



SAMPLE DATA

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	10/19/24 14:00
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	10/21/24
Client Sample ID:	B-180-SB01	SDG No.:	P4471
Lab Sample ID:	P4471-01	Matrix:	SOIL
		% Solid:	82.8

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Hexavalent Chromium	0.094	U	1	0.094	0.48	mg/Kg	10/22/24 09:00	10/22/24 13:08	7196A
Trivalent Chromium	20.5		1	0.60	0.60	mg/Kg		10/24/24 18:20	6010D

Comments:

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
H = Sample Analysis Out Of Hold Time

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:	Portal Partners Tri-Venture	Date Collected:	10/20/24 12:45
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	10/21/24
Client Sample ID:	B-180-SB02	SDG No.:	P4471
Lab Sample ID:	P4471-02	Matrix:	SOIL
		% Solid:	49.2

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Hexavalent Chromium	0.16	U	1	0.16	0.80	mg/Kg	10/22/24 09:00	10/22/24 13:09	7196A
Trivalent Chromium	6.46		1	1.02	1.02	mg/Kg		10/24/24 18:24	6010D

Comments:

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
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J = Estimated Value
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OR = Over Range
N =Spiked sample recovery not within control limits



QC RESULT SUMMARY

Initial and Continuing Calibration Verification

Client: Portal Partners Tri-Venture
Project: Amtrak Sawtooth Bridges 2024

SDG No.: P4471
RunNo.: LB133044

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV Hexavalent Chromium	mg/L	0.503	0.5	101	90-110	10/22/2024
Sample ID: CCV1 Hexavalent Chromium	mg/L	0.499	0.5	100	90-110	10/22/2024
Sample ID: CCV2 Hexavalent Chromium	mg/L	0.500	0.5	100	90-110	10/22/2024
Sample ID: CCV3 Hexavalent Chromium	mg/L	0.503	0.5	101	90-110	10/22/2024

Initial and Continuing Calibration Blank Summary

Client: Portal Partners Tri-Venture
Project: Amtrak Sawtooth Bridges 2024

SDG No.: P4471
RunNo.: LB133044

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0027	0.01	10/22/2024
Sample ID: CCB1 Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0027	0.01	10/22/2024
Sample ID: CCB2 Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0027	0.01	10/22/2024
Sample ID: CCB3 Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0027	0.01	10/22/2024

Preparation Blank Summary

Client: Portal Partners Tri-Venture
Project: Amtrak Sawtooth Bridges 2024

SDG No.: P4471

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: PB164266BL							
Hexavalent Chromium	mg/Kg	< 0.2000	0.2000	U	0.079	0.4	10/22/2024

Matrix Spike Summary

Client:

Portal Partners Tri-Venture

SDG No.:

P4471

Project:

Amtrak Sawtooth Bridges 2024

Sample ID:

P4460-03

Client ID:

WB-303-BOTMS

Percent Solids for Spike Sample:

80.1

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	1450		0.098	U	1600	40	91		10/22/2024

Matrix Spike Summary

Client:

Portal Partners Tri-Venture

SDG No.:

P4471

Project:

Amtrak Sawtooth Bridges 2024

Sample ID:

P4460-03

Client ID:

WB-303-BOTMS

Percent Solids for Spike Sample:

80.1

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	85-115	46.7		0.098	U	49.9	2	94		10/22/2024

Matrix Spike Summary

Client:

Portal Partners Tri-Venture

SDG No.:

P4471

Project:

Amtrak Sawtooth Bridges 2024

Sample ID:

P4460-03

Client ID:

WB-303-BOTMS

Percent Solids for Spike Sample:

80.1

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	38.6		0.098	U	49.9	2	77		10/22/2024

Duplicate Sample Summary

Client:	Portal Partners Tri-Venture	SDG No.:	P4471
Project:	Amtrak Sawtooth Bridges 2024	Sample ID:	P4460-03
Client ID:	WB-303-BOTDUP	Percent Solids for Spike Sample:	80.1

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/AD	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	+/-20	0.098	U	0.098	U	1	0		10/22/2024

Laboratory Control Sample Summary

Client: Portal Partners Tri-Venture

SDG No.: P4471

Project: Amtrak Sawtooth Bridges 2024

Run No.: LB133044

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB164266BS							
Hexavalent Chromium	mg/Kg	20	20.0		100	1	84-110	10/22/2024

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB133044

Review By	rubina	Review On	10/22/2024 1:21:12 PM
Supervise By	Iwona	Supervise On	10/24/2024 9:43:11 AM
SubDirectory	LB133044	Test	Hexavalent Chromium
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP110246,WP107791,WP107796,WP108645		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	10/22/24 12:40		rubina	OK
2	CAL2	CAL2	CAL	10/22/24 12:41		rubina	OK
3	CAL3	CAL3	CAL	10/22/24 12:42		rubina	OK
4	CAL4	CAL4	CAL	10/22/24 12:43		rubina	OK
5	CAL5	CAL5	CAL	10/22/24 12:44		rubina	OK
6	CAL6	CAL6	CAL	10/22/24 12:45		rubina	OK
7	CAL7	CAL7	CAL	10/22/24 12:46		rubina	OK
8	ICV	ICV	ICV	10/22/24 12:47		rubina	OK
9	ICB	ICB	ICB	10/22/24 12:48		rubina	OK
10	CCV1	CCV1	CCV	10/22/24 12:49		rubina	OK
11	CCB1	CCB1	CCB	10/22/24 12:50		rubina	OK
12	RL Check	RL Check	SAM	10/22/24 12:51		rubina	OK
13	PB164266BL	PB164266BL	MB	10/22/24 12:52		rubina	OK
14	PB164266BS	PB164266BS	LCS	10/22/24 12:53		rubina	OK
15	P4443-01	OG-315-HR-502-COM	SAM	10/22/24 12:54		rubina	OK
16	P4443-06	OG-315-HR-502-COM	SAM	10/22/24 12:55		rubina	OK
17	P4458-01	280517	SAM	10/22/24 12:56		rubina	OK
18	P4460-02	WB-303-TOP	SAM	10/22/24 12:57		rubina	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB133044

Review By	rubina	Review On	10/22/2024 1:21:12 PM
Supervise By	Iwona	Supervise On	10/24/2024 9:43:11 AM
SubDirectory	LB133044	Test	Hexavalent Chromium
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP110246,WP107791,WP107796,WP108645		

19	P4460-03	WB-303-BOT	SAM	10/22/24 12:58		rubina	OK
20	P4460-03DUP	WB-303-BOTDUP	DUP	10/22/24 12:59		rubina	OK
21	P4460-03MSPre	WB-303-BOTMS	MS	10/22/24 13:00		rubina	OK
22	P4460-03MS2Ins	WB-303-BOTMS	MS	10/22/24 13:01		rubina	OK
23	CCV2	CCV2	CCV	10/22/24 13:02		rubina	OK
24	CCB2	CCB2	CCB	10/22/24 13:03		rubina	OK
25	P4460-03MS3Post	WB-303-BOTMS	MS	10/22/24 13:04		rubina	OK
26	P4467-01	TP-1	SAM	10/22/24 13:05		rubina	OK
27	P4468-03	ETGI-329	SAM	10/22/24 13:06		rubina	OK
28	P4468-05	ETGI-345	SAM	10/22/24 13:07		rubina	OK
29	P4471-01	B-180-SB01	SAM	10/22/24 13:08		rubina	OK
30	P4471-02	B-180-SB02	SAM	10/22/24 13:09		rubina	OK
31	P4472-01	BP-F-28	SAM	10/22/24 13:10		rubina	OK
32	P4472-05	BP-F-6	SAM	10/22/24 13:11		rubina	OK
33	CCV3	CCV3	CCV	10/22/24 13:12		rubina	OK
34	CCB3	CCB3	CCB	10/22/24 13:13		rubina	OK

LAB CHRONICLE

OrderID:	P4471	OrderDate:	10/21/2024 1:01:00 PM
Client:	Portal Partners Tri-Venture	Project:	Amtrak Sawtooth Bridges 2024
Contact:	Joseph Krupansky	Location:	J61,VOA Ref. #2 Soil,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4471-01	B-180-SB01	SOIL			10/19/24 14:00	10/22/24		10/21/24
			Hexavalent Chromium	7196A			10/22/24 13:08	
			Trivalent Chromium	6010D			10/24/24 18:20	
P4471-02	B-180-SB02	SOIL			10/20/24 12:45	10/22/24		10/21/24
			Hexavalent Chromium	7196A			10/22/24 13:09	
			Trivalent Chromium	6010D			10/24/24 18:24	

SOP ID : M3060A,7196A-Hex.Chromium-26

SDG No : N/A

Start Digest Date: 10/22/2024 Time : 09:00 Temp : 90 °C

Matrix : SOIL

End Digest Date: 10/22/2024 Time : 10:00 Temp : 94 °C

Pipette ID : WC

il batch
10/22/2024 10-15 90°C RM
10/22/2024 11-15 95°C

Balance ID : WC SC-4

Hood ID : HOOD#3

Digestion tube ID : M6054

Block Thermometer ID : WC-Block#1

Block ID : WC S-2, WC S-1

Filter paper ID : 400213

Prep Technician Signature: RM

Weigh By : RM

pH Meter ID : WC pH meter-1

Supervisor Signature: 12

Standardized Name	MLS USED	STD REF. # FROM LOG
PRE-DIGESTION SPIKE	2.0ML	WP108658
INSOLUBLE SPIKE	0.02GM	W2202
POST-DIGESTION SPIKE	2.0ML	WP108658
LCSS	1.0ML	WP108659
PBS003	50ML	W3112

Chemical Used	ML/SAMPLE USED	Lot Number
MAGNESIUM CHLORIDE	0.4GM	W3001
PHOSPHATE BUFFER	0.5ML	WP108008
HEX. DIGESTION SOLN.	50.0ML	WP110092
5M HNO3	5-7ML	WP107796
5N H2SO4	1-3ML	WP107791
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	Vol(ml)	Comment
CAL1	CAL1	2.5ML	W3112
CAL2	CAL2	0.2ML	WP110336
CAL3	CAL3	0.5ML	WP110336
CAL4	CAL4	1ML	WP110336
CAL5	CAL5	0.2ML	WP108658
CAL6	CAL6	1ML	WP108658
CAL7	CAL7	2.0ML	WP108658
ICV	ICV	1ML	WP108659
ICB	ICB	2.5ML	W3112
CCV	CCV	1ML	WP108658
CCB	CCB	2.5ML	W3112

Extraction Conformance/Non-Conformance Comments:

10/22/2024 RM

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
P4443-01	OG-315-HR-502-COMP-29	2.54	100	N/A	N/A	N/A	N/A	N/A	N/A
P4443-06	OG-315-HR-502-COMP-30	2.51	100	N/A	N/A	N/A	N/A	N/A	N/A
P4458-01	280517	2.52	100	N/A	N/A	N/A	N/A	N/A	N/A
P4460-02	WB-303-TOP	2.53	100	N/A	N/A	N/A	N/A	N/A	N/A
P4460-03	WB-303-BOT	2.52	100	N/A	N/A	N/A	N/A	N/A	N/A
P4460-03DUP	WB-303-BOTDUP	2.51	100	N/A	N/A	N/A	N/A	N/A	N/A
P4460-03MSPre	WB-303-BOTMSPRE	2.51	100	N/A	N/A	N/A	N/A	N/A	N/A
P4460-03MS2Ins	WB-303-BOTMS2INS	2.52	100	N/A	N/A	N/A	N/A	N/A	N/A
P4460-03MS3Post	WB-303-BOTMS3POST	2.52	100	N/A	N/A	N/A	N/A	N/A	N/A
P4467-01	TP-1	2.52	100	N/A	N/A	N/A	N/A	N/A	N/A
P4468-03	ETGI-329	2.54	100	N/A	N/A	N/A	N/A	N/A	N/A
P4468-05	ETGI-345	2.52	100	N/A	N/A	N/A	N/A	N/A	N/A
P4471-01	B-180-SB01	2.54	100	N/A	N/A	N/A	N/A	N/A	N/A
P4471-02	B-180-SB02	2.55	100	N/A	N/A	N/A	N/A	N/A	N/A
P4472-01	BP-F-28	2.56	100	N/A	N/A	N/A	N/A	N/A	N/A
P4472-05	BP-F-6	2.51	100	N/A	N/A	N/A	N/A	N/A	N/A
PB164266BL	PBS266	2.50	100	N/A	N/A	N/A	N/A	N/A	N/A
PB164266BS	LCS266	2.50	100	N/A	N/A	N/A	N/A	N/A	N/A