



Xiaoxuan Sun (David)

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Lab Ref WM160838

Client Ref **SSF0001**

Project *

Cost Code NA

Status Final

Received 27/11/14

Reported 18/12/14

Samples 88

First Sample 81184

Last Sample 81773

Pages 11

Copy

Notes

Authorised by

On behalf of:

Graeme Farrant

Laboratory Manager

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ANALYTICAL REPORT

Scheme	XRF78S	XRF78S	XRF78S	XRF78S	XRF78S	XRF78S
Units	%	%	%	%	%	%
Detection Limit	0.01	0.01	0.01	0.01	0.01	0.01
Upper Limit	10	10	100	100	100	100
	As	Bi	Ca	Cr	Cu	Fe
81184	<0.01	<0.01	0.38	<0.01	<0.01	17.7
81198	<0.01	<0.01	0.24	<0.01	<0.01	2.14
81200	<0.01	<0.01	0.27	<0.01	<0.01	5.19
81201	<0.01	<0.01	0.46	<0.01	<0.01	6.11
81222	<0.01	<0.01	0.63	<0.01	<0.01	12.3
81223	<0.01	<0.01	1.63	<0.01	<0.01	8.24
81233	<0.01	<0.01	0.91	<0.01	<0.01	2.99
81234	<0.01	<0.01	0.24	<0.01	<0.01	2.72
81235	<0.01	<0.01	3.42	<0.01	<0.01	3.38
81236	<0.01	<0.01	0.91	<0.01	<0.01	5.00
81237	<0.01	<0.01	13.9	<0.01	<0.01	3.40
81239	<0.01	<0.01	0.79	<0.01	<0.01	23.3
81240	<0.01	<0.01	0.38	<0.01	<0.01	15.7
81256	<0.01	<0.01	0.22	<0.01	<0.01	16.9
81257	<0.01	<0.01	14.0	<0.01	<0.01	3.42
81258	0.02	<0.01	1.84	<0.01	<0.01	12.4
81259	<0.01	<0.01	0.07	<0.01	0.02	11.9
81271	<0.01	<0.01	0.07	<0.01	0.02	11.8
81273	<0.01	<0.01	0.08	<0.01	<0.01	4.43
81285	<0.01	<0.01	0.32	<0.01	<0.01	6.15
81286	<0.01	<0.01	0.56	<0.01	<0.01	4.49
81306	<0.01	<0.01	0.08	<0.01	<0.01	7.70
81307	<0.01	<0.01	0.22	<0.01	<0.01	13.1
81308	<0.01	<0.01	0.31	<0.01	<0.01	12.3
81325	<0.01	<0.01	0.14	<0.01	<0.01	2.16
81326	<0.01	<0.01	0.09	<0.01	<0.01	3.06
81327	<0.01	<0.01	0.29	<0.01	<0.01	2.08
81328	<0.01	<0.01	0.15	<0.01	<0.01	2.95
81329	<0.01	<0.01	0.12	<0.01	<0.01	2.77
81330	<0.01	<0.01	0.26	<0.01	<0.01	2.72
81331	<0.01	<0.01	0.23	<0.01	<0.01	4.56
81332	<0.01	<0.01	0.13	<0.01	<0.01	4.50
81347	<0.01	<0.01	0.05	<0.01	<0.01	2.38
81348	<0.01	<0.01	0.14	<0.01	<0.01	8.37
81349	<0.01	<0.01	0.13	<0.01	<0.01	7.53
81363	<0.01	<0.01	0.12	<0.01	0.02	18.3
81364	<0.01	<0.01	0.10	<0.01	<0.01	8.74
81365	<0.01	<0.01	0.18	<0.01	0.02	19.6

- not analysed / -- element not determined / I.S. insufficient sample / L.N.R. listed not received

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	XRF78S %	XRF78S %	XRF78S %	XRF78S %	XRF78S %	XRF78S %
	0.01	0.01	0.01	0.01	0.01	0.01
	10	10	100	100	100	100
	As	Bi	Ca	Cr	Cu	Fe
81366	<0.01	<0.01	0.15	<0.01	0.01	17.9
81367	<0.01	<0.01	0.18	<0.01	<0.01	20.6
81369	<0.01	<0.01	0.11	<0.01	<0.01	5.34
81370	<0.01	<0.01	0.07	<0.01	<0.01	2.20
81371	<0.01	<0.01	0.06	<0.01	<0.01	2.35
81372	<0.01	<0.01	0.07	<0.01	<0.01	3.62
81406	<0.01	<0.01	0.12	<0.01	<0.01	10.0
81407	<0.01	<0.01	0.09	<0.01	<0.01	4.93
81408	<0.01	<0.01	0.11	<0.01	<0.01	4.20
81409	<0.01	<0.01	0.20	<0.01	<0.01	12.5
81410	<0.01	<0.01	0.12	<0.01	<0.01	9.90
81411	<0.01	<0.01	0.10	<0.01	<0.01	7.13
81423	<0.01	<0.01	0.06	<0.01	<0.01	0.55
81424	<0.01	<0.01	0.05	<0.01	<0.01	0.59
81425	<0.01	<0.01	0.04	<0.01	<0.01	0.44
81426	<0.01	<0.01	0.04	<0.01	<0.01	0.37
81437	<0.01	<0.01	13.8	<0.01	<0.01	3.42
81438	<0.01	<0.01	0.21	<0.01	<0.01	4.15
81442	<0.01	<0.01	0.49	<0.01	0.01	4.28
81443	<0.01	<0.01	10.9	<0.01	<0.01	3.25
81453	<0.01	<0.01	0.18	<0.01	<0.01	12.8
81454	<0.01	<0.01	0.10	<0.01	<0.01	5.02
81467	<0.01	<0.01	0.09	<0.01	<0.01	0.87
81498	<0.01	<0.01	0.28	<0.01	<0.01	6.00
81499	<0.01	<0.01	0.20	<0.01	<0.01	6.27
81517	<0.01	<0.01	14.0	<0.01	<0.01	3.36
81518	<0.01	<0.01	0.47	<0.01	<0.01	8.24
81519	<0.01	<0.01	0.48	<0.01	<0.01	7.48
81520	<0.01	<0.01	0.49	<0.01	<0.01	4.04
81521	<0.01	<0.01	0.42	<0.01	<0.01	7.82
81522	<0.01	<0.01	0.38	<0.01	<0.01	6.15
81527	<0.01	<0.01	0.08	<0.01	<0.01	3.95
81528	<0.01	<0.01	0.29	<0.01	<0.01	5.24
81539	<0.01	<0.01	0.07	0.01	<0.01	11.1
81567	<0.01	<0.01	0.15	0.03	<0.01	18.3
81570	<0.01	<0.01	0.06	<0.01	<0.01	5.07
81571	<0.01	<0.01	0.09	<0.01	<0.01	4.52
81572	<0.01	<0.01	0.19	<0.01	<0.01	3.84
81613	<0.01	<0.01	0.09	0.02	<0.01	26.8

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	XRF78S %	XRF78S %	XRF78S %	XRF78S %	XRF78S %	XRF78S %
81614	<0.01	<0.01	0.11	0.02	<0.01	14.6
81622	<0.01	<0.01	0.03	0.01	<0.01	19.6
81623	<0.01	<0.01	0.08	0.02	<0.01	19.6
81630	<0.01	<0.01	0.04	0.01	<0.01	13.1
81631	<0.01	<0.01	0.05	0.02	<0.01	19.0
81632	<0.01	<0.01	0.11	<0.01	<0.01	9.26
81633	<0.01	<0.01	0.09	0.01	<0.01	7.02
81641	<0.01	<0.01	0.02	0.01	<0.01	19.1
81642	<0.01	<0.01	0.01	0.01	<0.01	9.68
81686	<0.01	<0.01	0.04	0.02	<0.01	16.3
81773	<0.01	<0.01	0.14	0.02	<0.01	24.8
D - 81235	<0.01	<0.01	3.40	<0.01	<0.01	3.42
D - 81438	<0.01	<0.01	0.21	<0.01	<0.01	4.19

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Scheme	XRF78S	XRF78S	XRF78S	XRF78S	XRF78S	XRF78S
Units	%	%	%	%	%	%
Detection Limit	0.01	0.01	0.01	0.005	0.01	0.01
Upper Limit	100	100	100	100	100	100
	Mn	Mg	Ni	P	Pb	Ti
81184	13.9	0.71	<0.01	0.087	<0.01	0.11
81198	0.13	0.46	<0.01	0.059	<0.01	0.18
81200	0.89	0.53	<0.01	0.108	<0.01	0.24
81201	0.67	0.54	<0.01	0.194	<0.01	0.23
81222	3.98	0.79	<0.01	0.077	<0.01	0.12
81223	14.7	0.96	<0.01	0.058	<0.01	0.11
81233	0.22	0.56	<0.01	0.022	<0.01	0.21
81234	0.28	0.44	<0.01	0.019	<0.01	0.14
81235	0.30	0.59	<0.01	0.028	<0.01	0.25
81236	0.45	0.66	<0.01	0.044	<0.01	0.28
81237	13.4	7.99	<0.01	0.073	<0.01	0.03
81239	3.53	0.34	<0.01	0.358	<0.01	0.07
81240	3.81	0.37	<0.01	0.171	<0.01	0.12
81256	2.80	0.41	<0.01	0.096	<0.01	0.17
81257	13.3	8.06	<0.01	0.073	<0.01	0.03
81258	27.1	0.56	<0.01	0.108	<0.01	0.13
81259	1.52	0.32	<0.01	0.035	<0.01	0.15
81271	1.44	0.32	<0.01	0.034	<0.01	0.15
81273	0.91	0.56	<0.01	0.026	<0.01	0.20
81285	1.73	0.30	<0.01	0.135	<0.01	0.09
81286	3.26	0.31	<0.01	0.220	<0.01	0.08
81306	1.60	0.29	0.01	0.025	<0.01	0.11
81307	2.50	0.23	<0.01	0.120	<0.01	0.08
81308	1.33	0.32	<0.01	0.149	<0.01	0.12
81325	0.91	0.20	<0.01	0.064	<0.01	0.10
81326	1.46	0.13	<0.01	0.028	<0.01	0.04
81327	1.02	0.18	<0.01	0.105	<0.01	0.07
81328	1.59	0.31	<0.01	0.044	<0.01	0.17
81329	2.34	0.18	<0.01	0.052	<0.01	0.09
81330	0.07	0.30	<0.01	0.122	<0.01	0.17
81331	1.55	0.12	<0.01	0.103	<0.01	0.04
81332	2.28	0.12	<0.01	0.062	<0.01	0.04
81347	0.12	0.14	<0.01	0.007	<0.01	0.06
81348	5.37	0.30	<0.01	0.036	<0.01	0.07
81349	3.63	0.35	<0.01	0.036	<0.01	0.10
81363	8.04	0.32	0.01	0.034	<0.01	0.11
81364	2.18	0.56	0.01	0.026	<0.01	0.21
81365	10.3	0.51	0.02	0.063	<0.01	0.07

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	XRF78S %	XRF78S %	XRF78S %	XRF78S %	XRF78S %	XRF78S %
	0.01	0.01	0.01	0.005	0.01	0.01
	100	100	100	100	100	100
	Mn	Mg	Ni	P	Pb	Ti
81366	6.84	0.44	0.02	0.046	<0.01	0.10
81367	7.79	0.50	0.02	0.048	<0.01	0.07
81369	9.93	0.61	<0.01	0.021	<0.01	0.20
81370	3.02	0.73	<0.01	0.018	<0.01	0.27
81371	0.58	1.03	<0.01	0.013	<0.01	0.28
81372	3.49	0.94	<0.01	0.024	<0.01	0.27
81406	7.96	0.23	<0.01	0.044	<0.01	0.10
81407	2.96	0.17	<0.01	0.022	<0.01	0.09
81408	2.29	0.24	<0.01	0.032	<0.01	0.11
81409	8.91	0.27	<0.01	0.104	<0.01	0.11
81410	3.68	0.48	<0.01	0.059	<0.01	0.18
81411	2.36	0.69	<0.01	0.043	<0.01	0.28
81423	0.06	0.31	<0.01	0.008	<0.01	0.16
81424	0.04	0.16	<0.01	0.006	<0.01	0.09
81425	0.02	0.14	<0.01	<0.005	<0.01	0.09
81426	0.01	0.16	<0.01	<0.005	<0.01	0.08
81437	13.5	7.97	<0.01	0.073	<0.01	0.03
81438	0.79	1.06	<0.01	0.013	<0.01	0.26
81442	24.6	0.55	0.01	0.026	0.04	0.05
81443	2.41	6.90	<0.01	0.020	<0.01	0.07
81453	5.73	0.51	<0.01	0.058	<0.01	0.13
81454	2.48	0.40	<0.01	0.018	<0.01	0.12
81467	0.01	0.13	<0.01	0.005	<0.01	0.08
81498	2.05	0.35	<0.01	0.078	<0.01	0.10
81499	1.23	0.35	<0.01	0.062	<0.01	0.11
81517	13.3	8.06	<0.01	0.074	<0.01	0.03
81518	22.6	0.46	<0.01	0.154	<0.01	0.04
81519	11.3	0.86	<0.01	0.151	<0.01	0.17
81520	16.4	0.97	<0.01	0.084	<0.01	0.07
81521	7.48	0.94	<0.01	0.138	<0.01	0.25
81522	2.34	0.62	<0.01	0.162	<0.01	0.20
81527	0.87	0.20	<0.01	0.057	<0.01	0.07
81528	0.12	0.21	<0.01	0.159	<0.01	0.10
81539	0.08	0.12	<0.01	0.060	<0.01	0.29
81567	0.16	0.15	<0.01	0.026	<0.01	0.38
81570	0.46	0.24	<0.01	0.013	<0.01	0.29
81571	0.91	0.20	<0.01	0.009	<0.01	0.16
81572	0.95	0.30	<0.01	0.010	<0.01	0.17
81613	0.04	0.08	<0.01	0.032	<0.01	0.37

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	XRF78S %	XRF78S %	XRF78S %	XRF78S %	XRF78S %	XRF78S %
	0.01	0.01	0.01	0.005	0.01	0.01
	100	100	100	100	100	100
	Mn	Mg	Ni	P	Pb	Ti
81614	0.02	0.14	<0.01	0.018	<0.01	0.26
81622	0.18	0.09	<0.01	0.039	<0.01	0.22
81623	0.09	0.44	<0.01	0.026	<0.01	0.24
81630	<0.01	0.06	<0.01	0.013	<0.01	0.23
81631	<0.01	0.08	<0.01	0.015	<0.01	0.43
81632	0.01	0.10	<0.01	0.011	<0.01	0.25
81633	<0.01	0.08	<0.01	0.008	<0.01	0.22
81641	<0.01	0.08	<0.01	0.013	<0.01	0.40
81642	<0.01	0.06	<0.01	0.009	<0.01	0.50
81686	0.01	0.05	<0.01	0.034	<0.01	0.23
81773	0.60	0.13	<0.01	0.049	<0.01	0.44
D - 81235	0.31	0.59	<0.01	0.028	<0.01	0.25
D - 81438	0.77	1.06	<0.01	0.013	<0.01	0.26

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ANALYTICAL REPORT

Scheme	XRF78S	XRF78S	XRF78S	XRF78S
Units	%	%	%	%
Detection Limit	0.01	0.01	0.01	-10
Upper Limit	100	100	100	100
	V	Zn	Al	LOI1000
81184	<0.01	0.01	2.40	8.25
81198	<0.01	<0.01	3.42	2.57
81200	<0.01	<0.01	4.61	4.01
81201	<0.01	<0.01	4.20	3.93
81222	<0.01	0.01	2.64	6.84
81223	<0.01	<0.01	2.23	15.2
81233	<0.01	<0.01	3.58	3.81
81234	<0.01	<0.01	2.47	2.53
81235	<0.01	<0.01	4.36	6.90
81236	<0.01	<0.01	5.24	4.91
81237	<0.01	<0.01	0.74	33.1
81239	<0.01	<0.01	1.64	6.49
81240	<0.01	<0.01	2.65	5.21
81256	<0.01	0.01	3.54	4.81
81257	<0.01	<0.01	0.75	33.1
81258	<0.01	0.02	2.34	21.1
81259	<0.01	0.02	3.55	4.08
81271	<0.01	0.02	3.57	4.07
81273	<0.01	0.01	4.30	3.53
81285	<0.01	<0.01	1.70	2.96
81286	<0.01	<0.01	1.81	3.07
81306	<0.01	0.02	2.38	3.24
81307	<0.01	0.01	1.64	4.10
81308	<0.01	0.01	2.47	4.09
81325	<0.01	<0.01	2.44	2.28
81326	<0.01	<0.01	1.02	1.90
81327	<0.01	<0.01	1.48	1.74
81328	<0.01	<0.01	3.26	2.95
81329	<0.01	<0.01	1.76	2.08
81330	<0.01	<0.01	3.63	2.60
81331	<0.01	<0.01	0.81	1.76
81332	<0.01	<0.01	0.99	2.09
81347	<0.01	<0.01	1.28	1.38
81348	<0.01	0.01	1.61	4.41
81349	<0.01	0.01	2.30	3.94
81363	<0.01	0.03	3.00	6.59
81364	<0.01	0.01	4.48	4.90
81365	<0.01	0.03	2.40	8.67

- not analysed / -- element not determined / I.S. insufficient sample / L.N.R. listed not received

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ANALYTICAL REPORT

	XRF78S %	XRF78S %	XRF78S %	XRF78S %
	0.01	0.01	0.01	-10
	100	100	100	100
	V	Zn	Al	LOI1000
81366	<0.01	0.03	2.98	7.44
81367	<0.01	0.03	2.07	8.10
81369	<0.01	<0.01	4.51	4.98
81370	<0.01	<0.01	5.84	2.88
81371	<0.01	<0.01	6.79	2.61
81372	<0.01	<0.01	6.24	3.34
81406	<0.01	<0.01	2.04	5.05
81407	<0.01	<0.01	1.78	4.31
81408	<0.01	<0.01	2.52	5.15
81409	<0.01	0.02	2.62	7.20
81410	<0.01	0.02	3.98	5.16
81411	<0.01	0.01	5.69	4.82
81423	<0.01	<0.01	2.98	1.92
81424	<0.01	<0.01	2.16	1.40
81425	<0.01	<0.01	1.74	1.18
81426	<0.01	<0.01	1.55	1.03
81437	<0.01	<0.01	0.74	33.0
81438	<0.01	<0.01	6.08	3.66
81442	<0.01	0.02	1.37	7.78
81443	<0.01	<0.01	1.63	25.5
81453	<0.01	0.01	3.71	6.53
81454	<0.01	<0.01	3.03	3.52
81467	<0.01	<0.01	1.43	0.984
81498	<0.01	0.04	2.06	2.95
81499	<0.01	0.04	2.53	2.86
81517	<0.01	<0.01	0.74	33.0
81518	<0.01	<0.01	1.00	7.86
81519	<0.01	<0.01	3.40	6.46
81520	<0.01	<0.01	1.52	7.20
81521	<0.01	<0.01	4.59	6.24
81522	<0.01	<0.01	3.93	4.15
81527	<0.01	<0.01	1.55	1.88
81528	<0.01	<0.01	1.99	2.10
81539	0.03	<0.01	5.64	5.82
81567	0.04	<0.01	7.87	7.13
81570	<0.01	<0.01	4.87	4.01
81571	<0.01	<0.01	3.62	3.48
81572	<0.01	<0.01	3.74	4.00
81613	0.07	<0.01	6.84	7.39

- not analysed / -- element not determined / I.S. insufficient sample / L.N.R. listed not received

Results are not intended for commercial settlement purposes.



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	XRF78S % 0.01 100 V	XRF78S % 0.01 100 Zn	XRF78S % 0.01 100 Al	XRF78S % -10 100 LOI1000
81614	0.04	<0.01	5.19	5.46
81622	0.05	<0.01	4.58	6.06
81623	0.05	<0.01	5.30	5.99
81630	0.04	<0.01	3.74	4.36
81631	0.05	<0.01	6.04	6.75
81632	0.03	<0.01	3.07	3.94
81633	0.02	<0.01	2.59	3.00
81641	0.04	<0.01	5.97	6.84
81642	0.02	<0.01	6.27	6.03
81686	0.05	<0.01	3.28	4.36
81773	0.06	<0.01	8.21	9.20
D - 81235	<0.01	<0.01	4.37	6.88
D - 81438	<0.01	<0.01	6.07	3.85

- not analysed / -- element not determined / I.S. insufficient sample / L.N.R. listed not received

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DESCRIPTION

ENV01 : Environmental Levy
PRP86 : Dry, Pulverise, 75µm, <3.5kg
SRT01 : Sorting of samples prior to preparation
XRF78S : XRF, Fusion, Whole Rock