

metals
- 5a -
MATRIX SPIKE SUMMARY

client: JACOBS Engineering Group, Inc. **level:** low **sdg no.:** P3429

contract: JACO05 **lab code:** CHEM **case no.:** P3429 **sas no.:** P3429

matrix: Water **sample id:** P3440-01 **client id:** 923-K1-WS-080124MS

Percent Solids for Sample: NA **Spiked ID:** P3440-02 **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	86 - 115	1000		50.9		1000	95		P
Antimony	ug/L	88 - 113	378		25.0	U	400	94		P
Arsenic	ug/L	87 - 113	359		10.0	U	400	90		P
Barium	ug/L	88 - 113	155		58.9		100	96		P
Beryllium	ug/L	89 - 112	95.3		3.00	U	100	95		P
Boron	ug/L	85 - 113	178		47.6	J	150	87		P
Cadmium	ug/L	88 - 113	89.7		3.00	U	100	90		P
Calcium	ug/L	87 - 113	20200		19400		500	152		P
Chromium	ug/L	90 - 113	196		0.76	J	200	98		P
Cobalt	ug/L	89 - 114	93.6		15.0	U	100	94		P
Copper	ug/L	86 - 114	140		10.0	U	150	93		P
Iron	ug/L	87 - 115	4020		2490		1500	103		P
Lead	ug/L	86 - 113	453		6.00	U	500	91		P
Magnesium	ug/L	85 - 113	4590		3680		1000	92		P
Manganese	ug/L	90 - 114	887		777		100	111		P
Mercury	ug/L	75 - 125	3.28		0.20	U	4.0	82		CV
Molybdenum	ug/L	89 - 113	205		100	U	200	102		P
Nickel	ug/L	88 - 113	236		1.18	J	250	94		P
Potassium	ug/L	86 - 114	8060		3290		5000	95		P
Selenium	ug/L	83 - 114	851		10.0	U	1000	85		P
Silver	ug/L	84 - 115	34.0		5.00	U	37.5	91		P
Sodium	ug/L	87 - 115	80100		79700		1500	24		P
Strontium	ug/L	90 - 113	229		129		500	20	N	P
Thallium	ug/L	85 - 114	884		20.0	U	1000	88		P
Tin	ug/L	88 - 115	331		20.0	U	350	95		P
Titanium	ug/L	91 - 111	100		20.0	U	100	100		P
Vanadium	ug/L	90 - 111	146		20.0	U	150	97		P
Zinc	ug/L	87 - 115	114		10.1	J	100	104		P

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: JACOBS Engineering Group, Inc. **level:** low **sdg no.:** P3429

contract: JACO05 **lab code:** CHEM **case no.:** P3429 **sas no.:** P3429

matrix: Water **sample id:** P3440-01 **client id:** 923-K1-WS-080124MSD

Percent Solids for Sample: NA **Spiked ID:** P3440-03 **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	86 - 115	1050		50.9		1000	100		P
Antimony	ug/L	88 - 113	391		25.0	U	400	98		P
Arsenic	ug/L	87 - 113	377		10.0	U	400	94		P
Barium	ug/L	88 - 113	161		58.9		100	102		P
Beryllium	ug/L	89 - 112	102		3.00	U	100	102		P
Boron	ug/L	85 - 113	188		47.6	J	150	93		P
Cadmium	ug/L	88 - 113	94.8		3.00	U	100	95		P
Calcium	ug/L	87 - 113	20600		19400		500	244		P
Chromium	ug/L	90 - 113	205		0.76	J	200	102		P
Cobalt	ug/L	89 - 114	99.1		15.0	U	100	99		P
Copper	ug/L	86 - 114	146		10.0	U	150	97		P
Iron	ug/L	87 - 115	4110		2490		1500	108		P
Lead	ug/L	86 - 113	477		6.00	U	500	95		P
Magnesium	ug/L	85 - 113	4730		3680		1000	105		P
Manganese	ug/L	90 - 114	906		777		100	129		P
Mercury	ug/L	75 - 125	3.17		0.20	U	4.0	79		CV
Molybdenum	ug/L	89 - 113	213		100	U	200	106		P
Nickel	ug/L	88 - 113	249		1.18	J	250	99		P
Potassium	ug/L	86 - 114	8290		3290		5000	100		P
Selenium	ug/L	83 - 114	889		10.0	U	1000	89		P
Silver	ug/L	84 - 115	35.5		5.00	U	37.5	95		P
Sodium	ug/L	87 - 115	80100		79700		1500	27		P
Strontium	ug/L	90 - 113	236		129		500	21	N	P
Thallium	ug/L	85 - 114	940		20.0	U	1000	94		P
Tin	ug/L	88 - 115	344		20.0	U	350	98		P
Titanium	ug/L	91 - 111	103		20.0	U	100	103		P
Vanadium	ug/L	90 - 111	155		20.0	U	150	103		P
Zinc	ug/L	87 - 115	119		10.1	J	100	109		P