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Finalized Date: 15-DEC-2017
Account: TODRIV

CERTIFICATE AD17258649

P.O. No.: WB17-02

This report is for 111 Rock samples submitted to our lab in Adelaide, SA, Australia on 27-NOV-2017.

The following have access to data associated with this certificate:

KIM GREY

GAVIN OTTO

CATH WETHERBY

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
PUL-23	Pulv Sample - Split/Retain
CRU-21	Crush entire sample >70% -6 mm
LOG-22	Sample login - Rcd w/o BarCode
LEV-01	Waste Disposal Levy
PUL-QC	Pulverizing QC Test

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-MS91	ICP-MS Analysis - Sodium Peroxide Fusion	ICP-MS
ME-ICP89	Peroxide Fusion by ICP-AES	ICP-AES

To: TODD RIVER METALS
ATTN: KIM GREY
LEVEL 1
282 ROKEBY ROAD
SUBIACO WA 6008

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Cameron Brosnan, Laboratory Manager, Perth



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CERTIFICATE OF ANALYSIS AD17258649

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	PUL-QC Pass75um % 0.01	ME-ICP89 Al2O3 % 0.02	ME-ICP89 As % 0.01	ME-ICP89 CaO % 0.01	ME-ICP89 Co % 0.005	ME-ICP89 Cr2O3 % 0.01	ME-ICP89 Cu % 0.01	ME-ICP89 Fe2O3 % 0.01	ME-ICP89 K % 0.01	ME-ICP89 Li % 0.001	ME-ICP89 MgO % 0.01	ME-ICP89 MnO % 0.01	ME-ICP89 Ni % 0.005	ME-ICP89 Pb % 0.01
B090		1.59		15.40	<0.01	0.41	<0.005	0.01	<0.01	0.51	5.97	0.006	0.03	0.01	<0.005	0.01
B091		1.68		14.60	<0.01	3.46	<0.005	0.01	<0.01	0.57	5.82	0.003	0.03	0.06	<0.005	0.01
B092		1.75		16.25	<0.01	0.25	<0.005	<0.01	<0.01	0.51	1.67	0.003	<0.01	0.01	<0.005	<0.01
B093		1.78		15.55	<0.01	0.76	<0.005	<0.01	<0.01	0.41	0.40	0.010	<0.01	0.05	<0.005	<0.01
B094		1.71		15.90	0.01	1.34	<0.005	<0.01	<0.01	0.70	1.03	0.010	0.03	0.08	<0.005	0.01
B095		1.95		15.20	<0.01	0.42	<0.005	<0.01	<0.01	0.73	1.32	0.030	0.02	0.02	<0.005	<0.01
B096		1.27		16.25	0.01	0.84	<0.005	<0.01	<0.01	0.70	0.64	0.007	0.02	0.03	<0.005	<0.01
B097		2.42		15.40	<0.01	0.11	<0.005	<0.01	<0.01	0.31	1.40	0.006	<0.01	0.01	<0.005	<0.01
B098		2.24	87.4	16.00	<0.01	0.21	<0.005	<0.01	<0.01	0.31	0.97	0.004	0.05	0.01	<0.005	0.01
B099		2.66		16.40	<0.01	0.57	<0.005	<0.01	<0.01	0.49	2.01	0.039	<0.01	0.02	<0.005	<0.01
B100		2.72		16.40	0.01	0.18	<0.005	0.01	<0.01	0.43	2.04	0.006	0.02	0.01	<0.005	0.01
B101		3.15		16.55	0.01	0.17	<0.005	<0.01	<0.01	0.27	1.54	0.005	<0.01	0.01	<0.005	<0.01
B102		2.41		17.25	<0.01	1.44	<0.005	<0.01	<0.01	0.39	0.10	0.003	0.02	0.06	<0.005	<0.01
B103		2.23		0.77	<0.01	<0.01	<0.005	<0.01	<0.01	0.54	0.19	0.003	<0.01	<0.01	<0.005	<0.01
B104		1.27		12.55	0.01	0.21	<0.005	0.01	<0.01	0.93	2.94	0.014	0.17	0.01	<0.005	<0.01
B105		2.59		11.30	0.01	0.10	<0.005	<0.01	<0.01	0.81	2.89	0.011	0.08	0.01	<0.005	<0.01
B106		1.97		12.60	<0.01	0.28	<0.005	<0.01	<0.01	1.02	3.13	0.012	0.13	0.01	<0.005	<0.01
B107		1.03		13.30	<0.01	0.14	<0.005	<0.01	<0.01	0.80	4.59	0.012	0.08	0.01	<0.005	<0.01
B108		1.67		16.10	<0.01	0.08	<0.005	<0.01	<0.01	1.14	5.21	0.011	0.15	0.02	<0.005	0.01
B109		1.99		18.25	0.01	0.28	<0.005	<0.01	<0.01	0.80	7.82	0.007	0.10	0.01	<0.005	0.01
B110		1.44		14.75	<0.01	0.34	<0.005	<0.01	<0.01	0.92	3.66	0.006	0.08	0.01	<0.005	<0.01
B111		2.03		25.4	<0.01	1.64	<0.005	<0.01	<0.01	1.66	6.65	0.039	0.48	0.05	<0.005	<0.01
B112		1.31		16.15	<0.01	0.06	<0.005	<0.01	<0.01	0.63	2.73	0.005	0.03	0.01	<0.005	<0.01
B113		1.38		16.85	<0.01	0.63	<0.005	<0.01	<0.01	0.44	1.46	0.005	0.07	0.07	<0.005	<0.01
B114		3.12		16.00	0.01	0.49	<0.005	<0.01	<0.01	0.89	4.39	0.009	0.13	0.01	<0.005	0.01
B114A		0.06		35.1	<0.01	0.01	<0.005	0.03	<0.01	24.4	0.16	0.002	0.02	0.04	<0.005	<0.01
B115		1.85		15.85	0.02	0.59	<0.005	<0.01	<0.01	0.70	3.57	0.013	0.15	0.01	<0.005	<0.01
B116		2.38		17.25	<0.01	0.99	<0.005	<0.01	<0.01	0.26	0.56	0.005	0.05	0.01	<0.005	<0.01
B117		1.98		15.55	0.01	0.80	<0.005	<0.01	<0.01	0.44	2.19	0.007	0.08	<0.01	<0.005	<0.01
B118		1.45		15.40	<0.01	0.14	<0.005	<0.01	<0.01	0.46	2.27	0.004	0.02	0.01	<0.005	<0.01
B119		1.73		18.50	<0.01	0.46	<0.005	<0.01	<0.01	0.20	0.31	0.003	<0.01	0.09	<0.005	<0.01
B120		1.94		15.90	0.01	0.94	<0.005	<0.01	<0.01	1.42	3.95	0.018	0.15	0.07	<0.005	<0.01
B121		1.61		18.90	<0.01	0.46	<0.005	<0.01	<0.01	0.23	0.31	0.003	<0.01	0.02	<0.005	<0.01
B122		2.40		0.19	<0.01	0.01	<0.005	0.01	<0.01	0.41	0.04	0.002	<0.01	<0.01	<0.005	<0.01
B123		1.97		16.50	0.01	0.18	<0.005	0.01	<0.01	0.41	4.25	0.006	0.02	0.01	<0.005	<0.01
B124		2.30		15.35	0.01	0.45	<0.005	0.01	<0.01	0.81	3.60	0.007	0.08	0.02	<0.005	<0.01
B125		2.44	96.0	14.70	<0.01	0.59	<0.005	0.01	<0.01	1.12	3.78	0.009	0.12	0.03	<0.005	<0.01
B126		1.24		15.30	<0.01	0.67	<0.005	0.01	<0.01	0.49	0.75	0.004	<0.01	0.02	<0.005	<0.01
B127		1.36		15.25	0.01	0.21	<0.005	0.01	<0.01	0.63	2.12	0.010	<0.01	0.01	<0.005	<0.01
B128		1.61		17.45	<0.01	0.39	<0.005	0.01	<0.01	0.76	3.18	0.010	0.03	0.03	<0.005	<0.01



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CERTIFICATE OF ANALYSIS AD17258649

Sample Description	Method Analyte Units LOR	ME-ICP89	ME-ICP89	ME-ICP89	ME-ICP89	ME-MS91	ME-MS91	ME-MS91	ME-MS91	ME-MS91	ME-MS91
		S	SiO ₂	TiO ₂	Zn	Cs	Nb	Rb	Sn	Ta	Th
		%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm
		0.01	0.2	0.02	0.01	0.2	5	0.5	5	0.5	0.5
B090		0.01	74.2	0.02	<0.01	494	48	3450	1360	143.0	1.6
B091		0.01	68.2	<0.02	<0.01	268	8	2110	18	31.2	0.7
B092		<0.01	74.2	0.02	<0.01	202	72	824	569	149.0	1.1
B093		<0.01	73.2	<0.02	<0.01	80.8	84	241	2230	173.0	0.5
B094		0.01	72.7	0.04	<0.01	209	84	817	2110	144.0	0.6
B095		<0.01	74.7	0.04	<0.01	461	65	1675	644	185.5	0.9
B096		0.02	73.2	0.04	<0.01	202	99	624	800	148.5	1.2
B097		0.13	75.3	<0.02	<0.01	198.5	16	753	209	57.2	<0.5
B098		0.03	74.7	<0.02	<0.01	74.5	6	385	21	8.3	<0.5
B099		<0.01	77.2	<0.02	<0.01	433	31	1465	194	80.3	<0.5
B100		0.02	74.0	<0.02	<0.01	121.5	25	718	33	46.4	<0.5
B101		<0.01	75.3	<0.02	<0.01	127.0	25	687	38	521	0.6
B102		<0.01	72.1	0.02	<0.01	17.8	91	11.1	1490	159.0	0.7
B103		<0.01	94.1	<0.02	<0.01	17.8	<5	63.0	16	2.4	<0.5
B104		<0.01	82.6	0.05	<0.01	187.5	24	741	162	60.6	1.0
B105		0.02	84.5	0.04	<0.01	140.5	72	1225	359	92.3	0.9
B106		<0.01	82.4	0.06	<0.01	222	47	1700	251	103.5	0.8
B107		<0.01	79.6	0.05	<0.01	269	95	1070	181	1080	1.2
B108		<0.01	74.9	0.08	<0.01	189.5	51	1690	853	87.9	1.4
B109		<0.01	71.4	0.06	<0.01	101.0	47	1080	1300	83.4	0.6
B110		<0.01	79.4	0.07	<0.01	181.5	66	2190	1000	64.0	<0.5
B111		0.04	58.0	0.11	<0.01	514	45	2510	432	120.0	2.1
B112		<0.01	77.7	0.02	<0.01	75.3	38	518	174	284	0.7
B113		<0.01	73.8	0.02	<0.01	70.3	59	553	477	56.6	0.8
B114		0.01	75.7	0.05	<0.01	126.5	40	1160	261	60.3	0.6
B114A		0.04	22.0	1.64	<0.01	1.0	25	14.1	6	2.5	66.2
B115		<0.01	74.9	0.04	<0.01	86.2	35	777	164	48.9	0.8
B116		<0.01	74.7	<0.02	<0.01	17.3	54	93.7	699	191.5	0.7
B117		<0.01	77.0	0.02	<0.01	89.5	45	709	128	55.1	0.6
B118		<0.01	76.4	<0.02	<0.01	44.9	18	493	67	26.6	0.5
B119		<0.01	71.4	<0.02	<0.01	5.7	84	56.7	382	116.0	2.6
B120		0.02	74.0	0.10	<0.01	325	101	2830	1970	86.8	1.4
B121		<0.01	69.7	<0.02	<0.01	9.2	108	55.1	415	146.0	2.3
B122		0.02	>100	<0.02	<0.01	5.6	<5	14.4	<5	0.6	<0.5
B123		0.03	77.0	<0.02	<0.01	113.5	9	1075	45	13.5	<0.5
B124		0.01	79.6	0.04	<0.01	157.5	45	1475	208	82.0	0.5
B125		0.01	78.9	0.06	<0.01	216	56	1895	246	97.0	0.7
B126		0.14	77.2	0.02	<0.01	64.9	85	595	122	72.4	2.0
B127		0.01	78.7	0.04	<0.01	226	49	2130	298	81.9	<0.5
B128		0.01	74.0	0.05	0.01	312	65	2850	425	58.8	0.5



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Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	PUL-QC Pass75um % 0.01	ME-ICP89 Al2O3 % 0.02	ME-ICP89 As % 0.01	ME-ICP89 CaO % 0.01	ME-ICP89 Co % 0.005	ME-ICP89 Cr2O3 % 0.01	ME-ICP89 Cu % 0.01	ME-ICP89 Fe2O3 % 0.01	ME-ICP89 K % 0.01	ME-ICP89 Li % 0.001	ME-ICP89 MgO % 0.01	ME-ICP89 MnO % 0.01	ME-ICP89 Ni % 0.005	ME-ICP89 Pb % 0.01
B129		0.96		16.80	<0.01	0.39	<0.005	0.01	<0.01	0.57	1.82	0.007	<0.01	0.03	<0.005	<0.01
B130		1.44		15.10	<0.01	0.27	<0.005	0.01	<0.01	0.43	1.19	0.005	<0.01	0.04	<0.005	<0.01
B131		1.85		16.00	<0.01	1.01	<0.005	0.01	<0.01	0.41	0.83	0.006	<0.01	0.03	<0.005	<0.01
B132		0.87		15.25	<0.01	0.31	<0.005	0.01	<0.01	0.90	3.41	0.007	<0.01	0.02	<0.005	<0.01
B133		1.79		16.40	0.03	0.34	<0.005	0.02	<0.01	0.31	0.25	0.003	0.03	0.09	<0.005	<0.01
B134		1.29		16.85	<0.01	0.11	<0.005	0.01	<0.01	0.34	5.58	0.005	<0.01	0.05	<0.005	<0.01
B135		1.62		16.05	0.01	0.10	<0.005	0.01	<0.01	0.41	1.13	0.005	<0.01	0.01	<0.005	<0.01
B136		1.14		14.70	<0.01	0.35	<0.005	0.01	<0.01	0.51	1.87	0.009	<0.01	0.01	<0.005	0.01
B137		1.08		18.50	<0.01	0.22	<0.005	0.01	<0.01	0.23	10.60	0.013	<0.01	<0.01	<0.005	<0.01
B138		1.62		13.90	<0.01	0.15	<0.005	0.01	<0.01	1.22	3.16	0.020	0.03	0.05	<0.005	<0.01
B139		1.63		16.40	0.01	0.36	<0.005	0.01	<0.01	0.54	0.55	0.005	<0.01	0.06	<0.005	<0.01
B139A		0.05		16.20	0.01	0.48	<0.005	0.06	<0.01	1.44	2.88	0.171	0.51	0.06	<0.005	<0.01
B140		1.62	87.8	16.35	0.01	0.04	<0.005	0.01	<0.01	1.04	0.49	1.500	<0.01	0.03	<0.005	<0.01
B141		1.35		19.10	<0.01	0.27	<0.005	0.01	<0.01	0.36	9.26	0.011	<0.01	0.03	<0.005	0.01
B142		1.42		11.75	<0.01	0.01	<0.005	0.01	<0.01	1.02	2.89	0.026	<0.01	0.02	<0.005	<0.01
B143		1.62		15.60	<0.01	0.34	<0.005	0.01	<0.01	0.44	2.54	0.007	<0.01	0.02	<0.005	<0.01
B144		1.43		17.35	<0.01	0.94	<0.005	0.01	<0.01	0.60	0.36	0.004	<0.01	0.10	<0.005	0.01
B145		1.37		15.50	<0.01	0.20	<0.005	0.01	<0.01	0.41	0.49	0.004	<0.01	0.01	<0.005	<0.01
B146		1.35		19.55	<0.01	0.60	<0.005	0.01	<0.01	1.39	8.31	0.045	0.22	0.04	<0.005	0.01
B147		1.22		14.95	<0.01	0.55	<0.005	0.01	<0.01	0.87	2.81	0.013	<0.01	0.15	<0.005	<0.01
B148		1.73		14.65	<0.01	0.49	<0.005	0.01	<0.01	1.02	3.40	0.022	0.03	0.06	<0.005	<0.01
B149		1.63		15.40	<0.01	0.76	<0.005	0.01	<0.01	0.89	3.68	0.011	0.02	0.08	<0.005	0.01
B150		1.32		13.75	<0.01	0.46	<0.005	0.01	<0.01	0.83	4.29	0.017	<0.01	0.06	<0.005	<0.01
B151		1.10		23.1	<0.01	0.29	<0.005	0.01	<0.01	0.93	5.02	0.019	0.07	0.05	<0.005	<0.01
B152		1.57		16.60	<0.01	0.41	<0.005	0.01	<0.01	0.97	5.34	0.021	0.18	0.03	<0.005	0.01
B153		1.49		14.80	<0.01	0.20	<0.005	0.01	<0.01	0.69	6.01	0.009	<0.01	0.02	<0.005	<0.01
B154		0.81		15.85	<0.01	0.50	<0.005	<0.01	<0.01	0.66	3.92	0.015	0.11	0.04	<0.005	0.01
B155		1.47		15.50	<0.01	0.24	<0.005	<0.01	<0.01	0.46	6.93	0.010	0.11	0.01	<0.005	<0.01
B156		1.17		15.70	0.01	0.13	<0.005	<0.01	<0.01	0.34	1.38	0.003	0.03	0.02	<0.005	<0.01
B157		1.23		14.30	0.01	0.17	<0.005	0.01	<0.01	0.54	7.35	0.004	0.12	0.01	<0.005	<0.01
B158		1.91		20.8	<0.01	0.48	<0.005	<0.01	<0.01	0.74	5.92	0.005	0.13	0.02	<0.005	0.01
B159		1.51		12.10	<0.01	1.08	<0.005	<0.01	<0.01	0.66	0.98	0.002	0.02	0.04	<0.005	<0.01
B160		1.53		11.05	<0.01	0.48	<0.005	0.01	<0.01	0.39	0.47	0.002	0.01	0.02	<0.005	<0.01
B161		1.73		16.50	<0.01	0.01	<0.005	<0.01	<0.01	0.60	0.24	0.854	0.01	0.01	<0.005	<0.01
B162		1.68		13.85	<0.01	0.18	<0.005	<0.01	<0.01	1.13	2.83	0.019	0.02	0.05	<0.005	0.01
B163		1.85		16.15	0.01	0.20	<0.005	<0.01	<0.01	0.23	1.01	0.005	0.02	0.01	<0.005	<0.01
B164		1.80	93.0	18.90	0.01	0.62	<0.005	<0.01	<0.01	0.47	10.55	0.011	<0.01	0.01	<0.005	0.01
B164A		<0.02		17.45	<0.01	0.46	<0.005	0.01	<0.01	0.77	2.68	0.188	0.05	0.08	<0.005	0.01
B165		1.68		16.90	0.01	0.24	<0.005	0.01	<0.01	0.56	0.34	0.005	<0.01	0.03	<0.005	<0.01
B166		2.41		16.65	<0.01	0.08	<0.005	0.01	<0.01	0.93	0.29	1.955	0.02	0.02	<0.005	<0.01



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CERTIFICATE OF ANALYSIS AD17258649

Sample Description	Method Analyte Units LOR	ME-ICP89	ME-ICP89	ME-ICP89	ME-ICP89	ME-MS91	ME-MS91	ME-MS91	ME-MS91	ME-MS91	ME-MS91	ME-MS91
		S	SiO2	TiO2	Zn	Cs	Nb	Rb	Sn	Ta	Th	U
		%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.01	0.2	0.02	0.01	0.2	5	0.5	5	0.5	0.5	0.5
B129		<0.01	75.1	0.02	<0.01	186.0	38	1640	243	41.0	0.5	1.9
B130		0.01	79.4	0.02	<0.01	183.0	84	1365	165	165.0	0.5	3.4
B131		<0.01	75.5	<0.02	<0.01	84.2	135	637	181	212	<0.5	3.9
B132		0.01	79.8	0.05	<0.01	295	68	3400	303	63.9	<0.5	0.8
B133		<0.01	74.2	<0.02	<0.01	9.7	79	87.2	207	156.0	1.2	3.5
B134		0.01	73.6	<0.02	<0.01	190.0	26	3870	187	92.1	1.0	1.2
B135		0.01	76.2	0.02	<0.01	73.0	58	818	119	27.9	2.0	1.0
B136		0.02	74.0	0.03	<0.01	184.0	37	1920	225	50.1	<0.5	1.0
B137		0.01	67.2	<0.02	<0.01	952	<5	10000	35	10.9	<0.5	0.6
B138		<0.01	80.4	0.07	<0.01	208	63	2620	287	28.0	<0.5	0.6
B139		0.02	75.1	<0.02	<0.01	53.5	61	401	146	89.5	1.6	2.5
B139A		0.02	72.9	0.03	<0.01	149.5	66	2230	50	170.0	2.9	7.9
B140		0.02	78.7	<0.02	<0.01	49.8	6	215	37	14.9	<0.5	0.5
B141		0.01	68.0	<0.02	0.01	411	<5	6430	125	7.0	<0.5	1.7
B142		<0.01	84.3	0.06	0.01	194.5	62	2400	260	64.1	<0.5	0.6
B143		0.01	74.7	0.02	<0.01	145.5	63	1555	410	182.5	0.6	2.1
B144		0.01	73.2	<0.02	<0.01	24.1	71	212	63	73.2	1.4	3.4
B145		0.01	73.4	<0.02	<0.01	52.4	22	280	80	40.2	<0.5	1.7
B146		0.01	64.6	0.09	<0.01	323	53	2670	218	171.0	3.0	2.9
B147		0.01	73.4	0.02	<0.01	144.5	50	1450	189	36.5	<0.5	1.3
B148		<0.01	76.4	0.05	<0.01	192.0	53	2290	240	36.6	<0.5	1.5
B149		0.02	70.2	0.02	<0.01	122.0	46	1485	130	43.7	0.6	3.5
B150		0.01	78.7	0.04	<0.01	192.0	68	2210	231	83.5	<0.5	1.4
B151		0.02	61.0	0.06	<0.01	156.5	281	1925	298	333	0.9	3.9
B152		0.02	73.6	0.07	<0.01	194.0	58	1480	227	91.2	1.6	2.1
B153		0.01	74.0	0.03	<0.01	119.0	44	1900	191	42.7	<0.5	0.8
B154		0.01	72.5	0.04	<0.01	80.1	33	1060	88	40.7	1.2	2.9
B155		0.02	71.7	0.03	<0.01	69.0	58	820	627	145.5	1.0	3.0
B156		0.03	74.7	<0.02	<0.01	18.8	42	252	185	63.9	0.7	1.3
B157		0.02	70.8	0.02	<0.01	42.1	33	685	122	61.2	0.6	1.4
B158		<0.01	65.2	0.06	<0.01	141.0	127	1415	4890	258	1.6	1.7
B159		0.02	79.2	0.02	<0.01	23.8	28	215	44	103.0	0.5	3.5
B160		0.01	87.7	<0.02	0.01	25.1	18	233	38	43.8	<0.5	4.4
B161		0.01	79.2	<0.02	<0.01	41.6	<5	117.0	15	8.3	<0.5	<0.5
B162		0.05	82.1	0.07	0.01	261	67	2800	345	40.4	<0.5	1.9
B163		0.01	75.5	<0.02	<0.01	51.3	7	418	35	14.5	<0.5	0.8
B164		0.01	68.0	<0.02	<0.01	803	<5	7780	7	6.1	0.5	0.8
B164A		0.01	75.1	<0.02	<0.01	181.0	60	4120	371	716	3.8	7.0
B165		0.01	74.9	<0.02	<0.01	35.0	73	113.5	161	125.5	1.7	7.3
B166		0.02	78.5	<0.02	<0.01	32.9	<5	184.5	10	2.3	<0.5	0.7



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CERTIFICATE OF ANALYSIS AD17258649

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	PUL-QC Pass75um % 0.01	ME-ICP89 Al2O3 % 0.02	ME-ICP89 As % 0.01	ME-ICP89 CaO % 0.01	ME-ICP89 Co % 0.005	ME-ICP89 Cr2O3 % 0.01	ME-ICP89 Cu % 0.01	ME-ICP89 Fe2O3 % 0.01	ME-ICP89 K % 0.01	ME-ICP89 Li % 0.001	ME-ICP89 MgO % 0.01	ME-ICP89 MnO % 0.01	ME-ICP89 Ni % 0.005	ME-ICP89 Pb % 0.01
B167		1.70		16.35	<0.01	0.01	<0.005	<0.01	<0.01	1.17	0.18	1.925	0.02	0.03	<0.005	<0.01
B168		2.07		17.05	<0.01	0.06	<0.005	0.01	<0.01	0.86	0.07	2.15	0.04	0.06	<0.005	<0.01
B169		1.85		16.25	<0.01	0.08	<0.005	<0.01	<0.01	0.40	1.46	0.019	0.02	0.02	<0.005	<0.01
B170		1.47	94.6	16.50	<0.01	0.29	<0.005	<0.01	<0.01	0.46	0.52	0.010	0.02	0.02	0.006	<0.01
B171		1.18		14.90	<0.01	0.42	<0.005	<0.01	<0.01	0.66	2.06	0.012	0.03	0.03	<0.005	<0.01
B172		1.87		14.85	<0.01	0.62	<0.005	<0.01	<0.01	0.37	0.50	0.006	0.04	0.07	<0.005	<0.01
B173		1.69		15.60	0.01	0.88	<0.005	<0.01	<0.01	0.57	1.40	0.003	0.04	0.05	<0.005	0.01
B174		1.34		15.85	<0.01	1.06	<0.005	0.01	<0.01	0.51	1.15	0.004	0.05	0.10	<0.005	<0.01
B175		2.12		16.20	0.01	0.34	<0.005	0.01	<0.01	0.50	1.15	0.004	0.08	0.02	<0.005	<0.01
B176		2.28		16.25	<0.01	0.59	<0.005	<0.01	<0.01	0.33	4.30	0.007	0.02	0.02	<0.005	<0.01
B177		1.45		17.25	0.01	0.25	<0.005	<0.01	<0.01	0.49	4.10	0.003	0.02	0.01	<0.005	<0.01
B178		1.96		17.10	<0.01	0.04	<0.005	<0.01	<0.01	0.89	0.64	1.845	0.02	0.03	<0.005	<0.01
B179		1.93		16.80	<0.01	0.59	<0.005	0.03	<0.01	0.77	4.00	0.008	0.02	0.03	<0.005	<0.01
B180		2.58		15.45	<0.01	0.27	<0.005	<0.01	<0.01	0.23	2.04	0.008	0.04	0.04	<0.005	<0.01
B181		2.41		16.30	<0.01	0.28	<0.005	<0.01	<0.01	0.24	2.65	0.010	0.02	0.03	<0.005	<0.01
B182		1.90		16.10	<0.01	0.43	<0.005	0.01	<0.01	0.33	3.24	0.008	0.02	0.03	<0.005	<0.01
B183		2.04		17.30	<0.01	0.10	<0.005	<0.01	<0.01	0.89	1.78	0.349	0.03	0.07	<0.005	<0.01
B184		1.92		15.25	0.01	0.41	<0.005	0.01	<0.01	0.67	1.88	0.010	<0.01	0.03	<0.005	<0.01
B185		1.83		15.90	0.01	0.24	<0.005	<0.01	<0.01	0.69	1.01	0.024	<0.01	0.02	<0.005	<0.01
B186		1.63		14.60	<0.01	0.15	<0.005	<0.01	<0.01	0.50	4.33	0.004	<0.01	0.01	<0.005	<0.01
B187		1.47		16.55	0.01	0.43	<0.005	<0.01	<0.01	0.76	0.61	0.017	0.02	0.03	<0.005	<0.01
B188		1.82		19.45	0.01	0.10	<0.005	<0.01	<0.01	0.37	10.70	0.064	0.02	0.02	<0.005	<0.01
B189		1.86		17.50	<0.01	0.03	<0.005	0.01	<0.01	0.49	9.59	0.110	<0.01	0.01	<0.005	<0.01
B189A		<0.02		16.70	<0.01	0.35	<0.005	0.01	<0.01	0.83	2.24	0.347	0.05	0.11	<0.005	<0.01
B190		2.30		17.10	<0.01	0.06	<0.005	0.01	<0.01	0.77	0.26	1.975	0.02	0.03	<0.005	<0.01
B191		1.87		16.85	<0.01	0.04	<0.005	<0.01	<0.01	1.14	0.24	2.04	0.02	0.08	<0.005	<0.01
B192		1.98		15.70	<0.01	0.25	<0.005	<0.01	<0.01	0.84	4.88	0.039	0.05	0.03	<0.005	<0.01
B193		2.13		15.40	0.01	0.39	<0.005	<0.01	<0.01	0.43	2.08	0.007	0.02	0.02	<0.005	<0.01
B194		1.99		16.50	<0.01	0.15	<0.005	<0.01	<0.01	0.34	2.64	0.008	0.02	0.02	<0.005	<0.01
B195		1.86	85.4	13.60	<0.01	0.06	<0.005	<0.01	<0.01	1.04	0.20	1.490	0.02	0.05	<0.005	<0.01
B196		2.27		15.25	<0.01	0.03	<0.005	<0.01	<0.01	1.12	0.07	1.720	0.02	0.10	<0.005	<0.01



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Sample Description	Method Analyte Units LOR	ME-ICP89	ME-ICP89	ME-ICP89	ME-ICP89	ME-MS91	ME-MS91	ME-MS91	ME-MS91	ME-MS91	ME-MS91
		S	SiO ₂	TiO ₂	Zn	Cs	Nb	Rb	Sn	Ta	Th
		%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm
		0.01	0.2	0.02	0.01	0.2	5	0.5	5	0.5	0.5
B167		0.02	80.4	<0.02	0.02	19.7	<5	156.5	22	3.9	<0.5
B168		0.03	82.4	<0.02	<0.01	26.8	19	40.1	42	52.0	<0.5
B169		0.01	79.8	<0.02	<0.01	166.5	26	1225	178	67.7	<0.5
B170		0.02	77.7	<0.02	<0.01	107.5	33	349	121	85.1	0.9
B171		0.01	81.3	0.04	<0.01	150.0	65	1800	145	74.0	0.6
B172		0.02	76.6	<0.02	<0.01	71.0	53	224	307	137.0	1.2
B173		0.01	74.9	0.02	<0.01	22.7	90	277	2220	162.0	1.0
B174		0.01	76.4	0.02	0.02	39.9	57	399	482	96.9	0.6
B175		0.02	78.3	<0.02	<0.01	23.0	46	250	151	35.3	<0.5
B176		0.13	71.0	<0.02	<0.01	143.5	72	2290	124	154.5	<0.5
B177		0.02	74.9	<0.02	<0.01	19.0	48	658	39	190.5	0.6
B178		0.01	80.9	<0.02	<0.01	112.5	14	518	71	44.5	<0.5
B179		0.02	75.3	0.02	<0.01	189.5	69	2070	528	135.0	0.9
B180		<0.01	73.2	<0.02	<0.01	206	16	1275	192	31.1	<0.5
B181		0.01	73.8	<0.02	0.02	276	21	1875	272	75.6	<0.5
B182		0.02	73.8	<0.02	<0.01	180.5	40	1765	2720	87.3	0.7
B183		0.01	76.4	0.03	0.01	311	65	1985	829	111.0	0.6
B184		0.01	77.4	0.02	0.03	67.5	18	763	379	27.6	<0.5
B185		<0.01	73.6	0.02	<0.01	168.5	71	1005	203	83.9	1.2
B186		<0.01	75.5	<0.02	<0.01	46.3	87	985	136	633	1.2
B187		<0.01	71.2	<0.02	0.01	309	98	704	387	208	2.0
B188		<0.01	64.2	<0.02	<0.01	1380	7	11800	86	24.8	<0.5
B189		<0.01	65.7	<0.02	<0.01	1270	<5	9740	62	14.0	<0.5
B189A		<0.01	73.4	<0.02	0.01	170.5	50	3810	418	416	4.1
B190		<0.01	77.7	<0.02	<0.01	85.7	15	364	194	52.9	<0.5
B191		<0.01	77.9	<0.02	<0.01	73.3	24	241	84	59.1	<0.5
B192		<0.01	72.7	0.03	0.01	613	66	4840	179	50.6	<0.5
B193		0.01	73.2	<0.02	<0.01	32.3	40	586	30	133.5	<0.5
B194		<0.01	72.7	<0.02	<0.01	118.0	51	1290	992	91.3	0.5
B195		<0.01	80.6	<0.02	<0.01	131.5	40	241	161	58.6	<0.5
B196		0.09	78.5	<0.02	0.01	60.8	24	65.3	100	82.5	<0.5



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	CERTIFICATE COMMENTS
	<p style="text-align: center;">LABORATORY ADDRESSES</p> <p>Processed at ALS Perth located at 31 Denninup Way, Malaga, Australia. NATA Accreditation does not cover the performance of ALS Perth Sample Preparation which is processed at 79 Distinction Road, Wangara, WA, Australia</p> <p>Applies to Method: ME-ICP89 ME-MS91</p> <p>Processed at ALS Adelaide located at Unit 1, 1 Burma Road, Pooraka, Adelaide, SA, Australia.</p> <p>Applies to Method: CRU-21 LEV-01 LOG-22 PUL-23 PUL-QC WEI-21</p>