

metals
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MATRIX SPIKE SUMMARY

client: Portal Partners Tri-Venture **level:** low **sdg no.:** P4578
contract: PORT06 **lab code:** CHEM **case no.:** P4578 **sas no.:** P4578
matrix: Solid **sample id:** P4547-05 **client id:** BP-F-20MS
Percent Solids for Sample: 86.6 **Spiked ID:** P4547-05MS **Percent Solids for Spike Sample:** 86.6

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	5910		5470		99.5	441		P
Antimony	mg/Kg	75 - 125	32.4		0.15	J	39.8	81		P
Arsenic	mg/Kg	75 - 125	32.3		2.11		39.8	76		P
Barium	mg/Kg	75 - 125	62.5		51.3		10.0	112		P
Beryllium	mg/Kg	75 - 125	7.77		0.64		10.0	71	N	P
Cadmium	mg/Kg	75 - 125	10.9		1.72		10.0	91		P
Calcium	mg/Kg	75 - 125	6010		5490		49.8	1062		P
Chromium	mg/Kg	75 - 125	28.9		13.2		19.9	79		P
Cobalt	mg/Kg	75 - 125	19.1		8.93		10.0	102		P
Copper	mg/Kg	75 - 125	67.6		55.3		14.9	83		P
Iron	mg/Kg	75 - 125	15200		14200		150	705		P
Lead	mg/Kg	75 - 125	52.6		8.50		49.8	89		P
Magnesium	mg/Kg	75 - 125	3580		3280		99.5	294		P
Manganese	mg/Kg	75 - 125	370		338		10.0	316		P
Nickel	mg/Kg	75 - 125	43.0		18.0		24.9	100		P
Potassium	mg/Kg	75 - 125	2040		1480		500	111		P
Selenium	mg/Kg	75 - 125	72.5		0.94	U	99.5	73	N	P
Silver	mg/Kg	75 - 125	3.71		0.53		3.7	86		P
Sodium	mg/Kg	75 - 125	687		518		150	112		P
Thallium	mg/Kg	75 - 125	91.8		1.88	U	99.5	92		P
Vanadium	mg/Kg	75 - 125	27.9		16.0		14.9	80		P
Zinc	mg/Kg	75 - 125	44.3		34.2		10.0	100		P

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MATRIX SPIKE DUPLICATE SUMMARY

client: Portal Partners Tri-Venture **level:** low **sdg no.:** P4578
contract: PORT06 **lab code:** CHEM **case no.:** P4578 **sas no.:** P4578
matrix: Solid **sample id:** P4547-05 **client id:** BP-F-20MSD
Percent Solids for Sample: 86.6 **Spiked ID:** P4547-05MSD **Percent Solids for Spike Sample:** 86.6

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	6240		5470		110	703		P
Antimony	mg/Kg	75 - 125	34.3		0.15	J	42.2	81		P
Arsenic	mg/Kg	75 - 125	34.2		2.11		42.2	76		P
Barium	mg/Kg	75 - 125	65.5		51.3		10.5	135		P
Beryllium	mg/Kg	75 - 125	8.04		0.64		10.5	71	N	P
Cadmium	mg/Kg	75 - 125	11.5		1.72		10.5	93		P
Calcium	mg/Kg	75 - 125	6350		5490		52.7	1635		P
Chromium	mg/Kg	75 - 125	29.7		13.2		21.1	78		P
Cobalt	mg/Kg	75 - 125	20.1		8.93		10.5	106		P
Copper	mg/Kg	75 - 125	71.8		55.3		15.8	105		P
Iron	mg/Kg	75 - 125	15500		14200		160	846		P
Lead	mg/Kg	75 - 125	55.2		8.50		52.7	89		P
Magnesium	mg/Kg	75 - 125	3760		3280		110	429		P
Manganese	mg/Kg	75 - 125	385		338		10.5	453		P
Nickel	mg/Kg	75 - 125	45.2		18.0		26.4	103		P
Potassium	mg/Kg	75 - 125	2090		1480		530	115		P
Selenium	mg/Kg	75 - 125	76.7		0.94	U	110	70	N	P
Silver	mg/Kg	75 - 125	3.80		0.53		4.0	82		P
Sodium	mg/Kg	75 - 125	702		518		160	115		P
Thallium	mg/Kg	75 - 125	94.1		1.88	U	110	86		P
Vanadium	mg/Kg	75 - 125	29.1		16.0		15.8	83		P
Zinc	mg/Kg	75 - 125	45.9		34.2		10.5	111		P

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MATRIX SPIKE SUMMARY

client: Portal Partners Tri-Venture **level:** low **sdg no.:** P4578
contract: PORT06 **lab code:** CHEM **case no.:** P4578 **sas no.:** P4578
matrix: Water **sample id:** P4548-01 **client id:** MW-1MS
Percent Solids for Sample: NA **Spiked ID:** P4548-01MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	943		50.0	U	1000	94		P
Antimony	ug/L	75 - 125	355		25.0	U	400	89		P
Arsenic	ug/L	75 - 125	391		10.0	U	400	98		P
Barium	ug/L	75 - 125	158		62.5		100	95		P
Beryllium	ug/L	75 - 125	80.7		3.00	U	100	81		P
Cadmium	ug/L	75 - 125	92.7		2.09	J	100	91		P
Calcium	ug/L	75 - 125	32600		32100		500	107		P
Chromium	ug/L	75 - 125	177		1.48	J	200	88		P
Cobalt	ug/L	75 - 125	93.1		15.0	U	100	93		P
Copper	ug/L	75 - 125	138		10.0	U	150	92		P
Iron	ug/L	75 - 125	1590		42.8	J	1500	103		P
Lead	ug/L	75 - 125	388		6.00	U	500	78		P
Magnesium	ug/L	75 - 125	6210		5330		1000	88		P
Manganese	ug/L	75 - 125	179		86.6		100	93		P
Nickel	ug/L	75 - 125	243		6.80	J	250	95		P
Potassium	ug/L	75 - 125	10200		5230		5000	99		P
Selenium	ug/L	75 - 125	804		10.0	U	1000	80		P
Silver	ug/L	75 - 125	22.5		5.00	U	37.5	60	N	P
Sodium	ug/L	75 - 125	54400		53100		1500	87		P
Thallium	ug/L	75 - 125	862		20.0	U	1000	86		P
Vanadium	ug/L	75 - 125	150		20.0	U	150	100		P
Zinc	ug/L	75 - 125	298		254		100	43	N	P

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MATRIX SPIKE DUPLICATE SUMMARY

client: Portal Partners Tri-Venture **level:** low **sdg no.:** P4578
contract: PORT06 **lab code:** CHEM **case no.:** P4578 **sas no.:** P4578
matrix: Water **sample id:** P4548-01 **client id:** MW-1MSD
Percent Solids for Sample: NA **Spiked ID:** P4548-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	966		50.0	U	1000	97		P
Antimony	ug/L	75 - 125	367		25.0	U	400	92		P
Arsenic	ug/L	75 - 125	401		10.0	U	400	100		P
Barium	ug/L	75 - 125	161		62.5		100	99		P
Beryllium	ug/L	75 - 125	83.1		3.00	U	100	83		P
Cadmium	ug/L	75 - 125	95.0		2.09	J	100	93		P
Calcium	ug/L	75 - 125	33500		32100		500	284		P
Chromium	ug/L	75 - 125	181		1.48	J	200	90		P
Cobalt	ug/L	75 - 125	95.5		15.0	U	100	96		P
Copper	ug/L	75 - 125	141		10.0	U	150	94		P
Iron	ug/L	75 - 125	1580		42.8	J	1500	103		P
Lead	ug/L	75 - 125	398		6.00	U	500	80		P
Magnesium	ug/L	75 - 125	6400		5330		1000	107		P
Manganese	ug/L	75 - 125	184		86.6		100	98		P
Nickel	ug/L	75 - 125	249		6.80	J	250	97		P
Potassium	ug/L	75 - 125	10200		5230		5000	99		P
Selenium	ug/L	75 - 125	826		10.0	U	1000	83		P
Silver	ug/L	75 - 125	22.8		5.00	U	37.5	61	N	P
Sodium	ug/L	75 - 125	54400		53100		1500	87		P
Thallium	ug/L	75 - 125	831		20.0	U	1000	83		P
Vanadium	ug/L	75 - 125	153		20.0	U	150	102		P
Zinc	ug/L	75 - 125	303		254		100	49	N	P

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MATRIX SPIKE SUMMARY

client: Portal Partners Tri-Venture **level:** low **sdg no.:** P4578
contract: PORT06 **lab code:** CHEM **case no.:** P4578 **sas no.:** P4578
matrix: Water **sample id:** P4549-02 **client id:** TT-067-IDWGW-20241024MS
Percent Solids for Sample: NA **Spiked ID:** P4549-02MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	82 - 119	4.10		0.20	U	4.0	102		CV

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MATRIX SPIKE DUPLICATE SUMMARY

client:	<u>Portal Partners Tri-Venture</u>	level:	<u>low</u>	sdg no.:	<u>P4578</u>		
contract:	<u>PORT06</u>	lab code:	<u>CHEM</u>	case no.:	<u>P4578</u>	sas no.:	<u>P4578</u>
matrix:	<u>Water</u>	sample id:	<u>P4549-02</u>	client id:	<u>TT-067-IDWGW-20241024MSD</u>		
Percent Solids for Sample:	<u>NA</u>	Spiked ID:	<u>P4549-02MSD</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
Mercury	ug/L	82 - 119	3.71		0.20	U	4.0	93		CV

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MATRIX SPIKE SUMMARY

client: Portal Partners Tri-Venture **level:** low **sdg no.:** P4578
contract: PORT06 **lab code:** CHEM **case no.:** P4578 **sas no.:** P4578
matrix: Solid **sample id:** P4574-01 **client id:** GRAVEL-1MS
Percent Solids for Sample: 100 **Spiked ID:** P4574-01MS **Percent Solids for Spike Sample:** 100

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.28		0.013	U	0.27	102		CV

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MATRIX SPIKE DUPLICATE SUMMARY

client:	<u>Portal Partners Tri-Venture</u>	level:	<u>low</u>	sdg no.:	<u>P4578</u>		
contract:	<u>PORT06</u>	lab code:	<u>CHEM</u>	case no.:	<u>P4578</u>	sas no.:	<u>P4578</u>
matrix:	<u>Solid</u>	sample id:	<u>P4574-01</u>	client id:	<u>GRAVEL-1MSD</u>		
Percent Solids for Sample:	100	Spiked ID:	<u>P4574-01MSD</u>	Percent Solids for Spike Sample:	100		

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.27		0.013	U	0.26	103		CV