



LAB CHRONICLE

OrderID:	P3467	OrderDate:	8/2/2024 4:30:00 PM
Client:	JACOBS Engineering Group, Inc.	Project:	Former Schlumberger Site Princeton NJ
Contact:	Mary I. Murphy	Location:	D21,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P3467-01	919-J-WS-080224	Water	Mercury	7470A	08/02/24	08/12/24	08/13/24	08/02/24
			Metals Group4	6010D		08/05/24	08/21/24	

Hit Summary Sheet SW-846

SDG No.:	P3467	Order ID:	P3467
Client:	JACOBS Engineering Group, Inc.	Project ID:	Former Schlumberger Site Princeton NJ

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : 919-J-WS-080224								
P3467-01	919-J-WS-080224	Water	Aluminum	1820		28.3	50.0	ug/L
P3467-01	919-J-WS-080224	Water	Arsenic	4.41	J	3.48	10.0	ug/L
P3467-01	919-J-WS-080224	Water	Barium	78.2		6.28	50.0	ug/L
P3467-01	919-J-WS-080224	Water	Beryllium	0.16	J	0.13	3.00	ug/L
P3467-01	919-J-WS-080224	Water	Boron	60.9		9.95	50.0	ug/L
P3467-01	919-J-WS-080224	Water	Calcium	15900		33.0	1000	ug/L
P3467-01	919-J-WS-080224	Water	Chromium	5.32		0.66	5.00	ug/L
P3467-01	919-J-WS-080224	Water	Cobalt	2.52	J	0.50	15.0	ug/L
P3467-01	919-J-WS-080224	Water	Copper	29.7		7.07	10.0	ug/L
P3467-01	919-J-WS-080224	Water	Iron	10600		18.5	50.0	ug/L
P3467-01	919-J-WS-080224	Water	Lead	18.1		3.51	6.00	ug/L
P3467-01	919-J-WS-080224	Water	Magnesium	2860		39.4	1000	ug/L
P3467-01	919-J-WS-080224	Water	Manganese	530		1.46	10.0	ug/L
P3467-01	919-J-WS-080224	Water	Mercury	0.25		0.081	0.20	ug/L
P3467-01	919-J-WS-080224	Water	Nickel	5.27	J	0.85	20.0	ug/L
P3467-01	919-J-WS-080224	Water	Potassium	2470		685	1000	ug/L
P3467-01	919-J-WS-080224	Water	Silver	0.75	J	0.58	5.00	ug/L
P3467-01	919-J-WS-080224	Water	Sodium	46100		237	1000	ug/L
P3467-01	919-J-WS-080224	Water	Strontium	91.1		2.32	10.0	ug/L
P3467-01	919-J-WS-080224	Water	Titanium	38.4		2.35	20.0	ug/L
P3467-01	919-J-WS-080224	Water	Vanadium	5.78	J	3.06	20.0	ug/L
P3467-01	919-J-WS-080224	Water	Zinc	189		1.75	20.0	ug/L



SAMPLE DATA

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/02/24
Project:	Former Schlumberger Site Princeton NJ	Date Received:	08/02/24
Client Sample ID:	919-J-WS-080224	SDG No.:	P3467
Lab Sample ID:	P3467-01	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	1820		1	28.3	50.0	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-36-0	Antimony	2.06	U	1	2.06	25.0	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-38-2	Arsenic	4.41	J	1	3.48	10.0	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-39-3	Barium	78.2		1	6.28	50.0	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-41-7	Beryllium	0.16	J	1	0.13	3.00	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-42-8	Boron	60.9		1	9.95	50.0	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-43-9	Cadmium	0.094	U	1	0.094	3.00	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-70-2	Calcium	15900		1	33.0	1000	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-47-3	Chromium	5.32		1	0.66	5.00	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-48-4	Cobalt	2.52	J	1	0.50	15.0	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-50-8	Copper	29.7		1	7.07	10.0	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7439-89-6	Iron	10600		1	18.5	50.0	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7439-92-1	Lead	18.1		1	3.51	6.00	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7439-95-4	Magnesium	2860		1	39.4	1000	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7439-96-5	Manganese	530		1	1.46	10.0	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7439-97-6	Mercury	0.25		1	0.081	0.20	ug/L	08/12/24 16:13	08/13/24 10:49	SW7470A	
7439-98-7	Molybdenum	3.67	U	1	3.67	100	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-02-0	Nickel	5.27	J	1	0.85	20.0	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-09-7	Potassium	2470		1	685	1000	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7782-49-2	Selenium	5.88	U	1	5.88	10.0	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-22-4	Silver	0.75	J	1	0.58	5.00	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-23-5	Sodium	46100		1	237	1000	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-24-6	Strontium	91.1	N	1	2.32	10.0	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-28-0	Thallium	2.32	U	1	2.32	20.0	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-31-5	Tin	1.89	U	1	1.89	20.0	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-32-6	Titanium	38.4		1	2.35	20.0	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-62-2	Vanadium	5.78	J	1	3.06	20.0	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010
7440-66-6	Zinc	189		1	1.75	20.0	ug/L	08/05/24 09:15	08/21/24 18:49	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	Mercury			

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



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Client:	<u>JACOBS Engineering Group, Inc.</u>	SDG No.:	<u>P3467</u>	
Contract:	<u>JACO05</u>	Lab Code:	<u>CHEM</u>	Case No.: <u>P3467</u> SAS No.: <u>P3467</u>
Initial Calibration Source:	<u>EPA</u>			
Continuing Calibration Source:	<u>PLASMA-PURE</u>			

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV72	Mercury	4.01	4.0	100	90 - 110	CV	08/13/2024	08:53	LB131960

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. **SDG No.:** P3467

Contract: JACO05 **Lab Code:** CHEM **Case No.:** P3467 **SAS No.:** P3467

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
CCV35	Mercury	4.53	5.0	91	90 - 110	CV	08/13/2024	08:58	LB131960
CCV36	Mercury	4.77	5.0	95	90 - 110	CV	08/13/2024	09:33	LB131960
CCV37	Mercury	4.95	5.0	99	90 - 110	CV	08/13/2024	10:00	LB131960
CCV38	Mercury	4.86	5.0	97	90 - 110	CV	08/13/2024	10:30	LB131960
CCV39	Mercury	5.18	5.0	104	90 - 110	CV	08/13/2024	10:58	LB131960
CCV40	Mercury	5.09	5.0	102	90 - 110	CV	08/13/2024	11:24	LB131960

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: P3467
Contract: JACO05 Lab Code: CHEM Case No.: P3467 SAS No.: P3467
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2310	2500	92	90 - 110	P	08/07/2024	15:52	LB131900
	Antimony	937	1000	94	90 - 110	P	08/07/2024	15:52	LB131900
	Arsenic	903	1000	90	90 - 110	P	08/07/2024	15:52	LB131900
	Barium	489	520	94	90 - 110	P	08/07/2024	15:52	LB131900
	Beryllium	472	510	92	90 - 110	P	08/07/2024	15:52	LB131900
	Boron	2480	2500	99	90 - 110	P	08/07/2024	15:52	LB131900
	Cadmium	470	510	92	90 - 110	P	08/07/2024	15:52	LB131900
	Calcium	9780	10000	98	90 - 110	P	08/07/2024	15:52	LB131900
	Chromium	521	520	100	90 - 110	P	08/07/2024	15:52	LB131900
	Cobalt	487	520	94	90 - 110	P	08/07/2024	15:52	LB131900
	Copper	490	510	96	90 - 110	P	08/07/2024	15:52	LB131900
	Iron	10000	10000	100	90 - 110	P	08/07/2024	15:52	LB131900
	Lead	954	1000	95	90 - 110	P	08/07/2024	15:52	LB131900
	Magnesium	5520	6000	92	90 - 110	P	08/07/2024	15:52	LB131900
	Manganese	493	520	95	90 - 110	P	08/07/2024	15:52	LB131900
	Molybdenum	2710	2500	108	90 - 110	P	08/07/2024	15:52	LB131900
	Nickel	490	530	92	90 - 110	P	08/07/2024	15:52	LB131900
	Potassium	10300	9900	104	90 - 110	P	08/07/2024	15:52	LB131900
	Selenium	916	1000	92	90 - 110	P	08/07/2024	15:52	LB131900
	Silver	251	250	100	90 - 110	P	08/07/2024	15:52	LB131900
	Sodium	10500	10000	105	90 - 110	P	08/07/2024	15:52	LB131900
	Strontium	2500	2500	100	90 - 110	P	08/07/2024	15:52	LB131900
	Thallium	999	1000	100	90 - 110	P	08/07/2024	15:52	LB131900
	Tin	2630	2500	105	90 - 110	P	08/07/2024	15:52	LB131900
	Titanium	2640	2500	106	90 - 110	P	08/07/2024	15:52	LB131900
	Vanadium	475	500	95	90 - 110	P	08/07/2024	15:52	LB131900
	Zinc	1040	1000	104	90 - 110	P	08/07/2024	15:52	LB131900

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: P3467
 Contract: JACO05 Lab Code: CHEM Case No.: P3467 SAS No.: P3467
 Initial Calibration Source: EPA
 Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	102	100	102	80 - 120	P	08/07/2024	15:56	LB131900
	Antimony	51.2	50.0	102	80 - 120	P	08/07/2024	15:56	LB131900
	Arsenic	19.9	20.0	100	80 - 120	P	08/07/2024	15:56	LB131900
	Barium	101	100	101	80 - 120	P	08/07/2024	15:56	LB131900
	Beryllium	6.00	6.0	100	80 - 120	P	08/07/2024	15:56	LB131900
	Boron	102	100	102	80 - 120	P	08/07/2024	15:56	LB131900
	Cadmium	6.25	6.0	104	80 - 120	P	08/07/2024	15:56	LB131900
	Calcium	2040	2000	102	80 - 120	P	08/07/2024	15:56	LB131900
	Chromium	9.27	10.0	93	80 - 120	P	08/07/2024	15:56	LB131900
	Cobalt	29.6	30.0	99	80 - 120	P	08/07/2024	15:56	LB131900
	Copper	21.9	20.0	109	80 - 120	P	08/07/2024	15:56	LB131900
	Iron	99.5	100	100	80 - 120	P	08/07/2024	15:56	LB131900
	Lead	13.9	12.0	116	80 - 120	P	08/07/2024	15:56	LB131900
	Magnesium	2100	2000	105	80 - 120	P	08/07/2024	15:56	LB131900
	Manganese	20.6	20.0	103	80 - 120	P	08/07/2024	15:56	LB131900
	Molybdenum	201	200	101	80 - 120	P	08/07/2024	15:56	LB131900
	Nickel	40.0	40.0	100	80 - 120	P	08/07/2024	15:56	LB131900
	Potassium	1760	2000	88	80 - 120	P	08/07/2024	15:56	LB131900
	Selenium	18.3	20.0	91	80 - 120	P	08/07/2024	15:56	LB131900
	Silver	8.68	10.0	87	80 - 120	P	08/07/2024	15:56	LB131900
	Sodium	1730	2000	86	80 - 120	P	08/07/2024	15:56	LB131900
	Strontium	20.7	20.0	104	80 - 120	P	08/07/2024	15:56	LB131900
	Thallium	41.2	40.0	103	80 - 120	P	08/07/2024	15:56	LB131900
	Tin	36.0	40.0	90	80 - 120	P	08/07/2024	15:56	LB131900
	Titanium	40.8	40.0	102	80 - 120	P	08/07/2024	15:56	LB131900
	Vanadium	41.4	40.0	104	80 - 120	P	08/07/2024	15:56	LB131900
	Zinc	41.5	40.0	104	80 - 120	P	08/07/2024	15:56	LB131900

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: P3467
 Contract: JACO05 Lab Code: CHEM Case No.: P3467 SAS No.: P3467
 Initial Calibration Source: EPA
 Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	9700	10000	97	90 - 110	P	08/07/2024	16:20	LB131900
	Antimony	4930	5000	99	90 - 110	P	08/07/2024	16:20	LB131900
	Arsenic	4910	5000	98	90 - 110	P	08/07/2024	16:20	LB131900
	Barium	10000	10000	100	90 - 110	P	08/07/2024	16:20	LB131900
	Beryllium	249	250	100	90 - 110	P	08/07/2024	16:20	LB131900
	Boron	4900	5000	98	90 - 110	P	08/07/2024	16:20	LB131900
	Cadmium	2490	2500	100	90 - 110	P	08/07/2024	16:20	LB131900
	Calcium	25000	25000	100	90 - 110	P	08/07/2024	16:20	LB131900
	Chromium	1010	1000	100	90 - 110	P	08/07/2024	16:20	LB131900
	Cobalt	2470	2500	99	90 - 110	P	08/07/2024	16:20	LB131900
	Copper	1230	1250	98	90 - 110	P	08/07/2024	16:20	LB131900
	Iron	4990	5000	100	90 - 110	P	08/07/2024	16:20	LB131900
	Lead	5060	5000	101	90 - 110	P	08/07/2024	16:20	LB131900
	Magnesium	24600	25000	98	90 - 110	P	08/07/2024	16:20	LB131900
	Manganese	2480	2500	99	90 - 110	P	08/07/2024	16:20	LB131900
	Molybdenum	5040	5000	101	90 - 110	P	08/07/2024	16:20	LB131900
	Nickel	2490	2500	100	90 - 110	P	08/07/2024	16:20	LB131900
	Potassium	24300	25000	97	90 - 110	P	08/07/2024	16:20	LB131900
	Selenium	4880	5000	98	90 - 110	P	08/07/2024	16:20	LB131900
	Silver	1240	1250	100	90 - 110	P	08/07/2024	16:20	LB131900
	Sodium	24000	25000	96	90 - 110	P	08/07/2024	16:20	LB131900
	Strontium	5000	5000	100	90 - 110	P	08/07/2024	16:20	LB131900
	Thallium	5160	5000	103	90 - 110	P	08/07/2024	16:20	LB131900
	Tin	5000	5000	100	90 - 110	P	08/07/2024	16:20	LB131900
	Titanium	4950	5000	99	90 - 110	P	08/07/2024	16:20	LB131900
	Vanadium	2460	2500	98	90 - 110	P	08/07/2024	16:20	LB131900
	Zinc	2540	2500	102	90 - 110	P	08/07/2024	16:20	LB131900
CCV02	Aluminum	9760	10000	98	90 - 110	P	08/07/2024	17:14	LB131900
	Antimony	4910	5000	98	90 - 110	P	08/07/2024	17:14	LB131900
	Arsenic	4900	5000	98	90 - 110	P	08/07/2024	17:14	LB131900
	Barium	10200	10000	102	90 - 110	P	08/07/2024	17:14	LB131900
	Beryllium	250	250	100	90 - 110	P	08/07/2024	17:14	LB131900
	Boron	4890	5000	98	90 - 110	P	08/07/2024	17:14	LB131900
	Cadmium	2520	2500	101	90 - 110	P	08/07/2024	17:14	LB131900

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: P3467
Contract: JACO05 Lab Code: CHEM Case No.: P3467 SAS No.: P3467
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Calcium	25500	25000	102	90 - 110	P	08/07/2024	17:14	LB131900
	Chromium	1010	1000	101	90 - 110	P	08/07/2024	17:14	LB131900
	Cobalt	2490	2500	100	90 - 110	P	08/07/2024	17:14	LB131900
	Copper	1240	1250	99	90 - 110	P	08/07/2024	17:14	LB131900
	Iron	5090	5000	102	90 - 110	P	08/07/2024	17:14	LB131900
	Lead	5100	5000	102	90 - 110	P	08/07/2024	17:14	LB131900
	Magnesium	24800	25000	99	90 - 110	P	08/07/2024	17:14	LB131900
	Manganese	2530	2500	101	90 - 110	P	08/07/2024	17:14	LB131900
	Molybdenum	5050	5000	101	90 - 110	P	08/07/2024	17:14	LB131900
	Nickel	2510	2500	100	90 - 110	P	08/07/2024	17:14	LB131900
	Potassium	24500	25000	98	90 - 110	P	08/07/2024	17:14	LB131900
	Selenium	4850	5000	97	90 - 110	P	08/07/2024	17:14	LB131900
	Silver	1250	1250	100	90 - 110	P	08/07/2024	17:14	LB131900
	Sodium	24200	25000	97	90 - 110	P	08/07/2024	17:14	LB131900
	Strontium	5100	5000	102	90 - 110	P	08/07/2024	17:14	LB131900
	Thallium	5130	5000	103	90 - 110	P	08/07/2024	17:14	LB131900
	Tin	5030	5000	100	90 - 110	P	08/07/2024	17:14	LB131900
	Titanium	5060	5000	101	90 - 110	P	08/07/2024	17:14	LB131900
	Vanadium	2490	2500	100	90 - 110	P	08/07/2024	17:14	LB131900
	Zinc	2560	2500	102	90 - 110	P	08/07/2024	17:14	LB131900
CCV03	Aluminum	9390	10000	94	90 - 110	P	08/07/2024	18:51	LB131900
	Antimony	4780	5000	96	90 - 110	P	08/07/2024	18:51	LB131900
	Arsenic	4720	5000	94	90 - 110	P	08/07/2024	18:51	LB131900
	Barium	9840	10000	98	90 - 110	P	08/07/2024	18:51	LB131900
	Beryllium	252	250	101	90 - 110	P	08/07/2024	18:51	LB131900
	Boron	4910	5000	98	90 - 110	P	08/07/2024	18:51	LB131900
	Cadmium	2440	2500	98	90 - 110	P	08/07/2024	18:51	LB131900
	Calcium	24700	25000	99	90 - 110	P	08/07/2024	18:51	LB131900
	Chromium	996	1000	100	90 - 110	P	08/07/2024	18:51	LB131900
	Cobalt	2430	2500	97	90 - 110	P	08/07/2024	18:51	LB131900
	Copper	1200	1250	96	90 - 110	P	08/07/2024	18:51	LB131900
	Iron	4920	5000	98	90 - 110	P	08/07/2024	18:51	LB131900
	Lead	4950	5000	99	90 - 110	P	08/07/2024	18:51	LB131900
	Magnesium	24200	25000	97	90 - 110	P	08/07/2024	18:51	LB131900

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: P3467
Contract: JACO05 Lab Code: CHEM Case No.: P3467 SAS No.: P3467
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV03	Manganese	2460	2500	98	90 - 110	P	08/07/2024	18:51	LB131900
	Molybdenum	4970	5000	99	90 - 110	P	08/07/2024	18:51	LB131900
	Nickel	2440	2500	97	90 - 110	P	08/07/2024	18:51	LB131900
	Potassium	24200	25000	97	90 - 110	P	08/07/2024	18:51	LB131900
	Selenium	4670	5000	93	90 - 110	P	08/07/2024	18:51	LB131900
	Silver	1240	1250	99	90 - 110	P	08/07/2024	18:51	LB131900
	Sodium	23600	25000	94	90 - 110	P	08/07/2024	18:51	LB131900
	Strontium	4900	5000	98	90 - 110	P	08/07/2024	18:51	LB131900
	Thallium	4990	5000	100	90 - 110	P	08/07/2024	18:51	LB131900
	Tin	4860	5000	97	90 - 110	P	08/07/2024	18:51	LB131900
	Titanium	4890	5000	98	90 - 110	P	08/07/2024	18:51	LB131900
	Vanadium	2420	2500	97	90 - 110	P	08/07/2024	18:51	LB131900
	Zinc	2500	2500	100	90 - 110	P	08/07/2024	18:51	LB131900
CCV04	Aluminum	9190	10000	92	90 - 110	P	08/07/2024	19:48	LB131900
	Antimony	4780	5000	96	90 - 110	P	08/07/2024	19:48	LB131900
	Arsenic	4740	5000	95	90 - 110	P	08/07/2024	19:48	LB131900
	Barium	9880	10000	99	90 - 110	P	08/07/2024	19:48	LB131900
	Beryllium	242	250	97	90 - 110	P	08/07/2024	19:48	LB131900
	Boron	4700	5000	94	90 - 110	P	08/07/2024	19:48	LB131900
	Cadmium	2460	2500	98	90 - 110	P	08/07/2024	19:48	LB131900
	Calcium	24600	25000	98	90 - 110	P	08/07/2024	19:48	LB131900
	Chromium	995	1000	100	90 - 110	P	08/07/2024	19:48	LB131900
	Cobalt	2430	2500	97	90 - 110	P	08/07/2024	19:48	LB131900
	Copper	1200	1250	96	90 - 110	P	08/07/2024	19:48	LB131900
	Iron	5100	5000	102	90 - 110	P	08/07/2024	19:48	LB131900
	Lead	5000	5000	100	90 - 110	P	08/07/2024	19:48	LB131900
	Magnesium	23900	25000	96	90 - 110	P	08/07/2024	19:48	LB131900
	Manganese	2440	2500	98	90 - 110	P	08/07/2024	19:48	LB131900
	Molybdenum	4950	5000	99	90 - 110	P	08/07/2024	19:48	LB131900
	Nickel	2450	2500	98	90 - 110	P	08/07/2024	19:48	LB131900
	Potassium	24600	25000	98	90 - 110	P	08/07/2024	19:48	LB131900
	Selenium	4690	5000	94	90 - 110	P	08/07/2024	19:48	LB131900
	Silver	1240	1250	99	90 - 110	P	08/07/2024	19:48	LB131900
	Sodium	23900	25000	96	90 - 110	P	08/07/2024	19:48	LB131900

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. **SDG No.:** P3467

Contract: JACO05 **Lab Code:** CHEM **Case No.:** P3467 **SAS No.:** P3467

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Strontium	4890	5000	98	90 - 110	P	08/07/2024	19:48	LB131900
	Thallium	5020	5000	100	90 - 110	P	08/07/2024	19:48	LB131900
	Tin	4900	5000	98	90 - 110	P	08/07/2024	19:48	LB131900
	Titanium	4860	5000	97	90 - 110	P	08/07/2024	19:48	LB131900
	Vanadium	2410	2500	96	90 - 110	P	08/07/2024	19:48	LB131900
	Zinc	2500	2500	100	90 - 110	P	08/07/2024	19:48	LB131900

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: P3467
 Contract: JACO05 Lab Code: CHEM Case No.: P3467 SAS No.: P3467
 Initial Calibration Source: EPA
 Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2450	2500	98	90 - 110	P	08/21/2024	12:34	LB132113
	Antimony	1010	1000	101	90 - 110	P	08/21/2024	12:34	LB132113
	Arsenic	1000	1000	100	90 - 110	P	08/21/2024	12:34	LB132113
	Barium	501	520	96	90 - 110	P	08/21/2024	12:34	LB132113
	Beryllium	475	510	93	90 - 110	P	08/21/2024	12:34	LB132113
	Boron	2410	2500	96	90 - 110	P	08/21/2024	12:34	LB132113
	Cadmium	498	510	98	90 - 110	P	08/21/2024	12:34	LB132113
	Calcium	9930	10000	99	90 - 110	P	08/21/2024	12:34	LB132113
	Chromium	529	520	102	90 - 110	P	08/21/2024	12:34	LB132113
	Cobalt	522	520	100	90 - 110	P	08/21/2024	12:34	LB132113
	Copper	532	510	104	90 - 110	P	08/21/2024	12:34	LB132113
	Iron	10300	10000	103	90 - 110	P	08/21/2024	12:34	LB132113
	Lead	993	1000	99	90 - 110	P	08/21/2024	12:34	LB132113
	Magnesium	5860	6000	98	90 - 110	P	08/21/2024	12:34	LB132113
	Manganese	507	520	97	90 - 110	P	08/21/2024	12:34	LB132113
	Molybdenum	2670	2500	107	90 - 110	P	08/21/2024	12:34	LB132113
	Nickel	527	530	99	90 - 110	P	08/21/2024	12:34	LB132113
	Potassium	9960	9900	101	90 - 110	P	08/21/2024	12:34	LB132113
	Selenium	1020	1000	102	90 - 110	P	08/21/2024	12:34	LB132113
	Silver	255	250	102	90 - 110	P	08/21/2024	12:34	LB132113
	Sodium	9710	10000	97	90 - 110	P	08/21/2024	12:34	LB132113
	Strontium	2270	2500	91	90 - 110	P	08/21/2024	12:34	LB132113
	Thallium	1030	1000	102	90 - 110	P	08/21/2024	12:34	LB132113
	Tin	2680	2500	107	90 - 110	P	08/21/2024	12:34	LB132113
	Titanium	2550	2500	102	90 - 110	P	08/21/2024	12:34	LB132113
	Vanadium	492	500	98	90 - 110	P	08/21/2024	12:34	LB132113
	Zinc	1010	1000	101	90 - 110	P	08/21/2024	12:34	LB132113

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: P3467
 Contract: JACO05 Lab Code: CHEM Case No.: P3467 SAS No.: P3467
 Initial Calibration Source: EPA
 Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	92.9	100	93	80 - 120	P	08/21/2024	13:18	LB132113
	Antimony	46.4	50.0	93	80 - 120	P	08/21/2024	13:18	LB132113
	Arsenic	20.6	20.0	103	80 - 120	P	08/21/2024	13:18	LB132113
	Barium	90.2	100	90	80 - 120	P	08/21/2024	13:18	LB132113
	Beryllium	5.71	6.0	95	80 - 120	P	08/21/2024	13:18	LB132113
	Boron	86.6	100	87	80 - 120	P	08/21/2024	13:18	LB132113
	Cadmium	5.65	6.0	94	80 - 120	P	08/21/2024	13:18	LB132113
	Calcium	1830	2000	92	80 - 120	P	08/21/2024	13:18	LB132113
	Chromium	9.08	10.0	91	80 - 120	P	08/21/2024	13:18	LB132113
	Cobalt	28.2	30.0	94	80 - 120	P	08/21/2024	13:18	LB132113
	Copper	21.0	20.0	105	80 - 120	P	08/21/2024	13:18	LB132113
	Iron	91.8	100	92	80 - 120	P	08/21/2024	13:18	LB132113
	Lead	13.4	12.0	112	80 - 120	P	08/21/2024	13:18	LB132113
	Magnesium	1970	2000	99	80 - 120	P	08/21/2024	13:18	LB132113
	Manganese	18.7	20.0	93	80 - 120	P	08/21/2024	13:18	LB132113
	Molybdenum	186	200	93	80 - 120	P	08/21/2024	13:18	LB132113
	Nickel	37.1	40.0	93	80 - 120	P	08/21/2024	13:18	LB132113
	Potassium	1630	2000	82	80 - 120	P	08/21/2024	13:18	LB132113
	Selenium	19.3	20.0	96	80 - 120	P	08/21/2024	13:18	LB132113
	Silver	11.2	10.0	112	80 - 120	P	08/21/2024	13:18	LB132113
	Sodium	1600	2000	80	80 - 120	P	08/21/2024	13:18	LB132113
	Strontium	17.8	20.0	89	80 - 120	P	08/21/2024	13:18	LB132113
	Thallium	38.9	40.0	97	80 - 120	P	08/21/2024	13:18	LB132113
	Tin	35.4	40.0	88	80 - 120	P	08/21/2024	13:18	LB132113
	Titanium	35.3	40.0	88	80 - 120	P	08/21/2024	13:18	LB132113
	Vanadium	35.5	40.0	89	80 - 120	P	08/21/2024	13:18	LB132113
	Zinc	38.3	40.0	96	80 - 120	P	08/21/2024	13:18	LB132113

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: P3467
 Contract: JACO05 Lab Code: CHEM Case No.: P3467 SAS No.: P3467
 Initial Calibration Source: EPA
 Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	10200	10000	102	90 - 110	P	08/21/2024	15:39	LB132113
	Antimony	5210	5000	104	90 - 110	P	08/21/2024	15:39	LB132113
	Arsenic	4960	5000	99	90 - 110	P	08/21/2024	15:39	LB132113
	Barium	10400	10000	104	90 - 110	P	08/21/2024	15:39	LB132113
	Beryllium	252	250	101	90 - 110	P	08/21/2024	15:39	LB132113
	Boron	5070	5000	101	90 - 110	P	08/21/2024	15:39	LB132113
	Cadmium	2490	2500	100	90 - 110	P	08/21/2024	15:39	LB132113
	Calcium	25500	25000	102	90 - 110	P	08/21/2024	15:39	LB132113
	Chromium	1040	1000	104	90 - 110	P	08/21/2024	15:39	LB132113
	Cobalt	2550	2500	102	90 - 110	P	08/21/2024	15:39	LB132113
	Copper	1300	1250	104	90 - 110	P	08/21/2024	15:39	LB132113
	Iron	5340	5000	107	90 - 110	P	08/21/2024	15:39	LB132113
	Lead	4990	5000	100	90 - 110	P	08/21/2024	15:39	LB132113
	Magnesium	25400	25000	102	90 - 110	P	08/21/2024	15:39	LB132113
	Manganese	2580	2500	103	90 - 110	P	08/21/2024	15:39	LB132113
	Molybdenum	5180	5000	104	90 - 110	P	08/21/2024	15:39	LB132113
	Nickel	2590	2500	103	90 - 110	P	08/21/2024	15:39	LB132113
	Potassium	26600	25000	106	90 - 110	P	08/21/2024	15:39	LB132113
	Selenium	5070	5000	101	90 - 110	P	08/21/2024	15:39	LB132113
	Silver	1240	1250	99	90 - 110	P	08/21/2024	15:39	LB132113
	Sodium	26600	25000	107	90 - 110	P	08/21/2024	15:39	LB132113
	Strontium	5020	5000	100	90 - 110	P	08/21/2024	15:39	LB132113
	Thallium	4960	5000	99	90 - 110	P	08/21/2024	15:39	LB132113
	Tin	5140	5000	103	90 - 110	P	08/21/2024	15:39	LB132113
	Titanium	5150	5000	103	90 - 110	P	08/21/2024	15:39	LB132113
	Vanadium	2580	2500	103	90 - 110	P	08/21/2024	15:39	LB132113
	Zinc	2550	2500	102	90 - 110	P	08/21/2024	15:39	LB132113
CCV02	Aluminum	9800	10000	98	90 - 110	P	08/21/2024	16:59	LB132113
	Antimony	4920	5000	98	90 - 110	P	08/21/2024	16:59	LB132113
	Arsenic	4770	5000	96	90 - 110	P	08/21/2024	16:59	LB132113
	Barium	9540	10000	95	90 - 110	P	08/21/2024	16:59	LB132113
	Beryllium	267	250	107	90 - 110	P	08/21/2024	16:59	LB132113
	Boron	5380	5000	108	90 - 110	P	08/21/2024	16:59	LB132113
	Cadmium	2380	2500	95	90 - 110	P	08/21/2024	16:59	LB132113

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: P3467
Contract: JACO05 Lab Code: CHEM Case No.: P3467 SAS No.: P3467
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Calcium	24600	25000	98	90 - 110	P	08/21/2024	16:59	LB132113
	Chromium	971	1000	97	90 - 110	P	08/21/2024	16:59	LB132113
	Cobalt	2440	2500	98	90 - 110	P	08/21/2024	16:59	LB132113
	Copper	1230	1250	99	90 - 110	P	08/21/2024	16:59	LB132113
	Iron	4530	5000	90	90 - 110	P	08/21/2024	16:59	LB132113
	Lead	4730	5000	94	90 - 110	P	08/21/2024	16:59	LB132113
	Magnesium	24500	25000	98	90 - 110	P	08/21/2024	16:59	LB132113
	Manganese	2460	2500	98	90 - 110	P	08/21/2024	16:59	LB132113
	Molybdenum	4860	5000	97	90 - 110	P	08/21/2024	16:59	LB132113
	Nickel	2460	2500	98	90 - 110	P	08/21/2024	16:59	LB132113
	Potassium	23000	25000	92	90 - 110	P	08/21/2024	16:59	LB132113
	Selenium	4980	5000	100	90 - 110	P	08/21/2024	16:59	LB132113
	Silver	1200	1250	96	90 - 110	P	08/21/2024	16:59	LB132113
	Sodium	22700	25000	91	90 - 110	P	08/21/2024	16:59	LB132113
	Strontium	4730	5000	95	90 - 110	P	08/21/2024	16:59	LB132113
	Thallium	5030	5000	101	90 - 110	P	08/21/2024	16:59	LB132113
	Tin	4990	5000	100	90 - 110	P	08/21/2024	16:59	LB132113
	Titanium	4910	5000	98	90 - 110	P	08/21/2024	16:59	LB132113
	Vanadium	2440	2500	98	90 - 110	P	08/21/2024	16:59	LB132113
	Zinc	2360	2500	94	90 - 110	P	08/21/2024	16:59	LB132113
CCV03	Aluminum	9850	10000	98	90 - 110	P	08/21/2024	17:51	LB132113
	Antimony	5060	5000	101	90 - 110	P	08/21/2024	17:51	LB132113
	Arsenic	4850	5000	97	90 - 110	P	08/21/2024	17:51	LB132113
	Barium	9850	10000	98	90 - 110	P	08/21/2024	17:51	LB132113
	Beryllium	262	250	105	90 - 110	P	08/21/2024	17:51	LB132113
	Boron	5300	5000	106	90 - 110	P	08/21/2024	17:51	LB132113
	Cadmium	2450	2500	98	90 - 110	P	08/21/2024	17:51	LB132113
	Calcium	25000	25000	100	90 - 110	P	08/21/2024	17:51	LB132113
	Chromium	993	1000	99	90 - 110	P	08/21/2024	17:51	LB132113
	Cobalt	2520	2500	101	90 - 110	P	08/21/2024	17:51	LB132113
	Copper	1260	1250	101	90 - 110	P	08/21/2024	17:51	LB132113
	Iron	4790	5000	96	90 - 110	P	08/21/2024	17:51	LB132113
	Lead	4880	5000	98	90 - 110	P	08/21/2024	17:51	LB132113
	Magnesium	24800	25000	99	90 - 110	P	08/21/2024	17:51	LB132113

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: P3467

Contract: JACO05 Lab Code: CHEM Case No.: P3467 SAS No.: P3467

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV03	Manganese	2500	2500	100	90 - 110	P	08/21/2024	17:51	LB132113
	Molybdenum	5060	5000	101	90 - 110	P	08/21/2024	17:51	LB132113
	Nickel	2530	2500	101	90 - 110	P	08/21/2024	17:51	LB132113
	Potassium	23900	25000	96	90 - 110	P	08/21/2024	17:51	LB132113
	Selenium	5030	5000	101	90 - 110	P	08/21/2024	17:51	LB132113
	Silver	1230	1250	98	90 - 110	P	08/21/2024	17:51	LB132113
	Sodium	23600	25000	94	90 - 110	P	08/21/2024	17:51	LB132113
	Strontium	4790	5000	96	90 - 110	P	08/21/2024	17:51	LB132113
	Thallium	5060	5000	101	90 - 110	P	08/21/2024	17:51	LB132113
	Tin	5110	5000	102	90 - 110	P	08/21/2024	17:51	LB132113
	Titanium	4990	5000	100	90 - 110	P	08/21/2024	17:51	LB132113
	Vanadium	2480	2500	99	90 - 110	P	08/21/2024	17:51	LB132113
	Zinc	2320	2500	93	90 - 110	P	08/21/2024	17:51	LB132113
CCV04	Aluminum	9430	10000	94	90 - 110	P	08/21/2024	19:03	LB132113
	Antimony	4850	5000	97	90 - 110	P	08/21/2024	19:03	LB132113
	Arsenic	4610	5000	92	90 - 110	P	08/21/2024	19:03	LB132113
	Barium	9480	10000	95	90 - 110	P	08/21/2024	19:03	LB132113
	Beryllium	241	250	96	90 - 110	P	08/21/2024	19:03	LB132113
	Boron	4870	5000	97	90 - 110	P	08/21/2024	19:03	LB132113
	Cadmium	2380	2500	95	90 - 110	P	08/21/2024	19:03	LB132113
	Calcium	24000	25000	96	90 - 110	P	08/21/2024	19:03	LB132113
	Chromium	979	1000	98	90 - 110	P	08/21/2024	19:03	LB132113
	Cobalt	2450	2500	98	90 - 110	P	08/21/2024	19:03	LB132113
	Copper	1210	1250	97	90 - 110	P	08/21/2024	19:03	LB132113
	Iron	4940	5000	99	90 - 110	P	08/21/2024	19:03	LB132113
	Lead	4710	5000	94	90 - 110	P	08/21/2024	19:03	LB132113
	Magnesium	23700	25000	95	90 - 110	P	08/21/2024	19:03	LB132113
	Manganese	2390	2500	96	90 - 110	P	08/21/2024	19:03	LB132113
	Molybdenum	4930	5000	99	90 - 110	P	08/21/2024	19:03	LB132113
	Nickel	2450	2500	98	90 - 110	P	08/21/2024	19:03	LB132113
	Potassium	24600	25000	98	90 - 110	P	08/21/2024	19:03	LB132113
	Selenium	4770	5000	95	90 - 110	P	08/21/2024	19:03	LB132113
	Silver	1230	1250	99	90 - 110	P	08/21/2024	19:03	LB132113
	Sodium	24100	25000	96	90 - 110	P	08/21/2024	19:03	LB132113

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. **SDG No.:** P3467

Contract: JACO05 **Lab Code:** CHEM **Case No.:** P3467 **SAS No.:** P3467

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Strontium	4640	5000	93	90 - 110	P	08/21/2024	19:03	LB132113
	Thallium	4940	5000	99	90 - 110	P	08/21/2024	19:03	LB132113
	Tin	4970	5000	100	90 - 110	P	08/21/2024	19:03	LB132113
	Titanium	4780	5000	96	90 - 110	P	08/21/2024	19:03	LB132113
	Vanadium	2380	2500	95	90 - 110	P	08/21/2024	19:03	LB132113
	Zinc	2660	2500	106	90 - 110	P	08/21/2024	19:03	LB132113
CCV05	Aluminum	9840	10000	98	90 - 110	P	08/21/2024	20:21	LB132113
	Antimony	4850	5000	97	90 - 110	P	08/21/2024	20:21	LB132113
	Arsenic	4750	5000	95	90 - 110	P	08/21/2024	20:21	LB132113
	Barium	9680	10000	97	90 - 110	P	08/21/2024	20:21	LB132113
	Beryllium	227	250	91	90 - 110	P	08/21/2024	20:21	LB132113
	Boron	5250	5000	105	90 - 110	P	08/21/2024	20:21	LB132113
	Cadmium	2510	2500	100	90 - 110	P	08/21/2024	20:21	LB132113
	Calcium	25300	25000	101	90 - 110	P	08/21/2024	20:21	LB132113
	Chromium	1020	1000	102	90 - 110	P	08/21/2024	20:21	LB132113
	Cobalt	2540	2500	102	90 - 110	P	08/21/2024	20:21	LB132113
	Copper	1240	1250	99	90 - 110	P	08/21/2024	20:21	LB132113
	Iron	4680	5000	94	90 - 110	P	08/21/2024	20:21	LB132113
	Lead	4960	5000	99	90 - 110	P	08/21/2024	20:21	LB132113
	Magnesium	25700	25000	103	90 - 110	P	08/21/2024	20:21	LB132113
	Manganese	2500	2500	100	90 - 110	P	08/21/2024	20:21	LB132113
	Molybdenum	4940	5000	99	90 - 110	P	08/21/2024	20:21	LB132113
	Nickel	2550	2500	102	90 - 110	P	08/21/2024	20:21	LB132113
	Potassium	23200	25000	93	90 - 110	P	08/21/2024	20:21	LB132113
	Selenium	4910	5000	98	90 - 110	P	08/21/2024	20:21	LB132113
	Silver	1270	1250	102	90 - 110	P	08/21/2024	20:21	LB132113
	Sodium	22600	25000	91	90 - 110	P	08/21/2024	20:21	LB132113
	Strontium	4740	5000	95	90 - 110	P	08/21/2024	20:21	LB132113
	Thallium	5100	5000	102	90 - 110	P	08/21/2024	20:21	LB132113
	Tin	5240	5000	105	90 - 110	P	08/21/2024	20:21	LB132113
	Titanium	4930	5000	99	90 - 110	P	08/21/2024	20:21	LB132113
	Vanadium	2480	2500	99	90 - 110	P	08/21/2024	20:21	LB132113
	Zinc	2410	2500	96	90 - 110	P	08/21/2024	20:21	LB132113



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

Metals

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CRDL STANDARD FOR AA & ICP

Client: JACOBS Engineering Group, Inc. **SDG No.:** P3467
Contract: JACO05 **Lab Code:** CHEM **Case No.:** P3467 **SAS No.:** P3467
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
CRI01	Aluminum	106	100	106	40 - 160	P	08/07/2024	16:07	LB131900
	Antimony	50.6	50.0	101	40 - 160	P	08/07/2024	16:07	LB131900
	Arsenic	19.7	20.0	99	40 - 160	P	08/07/2024	16:07	LB131900
	Barium	99.7	100	100	40 - 160	P	08/07/2024	16:07	LB131900
	Beryllium	6.22	6.0	104	40 - 160	P	08/07/2024	16:07	LB131900
	Boron	99.0	100	99	40 - 160	P	08/07/2024	16:07	LB131900
	Cadmium	6.22	6.0	104	40 - 160	P	08/07/2024	16:07	LB131900
	Calcium	2030	2000	102	40 - 160	P	08/07/2024	16:07	LB131900
	Chromium	9.85	10.0	98	40 - 160	P	08/07/2024	16:07	LB131900
	Cobalt	29.9	30.0	100	40 - 160	P	08/07/2024	16:07	LB131900
	Copper	22.3	20.0	111	40 - 160	P	08/07/2024	16:07	LB131900
	Iron	97.0	100	97	40 - 160	P	08/07/2024	16:07	LB131900
	Lead	14.5	12.0	121	40 - 160	P	08/07/2024	16:07	LB131900
	Magnesium	2110	2000	105	40 - 160	P	08/07/2024	16:07	LB131900
	Manganese	21.1	20.0	106	40 - 160	P	08/07/2024	16:07	LB131900
	Molybdenum	204	200	102	40 - 160	P	08/07/2024	16:07	LB131900
	Nickel	40.1	40.0	100	40 - 160	P	08/07/2024	16:07	LB131900
	Potassium	1760	2000	88	40 - 160	P	08/07/2024	16:07	LB131900
	Selenium	17.8	20.0	89	40 - 160	P	08/07/2024	16:07	LB131900
	Silver	8.55	10.0	86	40 - 160	P	08/07/2024	16:07	LB131900
	Sodium	1750	2000	88	40 - 160	P	08/07/2024	16:07	LB131900
	Strontium	20.5	20.0	103	40 - 160	P	08/07/2024	16:07	LB131900
	Thallium	39.2	40.0	98	40 - 160	P	08/07/2024	16:07	LB131900
	Tin	36.2	40.0	90	40 - 160	P	08/07/2024	16:07	LB131900
	Titanium	40.3	40.0	101	40 - 160	P	08/07/2024	16:07	LB131900
	Vanadium	39.9	40.0	100	40 - 160	P	08/07/2024	16:07	LB131900
	Zinc	42.1	40.0	105	40 - 160	P	08/07/2024	16:07	LB131900
CRA	Mercury	0.24	0.2	118	40 - 160	CV	08/13/2024	09:10	LB131960
CRI01	Aluminum	104	100	104	40 - 160	P	08/21/2024	13:33	LB132113
	Antimony	46.9	50.0	94	40 - 160	P	08/21/2024	13:33	LB132113
	Arsenic	19.4	20.0	97	40 - 160	P	08/21/2024	13:33	LB132113
	Barium	90.9	100	91	40 - 160	P	08/21/2024	13:33	LB132113
	Beryllium	5.56	6.0	93	40 - 160	P	08/21/2024	13:33	LB132113
	Boron	84.1	100	84	40 - 160	P	08/21/2024	13:33	LB132113
	Cadmium	5.65	6.0	94	40 - 160	P	08/21/2024	13:33	LB132113

Metals

- 2b -

CRDL STANDARD FOR AA & ICP

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Case No.: P3467

SAS No.: P3467

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
CRI01	Calcium	1840	2000	92	40 - 160	P	08/21/2024	13:33	LB132113
	Chromium	9.22	10.0	92	40 - 160	P	08/21/2024	13:33	LB132113
	Cobalt	28.2	30.0	94	40 - 160	P	08/21/2024	13:33	LB132113
	Copper	20.9	20.0	104	40 - 160	P	08/21/2024	13:33	LB132113
	Iron	99.0	100	99	40 - 160	P	08/21/2024	13:33	LB132113
	Lead	13.4	12.0	111	40 - 160	P	08/21/2024	13:33	LB132113
	Magnesium	1940	2000	97	40 - 160	P	08/21/2024	13:33	LB132113
	Manganese	18.2	20.0	91	40 - 160	P	08/21/2024	13:33	LB132113
	Molybdenum	187	200	93	40 - 160	P	08/21/2024	13:33	LB132113
	Nickel	37.2	40.0	93	40 - 160	P	08/21/2024	13:33	LB132113
	Potassium	1720	2000	86	40 - 160	P	08/21/2024	13:33	LB132113
	Selenium	18.6	20.0	93	40 - 160	P	08/21/2024	13:33	LB132113
	Silver	11.8	10.0	118	40 - 160	P	08/21/2024	13:33	LB132113
	Sodium	1620	2000	81	40 - 160	P	08/21/2024	13:33	LB132113
	Strontium	17.9	20.0	89	40 - 160	P	08/21/2024	13:33	LB132113
	Thallium	39.4	40.0	99	40 - 160	P	08/21/2024	13:33	LB132113
	Tin	35.3	40.0	88	40 - 160	P	08/21/2024	13:33	LB132113
	Titanium	35.4	40.0	88	40 - 160	P	08/21/2024	13:33	LB132113
	Vanadium	35.2	40.0	88	40 - 160	P	08/21/2024	13:33	LB132113
	Zinc	39.0	40.0	97	40 - 160	P	08/21/2024	13:33	LB132113



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:	<u>JACOBS Engineering Group, Inc.</u>				SDG No.:	<u>P3467</u>			
Contract:	<u>JACO05</u>	Lab Code:	<u>CHEM</u>	Case No.:	<u>P3467</u>	SAS No.:	<u>P3467</u>		
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB72	Mercury	0.20	+/-0.20	U	0.20	CV	08/13/2024	08:55	LB131960

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Case No.: P3467

SAS No.: P3467

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB35	Mercury	0.20	+/-0.20	U	0.20	CV	08/13/2024	09:03	LB131960
CCB36	Mercury	0.20	+/-0.20	U	0.20	CV	08/13/2024	09:35	LB131960
CCB37	Mercury	0.20	+/-0.20	U	0.20	CV	08/13/2024	10:05	LB131960
CCB38	Mercury	0.20	+/-0.20	U	0.20	CV	08/13/2024	10:35	LB131960
CCB39	Mercury	0.20	+/-0.20	U	0.20	CV	08/13/2024	11:04	LB131960
CCB40	Mercury	0.20	+/-0.20	U	0.20	CV	08/13/2024	11:26	LB131960

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Case No.: P3467

SAS No.: P3467

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	100	P	08/07/2024	16:03	LB131900
	Antimony	50.0	+/-50.0	U	50.0	P	08/07/2024	16:03	LB131900
	Arsenic	20.0	+/-20.0	U	20.0	P	08/07/2024	16:03	LB131900
	Barium	100	+/-100	U	100	P	08/07/2024	16:03	LB131900
	Beryllium	6.00	+/-6.00	U	6.00	P	08/07/2024	16:03	LB131900
	Boron	100	+/-100	U	100	P	08/07/2024	16:03	LB131900
	Cadmium	6.00	+/-6.00	U	6.00	P	08/07/2024	16:03	LB131900
	Calcium	2000	+/-2000	U	2000	P	08/07/2024	16:03	LB131900
	Chromium	10.0	+/-10.0	U	10.0	P	08/07/2024	16:03	LB131900
	Cobalt	30.0	+/-30.0	U	30.0	P	08/07/2024	16:03	LB131900
	Copper	20.0	+/-20.0	U	20.0	P	08/07/2024	16:03	LB131900
	Iron	100	+/-100	U	100	P	08/07/2024	16:03	LB131900
	Lead	12.0	+/-12.0	U	12.0	P	08/07/2024	16:03	LB131900
	Magnesium	2000	+/-2000	U	2000	P	08/07/2024	16:03	LB131900
	Manganese	20.0	+/-20.0	U	20.0	P	08/07/2024	16:03	LB131900
	Molybdenum	200	+/-200	U	200	P	08/07/2024	16:03	LB131900
	Nickel	40.0	+/-40.0	U	40.0	P	08/07/2024	16:03	LB131900
	Potassium	2000	+/-2000	U	2000	P	08/07/2024	16:03	LB131900
	Selenium	20.0	+/-20.0	U	20.0	P	08/07/2024	16:03	LB131900
	Silver	10.0	+/-10.0	U	10.0	P	08/07/2024	16:03	LB131900
	Sodium	2000	+/-2000	U	2000	P	08/07/2024	16:03	LB131900
	Strontium	20.0	+/-20.0	U	20.0	P	08/07/2024	16:03	LB131900
	Thallium	40.0	+/-40.0	U	40.0	P	08/07/2024	16:03	LB131900
	Tin	40.0	+/-40.0	U	40.0	P	08/07/2024	16:03	LB131900
	Titanium	40.0	+/-40.0	U	40.0	P	08/07/2024	16:03	LB131900
	Vanadium	40.0	+/-40.0	U	40.0	P	08/07/2024	16:03	LB131900
	Zinc	40.0	+/-40.0	U	40.0	P	08/07/2024	16:03	LB131900

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Case No.: P3467

SAS No.: P3467

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	100	P	08/07/2024	16:25	LB131900
	Antimony	50.0	+/-50.0	U	50.0	P	08/07/2024	16:25	LB131900
	Arsenic	20.0	+/-20.0	U	20.0	P	08/07/2024	16:25	LB131900
	Barium	100	+/-100	U	100	P	08/07/2024	16:25	LB131900
	Beryllium	6.00	+/-6.00	U	6.00	P	08/07/2024	16:25	LB131900
	Boron	100	+/-100	U	100	P	08/07/2024	16:25	LB131900
	Cadmium	6.00	+/-6.00	U	6.00	P	08/07/2024	16:25	LB131900
	Calcium	2000	+/-2000	U	2000	P	08/07/2024	16:25	LB131900
	Chromium	10.0	+/-10.0	U	10.0	P	08/07/2024	16:25	LB131900
	Cobalt	30.0	+/-30.0	U	30.0	P	08/07/2024	16:25	LB131900
	Copper	20.0	+/-20.0	U	20.0	P	08/07/2024	16:25	LB131900
	Iron	100	+/-100	U	100	P	08/07/2024	16:25	LB131900
	Lead	12.0	+/-12.0	U	12.0	P	08/07/2024	16:25	LB131900
	Magnesium	2000	+/-2000	U	2000	P	08/07/2024	16:25	LB131900
	Manganese	20.0	+/-20.0	U	20.0	P	08/07/2024	16:25	LB131900
	Molybdenum	200	+/-200	U	200	P	08/07/2024	16:25	LB131900
	Nickel	40.0	+/-40.0	U	40.0	P	08/07/2024	16:25	LB131900
	Potassium	2000	+/-2000	U	2000	P	08/07/2024	16:25	LB131900
	Selenium	20.0	+/-20.0	U	20.0	P	08/07/2024	16:25	LB131900
	Silver	10.0	+/-10.0	U	10.0	P	08/07/2024	16:25	LB131900
	Sodium	2000	+/-2000	U	2000	P	08/07/2024	16:25	LB131900
	Strontium	20.0	+/-20.0	U	20.0	P	08/07/2024	16:25	LB131900
	Thallium	40.0	+/-40.0	U	40.0	P	08/07/2024	16:25	LB131900
	Tin	40.0	+/-40.0	U	40.0	P	08/07/2024	16:25	LB131900
	Titanium	40.0	+/-40.0	U	40.0	P	08/07/2024	16:25	LB131900
	Vanadium	40.0	+/-40.0	U	40.0	P	08/07/2024	16:25	LB131900
	Zinc	40.0	+/-40.0	U	40.0	P	08/07/2024	16:25	LB131900
CCB02	Aluminum	100	+/-100	U	100	P	08/07/2024	17:18	LB131900
	Antimony	50.0	+/-50.0	U	50.0	P	08/07/2024	17:18	LB131900
	Arsenic	20.0	+/-20.0	U	20.0	P	08/07/2024	17:18	LB131900
	Barium	100	+/-100	U	100	P	08/07/2024	17:18	LB131900
	Beryllium	6.00	+/-6.00	U	6.00	P	08/07/2024	17:18	LB131900
	Boron	100	+/-100	U	100	P	08/07/2024	17:18	LB131900
	Cadmium	6.00	+/-6.00	U	6.00	P	08/07/2024	17:18	LB131900
	Calcium	2000	+/-2000	U	2000	P	08/07/2024	17:18	LB131900
	Chromium	10.0	+/-10.0	U	10.0	P	08/07/2024	17:18	LB131900
	Cobalt	30.0	+/-30.0	U	30.0	P	08/07/2024	17:18	LB131900
	Copper	20.0	+/-20.0	U	20.0	P	08/07/2024	17:18	LB131900
	Iron	100	+/-100	U	100	P	08/07/2024	17:18	LB131900

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Case No.: P3467

SAS No.: P3467

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Lead	12.0	+/-12.0	U	12.0	P	08/07/2024	17:18	LB131900
	Magnesium	2000	+/-2000	U	2000	P	08/07/2024	17:18	LB131900
	Manganese	20.0	+/-20.0	U	20.0	P	08/07/2024	17:18	LB131900
	Molybdenum	200	+/-200	U	200	P	08/07/2024	17:18	LB131900
	Nickel	40.0	+/-40.0	U	40.0	P	08/07/2024	17:18	LB131900
	Potassium	2000	+/-2000	U	2000	P	08/07/2024	17:18	LB131900
	Selenium	20.0	+/-20.0	U	20.0	P	08/07/2024	17:18	LB131900
	Silver	10.0	+/-10.0	U	10.0	P	08/07/2024	17:18	LB131900
	Sodium	2000	+/-2000	U	2000	P	08/07/2024	17:18	LB131900
	Strontium	20.0	+/-20.0	U	20.0	P	08/07/2024	17:18	LB131900
	Thallium	40.0	+/-40.0	U	40.0	P	08/07/2024	17:18	LB131900
	Tin	40.0	+/-40.0	U	40.0	P	08/07/2024	17:18	LB131900
	Titanium	40.0	+/-40.0	U	40.0	P	08/07/2024	17:18	LB131900
	Vanadium	40.0	+/-40.0	U	40.0	P	08/07/2024	17:18	LB131900
	Zinc	40.0	+/-40.0	U	40.0	P	08/07/2024	17:18	LB131900
CCB03	Aluminum	100	+/-100	U	100	P	08/07/2024	18:55	LB131900
	Antimony	50.0	+/-50.0	U	50.0	P	08/07/2024	18:55	LB131900
	Arsenic	20.0	+/-20.0	U	20.0	P	08/07/2024	18:55	LB131900
	Barium	100	+/-100	U	100	P	08/07/2024	18:55	LB131900
	Beryllium	6.00	+/-6.00	U	6.00	P	08/07/2024	18:55	LB131900
	Boron	100	+/-100	U	100	P	08/07/2024	18:55	LB131900
	Cadmium	6.00	+/-6.00	U	6.00	P	08/07/2024	18:55	LB131900
	Calcium	2000	+/-2000	U	2000	P	08/07/2024	18:55	LB131900
	Chromium	10.0	+/-10.0	U	10.0	P	08/07/2024	18:55	LB131900
	Cobalt	30.0	+/-30.0	U	30.0	P	08/07/2024	18:55	LB131900
	Copper	20.0	+/-20.0	U	20.0	P	08/07/2024	18:55	LB131900
	Iron	100	+/-100	U	100	P	08/07/2024	18:55	LB131900
	Lead	12.0	+/-12.0	U	12.0	P	08/07/2024	18:55	LB131900
	Magnesium	2000	+/-2000	U	2000	P	08/07/2024	18:55	LB131900
	Manganese	20.0	+/-20.0	U	20.0	P	08/07/2024	18:55	LB131900
	Molybdenum	200	+/-200	U	200	P	08/07/2024	18:55	LB131900
	Nickel	40.0	+/-40.0	U	40.0	P	08/07/2024	18:55	LB131900
	Potassium	2000	+/-2000	U	2000	P	08/07/2024	18:55	LB131900
	Selenium	20.0	+/-20.0	U	20.0	P	08/07/2024	18:55	LB131900
	Silver	10.0	+/-10.0	U	10.0	P	08/07/2024	18:55	LB131900
	Sodium	509	+/-2000	J	2000	P	08/07/2024	18:55	LB131900
	Strontium	20.0	+/-20.0	U	20.0	P	08/07/2024	18:55	LB131900
	Thallium	40.0	+/-40.0	U	40.0	P	08/07/2024	18:55	LB131900
	Tin	40.0	+/-40.0	U	40.0	P	08/07/2024	18:55	LB131900

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc. SDG No.: P3467
Contract: JACO05 Lab Code: CHEM Case No.: P3467 SAS No.: P3467

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB03	Titanium	40.0	+/-40.0	U	40.0	P	08/07/2024	18:55	LB131900
	Vanadium	40.0	+/-40.0	U	40.0	P	08/07/2024	18:55	LB131900
	Zinc	40.0	+/-40.0	U	40.0	P	08/07/2024	18:55	LB131900
CCB04	Aluminum	100	+/-100	U	100	P	08/07/2024	19:52	LB131900
	Antimony	50.0	+/-50.0	U	50.0	P	08/07/2024	19:52	LB131900
	Arsenic	20.0	+/-20.0	U	20.0	P	08/07/2024	19:52	LB131900
	Barium	100	+/-100	U	100	P	08/07/2024	19:52	LB131900
	Beryllium	6.00	+/-6.00	U	6.00	P	08/07/2024	19:52	LB131900
	Boron	100	+/-100	U	100	P	08/07/2024	19:52	LB131900
	Cadmium	6.00	+/-6.00	U	6.00	P	08/07/2024	19:52	LB131900
	Calcium	2000	+/-2000	U	2000	P	08/07/2024	19:52	LB131900
	Chromium	10.0	+/-10.0	U	10.0	P	08/07/2024	19:52	LB131900
	Cobalt	30.0	+/-30.0	U	30.0	P	08/07/2024	19:52	LB131900
	Copper	20.0	+/-20.0	U	20.0	P	08/07/2024	19:52	LB131900
	Iron	100	+/-100	U	100	P	08/07/2024	19:52	LB131900
	Lead	12.0	+/-12.0	U	12.0	P	08/07/2024	19:52	LB131900
	Magnesium	2000	+/-2000	U	2000	P	08/07/2024	19:52	LB131900
	Manganese	20.0	+/-20.0	U	20.0	P	08/07/2024	19:52	LB131900
	Molybdenum	200	+/-200	U	200	P	08/07/2024	19:52	LB131900
	Nickel	40.0	+/-40.0	U	40.0	P	08/07/2024	19:52	LB131900
	Potassium	2000	+/-2000	U	2000	P	08/07/2024	19:52	LB131900
	Selenium	20.0	+/-20.0	U	20.0	P	08/07/2024	19:52	LB131900
	Silver	10.0	+/-10.0	U	10.0	P	08/07/2024	19:52	LB131900
	Sodium	2000	+/-2000	U	2000	P	08/07/2024	19:52	LB131900
	Strontium	20.0	+/-20.0	U	20.0	P	08/07/2024	19:52	LB131900
	Thallium	40.0	+/-40.0	U	40.0	P	08/07/2024	19:52	LB131900
	Tin	40.0	+/-40.0	U	40.0	P	08/07/2024	19:52	LB131900
	Titanium	40.0	+/-40.0	U	40.0	P	08/07/2024	19:52	LB131900
	Vanadium	40.0	+/-40.0	U	40.0	P	08/07/2024	19:52	LB131900
	Zinc	40.0	+/-40.0	U	40.0	P	08/07/2024	19:52	LB131900

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Case No.: P3467

SAS No.: P3467

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	100	P	08/21/2024	13:23	LB132113
	Antimony	50.0	+/-50.0	U	50.0	P	08/21/2024	13:23	LB132113
	Arsenic	20.0	+/-20.0	U	20.0	P	08/21/2024	13:23	LB132113
	Barium	100	+/-100	U	100	P	08/21/2024	13:23	LB132113
	Beryllium	6.00	+/-6.00	U	6.00	P	08/21/2024	13:23	LB132113
	Boron	100	+/-100	U	100	P	08/21/2024	13:23	LB132113
	Cadmium	6.00	+/-6.00	U	6.00	P	08/21/2024	13:23	LB132113
	Calcium	2000	+/-2000	U	2000	P	08/21/2024	13:23	LB132113
	Chromium	10.0	+/-10.0	U	10.0	P	08/21/2024	13:23	LB132113
	Cobalt	30.0	+/-30.0	U	30.0	P	08/21/2024	13:23	LB132113
	Copper	20.0	+/-20.0	U	20.0	P	08/21/2024	13:23	LB132113
	Iron	100	+/-100	U	100	P	08/21/2024	13:23	LB132113
	Lead	12.0	+/-12.0	U	12.0	P	08/21/2024	13:23	LB132113
	Magnesium	2000	+/-2000	U	2000	P	08/21/2024	13:23	LB132113
	Manganese	20.0	+/-20.0	U	20.0	P	08/21/2024	13:23	LB132113
	Molybdenum	200	+/-200	U	200	P	08/21/2024	13:23	LB132113
	Nickel	40.0	+/-40.0	U	40.0	P	08/21/2024	13:23	LB132113
	Potassium	2000	+/-2000	U	2000	P	08/21/2024	13:23	LB132113
	Selenium	20.0	+/-20.0	U	20.0	P	08/21/2024	13:23	LB132113
	Silver	10.0	+/-10.0	U	10.0	P	08/21/2024	13:23	LB132113
	Sodium	2000	+/-2000	U	2000	P	08/21/2024	13:23	LB132113
	Strontium	20.0	+/-20.0	U	20.0	P	08/21/2024	13:23	LB132113
	Thallium	40.0	+/-40.0	U	40.0	P	08/21/2024	13:23	LB132113
	Tin	40.0	+/-40.0	U	40.0	P	08/21/2024	13:23	LB132113
	Titanium	40.0	+/-40.0	U	40.0	P	08/21/2024	13:23	LB132113
	Vanadium	40.0	+/-40.0	U	40.0	P	08/21/2024	13:23	LB132113
	Zinc	40.0	+/-40.0	U	40.0	P	08/21/2024	13:23	LB132113

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Case No.: P3467

SAS No.: P3467

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	100	P	08/21/2024	15:43	LB132113
	Antimony	50.0	+/-50.0	U	50.0	P	08/21/2024	15:43	LB132113
	Arsenic	20.0	+/-20.0	U	20.0	P	08/21/2024	15:43	LB132113
	Barium	100	+/-100	U	100	P	08/21/2024	15:43	LB132113
	Beryllium	6.00	+/-6.00	U	6.00	P	08/21/2024	15:43	LB132113
	Boron	100	+/-100	U	100	P	08/21/2024	15:43	LB132113
	Cadmium	6.00	+/-6.00	U	6.00	P	08/21/2024	15:43	LB132113
	Calcium	2000	+/-2000	U	2000	P	08/21/2024	15:43	LB132113
	Chromium	10.0	+/-10.0	U	10.0	P	08/21/2024	15:43	LB132113
	Cobalt	30.0	+/-30.0	U	30.0	P	08/21/2024	15:43	LB132113
	Copper	20.0	+/-20.0	U	20.0	P	08/21/2024	15:43	LB132113
	Iron	100	+/-100	U	100	P	08/21/2024	15:43	LB132113
	Lead	12.0	+/-12.0	U	12.0	P	08/21/2024	15:43	LB132113
	Magnesium	2000	+/-2000	U	2000	P	08/21/2024	15:43	LB132113
	Manganese	20.0	+/-20.0	U	20.0	P	08/21/2024	15:43	LB132113
	Molybdenum	200	+/-200	U	200	P	08/21/2024	15:43	LB132113
	Nickel	40.0	+/-40.0	U	40.0	P	08/21/2024	15:43	LB132113
	Potassium	2000	+/-2000	U	2000	P	08/21/2024	15:43	LB132113
	Selenium	20.0	+/-20.0	U	20.0	P	08/21/2024	15:43	LB132113
	Silver	10.0	+/-10.0	U	10.0	P	08/21/2024	15:43	LB132113
	Sodium	2000	+/-2000	U	2000	P	08/21/2024	15:43	LB132113
	Strontium	20.0	+/-20.0	U	20.0	P	08/21/2024	15:43	LB132113
	Thallium	40.0	+/-40.0	U	40.0	P	08/21/2024	15:43	LB132113
	Tin	40.0	+/-40.0	U	40.0	P	08/21/2024	15:43	LB132113
	Titanium	40.0	+/-40.0	U	40.0	P	08/21/2024	15:43	LB132113
	Vanadium	40.0	+/-40.0	U	40.0	P	08/21/2024	15:43	LB132113
	Zinc	40.0	+/-40.0	U	40.0	P	08/21/2024	15:43	LB132113
CCB02	Aluminum	100	+/-100	U	100	P	08/21/2024	17:03	LB132113
	Antimony	50.0	+/-50.0	U	50.0	P	08/21/2024	17:03	LB132113
	Arsenic	20.0	+/-20.0	U	20.0	P	08/21/2024	17:03	LB132113
	Barium	100	+/-100	U	100	P	08/21/2024	17:03	LB132113
	Beryllium	6.00	+/-6.00	U	6.00	P	08/21/2024	17:03	LB132113
	Boron	100	+/-100	U	100	P	08/21/2024	17:03	LB132113
	Cadmium	6.00	+/-6.00	U	6.00	P	08/21/2024	17:03	LB132113
	Calcium	2000	+/-2000	U	2000	P	08/21/2024	17:03	LB132113
	Chromium	10.0	+/-10.0	U	10.0	P	08/21/2024	17:03	LB132113
	Cobalt	30.0	+/-30.0	U	30.0	P	08/21/2024	17:03	LB132113
	Copper	20.0	+/-20.0	U	20.0	P	08/21/2024	17:03	LB132113
	Iron	100	+/-100	U	100	P	08/21/2024	17:03	LB132113

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Case No.: P3467

SAS No.: P3467

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Lead	12.0	+/-12.0	U	12.0	P	08/21/2024	17:03	LB132113
	Magnesium	2000	+/-2000	U	2000	P	08/21/2024	17:03	LB132113
	Manganese	20.0	+/-20.0	U	20.0	P	08/21/2024	17:03	LB132113
	Molybdenum	200	+/-200	U	200	P	08/21/2024	17:03	LB132113
	Nickel	40.0	+/-40.0	U	40.0	P	08/21/2024	17:03	LB132113
	Potassium	2000	+/-2000	U	2000	P	08/21/2024	17:03	LB132113
	Selenium	20.0	+/-20.0	U	20.0	P	08/21/2024	17:03	LB132113
	Silver	10.0	+/-10.0	U	10.0	P	08/21/2024	17:03	LB132113
	Sodium	2000	+/-2000	U	2000	P	08/21/2024	17:03	LB132113
	Strontium	20.0	+/-20.0	U	20.0	P	08/21/2024	17:03	LB132113
	Thallium	40.0	+/-40.0	U	40.0	P	08/21/2024	17:03	LB132113
	Tin	40.0	+/-40.0	U	40.0	P	08/21/2024	17:03	LB132113
	Titanium	40.0	+/-40.0	U	40.0	P	08/21/2024	17:03	LB132113
	Vanadium	40.0	+/-40.0	U	40.0	P	08/21/2024	17:03	LB132113
	Zinc	40.0	+/-40.0	U	40.0	P	08/21/2024	17:03	LB132113
CCB03	Aluminum	100	+/-100	U	100	P	08/21/2024	17:56	LB132113
	Antimony	50.0	+/-50.0	U	50.0	P	08/21/2024	17:56	LB132113
	Arsenic	20.0	+/-20.0	U	20.0	P	08/21/2024	17:56	LB132113
	Barium	100	+/-100	U	100	P	08/21/2024	17:56	LB132113
	Beryllium	6.00	+/-6.00	U	6.00	P	08/21/2024	17:56	LB132113
	Boron	100	+/-100	U	100	P	08/21/2024	17:56	LB132113
	Cadmium	6.00	+/-6.00	U	6.00	P	08/21/2024	17:56	LB132113
	Calcium	2000	+/-2000	U	2000	P	08/21/2024	17:56	LB132113
	Chromium	10.0	+/-10.0	U	10.0	P	08/21/2024	17:56	LB132113
	Cobalt	30.0	+/-30.0	U	30.0	P	08/21/2024	17:56	LB132113
	Copper	20.0	+/-20.0	U	20.0	P	08/21/2024	17:56	LB132113
	Iron	100	+/-100	U	100	P	08/21/2024	17:56	LB132113
	Lead	12.0	+/-12.0	U	12.0	P	08/21/2024	17:56	LB132113
	Magnesium	2000	+/-2000	U	2000	P	08/21/2024	17:56	LB132113
	Manganese	20.0	+/-20.0	U	20.0	P	08/21/2024	17:56	LB132113
	Molybdenum	200	+/-200	U	200	P	08/21/2024	17:56	LB132113
	Nickel	40.0	+/-40.0	U	40.0	P	08/21/2024	17:56	LB132113
	Potassium	2000	+/-2000	U	2000	P	08/21/2024	17:56	LB132113
	Selenium	20.0	+/-20.0	U	20.0	P	08/21/2024	17:56	LB132113
	Silver	10.0	+/-10.0	U	10.0	P	08/21/2024	17:56	LB132113
	Sodium	2000	+/-2000	U	2000	P	08/21/2024	17:56	LB132113
	Strontium	20.0	+/-20.0	U	20.0	P	08/21/2024	17:56	LB132113
	Thallium	40.0	+/-40.0	U	40.0	P	08/21/2024	17:56	LB132113
	Tin	40.0	+/-40.0	U	40.0	P	08/21/2024	17:56	LB132113

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.		SDG No.: P3467							
Contract: JACO05	Lab Code: CHEM	Case No.: P3467	SAS No.: P3467						
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB03	Titanium	40.0	+/-40.0	U	40.0	P	08/21/2024	17:56	LB132113
	Vanadium	40.0	+/-40.0	U	40.0	P	08/21/2024	17:56	LB132113
	Zinc	40.0	+/-40.0	U	40.0	P	08/21/2024	17:56	LB132113
CCB04	Aluminum	100	+/-100	U	100	P	08/21/2024	19:07	LB132113
	Antimony	50.0	+/-50.0	U	50.0	P	08/21/2024	19:07	LB132113
	Arsenic	20.0	+/-20.0	U	20.0	P	08/21/2024	19:07	LB132113
	Barium	100	+/-100	U	100	P	08/21/2024	19:07	LB132113
	Beryllium	6.00	+/-6.00	U	6.00	P	08/21/2024	19:07	LB132113
	Boron	100	+/-100	U	100	P	08/21/2024	19:07	LB132113
	Cadmium	6.00	+/-6.00	U	6.00	P	08/21/2024	19:07	LB132113
	Calcium	2000	+/-2000	U	2000	P	08/21/2024	19:07	LB132113
	Chromium	10.0	+/-10.0	U	10.0	P	08/21/2024	19:07	LB132113
	Cobalt	30.0	+/-30.0	U	30.0	P	08/21/2024	19:07	LB132113
	Copper	20.0	+/-20.0	U	20.0	P	08/21/2024	19:07	LB132113
	Iron	100	+/-100	U	100	P	08/21/2024	19:07	LB132113
	Lead	12.0	+/-12.0	U	12.0	P	08/21/2024	19:07	LB132113
	Magnesium	2000	+/-2000	U	2000	P	08/21/2024	19:07	LB132113
	Manganese	20.0	+/-20.0	U	20.0	P	08/21/2024	19:07	LB132113
	Molybdenum	200	+/-200	U	200	P	08/21/2024	19:07	LB132113
	Nickel	40.0	+/-40.0	U	40.0	P	08/21/2024	19:07	LB132113
	Potassium	2000	+/-2000	U	2000	P	08/21/2024	19:07	LB132113
	Selenium	20.0	+/-20.0	U	20.0	P	08/21/2024	19:07	LB132113
	Silver	10.0	+/-10.0	U	10.0	P	08/21/2024	19:07	LB132113
	Sodium	2000	+/-2000	U	2000	P	08/21/2024	19:07	LB132113
	Strontium	20.0	+/-20.0	U	20.0	P	08/21/2024	19:07	LB132113
	Thallium	40.0	+/-40.0	U	40.0	P	08/21/2024	19:07	LB132113
	Tin	40.0	+/-40.0	U	40.0	P	08/21/2024	19:07	LB132113
	Titanium	40.0	+/-40.0	U	40.0	P	08/21/2024	19:07	LB132113
	Vanadium	40.0	+/-40.0	U	40.0	P	08/21/2024	19:07	LB132113
	Zinc	40.0	+/-40.0	U	40.0	P	08/21/2024	19:07	LB132113
CCB05	Aluminum	100	+/-100	U	100	P	08/21/2024	20:30	LB132113
	Antimony	50.0	+/-50.0	U	50.0	P	08/21/2024	20:30	LB132113
	Arsenic	20.0	+/-20.0	U	20.0	P	08/21/2024	20:30	LB132113
	Barium	100	+/-100	U	100	P	08/21/2024	20:30	LB132113
	Beryllium	6.00	+/-6.00	U	6.00	P	08/21/2024	20:30	LB132113
	Boron	100	+/-100	U	100	P	08/21/2024	20:30	LB132113
	Cadmium	6.00	+/-6.00	U	6.00	P	08/21/2024	20:30	LB132113
	Calcium	2000	+/-2000	U	2000	P	08/21/2024	20:30	LB132113
	Chromium	10.0	+/-10.0	U	10.0	P	08/21/2024	20:30	LB132113

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Case No.: P3467

SAS No.: P3467

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB05	Cobalt	30.0	+/-30.0	U	30.0	P	08/21/2024	20:30	LB132113
	Copper	20.0	+/-20.0	U	20.0	P	08/21/2024	20:30	LB132113
	Iron	100	+/-100	U	100	P	08/21/2024	20:30	LB132113
	Lead	12.0	+/-12.0	U	12.0	P	08/21/2024	20:30	LB132113
	Magnesium	2000	+/-2000	U	2000	P	08/21/2024	20:30	LB132113
	Manganese	20.0	+/-20.0	U	20.0	P	08/21/2024	20:30	LB132113
	Molybdenum	200	+/-200	U	200	P	08/21/2024	20:30	LB132113
	Nickel	40.0	+/-40.0	U	40.0	P	08/21/2024	20:30	LB132113
	Potassium	2000	+/-2000	U	2000	P	08/21/2024	20:30	LB132113
	Selenium	20.0	+/-20.0	U	20.0	P	08/21/2024	20:30	LB132113
	Silver	10.0	+/-10.0	U	10.0	P	08/21/2024	20:30	LB132113
	Sodium	2000	+/-2000	U	2000	P	08/21/2024	20:30	LB132113
	Strontium	20.0	+/-20.0	U	20.0	P	08/21/2024	20:30	LB132113
	Thallium	40.0	+/-40.0	U	40.0	P	08/21/2024	20:30	LB132113
	Tin	40.0	+/-40.0	U	40.0	P	08/21/2024	20:30	LB132113
	Titanium	40.0	+/-40.0	U	40.0	P	08/21/2024	20:30	LB132113
	Vanadium	40.0	+/-40.0	U	40.0	P	08/21/2024	20:30	LB132113
	Zinc	40.0	+/-40.0	U	40.0	P	08/21/2024	20:30	LB132113

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB162680BL		WATER		Batch Number:	PB162680		Prep Date:	08/12/2024	
	Mercury	0.20	<0.20	U	0.20	CV	08/13/2024	10:07	LB131960

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB162493BL	WATER			Batch Number:	PB162493		Prep Date:	08/05/2024	
	Aluminum	50.0	<50.0	U	50.0	P	08/07/2024	16:29	LB131900
	Antimony	25.0	<25.0	U	25.0	P	08/07/2024	16:29	LB131900
	Arsenic	10.0	<10.0	U	10.0	P	08/07/2024	16:29	LB131900
	Barium	50.0	<50.0	U	50.0	P	08/07/2024	16:29	LB131900
	Beryllium	3.00	<3.00	U	3.00	P	08/07/2024	16:29	LB131900
	Boron	50.0	<50.0	U	50.0	P	08/07/2024	16:29	LB131900
	Cadmium	3.00	<3.00	U	3.00	P	08/07/2024	16:29	LB131900
	Calcium	1000	<1000	U	1000	P	08/07/2024	16:29	LB131900
	Chromium	5.00	<5.00	U	5.00	P	08/07/2024	16:29	LB131900
	Cobalt	15.0	<15.0	U	15.0	P	08/07/2024	16:29	LB131900
	Copper	10.0	<10.0	U	10.0	P	08/07/2024	16:29	LB131900
	Iron	50.0	<50.0	U	50.0	P	08/07/2024	16:29	LB131900
	Lead	6.00	<6.00	U	6.00	P	08/07/2024	16:29	LB131900
	Magnesium	1000	<1000	U	1000	P	08/07/2024	16:29	LB131900
	Manganese	10.0	<10.0	U	10.0	P	08/07/2024	16:29	LB131900
	Molybdenum	100	<100	U	100	P	08/07/2024	16:29	LB131900
	Nickel	20.0	<20.0	U	20.0	P	08/07/2024	16:29	LB131900
	Potassium	1000	<1000	U	1000	P	08/07/2024	16:29	LB131900
	Selenium	10.0	<10.0	U	10.0	P	08/07/2024	16:29	LB131900
	Silver	5.00	<5.00	U	5.00	P	08/07/2024	16:29	LB131900
	Sodium	1000	<1000	U	1000	P	08/07/2024	16:29	LB131900
	Strontium	10.0	<10.0	U	10.0	P	08/07/2024	16:29	LB131900
	Thallium	20.0	<20.0	U	20.0	P	08/07/2024	16:29	LB131900
	Tin	20.0	<20.0	U	20.0	P	08/07/2024	16:29	LB131900
	Titanium	20.0	<20.0	U	20.0	P	08/07/2024	16:29	LB131900
	Vanadium	20.0	<20.0	U	20.0	P	08/07/2024	16:29	LB131900
	Zinc	20.0	<20.0	U	20.0	P	08/07/2024	16:29	LB131900

Metals
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INTERFERENCE CHECK SAMPLE

Client: JACOBS Engineering Group, Inc. **SDG No.:** P3467
Contract: JACO05 **Lab Code:** CHEM **Case No.:** P3467 **SAS No.:** P3467
ICS Source: EPA **Instrument ID:** P4

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	266000	255000	104	216000	294000	08/07/2024	16:12	LB131900
	Antimony	-1.84			-50	50	08/07/2024	16:12	LB131900
	Arsenic	4.35			-20	20	08/07/2024	16:12	LB131900
	Barium	6.14	6.0	102	-94	106	08/07/2024	16:12	LB131900
	Beryllium	0.93			-6	6	08/07/2024	16:12	LB131900
	Boron	12.4	1000	1	-100	100	08/07/2024	16:12	LB131900
	Cadmium	3.70	1.0	370	-5	7	08/07/2024	16:12	LB131900
	Calcium	253000	245000	103	208000	282000	08/07/2024	16:12	LB131900
	Chromium	56.8	52.0	109	42	62	08/07/2024	16:12	LB131900
	Cobalt	2.84			-30	30	08/07/2024	16:12	LB131900
	Copper	9.27	2.0	464	-18	22	08/07/2024	16:12	LB131900
	Iron	102000	101000	101	85600	116500	08/07/2024	16:12	LB131900
	Lead	5.55			-12	12	08/07/2024	16:12	LB131900
	Magnesium	272000	255000	107	216000	294000	08/07/2024	16:12	LB131900
	Manganese	16.2	7.0	231	-13	27	08/07/2024	16:12	LB131900
	Molybdenum	0.026	1000		-200	200	08/07/2024	16:12	LB131900
	Nickel	3.43	2.0	172	-38	42	08/07/2024	16:12	LB131900
	Potassium	-48.6			0	0	08/07/2024	16:12	LB131900
	Selenium	-7.63			-20	20	08/07/2024	16:12	LB131900
	Silver	2.04			-10	10	08/07/2024	16:12	LB131900
	Sodium	17.5			0	0	08/07/2024	16:12	LB131900
	Strontium	3.47			0	0	08/07/2024	16:12	LB131900
	Thallium	2.30			-40	40	08/07/2024	16:12	LB131900
	Tin	-2.89	1000		-40	40	08/07/2024	16:12	LB131900
	Titanium	-3.00			0	0	08/07/2024	16:12	LB131900
	Vanadium	5.23			-40	40	08/07/2024	16:12	LB131900
	Zinc	2.26			-40	40	08/07/2024	16:12	LB131900
ICSAB01	Aluminum	250000	247000	101	209000	285000	08/07/2024	16:16	LB131900
	Antimony	605	618	98	525	711	08/07/2024	16:16	LB131900
	Arsenic	103	104	99	88.4	120	08/07/2024	16:16	LB131900
	Barium	516	537	96	437	637	08/07/2024	16:16	LB131900
	Beryllium	494	495	100	420	570	08/07/2024	16:16	LB131900
	Boron	1010	1000	101	850	1150	08/07/2024	16:16	LB131900
	Cadmium	968	972	100	826	1120	08/07/2024	16:16	LB131900
	Calcium	237000	235000	101	199000	271000	08/07/2024	16:16	LB131900
	Chromium	565	542	104	460	624	08/07/2024	16:16	LB131900
	Cobalt	501	476	105	404	548	08/07/2024	16:16	LB131900
	Copper	488	511	96	434	588	08/07/2024	16:16	LB131900
	Iron	101000	99300	102	84400	114500	08/07/2024	16:16	LB131900
	Lead	55.1	49.0	112	37	61	08/07/2024	16:16	LB131900
	Magnesium	253000	248000	102	210000	286000	08/07/2024	16:16	LB131900
	Manganese	510	507	101	430	584	08/07/2024	16:16	LB131900

Metals
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INTERFERENCE CHECK SAMPLE

Client: JACOBS Engineering Group, Inc. **SDG No.:** P3467
Contract: JACO05 **Lab Code:** CHEM **Case No.:** P3467 **SAS No.:** P3467
ICS Source: EPA **Instrument ID:** P4

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	Molybdenum	1070	1000	107	850	1150	08/07/2024	16:16	LB131900
	Nickel	992	954	104	810	1100	08/07/2024	16:16	LB131900
	Potassium	-74.2			0	0	08/07/2024	16:16	LB131900
	Selenium	34.4	46.0	75	26	66	08/07/2024	16:16	LB131900
	Silver	221	201	110	170	232	08/07/2024	16:16	LB131900
	Sodium	3.05			0	0	08/07/2024	16:16	LB131900
	Strontium	863			0	0	08/07/2024	16:16	LB131900
	Thallium	103	108	95	68	148	08/07/2024	16:16	LB131900
	Tin	1070	1000	107	850	1150	08/07/2024	16:16	LB131900
	Titanium	1050			0	0	08/07/2024	16:16	LB131900
	Vanadium	487	491	99	417	565	08/07/2024	16:16	LB131900
	Zinc	1090	952	114	809	1095	08/07/2024	16:16	LB131900
ICSA01	Aluminum	259000	255000	102	216000	294000	08/21/2024	13:37	LB132113
	Antimony	-1.88			-50	50	08/21/2024	13:37	LB132113
	Arsenic	5.06			-20	20	08/21/2024	13:37	LB132113
	Barium	6.68	6.0	111	-94	106	08/21/2024	13:37	LB132113
	Beryllium	1.09			-6	6	08/21/2024	13:37	LB132113
	Boron	29.2	1000	3	-100	100	08/21/2024	13:37	LB132113
	Cadmium	-2.47	1.0	247	-5	7	08/21/2024	13:37	LB132113
	Calcium	244000	245000	100	208000	282000	08/21/2024	13:37	LB132113
	Chromium	58.7	52.0	113	42	62	08/21/2024	13:37	LB132113
	Cobalt	2.35			-30	30	08/21/2024	13:37	LB132113
	Copper	21.8	2.0	1090	-18	22	08/21/2024	13:37	LB132113
	Iron	108000	101000	107	85600	116500	08/21/2024	13:37	LB132113
	Lead	3.22			-12	12	08/21/2024	13:37	LB132113
	Magnesium	258000	255000	101	216000	294000	08/21/2024	13:37	LB132113
	Manganese	15.2	7.0	217	-13	27	08/21/2024	13:37	LB132113
	Molybdenum	0.72	1000		-200	200	08/21/2024	13:37	LB132113
	Nickel	3.37	2.0	168	-38	42	08/21/2024	13:37	LB132113
	Potassium	-93.1			0	0	08/21/2024	13:37	LB132113
	Selenium	-6.48			-20	20	08/21/2024	13:37	LB132113
	Silver	3.88			-10	10	08/21/2024	13:37	LB132113
	Sodium	-79.6			0	0	08/21/2024	13:37	LB132113
	Strontium	-10.4			0	0	08/21/2024	13:37	LB132113
	Thallium	7.87			-40	40	08/21/2024	13:37	LB132113
	Tin	-2.32	1000		-40	40	08/21/2024	13:37	LB132113
	Titanium	-0.61			0	0	08/21/2024	13:37	LB132113
	Vanadium	5.05			-40	40	08/21/2024	13:37	LB132113
	Zinc	7.21			-40	40	08/21/2024	13:37	LB132113
ICSAB01	Aluminum	248000	247000	100	209000	285000	08/21/2024	14:00	LB132113
	Antimony	606	618	98	525	711	08/21/2024	14:00	LB132113
	Arsenic	103	104	99	88.4	120	08/21/2024	14:00	LB132113

Metals

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INTERFERENCE CHECK SAMPLE

Client: JACOBS Engineering Group, Inc. **SDG No.:** P3467
Contract: JACO05 **Lab Code:** CHEM **Case No.:** P3467 **SAS No.:** P3467
ICS Source: EPA **Instrument ID:** P4

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	Barium	493	537	92	437	637	08/21/2024	14:00	LB132113
	Beryllium	497	495	100	420	570	08/21/2024	14:00	LB132113
	Boron	1030	1000	103	850	1150	08/21/2024	14:00	LB132113
	Cadmium	944	972	97	826	1120	08/21/2024	14:00	LB132113
	Calcium	235000	235000	100	199000	271000	08/21/2024	14:00	LB132113
	Chromium	546	542	101	460	624	08/21/2024	14:00	LB132113
	Cobalt	498	476	105	404	548	08/21/2024	14:00	LB132113
	Copper	511	511	100	434	588	08/21/2024	14:00	LB132113
	Iron	97700	99300	98	84400	114500	08/21/2024	14:00	LB132113
	Lead	50.0	49.0	102	37	61	08/21/2024	14:00	LB132113
	Magnesium	247000	248000	100	210000	286000	08/21/2024	14:00	LB132113
	Manganese	495	507	98	430	584	08/21/2024	14:00	LB132113
	Molybdenum	1100	1000	110	850	1150	08/21/2024	14:00	LB132113
	Nickel	988	954	104	810	1100	08/21/2024	14:00	LB132113
	Potassium	-211			0	0	08/21/2024	14:00	LB132113
	Selenium	38.0	46.0	83	26	66	08/21/2024	14:00	LB132113
	Silver	215	201	107	170	232	08/21/2024	14:00	LB132113
	Sodium	-135			0	0	08/21/2024	14:00	LB132113
	Strontium	1060			0	0	08/21/2024	14:00	LB132113
	Thallium	108	108	100	68	148	08/21/2024	14:00	LB132113
	Tin	1100	1000	110	850	1150	08/21/2024	14:00	LB132113
	Titanium	1060			0	0	08/21/2024	14:00	LB132113
	Vanadium	472	491	96	417	565	08/21/2024	14:00	LB132113
	Zinc	1060	952	111	809	1095	08/21/2024	14:00	LB132113



METAL QC DATA

metals
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MATRIX SPIKE SUMMARY

client: <u>JACOBS Engineering Group, Inc.</u>	level: <u>low</u>	sdg no.: <u>P3467</u>
contract: <u>JACO05</u>	lab code: <u>CHEM</u>	case no.: <u>P3467</u> sas no.: <u>P3467</u>
matrix: <u>Water</u>	sample id: <u>P3440-01</u>	client id: <u>923-K1-WS-080124MS</u>
Percent Solids for Sample: <u>NA</u>	Spiked ID: <u>P3440-02</u>	Percent Solids for Spike Sample: <u>NA</u>

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	86 - 115	1000		50.9		1000	95		P
Antimony	ug/L	88 - 113	378		25.0	U	400	94		P
Arsenic	ug/L	87 - 113	359		10.0	U	400	90		P
Barium	ug/L	88 - 113	155		58.9		100	96		P
Beryllium	ug/L	89 - 112	95.3		3.00	U	100	95		P
Boron	ug/L	85 - 113	178		47.6	J	150	87		P
Cadmium	ug/L	88 - 113	89.7		3.00	U	100	90		P
Calcium	ug/L	87 - 113	20200		19400		500	152		P
Chromium	ug/L	90 - 113	196		0.76	J	200	98		P
Cobalt	ug/L	89 - 114	93.6		15.0	U	100	94		P
Copper	ug/L	86 - 114	140		10.0	U	150	93		P
Iron	ug/L	87 - 115	4020		2490		1500	103		P
Lead	ug/L	86 - 113	453		6.00	U	500	91		P
Magnesium	ug/L	85 - 113	4590		3680		1000	92		P
Manganese	ug/L	90 - 114	887		777		100	111		P
Mercury	ug/L	75 - 125	3.28		0.20	U	4.0	82		CV
Molybdenum	ug/L	89 - 113	205		100	U	200	102		P
Nickel	ug/L	88 - 113	236		1.18	J	250	94		P
Potassium	ug/L	86 - 114	8060		3290		5000	95		P
Selenium	ug/L	83 - 114	851		10.0	U	1000	85		P
Silver	ug/L	84 - 115	34.0		5.00	U	37.5	91		P
Sodium	ug/L	87 - 115	80100		79700		1500	24		P
Strontium	ug/L	90 - 113	229		129		500	20	N	P
Thallium	ug/L	85 - 114	884		20.0	U	1000	88		P
Tin	ug/L	88 - 115	331		20.0	U	350	95		P
Titanium	ug/L	91 - 111	100		20.0	U	100	100		P
Vanadium	ug/L	90 - 111	146		20.0	U	150	97		P
Zinc	ug/L	87 - 115	114		10.1	J	100	104		P

metals
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MATRIX SPIKE DUPLICATE SUMMARY

client:	<u>JACOBS Engineering Group, Inc.</u>	level:	<u>low</u>	sdg no.:	<u>P3467</u>
contract:	<u>JACO05</u>	lab code:	<u>CHEM</u>	case no.:	<u>P3467</u>
matrix:	<u>Water</u>	sample id:	<u>P3440-01</u>	client id:	<u>923-K1-WS-080124MSD</u>
Percent Solids for Sample:	<u>NA</u>	Spiked ID:	<u>P3440-03</u>	Percent Solids for Spike Sample:	<u>NA</u>

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	86 - 115	1050		50.9		1000	100		P
Antimony	ug/L	88 - 113	391		25.0	U	400	98		P
Arsenic	ug/L	87 - 113	377		10.0	U	400	94		P
Barium	ug/L	88 - 113	161		58.9		100	102		P
Beryllium	ug/L	89 - 112	102		3.00	U	100	102		P
Boron	ug/L	85 - 113	188		47.6	J	150	93		P
Cadmium	ug/L	88 - 113	94.8		3.00	U	100	95		P
Calcium	ug/L	87 - 113	20600		19400		500	244		P
Chromium	ug/L	90 - 113	205		0.76	J	200	102		P
Cobalt	ug/L	89 - 114	99.1		15.0	U	100	99		P
Copper	ug/L	86 - 114	146		10.0	U	150	97		P
Iron	ug/L	87 - 115	4110		2490		1500	108		P
Lead	ug/L	86 - 113	477		6.00	U	500	95		P
Magnesium	ug/L	85 - 113	4730		3680		1000	105		P
Manganese	ug/L	90 - 114	906		777		100	129		P
Mercury	ug/L	75 - 125	3.17		0.20	U	4.0	79		CV
Molybdenum	ug/L	89 - 113	213		100	U	200	106		P
Nickel	ug/L	88 - 113	249		1.18	J	250	99		P
Potassium	ug/L	86 - 114	8290		3290		5000	100		P
Selenium	ug/L	83 - 114	889		10.0	U	1000	89		P
Silver	ug/L	84 - 115	35.5		5.00	U	37.5	95		P
Sodium	ug/L	87 - 115	80100		79700		1500	27		P
Strontium	ug/L	90 - 113	236		129		500	21	N	P
Thallium	ug/L	85 - 114	940		20.0	U	1000	94		P
Tin	ug/L	88 - 115	344		20.0	U	350	98		P
Titanium	ug/L	91 - 111	103		20.0	U	100	103		P
Vanadium	ug/L	90 - 111	155		20.0	U	150	103		P
Zinc	ug/L	87 - 115	119		10.1	J	100	109		P

Metals
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POST DIGEST SPIKE SUMMARY

Client: JACOBS Engineering Group, Inc. **SDG No.:** P3467
Contract: JACO05 **Lab Code:** CHEM **Case No.:** P3467 **SAS No.:** P3467
Matrix: Water **Level:** LOW **Client ID:** 923-K1-WS-080124A
Sample ID: P3440-01 **Spiked ID:** P3440-01A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Strontium	ug/L	90 - 113	210		129		500	16		P

Metals

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DUPLICATE SAMPLE SUMMARY

Client: JACOBS Engineering Group, Inc. **Level:** LOW **SDG No.:** P3467
Contract: JACO05 **Lab Code:** CHEM **Case No.:** P3467 **SAS No.:** P3467
Matrix: Water **Sample ID:** P3440-01 **Client ID:** 923-K1-WS-080124DUP
Percent Solids for Sample: NA **Duplicate ID** P3440-01DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	50.9		56.2		10		P
Antimony	ug/L	20	25.0	U	25.0	U			P
Arsenic	ug/L	20	10.0	U	10.0	U			P
Barium	ug/L	20	58.9		57.4		3		P
Beryllium	ug/L	20	3.00	U	3.00	U			P
Boron	ug/L	20	47.6	J	46.4	J	3		P
Cadmium	ug/L	20	3.00	U	3.00	U			P
Calcium	ug/L	20	19400		18900		3		P
Chromium	ug/L	20	0.76	J	0.84	J	10		P
Cobalt	ug/L	20	15.0	U	15.0	U			P
Copper	ug/L	20	10.0	U	10.0	U			P
Iron	ug/L	20	2490		2400		4		P
Lead	ug/L	20	6.00	U	6.00	U			P
Magnesium	ug/L	20	3680		3600		2		P
Manganese	ug/L	20	777		758		2		P
Mercury	ug/L	20	0.20	U	0.20	U			CV
Molybdenum	ug/L	20	100	U	100	U			P
Nickel	ug/L	20	1.18	J	1.15	J	3		P
Potassium	ug/L	20	3290		3190		3		P
Selenium	ug/L	20	10.0	U	10.0	U			P
Silver	ug/L	20	5.00	U	5.00	U			P
Sodium	ug/L	20	79700		76900		4		P
Strontium	ug/L	20	129		126		2		P
Thallium	ug/L	20	20.0	U	20.0	U			P
Tin	ug/L	20	20.0	U	20.0	U			P
Titanium	ug/L	20	20.0	U	20.0	U			P
Vanadium	ug/L	20	20.0	U	20.0	U			P
Zinc	ug/L	20	10.1	J	9.57	J	5		P

Metals

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DUPLICATE SAMPLE SUMMARY

Client: JACOBS Engineering Group, Inc. **Level:** LOW **SDG No.:** P3467
Contract: JACO05 **Lab Code:** CHEM **Case No.:** P3467 **SAS No.:** P3467
Matrix: Water **Sample ID:** P3440-02 **Client ID:** 923-K1-WS-080124MSD
Percent Solids for Sample: NA **Duplicate ID** P3440-03 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	1000		1050		5		P
Antimony	ug/L	20	378		391		3		P
Arsenic	ug/L	20	359		377		5		P
Barium	ug/L	20	155		161		4		P
Beryllium	ug/L	20	95.3		102		7		P
Boron	ug/L	20	178		188		5		P
Cadmium	ug/L	20	89.7		94.8		6		P
Calcium	ug/L	20	20200		20600		2		P
Chromium	ug/L	20	196		205		4		P
Cobalt	ug/L	20	93.6		99.1		6		P
Copper	ug/L	20	140		146		4		P
Iron	ug/L	20	4020		4110		2		P
Lead	ug/L	20	453		477		5		P
Magnesium	ug/L	20	4590		4730		3		P
Manganese	ug/L	20	887		906		2		P
Mercury	ug/L	20	3.28		3.17		3		CV
Molybdenum	ug/L	20	205		213		4		P
Nickel	ug/L	20	236		249		5		P
Potassium	ug/L	20	8060		8290		3		P
Selenium	ug/L	20	851		889		4		P
Silver	ug/L	20	34.0		35.5		4		P
Sodium	ug/L	20	80100		80100		0		P
Strontium	ug/L	20	229		236		3		P
Thallium	ug/L	20	884		940		6		P
Tin	ug/L	20	331		344		4		P
Titanium	ug/L	20	100		103		3		P
Vanadium	ug/L	20	146		155		6		P
Zinc	ug/L	20	114		119		4		P

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Case No.: P3467

SAS No.: P3467

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB162493BS							
Aluminum	ug/L	1000	1020		102	86 - 115	P
Antimony	ug/L	400	403		101	88 - 113	P
Arsenic	ug/L	400	390		98	87 - 113	P
Barium	ug/L	100	100		100	88 - 113	P
Beryllium	ug/L	100	108		108	89 - 112	P
Boron	ug/L	150	157		105	85 - 113	P
Cadmium	ug/L	100	98.7		99	88 - 113	P
Calcium	ug/L	500	539	J	108	87 - 113	P
Chromium	ug/L	200	205		102	90 - 113	P
Cobalt	ug/L	100	100		100	89 - 114	P
Copper	ug/L	150	155		103	86 - 114	P
Iron	ug/L	1500	1440		96	87 - 115	P
Lead	ug/L	500	499		100	86 - 113	P
Magnesium	ug/L	1000	1000		100	85 - 113	P
Manganese	ug/L	100	104		104	90 - 114	P
Molybdenum	ug/L	200	204		102	89 - 113	P
Nickel	ug/L	250	256		102	88 - 113	P
Potassium	ug/L	5000	4540		91	86 - 114	P
Selenium	ug/L	1000	977		98	83 - 114	P
Silver	ug/L	37.5	37.1		99	84 - 115	P
Sodium	ug/L	1500	1340		89	87 - 115	P
Strontium	ug/L	100	99.7		100	90 - 113	P
Thallium	ug/L	1000	1000		100	85 - 114	P
Tin	ug/L	350	356		102	88 - 115	P
Titanium	ug/L	100	102		102	91 - 111	P
Vanadium	ug/L	150	152		101	90 - 111	P
Zinc	ug/L	100	106		106	87 - 115	P

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Case No.: P3467

SAS No.: P3467

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB162680BS Mercury	ug/L	4.0	3.62		90	80 - 120	CV

Metals
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ICP SERIAL DILUTIONS

SAMPLE NO.

923-K1-WS-080124L

Lab Name: Chemtech Consulting Group

Contract: JAC005

Lab Code: CHEM **Lb No.:** lb131900 **Lab Sample ID :** P3440-01L **SDG No.:** P3467

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)		Serial Dilution Result (S)		% Differ- ence	Q	M
		C		C			
Aluminum	50.9		250	U	100.0		P
Antimony	25.0	U	125	U			P
Arsenic	10.0	U	50.0	U			P
Barium	58.9		59.1	J	0		P
Beryllium	3.00	U	15.0	U			P
Boron	47.6	J	50.3	J	6		P
Cadmium	3.00	U	15.0	U			P
Calcium	19400		19700		2		P
Chromium	0.76	J	25.0	U	100.0		P
Cobalt	15.0	U	75.0	U			P
Copper	10.0	U	50.0	U			P
Iron	2490		2550		2		P
Lead	6.00	U	30.0	U			P
Magnesium	3680		3600	J	2		P
Manganese	777		782		1		P
Mercury	0.20	U	1.00	U			CV
Molybdenum	100	U	500	U			P
Nickel	1.18	J	100	U	100.0		P
Potassium	3290		5000	U	100.0		P
Selenium	10.0	U	50.0	U			P
Silver	5.00	U	25.0	U			P
Sodium	79700		78800		1		P
Strontium	129		131		1		P
Thallium	20.0	U	100	U			P
Tin	20.0	U	100	U			P
Titanium	20.0	U	100	U			P
Vanadium	20.0	U	100	U			P
Zinc	10.1	J	9.90	J	2		P



METAL PREPARATION & INSTRUMENT DATA

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Case No.: P3467

SAS No.: P3467

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Al	Ca	Fe	Mg	Ag
Aluminum	396.100	0.0000000	-0.0002060	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	-0.0000440	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	-0.0075970	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0007850	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0001440	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0001490	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0001050	0.0000000	0.0000000

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Case No.: P3467

SAS No.: P3467

Instrument ID: _____

Date: _____

Interement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interement Correction Factors For:				
		As	Ba	Be	Cd	Co
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0000000	0.0009530
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	-0.0039600
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0003570
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0054900
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Case No.: P3467

SAS No.: P3467

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Cr	Cu	K	Mn	Mo
Aluminum	396.100	0.0000000	0.0000000	0.0000590	0.0000000	0.0396900
Antimony	206.833	0.0122000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	-0.0029000	0.0000000	0.0000000	0.0000000	0.0004900
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	-0.0000710	-0.0003400
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	-0.0007860
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0006510	0.0020500
Iron	240.488	0.0000000	0.0000000	0.0000730	0.0000000	-0.0015250
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0007460	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000120
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0017400	-0.0100400
Vanadium	292.402	-0.0025100	0.0000000	0.0000000	0.0000000	-0.0072000
Zinc	213.800	0.0000000	0.0009010	0.0000000	0.0000000	0.0000000

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Case No.: P3467

SAS No.: P3467

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Na	Ni	Pb	Sb	Se
Aluminum	396.100	0.0000000	0.0000000	0.0012800	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	-0.0047000	0.0036100	0.0000000	0.0000000
Iron	240.488	0.0000000	-0.0017000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0003330	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0067600	0.0000000	0.0000000	0.0000000

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Case No.: P3467

SAS No.: P3467

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Sn	Ti	Tl	V	Zn
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	-0.0035600	-0.0007970	0.0000000	-0.0018900	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Cobalt	228.616	0.0000000	0.0018800	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0003840	0.0000000	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	-0.0007420	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	-0.0039700	0.0000000	-0.0115600	0.0000000
Vanadium	292.402	0.0000000	0.0005320	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

METAL PREPARATION & ANALYICAL SUMMARY

Metals

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SAMPLE PREPARATION SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Method: _____

Case No.: P3467

SAS No.: P3467

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB162493							
P3440-01DUP	923-K1-WS-080124DUP	DUP	WATER	08/05/2024	50.0	25.0	
P3440-02	923-K1-WS-080124MS	MS	WATER	08/05/2024	50.0	25.0	
P3440-03	923-K1-WS-080124MSD	MSD	WATER	08/05/2024	50.0	25.0	
P3467-01	919-J-WS-080224	SAM	WATER	08/05/2024	50.0	25.0	
PB162493BL	PB162493BL	MB	WATER	08/05/2024	50.0	25.0	
PB162493BS	PB162493BS	LCS	WATER	08/05/2024	50.0	25.0	

Metals

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SAMPLE PREPARATION SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: P3467

Contract: JACO05

Lab Code: CHEM

Method: _____

Case No.: P3467

SAS No.: P3467

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB162680							
P3440-01DUP	923-K1-WS-080124DUP	DUP	WATER	08/12/2024	30.0	30.0	
P3440-02	923-K1-WS-080124MS	MS	WATER	08/12/2024	30.0	30.0	
P3440-03	923-K1-WS-080124MSD	MSD	WATER	08/12/2024	30.0	30.0	
P3467-01	919-J-WS-080224	SAM	WATER	08/12/2024	30.0	30.0	
PB162680BL	PB162680BL	MB	WATER	08/12/2024	30.0	30.0	
PB162680BS	PB162680BS	LCS	WATER	08/12/2024	30.0	30.0	

metals
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ANALYSIS RUN LOG

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab code: CHEM **Case no.:** P3467 **Sas no.:** P3467

Sdg no.: P3467

Instrument id number: **Method:**

Run number: LB131900

Start date: 08/07/2024 **End date:** 08/07/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1416	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
S1	S1	1	1421	Ag,Al,As,B,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	1425	Ag,Al,As,B,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	1429	Ag,Al,As,B,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	1433	Ag,Al,As,B,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	1438	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
ICV01	ICV01	1	1552	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
LLICV01	LLICV01	1	1556	Ag,Al,As,B,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	1603	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
CRI01	CRI01	1	1607	Ag,Al,As,B,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	1612	Ag,Al,As,B,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	1616	Ag,Al,As,B,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	1620	Ag,Al,As,B,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	1625	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
PB162493BL	PB162493BL	1	1629	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
PB162493BS	PB162493BS	1	1634	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
P3440-01DUP	923-K1-WS-080124DUP	1	1705	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
P3440-01L	923-K1-WS-080124L	5	1709	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
CCV02	CCV02	1	1714	Ag,Al,As,B,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	1718	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
P3440-02	923-K1-WS-080124MS	1	1820	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
P3440-03	923-K1-WS-080124MSD	1	1824	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
P3440-01A	923-K1-WS-080124A	1	1833	Sr
CCV03	CCV03	1	1851	Ag,Al,As,B,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	1855	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
CCV04	CCV04	1	1948	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
CCB04	CCB04	1	1952	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn

metals
- 14 -
ANALYSIS RUN LOG

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab code: CHEM **Case no.:** P3467 **Sas no.:** P3467

Sdg no.: P3467

Instrument id number: **Method:**

Run number: LB131960

Start date: 08/13/2024 **End date:** 08/13/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	0836	HG
S0.2	S0.2	1	0839	HG
S2.5	S2.5	1	0841	HG
S5	S5	1	0843	HG
S7.5	S7.5	1	0845	HG
S10	S10	1	0850	HG
ICV72	ICV72	1	0853	HG
ICB72	ICB72	1	0855	HG
CCV35	CCV35	1	0858	HG
CCB35	CCB35	1	0903	HG
CRA	CRA	1	0910	HG
CCV36	CCV36	1	0933	HG
CCB36	CCB36	1	0935	HG
CCV37	CCV37	1	1000	HG
CCB37	CCB37	1	1005	HG
PB162680BL	PB162680BL	1	1007	HG
PB162680BS	PB162680BS	1	1009	HG
P3440-01DUP	923-K1-WS-080124DUP	1	1025	HG
P3440-02	923-K1-WS-080124MS	1	1028	HG
CCV38	CCV38	1	1030	HG
CCB38	CCB38	1	1035	HG
P3440-03	923-K1-WS-080124MSD	1	1037	HG
P3467-01	919-J-WS-080224	1	1049	HG
CCV39	CCV39	1	1058	HG
CCB39	CCB39	1	1104	HG
P3440-01L	923-K1-WS-080124L	5	1119	HG
CCV40	CCV40	1	1124	HG
CCB40	CCB40	1	1126	HG

metals
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ANALYSIS RUN LOG

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab code: CHEM **Case no.:** P3467 **Sas no.:** P3467

Sdg no.: P3467

Instrument id number: **Method:**

Run number: LB132113

Start date: 08/21/2024 **End date:** 08/21/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1209	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
S1	S1	1	1213	Ag,Al,As,B,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	1217	Ag,Al,As,B,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	1222	Ag,Al,As,B,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	1226	Ag,Al,As,B,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	1230	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
ICV01	ICV01	1	1234	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
LLICV01	LLICV01	1	1318	Ag,Al,As,B,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	1323	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
CRI01	CRI01	1	1333	Ag,Al,As,B,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	1337	Ag,Al,As,B,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	1400	Ag,Al,As,B,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	1539	Ag,Al,As,B,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	1543	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
CCV02	CCV02	1	1659	Ag,Al,As,B,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	1703	Ag,Al,As,B,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	1751	Ag,Al,As,B,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	1756	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
P3467-01	919-J-WS-080224	1	1849	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
CCV04	CCV04	1	1903	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
CCB04	CCB04	1	1907	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
CCV05	CCV05	1	2021	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn
CCB05	CCB05	1	2030	Ag,Al,As,B,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Mo,Na,Ni,Pb,Sb,Se,Sn,Sr,Ti,Tl,V,Zn