

metals
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MATRIX SPIKE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1216
contract: RUTW01 **lab code:** CHEM **case no.:** Q1216 **sas no.:** Q1216
matrix: Solid **sample id:** Q1221-01 **client id:** CHESTNUT-CONCRETEMS
Percent Solids for Sample: 100 **Spiked ID:** Q1221-01MS **Percent Solids for Spike Sample:** 100

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	6050		3760		93.5	2448		P
Antimony	mg/Kg	75 - 125	16.5		2.28	U	37.4	44	N	P
Arsenic	mg/Kg	75 - 125	44.0		0.84	J	37.4	116		P
Barium	mg/Kg	75 - 125	38.0		17.3		9.3	222	N	P
Beryllium	mg/Kg	75 - 125	8.56		0.21	J	9.3	90		P
Cadmium	mg/Kg	75 - 125	9.30		0.27	U	9.3	100		P
Calcium	mg/Kg	75 - 125	50100		39700		46.7	22209		P
Chromium	mg/Kg	75 - 125	44.4		7.31		18.7	199	N	P
Cobalt	mg/Kg	75 - 125	12.6		0.92	J	9.3	126	N	P
Copper	mg/Kg	75 - 125	19.9		1.90		14.0	129	N	P
Iron	mg/Kg	75 - 125	18000		3860		140	10106		P
Lead	mg/Kg	75 - 125	52.3		1.47		46.7	109		P
Magnesium	mg/Kg	75 - 125	2180		1670		93.5	543		P
Manganese	mg/Kg	75 - 125	123		79.4		9.3	466		P
Nickel	mg/Kg	75 - 125	29.0		2.47		23.4	114		P
Potassium	mg/Kg	75 - 125	1270		380		470	190	N	P
Selenium	mg/Kg	75 - 125	85.4		0.91	U	93.5	91		P
Silver	mg/Kg	75 - 125	3.45		0.051	J	3.5	97		P
Sodium	mg/Kg	75 - 125	401		76.8	J	140	232	N	P
Thallium	mg/Kg	75 - 125	89.7		1.83	U	93.5	96		P
Vanadium	mg/Kg	75 - 125	29.6		6.31		14.0	166	N	P
Zinc	mg/Kg	75 - 125	58.4		5.90		9.3	565	N	P

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MATRIX SPIKE DUPLICATE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1216
contract: RUTW01 **lab code:** CHEM **case no.:** Q1216 **sas no.:** Q1216
matrix: Solid **sample id:** Q1221-01 **client id:** CHESTNUT-CONCRETEMSD
Percent Solids for Sample: 100 **Spiked ID:** Q1221-01MSD **Percent Solids for Spike Sample:** 100

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	5670		3760		86.2	2222		P
Antimony	mg/Kg	75 - 125	15.1		2.28	U	34.5	44	N	P
Arsenic	mg/Kg	75 - 125	40.1		0.84	J	34.5	114		P
Barium	mg/Kg	75 - 125	36.6		17.3		8.6	224	N	P
Beryllium	mg/Kg	75 - 125	7.94		0.21	J	8.6	90		P
Cadmium	mg/Kg	75 - 125	8.40		0.27	U	8.6	98		P
Calcium	mg/Kg	75 - 125	47800		39700		43.1	18807		P
Chromium	mg/Kg	75 - 125	41.0		7.31		17.2	196	N	P
Cobalt	mg/Kg	75 - 125	11.6		0.92	J	8.6	124		P
Copper	mg/Kg	75 - 125	17.9		1.90		12.9	124		P
Iron	mg/Kg	75 - 125	17200		3860		130	10286		P
Lead	mg/Kg	75 - 125	48.1		1.47		43.1	108		P
Magnesium	mg/Kg	75 - 125	2070		1670		86.2	468		P
Manganese	mg/Kg	75 - 125	118		79.4		8.6	448		P
Nickel	mg/Kg	75 - 125	26.6		2.47		21.6	112		P
Potassium	mg/Kg	75 - 125	1220		380		430	195	N	P
Selenium	mg/Kg	75 - 125	77.7		0.91	U	86.2	90		P
Silver	mg/Kg	75 - 125	3.28		0.051	J	3.2	101		P
Sodium	mg/Kg	75 - 125	382		76.8	J	130	235	N	P
Thallium	mg/Kg	75 - 125	83.2		1.83	U	86.2	96		P
Vanadium	mg/Kg	75 - 125	28.1		6.31		12.9	169	N	P
Zinc	mg/Kg	75 - 125	54.0		5.90		8.6	560	N	P

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MATRIX SPIKE SUMMARY

client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1216
contract: RUTW01 **lab code:** CHEM **case no.:** Q1216 **sas no.:** Q1216
matrix: Solid **sample id:** Q1235-07 **client id:** JPP-16.1-012925MS
Percent Solids for Sample: 89.2 **Spiked ID:** Q1235-07MS **Percent Solids for Spike Sample:** 89.2

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.55		0.31		0.27	87		CV

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client: RU2 Engineering, LLC **level:** low **sdg no.:** Q1216
contract: RUTW01 **lab code:** CHEM **case no.:** Q1216 **sas no.:** Q1216
matrix: Solid **sample id:** Q1235-07 **client id:** JPP-16.1-012925MSD
Percent Solids for Sample: 89.2 **Spiked ID:** Q1235-07MSD **Percent Solids for Spike Sample:** 89.2

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.60		0.31		0.27	106		CV