



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

Hit Summary Sheet
SW-846

SDG No.: P4460

Order ID: P4460

Client: Portal Partners Tri-Venture

Project ID: Amtrak Sawtooth Bridges 2024

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : WB-303-BOT								
P4460-04	WB-303-BOT	TCLP	Barium	360	J	62.8	500	ug/L
P4460-04	WB-303-BOT	TCLP	Chromium	10.6	J	6.60	50.0	ug/L
P4460-04	WB-303-BOT	TCLP	Lead	45.4	J	35.1	60.0	ug/L



SAMPLE DATA

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	10/18/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	10/18/24
Client Sample ID:	WB-303-BOT	SDG No.:	P4460
Lab Sample ID:	P4460-04	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	34.8	U	1	34.8	100	ug/L	10/21/24 11:45	10/23/24 17:03	SW6010	SW3050
7440-39-3	Barium	360	J	1	62.8	500	ug/L	10/21/24 11:45	10/23/24 17:03	SW6010	SW3050
7440-43-9	Cadmium	0.94	U	1	0.94	30.0	ug/L	10/21/24 11:45	10/23/24 17:03	SW6010	SW3050
7440-47-3	Chromium	10.6	J	1	6.60	50.0	ug/L	10/21/24 11:45	10/23/24 17:03	SW6010	SW3050
7439-92-1	Lead	45.4	J	1	35.1	60.0	ug/L	10/21/24 11:45	10/23/24 17:03	SW6010	SW3050
7439-97-6	Mercury	0.81	U	1	0.81	2.00	ug/L	10/22/24 11:50	10/23/24 10:19	SW7470A	
7782-49-2	Selenium	58.8	U	1	58.8	100	ug/L	10/21/24 11:45	10/23/24 17:03	SW6010	SW3050
7440-22-4	Silver	5.80	U	1	5.80	50.0	ug/L	10/21/24 11:45	10/23/24 17:03	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



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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client:	Portal Partners Tri-Venture				SDG No.:	P4460				
Contract:	PORT06	Lab Code:	CHEM		Case No.:	P4460		SAS No.:	P4460	
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number	
ICB48	Mercury	0.20	+/-0.20	U	0.20	CV	10/23/2024	09:46	LB133065	

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** P4460
Contract: PORT06 **Lab Code:** CHEM **Case No.:** P4460 **SAS No.:** P4460

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB56	Mercury	0.20	+/-0.20	U	0.20	CV	10/23/2024	09:51	LB133065
CCB57	Mercury	0.20	+/-0.20	U	0.20	CV	10/23/2024	10:24	LB133065
CCB58	Mercury	0.20	+/-0.20	U	0.20	CV	10/23/2024	10:51	LB133065
CCB59	Mercury	0.20	+/-0.20	U	0.20	CV	10/23/2024	11:18	LB133065

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture		SDG No.: P4460							
Contract: PORT06	Lab Code: CHEM	Case No.: P4460	SAS No.: P4460						
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	10/23/2024	15:16	LB133086
	Barium	100	+/-100	U	100	P	10/23/2024	15:16	LB133086
	Cadmium	6.00	+/-6.00	U	6.00	P	10/23/2024	15:16	LB133086
	Chromium	10.0	+/-10.0	U	10.0	P	10/23/2024	15:16	LB133086
	Lead	12.0	+/-12.0	U	12.0	P	10/23/2024	15:16	LB133086
	Selenium	20.0	+/-20.0	U	20.0	P	10/23/2024	15:16	LB133086
	Silver	10.0	+/-10.0	U	10.0	P	10/23/2024	15:16	LB133086

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture		SDG No.: P4460							
Contract: PORT06	Lab Code: CHEM	Case No.: P4460	SAS No.: P4460						
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	10/23/2024	16:02	LB133086
	Barium	100	+/-100	U	100	P	10/23/2024	16:02	LB133086
	Cadmium	1.78	+/-6.00	J	6.00	P	10/23/2024	16:02	LB133086
	Chromium	10.0	+/-10.0	U	10.0	P	10/23/2024	16:02	LB133086
	Lead	12.0	+/-12.0	U	12.0	P	10/23/2024	16:02	LB133086
	Selenium	20.0	+/-20.0	U	20.0	P	10/23/2024	16:02	LB133086
	Silver	1.20	+/-10.0	J	10.0	P	10/23/2024	16:02	LB133086
CCB02	Arsenic	20.0	+/-20.0	U	20.0	P	10/23/2024	16:52	LB133086
	Barium	100	+/-100	U	100	P	10/23/2024	16:52	LB133086
	Cadmium	6.00	+/-6.00	U	6.00	P	10/23/2024	16:52	LB133086
	Chromium	10.0	+/-10.0	U	10.0	P	10/23/2024	16:52	LB133086
	Lead	12.0	+/-12.0	U	12.0	P	10/23/2024	16:52	LB133086
	Selenium	20.0	+/-20.0	U	20.0	P	10/23/2024	16:52	LB133086
	Silver	10.0	+/-10.0	U	10.0	P	10/23/2024	16:52	LB133086
CCB03	Arsenic	20.0	+/-20.0	U	20.0	P	10/23/2024	17:46	LB133086
	Barium	100	+/-100	U	100	P	10/23/2024	17:46	LB133086
	Cadmium	6.00	+/-6.00	U	6.00	P	10/23/2024	17:46	LB133086
	Chromium	10.0	+/-10.0	U	10.0	P	10/23/2024	17:46	LB133086
	Lead	12.0	+/-12.0	U	12.0	P	10/23/2024	17:46	LB133086
	Selenium	20.0	+/-20.0	U	20.0	P	10/23/2024	17:46	LB133086
	Silver	10.0	+/-10.0	U	10.0	P	10/23/2024	17:46	LB133086
CCB04	Arsenic	20.0	+/-20.0	U	20.0	P	10/23/2024	18:36	LB133086
	Barium	100	+/-100	U	100	P	10/23/2024	18:36	LB133086
	Cadmium	6.00	+/-6.00	U	6.00	P	10/23/2024	18:36	LB133086
	Chromium	10.0	+/-10.0	U	10.0	P	10/23/2024	18:36	LB133086
	Lead	12.0	+/-12.0	U	12.0	P	10/23/2024	18:36	LB133086
	Selenium	20.0	+/-20.0	U	20.0	P	10/23/2024	18:36	LB133086
	Silver	10.0	+/-10.0	U	10.0	P	10/23/2024	18:36	LB133086
CCB05	Arsenic	20.0	+/-20.0	U	20.0	P	10/23/2024	19:28	LB133086
	Barium	100	+/-100	U	100	P	10/23/2024	19:28	LB133086
	Cadmium	6.00	+/-6.00	U	6.00	P	10/23/2024	19:28	LB133086
	Chromium	10.0	+/-10.0	U	10.0	P	10/23/2024	19:28	LB133086
	Lead	12.0	+/-12.0	U	12.0	P	10/23/2024	19:28	LB133086
	Selenium	20.0	+/-20.0	U	20.0	P	10/23/2024	19:28	LB133086
	Silver	10.0	+/-10.0	U	10.0	P	10/23/2024	19:28	LB133086
CCB06	Arsenic	20.0	+/-20.0	U	20.0	P	10/23/2024	20:21	LB133086
	Barium	100	+/-100	U	100	P	10/23/2024	20:21	LB133086
	Cadmium	6.00	+/-6.00	U	6.00	P	10/23/2024	20:21	LB133086
	Chromium	10.0	+/-10.0	U	10.0	P	10/23/2024	20:21	LB133086

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** P4460
Contract: PORT06 **Lab Code:** CHEM **Case No.:** P4460 **SAS No.:** P4460

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	10/23/2024	20:21	LB133086
	Selenium	20.0	+/-20.0	U	20.0	P	10/23/2024	20:21	LB133086
	Silver	10.0	+/-10.0	U	10.0	P	10/23/2024	20:21	LB133086
CCB07	Arsenic	20.0	+/-20.0	U	20.0	P	10/23/2024	21:34	LB133086
	Barium	100	+/-100	U	100	P	10/23/2024	21:34	LB133086
	Cadmium	6.00	+/-6.00	U	6.00	P	10/23/2024	21:34	LB133086
	Chromium	10.0	+/-10.0	U	10.0	P	10/23/2024	21:34	LB133086
	Lead	12.0	+/-12.0	U	12.0	P	10/23/2024	21:34	LB133086
	Selenium	20.0	+/-20.0	U	20.0	P	10/23/2024	21:34	LB133086
	Silver	10.0	+/-10.0	U	10.0	P	10/23/2024	21:34	LB133086
CCB08	Arsenic	20.0	+/-20.0	U	20.0	P	10/23/2024	22:25	LB133086
	Barium	100	+/-100	U	100	P	10/23/2024	22:25	LB133086
	Cadmium	6.00	+/-6.00	U	6.00	P	10/23/2024	22:25	LB133086
	Chromium	10.0	+/-10.0	U	10.0	P	10/23/2024	22:25	LB133086
	Lead	12.0	+/-12.0	U	12.0	P	10/23/2024	22:25	LB133086
	Selenium	20.0	+/-20.0	U	20.0	P	10/23/2024	22:25	LB133086
	Silver	10.0	+/-10.0	U	10.0	P	10/23/2024	22:25	LB133086

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Portal Partners Tri-Venture

SDG No.: P4460

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB164261TB		WATER		Batch Number:	PB164306		Prep Date:	10/22/2024	
	Mercury	2.00	<2.00	U	2.00	CV	10/23/2024	11:02	LB133065
Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB164306BL		WATER		Batch Number:	PB164306		Prep Date:	10/22/2024	
	Mercury	0.20	<0.20	U	0.20	CV	10/23/2024	10:06	LB133065

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Portal Partners Tri-Venture

SDG No.: P4460

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB164261TB		WATER		Batch Number:	PB164298		Prep Date:	10/21/2024	
	Arsenic	100	<100	U	100	P	10/23/2024	17:29	LB133086
	Barium	500	<500	U	500	P	10/23/2024	17:29	LB133086
	Cadmium	30.0	<30.0	U	30.0	P	10/23/2024	17:29	LB133086
	Chromium	8.79	<50.0	J	50.0	P	10/23/2024	17:29	LB133086
	Lead	60.0	<60.0	U	60.0	P	10/23/2024	17:29	LB133086
	Selenium	100	<100	U	100	P	10/23/2024	17:29	LB133086
	Silver	50.0	<50.0	U	50.0	P	10/23/2024	17:29	LB133086
Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB164298BL		WATER		Batch Number:	PB164298		Prep Date:	10/21/2024	
	Arsenic	100	<100	U	100	P	10/23/2024	17:34	LB133086
	Barium	500	<500	U	500	P	10/23/2024	17:34	LB133086
	Cadmium	30.0	<30.0	U	30.0	P	10/23/2024	17:34	LB133086
	Chromium	50.0	<50.0	U	50.0	P	10/23/2024	17:34	LB133086
	Lead	60.0	<60.0	U	60.0	P	10/23/2024	17:34	LB133086
	Selenium	100	<100	U	100	P	10/23/2024	17:34	LB133086
	Silver	50.0	<50.0	U	50.0	P	10/23/2024	17:34	LB133086



METAL CALIBRATION DATA

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** P4460
Contract: PORT06 **Lab Code:** CHEM **Case No.:** P4460 **SAS No.:** P4460
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
ICV48	Mercury	3.96	4.0	99	90 - 110	CV	10/23/2024	09:44	LB133065

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** P4460
Contract: PORT06 **Lab Code:** CHEM **Case No.:** P4460 **SAS No.:** P4460
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
CCV56	Mercury	5.02	5.0	100	90 - 110	CV	10/23/2024	09:48	LB133065
CCV57	Mercury	5.31	5.0	106	90 - 110	CV	10/23/2024	10:22	LB133065
CCV58	Mercury	5.43	5.0	109	90 - 110	CV	10/23/2024	10:49	LB133065
CCV59	Mercury	5.31	5.0	106	90 - 110	CV	10/23/2024	11:16	LB133065

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** P4460
Contract: PORT06 **Lab Code:** CHEM **Case No.:** P4460 **SAS No.:** P4460
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	998	1000	100	90 - 110	P	10/23/2024	14:59	LB133086
	Barium	501	520	96	90 - 110	P	10/23/2024	14:59	LB133086
	Cadmium	506	510	99	90 - 110	P	10/23/2024	14:59	LB133086
	Chromium	538	520	103	90 - 110	P	10/23/2024	14:59	LB133086
	Lead	1010	1000	101	90 - 110	P	10/23/2024	14:59	LB133086
	Selenium	1020	1000	102	90 - 110	P	10/23/2024	14:59	LB133086
	Silver	256	250	102	90 - 110	P	10/23/2024	14:59	LB133086

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** P4460
Contract: PORT06 **Lab Code:** CHEM **Case No.:** P4460 **SAS No.:** P4460
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	18.8	20.0	94	80 - 120	P	10/23/2024	15:11	LB133086
	Barium	93.0	100	93	80 - 120	P	10/23/2024	15:11	LB133086
	Cadmium	5.79	6.0	96	80 - 120	P	10/23/2024	15:11	LB133086
	Chromium	10.1	10.0	101	80 - 120	P	10/23/2024	15:11	LB133086
	Lead	11.9	12.0	99	80 - 120	P	10/23/2024	15:11	LB133086
	Selenium	20.9	20.0	105	80 - 120	P	10/23/2024	15:11	LB133086
	Silver	10.3	10.0	103	80 - 120	P	10/23/2024	15:11	LB133086

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture SDG No.: P4460
Contract: PORT06 Lab Code: CHEM Case No.: P4460 SAS No.: P4460
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	5090	5000	102	90 - 110	P	10/23/2024	15:57	LB133086
	Barium	9630	10000	96	90 - 110	P	10/23/2024	15:57	LB133086
	Cadmium	2520	2500	101	90 - 110	P	10/23/2024	15:57	LB133086
	Chromium	1010	1000	101	90 - 110	P	10/23/2024	15:57	LB133086
	Lead	5020	5000	100	90 - 110	P	10/23/2024	15:57	LB133086
	Selenium	5060	5000	101	90 - 110	P	10/23/2024	15:57	LB133086
	Silver	1250	1250	100	90 - 110	P	10/23/2024	15:57	LB133086
CCV02	Arsenic	4840	5000	97	90 - 110	P	10/23/2024	16:48	LB133086
	Barium	9150	10000	92	90 - 110	P	10/23/2024	16:48	LB133086
	Cadmium	2410	2500	96	90 - 110	P	10/23/2024	16:48	LB133086
	Chromium	969	1000	97	90 - 110	P	10/23/2024	16:48	LB133086
	Lead	4810	5000	96	90 - 110	P	10/23/2024	16:48	LB133086
	Selenium	4860	5000	97	90 - 110	P	10/23/2024	16:48	LB133086
	Silver	1200	1250	96	90 - 110	P	10/23/2024	16:48	LB133086
CCV03	Arsenic	4880	5000	98	90 - 110	P	10/23/2024	17:42	LB133086
	Barium	9030	10000	90	90 - 110	P	10/23/2024	17:42	LB133086
	Cadmium	2440	2500	97	90 - 110	P	10/23/2024	17:42	LB133086
	Chromium	992	1000	99	90 - 110	P	10/23/2024	17:42	LB133086
	Lead	4850	5000	97	90 - 110	P	10/23/2024	17:42	LB133086
	Selenium	4880	5000	98	90 - 110	P	10/23/2024	17:42	LB133086
	Silver	1230	1250	98	90 - 110	P	10/23/2024	17:42	LB133086
CCV04	Arsenic	5070	5000	101	90 - 110	P	10/23/2024	18:32	LB133086
	Barium	9310	10000	93	90 - 110	P	10/23/2024	18:32	LB133086
	Cadmium	2540	2500	102	90 - 110	P	10/23/2024	18:32	LB133086
	Chromium	1020	1000	102	90 - 110	P	10/23/2024	18:32	LB133086
	Lead	5080	5000	102	90 - 110	P	10/23/2024	18:32	LB133086
	Selenium	5090	5000	102	90 - 110	P	10/23/2024	18:32	LB133086
	Silver	1250	1250	100	90 - 110	P	10/23/2024	18:32	LB133086
CCV05	Arsenic	4920	5000	98	90 - 110	P	10/23/2024	19:23	LB133086
	Barium	9250	10000	92	90 - 110	P	10/23/2024	19:23	LB133086
	Cadmium	2460	2500	99	90 - 110	P	10/23/2024	19:23	LB133086
	Chromium	984	1000	98	90 - 110	P	10/23/2024	19:23	LB133086
	Lead	4910	5000	98	90 - 110	P	10/23/2024	19:23	LB133086
	Selenium	4910	5000	98	90 - 110	P	10/23/2024	19:23	LB133086

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture SDG No.: P4460
Contract: PORT06 Lab Code: CHEM Case No.: P4460 SAS No.: P4460
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	10/23/2024	19:23	LB133086
CCV06	Arsenic	4890	5000	98	90 - 110	P	10/23/2024	20:15	LB133086
	Barium	9330	10000	93	90 - 110	P	10/23/2024	20:15	LB133086
	Cadmium	2470	2500	99	90 - 110	P	10/23/2024	20:15	LB133086
	Chromium	989	1000	99	90 - 110	P	10/23/2024	20:15	LB133086
	Lead	4910	5000	98	90 - 110	P	10/23/2024	20:15	LB133086
	Selenium	4870	5000	97	90 - 110	P	10/23/2024	20:15	LB133086
	Silver	1220	1250	98	90 - 110	P	10/23/2024	20:15	LB133086
CCV07	Arsenic	4820	5000	96	90 - 110	P	10/23/2024	21:28	LB133086
	Barium	9500	10000	95	90 - 110	P	10/23/2024	21:28	LB133086
	Cadmium	2420	2500	97	90 - 110	P	10/23/2024	21:28	LB133086
	Chromium	952	1000	95	90 - 110	P	10/23/2024	21:28	LB133086
	Lead	4820	5000	96	90 - 110	P	10/23/2024	21:28	LB133086
	Selenium	4830	5000	97	90 - 110	P	10/23/2024	21:28	LB133086
	Silver	1170	1250	94	90 - 110	P	10/23/2024	21:28	LB133086
CCV08	Arsenic	4800	5000	96	90 - 110	P	10/23/2024	22:20	LB133086
	Barium	9320	10000	93	90 - 110	P	10/23/2024	22:20	LB133086
	Cadmium	2510	2500	100	90 - 110	P	10/23/2024	22:20	LB133086
	Chromium	1010	1000	101	90 - 110	P	10/23/2024	22:20	LB133086
	Lead	4980	5000	100	90 - 110	P	10/23/2024	22:20	LB133086
	Selenium	4770	5000	96	90 - 110	P	10/23/2024	22:20	LB133086
	Silver	1220	1250	97	90 - 110	P	10/23/2024	22:20	LB133086

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

Metals

- 2b -

CRDL STANDARD FOR AA & ICP

Client: Portal Partners Tri-Venture

SDG No.: P4460

Contract: PORT06

Lab Code: CHEM

Case No.: P4460

SAS No.: P4460

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	0.22	0.2	109	40 - 160	CV	10/23/2024	09:53	LB133065
CRI01	Arsenic	19.7	20.0	99	40 - 160	P	10/23/2024	15:22	LB133086
	Barium	92.7	100	93	40 - 160	P	10/23/2024	15:22	LB133086
	Cadmium	5.38	6.0	90	40 - 160	P	10/23/2024	15:22	LB133086
	Chromium	10.0	10.0	100	40 - 160	P	10/23/2024	15:22	LB133086
	Lead	11.1	12.0	92	40 - 160	P	10/23/2024	15:22	LB133086
	Selenium	17.6	20.0	88	40 - 160	P	10/23/2024	15:22	LB133086
	Silver	10.1	10.0	101	40 - 160	P	10/23/2024	15:22	LB133086

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: <u>Portal Partners Tri-Venture</u>	SDG No.: <u>P4460</u>
Contract: <u>PORT06</u> Lab Code: <u>CHEM</u>	Case No.: <u>P4460</u> SAS No.: <u>P4460</u>
ICS Source: <u>EPA</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	6.17			-20	20	10/23/2024	15:26	LB133086
	Barium	4.64	6.0	77	-94	106	10/23/2024	15:26	LB133086
	Cadmium	5.24	1.0	524	-5	7	10/23/2024	15:26	LB133086
	Chromium	58.7	52.0	113	42	62	10/23/2024	15:26	LB133086
	Lead	7.85			-12	12	10/23/2024	15:26	LB133086
	Selenium	-14.6			-20	20	10/23/2024	15:26	LB133086
	Silver	0.40			-10	10	10/23/2024	15:26	LB133086
ICSAB01	Arsenic	109	104	105	88.4	120	10/23/2024	15:32	LB133086
	Barium	477	537	89	437	637	10/23/2024	15:32	LB133086
	Cadmium	987	972	102	826	1120	10/23/2024	15:32	LB133086
	Chromium	574	542	106	460	624	10/23/2024	15:32	LB133086
	Lead	55.0	49.0	112	37	61	10/23/2024	15:32	LB133086
	Selenium	32.1	46.0	70	26	66	10/23/2024	15:32	LB133086
	Silver	206	201	102	170	232	10/23/2024	15:32	LB133086



METAL QC DATA

metals
- 5a -
MATRIX SPIKE SUMMARY

client: <u>Portal Partners Tri-Venture</u>	level: <u>low</u>	sdg no.: <u>P4460</u>
contract: <u>PORT06</u>	lab code: <u>CHEM</u>	case no.: <u>P4460</u> sas no.: <u>P4460</u>
matrix: <u>Water</u>	sample id: <u>P4460-04</u>	client id: <u>WB-303-BOTMS</u>
Percent Solids for Sample: <u>NA</u>	Spiked ID: <u>P4460-04MS</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	3750		100	U	4000	94		P
Barium	ug/L	75 - 125	1240		360	J	1000	88		P
Cadmium	ug/L	75 - 125	911		30.0	U	1000	91		P
Chromium	ug/L	75 - 125	2000		10.6	J	2000	99		P
Lead	ug/L	75 - 125	4340		45.4	J	5000	86		P
Mercury	ug/L	75 - 125	32.3		2.00	U	40.0	81		CV
Selenium	ug/L	75 - 125	9110		100	U	10000	91		P
Silver	ug/L	75 - 125	376		50.0	U	380	99		P

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: <u>Portal Partners Tri-Venture</u>	level: <u>low</u>	sdg no.: <u>P4460</u>
contract: <u>PORT06</u>	lab code: <u>CHEM</u>	case no.: <u>P4460</u> sas no.: <u>P4460</u>
matrix: <u>Water</u>	sample id: <u>P4460-04</u>	client id: <u>WB-303-BOTMSD</u>
Percent Solids for Sample: <u>NA</u>	Spiked ID: <u>P4460-04MSD</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	3830		100	U	4000	96		P
Barium	ug/L	75 - 125	1260		360	J	1000	90		P
Cadmium	ug/L	75 - 125	927		30.0	U	1000	93		P
Chromium	ug/L	75 - 125	2030		10.6	J	2000	101		P
Lead	ug/L	75 - 125	4420		45.4	J	5000	88		P
Mercury	ug/L	75 - 125	38.3		2.00	U	40.0	96		CV
Selenium	ug/L	75 - 125	9330		100	U	10000	93		P
Silver	ug/L	75 - 125	379		50.0	U	380	100		P



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

Metals
- 5b -

Client: Portal Partners Tri-Venture

SDG No.: P4460

Contract: PORT06

Lab Code: CHEM

Case No.: P4460

SAS No.: P4460

Matrix:

Level: LOW

Client ID:

Sample ID:

Spiked ID:

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

- A
- B
- C
- D
- E
- F
- G
- H
- I
- J

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: Portal Partners Tri-Venture **Level:** LOW **SDG No.:** P4460
Contract: PORT06 **Lab Code:** CHEM **Case No.:** P4460 **SAS No.:** P4460
Matrix: Water **Sample ID:** P4460-04 **Client ID:** WB-303-BOTDUP
Percent Solids for Sample: NA **Duplicate ID** P4460-04DUP **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	360	J	357	J	1		P
Cadmium	ug/L	20	30.0	U	30.0	U			P
Chromium	ug/L	20	10.6	J	10.1	J	5		P
Lead	ug/L	20	45.4	J	49.1	J	8		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

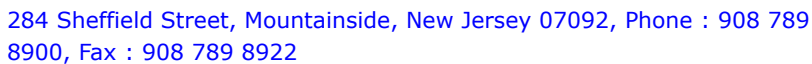
Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: Portal Partners Tri-Venture **Level:** LOW **SDG No.:** P4460
Contract: PORT06 **Lab Code:** CHEM **Case No.:** P4460 **SAS No.:** P4460
Matrix: Water **Sample ID:** P4460-04MS **Client ID:** WB-303-BOTMSD
Percent Solids for Sample: NA **Duplicate ID** P4460-04MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	3750		3830		2		P
Barium	ug/L	20	1240		1260		2		P
Cadmium	ug/L	20	911		927		2		P
Chromium	ug/L	20	2000		2030		1		P
Lead	ug/L	20	4340		4420		2		P
Mercury	ug/L	20	32.3		38.3		17		CV
Selenium	ug/L	20	9110		9330		2		P
Silver	ug/L	20	376		379		1		P



- 7 -

Client:	Portal Partners Tri-Venture	SDG No.:	P4460				
Contract:	PORT06	Lab Code:	CHEM	Case No.:	P4460	SAS No.:	P4460

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB164298BS							
Arsenic	ug/L	4000	3630		91	80 - 120	P
Barium	ug/L	1000	924		92	80 - 120	P
Cadmium	ug/L	1000	885		88	80 - 120	P
Chromium	ug/L	2000	2070		104	80 - 120	P
Lead	ug/L	5000	4410		88	80 - 120	P
Selenium	ug/L	10000	8700		87	80 - 120	P
Silver	ug/L	380	360		95	80 - 120	P

Metals

- 7 -

LABORATORY CONTROL SAMPLE SUMMARY

Client: Portal Partners Tri-Venture

SDG No.: P4460

Contract: PORT06

Lab Code: CHEM

Case No.: P4460

SAS No.: P4460

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB164306BS Mercury	ug/L	4.0	3.52		88	80 - 120	CV

Metals
-9 -
ICP SERIAL DILUTIONS

SAMPLE NO.

WB-303-BOTL

Lab Name: Chemtech Consulting Group

Contract: PORT06

Lab Code: CHEM **Lb No.:** lb133086 **Lab Sample ID :** P4460-04L **SDG No.:** P4460

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			
Arsenic	100	U	500	U			P
Barium	360	J	372	J	3		P
Cadmium	30.0	U	150	U			P
Chromium	10.6	J	250	U	100.0		P
Lead	45.4	J	300	U	100.0		P
Mercury	2.00	U	10.0	U			CV
Selenium	100	U	500	U			P
Silver	50.0	U	250	U			P

metals
- 14 -
ANALYSIS RUN LOG

Client: Portal Partners Tri-Venture **Contract:** PORT06

Lab code: CHEM **Case no.:** P4460 **Sas no.:** P4460 **Sdg no.:** P4460

Instrument id number: **Method:** **Run number:** LB133065

Start date: 10/23/2024 **End date:** 10/23/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	0926	HG
S0.2	S0.2	1	0929	HG
S2.5	S2.5	1	0931	HG
S5	S5	1	0933	HG
S7.5	S7.5	1	0935	HG
S10	S10	1	0940	HG
ICV48	ICV48	1	0944	HG
ICB48	ICB48	1	0946	HG
CCV56	CCV56	1	0948	HG
CCB56	CCB56	1	0951	HG
CRA	CRA	1	0953	HG
PB164306BL	PB164306BL	1	1006	HG
PB164306BS	PB164306BS	1	1008	HG
P4460-04	WB-303-BOT	1	1019	HG
CCV57	CCV57	1	1022	HG
CCB57	CCB57	1	1024	HG
P4460-04DUP	WB-303-BOTDUP	1	1026	HG
P4460-04MS	WB-303-BOTMS	1	1028	HG
P4460-04MSD	WB-303-BOTMSD	1	1031	HG
CCV58	CCV58	1	1049	HG
CCB58	CCB58	1	1051	HG
PB164261TB	PB164261TB	1	1102	HG
P4460-04L	WB-303-BOTL	5	1107	HG
CCV59	CCV59	1	1116	HG
CCB59	CCB59	1	1118	HG

metals
- 14 -
ANALYSIS RUN LOG

Client: Portal Partners Tri-Venture **Contract:** PORT06

Lab code: CHEM **Case no.:** P4460 **Sas no.:** P4460 **Sdg no.:** P4460

Instrument id number: **Method:** **Run number:** LB133086

Start date: 10/23/2024 **End date:** 10/23/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1424	Ag,As,Ba,Cd,Cr,Pb,Se
S1	S1	1	1428	Ag,As,Ba,Cd,Cr,Pb,Se
S2	S2	1	1432	Ag,As,Ba,Cd,Cr,Pb,Se
S3	S3	1	1437	Ag,As,Ba,Cd,Cr,Pb,Se
S4	S4	1	1441	Ag,As,Ba,Cd,Cr,Pb,Se
S5	S5	1	1445	Ag,As,Ba,Cd,Cr,Pb,Se
ICV01	ICV01	1	1459	Ag,As,Ba,Cd,Cr,Pb,Se
LLICV01	LLICV01	1	1511	Ag,As,Ba,Cd,Cr,Pb,Se
ICB01	ICB01	1	1516	Ag,As,Ba,Cd,Cr,Pb,Se
CRI01	CRI01	1	1522	Ag,As,Ba,Cd,Cr,Pb,Se
ICSA01	ICSA01	1	1526	Ag,As,Ba,Cd,Cr,Pb,Se
ICSAB01	ICSAB01	1	1532	Ag,As,Ba,Cd,Cr,Pb,Se
CCV01	CCV01	1	1557	Ag,As,Ba,Cd,Cr,Pb,Se
CCB01	CCB01	1	1602	Ag,As,Ba,Cd,Cr,Pb,Se
CCV02	CCV02	1	1648	Ag,As,Ba,Cd,Cr,Pb,Se
CCB02	CCB02	1	1652	Ag,As,Ba,Cd,Cr,Pb,Se
P4460-04	WB-303-BOT	1	1703	Ag,As,Ba,Cd,Cr,Pb,Se
P4460-04DUP	WB-303-BOTDUP	1	1708	Ag,As,Ba,Cd,Cr,Pb,Se
P4460-04L	WB-303-BOTL	5	1712	Ag,As,Ba,Cd,Cr,Pb,Se
P4460-04MS	WB-303-BOTMS	1	1717	Ag,As,Ba,Cd,Cr,Pb,Se
P4460-04MSD	WB-303-BOTMSD	1	1721	Ag,As,Ba,Cd,Cr,Pb,Se
PB164261TB	PB164261TB	1	1729	Ag,As,Ba,Cd,Cr,Pb,Se
PB164298BL	PB164298BL	1	1734	Ag,As,Ba,Cd,Cr,Pb,Se
PB164298BS	PB164298BS	1	1738	Ag,As,Ba,Cd,Cr,Pb,Se
CCV03	CCV03	1	1742	Ag,As,Ba,Cd,Cr,Pb,Se
CCB03	CCB03	1	1746	Ag,As,Ba,Cd,Cr,Pb,Se
CCV04	CCV04	1	1832	Ag,As,Ba,Cd,Cr,Pb,Se
CCB04	CCB04	1	1836	Ag,As,Ba,Cd,Cr,Pb,Se
CCV05	CCV05	1	1923	Ag,As,Ba,Cd,Cr,Pb,Se
CCB05	CCB05	1	1928	Ag,As,Ba,Cd,Cr,Pb,Se
CCV06	CCV06	1	2015	Ag,As,Ba,Cd,Cr,Pb,Se
CCB06	CCB06	1	2021	Ag,As,Ba,Cd,Cr,Pb,Se
CCV07	CCV07	1	2128	Ag,As,Ba,Cd,Cr,Pb,Se
CCB07	CCB07	1	2134	Ag,As,Ba,Cd,Cr,Pb,Se
CCV08	CCV08	1	2220	Ag,As,Ba,Cd,Cr,Pb,Se
CCB08	CCB08	1	2225	Ag,As,Ba,Cd,Cr,Pb,Se



METAL PREPARATION & INSTRUMENT DATA

Metals

- 11 -

ICP INTERELEMENT CORRECTION FACTORS

Client: Portal Partners Tri-Venture

SDG No.: P4460

Contract: PORT06

Lab Code: CHEM

Case No.: P4460

SAS No.: P4460

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

- 11 -

ICP INTERELEMENT CORRECTION FACTORS

Client: Portal Partners Tri-Venture

SDG No.: P4460

Contract: PORT06

Lab Code: CHEM

Case No.: P4460

SAS No.: P4460

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

- 11 -

ICP INTERELEMENT CORRECTION FACTORS

Client: Portal Partners Tri-Venture **SDG No.:** P4460
Contract: PORT06 **Lab Code:** CHEM **Case No.:** P4460 **SAS No.:** P4460
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

- 11 -

ICP INTERELEMENT CORRECTION FACTORS

Client: Portal Partners Tri-Venture **SDG No.:** P4460

Contract: PORT06 **Lab Code:** CHEM **Case No.:** P4460 **SAS No.:** P4460

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

- 11 -

ICP INTERELEMENT CORRECTION FACTORS

Client: Portal Partners Tri-Venture

SDG No.: P4460

Contract: PORT06

Lab Code: CHEM

Case No.: P4460

SAS No.: P4460

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

LAB CHRONICLE

OrderID:	P4460	OrderDate:	10/18/2024 3:24:00 PM
Client:	Portal Partners Tri-Venture	Project:	Amtrak Sawtooth Bridges 2024
Contact:	Joseph Krupansky	Location:	K51,VOA Ref. #2 Soil,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4460-02	WB-303-TOP	SOIL			10/18/24			10/18/24
			Mercury	7471B		10/21/24	10/22/24	
			Metals ICP-TAL	6010D		10/21/24	10/23/24	
P4460-03	WB-303-BOT	SOIL			10/18/24			10/18/24
			Mercury	7471B		10/21/24	10/22/24	
			Metals ICP-TAL	6010D		10/21/24	10/23/24	
P4460-04	WB-303-BOT	TCLP			10/18/24			10/18/24
			TCLP ICP Metals	6010D		10/21/24	10/23/24	
			TCLP Mercury	7470A		10/22/24	10/23/24	
P4460-06	WB-303-SW	Water			10/18/24			10/18/24
			Mercury	7470A		10/25/24	10/25/24	
			Metals ICP-TAL	6010D		10/23/24	10/24/24	



METAL PREPARATION & ANALYICAL SUMMARY

Metals

- 13 -

SAMPLE PREPARATION SUMMARY

Client:	<u>Portal Partners Tri-Venture</u>	SDG No.:	<u>P4460</u>
Contract:	<u>PORT06</u>	Lab Code:	<u>CHEM</u>
		Method:	<u></u>
		Case No.:	<u>P4460</u>
		SAS No.:	<u>P4460</u>

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB164298							
P4460-04	WB-303-BOT	SAM	WATER	10/21/2024	5.0	25.0	
P4460-04DUP	WB-303-BOTDUP	DUP	WATER	10/21/2024	5.0	25.0	
P4460-04MS	WB-303-BOTMS	MS	WATER	10/21/2024	5.0	25.0	
P4460-04MSD	WB-303-BOTMSD	MSD	WATER	10/21/2024	5.0	25.0	
PB164261TB	PB164261TB	MB	WATER	10/21/2024	5.0	25.0	
PB164298BL	PB164298BL	MB	WATER	10/21/2024	5.0	25.0	
PB164298BS	PB164298BS	LCS	WATER	10/21/2024	5.0	25.0	

Metals

- 13 -

SAMPLE PREPARATION SUMMARY

Client:	<u>Portal Partners Tri-Venture</u>	SDG No.:	<u>P4460</u>
Contract:	<u>PORT06</u>	Lab Code:	<u>CHEM</u>
		Method:	<u></u>
		Case No.:	<u>P4460</u>
		SAS No.:	<u>P4460</u>

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB164306							
P4460-04	WB-303-BOT	SAM	WATER	10/22/2024	3.0	30.0	
P4460-04DUP	WB-303-BOTDUP	DUP	WATER	10/22/2024	3.0	30.0	
P4460-04MS	WB-303-BOTMS	MS	WATER	10/22/2024	3.0	30.0	
P4460-04MSD	WB-303-BOTMSD	MSD	WATER	10/22/2024	3.0	30.0	
PB164261TB	PB164261TB	MB	WATER	10/22/2024	3.0	30.0	
PB164306BL	PB164306BL	MB	WATER	10/22/2024	30.0	30.0	
PB164306BS	PB164306BS	LCS	WATER	10/22/2024	30.0	30.0	

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QC Batch ID # LB133065

Review By	jaswal	Review On	10/23/2024 11:18:30 PM
Supervise By	mohan	Supervise On	10/23/2024 11:33:40 PM
STD. NAME	STD REF.#		
ICAL Standard	MP82866,MP82868,MP82869,MP82870,MP82871,MP82872		
ICV Standard	MP82873		
CCV Standard	MP82875		
ICSA Standard			
CRI Standard	MP82877		
LCS Standard			
Chk Standard	MP82874,MP82876,MP82883,MP82885		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	10/23/24 09:26		Mohan	OK
2	S0.2	S0.2	CAL2	10/23/24 09:29		Mohan	OK
3	S2.5	S2.5	CAL3	10/23/24 09:31		Mohan	OK
4	S5	S5	CAL4	10/23/24 09:33		Mohan	OK
5	S7.5	S7.5	CAL5	10/23/24 09:35		Mohan	OK
6	S10	S10	CAL6	10/23/24 09:40		Mohan	OK
7	ICV48	ICV48	ICV	10/23/24 09:44		Mohan	OK
8	ICB48	ICB48	ICB	10/23/24 09:46		Mohan	OK
9	CCV56	CCV56	CCV	10/23/24 09:48		Mohan	OK
10	CCB56	CCB56	CCB	10/23/24 09:51		Mohan	OK
11	CRA	CRA	CRDL	10/23/24 09:53		Mohan	OK
12	HighStd	HighStd	HIGH STD	10/23/24 09:55		Mohan	OK
13	ChkStd	ChkStd	SAM	10/23/24 10:03		Mohan	OK
14	PB164306BL	PB164306BL	MB	10/23/24 10:06		Mohan	OK
15	PB164306BS	PB164306BS	LCS	10/23/24 10:08		Mohan	OK
16	P4397-06	WB-301-BOT	SAM	10/23/24 10:10		Mohan	OK
17	P4443-05	OG-315-HR-502-COM	SAM	10/23/24 10:12		Mohan	OK
18	P4443-10	OG-315-HR-502-COM	SAM	10/23/24 10:15		Mohan	OK

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QC Batch ID # LB133065

Review By	jaswal	Review On	10/23/2024 11:18:30 PM
Supervise By	mohan	Supervise On	10/23/2024 11:33:40 PM
STD. NAME	STD REF.#		
ICAL Standard	MP82866,MP82868,MP82869,MP82870,MP82871,MP82872		
ICV Standard	MP82873		
CCV Standard	MP82875		
ICSA Standard			
CRI Standard	MP82877		
LCS Standard			
Chk Standard	MP82874,MP82876,MP82883,MP82885		

19	P4458-02	280517	SAM	10/23/24 10:17		Mohan	OK
20	P4460-04	WB-303-BOT	SAM	10/23/24 10:19		Mohan	OK
21	CCV57	CCV57	CCV	10/23/24 10:22		Mohan	OK
22	CCB57	CCB57	CCB	10/23/24 10:24		Mohan	OK
23	P4460-04DUP	WB-303-BOTDUP	DUP	10/23/24 10:26		Mohan	OK
24	P4460-04MS	WB-303-BOTMS	MS	10/23/24 10:28		Mohan	OK
25	P4460-04MSD	WB-303-BOTMSD	MSD	10/23/24 10:31		Mohan	OK
26	PB164321BL	PB164321BL	MB	10/23/24 10:33		Mohan	OK
27	PB164321BS	PB164321BS	LCS	10/23/24 10:35		Mohan	OK
28	P4467-04	TP-1	SAM	10/23/24 10:37		Mohan	OK
29	P4468-02	ETGI-331	SAM	10/23/24 10:40		Mohan	OK
30	P4468-04	ETGI-329	SAM	10/23/24 10:42		Mohan	OK
31	P4468-06	ETGI-345	SAM	10/23/24 10:44		Mohan	OK
32	P4472-04	BP-F-28	SAM	10/23/24 10:47		Mohan	OK
33	CCV58	CCV58	CCV	10/23/24 10:49		Mohan	OK
34	CCB58	CCB58	CCB	10/23/24 10:51		Mohan	OK
35	P4472-08	BP-F-6	SAM	10/23/24 10:53		Mohan	OK
36	P4472-08DUP	BP-F-6DUP	DUP	10/23/24 10:56		Mohan	OK
37	P4472-08MS	BP-F-6MS	MS	10/23/24 10:58		Mohan	OK
38	P4472-08MSD	BP-F-6MSD	MSD	10/23/24 11:00		Mohan	OK

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QC Batch ID # LB133065

Review By	jaswal	Review On	10/23/2024 11:18:30 PM
Supervise By	mohan	Supervise On	10/23/2024 11:33:40 PM
STD. NAME	STD REF.#		
ICAL Standard	MP82866,MP82868,MP82869,MP82870,MP82871,MP82872		
ICV Standard	MP82873		
CCV Standard	MP82875		
ICSA Standard			
CRI Standard	MP82877		
LCS Standard			
Chk Standard	MP82874,MP82876,MP82883,MP82885		

39	PB164261TB	PB164261TB	MB	10/23/24 11:02		Mohan	OK
40	PB164301TB	PB164301TB	MB	10/23/24 11:05		Mohan	OK
41	P4460-04L	WB-303-BOTL	SD	10/23/24 11:07		Mohan	OK
42	P4460-04A	WB-303-BOTA	PS	10/23/24 11:09		Mohan	OK
43	P4472-08L	BP-F-6L	SD	10/23/24 11:12		Mohan	OK
44	P4472-08A	BP-F-6A	PS	10/23/24 11:14		Mohan	OK
45	CCV59	CCV59	CCV	10/23/24 11:16		Mohan	OK
46	CCB59	CCB59	CCB	10/23/24 11:18		Mohan	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB133086

Review By	kareem	Review On	10/25/2024 3:10:26 PM
Supervise By	jaswal	Supervise On	10/26/2024 8:07:20 AM
STD. NAME	STD REF.#		
ICAL Standard	MP82441 MP82476 MP82477 MP82478 MP82479 MP82712		
ICV Standard	mp82485		
CCV Standard	MP82488		
ICSA Standard	MP82486 MP82487		
CRI Standard	MP82712		
LCS Standard			
Chk Standard	MP82491 MP82492		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	10/23/24 14:24		Kareem	OK
2	S1	S1	CAL2	10/23/24 14:28		Kareem	OK
3	S2	S2	CAL3	10/23/24 14:32		Kareem	OK
4	S3	S3	CAL4	10/23/24 14:37		Kareem	OK
5	S4	S4	CAL5	10/23/24 14:41		Kareem	OK
6	S5	S5	CAL6	10/23/24 14:45		Kareem	OK
7	ICV01	ICV01	ICV	10/23/24 14:59		Kareem	OK
8	LLICV01	LLICV01	LLICV	10/23/24 15:11		Kareem	OK
9	ICB01	ICB01	ICB	10/23/24 15:16		Kareem	OK
10	CRI01	CRI01	CRDL	10/23/24 15:22		Kareem	OK
11	ICSA01	ICSA01	ICSA	10/23/24 15:26		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	10/23/24 15:32		Kareem	OK
13	ICSADL	ICSADL	ICSA	10/23/24 15:36		Kareem	OK
14	ICSABDL	ICSABDL	ICSAB	10/23/24 15:40		Kareem	OK
15	CCV01	CCV01	CCV	10/23/24 15:57		Kareem	OK
16	CCB01	CCB01	CCB	10/23/24 16:02		Kareem	OK
17	P4458-02	280517	SAM	10/23/24 16:06		Kareem	OK
18	P4458-01	280517	SAM	10/23/24 16:10		Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB133086

Review By	kareem	Review On	10/25/2024 3:10:26 PM
Supervise By	jaswal	Supervise On	10/26/2024 8:07:20 AM
STD. NAME	STD REF.#		
ICAL Standard	MP82441 MP82476 MP82477 MP82478 MP82479 MP82712		
ICV Standard	mp82485		
CCV Standard	MP82488		
ICSA Standard	MP82486 MP82487		
CRI Standard	MP82712		
LCS Standard			
Chk Standard	MP82491 MP82492		

19	P4443-05	OG-315-HR-502-COM	SAM	10/23/24 16:15		Kareem	OK
20	P4443-10	OG-315-HR-502-COM	SAM	10/23/24 16:19		Kareem	OK
21	P4443-01	OG-315-HR-502-COM	SAM	10/23/24 16:23		Kareem	OK
22	P4443-06	OG-315-HR-502-COM	SAM	10/23/24 16:28		Kareem	OK
23	P4452-01	ETGI-285	SAM	10/23/24 16:32	Ca,Cr high	Kareem	Dilution
24	P4452-01DL	ETGI-285DL	SAM	10/23/24 16:44	5x for Ca,Cr	Kareem	Confirms
25	CCV02	CCV02	CCV	10/23/24 16:48		Kareem	OK
26	CCB02	CCB02	CCB	10/23/24 16:52		Kareem	OK
27	P4397-06	WB-301-BOT	SAM	10/23/24 16:59		Kareem	OK
28	P4460-04	WB-303-BOT	SAM	10/23/24 17:03		Kareem	OK
29	P4460-04DUP	WB-303-BOTDUP	DUP	10/23/24 17:08		Kareem	OK
30	P4460-04L	WB-303-BOTL	SD	10/23/24 17:12		Kareem	OK
31	P4460-04MS	WB-303-BOTMS	MS	10/23/24 17:17	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
32	P4460-04MSD	WB-303-BOTMSD	MSD	10/23/24 17:21	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
33	P4460-04A	WB-303-BOTA	PS	10/23/24 17:25	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
34	PB164261TB	PB164261TB	MB	10/23/24 17:29		Kareem	OK
35	PB164298BL	PB164298BL	MB	10/23/24 17:34		Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB133086

Review By	kareem	Review On	10/25/2024 3:10:26 PM
Supervise By	jaswal	Supervise On	10/26/2024 8:07:20 AM
STD. NAME	STD REF.#		
ICAL Standard	MP82441 MP82476 MP82477 MP82478 MP82479 MP82712		
ICV Standard	mp82485		
CCV Standard	MP82488		
ICSA Standard	MP82486 MP82487		
CRI Standard	MP82712		
LCS Standard			
Chk Standard	MP82491 MP82492		

36	PB164298BS	PB164298BS	LCS	10/23/24 17:38	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
37	CCV03	CCV03	CCV	10/23/24 17:42		Kareem	OK
38	CCB03	CCB03	CCB	10/23/24 17:46		Kareem	OK
39	P4456-01	PAD-10182024	SAM	10/23/24 17:51		Kareem	OK
40	P4460-02	WB-303-TOP	SAM	10/23/24 17:55		Kareem	OK
41	P4460-03	WB-303-BOT	SAM	10/23/24 17:59	MS-MSD Fail for more than 50% parameter	Kareem	OK
42	P4460-03DUP	WB-303-BOTDUP	DUP	10/23/24 18:04	MS-MSD Fail for more than 50% parameter	Kareem	OK
43	P4460-03L	WB-303-BOTL	SD	10/23/24 18:08	MS-MSD Fail for more than 50% parameter	Kareem	OK
44	P4460-03MS	WB-303-BOTMS	MS	10/23/24 18:12	MS-MSD Fail for more than 50% parameter	Kareem	OK
45	P4460-03MSD	WB-303-BOTMSD	MSD	10/23/24 18:16	MS-MSD Fail for more than 50% parameter	Kareem	OK
46	P4460-03A	WB-303-BOTA	PS	10/23/24 18:20	MS-MSD Fail for more than 50% parameter	Kareem	OK
47	PB164289BL	PB164289BL	MB	10/23/24 18:24	Fail for Al	Kareem	Not Ok
48	PB164289BS	PB164289BS	LCS	10/23/24 18:28	Fail for Al,Sb,As,Ba,Be,Cd,Pb,Mg, Mn,Se,Tl,V	Kareem	Not Ok
49	CCV04	CCV04	CCV	10/23/24 18:32		Kareem	OK
50	CCB04	CCB04	CCB	10/23/24 18:36		Kareem	OK
51	PB164244BL	PB164244BL	MB	10/23/24 18:41		Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB133086

Review By	kareem	Review On	10/25/2024 3:10:26 PM
Supervise By	jaswal	Supervise On	10/26/2024 8:07:20 AM
STD. NAME	STD REF.#		
ICAL Standard	MP82441 MP82476 MP82477 MP82478 MP82479 MP82712		
ICV Standard	mp82485		
CCV Standard	MP82488		
ICSA Standard	MP82486 MP82487		
CRI Standard	MP82712		
LCS Standard			
Chk Standard	MP82491 MP82492		

52	PB164244BS	PB164244BS	LCS	10/23/24 18:45	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
53	PB164195TB	PB164195TB	MB	10/23/24 18:49		Kareem	OK
54	PB164197TB	PB164197TB	MB	10/23/24 18:54		Kareem	OK
55	PB164248BL	PB164248BL	MB	10/23/24 18:58		Kareem	OK
56	PB164248BS	PB164248BS	LCS	10/23/24 19:03	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
57	PB164174BL	PB164174BL	MB	10/23/24 19:07		Kareem	OK
58	PB164174BS	PB164174BS	LCS	10/23/24 19:11	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
59	PB164221BL	PB164221BL	MB	10/23/24 19:15		Kareem	OK
60	PB164221BS	PB164221BS	LCS	10/23/24 19:19	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
61	CCV05	CCV05	CCV	10/23/24 19:23		Kareem	OK
62	CCB05	CCB05	CCB	10/23/24 19:28		Kareem	OK
63	PB164222BL	PB164222BL	MB	10/23/24 19:32		Kareem	OK
64	PB164222BS	PB164222BS	LCS	10/23/24 19:36	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
65	PB164220BL	PB164220BL	MB	10/23/24 19:40		Kareem	OK
66	PB164220BS	PB164220BS	LCS	10/23/24 19:45	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB133086

Review By	kareem	Review On	10/25/2024 3:10:26 PM
Supervise By	jaswal	Supervise On	10/26/2024 8:07:20 AM
STD. NAME	STD REF.#		
ICAL Standard	MP82441 MP82476 MP82477 MP82478 MP82479 MP82712		
ICV Standard	mp82485		
CCV Standard	MP82488		
ICSA Standard	MP82486 MP82487		
CRI Standard	MP82712		
LCS Standard			
Chk Standard	MP82491 MP82492		

67	P4424-01	1-N-1	SAM	10/23/24 19:49		Kareem	OK
68	P4424-01DUP	1-N-1DUP	DUP	10/23/24 19:53		Kareem	OK
69	P4424-01L	1-N-1L	SD	10/23/24 19:58		Kareem	OK
70	P4424-01MS	1-N-1MS	MS	10/23/24 20:02	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
71	P4424-01MSD	1-N-1MSD	MSD	10/23/24 20:06	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
72	P4424-01A	1-N-1A	PS	10/23/24 20:11	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
73	CCV06	CCV06	CCV	10/23/24 20:15		Kareem	OK
74	CCB06	CCB06	CCB	10/23/24 20:21		Kareem	OK
75	P4424-02	1-S-1	SAM	10/23/24 20:25		Kareem	OK
76	P4424-03	1-B-1	SAM	10/23/24 20:30		Kareem	OK
77	P4397-04DL	WB-301-SWDL	SAM	10/23/24 20:47	Not Use	Kareem	Not Ok
78	P4397-04DUPDL	WB-301-SWDUPDL	DUP	10/23/24 20:51	Not Use	Kareem	Not Ok
79	P4397-04LDL	WB-301-SWLDL	SD	10/23/24 20:56	Not Use	Kareem	Not Ok
80	P4397-04MSDL	WB-301-SWMSDL	MS	10/23/24 21:00	Not Use	Kareem	Not Ok
81	P4397-04MSDDL	WB-301-SWMSDDL	MSD	10/23/24 21:05	Not Use	Kareem	Not Ok
82	LR1	LR1	HIGH STD	10/23/24 21:11		Kareem	OK
83	LR2	LR2	HIGH STD	10/23/24 21:16		Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB133086

Review By	kareem	Review On	10/25/2024 3:10:26 PM
Supervise By	jaswal	Supervise On	10/26/2024 8:07:20 AM
STD. NAME	STD REF.#		
ICAL Standard	MP82441 MP82476 MP82477 MP82478 MP82479 MP82712		
ICV Standard	mp82485		
CCV Standard	MP82488		
ICSA Standard	MP82486 MP82487		
CRI Standard	MP82712		
LCS Standard			
Chk Standard	MP82491 MP82492		

84	CCV07	CCV07	CCV	10/23/24 21:28		Kareem	OK
85	CCB07	CCB07	CCB	10/23/24 21:34		Kareem	OK
86	P4397-04ADL	WB-301-SWADL	PS	10/23/24 21:39	Not Use	Kareem	Not Ok
87	P4347-01	EFFLUENT-DAY-1-M	SAM	10/23/24 21:43		Kareem	OK
88	P4347-01DUP	EFFLUENT-DAY-1-M	DUP	10/23/24 21:47		Kareem	OK
89	P4347-01L	EFFLUENT-DAY-1-M	SD	10/23/24 21:52		Kareem	OK
90	P4347-01MS	EFFLUENT-DAY-1-M	MS	10/23/24 21:56	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
91	P4347-01MSD	EFFLUENT-DAY-1-M	MSD	10/23/24 22:04	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
92	P4347-01A	EFFLUENT-DAY-1-M	PS	10/23/24 22:08	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
93	PB164302BL	PB164302BL	MB	10/23/24 22:12		Kareem	OK
94	PB164302BS	PB164302BS	LCS	10/23/24 22:16	0.1 ML OF M6010 AND M6001 WERE ADDED TO 10ML OF THE SAMPLE	Kareem	OK
95	CCV08	CCV08	CCV	10/23/24 22:20		Kareem	OK
96	CCB08	CCB08	CCB	10/23/24 22:25		Kareem	OK

SOP ID : M3010A-Digestion-17

SDG No : N/A

Matrix : WATER

Pipette ID: ICP A

Balance ID : N/A

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #3

Block ID: 1. HOT BLOCK #1 2. N/A

Start Digest Date: 10/21/2024 Time : 11:45 Temp : 95 °C

End Digest Date: 10/21/2024 Time : 14:55 Temp : 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: *JGP*

Supervisor Signature: *[Signature]*

Temp : 1. 95°C 2. N/A

Standard Name	MLS USED	STD REF. # FROM LOG
LFS-1	0.25	M6000
LFS-2	0.25	M6009
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Conc. HNO3	3.00	M6093
1:1 HCL	5.00	MP82127
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

Hot Block # 1 Cell # 50 Temp: 95 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
10/21/24 15:00	<i>JGP Metdig.</i>	<i>[Signature] (Metals Lab)</i>
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
P4397-06	WB-301-BOT	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	11
P4443-05	OG-315-HR-502-COMP-29	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	12
P4443-10	OG-315-HR-502-COMP-30	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	13
P4458-02	280517	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	14
P4460-04	WB-303-BOT	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	15
P4460-04MS	WB-303-BOTMS	<2	5	25	Colorless	Colorless	Clear	Clear	M6000,M6009	17
P4460-04MSD	WB-303-BOTMSD	<2	5	25	Colorless	Colorless	Clear	Clear	M6000,M6009	18
P4460-04DUP	WB-303-BOTDUP	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	16
PB164261TB	PB164261TB	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	19
PB164298BL	PBW298	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	20
PB164298BS	LCS298	<2	5	25	Colorless	Colorless	Clear	Clear	M6000,M6009	21

SOP ID : M7470A-Mercury-19

SDG No : NA

Matrix : WATER

Pipette ID: HG A

Balance ID : M SC-3

Filter paper ID : NA

pH Strip ID : M4909

Hood ID : #1

Block ID: 1. HG HOT BLOCK#3 2. N/A

Start Digest Date: 10/22/2024 Time : 11:50 Temp : 94 °C

End Digest Date: 10/22/2024 Time : 13:50 Temp : 95 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG#3

Dig Technician Signature: *MB*

Supervisor Signature: *12*

Temp : 1. 94°C 2. N/A

Standard Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP82873
CCV	30mL	MP82875
CRA	30mL	MP82877
Blank Spike	0.48mL	MP82865
Matrix Spike	0.48mL	MP82865

Chemical Used	ML/SAMPLE USED	Lot Number
HNO3/H2SO4(1:2)	2.5mL	MP82651
KMnO4 (5%)	4.5mL	MP82652
K2S2O8 (5%)	2.5mL	MP82653
Hydroxylamine HCL (12%)	2.0mL	MP82654
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
0.0 ppb	S0	30mL	MP82866
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP82868
2.5 ppb	S2.5	30mL	MP82869
5.0 ppb	S5.0	30mL	MP82870
7.5 ppb	S7.5	30mL	MP82871
10.0 ppb	S10.0	30mL	MP82872
ICV	ICV	30mL	MP82873
ICB	ICB	30mL	MP82874
CCV	CCV	30mL	MP82875
CCB	CCB	30mL	MP82876
CRI	CRI	30mL	MP82877
CHK STD	CHK STD	30mL	MP82883

Extraction Conformance/Non-Conformance Comments:

N/A		
Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
10/22/24 @ 14:30	<i>MB ~ Dig. Lab</i>	<i>MB metal Lab</i>
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Comment	Prep Pos
P4397-06	WB-301-BOT	3	30	<2	N/A	3-1
P4443-05	OG-315-HR-502-COMP-29	3	30	<2	N/A	2
P4443-10	OG-315-HR-502-COMP-30	3	30	<2	N/A	3
P4458-02	280517	3	30	<2	N/A	4
P4460-04	WB-303-BOT	3	30	<2	N/A	5
P4460-04DUP	WB-303-BOTDUP	3	30	<2	N/A	6
P4460-04MS	WB-303-BOTMS	3	30	<2	MP82865	7
P4460-04MSD	WB-303-BOTMSD	3	30	<2	MP82865	8
PB164261TB	PB164261TB	3	30	<2	N/A	9
PB164306BL	PBS306	30	30	<2	N/A	10
PB164306BS	LCS306	30	30	<2	MP82865	11

SOP ID :	M1311-TCLP-15	
SDG No :	N/A	Start Prep Date : 10/18/2024 Time : 17:00
Weigh By :	JP	End Prep Date : 10/19/2024 Time : 10:15
Balance ID :	WC SC-4	Combination Ratio : 20
pH Meter ID :	WC PH METER-1	ZHE Cleaning Batch : N/A
Extraction By :	JP	Initial Room Temperature: 23 °C
Filter By :	JP	Final Room Temperature: 22 °C
Pipette ID :	WC	TCLP Technician Signature : <i>JP</i>
Tumbler ID :	T-1	Supervisor By : <i>12</i>
TCLP Filter ID :	114771	

Standardized Name	MLS USED	STD REF. # FROM LOG
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE U	Lot Number
TCLP-FLUID-1	N/A	WP108622
HCL-TCLP,1N	N/A	WP108584
HNO3-TCLP,1N	N/A	WP108585
pH Strips	N/A	W1931,W1934,W2350,W2755
pH Strips	N/A	N/A
1 Liter Amber	N/A	23091
120ml Plastic bottle	N/A	21029
1:1 HNO3	MP81119	N/A

Extraction Conformance/Non-Conformance Comments:

Matrix spikes are added after filtration and before preservation. Tumbler T-1 CHECKED,30 RPM. Particle size reduction is not required. p4460-04 is used for MS-MSD.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
10/21/24 08:00	<i>JP</i> <i>TCLP Room</i>	<i>JP</i> <i>EXT</i>
	Preparation Group	Analysis Group <i>10/21/24</i>

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Prep Pos
P4397-06	WB-301-BOT	01	100.03	2000	N/A	N/A	N/A	5.6	1.5	T-1
P4443-05	OG-315-HR-502-COMP-29	02	100.02	2000	N/A	N/A	N/A	5.5	1.0	T-1
P4443-10	OG-315-HR-502-COMP-30	03	100.03	2000	N/A	N/A	N/A	4.5	1.5	T-1
P4458-02	280517	04	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-1
P4460-04	WB-303-BOT	05	100.03	2000	N/A	N/A	N/A	6.0	1.5	T-1
PB164261TB	LEB261	06	N/A	2000	N/A	N/A	N/A	4.93	1.0	T-1

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
P4397-06	WB-301-BOT	N/A	N/A	N/A	N/A	100	N/A
P4443-05	OG-315-HR-502-COMP-29	N/A	N/A	N/A	N/A	100	N/A
P4443-10	OG-315-HR-502-COMP-30	N/A	N/A	N/A	N/A	100	N/A
P4458-02	280517	N/A	N/A	N/A	N/A	100	N/A
P4460-04	WB-303-BOT	N/A	N/A	N/A	N/A	100	N/A
PB164261TB	LEB261	N/A	N/A	N/A	N/A	N/A	N/A

Hot Block ID : WC S-1 /WC S-2

Thermometer ID : FLASHPOINT

SampleID	ClientID	Sample Weight (g)	Volume DI Water (mL)	PH after 5 min stir	PH after 10 min stir	Extraction Fluid 1 or 2	pH Extraction Fluid
P4397-06	WB-301-BOT	5.02	96.5	7.4	2.5	#1	4.93
P4443-05	OG-315-HR-502-COMP-29	5.03	96.5	7.6	2.5	#1	4.93
P4443-10	OG-315-HR-502-COMP-30	5.02	96.5	6.0	2.0	#1	4.93
P4458-02	280517	5.01	96.5	7.6	2.5	#1	4.93
P4460-04	WB-303-BOT	5.02	96.5	8.4	3.0	#1	4.93
PB164261TB	LEB261	N/A	N/A	N/A	N/A	#1	4.93