

metals
- 5a -
MATRIX SPIKE SUMMARY

client: JACOBS Engineering Group, Inc. **level:** low **sdg no.:** Q1731
contract: JACO05 **lab code:** CHEM **case no.:** Q1731 **sas no.:** Q1731
matrix: Water **sample id:** Q1711-01 **client id:** MW-18B-56-040225MS
Percent Solids for Sample: NA **Spiked ID:** Q1711-02 **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	9970		1470		10000	85		P
Antimony	ug/L	75 - 125	474		1.67	J	500	95		P
Arsenic	ug/L	75 - 125	0.93	J	0.85	J	500	0	N	P
Barium	ug/L	75 - 125	2240		119		2500	85		P
Beryllium	ug/L	75 - 125	491		1.00	U	500	98		P
Cadmium	ug/L	75 - 125	461		1.00	U	500	92		P
Chromium	ug/L	75 - 125	456		0.58	J	500	91		P
Copper	ug/L	75 - 125	4200		2.00	U	5000	84		P
Iron	ug/L	75 - 125	23000		560		25000	90		P
Lead	ug/L	75 - 125	2340		1.00	U	2500	94		P
Magnesium	ug/L	75 - 125	46600		315	J	50000	93		P
Manganese	ug/L	75 - 125	4190		4.19		5000	84		P
Potassium	ug/L	75 - 125	40800		23000		25000	71	N	P
Selenium	ug/L	75 - 125	481		5.00	U	500	96		P
Sodium	ug/L	75 - 125	64500		20000		50000	89		P

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: JACOBS Engineering Group, Inc. **level:** low **sdg no.:** Q1731
contract: JACO05 **lab code:** CHEM **case no.:** Q1731 **sas no.:** Q1731
matrix: Water **sample id:** Q1711-01 **client id:** MW-18B-56-040225MSD
Percent Solids for Sample: NA **Spiked ID:** Q1711-03 **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	10200		1470		10000	87		P
Antimony	ug/L	75 - 125	489		1.67	J	500	97		P
Arsenic	ug/L	75 - 125	1.01		0.85	J	500	0	N	P
Barium	ug/L	75 - 125	2280		119		2500	87		P
Beryllium	ug/L	75 - 125	495		1.00	U	500	99		P
Cadmium	ug/L	75 - 125	472		1.00	U	500	94		P
Chromium	ug/L	75 - 125	465		0.58	J	500	93		P
Copper	ug/L	75 - 125	4290		2.00	U	5000	86		P
Iron	ug/L	75 - 125	23400		560		25000	91		P
Lead	ug/L	75 - 125	2400		1.00	U	2500	96		P
Magnesium	ug/L	75 - 125	46800		315	J	50000	93		P
Manganese	ug/L	75 - 125	4270		4.19		5000	85		P
Potassium	ug/L	75 - 125	42000		23000		25000	76		P
Selenium	ug/L	75 - 125	490		5.00	U	500	98		P
Sodium	ug/L	75 - 125	64300		20000		50000	89		P

metals
- 5a -
MATRIX SPIKE SUMMARY

client: JACOBS Engineering Group, Inc. **level:** low **sdg no.:** Q1731
contract: JACO05 **lab code:** CHEM **case no.:** Q1731 **sas no.:** Q1731
matrix: Water **sample id:** Q1711-14 **client id:** MW-18B-56-040225MS
Percent Solids for Sample: NA **Spiked ID:** Q1711-15 **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	10700		1520		10000	92		P
Antimony	ug/L	75 - 125	514		1.75	J	500	102		P
Arsenic	ug/L	75 - 125	0.98	J	0.93	J	500	0	N	P
Barium	ug/L	75 - 125	2370		124		2500	90		P
Beryllium	ug/L	75 - 125	469		1.00	U	500	94		P
Cadmium	ug/L	75 - 125	507		1.00	U	500	101		P
Chromium	ug/L	75 - 125	470		2.00	U	500	94		P
Copper	ug/L	75 - 125	4210		2.00	U	5000	84		P
Iron	ug/L	75 - 125	21600		40.3	J	25000	86		P
Lead	ug/L	75 - 125	2400		1.00	U	2500	96		P
Magnesium	ug/L	75 - 125	52500		399	J	50000	104		P
Manganese	ug/L	75 - 125	4360		9.43		5000	87		P
Potassium	ug/L	75 - 125	45200		25100		25000	81		P
Selenium	ug/L	75 - 125	479		5.00	U	500	96		P
Sodium	ug/L	75 - 125	71500		22000		50000	99		P

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: JACOBS Engineering Group, Inc. **level:** low **sdg no.:** Q1731
contract: JACO05 **lab code:** CHEM **case no.:** Q1731 **sas no.:** Q1731
matrix: Water **sample id:** Q1711-14 **client id:** MW-18B-56-040225MSD
Percent Solids for Sample: NA **Spiked ID:** Q1711-16 **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	10700		1520		10000	91		P
Antimony	ug/L	75 - 125	511		1.75	J	500	102		P
Arsenic	ug/L	75 - 125	0.95	J	0.93	J	500	0	N	P
Barium	ug/L	75 - 125	2340		124		2500	89		P
Beryllium	ug/L	75 - 125	478		1.00	U	500	96		P
Cadmium	ug/L	75 - 125	502		1.00	U	500	100		P
Chromium	ug/L	75 - 125	474		2.00	U	500	95		P
Copper	ug/L	75 - 125	4210		2.00	U	5000	84		P
Iron	ug/L	75 - 125	21900		40.3	J	25000	87		P
Lead	ug/L	75 - 125	2440		1.00	U	2500	98		P
Magnesium	ug/L	75 - 125	52900		399	J	50000	105		P
Manganese	ug/L	75 - 125	4380		9.43		5000	87		P
Potassium	ug/L	75 - 125	45600		25100		25000	82		P
Selenium	ug/L	75 - 125	487		5.00	U	500	97		P
Sodium	ug/L	75 - 125	72900		22000		50000	102		P