

LAB CHRONICLE

OrderID:	Q1206	OrderDate:	1/28/2025 11:18:51 AM
Client:	RU2 Engineering, LLC	Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	Location:	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1206-03	JPP-20.1-012725	SOIL			01/27/25			01/28/25
			Mercury	7471B		01/29/25	01/30/25	
			Metals ICP-TAL	6010D		01/29/25	01/30/25	
Q1206-04	JPP-20.1-012725	TCLP			01/27/25			01/28/25
			TCLP ICP Metals	6010D		01/29/25	01/30/25	
			TCLP Mercury	7470A		01/29/25	01/30/25	
Q1206-07	JPP-16.3-012725	SOIL			01/27/25			01/28/25
			Mercury	7471B		01/29/25	01/30/25	
			Metals ICP-TAL	6010D		01/29/25	01/30/25	
Q1206-08	JPP-16.3-012725	TCLP			01/27/25			01/28/25
			TCLP ICP Metals	6010D		01/29/25	01/30/25	
			TCLP Mercury	7470A		01/29/25	01/30/25	



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Hit Summary Sheet
SW-846

SDG No.:	Q1206	Order ID:	Q1206
Client:	RU2 Engineering, LLC	Project ID:	NYCDDC SANTWOBR Brooklyn Bridge

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : JPP-20.1-012725								
Q1206-04	JPP-20.1-012725	TCLP	Barium	567		62.8	500	ug/L
Q1206-04	JPP-20.1-012725	TCLP	Lead	89.8		35.1	60.0	ug/L
Client ID : JPP-16.3-012725								
Q1206-08	JPP-16.3-012725	TCLP	Barium	332	J	62.8	500	ug/L



SAMPLE DATA

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.1-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-04	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	100	U	1	34.8	100	ug/L	01/29/25 12:30	01/30/25 13:29	SW6010	SW3050
7440-39-3	Barium	567		1	62.8	500	ug/L	01/29/25 12:30	01/30/25 13:29	SW6010	SW3050
7440-43-9	Cadmium	30.0	U	1	0.94	30.0	ug/L	01/29/25 12:30	01/30/25 13:29	SW6010	SW3050
7440-47-3	Chromium	50.0	U	1	6.60	50.0	ug/L	01/29/25 12:30	01/30/25 13:29	SW6010	SW3050
7439-92-1	Lead	89.8		1	35.1	60.0	ug/L	01/29/25 12:30	01/30/25 13:29	SW6010	SW3050
7439-97-6	Mercury	2.00	U	1	0.81	2.00	ug/L	01/29/25 14:40	01/30/25 10:18	SW7470A	
7782-49-2	Selenium	100	U	1	58.8	100	ug/L	01/29/25 12:30	01/30/25 13:29	SW6010	SW3050
7440-22-4	Silver	50.0	U	1	5.80	50.0	ug/L	01/29/25 12:30	01/30/25 13:29	SW6010	SW3050

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	TCLP-FULL			

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

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.3-012725	SDG No.:	Q1206
Lab Sample ID:	Q1206-08	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	100	U	1	34.8	100	ug/L	01/29/25 12:30	01/30/25 13:41	SW6010	SW3050
7440-39-3	Barium	332	J	1	62.8	500	ug/L	01/29/25 12:30	01/30/25 13:41	SW6010	SW3050
7440-43-9	Cadmium	30.0	U	1	0.94	30.0	ug/L	01/29/25 12:30	01/30/25 13:41	SW6010	SW3050
7440-47-3	Chromium	50.0	U	1	6.60	50.0	ug/L	01/29/25 12:30	01/30/25 13:41	SW6010	SW3050
7439-92-1	Lead	60.0	U	1	35.1	60.0	ug/L	01/29/25 12:30	01/30/25 13:41	SW6010	SW3050
7439-97-6	Mercury	2.00	U	1	0.81	2.00	ug/L	01/29/25 14:40	01/30/25 10:21	SW7470A	
7782-49-2	Selenium	100	U	1	58.8	100	ug/L	01/29/25 12:30	01/30/25 13:41	SW6010	SW3050
7440-22-4	Silver	50.0	U	1	5.80	50.0	ug/L	01/29/25 12:30	01/30/25 13:41	SW6010	SW3050

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	TCLP-FULL			

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



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

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client:

RU2 Engineering, LLC

Contract:

RUTW01

Lab Code:

CHEM

SDG No.:

Q1206

Case No.:

Q1206

SAS No.:

Q1206

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
ICV75	Mercury	4.12	4.0	103	90 - 110	CV	01/30/2025	09:48	LB134479

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206
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
CCV87	Mercury	5.27	5.0	105	90 - 110	CV	01/30/2025	09:52	LB134479
CCV88	Mercury	5.35	5.0	107	90 - 110	CV	01/30/2025	10:27	LB134479
CCV89	Mercury	5.04	5.0	101	90 - 110	CV	01/30/2025	10:53	LB134479
CCV90	Mercury	5.07	5.0	101	90 - 110	CV	01/30/2025	11:15	LB134479

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206
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	Arsenic	1040	1000	104	90 - 110	P	01/30/2025	11:49	LB134493
	Barium	470	520	90	90 - 110	P	01/30/2025	11:49	LB134493
	Cadmium	502	510	98	90 - 110	P	01/30/2025	11:49	LB134493
	Chromium	522	520	100	90 - 110	P	01/30/2025	11:49	LB134493
	Lead	1000	1000	100	90 - 110	P	01/30/2025	11:49	LB134493
	Selenium	1040	1000	104	90 - 110	P	01/30/2025	11:49	LB134493
	Silver	252	250	101	90 - 110	P	01/30/2025	11:49	LB134493

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

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	Arsenic	21.3	20.0	107	80 - 120	P	01/30/2025	11:56	LB134493
	Barium	83.9	100	84	80 - 120	P	01/30/2025	11:56	LB134493
	Cadmium	5.60	6.0	93	80 - 120	P	01/30/2025	11:56	LB134493
	Chromium	9.80	10.0	98	80 - 120	P	01/30/2025	11:56	LB134493
	Lead	12.2	12.0	102	80 - 120	P	01/30/2025	11:56	LB134493
	Selenium	19.1	20.0	96	80 - 120	P	01/30/2025	11:56	LB134493
	Silver	10.4	10.0	104	80 - 120	P	01/30/2025	11:56	LB134493

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC SDG No.: Q1206
Contract: RUTW01 Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206
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	Arsenic	4950	5000	99	90 - 110	P	01/30/2025	12:41	LB134493
	Barium	9130	10000	91	90 - 110	P	01/30/2025	12:41	LB134493
	Cadmium	2420	2500	97	90 - 110	P	01/30/2025	12:41	LB134493
	Chromium	988	1000	99	90 - 110	P	01/30/2025	12:41	LB134493
	Lead	4840	5000	97	90 - 110	P	01/30/2025	12:41	LB134493
	Selenium	5010	5000	100	90 - 110	P	01/30/2025	12:41	LB134493
	Silver	1210	1250	97	90 - 110	P	01/30/2025	12:41	LB134493
CCV02	Arsenic	5000	5000	100	90 - 110	P	01/30/2025	13:33	LB134493
	Barium	9200	10000	92	90 - 110	P	01/30/2025	13:33	LB134493
	Cadmium	2420	2500	97	90 - 110	P	01/30/2025	13:33	LB134493
	Chromium	988	1000	99	90 - 110	P	01/30/2025	13:33	LB134493
	Lead	4830	5000	97	90 - 110	P	01/30/2025	13:33	LB134493
	Selenium	5050	5000	101	90 - 110	P	01/30/2025	13:33	LB134493
	Silver	1200	1250	96	90 - 110	P	01/30/2025	13:33	LB134493
CCV03	Arsenic	4880	5000	98	90 - 110	P	01/30/2025	14:34	LB134493
	Barium	9430	10000	94	90 - 110	P	01/30/2025	14:34	LB134493
	Cadmium	2490	2500	100	90 - 110	P	01/30/2025	14:34	LB134493
	Chromium	985	1000	98	90 - 110	P	01/30/2025	14:34	LB134493
	Lead	4910	5000	98	90 - 110	P	01/30/2025	14:34	LB134493
	Selenium	5010	5000	100	90 - 110	P	01/30/2025	14:34	LB134493
	Silver	1210	1250	97	90 - 110	P	01/30/2025	14:34	LB134493
CCV04	Arsenic	4890	5000	98	90 - 110	P	01/30/2025	15:25	LB134493
	Barium	9350	10000	94	90 - 110	P	01/30/2025	15:25	LB134493
	Cadmium	2370	2500	95	90 - 110	P	01/30/2025	15:25	LB134493
	Chromium	1000	1000	100	90 - 110	P	01/30/2025	15:25	LB134493
	Lead	4750	5000	95	90 - 110	P	01/30/2025	15:25	LB134493
	Selenium	4950	5000	99	90 - 110	P	01/30/2025	15:25	LB134493
	Silver	1220	1250	98	90 - 110	P	01/30/2025	15:25	LB134493
CCV05	Arsenic	4830	5000	97	90 - 110	P	01/30/2025	16:24	LB134493
	Barium	9330	10000	93	90 - 110	P	01/30/2025	16:24	LB134493
	Cadmium	2370	2500	95	90 - 110	P	01/30/2025	16:24	LB134493
	Chromium	991	1000	99	90 - 110	P	01/30/2025	16:24	LB134493
	Lead	4740	5000	95	90 - 110	P	01/30/2025	16:24	LB134493
	Selenium	4860	5000	97	90 - 110	P	01/30/2025	16:24	LB134493

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: RU2 Engineering, LLC SDG No.: Q1206
 Contract: RUTW01 Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206
 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
CCV05	Silver	1210	1250	97	90 - 110	P	01/30/2025	16:24	LB134493
CCV06	Arsenic	4970	5000	99	90 - 110	P	01/30/2025	17:19	LB134493
	Barium	9260	10000	93	90 - 110	P	01/30/2025	17:19	LB134493
	Cadmium	2440	2500	98	90 - 110	P	01/30/2025	17:19	LB134493
	Chromium	1010	1000	101	90 - 110	P	01/30/2025	17:19	LB134493
	Lead	4880	5000	98	90 - 110	P	01/30/2025	17:19	LB134493
	Selenium	4970	5000	100	90 - 110	P	01/30/2025	17:19	LB134493
	Silver	1230	1250	99	90 - 110	P	01/30/2025	17:19	LB134493
CCV07	Arsenic	4970	5000	99	90 - 110	P	01/30/2025	18:11	LB134493
	Barium	9620	10000	96	90 - 110	P	01/30/2025	18:11	LB134493
	Cadmium	2440	2500	98	90 - 110	P	01/30/2025	18:11	LB134493
	Chromium	1020	1000	102	90 - 110	P	01/30/2025	18:11	LB134493
	Lead	4880	5000	98	90 - 110	P	01/30/2025	18:11	LB134493
	Selenium	5000	5000	100	90 - 110	P	01/30/2025	18:11	LB134493
	Silver	1270	1250	101	90 - 110	P	01/30/2025	18:11	LB134493
CCV08	Arsenic	5000	5000	100	90 - 110	P	01/30/2025	18:45	LB134493
	Barium	9470	10000	95	90 - 110	P	01/30/2025	18:45	LB134493
	Cadmium	2430	2500	97	90 - 110	P	01/30/2025	18:45	LB134493
	Chromium	1010	1000	101	90 - 110	P	01/30/2025	18:45	LB134493
	Lead	4860	5000	97	90 - 110	P	01/30/2025	18:45	LB134493
	Selenium	5030	5000	101	90 - 110	P	01/30/2025	18:45	LB134493
	Silver	1250	1250	100	90 - 110	P	01/30/2025	18:45	LB134493



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Metals

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CRDL STANDARD FOR AA & ICP

Client: RU2 Engineering, LLC **SDG No.:** Q1206
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206
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
CRA	Mercury	0.19	0.2	97	40 - 160	CV	01/30/2025	09:59	LB134479
CRI01	Arsenic	21.5	20.0	107	40 - 160	P	01/30/2025	12:05	LB134493
	Barium	90.1	100	90	40 - 160	P	01/30/2025	12:05	LB134493
	Cadmium	5.56	6.0	93	40 - 160	P	01/30/2025	12:05	LB134493
	Chromium	9.97	10.0	100	40 - 160	P	01/30/2025	12:05	LB134493
	Lead	10.9	12.0	91	40 - 160	P	01/30/2025	12:05	LB134493
	Selenium	18.4	20.0	92	40 - 160	P	01/30/2025	12:05	LB134493
	Silver	11.1	10.0	111	40 - 160	P	01/30/2025	12:05	LB134493



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Client:	RU2 Engineering, LLC		SDG No.:	Q1206	
Contract:	RUTW01	Lab Code:	CHEM	Case No.:	Q1206
				SAS No.:	Q1206

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB75	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	09:50	LB134479

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB87	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	09:54	LB134479
CCB88	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	10:30	LB134479
CCB89	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	10:58	LB134479
CCB90	Mercury	0.20	+/-0.20	U	0.20	CV	01/30/2025	11:17	LB134479

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	12:00	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	12:00	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	12:00	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	12:00	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	12:00	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	12:00	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	12:00	LB134493

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: <u>RU2 Engineering, LLC</u>		SDG No.: <u>Q1206</u>							
Contract: <u>RUTW01</u>	Lab Code: <u>CHEM</u>	Case No.: <u>Q1206</u>	SAS No.: <u>Q1206</u>						
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	12:47	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	12:47	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	12:47	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	12:47	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	12:47	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	12:47	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	12:47	LB134493
CCB02	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	13:37	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	13:37	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	13:37	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	13:37	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	13:37	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	13:37	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	13:37	LB134493
CCB03	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	14:38	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	14:38	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	14:38	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	14:38	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	14:38	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	14:38	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	14:38	LB134493
CCB04	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	15:29	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	15:29	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	15:29	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	15:29	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	15:29	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	15:29	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	15:29	LB134493
CCB05	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	16:28	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	16:28	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	16:28	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	16:28	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	16:28	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	16:28	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	16:28	LB134493
CCB06	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	17:24	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	17:24	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	17:24	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	17:24	LB134493

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	17:24	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	17:24	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	17:24	LB134493
CCB07	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	18:15	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	18:15	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	18:15	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	18:15	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	18:15	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	18:15	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	18:15	LB134493
CCB08	Arsenic	20.0	+/-20.0	U	20.0	P	01/30/2025	18:51	LB134493
	Barium	100	+/-100	U	100	P	01/30/2025	18:51	LB134493
	Cadmium	6.00	+/-6.00	U	6.00	P	01/30/2025	18:51	LB134493
	Chromium	10.0	+/-10.0	U	10.0	P	01/30/2025	18:51	LB134493
	Lead	12.0	+/-12.0	U	12.0	P	01/30/2025	18:51	LB134493
	Selenium	20.0	+/-20.0	U	20.0	P	01/30/2025	18:51	LB134493
	Silver	10.0	+/-10.0	U	10.0	P	01/30/2025	18:51	LB134493

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: RU2 Engineering, LLC

SDG No.: Q1206

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166318TB		WATER		Batch Number:	PB166355		Prep Date:	01/29/2025	
	Mercury	2.00	<2.00	U	2.00	CV	01/30/2025	11:03	LB134479
Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166355BL		WATER		Batch Number:	PB166355		Prep Date:	01/29/2025	
	Mercury	0.20	<0.20	U	0.20	CV	01/30/2025	10:11	LB134479

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: RU2 Engineering, LLC

SDG No.: Q1206

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166318TB		WATER		Batch Number:	PB166342		Prep Date:	01/29/2025	
	Arsenic	100	<100	U	100	P	01/30/2025	14:55	LB134493
	Barium	500	<500	U	500	P	01/30/2025	14:55	LB134493
	Cadmium	30.0	<30.0	U	30.0	P	01/30/2025	14:55	LB134493
	Chromium	50.0	<50.0	U	50.0	P	01/30/2025	14:55	LB134493
	Lead	60.0	<60.0	U	60.0	P	01/30/2025	14:55	LB134493
	Selenium	100	<100	U	100	P	01/30/2025	14:55	LB134493
	Silver	50.0	<50.0	U	50.0	P	01/30/2025	14:55	LB134493
Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166342BL		WATER		Batch Number:	PB166342		Prep Date:	01/29/2025	
	Arsenic	100	<100	U	100	P	01/30/2025	15:00	LB134493
	Barium	500	<500	U	500	P	01/30/2025	15:00	LB134493
	Cadmium	30.0	<30.0	U	30.0	P	01/30/2025	15:00	LB134493
	Chromium	50.0	<50.0	U	50.0	P	01/30/2025	15:00	LB134493
	Lead	60.0	<60.0	U	60.0	P	01/30/2025	15:00	LB134493
	Selenium	100	<100	U	100	P	01/30/2025	15:00	LB134493
	Silver	50.0	<50.0	U	50.0	P	01/30/2025	15:00	LB134493

Metals
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INTERFERENCE CHECK SAMPLE

Client: <u>RU2 Engineering, LLC</u>	SDG No.: <u>Q1206</u>
Contract: <u>RUTW01</u>	Lab Code: <u>CHEM</u>
ICS Source: <u>EPA</u>	Case No.: <u>Q1206</u>
	SAS No.: <u>Q1206</u>
	Instrument ID: <u>P4</u>

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	Arsenic	-3.20			-20	20	01/30/2025	12:10	LB134493
	Barium	1.95	6.0	32	-94	106	01/30/2025	12:10	LB134493
	Cadmium	-0.88	1.0	88	-5	7	01/30/2025	12:10	LB134493
	Chromium	56.0	52.0	108	42	62	01/30/2025	12:10	LB134493
	Lead	6.67			-12	12	01/30/2025	12:10	LB134493
	Selenium	-14.4			-20	20	01/30/2025	12:10	LB134493
	Silver	-0.54			-10	10	01/30/2025	12:10	LB134493
ICSAB01	Arsenic	118	104	114	88.4	120	01/30/2025	12:28	LB134493
	Barium	456	537	85	437	637	01/30/2025	12:28	LB134493
	Cadmium	1020	972	105	826	1120	01/30/2025	12:28	LB134493
	Chromium	583	542	108	460	624	01/30/2025	12:28	LB134493
	Lead	57.1	49.0	116	37	61	01/30/2025	12:28	LB134493
	Selenium	36.8	46.0	80	26	66	01/30/2025	12:28	LB134493
	Silver	222	201	110	170	232	01/30/2025	12:28	LB134493



METAL QC DATA

metals
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MATRIX SPIKE SUMMARY

client: <u>RU2 Engineering, LLC</u>	level: <u>low</u>	sdg no.: <u>Q1206</u>
contract: <u>RUTW01</u>	lab code: <u>CHEM</u>	case no.: <u>Q1206</u> sas no.: <u>Q1206</u>
matrix: <u>Water</u>	sample id: <u>Q1209-08</u>	client id: <u>WC-5MS</u>
Percent Solids for Sample: <u>NA</u>	Spiked ID: <u>Q1209-08MS</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
Arsenic	ug/L	75 - 125	4090		100	U	4000	102		P
Barium	ug/L	75 - 125	1840		1020		1000	82		P
Cadmium	ug/L	75 - 125	970		30.0	U	1000	97		P
Chromium	ug/L	75 - 125	2050		50.0	U	2000	102		P
Lead	ug/L	75 - 125	4760		60.0	U	5000	95		P
Mercury	ug/L	75 - 125	43.2		2.00	U	40.0	108		CV
Selenium	ug/L	75 - 125	9800		100	U	10000	98		P
Silver	ug/L	75 - 125	363		50.0	U	380	96		P

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: <u>RU2 Engineering, LLC</u>	level: <u>low</u>	sdg no.: <u>Q1206</u>
contract: <u>RUTW01</u>	lab code: <u>CHEM</u>	case no.: <u>Q1206</u> sas no.: <u>Q1206</u>
matrix: <u>Water</u>	sample id: <u>Q1209-08</u>	client id: <u>WC-5MSD</u>
Percent Solids for Sample: <u>NA</u>	Spiked ID: <u>Q1209-08MSD</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
Arsenic	ug/L	75 - 125	4110		100	U	4000	103		P
Barium	ug/L	75 - 125	1860		1020		1000	84		P
Cadmium	ug/L	75 - 125	972		30.0	U	1000	97		P
Chromium	ug/L	75 - 125	2050		50.0	U	2000	102		P
Lead	ug/L	75 - 125	4770		60.0	U	5000	95		P
Mercury	ug/L	75 - 125	41.6		2.00	U	40.0	104		CV
Selenium	ug/L	75 - 125	9850		100	U	10000	98		P
Silver	ug/L	75 - 125	367		50.0	U	380	97		P

Metals
- 5b -

Client: RU2 Engineering, LLC **SDG No.:** Q1206
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206
Matrix: **Level:** LOW **Client ID:**
Sample ID: **Spiked ID:**

Analyte	Units	Acceptance Limit %R	C	Sample Result	C	Spike Added	% Recovery	Qual	M
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Metals

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1206
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206
Matrix: Water **Sample ID:** Q1209-08 **Client ID:** WC-5DUP
Percent Solids for Sample: NA **Duplicate ID** Q1209-08DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	100	U	100	U			P
Barium	ug/L	20	1020		1000		2		P
Cadmium	ug/L	20	30.0	U	30.0	U			P
Chromium	ug/L	20	50.0	U	50.0	U			P
Lead	ug/L	20	60.0	U	60.0	U			P
Mercury	ug/L	20	2.00	U	2.00	U			CV
Selenium	ug/L	20	100	U	100	U			P
Silver	ug/L	20	50.0	U	50.0	U			P

Metals

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DUPLICATE SAMPLE SUMMARY

Client: RU2 Engineering, LLC **Level:** LOW **SDG No.:** Q1206

Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Matrix: Water **Sample ID:** Q1209-08MS **Client ID:** WC-5MSD

Percent Solids for Sample: NA **Duplicate ID** Q1209-08MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	4090		4110		0		P
Barium	ug/L	20	1840		1860		1		P
Cadmium	ug/L	20	970		972		0		P
Chromium	ug/L	20	2050		2050		0		P
Lead	ug/L	20	4760		4770		0		P
Mercury	ug/L	20	43.2		41.6		4		CV
Selenium	ug/L	20	9800		9850		1		P
Silver	ug/L	20	363		367		1		P

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: RU2 Engineering, LLC **SDG No.:** Q1206
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166342BS							
Arsenic	ug/L	4000	4010		100	80 - 120	P
Barium	ug/L	1000	889		89	80 - 120	P
Cadmium	ug/L	1000	955		96	80 - 120	P
Chromium	ug/L	2000	2050		102	80 - 120	P
Lead	ug/L	5000	4820		96	80 - 120	P
Selenium	ug/L	10000	9890		99	80 - 120	P
Silver	ug/L	380	372		98	80 - 120	P

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: RU2 Engineering, LLC

SDG No.: Q1206

Contract: RUTW01

Lab Code: CHEM

Case No.: Q1206

SAS No.: Q1206

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166355BS Mercury	ug/L	4.0	4.51		113	80 - 120	CV

Metals
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ICP SERIAL DILUTIONS

SAMPLE NO.

WC-5L

Lab Name: Chemtech Consulting Group

Contract: RUTW01

Lab Code: CHEM **Lb No.:** lb134493

Lab Sample ID : Q1209-08L **SDG No.:** Q1206

Matrix (soil/water): Water

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)		Serial Dilution Result (S)		% Difference	Q	M
		C		C			
Arsenic	100	U	500	U			P
Barium	1020		976	J	4		P
Cadmium	30.0	U	150	U			P
Chromium	50.0	U	250	U			P
Lead	60.0	U	300	U			P
Mercury	2.00	U	10.0	U			CV
Selenium	100	U	500	U			P
Silver	50.0	U	250	U			P



METAL PREPARATION & INSTRUMENT DATA

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC

SDG No.: Q1206

Contract: RUTW01

Lab Code: CHEM

Case No.: Q1206

SAS No.: Q1206

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
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
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	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

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC

SDG No.: Q1206

Contract: RUTW01

Lab Code: CHEM

Case No.: Q1206

SAS No.: Q1206

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		As	Ba	Be	Cd	Co
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
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0003170	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

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC

SDG No.: Q1206

Contract: RUTW01

Lab Code: CHEM

Case No.: Q1206

SAS No.: Q1206

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
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
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
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

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC **SDG No.:** Q1206
Contract: RUTW01 **Lab Code:** CHEM **Case No.:** Q1206 **SAS No.:** Q1206
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
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
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
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

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: RU2 Engineering, LLC

SDG No.: Q1206

Contract: RUTW01

Lab Code: CHEM

Case No.: Q1206

SAS No.: Q1206

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
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
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Lead	220.353	0.0000000	-0.0003610	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



METAL PREPARATION & ANALYICAL SUMMARY

Metals

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SAMPLE PREPARATION SUMMARY

Client:	<u>RU2 Engineering, LLC</u>	SDG No.:	<u>Q1206</u>
Contract:	<u>RUTW01</u>	Lab Code:	<u>CHEM</u>
		Method:	<u></u>
		Case No.:	<u>Q1206</u>
		SAS No.:	<u>Q1206</u>

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB166342							
PB166318TB	PB166318TB	MB	WATER	01/29/2025	5.0	25.0	
PB166342BL	PB166342BL	MB	WATER	01/29/2025	5.0	25.0	
PB166342BS	PB166342BS	LCS	WATER	01/29/2025	5.0	25.0	
Q1206-04	JPP-20.1-012725	SAM	WATER	01/29/2025	5.0	25.0	
Q1206-08	JPP-16.3-012725	SAM	WATER	01/29/2025	5.0	25.0	
Q1209-08DUP	WC-5DUP	DUP	WATER	01/29/2025	5.0	25.0	
Q1209-08MS	WC-5MS	MS	WATER	01/29/2025	5.0	25.0	
Q1209-08MSD	WC-5MSD	MSD	WATER	01/29/2025	5.0	25.0	

Metals

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SAMPLE PREPARATION SUMMARY

Client:	<u>RU2 Engineering, LLC</u>	SDG No.:	<u>Q1206</u>
Contract:	<u>RUTW01</u>	Lab Code:	<u>CHEM</u>
		Method:	<u></u>
		Case No.:	<u>Q1206</u>
		SAS No.:	<u>Q1206</u>

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB166355							
PB166318TB	PB166318TB	MB	WATER	01/29/2025	3.0	30.0	
PB166355BL	PB166355BL	MB	WATER	01/29/2025	30.0	30.0	
PB166355BS	PB166355BS	LCS	WATER	01/29/2025	30.0	30.0	
Q1206-04	JPP-20.1-012725	SAM	WATER	01/29/2025	3.0	30.0	
Q1206-08	JPP-16.3-012725	SAM	WATER	01/29/2025	3.0	30.0	
Q1209-08DUP	WC-5DUP	DUP	WATER	01/29/2025	3.0	30.0	
Q1209-08MS	WC-5MS	MS	WATER	01/29/2025	3.0	30.0	
Q1209-08MSD	WC-5MSD	MSD	WATER	01/29/2025	3.0	30.0	

metals
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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1206 **Sas no.:** Q1206 **Sdg no.:** Q1206

Instrument id number: **Method:** **Run number:** LB134479

Start date: 01/30/2025 **End date:** 01/30/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	0928	HG
S0.2	S0.2	1	0930	HG
S2.5	S2.5	1	0933	HG
S5	S5	1	0938	HG
S7.5	S7.5	1	0942	HG
S10	S10	1	0945	HG
ICV75	ICV75	1	0948	HG
ICB75	ICB75	1	0950	HG
CCV87	CCV87	1	0952	HG
CCB87	CCB87	1	0954	HG
CRA	CRA	1	0959	HG
PB166355BL	PB166355BL	1	1011	HG
PB166355BS	PB166355BS	1	1014	HG
Q1206-04	JPP-20.1-012725	1	1018	HG
Q1206-08	JPP-16.3-012725	1	1021	HG
CCV88	CCV88	1	1027	HG
CCB88	CCB88	1	1030	HG
Q1209-08DUP	WC-5DUP	1	1043	HG
Q1209-08MS	WC-5MS	1	1045	HG
Q1209-08MSD	WC-5MSD	1	1048	HG
CCV89	CCV89	1	1053	HG
CCB89	CCB89	1	1058	HG
PB166318TB	PB166318TB	1	1103	HG
Q1209-08L	WC-5L	5	1105	HG
CCV90	CCV90	1	1115	HG
CCB90	CCB90	1	1117	HG

metals
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ANALYSIS RUN LOG

Client: RU2 Engineering, LLC **Contract:** RUTW01

Lab code: CHEM **Case no.:** Q1206 **Sas no.:** Q1206 **Sdg no.:** Q1206

Instrument id number: **Method:** **Run number:** LB134493

Start date: 01/30/2025 **End date:** 01/30/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1107	Ag,As,Ba,Cd,Cr,Pb,Se
S1	S1	1	1112	Ag,As,Ba,Cd,Cr,Pb,Se
S2	S2	1	1116	Ag,As,Ba,Cd,Cr,Pb,Se
S3	S3	1	1120	Ag,As,Ba,Cd,Cr,Pb,Se
S4	S4	1	1125	Ag,As,Ba,Cd,Cr,Pb,Se
S5	S5	1	1129	Ag,As,Ba,Cd,Cr,Pb,Se
ICV01	ICV01	1	1149	Ag,As,Ba,Cd,Cr,Pb,Se
LLICV01	LLICV01	1	1156	Ag,As,Ba,Cd,Cr,Pb,Se
ICB01	ICB01	1	1200	Ag,As,Ba,Cd,Cr,Pb,Se
CRI01	CRI01	1	1205	Ag,As,Ba,Cd,Cr,Pb,Se
ICSA01	ICSA01	1	1210	Ag,As,Ba,Cd,Cr,Pb,Se
ICSAB01	ICSAB01	1	1228	Ag,As,Ba,Cd,Cr,Pb,Se
CCV01	CCV01	1	1241	Ag,As,Ba,Cd,Cr,Pb,Se
CCB01	CCB01	1	1247	Ag,As,Ba,Cd,Cr,Pb,Se
Q1206-04	JPP-20.1-012725	1	1329	Ag,As,Ba,Cd,Cr,Pb,Se
CCV02	CCV02	1	1333	Ag,As,Ba,Cd,Cr,Pb,Se
CCB02	CCB02	1	1337	Ag,As,Ba,Cd,Cr,Pb,Se
Q1206-08	JPP-16.3-012725	1	1341	Ag,As,Ba,Cd,Cr,Pb,Se
Q1209-08DUP	WC-5DUP	1	1417	Ag,As,Ba,Cd,Cr,Pb,Se
Q1209-08L	WC-5L	5	1421	Ag,As,Ba,Cd,Cr,Pb,Se
CCV03	CCV03	1	1434	Ag,As,Ba,Cd,Cr,Pb,Se
CCB03	CCB03	1	1438	Ag,As,Ba,Cd,Cr,Pb,Se
Q1209-08MS	WC-5MS	1	1443	Ag,As,Ba,Cd,Cr,Pb,Se
Q1209-08MSD	WC-5MSD	1	1447	Ag,As,Ba,Cd,Cr,Pb,Se
PB166318TB	PB166318TB	1	1455	Ag,As,Ba,Cd,Cr,Pb,Se
PB166342BL	PB166342BL	1	1500	Ag,As,Ba,Cd,Cr,Pb,Se
PB166342BS	PB166342BS	1	1504	Ag,As,Ba,Cd,Cr,Pb,Se
CCV04	CCV04	1	1525	Ag,As,Ba,Cd,Cr,Pb,Se
CCB04	CCB04	1	1529	Ag,As,Ba,Cd,Cr,Pb,Se
CCV05	CCV05	1	1624	Ag,As,Ba,Cd,Cr,Pb,Se
CCB05	CCB05	1	1628	Ag,As,Ba,Cd,Cr,Pb,Se
CCV06	CCV06	1	1719	Ag,As,Ba,Cd,Cr,Pb,Se
CCB06	CCB06	1	1724	Ag,As,Ba,Cd,Cr,Pb,Se
CCV07	CCV07	1	1811	Ag,As,Ba,Cd,Cr,Pb,Se
CCB07	CCB07	1	1815	Ag,As,Ba,Cd,Cr,Pb,Se
CCV08	CCV08	1	1845	Ag,As,Ba,Cd,Cr,Pb,Se
CCB08	CCB08	1	1851	Ag,As,Ba,Cd,Cr,Pb,Se