

LAB CHRONICLE

OrderID:	P3847	OrderDate:	9/5/2024 2:21:00 PM
Client:	Chemtech Consulting Group	Project:	NJ Waste Water PT
Contact:	QA Officer	Location:	QA Office

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P3847-02	PT-TM1-WP	Water	Metals Group3	6020B	09/03/24	10/17/24	10/17/24	09/05/24
P3847-04	PT-SNTI-WP	Water	Metals Group4	6020B	09/03/24	10/17/24	10/17/24	09/05/24
P3847-06	PT-MIN2-WP	Water	Metals Group5	6020B	09/03/24	10/17/24	10/17/24	09/05/24

Hit Summary Sheet
SW-846

SDG No.: P3847

Order ID: P3847

Client: Chemtech Consulting Group

Project ID: NJ Waste Water PT

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : PT-TM1-WP								
P3847-02	PT-TM1-WP	Water	Aluminum	2550		1.98	20.0	ug/L
P3847-02	PT-TM1-WP	Water	Antimony	797		0.11	2.00	ug/L
P3847-02	PT-TM1-WP	Water	Arsenic	541		0.090	1.00	ug/L
P3847-02	PT-TM1-WP	Water	Barium	598		0.30	10.0	ug/L
P3847-02	PT-TM1-WP	Water	Beryllium	300		0.16	1.00	ug/L
P3847-02	PT-TM1-WP	Water	Cadmium	403		0.30	1.00	ug/L
P3847-02	PT-TM1-WP	Water	Calcium	89.4	J	62.5	500	ug/L
P3847-02	PT-TM1-WP	Water	Chromium	563		0.40	2.00	ug/L
P3847-02	PT-TM1-WP	Water	Cobalt	181		0.062	1.00	ug/L
P3847-02	PT-TM1-WP	Water	Copper	657		0.40	2.00	ug/L
P3847-02	PT-TM1-WP	Water	Iron	1370		9.60	50.0	ug/L
P3847-02	PT-TM1-WP	Water	Lead	935		0.11	1.00	ug/L
P3847-02	PT-TM1-WP	Water	Manganese	628		0.24	1.00	ug/L
P3847-02	PT-TM1-WP	Water	Nickel	1650	D	0.36	2.00	ug/L
P3847-02	PT-TM1-WP	Water	Tin	0.33	J	0.12	5.00	ug/L
P3847-02	PT-TM1-WP	Water	Molybdenum	528		0.93	5.00	ug/L
P3847-02	PT-TM1-WP	Water	Selenium	484		1.38	5.00	ug/L
P3847-02	PT-TM1-WP	Water	Silver	601		0.077	1.00	ug/L
P3847-02	PT-TM1-WP	Water	Sodium	94.2	J	85.8	500	ug/L
P3847-02	PT-TM1-WP	Water	Thallium	415		0.085	1.00	ug/L
P3847-02	PT-TM1-WP	Water	Vanadium	1060	D	0.14	10.0	ug/L
P3847-02	PT-TM1-WP	Water	Zinc	613		0.56	5.00	ug/L
P3847-02	PT-TM1-WP	Water	Strontium	443		0.35	1.00	ug/L
P3847-02	PT-TM1-WP	Water	Titanium	0.30	J	0.26	5.00	ug/L
Client ID : PT-SNTI-WP								
P3847-04	PT-SNTI-WP	Water	Tin	1300	D	0.24	10.0	ug/L
P3847-04	PT-SNTI-WP	Water	Titanium	97.1		0.26	5.00	ug/L
Client ID : PT-MIN2-WP								
P3847-06	PT-MIN2-WP	Water	Calcium	67600	D	313	2500	ug/L
P3847-06	PT-MIN2-WP	Water	Magnesium	28500	D	133	2500	ug/L
P3847-06	PT-MIN2-WP	Water	Potassium	23000	D	231	2500	ug/L
P3847-06	PT-MIN2-WP	Water	Sodium	84900	D	429	2500	ug/L



SAMPLE DATA

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	09/03/24
Project:	NJ Waste Water PT	Date Received:	09/05/24
Client Sample ID:	PT-TM1-WP	SDG No.:	P3847
Lab Sample ID:	P3847-02	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	2550		1	1.98	20.0	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7440-36-0	Antimony	797		1	0.11	2.00	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7440-38-2	Arsenic	541		1	0.090	1.00	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7440-39-3	Barium	598		1	0.30	10.0	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7440-41-7	Beryllium	300		1	0.16	1.00	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7440-43-9	Cadmium	403		1	0.30	1.00	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7440-70-2	Calcium	89.4	J	1	62.5	500	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7440-47-3	Chromium	563		1	0.40	2.00	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7440-48-4	Cobalt	181		1	0.062	1.00	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7440-50-8	Copper	657		1	0.40	2.00	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7439-89-6	Iron	1370		1	9.60	50.0	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7439-92-1	Lead	935		1	0.11	1.00	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7439-95-4	Magnesium	26.6	U	1	26.6	500	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7439-96-5	Manganese	628		1	0.24	1.00	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7439-98-7	Molybdenum	528		1	0.93	5.00	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7440-02-0	Nickel	1650	D	2	0.36	2.00	ug/L	10/17/24 11:00	10/17/24 18:45	SW6020	3010A
7440-09-7	Potassium	46.1	U	1	46.1	500	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7782-49-2	Selenium	484		1	1.38	5.00	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7440-22-4	Silver	601		1	0.077	1.00	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7440-23-5	Sodium	94.2	J	1	85.8	500	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7440-24-6	Strontium	443		1	0.35	1.00	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7440-28-0	Thallium	415		1	0.085	1.00	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7440-31-5	Tin	0.33	J	1	0.12	5.00	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7440-32-6	Titanium	0.30	J	1	0.26	5.00	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A
7440-62-2	Vanadium	1060	D	2	0.14	10.0	ug/L	10/17/24 11:00	10/17/24 18:45	SW6020	3010A
7440-66-6	Zinc	613		1	0.56	5.00	ug/L	10/17/24 11:00	10/17/24 18:25	SW6020	3010A

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	Metals Group3			

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 D = Dilution
 Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 * = indicates the duplicate analysis is not within control limits.
 E = Indicates the reported value is estimated because of the presence of interference.
 OR = Over Range
 N = Spiked sample recovery not within control limits

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	09/03/24
Project:	NJ Waste Water PT	Date Received:	09/05/24
Client Sample ID:	PT-SNTI-WP	SDG No.:	P3847
Lab Sample ID:	P3847-04	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-31-5	Tin	1300	D	2	0.24	10.0	ug/L	10/17/24 11:00	10/17/24 18:48	SW6020	3010A
7440-32-6	Titanium	97.1		1	0.26	5.00	ug/L	10/17/24 11:00	10/17/24 18:28	SW6020	3010A

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	Metals Group4			

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 D = Dilution
 Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 * = indicates the duplicate analysis is not within control limits.
 E = Indicates the reported value is estimated because of the presence of interference.
 OR = Over Range
 N =Spiked sample recovery not within control limits

Report of Analysis

Client:	Chemtech Consulting Group	Date Collected:	09/03/24
Project:	NJ Waste Water PT	Date Received:	09/05/24
Client Sample ID:	PT-MIN2-WP	SDG No.:	P3847
Lab Sample ID:	P3847-06	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-70-2	Calcium	67600	D	5	313	2500	ug/L	10/17/24 11:00	10/17/24 18:51	SW6020	3010A
7439-95-4	Magnesium	28500	D	5	133	2500	ug/L	10/17/24 11:00	10/17/24 18:51	SW6020	3010A
7440-09-7	Potassium	23000	D	5	231	2500	ug/L	10/17/24 11:00	10/17/24 18:51	SW6020	3010A
7440-23-5	Sodium	84900	D	5	429	2500	ug/L	10/17/24 11:00	10/17/24 18:51	SW6020	3010A

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	Metals Group5			

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 D = Dilution
 Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 * = indicates the duplicate analysis is not within control limits.
 E = Indicates the reported value is estimated because of the presence of interference.
 OR = Over Range
 N =Spiked sample recovery not within control limits



METAL CALIBRATION DATA

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Chemtech Consulting Group SDG No.: P3847
Contract: CHEM02 Lab Code: CHEM Case No.: P3847 SAS No.: P3847
Initial Calibration Source: EPA
Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	512	500	102	90 - 110	P	10/17/2024	17:03	LB132993
	Antimony	198	200	99	90 - 110	P	10/17/2024	17:03	LB132993
	Arsenic	199	200	99	90 - 110	P	10/17/2024	17:03	LB132993
	Barium	95.9	100	96	90 - 110	P	10/17/2024	17:03	LB132993
	Beryllium	101	100	101	90 - 110	P	10/17/2024	17:03	LB132993
	Cadmium	110	100	110	90 - 110	P	10/17/2024	17:03	LB132993
	Calcium	2160	2000	108	90 - 110	P	10/17/2024	17:03	LB132993
	Chromium	103	100	103	90 - 110	P	10/17/2024	17:03	LB132993
	Cobalt	102	100	102	90 - 110	P	10/17/2024	17:03	LB132993
	Copper	96.9	100	97	90 - 110	P	10/17/2024	17:03	LB132993
	Iron	2170	2000	108	90 - 110	P	10/17/2024	17:03	LB132993
	Lead	188	200	94	90 - 110	P	10/17/2024	17:03	LB132993
	Magnesium	1220	1200	102	90 - 110	P	10/17/2024	17:03	LB132993
	Manganese	101	100	101	90 - 110	P	10/17/2024	17:03	LB132993
	Molybdenum	4950	5000	99	90 - 110	P	10/17/2024	17:03	LB132993
	Nickel	104	110	95	90 - 110	P	10/17/2024	17:03	LB132993
	Potassium	2130	2000	106	90 - 110	P	10/17/2024	17:03	LB132993
	Selenium	206	200	103	90 - 110	P	10/17/2024	17:03	LB132993
	Silver	51.2	50.0	102	90 - 110	P	10/17/2024	17:03	LB132993
	Sodium	2140	2000	107	90 - 110	P	10/17/2024	17:03	LB132993
	Strontium	508	500	102	90 - 110	P	10/17/2024	17:03	LB132993
	Thallium	212	210	101	90 - 110	P	10/17/2024	17:03	LB132993
	Tin	550	500	110	90 - 110	P	10/17/2024	17:03	LB132993
	Titanium	4950	5000	99	90 - 110	P	10/17/2024	17:03	LB132993
	Vanadium	95.9	100	96	90 - 110	P	10/17/2024	17:03	LB132993
	Zinc	198	200	99	90 - 110	P	10/17/2024	17:03	LB132993

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Chemtech Consulting Group SDG No.: P3847
Contract: CHEM02 Lab Code: CHEM Case No.: P3847 SAS No.: P3847
Initial Calibration Source: EPA
Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV	Aluminum	19.6	20.0	98	70 - 130	P	10/17/2024	17:09	LB132993
	Antimony	2.11	2.0	106	70 - 130	P	10/17/2024	17:09	LB132993
	Arsenic	1.03	1.0	103	70 - 130	P	10/17/2024	17:09	LB132993
	Barium	9.51	10.0	95	70 - 130	P	10/17/2024	17:09	LB132993
	Beryllium	1.10	1.0	110	70 - 130	P	10/17/2024	17:09	LB132993
	Cadmium	1.03	1.0	103	70 - 130	P	10/17/2024	17:09	LB132993
	Calcium	541	500	108	70 - 130	P	10/17/2024	17:09	LB132993
	Chromium	2.01	2.0	100	70 - 130	P	10/17/2024	17:09	LB132993
	Cobalt	1.06	1.0	106	70 - 130	P	10/17/2024	17:09	LB132993
	Copper	1.93	2.0	96	70 - 130	P	10/17/2024	17:09	LB132993
	Iron	54.5	50.0	109	70 - 130	P	10/17/2024	17:09	LB132993
	Lead	0.94	1.0	94	70 - 130	P	10/17/2024	17:09	LB132993
	Magnesium	535	500	107	70 - 130	P	10/17/2024	17:09	LB132993
	Manganese	1.06	1.0	106	70 - 130	P	10/17/2024	17:09	LB132993
	Molybdenum	5.10	5.0	102	70 - 130	P	10/17/2024	17:09	LB132993
	Nickel	1.00	1.0	100	70 - 130	P	10/17/2024	17:09	LB132993
	Potassium	514	500	103	70 - 130	P	10/17/2024	17:09	LB132993
	Selenium	5.59	5.0	112	70 - 130	P	10/17/2024	17:09	LB132993
	Silver	1.01	1.0	101	70 - 130	P	10/17/2024	17:09	LB132993
	Sodium	551	500	110	70 - 130	P	10/17/2024	17:09	LB132993
	Strontium	1.05	1.0	105	70 - 130	P	10/17/2024	17:09	LB132993
	Thallium	0.89	1.0	89	70 - 130	P	10/17/2024	17:09	LB132993
	Tin	4.90	5.0	98	70 - 130	P	10/17/2024	17:09	LB132993
	Titanium	5.54	5.0	111	70 - 130	P	10/17/2024	17:09	LB132993
	Vanadium	4.82	5.0	96	70 - 130	P	10/17/2024	17:09	LB132993
	Zinc	5.27	5.0	105	70 - 130	P	10/17/2024	17:09	LB132993

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Chemtech Consulting Group SDG No.: P3847
Contract: CHEM02 Lab Code: CHEM Case No.: P3847 SAS No.: P3847
Initial Calibration Source: EPA
Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	49400	50000	99	90 - 110	P	10/17/2024	18:04	LB132993
	Antimony	490	500	98	90 - 110	P	10/17/2024	18:04	LB132993
	Arsenic	456	500	91	90 - 110	P	10/17/2024	18:04	LB132993
	Barium	2430	2500	97	90 - 110	P	10/17/2024	18:04	LB132993
	Beryllium	485	500	97	90 - 110	P	10/17/2024	18:04	LB132993
	Cadmium	474	500	95	90 - 110	P	10/17/2024	18:04	LB132993
	Calcium	243000	250000	97	90 - 110	P	10/17/2024	18:04	LB132993
	Chromium	472	500	94	90 - 110	P	10/17/2024	18:04	LB132993
	Cobalt	501	500	100	90 - 110	P	10/17/2024	18:04	LB132993
	Copper	4900	5000	98	90 - 110	P	10/17/2024	18:04	LB132993
	Iron	127000	125000	101	90 - 110	P	10/17/2024	18:04	LB132993
	Lead	2470	2500	99	90 - 110	P	10/17/2024	18:04	LB132993
	Magnesium	243000	250000	97	90 - 110	P	10/17/2024	18:04	LB132993
	Manganese	4590	5000	92	90 - 110	P	10/17/2024	18:04	LB132993
	Molybdenum	5280	5500	96	90 - 110	P	10/17/2024	18:04	LB132993
	Nickel	493	500	99	90 - 110	P	10/17/2024	18:04	LB132993
	Potassium	123000	125000	98	90 - 110	P	10/17/2024	18:04	LB132993
	Selenium	472	500	94	90 - 110	P	10/17/2024	18:04	LB132993
	Silver	475	500	95	90 - 110	P	10/17/2024	18:04	LB132993
	Sodium	250000	250000	100	90 - 110	P	10/17/2024	18:04	LB132993
	Strontium	12100	12500	97	90 - 110	P	10/17/2024	18:04	LB132993
	Thallium	495	500	99	90 - 110	P	10/17/2024	18:04	LB132993
	Tin	502	500	100	90 - 110	P	10/17/2024	18:04	LB132993
	Titanium	5290	5500	96	90 - 110	P	10/17/2024	18:04	LB132993
	Vanadium	466	500	93	90 - 110	P	10/17/2024	18:04	LB132993
	Zinc	4840	5000	97	90 - 110	P	10/17/2024	18:04	LB132993
CCV02	Aluminum	48200	50000	96	90 - 110	P	10/17/2024	18:55	LB132993
	Antimony	480	500	96	90 - 110	P	10/17/2024	18:55	LB132993
	Arsenic	453	500	91	90 - 110	P	10/17/2024	18:55	LB132993
	Barium	2400	2500	96	90 - 110	P	10/17/2024	18:55	LB132993
	Beryllium	483	500	97	90 - 110	P	10/17/2024	18:55	LB132993
	Cadmium	464	500	93	90 - 110	P	10/17/2024	18:55	LB132993
	Calcium	242000	250000	97	90 - 110	P	10/17/2024	18:55	LB132993
	Chromium	464	500	93	90 - 110	P	10/17/2024	18:55	LB132993

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Chemtech Consulting Group SDG No.: P3847
Contract: CHEM02 Lab Code: CHEM Case No.: P3847 SAS No.: P3847
Initial Calibration Source: EPA
Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Cobalt	493	500	99	90 - 110	P	10/17/2024	18:55	LB132993
	Copper	4840	5000	97	90 - 110	P	10/17/2024	18:55	LB132993
	Iron	126000	125000	100	90 - 110	P	10/17/2024	18:55	LB132993
	Lead	2440	2500	98	90 - 110	P	10/17/2024	18:55	LB132993
	Magnesium	239000	250000	96	90 - 110	P	10/17/2024	18:55	LB132993
	Manganese	4550	5000	91	90 - 110	P	10/17/2024	18:55	LB132993
	Molybdenum	5250	5500	95	90 - 110	P	10/17/2024	18:55	LB132993
	Nickel	486	500	97	90 - 110	P	10/17/2024	18:55	LB132993
	Potassium	121000	125000	97	90 - 110	P	10/17/2024	18:55	LB132993
	Selenium	460	500	92	90 - 110	P	10/17/2024	18:55	LB132993
	Silver	464	500	93	90 - 110	P	10/17/2024	18:55	LB132993
	Sodium	243000	250000	97	90 - 110	P	10/17/2024	18:55	LB132993
	Strontium	11900	12500	96	90 - 110	P	10/17/2024	18:55	LB132993
	Thallium	492	500	98	90 - 110	P	10/17/2024	18:55	LB132993
	Tin	495	500	99	90 - 110	P	10/17/2024	18:55	LB132993
	Titanium	5320	5500	97	90 - 110	P	10/17/2024	18:55	LB132993
	Vanadium	456	500	91	90 - 110	P	10/17/2024	18:55	LB132993
	Zinc	4770	5000	95	90 - 110	P	10/17/2024	18:55	LB132993
CCV03	Aluminum	49300	50000	99	90 - 110	P	10/17/2024	19:29	LB132993
	Antimony	494	500	99	90 - 110	P	10/17/2024	19:29	LB132993
	Arsenic	460	500	92	90 - 110	P	10/17/2024	19:29	LB132993
	Barium	2480	2500	99	90 - 110	P	10/17/2024	19:29	LB132993
	Beryllium	493	500	99	90 - 110	P	10/17/2024	19:29	LB132993
	Cadmium	475	500	95	90 - 110	P	10/17/2024	19:29	LB132993
	Calcium	251000	250000	100	90 - 110	P	10/17/2024	19:29	LB132993
	Chromium	475	500	95	90 - 110	P	10/17/2024	19:29	LB132993
	Cobalt	499	500	100	90 - 110	P	10/17/2024	19:29	LB132993
	Copper	4900	5000	98	90 - 110	P	10/17/2024	19:29	LB132993
	Iron	128000	125000	102	90 - 110	P	10/17/2024	19:29	LB132993
	Lead	2520	2500	101	90 - 110	P	10/17/2024	19:29	LB132993
	Magnesium	243000	250000	97	90 - 110	P	10/17/2024	19:29	LB132993
	Manganese	4650	5000	93	90 - 110	P	10/17/2024	19:29	LB132993
	Molybdenum	5460	5500	99	90 - 110	P	10/17/2024	19:29	LB132993
	Nickel	490	500	98	90 - 110	P	10/17/2024	19:29	LB132993

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Chemtech Consulting Group

SDG No.: P3847

Contract: CHEM02

Lab Code: CHEM

Case No.: P3847

SAS No.: P3847

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV03	Potassium	125000	125000	100	90 - 110	P	10/17/2024	19:29	LB132993
	Selenium	473	500	95	90 - 110	P	10/17/2024	19:29	LB132993
	Silver	479	500	96	90 - 110	P	10/17/2024	19:29	LB132993
	Sodium	249000	250000	100	90 - 110	P	10/17/2024	19:29	LB132993
	Strontium	12400	12500	99	90 - 110	P	10/17/2024	19:29	LB132993
	Thallium	505	500	101	90 - 110	P	10/17/2024	19:29	LB132993
	Tin	495	500	99	90 - 110	P	10/17/2024	19:29	LB132993
	Titanium	5410	5500	98	90 - 110	P	10/17/2024	19:29	LB132993
	Vanadium	469	500	94	90 - 110	P	10/17/2024	19:29	LB132993
	Zinc	4800	5000	96	90 - 110	P	10/17/2024	19:29	LB132993

Metals

- 2b -

CRDL STANDARD FOR AA & ICP

Client: Chemtech Consulting Group SDG No.: P3847
Contract: CHEM02 Lab Code: CHEM Case No.: P3847 SAS No.: P3847
Initial Calibration Source: _____
Continuing Calibration Source: _____

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI	Aluminum	19.1	20.0	96	70 - 130	P	10/17/2024	18:11	LB132993
	Antimony	2.14	2.0	107	70 - 130	P	10/17/2024	18:11	LB132993
	Arsenic	1.09	1.0	109	70 - 130	P	10/17/2024	18:11	LB132993
	Barium	9.42	10.0	94	70 - 130	P	10/17/2024	18:11	LB132993
	Beryllium	1.29	1.0	129	70 - 130	P	10/17/2024	18:11	LB132993
	Cadmium	1.07	1.0	107	70 - 130	P	10/17/2024	18:11	LB132993
	Calcium	548	500	110	70 - 130	P	10/17/2024	18:11	LB132993
	Chromium	2.02	2.0	101	70 - 130	P	10/17/2024	18:11	LB132993
	Cobalt	1.06	1.0	106	50 - 150	P	10/17/2024	18:11	LB132993
	Copper	2.01	2.0	100	70 - 130	P	10/17/2024	18:11	LB132993
	Iron	59.3	50.0	118	70 - 130	P	10/17/2024	18:11	LB132993
	Lead	1.00	1.0	100	70 - 130	P	10/17/2024	18:11	LB132993
	Magnesium	530	500	106	70 - 130	P	10/17/2024	18:11	LB132993
	Manganese	1.10	1.0	110	50 - 150	P	10/17/2024	18:11	LB132993
	Molybdenum	5.07	5.0	101	70 - 130	P	10/17/2024	18:11	LB132993
	Nickel	1.02	1.0	102	70 - 130	P	10/17/2024	18:11	LB132993
	Potassium	523	500	104	70 - 130	P	10/17/2024	18:11	LB132993
	Selenium	5.82	5.0	116	70 - 130	P	10/17/2024	18:11	LB132993
	Silver	1.02	1.0	102	70 - 130	P	10/17/2024	18:11	LB132993
	Sodium	584	500	117	70 - 130	P	10/17/2024	18:11	LB132993
	Strontium	1.08	1.0	108	70 - 130	P	10/17/2024	18:11	LB132993
	Thallium	0.91	1.0	91	70 - 130	P	10/17/2024	18:11	LB132993
	Tin	4.92	5.0	98	70 - 130	P	10/17/2024	18:11	LB132993
	Titanium	5.31	5.0	106	70 - 130	P	10/17/2024	18:11	LB132993
	Vanadium	4.73	5.0	95	70 - 130	P	10/17/2024	18:11	LB132993
	Zinc	5.19	5.0	104	50 - 150	P	10/17/2024	18:11	LB132993



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Chemtech Consulting Group SDG No.: P3847
Contract: CHEM02 Lab Code: CHEM Case No.: P3847 SAS No.: P3847

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	20.0	+/-20.0	U	20.0	P	10/17/2024	17:17	LB132993
	Antimony	2.00	+/-2.00	U	2.00	P	10/17/2024	17:17	LB132993
	Arsenic	1.00	+/-1.00	U	1.00	P	10/17/2024	17:17	LB132993
	Barium	10.0	+/-10.0	U	10.0	P	10/17/2024	17:17	LB132993
	Beryllium	1.00	+/-1.00	U	1.00	P	10/17/2024	17:17	LB132993
	Cadmium	1.00	+/-1.00	U	1.00	P	10/17/2024	17:17	LB132993
	Calcium	500	+/-500	U	500	P	10/17/2024	17:17	LB132993
	Chromium	2.00	+/-2.00	U	2.00	P	10/17/2024	17:17	LB132993
	Cobalt	1.00	+/-1.00	U	1.00	P	10/17/2024	17:17	LB132993
	Copper	2.00	+/-2.00	U	2.00	P	10/17/2024	17:17	LB132993
	Iron	50.0	+/-50.0	U	50.0	P	10/17/2024	17:17	LB132993
	Lead	1.00	+/-1.00	U	1.00	P	10/17/2024	17:17	LB132993
	Magnesium	500	+/-500	U	500	P	10/17/2024	17:17	LB132993
	Manganese	1.00	+/-1.00	U	1.00	P	10/17/2024	17:17	LB132993
	Nickel	1.00	+/-1.00	U	1.00	P	10/17/2024	17:17	LB132993
	Potassium	500	+/-500	U	500	P	10/17/2024	17:17	LB132993
	Tin	5.00	+/-5.00	U	5.00	P	10/17/2024	17:17	LB132993
	Molybdenum	5.00	+/-5.00	U	5.00	P	10/17/2024	17:17	LB132993
	Selenium	5.00	+/-5.00	U	5.00	P	10/17/2024	17:17	LB132993
	Silver	1.00	+/-1.00	U	1.00	P	10/17/2024	17:17	LB132993
	Sodium	500	+/-500	U	500	P	10/17/2024	17:17	LB132993
	Thallium	1.00	+/-1.00	U	1.00	P	10/17/2024	17:17	LB132993
	Vanadium	5.00	+/-5.00	U	5.00	P	10/17/2024	17:17	LB132993
	Zinc	5.00	+/-5.00	U	5.00	P	10/17/2024	17:17	LB132993
	Strontium	1.00	+/-1.00	U	1.00	P	10/17/2024	17:17	LB132993
	Titanium	5.00	+/-5.00	U	5.00	P	10/17/2024	17:17	LB132993

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Chemtech Consulting Group		SDG No.: P3847							
Contract: CHEM02	Lab Code: CHEM	Case No.: P3847	SAS No.: P3847						
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	20.0	+/-20.0	U	20.0	P	10/17/2024	18:07	LB132993
	Antimony	0.42	+/-2.00	J	2.00	P	10/17/2024	18:07	LB132993
	Arsenic	1.00	+/-1.00	U	1.00	P	10/17/2024	18:07	LB132993
	Barium	10.0	+/-10.0	U	10.0	P	10/17/2024	18:07	LB132993
	Beryllium	0.47	+/-1.00	J	1.00	P	10/17/2024	18:07	LB132993
	Cadmium	1.00	+/-1.00	U	1.00	P	10/17/2024	18:07	LB132993
	Calcium	500	+/-500	U	500	P	10/17/2024	18:07	LB132993
	Chromium	2.00	+/-2.00	U	2.00	P	10/17/2024	18:07	LB132993
	Cobalt	1.00	+/-1.00	U	1.00	P	10/17/2024	18:07	LB132993
	Copper	2.00	+/-2.00	U	2.00	P	10/17/2024	18:07	LB132993
	Iron	50.0	+/-50.0	U	50.0	P	10/17/2024	18:07	LB132993
	Lead	0.42	+/-1.00	J	1.00	P	10/17/2024	18:07	LB132993
	Magnesium	500	+/-500	U	500	P	10/17/2024	18:07	LB132993
	Manganese	0.28	+/-1.00	J	1.00	P	10/17/2024	18:07	LB132993
	Nickel	1.00	+/-1.00	U	1.00	P	10/17/2024	18:07	LB132993
	Potassium	500	+/-500	U	500	P	10/17/2024	18:07	LB132993
	Tin	5.00	+/-5.00	U	5.00	P	10/17/2024	18:07	LB132993
	Selenium	5.00	+/-5.00	U	5.00	P	10/17/2024	18:07	LB132993
	Molybdenum	5.00	+/-5.00	U	5.00	P	10/17/2024	18:07	LB132993
	Silver	1.00	+/-1.00	U	1.00	P	10/17/2024	18:07	LB132993
	Sodium	97.7	+/-500	J	500	P	10/17/2024	18:07	LB132993
	Thallium	1.00	+/-1.00	U	1.00	P	10/17/2024	18:07	LB132993
	Vanadium	5.00	+/-5.00	U	5.00	P	10/17/2024	18:07	LB132993
	Zinc	5.00	+/-5.00	U	5.00	P	10/17/2024	18:07	LB132993
	Strontium	0.50	+/-1.00	J	1.00	P	10/17/2024	18:07	LB132993
	Titanium	0.40	+/-5.00	J	5.00	P	10/17/2024	18:07	LB132993
CCB02	Aluminum	20.0	+/-20.0	U	20.0	P	10/17/2024	18:58	LB132993
	Antimony	0.38	+/-2.00	J	2.00	P	10/17/2024	18:58	LB132993
	Arsenic	1.00	+/-1.00	U	1.00	P	10/17/2024	18:58	LB132993
	Barium	10.0	+/-10.0	U	10.0	P	10/17/2024	18:58	LB132993
	Beryllium	0.32	+/-1.00	J	1.00	P	10/17/2024	18:58	LB132993
	Cadmium	1.00	+/-1.00	U	1.00	P	10/17/2024	18:58	LB132993
	Calcium	500	+/-500	U	500	P	10/17/2024	18:58	LB132993
	Chromium	2.00	+/-2.00	U	2.00	P	10/17/2024	18:58	LB132993
	Cobalt	1.00	+/-1.00	U	1.00	P	10/17/2024	18:58	LB132993
	Copper	2.00	+/-2.00	U	2.00	P	10/17/2024	18:58	LB132993
	Iron	50.0	+/-50.0	U	50.0	P	10/17/2024	18:58	LB132993
	Lead	0.22	+/-1.00	J	1.00	P	10/17/2024	18:58	LB132993
	Magnesium	500	+/-500	U	500	P	10/17/2024	18:58	LB132993

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Chemtech Consulting Group		SDG No.: P3847							
Contract: CHEM02	Lab Code: CHEM	Case No.: P3847	SAS No.: P3847						
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Manganese	1.00	+/-1.00	U	1.00	P	10/17/2024	18:58	LB132993
	Nickel	1.00	+/-1.00	U	1.00	P	10/17/2024	18:58	LB132993
	Potassium	500	+/-500	U	500	P	10/17/2024	18:58	LB132993
	Selenium	5.00	+/-5.00	U	5.00	P	10/17/2024	18:58	LB132993
	Tin	0.13	+/-5.00	J	5.00	P	10/17/2024	18:58	LB132993
	Molybdenum	5.00	+/-5.00	U	5.00	P	10/17/2024	18:58	LB132993
	Silver	1.00	+/-1.00	U	1.00	P	10/17/2024	18:58	LB132993
	Sodium	500	+/-500	U	500	P	10/17/2024	18:58	LB132993
	Thallium	1.00	+/-1.00	U	1.00	P	10/17/2024	18:58	LB132993
	Vanadium	5.00	+/-5.00	U	5.00	P	10/17/2024	18:58	LB132993
	Zinc	5.00	+/-5.00	U	5.00	P	10/17/2024	18:58	LB132993
	Strontium	0.46	+/-1.00	J	1.00	P	10/17/2024	18:58	LB132993
	Titanium	0.31	+/-5.00	J	5.00	P	10/17/2024	18:58	LB132993
CCB03	Aluminum	20.0	+/-20.0	U	20.0	P	10/17/2024	19:35	LB132993
	Antimony	0.17	+/-2.00	J	2.00	P	10/17/2024	19:35	LB132993
	Arsenic	1.00	+/-1.00	U	1.00	P	10/17/2024	19:35	LB132993
	Barium	10.0	+/-10.0	U	10.0	P	10/17/2024	19:35	LB132993
	Beryllium	0.25	+/-1.00	J	1.00	P	10/17/2024	19:35	LB132993
	Cadmium	1.00	+/-1.00	U	1.00	P	10/17/2024	19:35	LB132993
	Calcium	500	+/-500	U	500	P	10/17/2024	19:35	LB132993
	Chromium	2.00	+/-2.00	U	2.00	P	10/17/2024	19:35	LB132993
	Cobalt	1.00	+/-1.00	U	1.00	P	10/17/2024	19:35	LB132993
	Copper	2.00	+/-2.00	U	2.00	P	10/17/2024	19:35	LB132993
	Iron	50.0	+/-50.0	U	50.0	P	10/17/2024	19:35	LB132993
	Lead	0.13	+/-1.00	J	1.00	P	10/17/2024	19:35	LB132993
	Magnesium	500	+/-500	U	500	P	10/17/2024	19:35	LB132993
	Manganese	1.00	+/-1.00	U	1.00	P	10/17/2024	19:35	LB132993
	Nickel	1.00	+/-1.00	U	1.00	P	10/17/2024	19:35	LB132993
	Potassium	500	+/-500	U	500	P	10/17/2024	19:35	LB132993
	Molybdenum	5.00	+/-5.00	U	5.00	P	10/17/2024	19:35	LB132993
	Tin	5.00	+/-5.00	U	5.00	P	10/17/2024	19:35	LB132993
	Selenium	5.00	+/-5.00	U	5.00	P	10/17/2024	19:35	LB132993
	Silver	1.00	+/-1.00	U	1.00	P	10/17/2024	19:35	LB132993
	Sodium	500	+/-500	U	500	P	10/17/2024	19:35	LB132993
	Thallium	1.00	+/-1.00	U	1.00	P	10/17/2024	19:35	LB132993
	Vanadium	5.00	+/-5.00	U	5.00	P	10/17/2024	19:35	LB132993
	Zinc	5.00	+/-5.00	U	5.00	P	10/17/2024	19:35	LB132993
	Strontium	1.00	+/-1.00	U	1.00	P	10/17/2024	19:35	LB132993
	Titanium	5.00	+/-5.00	U	5.00	P	10/17/2024	19:35	LB132993

Metals
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PREPARATION BLANK SUMMARY

Client: Chemtech Consulting Group

SDG No.: P3847

Instrument: P7

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB164203BL	WATER			Batch Number:	PB164203		Prep Date:	10/17/2024	
	Aluminum	20.0	<20.0	U	20.0	P	10/17/2024	19:16	LB132993
	Antimony	2.00	<2.00	U	2.00	P	10/17/2024	19:16	LB132993
	Arsenic	1.00	<1.00	U	1.00	P	10/17/2024	19:16	LB132993
	Barium	10.0	<10.0	U	10.0	P	10/17/2024	19:16	LB132993
	Beryllium	1.00	<1.00	U	1.00	P	10/17/2024	19:16	LB132993
	Cadmium	1.00	<1.00	U	1.00	P	10/17/2024	19:16	LB132993
	Calcium	500	<500	U	500	P	10/17/2024	19:16	LB132993
	Chromium	2.00	<2.00	U	2.00	P	10/17/2024	19:16	LB132993
	Cobalt	1.00	<1.00	U	1.00	P	10/17/2024	19:16	LB132993
	Copper	2.00	<2.00	U	2.00	P	10/17/2024	19:16	LB132993
	Iron	50.0	<50.0	U	50.0	P	10/17/2024	19:16	LB132993
	Lead	1.00	<1.00	U	1.00	P	10/17/2024	19:16	LB132993
	Magnesium	500	<500	U	500	P	10/17/2024	19:16	LB132993
	Manganese	1.00	<1.00	U	1.00	P	10/17/2024	19:16	LB132993
	Nickel	1.00	<1.00	U	1.00	P	10/17/2024	19:16	LB132993
	Potassium	500	<500	U	500	P	10/17/2024	19:16	LB132993
	Tin	5.00	<5.00	U	5.00	P	10/17/2024	19:16	LB132993
	Molybdenum	5.00	<5.00	U	5.00	P	10/17/2024	19:16	LB132993
	Selenium	5.00	<5.00	U	5.00	P	10/17/2024	19:16	LB132993
	Silver	1.00	<1.00	U	1.00	P	10/17/2024	19:16	LB132993
	Sodium	500	<500	U	500	P	10/17/2024	19:16	LB132993
	Thallium	1.00	<1.00	U	1.00	P	10/17/2024	19:16	LB132993
	Vanadium	5.00	<5.00	U	5.00	P	10/17/2024	19:16	LB132993
	Zinc	5.00	<5.00	U	5.00	P	10/17/2024	19:16	LB132993
	Strontium	1.00	<1.00	U	1.00	P	10/17/2024	19:16	LB132993
	Titanium	5.00	<5.00	U	5.00	P	10/17/2024	19:16	LB132993

Metals
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INTERFERENCE CHECK SAMPLE

Client: Chemtech Consulting Group	SDG No.: P3847
Contract: CHEM02 Lab Code: CHEM	Case No.: P3847 SAS No.: P3847
ICS Source: EPA	Instrument ID: P7

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Aluminum	90400	100000	90	0	0	10/17/2024	17:20	LB132993
	Antimony	1.12	1.5	75	-2.5	5.5	10/17/2024	17:20	LB132993
	Arsenic	0.42	0.1	420	-1.9	2.1	10/17/2024	17:20	LB132993
	Barium	1.34	1.2	112	-18.8	21.2	10/17/2024	17:20	LB132993
	Beryllium	0.34			-2	2	10/17/2024	17:20	LB132993
	Cadmium	0.20	0.7	29	-1.3	2.7	10/17/2024	17:20	LB132993
	Calcium	98300	100000	98	0	0	10/17/2024	17:20	LB132993
	Chromium	19.2	21.0	91	17	25	10/17/2024	17:20	LB132993
	Cobalt	1.18	1.0	118	-1	3	10/17/2024	17:20	LB132993
	Copper	7.26	8.0	91	4	12	10/17/2024	17:20	LB132993
	Iron	103000	100000	103	0	0	10/17/2024	17:20	LB132993
	Lead	4.04	4.0	101	2	6	10/17/2024	17:20	LB132993
	Magnesium	92800	100000	93	0	0	10/17/2024	17:20	LB132993
	Manganese	7.73	7.0	110	5	9	10/17/2024	17:20	LB132993
	Nickel	5.29	6.0	88	4	8	10/17/2024	17:20	LB132993
	Potassium	96900	100000	97	0	0	10/17/2024	17:20	LB132993
	Selenium	0.70	0.3	233	-9.7	10	10/17/2024	17:20	LB132993
	Tin	0.16			0	0	10/17/2024	17:20	LB132993
	Molybdenum	1920	2000	96	1600	2400	10/17/2024	17:20	LB132993
	Silver	0.080			-2	2	10/17/2024	17:20	LB132993
	Sodium	97800	100000	98	0	0	10/17/2024	17:20	LB132993
	Thallium	0.17			-2	2	10/17/2024	17:20	LB132993
	Vanadium	0.18	0.5	36	-9.5	10.5	10/17/2024	17:20	LB132993
	Zinc	11.0	11.0	100	7	15	10/17/2024	17:20	LB132993
	Strontium	34.1			0	0	10/17/2024	17:20	LB132993
	Titanium	2070	2000	104	1600	2400	10/17/2024	17:20	LB132993
ICSAB01	Aluminum	89100	100000	89	0	0	10/17/2024	17:23	LB132993
	Antimony	20.3	22.0	92	18	26	10/17/2024	17:23	LB132993
	Arsenic	18.6	19.0	98	16.2	21.9	10/17/2024	17:23	LB132993
	Barium	19.8	22.0	90	2	42	10/17/2024	17:23	LB132993
	Beryllium	19.9	19.0	105	16.2	21.9	10/17/2024	17:23	LB132993
	Cadmium	20.2	20.0	101	17	23	10/17/2024	17:23	LB132993
	Calcium	97700	100000	98	0	0	10/17/2024	17:23	LB132993
	Chromium	38.2	40.0	96	34	46	10/17/2024	17:23	LB132993
	Cobalt	19.8	20.0	99	17	23	10/17/2024	17:23	LB132993
	Copper	24.7	25.0	99	21	29	10/17/2024	17:23	LB132993
	Iron	102000	100000	102	0	0	10/17/2024	17:23	LB132993
	Lead	23.4	25.0	94	21.3	28.8	10/17/2024	17:23	LB132993
	Magnesium	90800	100000	91	0	0	10/17/2024	17:23	LB132993
	Manganese	26.4	27.0	98	23	31.1	10/17/2024	17:23	LB132993
	Nickel	23.9	24.0	100	20.4	27.6	10/17/2024	17:23	LB132993
	Potassium	95800	100000	96	0	0	10/17/2024	17:23	LB132993

Metals
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INTERFERENCE CHECK SAMPLE

Client: Chemtech Consulting Group **SDG No.:** P3847
Contract: CHEM02 **Lab Code:** CHEM **Case No.:** P3847 **SAS No.:** P3847
ICS Source: EPA **Instrument ID:** P7

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSAB01	Selenium	20.7	19.0	109	9	29	10/17/2024	17:23	LB132993
	Tin	49.4			0	0	10/17/2024	17:23	LB132993
	Molybdenum	1960	2000	98	1600	2400	10/17/2024	17:23	LB132993
	Silver	18.3	18.0	102	15.3	20.7	10/17/2024	17:23	LB132993
	Sodium	97400	100000	97	0	0	10/17/2024	17:23	LB132993
	Thallium	22.2	21.0	106	17.9	24.2	10/17/2024	17:23	LB132993
	Vanadium	18.3	19.0	96	9	29	10/17/2024	17:23	LB132993
	Zinc	29.0	29.0	100	25	33	10/17/2024	17:23	LB132993
	Strontium	82.9			0	0	10/17/2024	17:23	LB132993
	Titanium	2120	2000	106	1600	2400	10/17/2024	17:23	LB132993



METAL QC DATA

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Chemtech Consulting Group **SDG No.:** P3847
Contract: CHEM02 **Lab Code:** CHEM **Case No.:** P3847 **SAS No.:** P3847

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB164203BS							
Aluminum	ug/L	10000	10100		101	80 - 120	P
Antimony	ug/L	500	552		110	80 - 120	P
Arsenic	ug/L	500	480		96	80 - 120	P
Barium	ug/L	2500	2690		108	80 - 120	P
Beryllium	ug/L	500	527		105	80 - 120	P
Cadmium	ug/L	500	548		110	80 - 120	P
Calcium	ug/L	50000	56000		112	80 - 120	P
Chromium	ug/L	500	489		98	80 - 120	P
Cobalt	ug/L	500	486		97	80 - 120	P
Copper	ug/L	5000	4900		98	80 - 120	P
Iron	ug/L	25000	27600		110	80 - 120	P
Lead	ug/L	2500	2680		107	80 - 120	P
Magnesium	ug/L	50000	47600		95	80 - 120	P
Manganese	ug/L	5000	4800		96	80 - 120	P
Nickel	ug/L	500	485		97	80 - 120	P
Potassium	ug/L	25000	25300		101	80 - 120	P
Tin	ug/L	500	547		109	80 - 120	P
Molybdenum	ug/L	5000	5890		118	80 - 120	P
Selenium	ug/L	500	543		109	80 - 120	P
Silver	ug/L	500	557		111	80 - 120	P
Sodium	ug/L	50000	50800		102	80 - 120	P
Thallium	ug/L	500	536		107	80 - 120	P
Vanadium	ug/L	500	476		95	80 - 120	P
Zinc	ug/L	5000	4840		97	80 - 120	P
Strontium	ug/L	12500	13400		107	80 - 120	P
Titanium	ug/L	5000	5900		118	80 - 120	P

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: Chemtech Consulting Group

Contract: CHEM02

Lab Code: CHEM Case no.: P3847

Sas No.: P3847 SDG No.: P3847

Instrument ID: P7

Start Date : 10/17/2024

Run Number: LB132993

End Date : 10/17/2024

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 6Li	Q	Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q
S0	S0	1619	100		100		100		100		100	
S2	S2	1623	101		102		101		101		101	
S3	S3	1626	101		102		100		100		102	
S4	S4	1629	100		100		100		98		102	
S5	S5	1633	98		98		98		96		102	
S6	S6	1636	96		96		97		93		103	
S7	S7	1641	99		98		101		94		107	
S8	S8	1644	97		97		96		86		101	
ICV01	ICV01	1703	105		105		105		103		107	
LLICV	LLICV	1709	106		106		105		104		108	
ICB01	ICB01	1717	104		103		102		103		104	
ICSA01	ICSA01	1720	99		98		100		93		106	
ICSAB01	ICSAB01	1723	103		100		102		97		109	
CCV01	CCV01	1804	104		102		101		92		103	
CCB01	CCB01	1807	110		106		105		104		109	
CRI	CRI	1811	108		106		105		104		107	
P3847-02	PT-TM1-WP	1825	109		108		108		107		108	
P3847-04	PT-SNTI-WP	1828	111		109		110		108		108	
P3847-06	PT-MIN2-WP	1832	140	*	151	*	148	*	142	*	148	*
ZZZZZZ	ZZZZZZ	1835										
ZZZZZZ	ZZZZZZ	1838										
ZZZZZZ	ZZZZZZ	1841										
P3847-02	PT-TM1-WP	1845	106		103		103		101		104	
P3847-04	PT-SNTI-WP	1848	106		104		103		104		107	
P3847-06	PT-MIN2-WP	1851	109		109		109		106		111	
CCV02	CCV02	1855	99		99		100		91		103	
CCB02	CCB02	1858	105		104		103		101		105	
ZZZZZZ	ZZZZZZ	1901										
ZZZZZZ	ZZZZZZ	1904										
ZZZZZZ	ZZZZZZ	1908										
PB164203BL	PB164203BL	1916	105		105		104		105		106	
PB164203BS	PB164203BS	1920	97		97		97		94		100	
ZZZZZZ	ZZZZZZ	1922										
ZZZZZZ	ZZZZZZ	1926										
CCV03	CCV03	1929	99		99		100		92		104	
CCB03	CCB03	1935	103		103		103		104		106	

Internal Standard %RI Limit: 70 - 130

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: Chemtech Consulting Group

Contract: CHEM02

Lab Code: CHEM Case no.: P3847

Sas No.: P3847 SDG No.: P3847

Instrument ID: P7

Start Date : 10/17/2024

Run Number: LB132993

End Date : 10/17/2024

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q	Element 165Ho	Q
S0	S0	1619	100		100		100		100		100	
S2	S2	1623	104		104		104		105		104	
S3	S3	1626	104		105		104		106		106	
S4	S4	1629	103		103		103		106		105	
S5	S5	1633	101		102		100		107		105	
S6	S6	1636	100		102		99		107		108	
S7	S7	1641	97		98		94		103		102	
S8	S8	1644	101		100		89		104		103	
ICV01	ICV01	1703	105		105		104		108		106	
LLICV	LLICV	1709	109		108		109		109		110	
ICB01	ICB01	1717	106		106		107		107		108	
ICSA01	ICSA01	1720	103		105		99		109		110	
ICSAB01	ICSAB01	1723	105		107		101		111		111	
CCV01	CCV01	1804	103		102		94		105		106	
CCB01	CCB01	1807	111		111		110		112		111	
CRI	CRI	1811	111		111		111		113		112	
P3847-02	PT-TM1-WP	1825	111		111		110		112		111	
P3847-04	PT-SNTI-WP	1828	112		112		112		113		112	
P3847-06	PT-MIN2-WP	1832	149	*	146	*	145	*	148	*	148	*
ZZZZZZ	ZZZZZZ	1835										
ZZZZZZ	ZZZZZZ	1838										
ZZZZZZ	ZZZZZZ	1841										
P3847-02	PT-TM1-WP	1845	106		106		107		109		109	
P3847-04	PT-SNTI-WP	1848	108		109		109		111		109	
P3847-06	PT-MIN2-WP	1851	111		111		110		112		112	
CCV02	CCV02	1855	102		102		94		107		105	
CCB02	CCB02	1858	102		101		101		104		104	
ZZZZZZ	ZZZZZZ	1901										
ZZZZZZ	ZZZZZZ	1904										
ZZZZZZ	ZZZZZZ	1908										
PB164203BL	PB164203BL	1916	107		107		108		109		109	
PB164203BS	PB164203BS	1920	105		106		103		110		110	
ZZZZZZ	ZZZZZZ	1922										
ZZZZZZ	ZZZZZZ	1926										
CCV03	CCV03	1929	103		103		95		107		106	
CCB03	CCB03	1935	106		106		107		110		109	

Internal Standard %RI Limit: 70 - 130

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Chemtech Consulting Group

Contract: CHEM02

Lab Code: CHEM Case no.: P3847

Sas No.: P3847 SDG No.: P3847

Instrument ID: P7

Start Date : 10/17/2024

Run Number: LB132993

End Date : 10/17/2024

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 165Ho	Q	Element 209Bi	Q	Element	Q	Element	Q	Element	Q
S0	S0	1619	100		100							
S2	S2	1623	101		100							
S3	S3	1626	102		101							
S4	S4	1629	102		101							
S5	S5	1633	102		101							
S6	S6	1636	103		100							
S7	S7	1641	108		104							
S8	S8	1644	100		90							
ICV01	ICV01	1703	107		107							
LLICV	LLICV	1709	107		108							
ICB01	ICB01	1717	104		104							
ICSA01	ICSA01	1720	106		100							
ICSAB01	ICSAB01	1723	109		103							
CCV01	CCV01	1804	105		96							
CCB01	CCB01	1807	108		109							
CRI	CRI	1811	107		107							
P3847-02	PT-TM1-WP	1825	108		108							
P3847-04	PT-SNTI-WP	1828	111		109							
P3847-06	PT-MIN2-WP	1832	150	*	143	*						
ZZZZZZ	ZZZZZZ	1835										
ZZZZZZ	ZZZZZZ	1838										
ZZZZZZ	ZZZZZZ	1841										
P3847-02	PT-TM1-WP	1845	104		103							
P3847-04	PT-SNTI-WP	1848	105		104							
P3847-06	PT-MIN2-WP	1851	110		109							
CCV02	CCV02	1855	103		94							
CCB02	CCB02	1858	106		105							
ZZZZZZ	ZZZZZZ	1901										
ZZZZZZ	ZZZZZZ	1904										
ZZZZZZ	ZZZZZZ	1908										
PB164203BL	PB164203BL	1916	106		107							
PB164203BS	PB164203BS	1920	101		96							
ZZZZZZ	ZZZZZZ	1922										
ZZZZZZ	ZZZZZZ	1926										

Internal Standard %RI Limit: 70 -130

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Chemtech Consulting Group

Contract: CHEM02

Lab Code: CHEM Case no.: P3847

Sas No.: P3847 SDG No.: P3847

Instrument ID: P7

Start Date : 10/17/2024

Run Number: LB132993

End Date : 10/17/2024

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 165Ho	Q	Element 209Bi	Q	Element	Q	Element	Q	Element	Q
CCV03	CCV03	1929	105		96							
CCB03	CCB03	1935	106		106							

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Chemtech Consulting Group
Lab Code: CHEM Case no.: P3847
Instrument ID: P7
Run Number: LB132993

Contract: CHEM02
Sas No.: P3847 SDG No.: P3847
Start Date : 10/17/2024
End Date : 10/17/2024

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 209Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
S0	S0	1619	100									
S2	S2	1623	104									
S3	S3	1626	105									
S4	S4	1629	105									
S5	S5	1633	104									
S6	S6	1636	106									
S7	S7	1641	99									
S8	S8	1644	84									
ICV01	ICV01	1703	106									
LLICV	LLICV	1709	110									
ICB01	ICB01	1717	110									
ICSA01	ICSA01	1720	105									
ICSAB01	ICSAB01	1723	106									
CCV01	CCV01	1804	88									
CCB01	CCB01	1807	113									
CRI	CRI	1811	113									
P3847-02	PT-TM1-WP	1825	111									
P3847-04	PT-SNTI-WP	1828	114									
P3847-06	PT-MIN2-WP	1832	145	*								
ZZZZZZ	ZZZZZZ	1835										
ZZZZZZ	ZZZZZZ	1838										
ZZZZZZ	ZZZZZZ	1841										
P3847-02	PT-TM1-WP	1845	110									
P3847-04	PT-SNTI-WP	1848	111									
P3847-06	PT-MIN2-WP	1851	112									
CCV02	CCV02	1855	88									
CCB02	CCB02	1858	105									
ZZZZZZ	ZZZZZZ	1901										
ZZZZZZ	ZZZZZZ	1904										
ZZZZZZ	ZZZZZZ	1908										
PB164203BL	PB164203BL	1916	111									
PB164203BS	PB164203BS	1920	106									
ZZZZZZ	ZZZZZZ	1922										
ZZZZZZ	ZZZZZZ	1926										

Internal Standard %RI Limit: 70 -130

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: Chemtech Consulting Group

Contract: CHEM02

Lab Code: CHEM Case no.: P3847

Sas No.: P3847 SDG No.: P3847

Instrument ID: P7

Start Date : 10/17/2024

Run Number: LB132993

End Date : 10/17/2024

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 209Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
CCV03	CCV03	1929	89									
CCB03	CCB03	1935	111									



METAL PREPARATION & INSTRUMENT DATA

METAL PREPARATION & ANALYICAL SUMMARY

Metals

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SAMPLE PREPARATION SUMMARY

Client:	<u>Chemtech Consulting Group</u>	SDG No.:	<u>P3847</u>
Contract:	<u>CHEM02</u>	Lab Code:	<u>CHEM</u>
		Method:	<u></u>
		Case No.:	<u>P3847</u>
		SAS No.:	<u>P3847</u>

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB164203							
P3847-02	PT-TM1-WP	SAM	WATER	10/17/2024	50.0	50.0	
P3847-04	PT-SNTI-WP	SAM	WATER	10/17/2024	50.0	50.0	
P3847-06	PT-MIN2-WP	SAM	WATER	10/17/2024	50.0	50.0	
PB164203BL	PB164203BL	MB	WATER	10/17/2024	50.0	50.0	
PB164203BS	PB164203BS	LCS	WATER	10/17/2024	50.0	50.0	

metals
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ANALYSIS RUN LOG

Client: Chemtech Consulting Group **Contract:** CHEM02

Lab code: CHEM **Case no.:** P3847 **Sas no.:** P3847 **Sdg no.:** P3847

Instrument id number: **Method:** **Run number:** LB132993

Start date: 10/17/2024 **End date:** 10/17/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1619	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
S2	S2	1	1623	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
S3	S3	1	1626	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
S4	S4	1	1629	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
S5	S5	1	1633	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
S6	S6	1	1636	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
S7	S7	1	1641	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
S8	S8	1	1644	Al,Ca,Fe,K,Mg,Na
ICV01	ICV01	1	1703	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
LLICV	LLICV	1	1709	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
ICB01	ICB01	1	1717	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
ICSA01	ICSA01	1	1720	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
ICSAB01	ICSAB01	1	1723	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
CCV01	CCV01	1	1804	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
CCB01	CCB01	1	1807	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
CRI	CRI	1	1811	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
P3847-02	PT-TM1-WP	1	1825	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Pb,Sb,Se,Sn,Sr,Ti,Tl,Zn
P3847-04	PT-SNTI-WP	1	1828	Ti
P3847-02	PT-TM1-WP	2	1845	Ni, V
P3847-04	PT-SNTI-WP	2	1848	Sn
P3847-06	PT-MIN2-WP	5	1851	Ca,K,Mg,Na
CCV02	CCV02	1	1855	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
CCB02	CCB02	1	1858	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
PB164203BL	PB164203BL	1	1916	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
PB164203BS	PB164203BS	1	1920	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
CCV03	CCV03	1	1929	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
CCB03	CCB03	1	1935	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn