mL**
Lithium, Li	**250.0 ± 1.1 µg/mL**	**Magnesium, Mg**	**5 000 ± 21 µg/mL**
Phosphorus, P	**499.8 ± 2.5 µg/mL**	**Potassium, K**	**5 000 ± 18 µg/mL**
Sodium, Na	**5 000 ± 18 µg/mL**		

Density: 1.076 g/mL (measured at 20 ± 4 °C)

Assay Information:

ID #: 13175
Opened:
Multi Analyte Custom Grade Solution
Expires: 12/2/2023
Rec'd: 10/12/2020
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed outer bag.

- While stored in the sealed outer bag, transpiration of this CRM/RM is negligible. After opening the sealed outer bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed outer bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; Inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 02, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- December 02, 2023

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed outer Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control

Michael J Booth

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

Paul R Gaines

Energy Laboratories Inc

Spike LOG

Standard ID:	ME220105 HGPRIMARY		
Standard Name	Primary Hg Stock 2 PPM	Type:	Secondary
Date Prepared	1/5/2022	BY:	Amanda E. McDani
Date Expires:	12/29/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:			
Balance ID:			

Comments: Made with different HG stock than QCS

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027

Final Volume: 25 mL

Stock Source		**Base Units**	**Amount Added**
ME220110HG	HG Stock	ug/mL	0.05 mL
ME211229A AU 2N	Au 2nd source Stock	ug/mL	0.05 mL

Analytes	**CAS**	Conc:	**ug/mL**

Energy Laboratories Inc

Standard LOG

Standard ID:	ME220110HG		
Standard Name	HG Stock	Type:	Primary
Date Prepared	1/10/2022	BY:	Amanda E. McDani
Date Expires:	1/10/2023		
Department	ME	Status:	Open
Vendor:	SCP Science		
Lot Number:	S210729017		
Balance ID:			

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Mercury	14711	125	mL	1/10/2023

Final Volume:
125 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

ID #: 14711
Opened:
ICP/ICPMS Standard Mercury
Expires: 7/31/2023
Rec'd: 12/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

SCP SCIENCE
Providing Innovative Solutions to Analytical Chemists

rtificate of Analysis

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Mercury 1000 µg/ml

Catalogue Number: 140-051-800/-801/-805
Starting Material: Mercury(II) oxide 99.99+%
Lot Number: **S210729017**
Matrix: 10% HNO_3 (See Section 3 for actual matrix)
Expiration Date (End of month): **July 2023** (or 15 months after bottle is opened, whichever comes first)

Hg

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **999 µg/ml +/- 5 µg/ml**
952 µg/g +/- 5 µg/g
Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
Traceability: NIST Standard Reference Material 3133 Lot: **160921**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.050 g/ml @ 23.6 °C**
Actual Matrix: **10.0% (v/v) HNO_3**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	**0.0322**	Nd	<0.0010	Sn	<0.0010
Al	**0.0042**	Ga	<0.0010	Ni	**0.0039**	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	N/A	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	**0.0117**
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	**0.0112**	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	**0.0060**	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	**0.0092**	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
Certification Date: August 12, 2021

Daniel Boisvert

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter **SCP SCIENCE**.*

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité **enregistré** à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: **SCP SCIENCE (Corporate Headquarters)** operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est **accréditée** ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : **SCP SCIENCE (Corporate Headquarters)** is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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GERMANY
Alte Marktoberdorfer Straße 14, 87616
Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211229A AU 2ND SOURCE		
Standard Name	Au 2nd source Stock	Type:	Primary
Date Prepared	12/29/2021	BY:	Amanda E. McDani
Date Expires:	12/29/2022		
Department	ME	Status:	Open
Vendor:	SCP Science		
Lot Number:	S211129013		
Balance ID:			
Comments:	opened 12/29/2021; expires 12/29/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

ID #: 14710
Opened:
ICP/ICPMS Standard Gold
Expires: 12/31/2023
Rec'd: 12/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

SCP SCIENC
Providing Innovative Solutions to Analytical

Certificate of Analysis

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml

Au

Catalogue Number: 140-052-790/-791/-795
Starting Material: Gold Metal 99.99+%
Lot Number: **S211129013**
Matrix: 10% HCl (See Section 3 for actual matrix)
Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1001 µg/ml +/- 4 µg/ml**
982 µg/g +/- 4 µg/g

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.019 g/ml @ 22.4 °C**
Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	**0.3851**	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	**0.0062**	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	**0.0434**	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	**0.0048**	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	**0.0362**	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	**0.0029**	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	**0.0023**	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	**0.0070**	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter **SCP SCIENCE**.*

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité **enregistré** à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: **SCP SCIENCE (Corporate Headquarters)** operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est **accréditée** ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

CORPORATE HEADQUARTERS
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GERMANY
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Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211208 MSCAL2B		
Standard Name	MSCAL 2B	Type:	Primary
Date Prepared	12/8/2021	BY:	Stacy R. Hendricks
Date Expires:	12/8/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	S2-MEB704403		
Balance ID:			
Comments:	Opened 12/08/2021; Expires 12/08/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13793		mL	12/8/2022

Final Volume: mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	EL-MSCAL-2B
Lot Number:	S2-MEB704403
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	100 µg/mL ea:

Aluminum, Arsenic,
Boron, Barium,
Beryllium, Cadmium,
Cobalt, Chromium,
Copper, Iron,
Manganese, Nickel,
Lead, Selenium,
Strontium, Thorium,
Thallium, Uranium,
Vanadium, Zinc,

40 µg/mL ea:
Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ID #: 13793
Opened:
Multi Analyte Custom Grade Solution
Expires: 4/21/2025
Rec'd: 4/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Arsenic, As	100.0 ± 0.9 µg/mL
Barium, Ba	100.0 ± 0.5 µg/mL	Beryllium, Be	100.0 ± 0.7 µg/mL
Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	100.0 ± 0.5 µg/mL
Chromium, Cr	100.0 ± 0.8 µg/mL	Cobalt, Co	100.0 ± 0.6 µg/mL
Copper, Cu	100.0 ± 0.5 µg/mL	Iron, Fe	100.1 ± 0.4 µg/mL
Lead, Pb	100.0 ± 0.6 µg/mL	Manganese, Mn	100.0 ± 0.5 µg/mL
Nickel, Ni	100.0 ± 0.6 µg/mL	Selenium, Se	100.0 ± 0.7 µg/mL
Silver, Ag	39.99 ± 0.18 µg/mL	Strontium, Sr	100.0 ± 0.4 µg/mL
Thallium, Tl	100.0 ± 0.6 µg/mL	Thorium, Th	100.0 ± 0.5 µg/mL
Uranium, U	100.0 ± 0.5 µg/mL	Vanadium, V	100.0 ± 0.5 µg/mL
Zinc, Zn	100.0 ± 0.5 µg/mL		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Sr	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.24 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 21, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- April 21, 2025

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Michael J Booth

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Paul R Gaines

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211229A AU 2ND SOURCE		
Standard Name	Au 2nd source Stock	Type:	Primary
Date Prepared	12/29/2021	BY:	Amanda E. McDani
Date Expires:	12/29/2022		
Department	ME	Status:	Open
Vendor:	SCP Science		
Lot Number:	S211129013		
Balance ID:			
Comments:	opened 12/29/2021; expires 12/29/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

ID #: 14710
Opened:
ICP/ICPMS Standard Gold
Expires: 12/31/2023
Rec'd: 12/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

SCP SCIENC
Providing Innovative Solutions to Analytical

Certificate of Analysis

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml

Au

Catalogue Number: 140-052-790/-791/-795
Starting Material: Gold Metal 99.99+%
Lot Number: **S211129013**
Matrix: 10% HCl (See Section 3 for actual matrix)
Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1001 µg/ml +/- 4 µg/ml**
982 µg/g +/- 4 µg/g

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.019 g/ml @ 22.4 °C**
Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	**0.3851**	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	**0.0062**	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	**0.0434**	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	**0.0048**	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	**0.0362**	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	**0.0029**	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	**0.0023**	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	**0.0070**	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter **SCP SCIENCE**.*

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité **enregistré** à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: **SCP SCIENCE (Corporate Headquarters)** operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est **accréditée** ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Fax: +33 (0) 1 60 92 05 67

GERMANY
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Marktoberdorf
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Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID:	ME220110 CE, LA PRIMARY		
Standard Name	Ce, La Primary	Type:	Secondary
Date Prepared	1/10/2022	BY:	Amanda E. McDani
Date Expires:	1/6/2023		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	M2-CE657768/M2-		
Balance ID:			

Comments: Used to make standards and spiking solutions; No primary La available

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	39.5	mL	6/1/2100

Final Volume: 50 mL

Stock Source		**Base Units**	**Amount Added**
ME220106-CE	Ce Primary Stock	ug/mL	5 mL

Analytes	**CAS**	Conc:	**ug/mL**

Page:*1 of 1*

Energy Laboratories Inc

Standard LOG

Standard ID:	ME220112 50 PPB STANDARD_CCV		
Standard Name	50 ppb Standard/CCV	Type:	Secondary
Date Prepared	1/12/2022	BY:	Cindy Rohrer
Date Expires:	11/18/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:			
Balance ID:			
Comments:	Made Fresh Daily		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
100 mL

Stock Source		**Base Units**	**Amount Added**
ME211221 MSCAL	MSCAL 3C	ug/mL	0.05 mL
ME211118 MSCAL	EL-MSCAL-5A	ug/mL	0.25 mL
ME220105 HgPrim	Primary Hg Stock 2 PPM	ug/mL	0.05 mL
ME211208 MSCAL	MSCAL 2B	ug/mL	0.05 mL
ME211229A AU 2n	Au 2nd source Stock	ug/mL	0.01 mL
ME220110 Ce, La	Ce, La Primary	ug/mL	0.05 mL

Analytes	**CAS**	Conc:	**mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211221 MSCAL 3C		
Standard Name	MSCAL 3C	Type:	Primary
Date Prepared	12/21/2021	BY:	Stacy R. Hendricks
Date Expires:	12/21/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	S2-MEB700780		
Balance ID:			
Comments:	Opened 12/21/21; expires 12/21/22		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13473	250	mL	12/21/2022

Final Volume:
250 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

INORGANIC VENTURES

CERTIFICATE OF ANALYSIS

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	EL-MSCAL-3C
Lot Number:	S2-MEB700780
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	400 µg/mL ea: Silicon, 100 µg/mL ea: Tin, Molybdenum, Titanium, Antimony

1-6-2025

ID #: 13473
Opened:_____
Multi Analyte Custom Grade Solution
Expires: 1/6/2025
Rec'd: 1/15/2021
Energy Laboratories Inc 1120 So 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.8 µg/mL	Molybdenum, Mo	100.0 ± 0.6 µg/mL
Silicon, Si	399.9 ± 3.0 µg/mL	Tin, Sn	100.0 ± 0.6 µg/mL
Titanium, Ti	100.0 ± 0.7 µg/mL		

Density: 1.018 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 06, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- January 06, 2025

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211118 MSCAL-5A		
Standard Name	EL-MSCAL-5A	Type:	Primary
Date Prepared	11/18/2021	BY:	Stacy R. Hendricks
Date Expires:	11/18/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	P2-MEB687200		
Balance ID:			
Comments:	Opened 11/18/2021; Expires 11/18/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13175	500	mL	11/18/2022

Final Volume:
500 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	EL-MSCAL-5A
Lot Number:	P2-MEB687200
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 500 µg/mL ea: Phosphorus, Iron, 250 µg/mL ea: Lithium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Calcium, Ca	5 000 ± 20 µg/mL	Iron, Fe	499.9 ± 2.1 µg/mL
Lithium, Li	250.0 ± 1.1 µg/mL	Magnesium, Mg	5 000 ± 21 µg/mL
Phosphorus, P	499.8 ± 2.5 µg/mL	Potassium, K	5 000 ± 18 µg/mL
Sodium, Na	5 000 ± 18 µg/mL		

Density: 1.076 g/mL (measured at 20 ± 4 °C)

Assay Information:

ID #: 13175
Opened:
Multi Analyte Custom Grade Solution
Expires: 12/2/2023
Rec'd: 10/12/2020
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed outer bag.

- While stored in the sealed outer bag, transpiration of this CRM/RM is negligible. After opening the sealed outer bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed outer bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; Inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 02, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- December 02, 2023

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed outer Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control

Michael J Booth

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

Paul R Gaines

Energy Laboratories Inc

Spike LOG

Standard ID:	ME220105 HGPRIMARY		
Standard Name	Primary Hg Stock 2 PPM	Type:	Secondary
Date Prepared	1/5/2022	BY:	Amanda E. McDani
Date Expires:	12/29/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:			
Balance ID:			

Comments: Made with different HG stock than QCS

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027

Final Volume: 25 mL

Stock Source		**Base Units**	**Amount Added**
ME220110HG	HG Stock	ug/mL	0.05 mL
ME211229A AU 2N	Au 2nd source Stock	ug/mL	0.05 mL

Analytes	**CAS**	Conc:	**ug/mL**

Energy Laboratories Inc

Standard LOG

Standard ID:	ME220110HG		
Standard Name	HG Stock	Type:	Primary
Date Prepared	1/10/2022	BY:	Amanda E. McDani
Date Expires:	1/10/2023		
Department	ME	Status:	Open
Vendor:	SCP Science		
Lot Number:	S210729017		
Balance ID:			

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Mercury	14711	125	mL	1/10/2023

Final Volume:
125 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

ID #: 14711
Opened:
ICP/ICPMS Standard Mercury
Expires: 7/31/2023
Rec'd: 12/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

SCP SCIENCE
Providing Innovative Solutions to Analytical Chemists

rtificate of Analysis

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Mercury 1000 µg/ml

Catalogue Number: 140-051-800/-801/-805
Starting Material: Mercury(II) oxide 99.99+%
Lot Number: **S210729017**
Matrix: 10% HNO_3 (See Section 3 for actual matrix)
Expiration Date (End of month): **July 2023** (or 15 months after bottle is opened, whichever comes first)

Hg

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **999 µg/ml +/- 5 µg/ml**
952 µg/g +/- 5 µg/g
Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
Traceability: NIST Standard Reference Material 3133 Lot: **160921**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.050 g/ml @ 23.6 °C**
Actual Matrix: **10.0% (v/v) HNO_3**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	**0.0322**	Nd	<0.0010	Sn	<0.0010
Al	**0.0042**	Ga	<0.0010	Ni	**0.0039**	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	N/A	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	**0.0117**
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	**0.0112**	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	**0.0060**	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	**0.0092**	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
Certification Date: August 12, 2021

Daniel Boisvert

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter **SCP SCIENCE**.*

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité **enregistré** à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: **SCP SCIENCE (Corporate Headquarters)** operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est **accréditée** ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : **SCP SCIENCE (Corporate Headquarters)** is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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GERMANY
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Marktoberdorf
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Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211229A AU 2ND SOURCE		
Standard Name	Au 2nd source Stock	Type:	Primary
Date Prepared	12/29/2021	BY:	Amanda E. McDani
Date Expires:	12/29/2022		
Department	ME	Status:	Open
Vendor:	SCP Science		
Lot Number:	S211129013		
Balance ID:			
Comments:	opened 12/29/2021; expires 12/29/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

ID #: 14710
Opened:
ICP/ICPMS Standard Gold
Expires: 12/31/2023
Rec'd: 12/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

SCP SCIENC
Providing Innovative Solutions to Analytical

Certificate of Analysis

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml

Au

Catalogue Number: 140-052-790/-791/-795
Starting Material: Gold Metal 99.99+%
Lot Number: **S211129013**
Matrix: 10% HCl (See Section 3 for actual matrix)
Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1001 µg/ml +/- 4 µg/ml**
982 µg/g +/- 4 µg/g

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.019 g/ml @ 22.4 °C**
Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	**0.3851**	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	**0.0062**	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	**0.0434**	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	**0.0048**	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	**0.0362**	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	**0.0029**	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	**0.0023**	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	**0.0070**	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter **SCP SCIENCE**.*

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité **enregistré** à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: **SCP SCIENCE (Corporate Headquarters)** operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est **accréditée** ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Marktoberdorf
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Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211208 MSCAL2B		
Standard Name	MSCAL 2B	Type:	Primary
Date Prepared	12/8/2021	BY:	Stacy R. Hendricks
Date Expires:	12/8/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	S2-MEB704403		
Balance ID:			
Comments:	Opened 12/08/2021; Expires 12/08/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13793		mL	12/8/2022

Final Volume: mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	EL-MSCAL-2B
Lot Number:	S2-MEB704403
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	100 µg/mL ea:

Aluminum, Arsenic,
Boron, Barium,
Beryllium, Cadmium,
Cobalt, Chromium,
Copper, Iron,
Manganese, Nickel,
Lead, Selenium,
Strontium, Thorium,
Thallium, Uranium,
Vanadium, Zinc,

40 µg/mL ea:
Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ID #: 13793
Opened:
Multi Analyte Custom Grade Solution
Expires: 4/21/2025
Rec'd: 4/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Arsenic, As	100.0 ± 0.9 µg/mL
Barium, Ba	100.0 ± 0.5 µg/mL	Beryllium, Be	100.0 ± 0.7 µg/mL
Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	100.0 ± 0.5 µg/mL
Chromium, Cr	100.0 ± 0.8 µg/mL	Cobalt, Co	100.0 ± 0.6 µg/mL
Copper, Cu	100.0 ± 0.5 µg/mL	Iron, Fe	100.1 ± 0.4 µg/mL
Lead, Pb	100.0 ± 0.6 µg/mL	Manganese, Mn	100.0 ± 0.5 µg/mL
Nickel, Ni	100.0 ± 0.6 µg/mL	Selenium, Se	100.0 ± 0.7 µg/mL
Silver, Ag	39.99 ± 0.18 µg/mL	Strontium, Sr	100.0 ± 0.4 µg/mL
Thallium, Tl	100.0 ± 0.6 µg/mL	Thorium, Th	100.0 ± 0.5 µg/mL
Uranium, U	100.0 ± 0.5 µg/mL	Vanadium, V	100.0 ± 0.5 µg/mL
Zinc, Zn	100.0 ± 0.5 µg/mL		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Sr	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.24 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 21, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- April 21, 2025

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Michael J Booth

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Paul R Gaines

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211229A AU 2ND SOURCE		
Standard Name	Au 2nd source Stock	Type:	Primary
Date Prepared	12/29/2021	BY:	Amanda E. McDani
Date Expires:	12/29/2022		
Department	ME	Status:	Open
Vendor:	SCP Science		
Lot Number:	S211129013		
Balance ID:			
Comments:	opened 12/29/2021; expires 12/29/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

ID #: 14710
Opened:
ICP/ICPMS Standard Gold
Expires: 12/31/2023
Rec'd: 12/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

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Certificate of Analysis

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml

Au

Catalogue Number: 140-052-790/-791/-795
Starting Material: Gold Metal 99.99+%
Lot Number: **S211129013**
Matrix: 10% HCl (See Section 3 for actual matrix)
Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1001 µg/ml +/- 4 µg/ml**
982 µg/g +/- 4 µg/g

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.019 g/ml @ 22.4 °C**
Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	**0.3851**	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	**0.0062**	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	**0.0434**	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	**0.0048**	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	**0.0362**	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	**0.0029**	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	**0.0023**	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	**0.0070**	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter **SCP SCIENCE**.*

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité **enregistré** à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: **SCP SCIENCE (Corporate Headquarters)** operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est **accréditée** ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Alte Marktoberdorfer Straße 14, 87616
Marktoberdorf

Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID:	ME220110 CE, LA PRIMARY		
Standard Name	Ce, La Primary	Type:	Secondary
Date Prepared	1/10/2022	BY:	Amanda E. McDani
Date Expires:	1/6/2023		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	M2-CE657768/M2-		
Balance ID:			

Comments: Used to make standards and spiking solutions; No primary La available

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	39.5	mL	6/1/2100

Final Volume: 50 mL

Stock Source		**Base Units**	**Amount Added**
ME220106-CE	Ce Primary Stock	ug/mL	5 mL

Analytes	**CAS**	Conc:	**ug/mL**

Energy Laboratories Inc

Standard LOG

Standard ID:	ME220112 10 PPB STANDARD		
Standard Name	10 ppb Standard	Type:	Secondary
Date Prepared	1/12/2022	BY:	Cindy Rohrer
Date Expires:	11/18/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:			
Balance ID:			
Comments:	Made Fresh Daily		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source	**Base Units**	**Amount Added**
ME220112 100 PP 100 ppb Standard	ug/mL	5 mL

Analytes	**CAS**	Conc:	**mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID:	ME220112 1 PPB STANDARD		
Standard Name	1 ppb Standard	Type:	Secondary
Date Prepared	1/12/2022	BY:	Cindy Rohrer
Date Expires:	11/18/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:			
Balance ID:			
Comments:	Made Fresh Daily		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source	**Base Units**	**Amount Added**
ME220112 10 PPB 10 ppb Standard	ug/mL	5 mL

Analytes	**CAS**	Conc:	**mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID:	ME220112 0.5 PPB STANDARD		
Standard Name	0.5 ppb Standard	Type:	Secondary
Date Prepared	1/12/2022	BY:	Cindy Rohrer
Date Expires:	11/18/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:			
Balance ID:			
Comments:	Made Fresh Daily		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source	**Base Units**	**Amount Added**
ME220112 10 PPB 10 ppb Standard	ug/mL	2.5 mL

Analytes	**CAS**	Conc:	**mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID:	ME220112 0.1 PPB STANDARD		
Standard Name	0.1 ppb Standard	Type:	Secondary
Date Prepared	1/12/2022	BY:	Cindy Rohrer
Date Expires:	11/18/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:			
Balance ID:			
Comments:	Made Fresh Daily		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source		**Base Units**	**Amount Added**
ME220112 1 PPB	1 ppb Standard	ug/mL	5 mL

Analytes	**CAS**	Conc:	**mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID:	ME220112 0.05 PPB STANDARD		
Standard Name	0.5 ppb Standard	Type:	Secondary
Date Prepared	1/12/2022	BY:	Cindy Rohrer
Date Expires:	11/18/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:			
Balance ID:			
Comments:	Made Fresh Daily		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source		**Base Units**	**Amount Added**
ME220112 0.5 PP	0.5 ppb Standard	ug/mL	5 mL

Analytes	**CAS**	Conc:	**mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID:	ME220112 0.025 PPB STANDARD		
Standard Name	0.025 ppb Standard	Type:	Secondary
Date Prepared	1/12/2022	BY:	Cindy Rohrer
Date Expires:	11/18/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:			
Balance ID:			
Comments:	Made Fresh Daily		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source		**Base Units**	**Amount Added**
ME220112 0.5 PP	0.5 ppb Standard	ug/mL	2.5 mL

Analytes	**CAS**	Conc:	**mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME211206 ICV STANDARD
Standard Name ICV for ICPMS Standards
Date Prepared 12/6/2021
Date Expires: 4/30/2022
Department
Vendor:
Lot Number:
Balance ID:

Type: Secondary
BY: Stacy R. Hendricks
Status: Open

Comments: Made fresh daily

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Hydrochloric Acid Instra Analyzed 000	14028	1	mL	3/29/
Nitric Acid Instra Analyzed 000028856	14572	2	mL	6/28/
Milli-Q H2O	391		mL	6/1/2

Final Volume: 100 mL

Stock Source		Base Units	Amount Added
ME210211 U Seco	U 2' QCS	ug/mL	0.05 mL
ME211206 Th QC	Th QCS Stock	ug/mL	0.05 mL
ME210901 Hg Sec	Secondary Hg Stock 2 PPM	ug/mL	0.05 mL
ME211124 EL-MSI	EL-MSICV-2	ug/mL	0.05 mL
ME210817 ICV-1A	EL-MSICV-1A	ug/mL	0.05 mL
ME210903 Ce, La	Ce, La Secondary solution	ug/mL	0.05 mL

Analytes	CAS	Conc:	mg/L

Energy Laboratories Inc

Spike LOG

Standard ID: ME210211 U SECOND SOURCE
Standard Name U 2' QCS
Date Prepared 2/11/2021
Date Expires: 4/30/2022
Department ME
Vendor:
Lot Number:
Balance ID:

Type: Secondary
BY: Alyssa A. Olson
Status: Open

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid Instra Analyzed 0000264786	13061	0.25	mL	5/12/2025
Milli-Q H2O	391	22.25	mL	6/1/2100

Final Volume:
25 mL

Stock Source		**Base Units**	**Amount Added**
ME200624A	U Stock	ug/mL	2.5 mL

Analytes	**CAS**	Conc:	**ug/mL**

Energy Laboratories Inc

Standard LOG

Standard ID: ME200624A
Standard Name U Stock
Date Prepared 6/24/2020
Date Expires: 4/30/2022
Department ME
Vendor: SCP Science
Lot Number: S200422002
Balance ID:

Type: Primary
BY: Ron Hunt

Status: Empty/Disposed

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
PlasmaCal Standard Uranium	12767	500	mL	4/30/

Final Volume: 500 mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**
A Uranium	7440-61-1	1000

Page: *1 of 1*

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Certificate of Analysis

1.0 DESCRIPTION: ***Plasma*CAL ICP/ICPMS Standard - Uranium 1000 µg/ml**

Catalogue Number: 140-051-920/-921/-925

Starting Material: Uranyl Nitrate 99.99%

Lot Number: **S200422002**

Matrix: 4% HNO_3 (See Section 3 for actual matrix)

Expiration Date (End of month): **April 2022** (or 15 months after bottle is opened, whichever comes first)

U

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1003 µg/ml +/- 4 µg/ml**

983 µg/g +/- 4 µg/g

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3164 Lot: **080521**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

ID #: 12767
Opened:
PlasmaCal Standard Uranium
Expires: 4/30/2022
Rec'd: 6/15/2020
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 REFERENCE VALUES:

Density: **1.020 g/ml @ 21.7 °C**

Actual Matrix: **4.0% (v/v) HNO_3**

% abundance of stable isotopes : ^{238}U : 99.79% ; ^{235}U : 0.21%

Note : The uranyl nitrate comes from a depleted source of uranium.

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	<0.0010	Sn	<0.0010
Al	**0.0073**	Ga	<0.0010	Ni	**0.0038**	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	*	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0026	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0031
Ba	<0.0010	Hg	*	Pd	<0.0010	Th	**0.0020**
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	<0.0011
Ca	**0.0340**	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	N/A
Ce	<0.0010	La	*	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	<1.0000	Y	**0.0049**
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	<0.0010	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	*	Zr	<0.0010
Er	<0.0010	Na	<0.0010	Si	<1.0000		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: April 28, 2020

Daniel Boisvert

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter **SCP SCIENCE**.*

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité **enregistré** à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est **accréditée** ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Energy Laboratories Inc

Spike LOG

Standard ID: ME211206 TH QCS STOCK
Standard Name Th QCS Stock
Date Prepared 12/6/2021
Date Expires: 10/25/2022
Department ME
Vendor:
Lot Number:
Balance ID:

Type: Secondary
BY: Stacy R. Hendricks
Status: Open

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Nitric Acid Instra Analyzed 000028856	14572	0.25	mL	6/28/
Milli-Q H2O	391	22.25	mL	6/1/2

Final Volume: 25 mL

Stock Source	**Base Units**	**Amount Added**
ME 211025 Th Sec Th Seondary Stock	ug/mL	2.5 mL

Analytes	**CAS**	Conc:	**ug/mL**

Energy Laboratories Inc

Standard LOG

Standard ID:	ME 211025 TH SECONDARY STOCK		
Standard Name	Th Seondary Stock	Type:	Primary
Date Prepared	10/25/2021	BY:	Stacy R. Hendricks
Date Expires:	10/25/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	S2-TH706436		
Balance ID:			
Comments:	Opened 10/25/2021; Expires 10/25/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Thorium Single Analyte Custom Grade Sol	14318	125	mL	10/25/2022

Final Volume:
500 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

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Christiansburg, VA 24073 USA
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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTH1
Lot Number:	S2-TH706436
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Thorium
Starting Material:	TH(NO3)4*4H2O
Starting Material Lot#:	2250
Starting Material Purity:	99.9905%

ID #: 14318
Opened:
Thorium Single Analyte Custom Grade Solutic
Expires: 7/4/2025
Rec'd: 9/24/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 4 µg/mL

Density: 1.026 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1001 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #2 **1001 ± 6 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag <	0.000448	M	Eu <	0.000224	O	Na	0.064077	M	Se <	0.005827	M	Zn	0.003183
O	Al	0.010962	M	Fe	0.012392	M	Nb <	0.003138	i	Si <		M	Zr <	0.010310
M	As <	0.038776	M	Ga <	0.004931	M	Nd	0.004697	M	Sm	0.000871			
M	Au <	0.000224	M	Gd	0.000300	M	Ni <	0.006724	M	Sn <	0.028242			
M	B <	0.021293	M	Ge <	0.008965	M	Os <	0.000224	M	Sr	0.002582			
M	Ba	0.001317	M	Hf <	0.000224	i	P <		M	Ta <	0.001344			
M	Be <	0.000224	M	Hg <	0.000448	M	Pb	0.003287	M	Tb <	0.001793			
M	Bi <	0.001793	M	Ho <	0.001344	M	Pd <	0.000448	M	Te <	0.010086			
O	Ca	0.051969	M	In	0.000134	M	Pr	0.001202	s	Th <				
M	Cd <	0.001344	M	Ir <	0.000224	M	Pt <	0.000224	M	Ti <	0.004258			
M	Ce	0.015420	O	K	0.028928	M	Rb <	0.005155	M	Tl <	0.000224			
M	Co <	0.001344	M	La	0.003577	M	Re <	0.000224	M	Tm <	0.000224			
M	Cr <	0.015465	M	Li <	0.000448	M	Rh <	0.000224	M	U	0.006564			
M	Cs <	0.013896	M	Lu <	0.000224	M	Ru <	0.000224	M	V <	0.001793			
M	Cu	0.001472	O	Mg	0.027914	i	S <		M	W <	0.000224			
M	Dy	0.000197	M	Mn	0.001814	M	Sb <	0.004931	M	Y	0.000860			
M	Er <	0.002241	M	Mo <	0.000896	M	Sc <	0.000672	M	Yb <	0.000224			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 232.04 +4 8 Th(OH) 3+ and Th(OH)22+

Chemical Compatibility -Soluble in HCl, and HNO3. Avoid H3PO4, H2SO4 and HF although solubilities may not be a problem depending upon pH and matrix (For example: ThF4 is soluble in acids). Avoid neutral to basic media. Th4+ is stable with most metals and inorganic anions forming an insoluble carbonate, oxide, fluoride, oxalate, sulfate and phosphate in neutral to slightly acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Th Containing Samples (Preparation and Solution) -Metal (Soluble in Aqua Regia); Oxide (The heated oxide is not soluble in acids except hot conc. H2SO4); Ores (Na2O2 fusion at 480 ± 20EC for 7 minutes, cool and treat sintered mass with 50 mL cold water and stand until disintegrated. The mass is transferred to a beaker and acidified with HCl with 25 mL excess HCl added. Any residue is collected on a Whatman No. 42 filter, dried and ignited to 1000 EC in Pt0 crucible and the ash treated with H2SO4 / HF and fumed. If residue remains, then treat it by peroxide fusion as above.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 232 amu	1 ppt	N/A	
ICP-OES 274.716 nm	0.08 / 0.008 µg/mL	1	Ti, Ta, Fe, V
ICP-OES 283.231 nm	0.07 / 0.007 µg/mL	1	U, Mo, Ti, Fe, Cr
ICP-OES 283.730 nm	0.07 / 0.007 µg/mL	1	U, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 04, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 04, 2025

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Michael J Booth

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Paul R Gaines

Energy Laboratories Inc

Spike LOG

Standard ID: ME210901 HG SECOND SOURCE
Standard Name Secondary Hg Stock 2 PPM
Date Prepared 9/1/2021
Date Expires: 7/26/2022
Department ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:

Type: Secondary
BY: Alyssa A. espinoza
Status: Open

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Nitric Acid, 69.0-70.0%,0000282671	14178	0.1	mL	4/11/
Hydrochloric Acid Instra Analyzed 000	14028	0.05	mL	3/29/

Final Volume: 50 mL

Stock Source		**Base Units**	**Amount Added**
ME210726	Hg Secondary Source	ug/mL	0.1 mL

Analytes	**CAS**	Conc:	**ug/mL**

Page: *1 of 1*

Energy Laboratories Inc

Spike LOG

Standard ID: ME210726
Standard Name Hg Secondary Source
Date Prepared 7/26/2021
Date Expires: 7/26/2022
Department
Vendor:
Lot Number:
Balance ID:

Type:
BY: Jordan A. Gjerde
Status: New

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Mercury Single Analyte Custom Grade	13979	120	mL	7/26/

Final Volume: mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

Page: *1 of 1*

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 - USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.2799 - 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 — ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGHG1
Lot Number:	R2-HG696409
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9994%

ID #: 13979
Opened:
Mercury Single Analyte Custom Grade Solutic
Expires: 9/15/2024
Rec'd: 6/23/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 3 µg/mL

Density: 1.026 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 — **1004 ± 8 µg/mL**
ICP Assay NIST SRM 3133 Lot Number: 160921

Assay Method #2 — **1003 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 — **1001 ± 3 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Ag		0.001159	M	Eu	<	0.000201	O	Na		0.000435	M	Se	<	0.015915	O	Zn	<	0.001510
O	Al		0.000090	O	Fe		0.000113	M	Nb	<	0.000201	O	Si		0.000525	M	Zr	<	0.000201
M	As	<	0.000402	M	Ga	<	0.000201	M	Nd	<	0.000201	M	Sm	<	0.000201				
M	Au	<	0.003631	M	Gd	<	0.000201	M	Ni	<	0.000402	M	Sn	<	0.001007				
M	B	<	0.001208	M	Ge	<	0.000201	M	Os	<	0.000605	M	Sr	<	0.000201				
M	Ba	<	0.000201	M	Hf	<	0.000201	O	P	<	0.032370	M	Ta	<	0.000201				
M	Be	<	0.000201	s	Hg	<		M	Pb	<	0.000201	M	Tb	<	0.000201				
M	Bi	<	0.000201	M	Ho	<	0.000201	M	Pd	<	0.000403	M	Te	<	0.002216				
O	Ca		0.000746	M	In	<	0.000201	M	Pr	<	0.000201	M	Th	<	0.000201				
M	Cd	<	0.000201	M	Ir	<	0.000201	M	Pt	<	0.000402	M	Ti	<	0.000402				
M	Ce	<	0.000201	O	K		0.002007	M	Rb	<	0.000201	O	Tl	<	0.016508				
M	Co	<	0.000201	M	La	<	0.000201	M	Re	<	0.000201	M	Tm	<	0.000201				
O	Cr	<	0.003021	O	Li	<	0.000107	M	Rh	<	0.000201	M	U	<	0.008058				
M	Cs	<	0.001208	M	Lu	<	0.000201	M	Ru	<	0.000201	M	V	<	0.000201				
M	Cu	<	0.000402	O	Mg		0.000096	O	S	<	0.053950	M	W	<	0.000604				
M	Dy	<	0.000201	M	Mn	<	0.000604	M	Sb	<	0.001208	M	Y	<	0.000201				
M	Er	<	0.000201	M	Mo		0.000971	M	Sc	<	0.000201	M	Yb	<	0.000201				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59 +2 4 Hg(OH)(aq) 1+

Chemical Compatibility - Stable in HNO3. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

Stability - 2-100 ppb levels not stable in 1% HNO3 / LDPE container, stable in 10% HNO3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO3 / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO3); Oxide (Soluble in HNO3); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th ,Rh , Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 15, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **September 15, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211124 EL-MSICV-2		
Standard Name	EL-MSICV-2	Type:	Primary
Date Prepared	11/24/2021	BY:	Amanda E. McDani
Date Expires:	11/24/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:			
Balance ID:			

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Multi Analyte Custom Grade Solution	14023	500	mL	11/24

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 - USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 - 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	EL-MSICV-2
Lot Number:	R2-MEB696849
Matrix:	3% (v/v) HNO_3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Silicon, 100 µg/mL ea: Tin, Titanium, Molybdenum, Antimony

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.6 µg/mL	Molybdenum, Mo	100.0 ± 0.5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	99.9 ± 0.4 µg/mL
Titanium, Ti	99.9 ± 0.6 µg/mL		

Density: 1.019 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	070330
Sn	Calculated		See Sec. 4.2
Ti	ICP Assay	3162a	130925

The follow ing equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

ID #: 14023
Opened:
Multi Analyte Custom Grade Solution
Expires: 9/14/2024
Rec'd: 7/7/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 14, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 14, 2024

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Michael J Booth

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Paul R Gaines

Energy Laboratories Inc

Standard LOG

Standard ID:	ME210817 ICV-1A		
Standard Name	EL-MSICV-1A	Type:	Primary
Date Prepared	8/17/2021	BY:	Alyssa A. espinoza
Date Expires:	8/17/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	R2-MEB688457		
Balance ID:			
Comments:	Opened 8/17/2021; Expires 8/17/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Multi Analyte Custom Grade Solution	13475	500	mL	8/17/

Final Volume: 500 mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**

INORGANIC VENTURES™
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Callbration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	EL-MSICV-1A
Lot Number:	R2-MEB688457
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium,
	1 000 µg/mL ea: Phosphorus,
	500 µg/mL ea: Manganese, Iron, Aluminum,
	100 µg/mL ea: Arsenic, Boron, Barium, Cobalt, Chromium, Copper, Lithium, Nickel, Lead, Selenium, Strontium, Thallium, Vanadium, Zinc,
	50 µg/mL ea: Silver, Cadmium, Beryllium

ID #: 13475
Opened:_____
Multi Analyte Custom Grade Solution
Expires: 1/10/2024
Rec'd: 1/15/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	500.3 ± 1.8 µg/mL	Arsenic, As	100.0 ± 0.8 µg/mL
Barium, Ba	99.9 ± 0.4 µg/mL	Beryllium, Be	49.96 ± 0.33 µg/mL
Boron, B	100.0 ± 0.6 µg/mL	Cadmium, Cd	50.10 ± 0.22 µg/mL
Calcium, Ca	5 001 ± 20 µg/mL	Chromium, Cr	100.0 ± 0.6 µg/mL
Cobalt, Co	100.0 ± 0.5 µg/mL	Copper, Cu	100.1 ± 0.4 µg/mL
Iron, Fe	499.7 ± 2.1 µg/mL	Lead, Pb	100.1 ± 0.4 µg/mL
Lithium, Li	100.0 ± 0.4 µg/mL	Magnesium, Mg	5 000 ± 21 µg/mL
Manganese, Mn	499.8 ± 1.9 µg/mL	Nickel, Ni	100.1 ± 0.4 µg/mL
Phosphorus, P	1 000 ± 5 µg/mL	Potassium, K	5 000 ± 18 µg/mL
Selenium, Se	100.1 ± 0.8 µg/mL	Silver, Ag	50.02 ± 0.22 µg/mL
Sodium, Na	5 000 ± 18 µg/mL	Strontium, Sr	100.1 ± 0.4 µg/mL
Thallium, Tl	100.0 ± 0.7 µg/mL	Vanadium, V	99.9 ± 0.5 µg/mL
Zinc, Zn	100.0 ± 0.4 µg/mL		

Density: 1.098 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	EDTA	928	928
Co	ICP Assay	traceable to 3113	M2-CO661665
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	3153a	990906
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method I with standard uncertainty $u_{char\ I}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ I})^2 / (\Sigma(1/(u_{char\ I})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ I})^2)]^{1/2}$ where $u_{char\ I}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed outer bag.

- While stored in the sealed outer bag, transpiration of this CRM/RM is negligible. After opening the sealed outer bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed outer bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 10, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- January 10, 2024

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

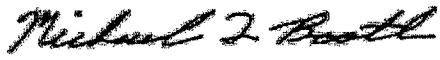
- Sealed outer Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

Energy Laboratories Inc

Standard LOG

Standard ID:	ME210903 CE, LA SECONDARY		
Standard Name	Ce, La Secondary solution	Type:	Secondary
Date Prepared	9/3/2021	BY:	Parker A. Pearsall
Date Expires:	5/25/2022		
Department	ME	Status:	Open
Vendor:			
Lot Number:			
Balance ID:			
Comments:	Second Source Stock Solution		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Nitric Acid Instra Analyzed 000020579	10902	0.5	mL	7/1/2
Milli-Q H2O	391	39.5	mL	6/1/2

Final Volume: 50 mL

Stock Source		**Base Units**	**Amount Added**
ME210903 La Sec	La Secondary Stock	ug/mL	5 mL
ME210525 Ce 2nd	Ce Secondary Stock	ug/mL	5 mL

Analytes	**CAS**	Conc:	**ug/mL**

Energy Laboratories Inc

Standard LOG

Standard ID:	ME210903 LA SECOND SOURCE		
Standard Name	La Secondary Stock	Type:	Primary
Date Prepared	9/3/2021	BY:	Alyssa A. espinoza
Date Expires:	9/3/2022		
Department	ME	Status:	Open
Vendor:	SCP Science		
Lot Number:	S201029004		
Balance ID:			
Comments:	Opened 9/3/2021; Expires 9/3/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Lanthanum PlasmaCal Standard	14019	125	mL	9/3/2022

Final Volume:
mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

SCP SCIENCE

Providing Innovative Solutions to Analytical Chemists

Certificate of Analysis

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Lanthanum 1000 µg/ml

Catalogue Number: 140-051-570/-571/-575

Starting Material: Lanthanum(III) Oxide 99.99+%

Lot Number: **S201029004**

Matrix: 4% HNO_3 (See Section 3 for actual matrix)

Expiration Date (End of month): **November 2022** (or 15 months after bottle is opened, whichever comes first)

La

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1005 µg/ml +/- 4 µg/ml**

985 µg/g +/- 4 µg/g

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3127a Lot: **151030**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

ID #: 14019
Opened:_____
Lanthanum PlasmaCal Standard
Expires: 11/30/2022
Rec'd: 7/6/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 REFERENCE VALUES:

Density: **1.020 g/ml @ 23.4 °C**

Actual Matrix: **4.0% (v/v) HNO_3**

Trace Metal Impurities as tested by ICP-AES:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0049	Fe	<0.0102	Nd	<0.1595	Sn	<0.0307
Al	<0.0280	Ga	<0.0260	Ni	<0.0139	Sr	<0.0004
As	<0.0525	Gd	<0.0685	Os	*	Ta	<0.0635
Au	<0.0085	Ge	<0.0548	P	<0.0104	Tb	<0.0146
B	<0.2535	Hf	<0.0339	Pb	<0.2460	Te	<0.4025
Ba	<0.0025	Hg	*	Pd	<0.1410	Th	<0.0471
Be	<0.0022	Ho	<0.0065	Pr	<0.0274	Ti	<0.0013
Bi	<0.0780	In	<0.0105	Pt	<0.0533	Tl	<0.5600
Ca	**0.0164**	Ir	<0.0243	Rb	*	Tm	<0.0105
Cd	<0.0048	K	<0.0128	Re	<0.0076	U	<0.2490
Ce	<0.0393	La	N/A	Rh	<0.0163	V	<0.0049
Co	<0.0224	Li	<0.0006	Ru	<0.0304	W	<0.0443
Cr	<0.0063	Lu	<0.0021	S	<0.0515	Y	<0.0033
Cs	*	Mg	<0.0045	Sb	<0.0197	Yb	<0.0057
Cu	<0.0040	Mn	<0.0018	Sc	<0.0055	Zn	<0.0045
Dy	<0.0043	Mo	<0.0229	Se	<0.0249	Zr	<0.0061
Er	<0.0070	Na	<0.0038	Si	<0.0455		
Eu	<0.0086	Nb	<0.0112	Sm	<0.1105	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: November 04, 2020

Daniel Boisvert

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter* ***SCP SCIENCE***.

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité* ***enregistré*** *à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)*** *est* ***accréditée*** *ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)*** *est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Villebon sur Yvette, France
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Fax: +33 (0) 1 60 92 05 67

GERMANY
Alte Marktoberdorfer Straße 14, 87616
Marktoberdorf

Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID:	ME210525 CE 2ND SOURCE		
Standard Name	Ce Secondary Stock	Type:	Primary
Date Prepared	5/25/2021	BY:	Stacy R. Hendricks
Date Expires:	5/25/2022		
Department	ME	Status:	Empty/Disposed
Vendor:	SCP Science		
Lot Number:	S210208003		
Balance ID:			
Comments:	opened 5/25/2021, expires 5/25/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Cerium	13642	125	mL	5/25/2022

Final Volume:
125 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

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Certificate of Analysis

1.0 DESCRIPTION:

*Plasma*CAL ICP/ICPMS Standard - Cerium 1000 µg/ml

Catalogue Number: 140-051-580/-581/-585

Starting Material: Cerium(III) Nitrate Hexahydrate 99.99+%

Lot Number: **S210208003**

Matrix: 4% HNO_3 (See Section 3 for actual matrix)

Expiration Date (End of month): **February 2023** (or 15 months after bottle is opened, whichever comes first)

Ce

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1003 µg/ml +/- 4 µg/ml**

982 µg/g +/- 4 µg/g

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3110 Lot: **090504**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.021 g/ml @ 22.5 °C**

Actual Matrix: **4.0% (v/v) HNO_3**

Trace Metal Impurities as tested by ICP-MS:

ID #: 13642
Opened:_____
ICP/ICPMS Standard Cerium
Expires: 2/28/2023
Rec'd: 3/16/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	**0.0102**	Sn	<0.0010
Al	**0.0148**	Ga	**0.0526**	Ni	**0.0064**	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	**0.0235**	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	<0.0011
Ca	**0.0375**	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	N/A	La	<0.10	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	**0.0121**	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	<0.0010	Si	<0.10		
Eu	**0.0035**	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Yaling Sui, Chemist

Certification Date: February 22, 2021

Yaling Sui

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter* ***SCP SCIENCE***.

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. */ Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. */ La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité* ***enregistré*** *à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)*** *est* ***accréditée*** *ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. */ **SCP SCIENCE (Siège social)** est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Fax: +33 (0) 1 60 92 05 67

GERMANY
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Marktoberdorf

Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID:	ME210901 ICSA		
Standard Name	ICSA	Type:	Secondary
Date Prepared	9/1/2021	BY:	Cindy Rohrer
Date Expires:	9/1/2022		
Department	ME	Status:	Open
Vendor:			
Lot Number:			
Balance ID:			

Comments: Made fresh every Monday, Wednesday, and Friday

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Nitric Acid, 69.0-70.0%,0000282671	14178	1	mL	4/11/
Milli-Q H2O	391	46.5	mL	6/1/2
Hydrochloric Acid Instra Analyzed 000	14028	0.5	mL	3/29/

Final Volume: 50 mL

Stock Source		Base Units	Amount Added
ME210901 6020IC	6020ICS-8A	ug/mL	2 mL

Analytes	CAS	Conc:	mg/L

Page: *1 of 1*

Energy Laboratories Inc

Standard LOG

Standard ID:	ME210901 6020ICS-8A		
Standard Name	6020ICS-8A	Type:	Primary
Date Prepared	9/1/2021	BY:	Alyssa A. espinoza
Date Expires:	9/1/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	P2-MEB684490		
Balance ID:			

Comments: Opened on 9/01/2021; Expires on 9/01/2022.

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13794	500	mL	9/1/2022

Final Volume:
500 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **mg/L**

Page: *1 of 1*

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 - USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel 800.669.6899 - 540.585.3030
fax 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	6020ICS-8A
Lot Number:	R2-MEB693957
Matrix:	1% (v/v) HNO3
Value / Analyte(s):	18 000 µg/mL ea: Chloride,
	3 000 µg/mL ea: Calcium,
	2 500 µg/mL ea: Iron,
	2 000 µg/mL ea: Carbon,
	1 000 µg/mL ea: Aluminum, Sulfur, Magnesium,
	20 µg/mL ea: Molybdenum,

Sodium,

Phosphorus,
Potassium,

Titanium

ID #: 13794
Opened:
Multi Analyte Custom Grade Solution
Expires: 6/18/2024
Rec'd: 4/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	1 001 ± 4 µg/mL	Calcium, Ca	3 003 ± 12 µg/mL
Carbon, C	2 002 ± 5 µg/mL	Chloride, Cl	18 020.0 ± 90.0 µg/mL
Iron, Fe	2 502 ± 10 µg/mL	Magnesium, Mg	1 001 ± 4 µg/mL
Molybdenum, Mo	20.02 ± 0.09 µg/mL	Phosphorus, P	1 001 ± 6 µg/mL
Potassium, K	1 001 ± 4 µg/mL	Sodium, Na	2 502 ± 9 µg/mL
Sulfur, S	1 001 ± 4 µg/mL	Titanium, Ti	20.02 ± 0.12 µg/mL

Density: 1.050 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
C	Acidimetric	84L	84L
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
S	Acidimetric	84L	84L
S	ICP Assay	traceable to 3154	M2-S657208
Ti	ICP Assay	3162a	130925
Ti	Calculated		See Sec. 4.2

The follow ing equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)\,(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000110	M	Eu	<	0.000067	s	Na	<		M	Se	<	0.003300	M	Zn	0.007900
s	Al	<		s	Fe	<		M	Nb	<	0.000140	O	Si	<	0.011000	M	Zr	< 0.000770
O	As	<	0.021000	M	Ga		0.026000	M	Nd	<	0.000034	M	Sm	<	0.000034			
M	Au	<	0.000067	M	Gd	<	0.000067	O	Ni		0.002900	M	Sn	<	0.000210			
M	B	<	0.001200	M	Ge	<	0.002600	M	Os	<	0.000034	M	Sr		0.031000			
M	Ba		0.001400	M	Hf	<	0.000034	s	P	<		M	Ta	<	0.000340			
O	Be	<	0.000210	M	Hg	<	0.000140	M	Pb		0.000510	M	Tb	<	0.000034			
M	Bi	<	0.000210	M	Ho	<	0.000034	M	Pd	<	0.000110	M	Te	<	0.000670			
s	Ca	<		M	In	<	0.000067	M	Pr	<	0.000034	M	Th	<	0.000034			
O	Cd	<	0.002700	M	Ir	<	0.000034	M	Pt	<	0.000034	s	Ti	<				
M	Ce	<	0.000140	s	K	<		M	Rb		0.056000	M	Tl	<	0.000210			
M	Co	<	0.014000	M	La	<	0.000410	M	Re	<	0.000034	M	Tm	<	0.000034			
M	Cr		0.022000	O	Li		0.002500	M	Rh	<	0.000067	M	U	<	0.000034			
M	Cs		0.000970	M	Lu	<	0.000034	M	Ru	<	0.000340	M	V	<	0.000410			
M	Cu		0.009900	s	Mg	<		s	S	<		M	W		0.001800			
M	Dy	<	0.000034	M	Mn		0.005300	M	Sb		0.000640	M	Y	<	0.000034			
M	Er	<	0.000034	s	Mo	<		M	Sc	<	0.000540	M	Yb	<	0.000034			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 18, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 18, 2024

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Energy Laboratories Inc

Standard LOG

Standard ID:	ME210901 ICSAB		
Standard Name	ICSAB	Type:	Secondary
Date Prepared	9/1/2021	BY:	Cindy Rohrer
Date Expires:	9/1/2022		
Department	ME	Status:	Open
Vendor:			
Lot Number:			
Balance ID:			

Comments: Made fresh every Monday, Wednesday, and Friday

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Nitric Acid, 69.0-70.0%,0000282671	14178	1	mL	4/11/
Milli-Q H2O	391	46.45	mL	6/1/2
Hydrochloric Acid Instra Analyzed 000	14028	0.5	mL	3/29/

Final Volume: 50 mL

Stock Source		**Base Units**	**Amount Added**
ME210901 6020IC	6020ICS-8A	ug/mL	2 mL
ME 210901 6020IC	6020ICS-9B	ug/mL	0.05 mL

Analytes	**CAS**	Conc:	**mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID:	ME 210901 6020ICS-9B		
Standard Name	6020ICS-9B	Type:	Primary
Date Prepared	9/1/2021	BY:	Alyssa A. espinoza
Date Expires:	9/1/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	P2-MEB678862		
Balance ID:			
Comments:	Opened 9/1/2021; Expires 9/1/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13478	125	mL	9/1/2022

Final Volume:
125 mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **mg/L**

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	6020ICS-9B
Lot Number:	P2-MEB678862
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	20 µg/mL ea: Cobalt, Chromium, Copper, Manganese, Nickel, Vanadium, 10 µg/mL ea: Zinc, Arsenic, Cadmium, Selenium, 5 µg/mL ea: Silver

ID #: 13478
Opened:_____
Multi Analyte Custom Grade Solution
Expires: 5/17/2023
Rec'd: 1/15/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	10.01 ± 0.05 µg/mL	Cadmium, Cd	10.01 ± 0.04 µg/mL
Chromium, Cr	20.02 ± 0.12 µg/mL	Cobalt, Co	20.01 ± 0.10 µg/mL
Copper, Cu	20.02 ± 0.08 µg/mL	Manganese, Mn	20.02 ± 0.09 µg/mL
Nickel, Ni	20.02 ± 0.09 µg/mL	Selenium, Se	10.01 ± 0.06 µg/mL
Silver, Ag	5.005 ± 0.022 µg/mL	Vanadium, V	20.02 ± 0.08 µg/mL
Zinc, Zn	10.01 ± 0.04 µg/mL		

Density: 1.015 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	EDTA	928	928
Co	ICP Assay	traceable to 3113	M2-CO661665
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Mn	EDTA	928	928
Mn	ICP Assay	Traceable to 3132	N2-MN665236
Mn	Calculated		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
V	EDTA	928	928
V	ICP Assay	3165	992706
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method I with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 *Balance Calibration*

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 17, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- May 17, 2023

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

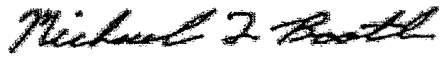
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

Energy Laboratories Inc

Standard LOG

Standard ID:	ME220112 SS1		
Standard Name	SS1 ICPMS Spiking Solution	Type:	Secondary
Date Prepared	1/12/2022	BY:	Stacy R. Hendricks
Date Expires:	12/8/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:			
Balance ID:			

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid, 69.0-70.0%,0000277202	13781	0.8	mL	1/14/2026
Hydrochloric Acid, 36.5-38.0% 000027567	13784	2	mL	12/15/2025
Milli-Q H2O	391	28.8	mL	6/1/2100

Final Volume:
40 mL

Stock Source		**Base Units**	**Amount Added**
ME220105 HgPrim	Primary Hg Stock 2 PPM	ug/mL	2 mL
ME211208 MSCAL	MSCAL 2B	ug/mL	2 mL
ME211221 MSCAL	MSCAL 3C	ug/mL	2 mL
ME220110 Ce, La	Ce, La Primary	ug/mL	2 mL

Analytes	**CAS**	Conc:	**mg/L**

Energy Laboratories Inc

Spike LOG

Standard ID:	ME220105 HGPRIMARY		
Standard Name	Primary Hg Stock 2 PPM	Type:	Secondary
Date Prepared	1/5/2022	BY:	Amanda E. McDani
Date Expires:	12/29/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:			
Balance ID:			

Comments: Made with different HG stock than QCS

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027

Final Volume: 25 mL

Stock Source		**Base Units**	**Amount Added**
ME220110HG	HG Stock	ug/mL	0.05 mL
ME211229A AU 2N	Au 2nd source Stock	ug/mL	0.05 mL

Analytes	**CAS**	Conc:	**ug/mL**

Energy Laboratories Inc

Standard LOG

Standard ID:	ME220110HG		
Standard Name	HG Stock	Type:	Primary
Date Prepared	1/10/2022	BY:	Amanda E. McDani
Date Expires:	1/10/2023		
Department	ME	Status:	Open
Vendor:	SCP Science		
Lot Number:	S210729017		
Balance ID:			

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Mercury	14711	125	mL	1/10/2023

Final Volume:
125 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

ID #: 14711
Opened:
ICP/ICPMS Standard Mercury
Expires: 7/31/2023
Rec'd: 12/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

SCP SCIENCE
Providing Innovative Solutions to Analytical Chemists

rtificate of Analysis

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Mercury 1000 µg/ml

Catalogue Number: 140-051-800/-801/-805
Starting Material: Mercury(II) oxide 99.99+%
Lot Number: **S210729017**
Matrix: 10% HNO_3 (See Section 3 for actual matrix)
Expiration Date (End of month): **July 2023** (or 15 months after bottle is opened, whichever comes first)

Hg

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **999 µg/ml +/- 5 µg/ml**
952 µg/g +/- 5 µg/g
Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
Traceability: NIST Standard Reference Material 3133 Lot: **160921**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.050 g/ml @ 23.6 °C**
Actual Matrix: **10.0% (v/v) HNO_3**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	**0.0322**	Nd	<0.0010	Sn	<0.0010
Al	**0.0042**	Ga	<0.0010	Ni	**0.0039**	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	N/A	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	**0.0117**
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	**0.0112**	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	**0.0060**	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	**0.0092**	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
Certification Date: August 12, 2021

Daniel Boisvert

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter **SCP SCIENCE**.*

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité **enregistré** à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: **SCP SCIENCE (Corporate Headquarters)** operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est **accréditée** ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : **SCP SCIENCE (Corporate Headquarters)** is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Fax: +33 (0) 1 60 92 05 67

GERMANY
Alte Marktoberdorfer Straße 14, 87616
Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211229A AU 2ND SOURCE		
Standard Name	Au 2nd source Stock	Type:	Primary
Date Prepared	12/29/2021	BY:	Amanda E. McDani
Date Expires:	12/29/2022		
Department	ME	Status:	Open
Vendor:	SCP Science		
Lot Number:	S211129013		
Balance ID:			
Comments:	opened 12/29/2021; expires 12/29/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

ID #: 14710
Opened:
ICP/ICPMS Standard Gold
Expires: 12/31/2023
Rec'd: 12/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

SCP SCIENC
Providing Innovative Solutions to Analytical

Certificate of Analysis

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml

Au

Catalogue Number: 140-052-790/-791/-795
Starting Material: Gold Metal 99.99+%
Lot Number: **S211129013**
Matrix: 10% HCl (See Section 3 for actual matrix)
Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1001 µg/ml +/- 4 µg/ml**
982 µg/g +/- 4 µg/g

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.019 g/ml @ 22.4 °C**
Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	**0.3851**	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	**0.0062**	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	**0.0434**	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	**0.0048**	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	**0.0362**	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	**0.0029**	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	**0.0023**	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	**0.0070**	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter **SCP SCIENCE**.*

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité **enregistré** à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: **SCP SCIENCE (Corporate Headquarters)** operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est **accréditée** ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Fax: +33 (0) 1 60 92 05 67

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Alte Marktoberdorfer Straße 14, 87616
Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211208 MSCAL2B		
Standard Name	MSCAL 2B	Type:	Primary
Date Prepared	12/8/2021	BY:	Stacy R. Hendricks
Date Expires:	12/8/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	S2-MEB704403		
Balance ID:			
Comments:	Opened 12/08/2021; Expires 12/08/2022		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13793		mL	12/8/2022

Final Volume: mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	EL-MSCAL-2B
Lot Number:	S2-MEB704403
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	100 µg/mL ea:

Aluminum, Arsenic,
Boron, Barium,
Beryllium, Cadmium,
Cobalt, Chromium,
Copper, Iron,
Manganese, Nickel,
Lead, Selenium,
Strontium, Thorium,
Thallium, Uranium,
Vanadium, Zinc,

40 µg/mL ea:
Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ID #: 13793
Opened: _____
Multi Analyte Custom Grade Solution
Expires: 4/21/2025
Rec'd: 4/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Arsenic, As	100.0 ± 0.9 µg/mL
Barium, Ba	100.0 ± 0.5 µg/mL	Beryllium, Be	100.0 ± 0.7 µg/mL
Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	100.0 ± 0.5 µg/mL
Chromium, Cr	100.0 ± 0.8 µg/mL	Cobalt, Co	100.0 ± 0.6 µg/mL
Copper, Cu	100.0 ± 0.5 µg/mL	Iron, Fe	100.1 ± 0.4 µg/mL
Lead, Pb	100.0 ± 0.6 µg/mL	Manganese, Mn	100.0 ± 0.5 µg/mL
Nickel, Ni	100.0 ± 0.6 µg/mL	Selenium, Se	100.0 ± 0.7 µg/mL
Silver, Ag	39.99 ± 0.18 µg/mL	Strontium, Sr	100.0 ± 0.4 µg/mL
Thallium, Tl	100.0 ± 0.6 µg/mL	Thorium, Th	100.0 ± 0.5 µg/mL
Uranium, U	100.0 ± 0.5 µg/mL	Vanadium, V	100.0 ± 0.5 µg/mL
Zinc, Zn	100.0 ± 0.5 µg/mL		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Sr	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.24 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 21, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- April 21, 2025

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Michael J Booth

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Paul R Gaines

Energy Laboratories Inc

Standard LOG

Standard ID:	ME211221 MSCAL 3C		
Standard Name	MSCAL 3C	Type:	Primary
Date Prepared	12/21/2021	BY:	Stacy R. Hendricks
Date Expires:	12/21/2022		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	S2-MEB700780		
Balance ID:			
Comments:	Opened 12/21/21; expires 12/21/22		

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13473	250	mL	12/21/2022

Final Volume:
250 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

INORGANIC VENTURES

CERTIFICATE OF ANALYSIS

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	EL-MSCAL-3C
Lot Number:	S2-MEB700780
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	400 µg/mL ea: Silicon, 100 µg/mL ea: Tin, Molybdenum, Titanium, Antimony

1-6-2025

ID #: 13473
Opened:_____
Multi Analyte Custom Grade Solution
Expires: 1/6/2025
Rec'd: 1/15/2021
Energy Laboratories Inc 1120 So 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.8 µg/mL	Molybdenum, Mo	100.0 ± 0.6 µg/mL
Silicon, Si	399.9 ± 3.0 µg/mL	Tin, Sn	100.0 ± 0.6 µg/mL
Titanium, Ti	100.0 ± 0.7 µg/mL		

Density: 1.018 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 06, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- January 06, 2025

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Michael J Booth

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Paul R Gaines

Energy Laboratories Inc

Standard LOG

Standard ID:	ME220110 CE, LA PRIMARY		
Standard Name	Ce, La Primary	Type:	Secondary
Date Prepared	1/10/2022	BY:	Amanda E. McDani
Date Expires:	1/6/2023		
Department	ME	Status:	Open
Vendor:	Inorganic Ventures		
Lot Number:	M2-CE657768/M2-		
Balance ID:			

Comments: Used to make standards and spiking solutions; No primary La available

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	39.5	mL	6/1/2100

Final Volume:
50 mL

Stock Source		**Base Units**	**Amount Added**
ME220106-CE	Ce Primary Stock	ug/mL	5 mL

Analytes	**CAS**	Conc:	**ug/mL**

Energy Laboratories Inc

Spike LOG

Standard ID: ME220112 206 INTERNAL STANDARD
Standard Name Internal Standards 2 mg/L
Date Prepared 1/12/2022
Date Expires: 2/8/2022
Department ME
Vendor:
Lot Number:
Balance ID:

Type: Secondary
BY: Cindy Rohrer
Status: New

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	10	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	20	mL	12/14/2026
ICP/ICPMS Standard Germanium	13639	2	mL	4/20/2022
Holmium Single Analyte Custom Grade S	13443	2	mL	2/12/2022
Terbium Single Analyte Atomic Absorption	13445	2	mL	2/12/2022
Lutetium Single Analyte Atomic Absorptio	13444	2	mL	3/1/2024
PlasmaCal Standard Scandium	13520	2	mL	8/31/2022
ICP/ICPMS Standard Gold	14710	0.2	mL	12/29/2022

Final Volume:
1000 mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **mg/L**

SCP SCIENCE

Providing Innovative Solutions to Analytical Chemists

Certificate of Analysis

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Germanium 1000 µg/ml

Catalogue Number: 140-050-320/-321/-325

Starting Material: Ammonium Hexafluorogermanate(IV) 99.99+%

Lot Number: **S201204009**

Matrix: H_2O / tr. F^-

Ge

Expiration Date (End of month): **December 2022** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1002 µg/ml +/- 3 µg/ml**

1002 µg/g +/- 3 µg/g

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3120a Lot: **151115**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

ID #: 13639
Opened:_____
ICP/ICPMS Standard Germanium
Expires: 12/31/2022
Rec'd: 3/16/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 REFERENCE VALUES:

Density: **1.000 g/ml @ 22.7 °C**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	<0.0010	Sn	<0.0010
Al	<0.0010	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	**0.0097**	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	N/A	P	<0.0026	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	<0.0010	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	<0.0025	Si	*		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: December 16, 2020

Daniel Boisvert

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter **SCP SCIENCE**.*

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité **enregistré** à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est **accréditée** ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGHO1
Lot Number:	R2-HO691014
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Holmium
Starting Material:	Holmium Oxide
Starting Material Lot#:	1890
Starting Material Purity:	99.9947%

ID #: 13443
Opened:
Holmium Single Analyte Custom Grade Soluti
Expires: 4/1/2024
Rec'd: 1/7/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 3 µg/mL

Density: 1.026 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**996 ± 6 µg/mL** ICP Assay NIST SRM 3123a Lot Number: 090408
Assay Method #2	**998 ± 3 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**1000 ± 3 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.010000	M	Eu		0.000377	M	Na	<	0.036000	M	Se	<	0.004400	M	Zn	<	0.071000
M	Al	<	0.020000	M	Fe		0.002965	M	Nb	<	0.001200	i	Si	<		M	Zr	<	0.000400
M	As	<	0.011000	M	Ga	<	0.001600	M	Nd		0.000183	M	Sm		0.000700				
M	Au	<	0.006400	M	Gd		0.000404	M	Ni	<	0.004800	M	Sn	<	0.002400				
M	B	<	0.091000	M	Ge	<	0.004000	M	Os	<	0.000400	M	Sr	<	0.002400				
M	Ba	<	0.002400	M	Hf	<	0.003200	i	P	<		i	Ta	<					
M	Be	<	0.003200	M	Hg	<	0.005600	M	Pb	<	0.057000	M	Tb		0.000431				
M	Bi	<	0.005600	s	Ho	<		M	Pd	<	0.004400	M	Te	<	0.008000				
M	Ca	<	0.028000	M	In	<	0.001600	M	Pr		0.000204	M	Th	<	0.001200				
M	Cd	<	0.000800	M	Ir	<	0.001600	M	Pt	<	0.000400	M	Ti	<	0.000800				
M	Ce	<	0.004800	O	K		0.002965	M	Rb	<	0.002400	M	Tl	<	0.001600				
M	Co	<	0.001600	M	La		0.000350	M	Re	<	0.000400	M	Tm		0.000323				
M	Cr	<	0.005600	O	Li	<	0.001200	M	Rh	<	0.001600	M	U	<	0.000400				
M	Cs		0.000485	M	Lu		0.037737	M	Ru	<	0.000400	M	V	<	0.029000				
M	Cu	<	0.005600	O	Mg	<	0.003300	n	S	<		M	W	<	0.011000				
M	Dy		0.009434	M	Mn	<	0.001200	M	Sb	<	0.002000	M	Y		0.003504				
M	Er		0.001671	M	Mo	<	0.011000	M	Sc	<	0.001200	M	Yb		0.006199				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 164.93 +3 6 to 9 or 10 for some compounds Ho(OH)x(H2O)y+3-x

Chemical Compatibility -Soluble in HCl, H2SO4 and HNO3. Avoid HF, H3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Ho Containing Samples (Preparation and Solution) - Meta l(Soluble in acids); Oxide (Dissolved by heating in H2O / HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H2O / HCl or HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 165 amu	1 ppt	n/a	149 Sm16O
ICP-OES 339.898 nm	0.02 / 0.002 µg/mL	1	Ce, Re
ICP-OES 345.600 nm	0.006 / 0.0001 µg/mL	1	U, Ti

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 01, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 01, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

300 Technology Drive
Christiansburg, VA 24073 USA
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fax: 540.585.3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Atomic Absorption Solution
Catalog Number:	AATB1
Lot Number:	R2-TB695079AA
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Terbium

ID #: 13445
Opened:
Terbium Single Analyte Atomic Absorption So
Expires: 8/19/2024
Rec'd: 1/7/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value:	1000 ± 10 µg/mL
Density:	1.026 g/mL (measured at 20 ± 4 °C)

4.0 TRACEABILITY TO NIST

The concentration of this solution standard has been verified by Inductively Coupled Plasma Spectroscopy (ICP) and is traceable to NIST SRM 3157a.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 158.93 +3 6 to 9 or 10 for some compounds $Tb(OH)_x(H_2O)_y^{+3-x}$

Chemical Compatibility -Soluble in HCl, H_2SO_4 and HNO_3. Avoid HF, H_3PO_4 and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2 - 5% HNO_3 / LDPE container.

Tb Containing Samples (Preparation and Solution) -Metal (Soluble in acids); Oxide (Dissolve by heating in H_2O/ HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (dry ash and dissolve in 1:1 H_2O / HCl or HNO_3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 159 amu	1 ppt	N/A	
ICP-OES 350.917 nm	0.02 / 0.002 µg/mL	1	V, Th, Ce, Zr
ICP-OES 367.635 nm	0.06 / 0.006 µg/mL	1	Ta, Ce, Co, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 19, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 19, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Atomic Absorption Solution
Catalog Number:	AALU1
Lot Number:	R2-LU689867RAA
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Lutetium

ID #: 13444
Opened:
Lutetium Single Analyte Custom Grade Soluti
Expires: 3/1/2024
Rec'd: 1/7/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value:	1000 ± 10 µg/mL
Density:	1.011 g/mL (measured at 20 ± 4 °C)

4.0 TRACEABILITY TO NIST

The concentration of this solution standard has been verified by Inductively Coupled Plasma Spectroscopy (ICP) and is traceable to NIST SRM 3130a.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance *Calibration*

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 174.97 +3 6 to 9 or 10 for some compounds Lu(OH)x(H2O)y+3-x

Chemical Compatibility -Soluble in HCl, H2SO4 and HNO3. Avoid HF, H3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Lu Containing Samples (Preparation and Solution) -Metal (Soluble in acids); Oxide (Dissolved by heating in H2O/ HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H2O / HCl or HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 175 amu	1 ppt	n/a	159 Tb16O
ICP-OES 261.542 nm	0.001 / 0.0003 µg/mL	1	Th, Mo, V, W
ICP-OES 291.139 nm	0.006 / 0.0006 µg/mL	1	Cr, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 01, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 01, 2024

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control

Certifying Officer:

Paul Gaines
CEO, Senior Technical Director

SCP SCIENCE

Providing Innovative Solutions to Analytical Chemists

Certificate of Analysis

1.0 DESCRIPTION:

***Plasma*CAL ICP/ICPMS Standard - Scandium 1000 µg/ml**

Catalogue Number: 140-051-210/-211/-215
Starting Material: Scandium(III) Oxide 99.99+%
Lot Number: **S200813011**
Matrix: 4% HNO_3 (See Section 3 for actual matrix)
Expiration Date (End of month): **August 2022** (or 15 months after bottle is opened, whichever comes first)

Sc

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **999 µg/ml +/- 5 µg/ml**
978 µg/g +/- 5 µg/g
Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
Traceability: NIST Standard Reference Material 3148a Lot: **100701**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

ID #: 13520
Opened:_____
PlasmaCal Standard Scandium
Expires: 8/31/2022
Rec'd: 1/26/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 REFERENCE VALUES:

Density: **1.022 g/ml @ 22.5 °C**
Actual Matrix: **4.0% (v/v) HNO_3**

Trace Metal Impurities as tested by ICP-AES:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0244	Fe	<0.0102	Nd	<0.0319	Sn	<0.1535
Al	<0.0280	Ga	<0.0260	Ni	<0.0139	Sr	<0.0004
As	<0.0105	Gd	<0.0137	Os	*	Ta	<0.0635
Au	<0.0085	Ge	<0.0548	P	<0.0104	Tb	<0.0146
B	<0.0507	Hf	<0.0339	Pb	<0.0492	Te	<0.4025
Ba	<0.0005	Hg	*	Pd	<0.0282	Th	<0.0471
Be	<0.0022	Ho	<0.0065	Pr	<0.1370	Ti	<0.0013
Bi	<0.0156	In	<0.0105	Pt	<0.2665	Tl	<0.5600
Ca	**0.0742**	Ir	<0.0243	Rb	*	Tm	<0.0105
Cd	<0.0048	K	<0.0128	Re	<0.0076	U	<0.2490
Ce	<0.0393	La	<0.0173	Rh	<0.0163	V	<0.0049
Co	<0.0224	Li	<0.0028	Ru	<0.0304	W	<0.0443
Cr	<0.0063	Lu	<0.0021	S	<0.0515	Y	<0.0033
Cs	*	Mg	<0.0009	Sb	<0.0197	Yb	<0.0057
Cu	<0.0200	Mn	<0.0089	Sc	N/A	Zn	<0.0045
Dy	<0.0214	Mo	<0.0229	Se	<0.1245	Zr	**0.1015**
Er	<0.0349	Na	<0.0191	Si	<0.0091		
Eu	<0.0017	Nb	<0.0112	Sm	<0.1105	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
Certification Date: August 20, 2020

Daniel Boisvert

5.0 INTENDED USE / *UTILISATION PRÉVUE*:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter **SCP SCIENCE**.*

6.0 INSTRUCTIONS FOR USE / *INSTRUCTIONS D'UTILISATION*:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contentant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / *Stabilité*: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / *INFORMATION SUR LES RISQUES POTENTIELS*:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / *HOMOGÉNÉITÉ:*

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / *TRAÇABILITÉ*:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaine de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité **enregistré** à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est **accréditée** ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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GERMANY
Alte Marktoberdorfer Straße 14, 87616
Marktoberdorf

Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

ID #: 14710
Opened:
ICP/ICPMS Standard Gold
Expires: 12/31/2023
Rec'd: 12/29/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

SCP SCIENC
Providing Innovative Solutions to Analytical

Certificate of Analysis

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml

Au

Catalogue Number: 140-052-790/-791/-795
Starting Material: Gold Metal 99.99+%
Lot Number: **S211129013**
Matrix: 10% HCl (See Section 3 for actual matrix)
Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1001 µg/ml +/- 4 µg/ml**
982 µg/g +/- 4 µg/g

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.019 g/ml @ 22.4 °C**
Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	**0.3851**	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	**0.0062**	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	**0.0434**	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	**0.0048**	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	**0.0362**	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	**0.0029**	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	**0.0023**	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	**0.0070**	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010	*: Not tested	

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
Certification Date: December 10, 2021

Daniel Boisvert

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10.0 PREPARATION / *PRÉPARATION:*

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / *CERTIFICATIONS DE SYSTÈME QUALITÉ:*

ISO 9001 Certification / *Certification ISO 9001*: This standard was produced in a facility which operates under a **registered** ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité **enregistré** à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / *Accréditation ISO 17025*: **SCP SCIENCE (Corporate Headquarters)** operates an ISO 17025 **accredited** laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est **accréditée** ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / *Accréditation ISO 17034* : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / ***SCP SCIENCE (Siège social)** est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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