

metals
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MATRIX SPIKE SUMMARY

client: JACOBS Engineering Group, Inc. **level:** low **sdg no.:** Q1812
contract: JACO05 **lab code:** CHEM **case no.:** Q1812 **sas no.:** Q1812
matrix: Water **sample id:** Q1824-04 **client id:** 285MS
Percent Solids for Sample: NA **Spiked ID:** Q1824-04MS **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	9630		632		10000	90		P
Antimony	ug/L	75 - 125	499		0.55	J	500	100		P
Arsenic	ug/L	75 - 125	2.62		2.55		500	0	N	P
Barium	ug/L	75 - 125	2260		34.9		2500	89		P
Beryllium	ug/L	75 - 125	547		1.00	U	500	109		P
Cadmium	ug/L	75 - 125	488		1.00	U	500	98		P
Calcium	ug/L	75 - 125	61400		13400		50000	96		P
Chromium	ug/L	75 - 125	479		7.28		500	94		P
Cobalt	ug/L	75 - 125	487		1.98		500	97		P
Copper	ug/L	75 - 125	4870		59.4		5000	96		P
Iron	ug/L	75 - 125	31300		13000		25000	73	N	P
Lead	ug/L	75 - 125	2750		392		2500	94		P
Magnesium	ug/L	75 - 125	52800		1200		50000	103		P
Manganese	ug/L	75 - 125	5250		533		5000	94		P
Nickel	ug/L	75 - 125	499		10.4		500	98		P
Mercury	ug/L	75 - 125	3.53		0.20	U	4.0	88		CV
Potassium	ug/L	75 - 125	28500		6660		25000	87		P
Selenium	ug/L	75 - 125	476		5.00	U	500	95		P
Silver	ug/L	75 - 125	83.1		0.060	J	500	17	N	P
Sodium	ug/L	75 - 125	270000		248000		50000	45		P
Thallium	ug/L	75 - 125	475		1.00	U	500	95		P
Vanadium	ug/L	75 - 125	510		4.16	J	500	101		P
Zinc	ug/L	75 - 125	5960		1170		5000	96		P

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MATRIX SPIKE DUPLICATE SUMMARY

client: JACOBS Engineering Group, Inc. **level:** low **sdg no.:** Q1812
contract: JACO05 **lab code:** CHEM **case no.:** Q1812 **sas no.:** Q1812
matrix: Water **sample id:** Q1824-04 **client id:** 285MSD
Percent Solids for Sample: NA **Spiked ID:** Q1824-04MSD **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	9450		632		10000	88		P
Antimony	ug/L	75 - 125	501		0.55	J	500	100		P
Arsenic	ug/L	75 - 125	2.45		2.55		500	0	N	P
Barium	ug/L	75 - 125	2280		34.9		2500	90		P
Beryllium	ug/L	75 - 125	551		1.00	U	500	110		P
Cadmium	ug/L	75 - 125	498		1.00	U	500	100		P
Calcium	ug/L	75 - 125	60600		13400		50000	95		P
Chromium	ug/L	75 - 125	484		7.28		500	95		P
Cobalt	ug/L	75 - 125	486		1.98		500	97		P
Copper	ug/L	75 - 125	4840		59.4		5000	96		P
Iron	ug/L	75 - 125	31000		13000		25000	72	N	P
Lead	ug/L	75 - 125	2760		392		2500	95		P
Magnesium	ug/L	75 - 125	53600		1200		50000	105		P
Manganese	ug/L	75 - 125	5280		533		5000	95		P
Nickel	ug/L	75 - 125	494		10.4		500	97		P
Mercury	ug/L	75 - 125	3.39		0.20	U	4.0	85		CV
Potassium	ug/L	75 - 125	28200		6660		25000	86		P
Selenium	ug/L	75 - 125	479		5.00	U	500	96		P
Silver	ug/L	75 - 125	83.6		0.060	J	500	17	N	P
Sodium	ug/L	75 - 125	272000		248000		50000	49		P
Thallium	ug/L	75 - 125	475		1.00	U	500	95		P
Vanadium	ug/L	75 - 125	511		4.16	J	500	101		P
Zinc	ug/L	75 - 125	5960		1170		5000	96		P